

PIP

Products in Practice Nov/Dec 2013

Cladding

Linkeroever housing and
community centre, Antwerp
28

Analysis: Education

What does the end of BSF
mean for the industry?
25

Extreme spec

Carpet tiles made from
fishing nets
10

Lighting

In Lumine Tuo,
Dom Tower, Utrecht
14

Made

Designing
skeuomorphic tiles
12



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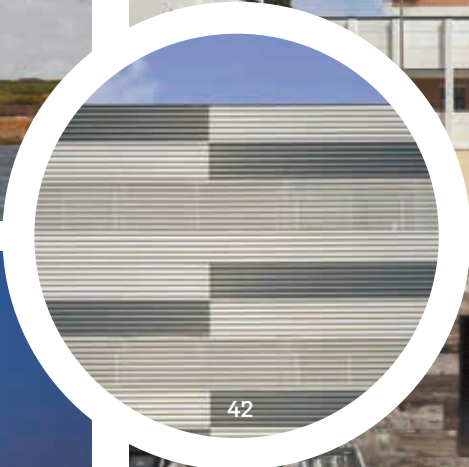


A picture

...is worth a thousand words, but in the case of this issue's cover image, I really don't think it says enough. It was a hard decision to run this image; there were more 'acceptable' shots showing Antwerp's Linkeroever estate in a more favourable light – but there is just no escaping the stark reality that architect De Vylder Vinck Taillieu found itself confronted with – a failing estate, and what to do with it. I found Jan De Vylder's belief that it should

be addressed on its own terms, using its formal language, incredibly brave – a view that would have no currency here in the UK. And so in the shadow of the estate's infamous slab, the Chicagoblok, he built a severe-seeming but deferential housing and community centre for all the estate's residents. On the day I visited, elderly groups were enjoying a cheap meal and a beer in its polychromatic tiled dining hall and a Muslim family was using one of the meeting

rooms for a celebratory lunch. As I discussed the finer points of the facade detailing with the architect, a local ne'er do well, avoiding the main reception, rapped on the glass of one of the courtyards, was let in through the emergency exit by a fellow smoker, and sat there, cadging his beer. De Vylder seemed unconcerned. He believes in the estate and is an architect: unlike the smokers, his glass must always be half full. **Jan-Carlos Kucharek, Editor**



Compendium.....	4	Lighting.....	14	Specified: Cladding.....	34
Preview: LuxLive.....	8	Specified: Lighting.....	20	Showcase.....	36
Tech IT/Books.....	9	Costed: Lighting.....	22	Sign Up...Sign Off.....	42
Extreme Spec: Shore to floor.....	10	Analysis: Education.....	25		
Made: Tiles.....	12	Cladding.....	28		

Cover image: Four colour black and white of original photograph by Filip Dujardin

Compendium



Inner city growth area

You know things are bad when ads on the Tube offer free plant seeds to help stimulate urban bee populations, so it's good to see urban greening specialist Treebox getting busy in the city. The firm is installing over 350m² of green wall on the side of London's 4-star The Rubens at the Palace hotel in Victoria – over 10,000 herbaceous plants. During heavy rain, grey water harvesting tanks send controlled water flow to the wall, freeing up tank capacity and mitigating possible street flooding.

Not Schott to pieces

Glass manufacturer Schott's been having a blast lately testing the damage resistance capabilities of its laminated glass products in attack conditions. The firm exposed its Pyranova Secure and Novolay Secure to a dual fire test and bullet attack, independently monitored by the Bombardment Office of Ulm. Pyranova glass meets fire and bullet resistance DIN standards, useful for any building that could be targeted.



ALISTAIR LEVER

London Zoo: Bars everywhere

London Zoo's reinvention (its 'Zoo Lates' summer night event is a racy staple for young adults on the prowl), included architect and designer SHH's appointment to transform its restaurant – part of a 3-year, £4.6m upgrade of the original 1920s building. Now an area increased by nearly 1000m² includes two expansive restaurants and much-increased mezzanine floor space to deal with almost 10,000 visitors a day. This involved replacing a 1960s wing with a new tiered extension including a 6m high space at the front, re-revealing arches to the main building. The new structure is all steel columns and plenty of glass, with plant areas hidden by Parklex-clad timber wings. The work has boosted covers from 240 to 700, tripling capacity for all those hungry little monsters.



TIM CORNBILL

Isn't it Ionic...

When Aston University wanted to convert its old arts centre into a £6.5m state-of-the-art laboratory and research facility, Associated Architects appended a new fully glazed building behind the 1920s neoclassical frontage. The result is quite bizarre – Poundbury meets Po-mo. Knauf and the architect specified Earthwool Rainscreen slab insulation for the 3000m², BREEAM Excellent, bio-mass heated European Bioenergy Research Institute. AA's Alan Miller says the visible insulation 'has attracted a lot of interest'. Not half as much as the building has, Mr Miller!



Interior adds up to 180

David Kohn Architects' Carrer Avinyo apartment in Barcelona was named Best Interior Design at INSIDE: World Festival of Interiors last month in Singapore. The design remodelled a tight, oddly-shaped period apartment in the city's gothic quarter to create a stylish and elegant modern pied-a-terre of open plan living room, bathroom and three bedrooms. Playing with natural light and manipulating scale Kohn has created a space that's a pure delight. Part of that play is on the floors, with his bespoke tiles, made by Mosaics Martí, referencing a triangular public square nearby. The tessellated floor is complex and abstracted, and working with specially designed interior furniture and built-in shelves and storage, creates a total work of architecture.

UPCOMING

Batimat Paris Nord Villepinte Exhibition Centre, Paris 4-8 November
Sleep Event Business Design Centre, London 20-21 November
Education Estates Manchester Central, Manchester 26-27 November
eco-Showcase Various UK locations to 3 December



That sinking feeling...

There's much feeling and passion in Porcelanosa's new high-end interchangeable bathroom range, Spirit, created by Spanish designer A-cero, whose founding partners Joaquin Torres and Rafael Llamazares launched the range at Porcelanosa's Clerkenwell showroom last month. The firm, based in A Coruña, made its name with glamorous residential projects for Spain's glitterati, and is not backward in coming forward – saying that marketing yourself in the right manner is as important as what you produce – hence its flashy website and constantly updating blog. In a similar vein its Spirit range is all about signature flourishes of angles and diagonals – an outrageously bold addition for any boutique hotel or flamboyant residential ensuite.

Putting the Groat in Great Britain

You traipse the 800 miles from Lands End to the most northerly point of the mainland and find a windblown car park, a deserted hotel and no famous signpost – the photographer who owns it charges for 'the pic' and takes it away with him each night. No wonder Scottish architecture mag 'Urban Realm' famously named John O'Groats 'the most dismal place in Scotland'. But no more – architect GLM has entirely renovated the Victorian Inn, and added 16 luxury holiday apartments fitted out by interior designer NoChintz. But most striking is the bold addition to the coastline using Russwood's Scotlarch vacuum coated timber cladding. It's hoped this rainbow at the end will have visitors sharing a leisurely wee dram before hitting the high road.



PIP RUSTAGE

Light the keg and stand well back

Zaha Hadid's wavy-roofed, £14.5m Serpentine Sackler Gallery opened last month to generally positive reviews, but as much of the job was the restoration of Decimus Burton's 1820's gunpowder magazine to which her café space appends. The muscular brick structure with Doric detailing hides another 'room within a room' – double-barrelled vaults that once stored powder kegs. Previously lost in the trees on an evening short-cut through Kensington Gardens, the new building's lit up like a Roman candle courtesy of Artemide's floor-set lighting illuminating the lily-like internal columns. This is Hadid's first permanent building in London, and while her Marmite forms have always been hard to ignore, nay-sayers will find it difficult to just walk on by – even by night.



The cassette's back in

Launching this month, Benchmark Kreate has developed a metal cassette facade system, fully integrated within an insulated panel. The system allows architects to create facades that can go from one shade to an almost limitless range of colours. Differently sized and finished cassettes can also be combined into the single integrated

base panel to increase facade variations even further – and can achieve U-values as low as $0.13\text{W/m}^2\text{K}$. To give the product a contemporary feel, the firm has rounded the edges, adopting the aesthetics of the Mac keyboard, beloved of the design world. Who ever thought we'd be creating digital-effect, pixellated designs from the humble cassette?



That ceiling feeling

It's eyes to the skies at Bracton House in London's Holborn, whose £1.5m, six-month refurbishment included Armstrong Ceilings' Microline grid system suspended ceiling. Stavros Nissiotis, who specified it for the 2000m^2 office building, first saw it installed at the nearby Deutsche Bank offices. The micro-perforated tiles have been installed throughout, alongside the building's original huge arched windows – part of its unashamedly postmodern facade.

Measuring up

A brace of curious Teutonic names come with the new HQ for supplier of portable measuring technology Testo, on the banks of the Germany's Titisee, designed by Sacker Architects with A Henne Ch Korn. Testo wanted the building to blend into its Black Forest surroundings with high thermal efficiency. The architect went to cladding firm Wicona to develop the L-shaped glazed units that overlap and widen at the top to create its distinctive, sculptural facade, combined with horizontal bands of smooth limestone. The system has both fixed glazing and concealed vents and was all constructed off-site to ensure quality and save time. External slatted blinds reduce solar gain, and where triple glazing has been installed, U-values are as low as $1.3\text{W/m}^2\text{K}$.



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LuxLive

Bigger than ever this year, LuxLive, the self-proclaimed premier UK lighting event, will bring together over 140 exhibitors displaying some of the UK's most advanced lighting products, all under one roof. The event is geared towards specifiers of lighting for retail, commercial, health, education and the public realm, and with five public seminar theatres and over 50 hours of free talks and debates, it's shaping up to be an entertaining as well as eye-opening event.

The Lux talks programme promises to scrutinise the pros and cons of the latest lighting technology. Apart from getting some of the industry's biggest hitters in to give their views, it will also be looking at some exemplar projects that show the sector in the best, ahem, light.

Of interest to architects, the chief design officer of Philips Lighting will give an overview of the latest developments, 3D Reid will present a breakdown of how the lighting strategy of its One Angel Square helped earn it a record 95% BREEAM Outstanding rating, and

Bob Venning of Arup and Peter Le Manquais of Wila will talk through their creative and sustainable lighting scheme for Terminal 2 of Dublin Airport.

The show is also planning to get cheekily gladiatorial in its new 216m² Lux Arena this year with a special 'Named 'n' Shamed' seminar, in which a panel of industry experts and Lux Magazine bods will give us a light hearted run-through of Britain's worst-lit buildings. There'll also be a Dragon's Den Lux Cool Wall, Heroes and Villains and Light Fight on the first evening of the show, which will pit teams from the UK's to lighting design practices against each other in a competition testing their artistic, technical and design knowledge skills. So whether it's oppositional slogans, two-word rhyming phrases, or just plain old lighting you're excited by, there should be plenty to keep you engaged during the daylight hours. ●

LuxLive runs from 20-21 November at Earl's Court, London
www.luxlive.co.uk

With over 140 stands this year, the organiser claims it's attracting more international exhibitors than ever

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



Euclid 20

Radiant Lighting

As a student I once worked in a lighting factory and found myself on the philosophically named 'Plato' and 'Aristotle' fixture production lines. It's a small leap of the imagination from 'lighting fixture' to 'light of knowledge' – as firm Radiant has also discovered with its new Euclid range. This modular linear LED lighting system can provide up to 1500 lumens/m² and can be used for coving, wall washing or under-counter applications. With side, end or back power entry, it allows consistent level of LED pitch on long runs without dark areas.

Stand B5

radiantlights.co.uk



Verteco LED fixture

Dextra

Maybe it's the recent RA show on Richard Rogers, but vivid greens seem to be making a comeback. Dextra, the UK's largest privately owned lighting manufacturer, has been supplying its Verteco fluorescent fixtures, here with bright green end caps, for the last five years, typically delivering a three year return on investment. This year, however, it has an LED variant offering even greater efficiencies. The fixture has a completely diffused LED light source, obviating discomfort for users without compromising efficiency or optical control.

Stand D39

dextragroup.co.uk



Arendal bollard

Norlys

The platonic nature of the cube is always compelling, but even more so when it comes in glass – an aesthetic fascination picked up by Norwegian firm Norlys in its latest exterior bollard lighting. Its new Arendal bollard of tempered glass comes with a black, graphite or galvanised steel base and is available in three heights – 850mm, 490mm and 260mm. Being Nordic, the lights are designed to withstand tough climates and come with a 15-year anti-corrosion warranty. Glazed, sacred geometry available from UK supplier Elstead Lighting.

Stand B38

elsteadlighting.com



Rotaspot

Illuma

Lighting firm Illuma is launching Rotaspot LED, a range of 4500 lumen LED spotlights and downlights using Philips' technology, winner of the Best Innovation award at the Lighting Design Awards. The fixture is a high-impact, low maintenance luminaire and is perfect for retail, leisure and commercial environments. The IllumaLED range is supported by a five-year guarantee. It's just like having your own little R2D2, except on a ceiling.

Stand B5

illumaco.uk



How far have you got?

The big news about the government's mandate to adopt BIM in all government projects by 2016 is that we are about half way to this goal. This is the perfect opportunity to understand where you are with your BIM adoption and, perhaps, rethink your approach a little.

Software: The first step on that all important BIM ladder is acquiring the right software. I generally advise my clients that the software developer they are most used to is probably the best choice. Typically, like buying a car, people fall for the best-looking, not the most capable.

Training: Are you still sending members of your team off on a two or three day training course where they can learn all about how the software works, and then expect them to be good to go – what could possibly go wrong? When you learnt to drive, did you sit at a computer for three days and immediately apply that to the act of driving? Learning should be done on a real-life project with real-life problems. That's not to say classroom training doesn't have its place but it should be backed up immediately by some kind

Have you realised that your modelling application of choice also comes with a comprehensive set of 2D draughting tools? It's not cheating to use them

of practical, project-focused workshop.

Setup: Have you got a centralised set of resources that the whole team can use? The industry spent thousands of hours defining the appearance of its CAD drawings – but it's all too common to be able to recognise the out of the box annotations being used on a drawing produced in a BIM platform. Let's start applying the same quality requirements we did to our CAD drawings to those produced from BIM.

Modelling: When most people start modelling in BIM, they often model every detail to the

nth degree... a door handle on 1:100 drawings, three-dimensional sink basins which will only ever be seen in plan, the list is endless. Have you realised that your modelling application also comes with a comprehensive set of 2D draughting tools? It's not cheating to use them.

Documentation: As an industry, we're starting to see more and more of the documentation, defined by PAS1192, being used as contractual information. Do you know your EIR from your BEP*? If not, it's time to read through and prepare for any clients sending through an EIR. My top tip with EIR is: don't take it as gospel. Clients don't always know what they want so question it – if they ask you to use a particular software to deliver the project, consider whether that's best for you to be able to offer the best design; if not, turn them down – if they want you for your experience, they'll let this pass. ●

Daniel Heselwood is associate director at BIM consultancy Evolve

* Employers' Information Requirements/BIM execution plan

Books



Law in Practice: The RIBA Legal Handbook, 2nd Edition

John Wevill

RIBA Publishing 290pp PB £35.99

John Wevill, author of this latest edition of the handbook, is senior associate in construction law at legal firm Fishburns and has over 15 years experience advising in the field. Wevill claims that the inspiration for this book came from his wish in 2009 to write a series of short articles on construction law for both students and practitioners. This guide, in effect, brings them all together. It is accessible and feels remarkably jargon-free for a profession that seems to revel in obfuscating the meaning of words, to the point where the lay person no longer understands them. Sectionalised and fully up-to-date, including its coverage of the legislation surrounding the new 2013 Plan of Work, my only gripe would be the image-free layout, offering no visual stepping stones in the sea of information.



An introduction to and a study guide for collaboration for contractor contributions to design team activities

Tom Taylor,

Dashdot Enterprises/Buro Four 128pp PB £12.50

'Book learning' is an interesting modern method of learning which is particularly flexible to suit the needs and circumstances of the individual'. No, it's not Johannes Gutenberg in 1450 but the opening line of this book on collaboration. As co-founder of project management firm Buro 4 and a visiting professor at Salford University, the author should know a lot about this. His book of 'exercises' explores the role of contractors at pre-construction design stage, and how the design team can best use their expertise. But you wonder how accessible the material is to those it's targeting. It's hardly a catchy title and the 18 self study modules are dry and impenetrable with few diagrams, and lack of real examples to place the knowledge in the real world. Back to the drawing board.



Signage: Spatial Orientation

Beate Kling & Torsten Krüger eds.

Edition Detail 167pp PB £55

In a time-pressed world governed by Vine, Snapchat and sound bites, we are learning to attach the greatest import to things we are most briefly exposed to. So in a spatial context, we expect unambiguous clarity from signs and symbols displayed to help us. Detail's book is a lavishly visual journey through the world of contemporary signage, highlighting the best and most imaginative – when designers and architects create systems holistically embedded within a building's architecture. With examples from all over the world, the book has four main sections: an overview, signage as branding, integrated signage approaches and digital versions. Stimulating and thought-provoking, I'm surprisingly touched by kindergarten signage designed by children themselves, turning doodles and ideas into an amazing hypergraphic approach.

Shore to floor



What: Interface Net Effect carpet tiles

Where: Danajon Bank, Visayas, Philippines

According to the Zoological Society of London, the Danajon Bank in the Philippines is one of only six double barrier reefs in the world, and one of the most important marine ecosystems in the entire Pacific Ocean. ZSL has been monitoring environmental damage in the area since 1996, so when carpet firm Interface invited it to be involved in a joint commercial proposition to its local fishing communities, ZSL's Dr Heather Koldewey, director of global conservation programmes, was circumspect. 'In 2011 Interface invited us to a workshop, asking us to help provide a social element to its company sustainability programme,' she recalls. 'We listened only because conservation funding is tough – marine especially so – and we were keen to hear about their idea for an "ongoing arrangement".'

Two years later, with ZSL onboard and recommending that the poor fishing communities at Danajon Bank be targeted, the result was the Net-Works initiative. Villagers collect discarded nets – hugely destructive to the barrier reef as well as marine life – from the seas and shoreline for recycling. Nets are exported to firm Aquafil, in Slovakia, which adds it to

other nylon post-consumer waste to create ECONYL yarn, used in the Net Effect carpet tile.

'Income here is about £600 a year, poverty is endemic and it's subsistence living, so the communities were all ears, not only because of a possible revenue stream, but they're now aware of how the nets kill fish that will never grow, be caught or eaten,' says Koldewey. As a result, the scheme's working in tandem with local enforcement to protect fish breeding grounds.

Everything had to be considered. Targets are set for net tonnage, the economics of harvesting them, the cost of centralising collection and export logistics, resulting in a cost per kg of the nylon nets. At the moment, says Koldewey, 2.5kg of net will buy 1kg of rice. Revenues go into a community bank, which locals can draw on for development loans, education programmes for their children or even food.

So is it working? ZSL is a science-based organisation and has metrics to gauge the success of projects. Koldewey is cautious. 'We need to review data further down the line,' she says, 'but informally, response from the communities has been great. It doesn't reverse their lot, but it is creating a genuine supplemental income. And working not with charity but commercial models, has made us think in a different way too.' ●

NET EFFECT TILES

Interface's involvement with the communities of the Danajon Bank arose through a process of elimination, and the awareness that they were not best placed to make the decisions on where their input might reap the best social returns. Through various NGOs the firm looked at possible schemes in India, Africa and SE Asia. India, it turns out, has a highly active and developed recycling market, and so would not have been able to yield competitive returns on the projected net volumes. After a ZSL scoping trip to the Philippines, they identified a network where they could build a programme and a business model. In effect Interface's role was to broker a business relationship between the fishing communities and its yarn supplier Aquafil. Aquafil takes the nets and other consumer waste, combines it all, breaks down the polymer state back to monomers and then re-polymerises it. The end result of the ECONYL regeneration process is a 100% recycled nylon yarn that goes into producing, among other things, Interface's Net Effect tile.



Above left: Locals collecting the discarded nets and post consumer waste marring their shoreline, and generating revenue as they do so.

Above: The Net Effect tile replicates the look of the ocean and the set of different tile types can be combined in a multitude of ways, randomly or to create patterns.

Net Effect 1 & 2 tiles

Material

100% recycled BCF solution dyed nylon, containing pre and post-consumer recycled content

Net Effect 1

500m x 500mm tile format in three different pile yarn weights

Net Effect 2

1,000mm x 250mm tile planks: tip sheared, structured loop and level cut

Weight

NE1: 950/882/780 g/m²

NE2: 780/610/543 g/m²

Thickness

NE1: 9.7/9.4/7.7mm

NE2: 8.7/7.1/5.5mm

Backing type

Graphlex

Performance

Class 33

Flammability Cfl

Number of colours 8

Installation method

NE1: Non-directional

NE2: Ashlar &

Herringbone

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What: Refin porcelain tile plant

Where: Casalgrande, Italy

'Skeuomorphic' is a word one rarely gets the opportunity to use, but it applies fully here. Meaning 'an ornament or design on an object copied from the form of that object when made of other materials or methods,' the technique underpins Italian porcelain tiles firm Refin's attempt to define its own USP in a highly competitive global tiling market. With an annual turnover of almost €70m, and part of the €0.5bn Concorde Group, the firm is looking to increase its market share with some interesting takes on its new tiling ranges, involving the digitisation of nature. 'We're photographing natural materials like stone and wood and using digital scanning techniques to create a new product,' says Paolo Cesana, Refin marketing and communications director. 'We don't just copy, but study a grain or pattern and then reinterpret it our own way,' he says.

This means that for something like French Bourgogne stone, Refin will visit a quarry and photograph a whole range of stone grains, scan and then manipulate them to generate a dozen or so hybrids that will go on to form a porcelain tile range. Creating some ranges has led to some interesting collaborations with local artisans. Product manager Luisa Grazia, creative head of the firm's R&D laboratory, spends some of her time working with craftsmen to have them create real timber flooring panels using local techniques, that will be photographed, digitised and undergo the same manipulation process. This final stage allows the firm to change tone and shade, add detail and grain and put its stamp on it, producing its 'Mansion' tile. Its latest range 'Barrique' takes the technique even further. 'Tiles are designed using photographs of the insides of cognac barrels,' says Grazia. 'Each plank is one barrel stave blown up to huge proportions, scratched and has colour added. It has a fantastic grain, derived from the dark

staining due to the crystallisation of sugars on the sides.' It exemplifies how the firm has become highly aware that, in a crowded market, it is not enough to produce tiles that look like natural materials, but must make them appear almost hyper-real.

To develop its brand identity, Refin eschewed traditional trend analysis and market intelligence techniques and worked instead with high profile designers to produce exclusive ranges that are highly styled or geometric. The firm designed a tile with Karim Rashid, and its commissioning of designer Massimiliano Adami has produced the trendily vampish 'Terraviva' – a dark tile whose resin cracks can be backlit to simulate cracked, cooling volcanic magma. And it recently collaborated with Milan design firm Studio FM, which has produced its 'Frame' range of 'Majolica', and 'Geometric' patterns blown up to broodingly-gigantic scale, giving both a contemporary, interchangeable twist.

Far left Design firm FM Studio's Frame range for Refin takes traditional Italian Majolica and explodes it to huge proportions. **Left** The Barrique range magnifies wine-stained oak barrels to create an individual new look.

None of this could be done without the technology that allows the individual tiles to be created on the same production line, all at industrial speed.

'The technology to change the faces of all the tiles during production has only come into being on an industrial scale in the last three years,' says Cesana. 'With the traditional Rotocolour system alone, it simply wouldn't be possible.' He adds that it has meant a significant financial commitment from Refin – modernising the six production lines at its plant has involved an investment of over €8m in new technologies. But he feels it's worth it to bring the design potential it can free up to market.

'Most ceramic factories have digital printing machines, but all they use it for is to copy materials,' he concludes. 'We'd like to think that we're approaching it in a different, more innovative and imaginative way.' ●

This editorial is supported by Refin.
refin-ceramic-tiles.com

1. SUSTAINABLE PRODUCTION

Refin was founded in 1962 and remains a family-led company. Its factory is 1.4ha in size, contains six production lines and turns out more than 20,000m² of tiles per day from its four industrial kilns. Over 80% of the factory's output is exported, mainly to Europe and North America. According to marketing director Paolo Cesana, the firm has made sustainability a priority – not only does it use recycled glass in its tiles, predominantly from the screens of old cathode ray tubes from TVs – but it has solar photovoltaics powering the firm's offices, has heat exchangers on the kilns (pictured right) and recycles nearly all the water that it uses in the water-intensive production process. As part of the business's modernisation drive to produce bespoke tile ranges, the firm has invested millions of euros in digital production technology. Aside from the industrial inkjet printers, the R&D laboratory has acquired innovative technologies that allow the high levels of photographic detail that the digital production process requires – here a typical imaging of a stone tile may use about 1.5GB of memory.



2. MIXING AND MILLING

Raw materials for the porcelain mix are stored in huge silos on site. Clays are predominantly sourced from Italy, the Ukraine and Germany, with sand from Sardinia and feldspar from Turkey. This last additive reduces the melting point of the sand from around 1500°C to about 1200°C, reducing energy consumption. The mix is then milled with water in a huge rotating silo to create a homogeneous aqueous suspension which is dropped through a silo and spray dried. This mix, with an optimum granularity for pressing, is then sent to the pressing machines by conveyor belt.



4. DECORATION

Once dried, tiles are decorated. Tile ranges will undergo both a Rotocolour and a digital inkjet process, using one of the largest printers on the market, to give them the extra grain and depth as necessary. Colours are produced by the use of oxides and magnesium. Glass can be sprayed onto the tile at the end of the process to protect the colours once fired.



3. PRESSING AND DRYING

There are six production lines in the factory, each with its own press. They are designed to press all the sizes currently available in the range – from 300mm by 300mm to 1.5m by 750mm. The pressing machine is one of the most powerful available and is able to exert a force of 700 tonnes. Once tiles have been pressed, they are sent to a dryer to eliminate the final 5% of water still held within them; any moisture can cause tiles to blow in the firing process. The dryers are fed with hot air extracted from the kilns, saving up to 10% in methane use.



5. FIRING

Decorated tiles are then passed through the kiln for around four hours. Kilns are computer controlled, saving up to 20% electricity due to the electronics that manage the fan engines, and 10% on gas due to heat recovery – the hot air at the end of the kiln has been reintroduced to the burners at the front. Once fired, tiles can undergo rectification, where they can be cut to create other sizes. After passing through a quality control machine that rejects defective tiles, they are moved to the packing line for sorting and final packaging.

Dom Tower Utrecht

A 21st century light show in this 700-year-old tower describes memories – and inventive design

Words: Pamela Buxton Photography: James Newton

Utrecht's Dom Tower has stood proud over the picturesque Dutch city for seven centuries, 112m tall and visible from far and wide.

Now Holland's tallest bell tower is getting even more attention courtesy of In Lumine Tuo, an illumination designed by London lighting expert Speirs + Major as part of a programme to generate tourism through light installations that promote the historic centre. This is no mere floodlighting job however, but a carefully choreographed lighting sequence triggered every 15 minutes and building to a climax on the hour. The result is a rhythmic crescendo of light flowing up the tower before being released in the lantern in a finale of light bursts and bells.

'We wanted to create much more than a lit 'monument'. The tower is a showpiece, the dynamic element, the communicator,' says Speirs + Major's Keith Bradshaw, who created the concept with fellow principal Mark Major.

Lighting effects interplay between the tower, the nearby Dom Church with which it was once connected, and the Dom Square where both stand. The narrative is that the light ascending through the tower represents the collective memories of the city. The cooler tone of the lighting effects contrasts with the warmer static architectural lighting.

This design vision was realised with the use

of 200 LED luminaires. Bradshaw says it is believed to be the first large-scale heritage use of the technology and has only been made possible by recent advances which mean much less kit is involved. All the luminaires are co-ordinated by a Pharos control system, programmed by Speirs + Major to achieve the correct sequence.

'Pharos is a good control system that allows for a stable architectural control system and timeline-based effects,' says project designer Benz Roos. 'That combination suited the project. On one hand, the project is an architectural lighting scheme, on the other hand, it is a dynamic artistic lighting scheme.'

The task was made especially difficult by the sensitivities of working with a historic monument that severely limited the scope for attaching fittings. In addition, the designers had to make provision for visitors on the tower's viewing balconies – which affected positions for the lighting kit – while also ensuring easy access for maintenance. In response, Speirs + Major worked with the manufacturer to create custom fittings for the luminaires' installation that were unobtrusive and acceptable to Utrecht's heritage inspectors, yet gave the nuanced and spectacular effect they wanted.

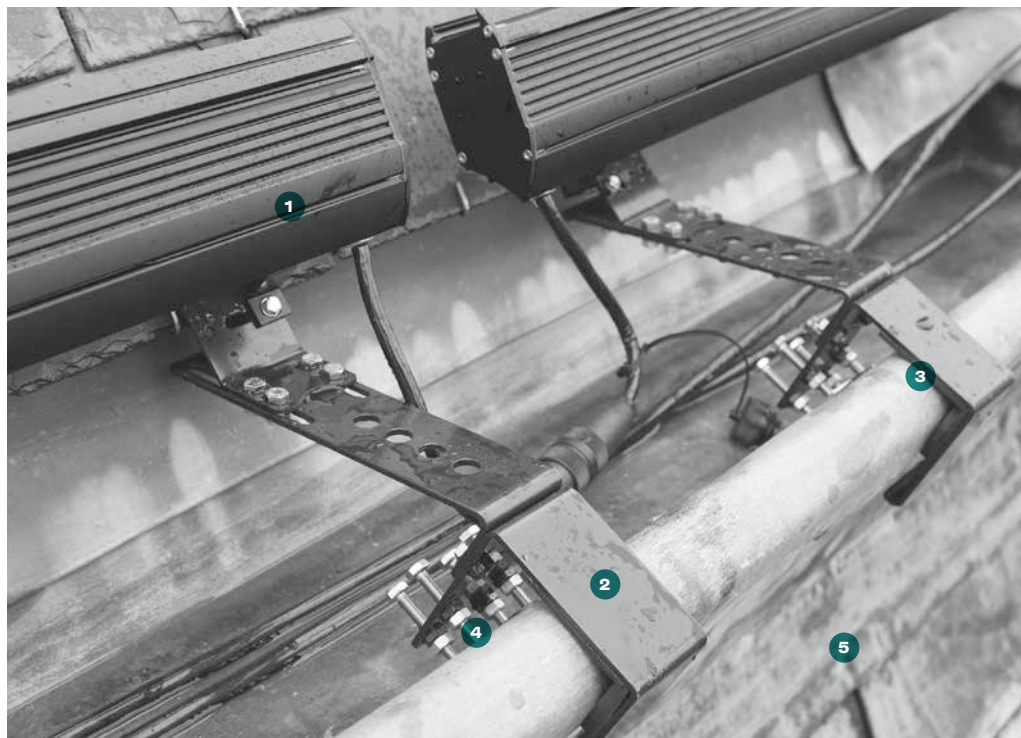
'With no drilling allowed into the stonework and no sources to be in view from below,



Below: With an unwritten planning rule that no building should exceed the height of the Dom Tower, it remains the overarching visual signifier of the city.

The narrative is that the light ascending through the tower represents the collective memories of the city





Left: Gutter luminaire fixing, detail

Models, left and below, show the lighting support system.

- 1 Luminaire mounted on sloped inner surface to avoid obstructing the gutter and keep fixture above standing water.
- 2 Bracket formed on site from folded reinforced copper and soldered to roof gutter.
- 3 Copper feet.
- 4 Ensure galvanic corrosion doesn't occur between copper and aluminium parts of luminaire. Protective layer installed between metal parts.
- 5 Existing copper roof gutter.

Below: External uplight fixture, detail

- 1 Galvanised steel framing system clamped to existing horizontal metal strut and balustrade. Colour and finish of steel framing, all fixing and cabling, matches strut and balustrade to minimise visual impact on historic building. No permanent fix to historic fabric of building. A contractor verified the structural integrity of support structure and existing metalwork. Steps were taken to prevent galvanic corrosion between framing system parts and existing metal parts of the building.
- 2 Data and power cabling route through system channel. Sufficient loose cabling allows luminaire to move downwards.
- 3 Existing horizontal metal strut of balustrade.
- 4 Framing system is strong enough to be used as handrail/support.
- 5 Luminaire to be moveable in metal framing system to give easy access for cleaning and maintaining it. Position of luminaire and all fixing mechanisms above doorway.

mounting devices had to be custom made for each location,' said Roos. 'These details largely consist of compression clamping arrangements, or concrete slabs not connected to the buildings, concealed where possible, and located strategically so as not to cause safety issues or impede views, but still be accessible for maintenance.'

For simplicity, the firm sought to use as few different products as possible. The product specified most often was the Proliad spotlight, used at 3000 kelvins to best suit the brickwork. It has the advantage being able to 'talk' directly to the Pharos control system via its DMX controls, as well as being made locally. They also used products more often found in theatrical applications such as Diversatronics' strobes & Martin's Exterior 400 image projector, which could deliver the choreographed sequences.

Each installation required a custom solution. Emphasising the archway to the tower, two strips of 1200mm-long modules, one either side of the opening, contain 15 Iglu luminaires each from UK manufacturer ACDC and stretch a total of 16m. Here, the designer avoided touching the tower, recessing the fittings instead into an extruded channel in the modern street cobbles. Cabling is housed in this with the luminaires slotted in on top. A relatively harsh light spreads widely from these.

Half way along the walkway beneath the tower, the arched form of a pair of windows is lit either side by four DMX Cap strobes from Hungaroflash. Here, there was no way of avoiding contact with the tower. But while the boxed luminaires rest on the sills, they are fixed back to modern vertical timber boards in the niches.

To illuminate the arches at first floor level, Speirs + Major took advantage of the lack of public access to sit pivoting Proliad floodlight luminaires on concrete pads on the walkway floor. Eight more illuminate the underside of the niches above the arches that flank the tower. Achieving this unobtrusively was more challenging, since the lights needed to be positioned on the window sill. The solution was a powder-coated galvanised steel clamp system that secured the fitting to the sill without drilling in, with just one fixing to a mortar joint in the wall. The control gear is set well back from street level view behind the pivot.

Illuminations for the stained glass window are mounted on a bar braced in the niche. Light is flashed from different directions to create a vertical movement using a standard Proliad spotlight with a neutral white high output (3000lm) Xicato LED module. DMX-controlled luminaires can flash almost as fast as strobe lights.

Similar lighting is used on the second floor,





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although here frosted half moon shields on the front of the Proliad lights soften the beam – designed to a template worked out with paper by Speirs + Major. Without these the short distance between luminaire and tower (0.5m) would produce a very defined spot.

On the third floor of the tower, the same, floor-mounted Proliad lights illuminate the brickwork niches, but this time in 14 pairs. One is positioned at an angle of 10 degrees to reach the underside of a niche some 30m up, while the other is set at 30 degrees to light half way up the niche and, at the same time, emphasise the detail of the balustrade along the bottom.

At fourth floor level, Speirs + Major installed a total of 33 DMX cap strobes from Hungaroflash on all sides of the bell tower interior – fixed to the wooden clock boards which aren't historic. These are used for the vertical movement of flashing light during the choreographed sequence, as is the lighting for the bell tower vault on level five. Here, the designers had no option but to touch the historic tower. But contact is limited by mounting three luminaires on each lighting bar, which is fixed at two points into the mortar joints. Two Diversatronics semi-directional high output strobes plus one Hungaroflash strobe, are positioned at different angles for more variation and a punchier, colder effect

than the tower's static mode lighting supplies.

A major difficulty for Speirs + Major on the six floor exterior walkway was preventing the installation from interfering with the circulation of visitors. The solution was to mount the eight galvanized steel lighting brackets – two on each side – on the metal safety railings. These brackets fix on at three points to the railing and bracing bar and hold Proliad spot luminaires, partially masked with metal plates to reduce sky pollution. Four further installations in each corner niche, away from visitors, employ a vertical pole with three horizontal bars resting on a protective wooden block on the floor. Only the top bar is fixed back while the lower two hold the same luminaires. The base of the balustrade here is lit with LED strips.

The climax of the lighting sequence involves dramatic effects on the underside of the sixth floor spire. Speirs + Major carried out extensive site experiments, even testing a disco ball, before choosing a new LED strobe projector – Martin Professional's Exterior 400 Image Projector – capable of producing 7000 lumens of the desired theatrical effects in a very cool light. The result is an array of dots conveying the idea of floating memories. Eight of these are mounted on concrete pads in each corner along with 16 Diversatronics semi-directional, high output

Credits

Client City of Utrecht
Architect Speirs + Major
City engineer Arthur Klink
Project manager Kees Van De Lagemaat
Art consultant Marijke Jansen
Contractor Heijmans

Suppliers

● **Proliad** Xicato Spotlight 1300 LM, Spotlight 3000XL ● **Meyer** Custom Superlight Compact
 ● **ACDC** Iglu, Integrex, Fino ● **Sill** 021 Series Projector, Custom inground uplight ●
Hungaroflash DMX Cap Strobe ● **Diversitronics** DMX Strobe Cannon ● **Martin Professional** Exterior 400 Image Projector, Pharos control system

strobes. Adjustable flash, dimming and output give the display a shimmering effect.

Lastly, at the very top, mounted on the faceted spire itself, Integrex linear LED sources from ACDC with a narrow beam sit in the copper gutter on a bespoke, folded copper bracket that follows the gutter shape and clamps on to it. Its position on the sloped inner surface avoids obstructing the gutter and keeps the product well away from standing water.

The Pharos control system that co-ordinates the sequence is triggered by the tower's analogue clock to maintain synchronicity with the bells. Total wattage is 0.3W/ft² excluding strobes; or 1.0W/ft² including all strobes.

Switched on by Queen Beatrix last spring, the lighting is part of celebrations to mark the tri-centenary of the Treaty of Utrecht, which marked the end of the European War of the Spanish Succession. It is triggered each day by falling light levels at sunset. In static mode, the lighting highlights architectural details of the tower before several minutes of animated sequence preceding each quarter hour. It depicts the idea of the tower as a living organism, says Bradshaw, inhaling and exhaling with the light and setting a new visual soundtrack for the city.

Its name refers to the Latin *In lumine tuo videbimus lumen*: In your light we shall see the light. ●



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1
LED technology
Concord

ITV's 'colourful new brand identity' didn't extend to its London HQ reception area, which has been refurbished as part of the launch. In a take on Henry Ford's famous dictat, it seems they were offered 'any colour as long as it's white' for the fixtures, fittings and general decor, reserving the rest of the spectrum for the logo. Concord's Beacon luminaires add some dazzle to the razzle, and give would-be celebrities visiting the studios within an excuse to don shades even on the gloomiest day. concord-lighting.com



2
Heritage light fittings
W Sitch

Now here's something special: forget minimalism, neutral tones and technology, W Sitch can restore or reproduce any metal light fitting you want from its modest but crowded Soho workshop. The family business has been going since 1776 and with customers like English Heritage, Merchant Ivory films, 10 Downing Street and Edinburgh Castle, this Aladdin's Cave of lighting treasures must have something for any heritage project. And if it doesn't, take a reccy anyway – just for pure wonder. wsitch.co.uk



3
Marc Aurel lighting
iGuzzini

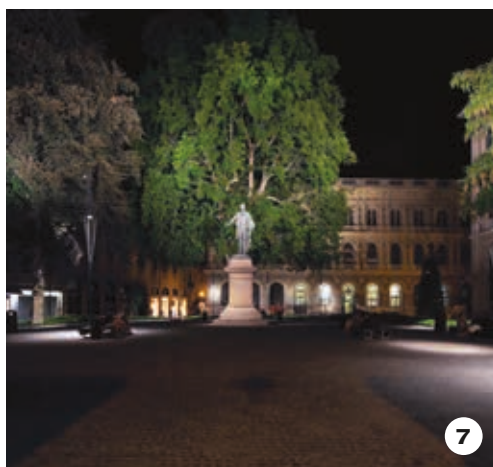
If you're looking at those elegant street lamps and thinking, actually, they're just what I wanted for the living room, then designer Marc Aurel will rest happy. His approach to lighting the public areas of Poitiers old town in France was to imagine the spaces as a kind of urban living room, with lights that look familiar to relax passers-by. iGuzzini's Anello discs on sticks fitted the bill, but let's hope that the illusion isn't too good, leading late night revellers to snuggle down on the benches under the impression that the walk home was shorter than they imagined. iguzzini.co.uk

4
Office lighting
Trilux

There should be nothing out of date in the new head office of a company with a name like Imagination Technologies, an up-to-the-minute sounding business if ever there was one. So Trilux's high LED content lighting seems to fit the bill, contributing to the building's eco-credentials as well as the firm's desire for a sleek contemporary look for the staff to feel at home in. The real mystery is, with all those trendy square yellow chairs mirroring the new square lights above, why is everyone standing up? trilux.com



IMAGINATION TECHNOLOGIES



5 Retail display Rosco

When a wine seller names itself Hedonism and calls its retail outlet a boutique you know it's pitching for a particular type of customer – especially when it's in London's swanky Mayfair. But with ambience as critical as temperature control when you're selling fine wines in such style, the lighting had to be spot-on. Rosco's 8mm thick LitePads offered a mix of cool and warm white LEDs that prevent the place getting overheated – either literally or metaphorically speaking.
rosco.com

6 Flexible LEDs Spectral

When it comes to adding interest Spectral is your flexible friend. Not only does its Turus luminaire send out an attractive light from its LED bulbs, but the piece itself is stylish too. The bendable, low powered LED system creates a continuous homogeneous light source that can be scaled up or down and moulded into any shape by individual designers. As Christmas approaches, a giant halo might be just what your festive interior needs.
www.spectral-lighting.co.uk

7 Outdoor improvements Viabizzuno

Bologna is one of the wealthiest cities in Italy, cited as offering the best quality of life too, so a revamp of one of its many squares to encourage the public to linger in a historical 'garden' context seems fitting. Viabizzuno contributed a lighting makeover to reveal its treasures at night, notably illuminating the plinth-bound, 19th century economist and statesman Marco Minghetti. Whether the city's most famous political son would have approved of the expense of dolling up the square cannot be known, but it's certainly improved his view.
viabizzuno.com

8 Retail luminaires Kolarz

Never knowingly undersparkled might be the new John Lewis department store motto – at least in its jewellery, fashion advice and lingerie departments, now that it has installed these huge crystal lights from Kolarz. To make sure it holds its own in not only the usual quality and price stakes, but for ambience too, the retailer sought a bit more glamour for the girls to browse in. With visibility levels now making views of the merchandise crystal clear, it won't be outshone. Let's hope it's an investment that pays off.
kolarz-uk.com

Costed

David Holmes, business intelligence associate at Davis Langdon, looks at lighting costs

Lighting is one of the key elements of building design. Proper lighting lets people perform tasks easily, and makes you feel safer and more comfortable. But each defined internal and external area has unique general and accent lighting needs.

Specifications are critical to the success of lighting design work and ultimately make the project. An essential aspect of producing a

quality lighting design is ensuring that the products specified are acquired and installed on a project. It sounds simple, but in the reality of everyday practice, this is not always the case.

LED technology is becoming a viable alternative to other energy efficient lighting and is increasingly used for general environments including external, industrial and offices. With careful selection, LED systems can deliver

the qualitative design requirements without compromising the overall visual comfort and ambiance of the space. LED characteristics of high light output, good light colour quality and rendering and engineered product efficiency are becoming comparable to fluorescent lighting systems. ●

All prices quoted are exclusive of VAT and correct as from 3Q 2013.

All-in rates for lighting points	£ per point
Cost for lighting points including rose and wireways in PVC cable	
Domestic properties	38-43
Industrial and commercial properties	47-53
Cost of lighting points including rose and wireways in LSF cable, excl luminaires	
Industrial and commercial properties	62-70
External lighting	
Wall mounted light fitting with halogen lamp, inc mounting bracket, fittings and wiring	
500W	180-220
1000W	220-270
Luminaires – fluorescent internal	
£ per unit	
Batten type	
600mm twin, 18W	25-30
1200mm single/twin, 36W	30-45/35-40
1800mm single/twin, 70W	45-55/60-75
Opal diffuser	
600mm twin, 18W	40-50
1200mm single/twin, 36W	45-55/55-75
1800mm single/twin, 70W	60-70/70-85
Surface mounted linear fluorescent; T8 lamp; high frequency control gear; low brightness; 65° cut-off; including wedge style louvre	
600mm twin, 18W	40-50
1200mm single/twin, 36W	40-55/55-65
1800mm single/twin, 70W	50-60/60-75
Modular lighting; recessed high frequency control gear, low brightness, 65° cut off; wedge style louvre; fitted to exposed T grid suspended ceiling	
600 x 600mm; 3 x 18W T8 lamps	70-90
600 x 1200mm; 4 x 36W T8 lamps	95-120
600 x 600mm; 3 x 14W T5 lamps	95-110
Ceiling recessed asymmetric compact fluorescent downlighter; high frequency control gear; TCD lamp in 200mm dia. luminaire; for wall-washing application	
1 x 18W/26W	190-220
2 x 18W	200-225
Wall mounted compact fluorescent uplighter; high frequency control gear; TCL lamp in 300mm x 600 luminaire	
2 x 36W/40W	290-330
Suspended linear fluorescent; T5 lamp; high frequency control gear; low brightness; 65° cut off; 30% uplight, 70% downlight; including wedge style louvre	
1 x 50W	200-220

	£ per point
Semi-recessed 'architectural' linear fluorescent; T5 lamp; high frequency control gear; low brightness, delivers direct, ceiling and graduated wall washing illumination	
600 x 600mm; 2 x 24W T8 lamps	160-190
600 x 600mm; 4 x 14W T8 lamps	180-220
500 x 500mm/600 x 600mm: 2 x 24W	155-190
Downlighter, recessed; low voltage; mirror reflector with white /chrome bezel; dimmable transformer, for dichroic lamps	
85mm diameter x 20/50W	30-40
118mm diameter x 50W	40-50
165mm diameter x 100W	120-140
LED lighting	
Typical LED downlight up to 50W	100-130
Recessed LED office luminaire 40W	200-250
Lighting track	
£ per m	
25A, steel trunking, low voltage, copper conductors, couplers and supports	
Three circuit	25-35
1200mm single, 36W	40-55
High/low bay luminaires	
Compact discharge; aluminium reflector	
150W/250W	100-130
400W	105-135
Sealed discharge; aluminium reflector	
150W/250W	240-280
400W	300-350
Flameproof to IIA/IIB, I.P. 64; aluminium body	
600mm single/ 1200mm twin, 18W	400-525
1800mm single/twin 70W	525-650
Luminaires – external	
Floodlight, enclosed high performance discharge light, reflector, toughened glass	
100W/150W	125-190
250W	225-275
1500mm circular bollard, vandal resistant with polycarbonate visors	
50W/70W	125-190
80W	225-275
Outdoor flood lighting	
Wall mounted with tungsten halogen lamp, mounting bracket, wire guard and all internal wiring and containment, fixed to brickwork or concrete and connected	
500W/1000W	180.00-270.00

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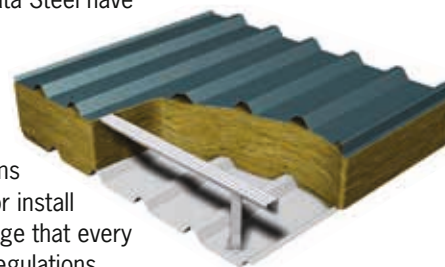
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Harsh lessons on schools

Has the government's U-turn on school buildings shut the door on quality design and SMEs?

Words: Stephen Cousins



Three years ago education secretary Michael Gove scrapped Labour's ambitious Building Schools for the Future (BSF) programme, condemning its wastefulness, poor management, and unrealistic belief in iconic, high-specification designs to transform educational outcomes.

Today the pendulum has swung to the other extreme, with cuts to public and private investment ushering in a new wave of austerity. The state's focus now is on teaching to raise achievement, with a greater reliance on refurbishment or extensions and leaner newbuild designs with less space, built for much less per square metre.

The change in tack has not been easy for the industry. The Priority School Building Programme (PSBP) – the coalition government's replacement for BSF, set up to rebuild or refurbish England's most dilapidated schools – was delayed several times. This left scores of projects unable to get off the ground and architects without work to chase. The scheme remains controversial: some architects feel its emphasis on design standardisation will create a wave of identikit schools with little personality, and tendering large batches of schools under PSBP threatens to exclude smaller practices. Elsewhere, the free schools programme, which is centrally funded but outside local authority control, has been criticised for shoehorning

dRMM's RIBA award-winning St Alban's Academy in Birmingham – one of the last schools to be procured under New Labour's BSF programme.

schools into unsuitable locations and buildings, irrespective of local demand. And across the secondary schools sector architects are reporting confusion over procurement, with different agencies and routes to tender, and apparently conflicting design standards. Tom Coward, founding director at architect AOC, explains: 'For smaller and medium-sized architects it can be difficult to know what is going on, with so many different frameworks and procurement routes, while pressure on delivery and cost is changing the way design decisions are made... There are still opportunities but it is a very competitive marketplace. The days of £20m BSF schools are long gone – it's more about complex refurbishment or extensions under smaller budgets,' he says.

PSBP is the largest state school building programme, with £2.4bn of funding administered

by the Education Funding Agency (EFA), the Department for Education's main delivery body. The programme covers 261 schools that require either complete or substantial rebuilding.

Since PSBP was launched in July 2011, several changes have caused procurement delays. The PF2 public/private procurement model was planned as the main source of funding but the weakened economy put off investors, leaving the government with a £1bn shortfall and around 150 schools in jeopardy. June's comprehensive spending review bridged the gap by adding £1.3 billion of capital funding.

Since then, the EFA has awarded contracts for the first £400m phase of directly-funded batches across England, with a further £300m second phase expected soon. And shortlists have been announced for two batches of PF2-funded schools worth a total £242m in Hertfordshire, Luton and Reading and the North East.

BSF-built schools were mostly designed independently, costing millions in consultancy fees and creating buildings Michael Gove has described as 'not fit for purpose'. Under PSBP he aims to cut procurement costs and improve build quality using PSBP to promote design standardisation. The EFA has launched three baseline designs for schools, including a 1,200-place fingerblock secondary school and a 1,200-place superblock secondary school, each compliant with the EFA's 'output specifications' – criteria for school buildings that the Agency says will be rigidly applied to bidders' proposals.

The shift in approach means design intelligence is now more focused on how a building is put together than the subtleties of context or specific user needs, with architects and contractors working together to develop kit of parts schools using either standardised components or off-site panellised systems.

'The BSF school projects we were involved in were designed to have a tangible benefit for parents and community groups in deprived areas, but these concerns have now dropped,' complains Michael Spooner, associate director at architect dRMM, which built the RIBA

Maybe schools won't have as much personality they did 10 years ago, but perhaps some had too much and things got out of hand

National Award-winning St Alban's Academy in Birmingham. 'Now there is a 15% reduction in available floor area, which means being very creative if you want to include non-essential but valuable spaces – a multi-faith prayer room, or larger dining hall ... I understand the government wanting lean, efficient schools but they can be very idiosyncratic places, they need to respond to communities and context, as well as different ways of delivering education,' he says.

A different view is held by Paul Monaghan, director at Allford Hall Monaghan Morris (AHMM), which worked with Laing O'Rourke to develop an off-site manufactured structural system and facade for the equally well-received £22.6m Dagenham Park Church of England BSF school in Essex: 'The impact of new schools can only be positive: it requires architects to devise more tricks to improve environments. Our work with Laing O'Rourke was one of the most interesting research projects we've been involved with in terms of looking at how to maximise factory production to get a better product. Maybe schools won't have as much personality they did 10 years ago, but perhaps some had too much and things got out of hand,' he says.

PSBP's emphasis on large batches of contractor-led projects will ring alarm bells for the many SME practices keen for a slice of its work. The EFA's deputy director of design, Mairi Johnson, has said that to qualify for work architects will need to be large enough to take on entire batches of 8-10 schools. The only other option for small firms is to convince a contractor to take them on as part of a design team.

'Different SMEs will have very different experiences,' says dRMM's Spooner. 'If you are already a trusted quantity and aligned with a contractor with an appetite for PSBP work you'll be well positioned. Most smaller firms haven't the appetite because of the lack of smaller batches and poor organisation – last year we suffered endless postponements to the release of work, baseline schemes and bulletin area schedules.'

While the state is exercising tight control over designs under PSBP, it has a much lighter touch with the free schools and academies it funds, whose end users get the final sign off.

There are 174 free schools across the UK, more than double this time last year, and a further 250 are due to open by September 2014. Free schools are set up from scratch, which can take much longer than a regular school conversion,



AHMM's Dagenham Park School – 10,000m² of prefabricated buildings in London delivered for £19m.

and there is no clearly defined route for how architects can get involved.

'Routes into projects seem to be varied and complicated,' says Tom Coward at AOC, which designed the Langley Hall free school in Berkshire. 'An existing relationship with a contractor, a school, or a piece of land might get you the job. I know of a project that was originally planned for housing and the architect ended up picking up the job when it became a free school because he knew the landowner.'

Many free schools are run by religious groups, which account for a third of projects to open this year, while others have been spearheaded by education trusts or parents' groups.

Coward says the free school concept is good news for architecture as it makes it instrumental to projects, adapting existing structures in innovative ways and helping end users work

out their priorities and define what is achievable within a limited budget.

However, the programme has been criticised for adapting buildings considered unsuitable to be schools and some architects have even reportedly resigned from commissions, feeling unable to put their name to projects. Roger Hawkins of Hawkins\Brown has slammed some standards for acoustics and ventilation on projects and a frequent lack of concern for environmental impacts and life-cycle costs, leaving a potential legacy of high energy bills.

Architects are increasingly looking towards the thriving independent schools sector, which accounts for around 7% of work in England.

With responsibility for their own budgets, private school clients tend to think harder about the design options, responding to the local context and making the most of existing buildings through refurbishment or extension. But independent schools may be quite risk averse when it comes to commissioning new buildings and can prefer to stick with what they know. 'Open market tendering for this type of work is also very competitive and can be difficult for small practices,' warns dRMM's Spooner. 'These schools get a lot of free design work through competitions, sometimes involving 10 or more different architects, making challenging odds.'

Allies & Morrison has worked on several independent school upgrades including a elegant gabled extension to the 19th century Brighton College boarding school, which opened last year.

'Under BSF, and potentially PSBP procurement, the budget point was disassociated from the point of delivery of education, which meant an inevitable conflict of interest,' says A&M partner Paul Appleton. 'But there are new ways of looking at procurement that don't force you down the traditional route and don't go as far as giving the contractor complete control.'

The Brighton College extension used a form of design and build contract, but with A&M novated to the contractor, which Appleton says avoided many issues associated with traditional D&B, including over-value engineering.

'Ultimately, the people running a project are more important than the contract at any school, private or public. An ambitious head of department at a local authority can drive forward a really unusual and rewarding building. It's not the programme that makes successful building, it's the people supplying it,' he concludes. ●

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IGLO, Linkeroever Antwerp

New housing to revive a sinking estate faces down the typology of the old and plays it at its own game

Words: Jan-Carlos Kucharek Photography: Filip Dujardin

Over the River Scheldt, west of the trading city of Antwerp's historic centre, the district of Linkeroever cuts a very different figure to its affluent neighbour. Barely a kilometre from the city centre, its winding chocolate box streets are supplanted by an urban district that from 1929 was laid out according to a masterplan which Le Corbusier no less, advised on. Built out in the 1970s, those modernist principles resulted in Europark – the familiar orthogonal grid of 18 huge slim slab blocks overlooking vast tracts of pointless flat grassed areas. In time-honoured fashion this rapidly began to fall short of its original utopian ideals. By the end of the 1990s the area, with more than 15,000 increasingly transient residents, had degenerated into a sink estate and become the concern of the City government, who in 2005 committed resources to a regeneration plan to reverse its downward spiral.

In the public consciousness, at 27 storeys and housing nearly 220 families, the largest of the Europark's 18 slabs, the Chicago Block, was synonymous with the area's decline – becoming as notorious for what got thrown from its heights as the height itself. But with the fridges and TVs cleared, there now sits at the foot of the tower something that on the face of it is just as confronting. Architect De Vylder Vinck

Taillieu's €7.5m assisted housing and community centre is one part of the wider, ongoing, IGLO (Inter Generational Linkeroever) initiative. This attempts to reclaim the dead interstitial areas between blocks and convert them to community use: open heart surgery of elderly housing, kindergartens and shops – an effort to stitch the fragmented Europark back together.

The firm's approach might at first look as shocking as the environment in which it is placed. Facing the newly created road through the estate, the 'IGLO Straat', you might expect the architect to have tried to hide the most problematic block and create a distinct identity for the new street. You might also expect to find that the language for the new development is the polar opposite to that of the original, failed scheme. But not at all – here, by its own admission, the architect is fighting fire with fire.

The first thing that strikes you is the massing – a scooped-out evolution of the 64-unit, four-storey long block that was originally proposed. Jan De Vylder, it turns out, could not turn his back on the great modernist hulk in whose shadow the new building sits. Whatever anyone thought of it, he didn't want to lose the connection and involvement of the old slab. Instead he moved the central flats into two six-storey blocks to the east and west, leaving



View of the East block, looking south, showing the hard context in which De Vylder Vinck Taillieu's new housing has been placed. The street to the right connects the existing Chicago block with the new IGLO Straat.



the community centre and petanque courtyard on a single level in the middle of the plot. And to the east he created a wide alley connecting the Chicago block to the new IGLO Straat. The overwhelming scale of the original tower is unchallenged; from the south, the new blocks consciously frame it, rereading it and making it part of the landscape of the new additions.

Just as conscious is the unapologetically austere concrete and brick facade of the housing and community centre. For inspiration, De Vylder looked no further than the estate itself. He wanted to use brick as a warm material, but to give it a contextual specificity by framing it in the all-pervasive concrete – giving the facade what he calls a ‘graphic quality’. He uses the word specifically, as this is not a matter of form follows function. The concrete frame holds the inner skin of the building and behaves as it needs to, carrying loads to ground, and has a fully insulated interstitial cavity. The outer load-bearing skin however, works to its own rules.

Wandering around the building, De Vylder confesses that while the exterior grid can follow column positions behind, it doesn’t always.

He’s quite clear that he didn’t want to be dictated to by structural logic, which accounts for the seemingly random shifts that occur at the upper levels. It also leads to interesting details – the colonnade on the east block’s south face makes evident the game of two skins – both visibly running in parallel to ground. Yet on the west face, the cantilevered structure behaves in an altogether more mannerist way – the lower ‘beams’ of cladding merely hanging off hooks mounted to the concrete structure behind. Parapets, meanwhile, are a few courses of brick popping above the final concrete ‘beams’ – a detail of strange fragility emphasising the grid all the more. The notional etched joints of the concrete merit scrutiny – made of numerous tessellated panels combined in different ways, they give the frame additional layers of richness.

The architect also claimed back exposed

concrete columns from the engineers, insisting on two ‘fetishised’ black-painted Miesian steel columns to pin the cantilevers at one end. Serving a partially structural purpose, the real reason to use them was to define space beneath, says De Vylder, without closing it down in the way the larger concrete columns that were originally specified would have done. Such was his preoccupation that he even wanted one of the alley’s streetlights moved offline and set in line with his steel columns to kiss the soffit of the cantilever – an architectural conceit pointing to the facade games going on elsewhere.

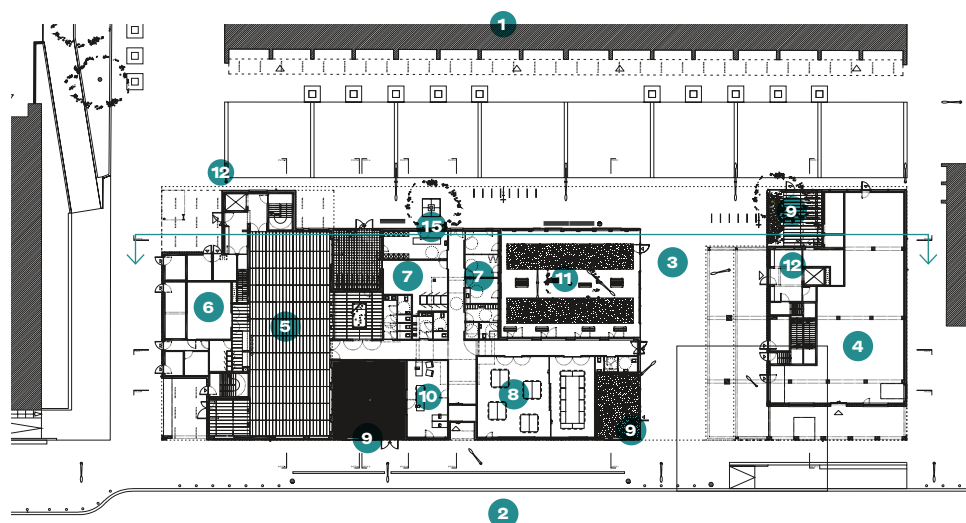
De Vylder says the 7000m² commission involved a lot of value engineering – amazingly it came in at just over €1000/m² – but that this limitation also yielded solutions. When the architect was told the cost plan meant only 40% of the windows could be in the specified anodised gold and black, he made the call to concentrate them on the most visible ‘internal’ faces of the blocks, with cheaper silver anodised frames



Far left View east from the community hall ‘smoking courtyard’ to the larger of the two new housing blocks.

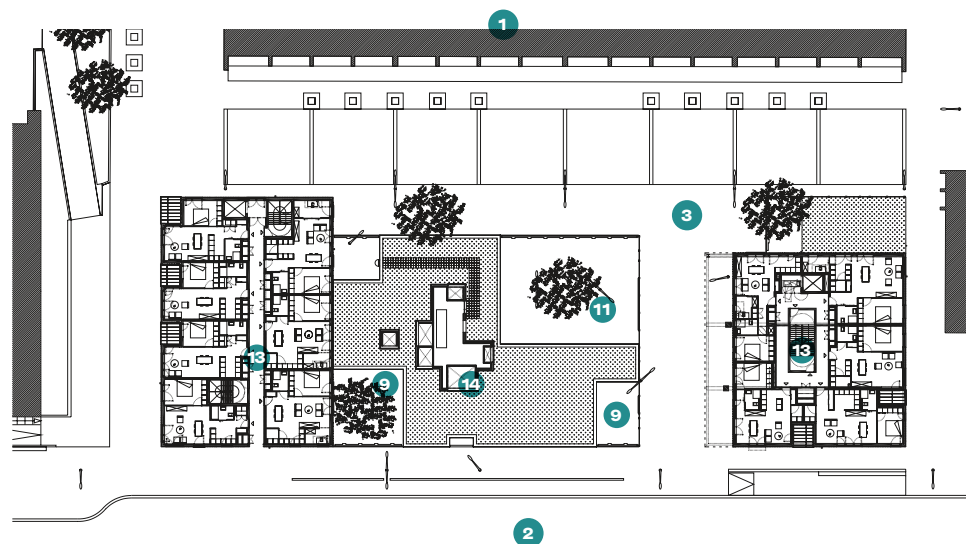
Left: De Vylder Vinck Taillieu refused to be enslaved by the buildings’ engineering, introducing steel columns to create their own architectural space.

Ground floor plan



- 1 Chicago block
- 2 Iglo Straat
- 3 Pedestrian access to Chicago block
- 4 Retail unit
- 5 Community restaurant
- 6 Kitchen areas + storage
- 7 Community meeting rooms
- 8 Community hall
- 9 Outdoor terrace
- 10 Offices
- 11 Pétanque courts
- 12 Access to apartments
- 13 Accessible flats
- 14 Roof lights to corridor areas below
- 15 Communal laundry
- 16 Basement

First floor plan



0 2 5 10 20 m

Longitudinal section



0 2 5 10 20 m



moving to the outer faces. And in a move that initially dismayed the client, all rainwater drainage, co-ordinated, designed and in black metal, was exposed on the outside face. Adding another layer to the facade, and perhaps most subtle of all the moves, steel fixing plates to the edges of the deep balconies were dispensed with for point-fixed simple white-painted steel balustrades dropping down past the barely sloped concrete soffit. The disparity between this and the lower balustrade rail might at first look like a mistake – but it makes the nature of both elements far clearer – all part of the architects' argument that details should reward repeat viewings for the residents.

The community centre at ground level is also implicated in the material plays. De Vylder defends his use of concrete walls here as the Belgian material of choice to separate domestic gardens from each other. And the ideas are the same, creating semi-private courtyard spaces – one of them for petanque at the community centre – but far from closing down their views there's a palpable permeability. Here, the building protects without being defensive. There are no prison-like bars filling the large openings into the courtyards; instead, Chicago block's passing residents look past gold framed windows that only partially fill the opening,

in a canny play-off of security and trust. Views into and through spaces are many and complex, some vaguely abstracted as columns or colonnades framed in the walls' picture windows. It might be a community centre in a tough place, but it protects without being defensive and in the sophistication of the internal and external plays with views, there's as much going on here as at Scamozzi's stage scenery at Vicenza's Teatro Olimpico.

Some might doubt the appropriateness of such severity in a damaged location like this, but De Vylder's strange interplay of facade grids, their offsetting and material and volumetric layering is in reality extremely complex and nuanced. And while it seems on the surface to echo the early conceptual work of Peter Eisenmann, with a similar sense of abstraction, the building is actually firmly rooted in and of its context. In exposing and deferring to the ugliness of the Chicago block, the new IGLO building goes some way to ennobling both it and itself.

'The City of Antwerp saw it and thought the new one looked like the ugly old one,' says an unconcerned De Vylder. 'We weren't offended by that idea, but it all depends what you mean by ugly – we think of it more as an aberration of the block.' And if that's what it is, it's a very considered one. ●

De Vylder didn't want to be dictated to by structural logic, which accounts for the seemingly random shifts that occur at the upper levels. This also leads to interesting details

Left Plays on views in the development are complex and sophisticated – as baroque as they are modernist.

Credits

Client Schelde Senior Invest nv; Kairos; Interbuild

Architect De Vylder Vinck Taillieu

Overall IGLO collaboration Technum-Tractebel Engineering, De Smet Vermeulen Architects and Tom Thijs Architects

Structural engineer Ingenieursbureau Arcade

Executive architect D'hondt-Heynink-Parein Architects

Safety consultant Regnard, Kalmthout

Project manager SECO

Contractor Interbuild nv

Landscaping Denis Dujardin

Suppliers

Facade brick Wienerberger Terca ● **Sand-**

lime brick Silikaatsteen ● **Concrete panels**

OMG Prefabbeton ● **Steelwork** MEBO

Construct ● **Aluminium doors** Polynorm/

Theuma ● **Aluminium windows** De Win ●

Handrails/balustrades: MEBO ● **Elevators**

Kone ● **Ironmongery** Hoberg/ DOM ● **Fencing/**

letterboxes Lecot ● **Suspended ceilings** Rockfon

Internal floor and wall tiles Vitra

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Seeing Wienerberger's Herne Dark Brindled Sлимпave bricks used by Herley Halsbrown Pomson architects and specialist brickwork contractor, Exel Construction, the BDA judges were "staggered" with The Yard when they visited.
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Specified



1 Polycarbonate sheet Brett Martin

Despite its exotic name, New York Stadium is actually in the UK's more prosaic Yorkshire, home to Rotherham United FC. But working on the basis that the nearer you get to the North Pole the thinner daylight becomes, Brett Martin's transparent Marlon CS profiled polycarbonate sheet roofing should be welcomed by fans. Protecting spectators from the elements, it is also expected to keep the pitch in good condition, encouraging grass growth and helping defrost it in winter. Back of the net! brettmartin.com

2 Accoya James Latham

Now that carbon reduction has taken root at the top of the construction agenda, wood is suddenly very popular with designers, and advances in improving its durability mean it's being used to clad a lot of new buildings. Following the trend, James Latham, distributor of timber panel products, has added the modified softwood Accoya to its catalogue. Suitable for cladding in various designs and finishes, it is a green alternative where once only non-sustainable materials would do. So timber is out of the woods, in every sense. lathamtimber.co.uk

3 Building-integrated PV glass Polysolar

You know how the English are – if we're not grumbling about the cold then we're complaining that it's too hot... and that's more or less what happened at BRE's Smart Home on its Innovation Park in Watford. A conservatory taking the whole of one side of the house was intended to warm it with passive solar gain, but that made it far too hot in summer. Luckily Polysolar has installed transparent solar photovoltaic glass on the edifice, which shades, controls solar heat gain and glare, limits heat loss and generates clean renewable electricity too. polysolar.co.uk

4 Self cleaning technology Toto

Japan's Toto, best known for its space age loos, has come out of the closet to embrace the public face of buildings. Hydrotec, its self cleaning technology based on photocatalysis, seemed too useful to keep holed up in the bathroom so the firm has joined up with Italian manufacturer of large ceramic cladding slabs, Laminam. Hydrotec works by reacting with sunlight and can treat aluminium, paint, glass and even tarpaulins. This isn't Toto's first such partnership: flushed with the success of the others... ok, we'll leave it there. hydrotec.com



5
Curtain walling
Wicona

Irish plane spotters gazing through the glazing at Dublin Airport can thank Wicona's curtain walling for their excellent views of the airside traffic. The award-winning Terminal 2 features the firm's WICTEC 50 curtain walling system, which also contributes to the building's low energy credentials. So while the air miles are spilling carbon all around, the terminal itself is a little haven of eco-righteousness and calm.

wicona.co.uk

6
Curtain walling
Senior Architectural Systems

Students at Leeds' Abbey Grange Academy who might have been hoping for some time off during the school's refurbishment have been thwarted by the contractor putting in some efficient term-time working. But the 50-year old building will have appreciated the facelift, with new push-casement windows in Senior Architectural Systems' SCW curtain walling. Differently shaded strips of wood wrap the buildings in a timber ribbon between the glazing, presenting the revamped blocks like long-overdue gifts.

seniorarchitectural.co.uk

7
Timber skin
Trada

Seat of timber learning Trada has an interesting case study in its aim to educate us in the benefits of wood. Emmanuel College Cambridge has revamped and extended its library with a new sweet chestnut skin, covering the timber-framed learning pods that have been added to its top three storeys to enlarge the existing concrete frame. There's a sort of poetic balance to the finished project – all those paper books sheathed in a cosy wooden gown.

trada.co.uk

8
Architectural fibre cement
Marley Eternit

It's grim up north at Lerwick's smart Mareel arts centre, where ferocious winds batter one side of the building and inflict suction on the face of the other, making a problem for cladding. But if you're wondering why anyone wants to go out in such inhospitable conditions, the solid mass of the UK's most northerly cinema and music venue looks invitingly indestructible. This is at least partly due to Marley Eternit's Equitone fibre cement cladding, combining ruggedness with a natural looking finish to match the dock it stands on. Less grim than trim, in fact.

marleyeternit.co.uk

Cladding

CAREA CLADDING John Lewis building transformed by Ardal cladding



At the £8.5m refurbishment of 1960s retail store into a new John Lewis in Exeter, Carea Ardal cladding has created a new eye catching, decorative facade. For the building's larger tower, Ardal rain screen cladding was specified in a speckled Nève finish, complemented by silver anodised aluminium vertical feature caps. The smaller tower was also transformed by Ardal cladding, specified in a Basalte finish and framed by a stack bonded brickwork surround. www.carea.uk.com

KALZIP Mansfield Bus Station gets top copper coloured treatment



Over 1,800m² of Kalzip aluminium standing seam and a similar quantity of liner and decking sheets have been installed on Mansfield's impressive new state-of-the-art bus station and link-bridge. The Kalzip roofing sheets (PVF² 3-coat to Pearl Copper, RAL 8029) together with planking for the soffits and an array of bespoke aluminium fabrications (powder coated to RAL 8029), were installed by Teamkal contractor, Met-Clad Contracts Ltd www.kalzip.com

SHACKERLY Shackerly to export Sureclad system to US



Shackerly's Sureclad ceramic granite ventilated systems are to be promoted across the US and Canada, having completed an extensive series of demanding assessments at the Philadelphia HQ of Architectural Testing to prove their suitability for installation in regions prone to earthquakes and hurricanes. American porcelain manufacturing giant Crossville Inc will promote the Queen's Award winning cladding system to architects and other specifiers. www.shackerley.com

EUROBOND Groovy new panels mix performance with cost benefits



Eurobond Laminates' new range of grooved panels enables the designer to create the visual expression of multi module panels and keep the performance and cost benefits of large panels. For any given module a designer can specify single or multiple grooves that simulate a panel joints. Multi module design, with fewer panels and joints, help save both labour and material costs. Panels can have one central groove, two with equal pitch or specific asymmetric pitches. www.eurobond.co.uk

NVELOPE Tesco extra for contemporary living



Working with building envelope contractor Prater, NVELOPE has supplied its NV4 and NV5 support systems for an £86m development for Tesco in Woolwich, London. The scheme includes a Tesco Extra store, retail units, car parking and a police station, plus affordable housing. Its 7,000 m² of aluminium rain screen and zinc cladding panels create an attractive, multi-coloured appearance, integrating the housing in the development's contemporary living concept. www.nvelope.com

CEMBRIT Year-round solution for Welsh dairy farm



Large-scale installation of Cembrit's Cemsix corrugated fibre cement sheets at a dairy farm in Wales has ensured the building is as weather efficient and robust as possible. The natural ventilation properties and robust construction of Cemsix were ideal for Longford Farm in Pembrokeshire, where animal welfare and environmental considerations are also of utmost importance. Cemsix helps create the perfect year round conditions to maintain production. www.cembrit.co.uk

REDLAND Craftsman is latest launch in Rosemary range of heritage tiles



Redland has introduced the latest in its range of Great British Rosemary clay tiles, the Craftsman, which is being manufactured at its Bedworth plant in the Midlands. The firm has invested heavily in the plant, where a unique manufacturing process creates tiles on a bespoke line to achieve a heritage look required by many specifiers in the South East. The launch coincides with the 175th anniversary of the sale of Rosemary tiles in the UK. info.redland@monier.com

STO Insulation-wrapped hospital keeps patients at a steady temperature



London's Finchley Memorial Hospital has been awarded BREEAM 'Excellent' and won Best Designed Project at the International Partnerships Awards with help from Sto's external wall insulation system. StoTherm Classic K external wall insulation was chosen to significantly reduce energy loss by wrapping the building in a thermally resistant jacket, avoiding compromise to the internal space and maintaining a comfortable temperature all year. www.sto.co.uk

FORMICA Playful design at Morrisons Kiddicare

Astley, one of the UK's leading creative signage manufacturers, has chosen Formica Group's VIVIX® exterior facade panels for the building frontage of five Morrisons Kiddicare stores. Paul Allan, Astley sales manager, says: 'A material which looked like wood and had a real 'feel me' appearance was specified, but it also needed to be robust and lightweight to withstand the elements – VIVIX® panels proved ideal thanks to the colour choice and quality offered.'

www.formica.eu

VM ZINC Zinc provides lasting colour on Members' Pavilion at Lords

Ettwein Bridges' design for the £8.2m upgrading of Lords' Grade II* listed Members' Pavilion was completed in April 2005. A new roof terrace was built using VMZINC interlocking panel facades and a roll cap roof in pre-weathered QUARTZ-ZINC®. Both have shown exceptional colour retention, proving their suitability for such sensitive new build and refurbishment work.

www.vnzinc.co.uk

LG HAUSYS On the crest of a wave with HI-MACS in Korea

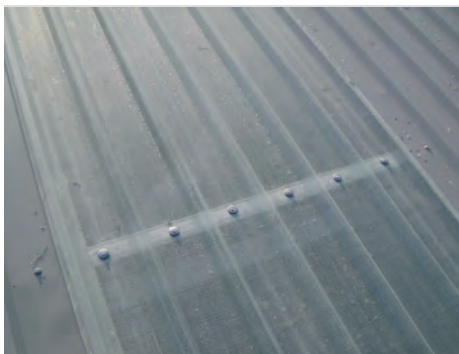
A HI-MACS® facade has been used for the first time in Korea on the Pan-gyo Residence, by architecture firm Office 53427. Its snow-white walls rise from a wooden base like a petrified sea wave, perforations expressing the foam. This new way of shaping the facade shows a new kind of living space design. The house uses three facade materials – wood, brick and HI-MACS® acrylic stone – chosen by the client to make a house as different as possible from all others.

www.himacs.eu

ALSECCO Extension's modern look complements listed Ruskin College

Alsecco's ventilated rainscreen facade system has been used for the new extension to the Rookery Building at Ruskin College, Oxford. Specified by Penoyre & Prasad Architects, the Airtec Stone system provides a striking, modern contrast to the existing listed building, set in a 19th century landscape. The system is up to 60% lighter than natural stone panels and has a large panel format. In total, 1200m² of the stone rainscreen cladding system was used in Limestone Palais finish.

www.alsecco.co.uk

HAMBLESIDE DANELAW Rolls Royce blades to be cast in natural light

The new Rolls Royce Advanced Blade Casting Facility in Rotherham, currently under construction, has a 1,300m² metal standing seam roofing system using Hambleside Danelaw's double skin barrel vaulted rooflights. Ideal for standing seam system roofs, these rooflights use Lo Carbon StepSafe liner panels manufactured from high grade glass reinforced materials which improves their strength and reduces embodied carbon.

www.hambleside-danelaw.co.uk

MARLEY EDINBURGH Marley Eternit Equitone creates a work of art

EQUITONE [tectiva] has helped turn an information kiosk into a work of art at the Edinburgh Art Festival. Four-by-Two Consultants liked the natural aesthetic and design purity of the fibre cement material, ideal for creating a focal point at the UK's largest annual festival of visual art. Pebble, with its through colour, characteristic fine sanded lines and natural occurring hues was chosen for the wrap-around skin to the 4m by 3.6m laminated plywood frame.

www.equitone.co.uk

STRUCTURA Kalwall throws daylight on sporting activities

Kalwall® diffused daylighting is playing a major role at Wakefield's new Sun Lane Leisure Centre – CIOB Yorkshire Project of the Year and RICS Pro-Yorkshire Winner in Tourism & Leisure award. The BREEM Excellent rated building used Kalwall for translucent floor to ceiling walls in the gymnasium and at clerestory height over the pool. Its light diffusing qualities eliminate stark contrasts of light and shadow and create an ideal playing surface.

www.structura-uk.com/kalwall

SENIOR ARCHITECTURAL Leeds' Abbey Grange Academy goes frameless

Recent refurbishment of Abbey Grange Academy Leeds integrates subtle shades of timber cladding with Senior Architectural Systems' SCW curtain wall and SMRFP frameless parallel push casement windows. The windows provide uninterrupted sight lines while natural ventilation draws fresh air from the bottom of the window and expels stale air from the top. Independently tested in a range of vent sizes, their 100mm openings also offer security where safety is paramount.

www.seniorarchitectural.co.uk

Cladding

MARLEY NEWCASTLE Equitone suits modules at Newcastle College



As a modern and durable material that retains its appearance, Marley Eternit's fibre cement EQUISTONE [natura] and [textura] were the ideal choice for the modular architectural façade of the 11,000m² Newcastle Sixth Form College. EQUISTONE [natura] panels allow the texture of the fibre cement to show through, with light coloured natura predominantly used for the facade along with textura feature panels with its textured finish. www.equitone.co.uk

3A COMPOSITES Enhanced possibilities with metallic effects on ALUCOBOND



3A Composites' new ALUCOBOND® design collection makes it possible to create individual décors for aluminium composite panels. The new "Metallics" range offers more than just an image of metal. An even deeper spatial effect is reached using Metallics with existing decors Silver curtain, Perforation and Geometry. All ALUCOBOND® design panels are also protected with a high quality lacquer finish. www.3acomposites.com

EUROCLAD Vieo cladding looks just right on rooms with the perfect view



Sandbanks Yacht Club's original aging property has been replaced with nine new houses together with restaurants, a boatyard and a gym. The initial three waterfront properties quickly became iconic features of Poole Harbour. Vieo cladding was the architect's perfect choice of product to achieve such an intricate, high quality finish. The waterfront properties are now being marketed for £4.25m. www.euroclad.com

ANCON Technical seminars now CPD approved



Ancon's latest CPD technical seminars have been independently assessed and approved by the Construction CPD Certification Service, confirming their value as part of a structured Continuing Professional Development training programme. 'Support and Restraint of Masonry Cladding on Framed Buildings' and 'Designing for Joints in Structural Concrete' cover two critical and technically challenging areas. www.ancon.co.uk

Bathrooms

CROSSWATER Kelly Hoppen Contemporary Brassware launched



KH Zero 1 is the contemporary new brassware collection by Crosswater in partnership with interior designer Kelly Hoppen MBE. This tap, mixer and shower collection is the first in a series of innovative brassware ranges. KH Zero 1 includes deck mounted basin taps in a choice of three heights including Crosswater Mini sizing plus a feature-piece wall mount basin set, a floor standing bath shower mixer with integral shower kit and range of recessed thermostatic valves. www.crosswater.co.uk

HANSGROHE Hansgrohe tops UK charts with over 800 WRAS approvals



Hansgrohe, the international bathroom specialist, now has over 800 WRAS (Water Regulations Advisory Scheme) approved basin mixers, kitchen mixers, concealed and exposed bath and shower mixers – manual and thermostatic, bath fillers, hand showers, individual shut-off valves and diverter controls. This is more than double the number of the next closest bathroom products manufacturer operating in the UK market. www.hansgrohe.co.uk

TWYFORDS NBS collaboration creates SpecMaster Online



SpecMaster Online is the latest collaborative partnership with Twyford Bathrooms and the National Building Specification, part of RIBA Enterprises. The free online specification tool, which is feature-rich yet user-friendly, is for use specifying sanitaryware and furniture. Not only does it offer an easy product search and advanced browsing features, it also allows different ways of adding specification to projects, from drag-and-drop to selecting multiple items. www.specmasteronline.com

BAGNO Timeless elegance in ebony Bloomsbury collection



Offering a timeless elegance, the ebony furniture in Bagno Design's new Bloomsbury collection is made in Tuscany, using the finest marine grade ply with beautiful ebony veneers. Drawer units are trimmed with an antique bronze lip, while the interior has a leather trim. This is combined with the Tiffany Semi-Inset washbasin, while the black glass countertop creates a striking, simple to clean finish. www.bagnodesign.co.uk

Doors & Windows & Rooflights

BRETT MARTIN Bringing experience and light to help students learn



With over 50 years' experience and supplying more than 700,000m² of rooflights each year, Brett Martin Daylight Systems is expert in daylighting solutions. Schools such as Ashford (left) have benefited from designs that bring the best quality natural daylight into a space to promote excellent teaching and learning. They also meet environmental, legislative and industry requirements to achieve highly sustainable design.

www.brettmartin.com/daylight-systems

BLACK MILLWORK New range of timber and aluminium gliding doors



Black Millwork's portfolio now includes a new range of aluminium, timber framed and aluminium clad gliding doors – offering exceptional aesthetics and energy performance. Available in a variety of large span and bespoke sizes, the doors make a stunning focal point in any property. Lightweight aluminium allows even large gliding doors to move easily. Now, Black Millwork's composite timber technology makes this feature possible in a timber-framed style.

www.blackmillwork.co.uk

LOMAX & WOOD Heritage box sash windows for exquisite Kensington home



Bespoke period sash windows, designed by specialist manufacturer Lomax + Wood (formerly Ambass-A-Door) have been installed in an early 19th century town house the conservation area in Kensington, London. Bespoke sliding box sash windows, operated with traditional cords, brass pulleys and weights, were specified by the homeowners who have transformed the cottage into a contemporary home while retaining its external appearance.

www.lomaxwood.co.uk

BPS Barnsley chooses Crittall again 80 years on



When Barnsley town hall was constructed in the 1930s, Crittall steel windows were chosen. Now Grade A listed, the building is being refurbished – and Crittall Corporate W20 profiles, with special planed-down narrow-section T bars, have been specified for their replacement. All windows were externally glazed, with narrow sightline insulating double glazed units retained, using high performance colour matched silicone to mimic the original putty glazing.

crittall-windows.co.uk

REYNAERS Hi-Finity is Reynaers' clearest sliding system yet



Reynaers Aluminium's newly launched Hi-Finity offers an infinite view and ultimate performance. The new, ultra-slim and elegant large sliding door system offers uninterrupted views and seamless integration between interior and exterior without any compromise on performance. Its sleek form allows the installation of large glazed surfaces with minimal visual sightlines, offering panoramic views and an airy and spacious feel to the living space.

www.reynaers.co.uk

LEADERFLUSH SHAPLAND How to offer the full spectrum



Bringing together market leading knowledge, expertise and professional capability, Leaderflush Shapland has introduced the Spectrum doorset – combining its timber door solutions and Laidlaw ironmongery. Hinging on the knowledge, expertise and capability of service of both Laidlaw and Leaderflush Shapland, the integration of the two companies offers a more responsive approach to customer needs.

www.leaderflushshapland.co.uk

MUMFORD & WOOD Windows star in Sarah Beeny's 'Double Your house'



Timber windows and doors from Mumford & Wood's Conservation™ range have been installed in a 200-year-old cottage in property make-over guru Sarah Beeny's 'Double Your House for Half the Money'. A double glazed system with an acoustic glazing option to address noise and draughts was chosen, including 16 flush casements, a six-leaf bi-fold door, two sets of four-panel French doors and a solid timber entrance door.

www.mumfordwood.com

GEZE Simply install, network and ventilate



GEZE UK's latest set of window drives brings together the best elements from its world-class heat and smoke ventilation range as well products for natural ventilation. The versatile drives share a uniform, discreet design and Smartfix installation system. The Slimchain, Powerchain, ECchain, integrated E 920-E 990 chain drive and compact E 250 NT spindle drive integrate easily into the overall building management system, providing flexible, building-specific ventilation.

www.geze.co.uk

General

AET Low energy fan terminals for data centres and comfort cooling



AET's Fantile fan terminal unit sits at the heart of the AET flexible space underfloor air conditioning system. The plug and play unit is recessed into the floor plenum in place of a standard 600mm raised floor panel and supplies conditioned air to the work space. The latest Fantile provides up to 1500m³/h of cool air from a single unit to serve the general area or, with grilles, can direct air to selected points to maximise cooling in a specific machine or area.

www.flexiblespace.com

DELTALIGHT One Tweeter that can light up the night



The highly manoeuvrable Tweeter has moved into the garden with a wall fitting and posts for directional lighting. Outdoor models have the same rotation versatility as those for indoors, which means the lighting can 'grow' with the plants. With the ERS or Ex-centric Rotation System featuring an asymmetric hinge joint, the fitting can be rotated or tilted in one flowing movement, even at extreme angles, without blocking the light.

www.deltalight.co.uk

GE LIGHTING DALI controls make an art of luminaire management



GE Lighting's new DALI lighting controls system allows end users to benefit from daylight harvesting, presence detection and the opportunity to maximise energy savings – as well as achieve a well-lit environment. The multi-functional DALI controls provide a basic and easy-to-use level of lighting control. Suitable for a range of buildings, they are available for all DALI-ready GE luminaires and can be integrated with the popular KNX building management system.

www.gelighting.com

JENNIFER NEWMAN Simplicity and durability in a range of furniture colours



Clerkenwell-based Jennifer Newman designs furniture that couples simplicity with durability, enabling products to be placed in a wide range of environments, inside or out. The added benefit of colour choice enables architects to harmonise Newman products with their design schemes. Table surfaces can be ply, cork, laminate, concrete, or solid bamboo, as shown with the M-Table (pictured).

www.jennifernewman.com

KINGSPAN INSULATION Next generation insulation for exclusive development



A stylish development of three houses in Leeds is the latest project to benefit from OPTIM-R – an optimum performance vacuum insulated panel (VIP) from market leader Kingspan Insulation. The firm's balcony and terrace system was picked because it ensures an even transition between indoor and outdoor levels onto the balcony without losing space from the bedrooms below, while also attaining an impressive U-value of 0.14 W/m².K.

www.kingspaninsulation.co.uk

JOHNSTONES Johnstone's gives office space professional finish



Over 250 litres of Johnstone's Professional Gloss combined with 37 used shipping containers have helped to create a unique three-storey complex of fully-equipped office space in the North East. Ideal for use on metal surfaces and providing a finish that's attractive and will prolong the structure's life, Professional Gloss was used to paint the container exteriors. Other Johnstone products were also used, including Vinyl Soft Sheen and Covaplast Vinyl Matt emulsion.

www.johnstonestrade.com

TREND All aboard the Trend subway for style



Trend's new Subway collection offers a variety of fashionable colours and unique pattern choices, bringing Metro chic to the living room, hallway, dining area, bathroom and kitchen. Produced in the characteristically chunky 7.5 x 15cm format, Trend's Subway combines the contemporary appeal of hand-crafted glass mosaic and the distinctive note of Italian decorative design.

www.trend-group.com

WEBER 21st century insulation for Llanwrn High School



External wall insulation (EWI) by Saint-Gobain Weber, the leading UK formulator and manufacturer of innovative, high performance materials for the construction industry, has been used on the new Llanwrn High School, Newport, South Wales. Almost 2,500 m² of weber.therm XM EWI has been installed on the £30m project. The BBA approved system specified 110mm thick mineral fibre slab, finished with a decorative, highly weather-resistant surface.

www.weber.ie

Flooring

SIKA SARNAFIL Pioneering liquid roofing for 50 years



As it celebrates 50 years of innovation in the liquid roofing market Sika Liquid Plastics is building a multi-million pound R&D facility at its Preston HQ. This European Centre of Excellence underlines the firm's continued commitment to world-leading innovation. Recognised as the market leader in liquid roofing, its Decothane has been used on projects around the globe. The company is also running a '50 at 50' campaign, showcasing 50 of its top projects. www.liquidplastics.co.uk.

ACHESON & GLOVER Paving enhances Derby city centre



Acheson & Glover's premium hard landscaping and unique retaining wall system played a crucial role in the striking new £10m Jury's Inn hotel in Derby, a contemporary structure surrounded by historic buildings. A&G's Terrapave natural aggregate flags and Anchor Vertica retaining wall blend the new and old. The natural texture of Anchor Vertica concrete blocks look similar to a dressed stone wall, while its modular dry build construction is rapid and cost effective. www.acheson-glover.com.

A PROCTOR Air-tight membrane used on log cabin



The A Proctor Group Ltd recently supplied its Wraptite-SA for a log cabin construction in Corgarff, Aberdeenshire. The product combines the best properties of a vapour permeable membrane and an air barrier in one self-adhering product. Needing no mechanical attachment, it fully bonds to almost any substrate giving air tightness and ease of installation. It is designed for use behind rain screen cladding systems where water resistance and energy efficiency are essential. www.proctorgroup.com

SHOWERWALL Custom-printed bathroom wall panelling



Shower Styling by Showerwall offers bespoke digital printed wall panelling to give a signature design to any bathroom, while guaranteeing easy installation and maintenance. Primarily intended for use in hotels, spas and leisure clubs, Shower Styling allows corporate or themed designs to be incorporated into the shower areas. Any design can be digitally printed and encapsulated sub-surface in the high performance, high pressure laminate. www.showerstyling.co.uk

INTERFACE Carpet tiles transform Birmingham City University



In a £180m investment in facilities at Birmingham City University, carpet tiles from global flooring manufacturer Interface were used to transform its city centre campus in the Eastside regeneration zone. Associated Architects, who led the project, specified over 8,000 m² of Interface modular carpet tiles from its Transformation range to deliver high end, contemporary design with the durability and ease of maintenance required in a high-traffic student environment. www.interfaceflor.co.uk

POLYFLOR It's all under Control at Oxford school



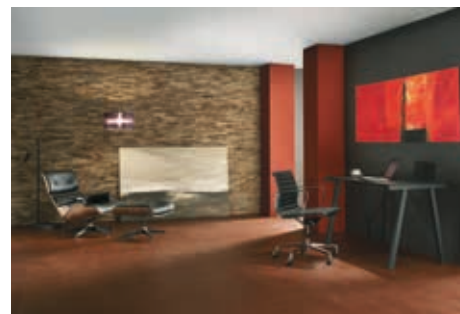
Expona Control, Polyflor's groundbreaking flooring concept has been specified and installed in laboratory areas at the prestigious Rye St Antony School in Oxford. Over 300m² of Nut Tree from the Expona Control collection was installed by Reading-based Paul's Floors throughout the laboratories and adjoining circulation areas. Expona Control is the world's first LVT which offers sustainable slip resistance when wet, in accordance with HSE guidelines. www.polyflor.com

GERFLOR Hospital tests leave stylish flooring without stain on its reputation



When Circle Partnership wanted its new Reading hospital to look like a hotel it needed stylish flooring with the highest hygienic standards. Suppliers chose Gerflor's Mipolam Symbioz, which has unparalleled stain resistance to blood and chemicals including iodine; the best slip resistance in its field; very low maintenance; strict environmental credentials; and comes in 101 colours. The homogeneous vinyl has Gerflor's Evercare surface treatment. www.gerflor.co.uk

HAVWOODS Genuine reclaimed timber – easier to use than it looks



Havwoods, the wood flooring specialist, has expanded its range of interior wall cladding to include this interlocking design. Made from reclaimed timber, it is supplied in engineered panels 150mm wide by 600mm in length, so, while it may look complex, it's actually quick and easy to install. Available in oak, as shown, or spruce, the solid reclaimed pine planks come in mixed width and random length, which are equally suitable for external and internal use. www.havwoods.co.uk

Sign Up

Marco Guarnieri, director of Guarnieri Architects, gives us three of his specification favourites



ECOPHON SOLO

Good acoustics are part of what makes the quality of a space: they are crucial to places of learning and can raise productivity in offices. Ecophon Solo acoustic panels can be applied to ceilings or walls and come as standard or can be customised. For those, like us, who are not fans of flat false ceilings, they can be used creatively. They are made of high density glass wool using 3RD technology, with Akutex FT surface on both sides, the edges straight cut and painted. We used it in our educational project for Eurocentres recently, and the ceiling pattern formed by the panels with the lighting was what characterised the space.

www.ecophon.com



MONTANA ALUMINIUM PANELS

We have used this aluminium panel system a number of times to re-clad or over-clad an existing building. The basic Swiss panel – my favourite (do more with less) – comes with different scales of corrugation allowing design flexibility. It has a range of powder coating colours, can be supplied with perforations and has a composite insulated version – useful when upgrading environmental performance. Pre-trimmed panels look sharper but it is not only about the look and thermal performance: aluminium is long-lasting, light and easy to install and requires very little maintenance.

www.montana-ag.ch



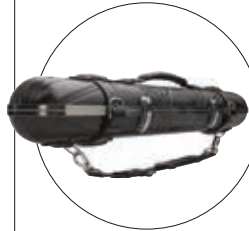
ECODECK

This solid recycled and durable wood polymer composite product is a sustainable alternative to timber. We first specified it for decking in private residential work for a client who was not into DIY, as it is virtually maintenance-free. But this is even more of a selling point in commercial projects. Denser and harder (and heavier) than wood, it is very resilient and maintains its surface quality and colour well. It comes in a limited number of colours from browns to greys and has its own screws and fixing system, which is good for the contractor.

ecodeck.co.uk

...Sign Off

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



PIPE DREAMS

A lot's been written on whether the profession can see green shoots of recovery: are there incremental shifts in client confidence, are wages no longer flat-lining; is that a 'feelgood factor'? But there's a much easier way to work it out – can you blow £2500 on a drawings tube? Yes, designer Christopher Jenner is launching his 'ArchiTube' with brand Globe-Trotter. Made of carbon fibre and double quilted in leather and denim, handles and edges are wrought of CNC stainless steel, hand-finished and chrome-dipped. So once your sketches have been received by its plush interior, it can be softly closed, edges aligning with the satisfyingly luxuriant snap of a Givenchy clutch.



HEAVY WATER

Is this an oversized bird bath for a pair of amorous emus? No, it's the Orchid Bath, from Waterfront designer bathrooms. Designer Mark Humphrey does things in twos: he's designed for two Beatles (George and Ringo), been a British cultural ambassador in Beijing and Shanghai, and hung out with the likes of Claudia Schiffer and Michael Schumacher – although presumably not in one of his tubs. The Orchid's a ritzy number, with a mixer trough carved, like the bath, from solid onyx, though you might have to ask where the tap is. The press release calls Humphrey's design 'groundbreaking' – and if you've not reinforced your floor it probably will be.



TOP OF THE SHOP

I love a flutter, and none more than Bingo. And not online – it's the smell of the indelible dabber and roar of the caller; the acrid whiff of ozone as its day-glo neon tubes fire up. Whether gambling was the subliminal inspiration for Liertcorp's LED lighting scheme in the new Grange Tower Bridge Hotel in London's Square Mile is anyone's guess, but its public area colour strategy puts Mecca Bingo to shame. Unlike both banker and bingo hall, everyone's a winner here, with the LEDs slashing the lighting bill by over £90K a year. With the bingo scene set, all we have to do is wait for its financial industry guests to come through with another almighty balls-up...

Editor-in-chief Hugh Pearman
Editor Jan-Carlos Kucharek
Chief sub Alysoun Coles
Digital editor Sara Loane
Art editor Patrick Myles
Design Matt Willey

Telephone +44 20 7496 8300
Fax +44 20 7374 8500
firstname.surname@ribajournal.com

Advertisement manager
 Richard Tomlin +44 20 7496 8329
Business development manager
 Midge Myatt +44 1902 851645
Advertisement executive
 Clive Waite
Production manager
 Pete Songi
Director of media
 Jonathan Stock

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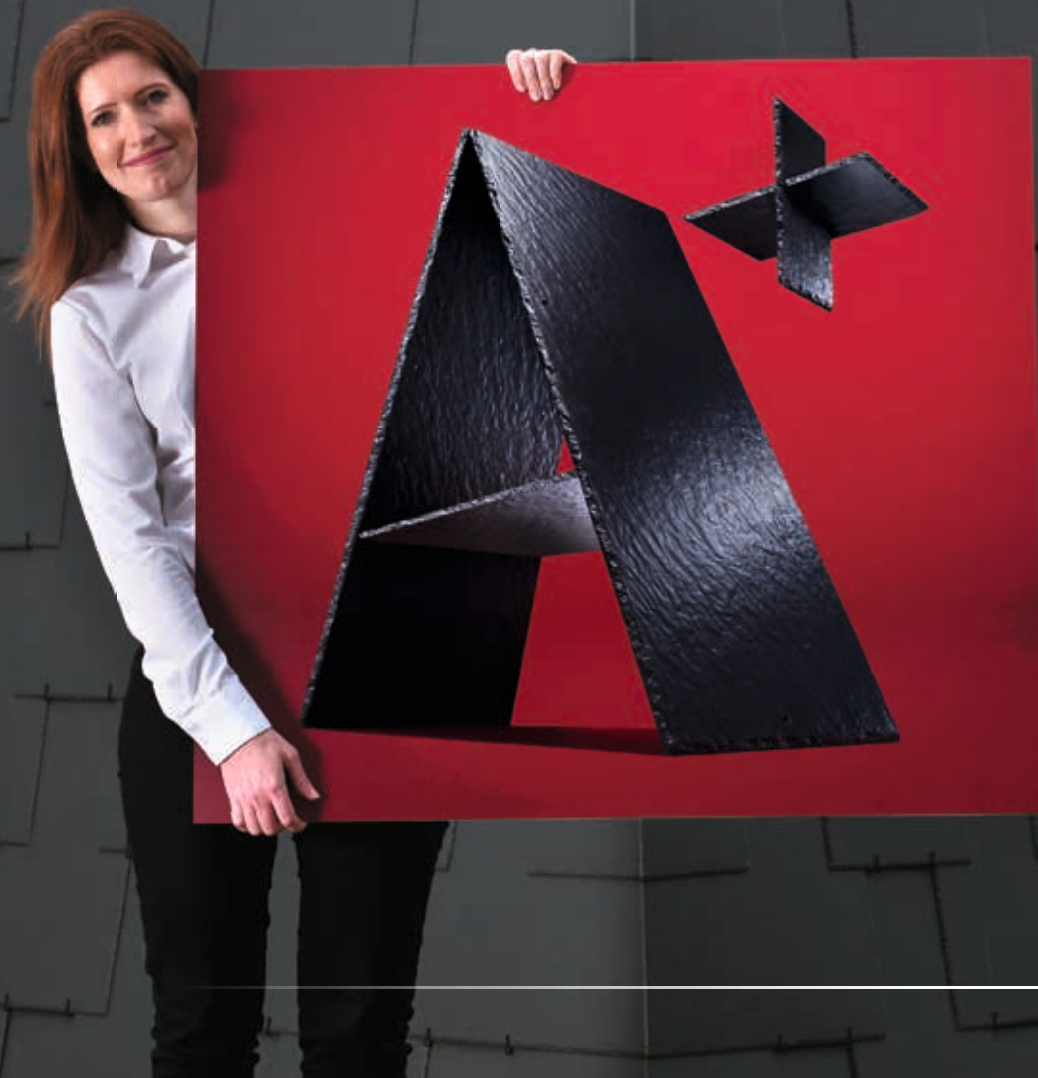
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