

# PIP

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# Right to buy,

one of Margaret Thatcher's key political tenets, is, following the Conservative election victory, now being extended by Cameron to Housing Association tenants. This will probably be good for construction. The associations should get a useful injection of cash, which they'll want to re-invest in more housing for more profit – and architects should be well placed to divest them of a percentage of that fresh equity. But what does it mean for those in housing need left to

fight over ever dwindling social housing, and should the profession care?

The Fight4Aylesbury group, who heckled architects arriving at the AJ120 Awards last month, thinks so and are using the Code of Conduct as a petard by which to hoist them. In a 1976 Meier book, John Hejduk poetically raised the issue of architects' ethics in his postscript, when he asked rhetorically if any architect's head had ever rolled. We are paid

by the powers that be and as a result, we're a reactionary bunch. It's fine for Lord Rogers to bemoan the loss of the architecture of Robin Hood Gardens, but what of the loss of the safety net it signifies? Is the profession up in arms about that? Only the Brave seek alternative clients and modes of working; for those in despair, turn to p34 to see what wonderful things happen when it works. ●

**Jan-Carlos Kucharek, Editor**



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Cover image: Sea Containers House, by TP Bennett and Dixon's Design Research Studio, photographed by Hufton & Crow



# Compendium



## Exit, pursued by cold liquid applied membrane

Growling Russian bears may conjure up recent Putinesque posturings, but more benign modernist muscle was flexed much earlier in Dudley. Commissioned in 1935 by the 3rd Earl to create a zoo for his castle's 200 acres, Berthold Lubetkin populated it with his signature reinforced concrete structures. Tecton's 12 key buildings on the site were awarded World Monuments Fund status in 2009 for their upkeep. To that end, Kemper Systems' cold liquid applied waterproofing, used on Berthold's 15m deep Bear Ravine, will help make its furry residents less damp and fractious.

## Er...Quo Vadis?

Like Frankie Howard, a funny thing happened on the way to Forum. To mark its umpteenth birthday the City of Rome got cinematographer Vittorio Storaro, who won an Oscar for his work with Francis Ford Coppola on *Apocalypse Now*, to plan the lighting for the Forum Romanum. It premiered earlier this year, but is less 'The Horror!' and more 'The Ocular', with the maestro using six different Erco fittings, whose lenses provided all the necessary effects – from pinpoint lighting to floodlighting its ancient walls. Storaro obviously likes nuance, using two types of LED – warm white light for 'background' effects and neutral white as an 'accent' light to pick out some of the real gems, such as Trajan's column ('oooh... stop it!').

FRIEDERBLICKLE, HAMBURG



## Multi-national multi-storey

Bored with your reflection or staring at the floor number display, nonchalantly? Are you sitting comfortably? Then I'll begin. Lifteye is a virtual elevator window system, streaming real-time, photo-realistic panoramic views from exterior cameras to high-definition widescreen displays inside the elevator that instantly turns your internal lift into a scenic one. Right, here's where it gets complex; they can also project the rides up any other partner tower onto the screen. So that means you can get a view from a tower in Taipei while in London, a New York skyline in Berlin and watch Tokyo in Oslo. Quite what this brings to the elevator experience is beyond me for now, but the confusion should at least take any vertigo-sufferers' minds' off the height...



## Vin de table

'They are not long, the days of wine and roses,' said the melancholic 19th century English poet Ernest Dowson. But Swiss architect Bureau Hindermann's wine drawer is long – very long in fact – at 5m. Asked to design the crafted oak table for a noted Zürich wine maker for its tasting evenings, the firm based its concept on a matchbox principle, with a single drawer that can be pulled open on runners from either end, revealing their range of wines, and bringing a whole new meaning to 'slowly sliding under the table'.





JEFF MOLLIERE

### Do not pass St Malo...

Remember that surge of Monopoly-induced adrenalin you experience when someone lands on Mayfair and you've got four houses on it? That's what I'm reminded of looking at Atelier Loyer's Terrasses du Rocher. Less than 200m from St Malo's historic centre, the French firm looks like it stacked them up to optimise what direct light could be gained from the north easterly aspect. Apparently, to sweeten its presentation to planners, the architect even made a model of sugar cubes. Meanwhile the toy-like apartment roofs were clad in a light grey Quartz-Zinc version of VMZinc's standing seam system 'to reflect the Brittany sky better.' Hardly an encouraging thought for tourists, suggesting that, like the board game's Jail it might be another place you might not want to GO.

### Once more, with ceiling

Hawkins\Brown must be looking to put its lost Paolozzis behind it with the commissioning of French artist Daniel Buren for the entrance and ticket hall areas of Tottenham Court Rd Underground station. The artist first came to public attention by applying, according to TfL's press release 'unauthorised striped public works around Paris'. Well, now he's done them in London – fully authorised this time – and presented SAS with a golden opportunity to install its complementing baffle systems in the ceilings. If this isn't a perfect example of life imitating art, then I don't know what is.



### Sweeping up, the leaves

Former Pentagram artist Peter Foksett has been walking rather than printing on paper with his commission PaperBridge last month for the Lake District's arts programme Lakes Culture. His bridge over a stream was formed of an arc of 20,000 sheets of poppy-red colour fast paper held together purely by the form and the paper's own weight. Supplied by James Cropper and constructed in Patterdale, Cumbria, the installation supported humans, despite rain gradually compromising its integrity. Recycled at the end of the show, it was a temporary experiment that would have kept progressive Bauhaus Vorkurs teacher Josef Albers rapt.

### To dementia is human

In the last PIP, while our piece on designing for dementia prompted good feedback, we made a couple of errors in the copy that we would like to correct. First, we used the term 'dementia sufferers' once in the story which, as was pointed out to us by Pozzoni director Damien Utton who headed up the Belong Warrington project that we cited, should read 'people with dementia'. Secondly, we used an image from another Warrington dementia project rather than Belong, for which we apologise to both Utton and Belong photographer David Oates. We are happy that Utton otherwise found the feature 'concise and informative', and readers can find the fully corrected version online at [ribaj.com](http://ribaj.com).



DAVID OATES



TRISTANPOYSE

### Reignbow

Richard of York gave battle in vain – but worse still, ended up ignominiously buried and lost for 500 years, until he was dug up in 2012 under a parking space in Leicester. If only his final resting place had been as transparent as the new £4m visitor centre Maber Architects has built for him, glazed in floor-to-ceiling, high clarity Pilkington Optiwhite glass and allowing full appreciation of the area's changeable weather patterns... 'I can see a rainbow!'

### Seat of your pants

OMA's new HQ for G-Star RAW in Amsterdam was apparently built in its 'generic' phase, where the firm decided to eschew the signature formal virtuosity we all know for a more pared-down look. For sure, the €40m design has returned to a 'building block' approach – inspired, it seems, by Mr Koolhaas' reported email to the office: 'Use 90° only. Good luck, Rem'. Thankfully, then, the practice relieved the unrelenting orthogonality with its Jean Prouvé furniture by Vitra – but not before G-Star's art directors had played with its colours. The result is the Prouvé RAW edition, which replicates all the great man's seductive Gallic curves but in colours that are right on trend; aching so, in fact – a worrying prospect – considering they're for your bum to rest on.



EARL CARTER

### It's light, Jim, but not as we know it

The word 'circadian' evokes, for me, a Federation enemy in Star Trek, but in fact it means you'll only need to boldly go through the next 24 hours. Still, even that can be a challenge when you're trying to make the office environment as pleasant as possible for your staff. Melbourne-based health insurer Medibank certainly thought so when it employed practice Hassell

to come up with its 'Health Based Working' which puts user wellbeing at the centre of the design. Apart from its grand atrium and 26 different types of work spaces, firm iGuzzini came onboard to carry out its lighting strategy based on natural daylight patterns, working with users' natural biorhythms and helping the firm live long and prosper.





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# Model strengths



I've come to think of architecture as a product sold on reputation and quality imagery. For the last few months I've been working in Melbourne with a commercial practice and the experience is incredibly similar to working with Ron Arad. I think that for both success has been through shrewd investment in resources, allowing them to approach design from different angles. As residential booms in Melbourne, I use particular resources to build an architectural concept.

A simple volume complete with floor-plates and facade panelisation is built using Rhino and Grasshopper scripts, with data from each floor-plate and facade harvested for schedules. The geometry is rebuilt in Revit using custom scripts and Dynamo for Revit; then each floor-plate is populated with apartment families (types). Facade studies are built with a degree of detail as Revit options. This geometry is quite free and flexible and is repopulated as the Rhino volume is tweaked. Drawing sets and schedules are quickly created in conjunction with the 3D geometry, closing the design loop and allowing

greater refinement of design opportunities.

We establish an fbx link from Revit to 3ds Max and place 3D cameras in the scene. Before we have a design the 3D cameras are photo matched with site photos and are masked and filtered in Photoshop or After Effects ready to receive rendered options. With every design iteration, geometry and materials are automatically updated through the fbx link and batch rendered. These rendered views are our base materials for analysing the design and its direction. Vray is used to complete the high end renders due to its speed, although quick gpu renders like Maxwell's Fire, Octane, and Random Control in conjunction with Lightroom noise control are useful for quick lighting and internal reviews.

In addition to the rendering materials, we use the Makerbot Replicator 2x to produce massing and facade panelisation studies at key points in the design process. The Replicator uses extruded plastic filament which is easy to use and has suitable results. The process of 3D printing is not as quick or accessible as the rendered

images. We generally need to rebuild the model for printing tolerances, with a 1 hour print turnaround and 15 minute model clean-up. For this reason we combine 3d printing and laser cutting with traditional model making skills to illustrate key design principals. Despite all the visualisation technology we have, I am still amazed by the power of a well made physical model.

Looking forward there is new potential with the recent development in VR technology. It provides an avenue to experience architecture at a 1:1 scale in an immersive environment. Samsung Gear VR and Oculus Rift Headsets will change how we think about delivery. Companies like Iris VR have already written commercial software for Oculus, allowing Revit and Sketchup users to walk through models at will. The technology could extend beyond the design field assisting onsite visualisation during construction, and provide new avenues for marketing and sales to offshore clients. ●

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

## Books



### Radical Pedagogies

Daisy Froud and Harriet Harriss eds.  
RIBA Publishing 202p £35

With the RIBA ringing in the changes for architectural education in the UK – whether you agree with them or not – *Radical Pedagogies* is a timely counterpoint to the hard realities of ensuring that imagination is not sacrificed at the altar of professional aptitude – or vice versa. Perhaps it should be seen as an encouragement that the book is very image lite, concentrating more on message than medium. Split into five sections, it takes the reader on a journey through the history of education, the current system, ways of rethinking it and adopted approaches in action. The editors bring together pedagogical thinking from a robust and respected group of architects and teachers to give us a lively and informed riposte to the status quo.



### Open Source Architecture

Carlos Ratti with Matthew Claudel  
Thames & Hudson 144p £14.95

You know you've hit a book that's achingly on-trend when you turn to the back of it to find that the term '3D printers' precedes 'A' in the index. If the phrase 'Open Source' isn't clue enough, the back cover blurb coins the term 'paradigm shift', so you know you're in for a challenging read. MIT studio director Ratti calls on a number of architect writers to offer us an alternative manifesto for architecture – one informed by 'open access and mass customisation'. He's in good company: UK thinkers Ricky Burdett, Alex Haw and Architecture 00's Alastair Parvin feature among 13 others to crowd source the issues in essay format and chew the unsaturated archi-fat.



### The Future of Architecture in 100 Buildings

Marc Kushner. Jennifer Krichels ed.  
Simon and Schuster TED Books £7.99

Okay already! For his TED Talk American architect supremo Marc Kushner might have culled most of the buildings he chose for his whistlestop tour of the future from his website Architizer's awards, but there's no doubting the mild diversion gained from the follow-up book on what new architecture is actually supposed to do. To be honest, the questions are rather subjective and about-face (find the building, then ask the question) and come up with odd conclusions – eg BIG's West 57th St project in New York is one you should aspire towards – but there are enough unseen projects here to pique your imagination and maintain some residual hope that, in future, architecture might be more about sustainable utility than style.

# Last Supper lighting



**What:** iGuzzini lighting

**Where:** Leonardo da Vinci's Last Supper, Milan

Commissioned in 1492 by the powerful Sforza family for the refectory of the church of Santa Maria delle Grazie in Milan, Leonardo da Vinci's Last Supper, completed in 1498, was one of the first great perspectival paintings and marked the start of a New World era of great cultural energy.

The wonder is that it is here at all. Almost as soon as he finished painting, the Last Supper had already begun to decay. Da Vinci craved subtle shades that would enhance chiaroscuro and perspective effects not possible with 'wet' fresco techniques, so experimented with a wood painting method on the wall that would allow him to work into and amend his painting over time. But on the convent's north wall and with a working kitchen behind its uneven thickness, damp and humidity soon attacked the innovative primer and cracking and peeling began. An invading Napoleon stabled his horses in the refectory and used it as a dartboard in the 18th century and in 1943 allied bombing levelled the church and refectory. The painting was saved by a wall of sandbags – but then left to the elements for four years before any restoration began. It was only in 1999, after Pinan Brambila spent 20

years restoring the badly damaged work, that the spirit of the artist's intent began to manifest itself again, albeit in far more muted tones.

So how the work is lit is all-important. Lighting firm iGuzzini was invited by Italy's Ministry of Cultural Heritage to relight it, replacing 5000K fluorescent tubes, whose bias toward the blue end of the spectrum cast the painting in a cold light. After six months' experimenting, and with only limited access to the painting due to visitor pressure, it opted for its Palco LED lighting system. Seven luminaires light the work in three main sections, reducing energy demand for the room's lighting by 83% while the painting accounts for only 47W.

The benefits are far more than energy-saving however – with the refectory accessed via an airlock to try and maintain environmental stability, the current limitation of 25 visitors every 15 minutes for six days a week is a direct result of their cumulative effects on strict internal humidity and temperature levels. The 4°C reduced room temperature could allow 40 persons per viewing, or increase visiting times by two hours per day. That alone should mean greater access for viewers to an enigmatic painting that has beguiled and confounded in equal measure for over 500 years. ●

## THE SEVEN LAMPS

Seven iGuzzini Palco LED luminaires are trained on the 8.8m by 4.6m Last Supper; two spots on the right and left and three in the middle. Furthest on the right, an 18° medium optic dimmed to 60%, lights the general left hand side of the painting with an adjacent 2000 lumen 10° spot optic refractor dimmed to 5%, specifically illuminating the hands and table on the left. The same arrangement occurs on the left to illuminate the right hand side, but dimmed to 80% to account for the former clerestory window at the top left that would have lit the left hand side to a greater extent. At the centre from left to right are lit the face of Jesus and the arches above and to the right of Jesus' head. The 3000-4000K lighting delivery draws out the warmer hues of the painting, with LED drivers becoming all-important as they must ensure no loss of colour rendering given the high levels of dimming. The result is a lighting strategy that attempts to delicately emulate the natural lighting conditions that would have existed when Da Vinci painted it.



**Above** It's not just the light: these luminaires reduce the temperature significantly.

**Left** Over five centuries old, miraculously still here, now bathed in heavenly light.

**Below** Familiar form, state of the art LED technology: the Palco luminaire.



## Palco performance


The iGuzzini Palco LEDs together deliver an overall temperature reduction of 4°C.

Direct comparison of old and new lighting manifested enriched chromatics in the new system.

Total energy used lighting the room fell from 1368W/hr to 120W/hr.

Total energy savings through various visitor areas range from 81-93%





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# Abu Dhabi International Airport Midfield Complex

Known for its audacious buildings, the UAE's Abu Dhabi has added a spectacular undulating airport roof to the region's tally

Words: Pamela Buxton Photography: HG Esch

As might be expected of the world's biggest construction site, the scale of Abu Dhabi International Airport's new Midfield Complex is immense. Now almost half way through construction, the 700,000 m<sup>2</sup> complex boasts a roof width of up to 319m - nearly twice that of Heathrow Terminal 5 - topped by a sinuous undulating form inspired by the contours of sand dunes and designed to seemingly float over the terminal like a large sky.

'It's one of the most spectacular pieces of structural engineering ever put on this planet,' says a member of the construction team. 'It's monumental. People can't believe the scale of the project when they visit. It leaves them speechless.'

It's hard not to talk in superlatives when confronted with the magnitude of this endeavour.

When it completes in 2017 after an estimated 130 million man working hours, the complex will have an initial capability of handling 30 million passengers a year - the vast majority of which will be transferring to other flights. With ceilings rising to 52m and interior arches spanning from 65m up to 180m, it is intended as a spectacular gateway to the UAE capital of Abu Dhabi, and is part of the Emirate's 2030 Vision to reduce the economy's dependence on the oil sector through diversification.

The complex is designed by KPF with structural engineering by lead consultant Arup. Its unusual 'X' shaped plan is formed by four piers





**Bottom left** Abu Dhabi airport's sprawling 'X' form is making the building site the largest in the world.

**Below** Steel detail showing the complex undulating form of KPF's processor passenger hub.





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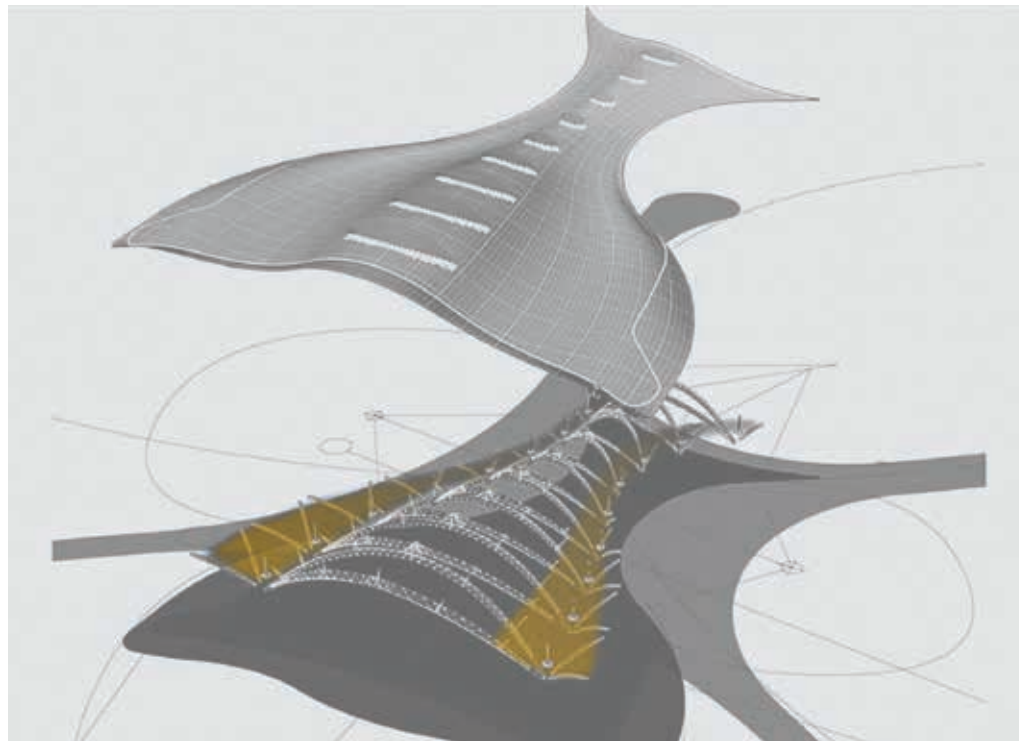
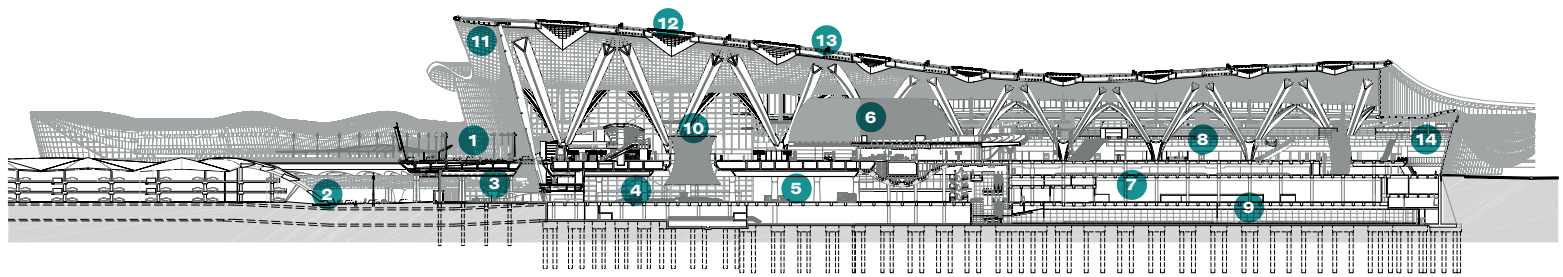
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## Section



- |                                       |                                      |
|---------------------------------------|--------------------------------------|
| 1 Departure drop off                  | 9 Bus passenger connection           |
| 2 Arrivals pick-up                    | 10 Carpenter Lowing sculpture        |
| 3 Arrivals hall                       | 11 Main facade +52m from kerb level  |
| 4 Baggage reclaim                     | 12 Main roof with skylights          |
| 5 Passport control security screening | 13 Main arches for column-free space |
| 6 Hotel / office building             | 14 Sculpture garden                  |
| 7 Baggage handling                    |                                      |
| 8 Transfer screening                  |                                      |

**Left** The 3D model of the central processor roof form shows its large span welded steel mega-arches, with smaller steels springing up to support the perimeter cantilevers, which act as solar shading to the glazed facade.

stretching roughly 500m from a 'processor' passenger hub. This arrangement is designed to ensure that it takes no longer than 10 minutes to reach any of the 49 gates from the processor.

The central processor space is akin, says KPF design principal Mustafa Chehabeddine, to an urban square while each pier refers to a different aspect of Abu Dhabi – sea, desert, oasis and city – through its graphics, material and colour palette. This approach is part of the aspiration to create a sense of place rooted in the UAE, says a spokesman, rather than an airport that could be anywhere in the world.

With its distinctive undulating contours, the vast 177,000m<sup>2</sup> central processor roof is set to be one of the most memorable features of the new complex. This comprises three areas: a roof over the main body of the terminal that begins at full width over the entrance before narrowing and flaring out again towards the rear; two areas of saw tooth infill where the main roof

narrows; and a perimeter wrapper roof.

KPF's key design intent was that this organically shaped roof, though in reality supported on inclined steel arches, should appear to float above the airport building, draping over the glazed facade of the 5.5m pier perimeter in a wave form to provide solar shading. At the front of the processor building, this cantilever extends to 17m.

'The design alludes to a vast roof floating above the arches. This was achieved by the delicate detailing of interfaces between the arches and the roof, always leaving a visual gap between the ceiling surface and the top of the arches,' says Chehabeddine.

Realising such a complex and vast project with so little geometric repetition is just the sort of challenge that Arup likes, according to Dervilla Mitchell, project director of the Arup team responsible for engineering the complex.

'We've had to put the best minds at Arup on

it,' she said, adding that the engineer worked with its Advanced Technology Group on the project, using applied car design technology. A BIM environment that allowed full 3D analysis was essential. Arup also carried out extensive structural analysis by creating a computer simulation to model and understand the 16,000 modes of vibration that would occur on the roof structure during an earthquake.

The crux of the engineering solution to enable such a spectacular form was the use of nine pairs of soaring, inclined steel arches. These mega-arches spring out in four directions like trees from concrete encased steel bases to form the huge curving spans that provide the largely column-free environment that the client desired. GRC cladding will be used to create a seamless interface between the arches and bases.

Above the arches is the undulating roof grillage. Rather than touching these arches directly, the grillage is supported on 'pedestal'



columns that sit on top of the arches.

'In comparison to the very large scale of the spans these columns appear very, very slender, and make it look as if the roof is floating,' says Mitchell. 'You get the same sense of space as in cathedrals or great railway stations.'

By soaring high over key areas such as the departure lounge and retail hall, the roof and its series of nine rooflights is intended to aid passenger navigation by offering a sense of direction and progression.

'The rhythm of arches and the associated use of skylights reinforces the building's intuitive wayfinding,' says Chehabeddine.

'Very few public buildings have this fluidity of movement,' adds a member of the construction team. 'There's a dynamic expression in everything from the arches to the roof structure.'

Across the full building, including the piers, the undulating roof is topped with 275,000m<sup>2</sup> of standing seam aluminium, which is well suited to accommodating the changes in direction. Drainage was a major issue since when it does rain in Abu Dhabi, the downpour is intense, with the added risk of wind-blown sand clogging the drainage channels. There was also a need to avoid obtrusive guttering and pipe-work. The solution was to create a sufficient

incline from front and back to channel the water off the central roof via main and valley gutters into very large guttering on each of the flanking saw-tooth roofs. Here it discharges through a syphonic drainage system capable of handling any sand carried by the rainwater.

The underside of the roof is finished in a suspended ceiling of approximately 50,000 perforated metal tiles below acoustic board and insulation. These tiles are illuminated by 18 chandeliers that project light upwards.

The design of the ceiling and roof was tested using full scale mock-ups of various elements of the complex. This particularly assisted in the dimensions of the ceiling tiles, which despite their large size look more like mosaic tiles from the ground 50m below.

Construction of such a dynamic roof has been complicated further by the extreme fluctuations in temperature, which can rise to a high of 50°C – affecting both the temporary and permanent works.

The project is now 47% complete, with China State installing a total of 40,000 tonnes of structural steel. When it is finished, the roof will top a transparent structure which is expected to be visible some 1500m away from the highway when illuminated at night. ●

#### Processor roof grillage

- More than 2400 steel members form the roof grillage.
- Ten primary girders up to 300m long and 3.2m high run across the width of the central processor, interspersed with elliptical skylights ranging from 17m to 67m in length and 8m to 25m in width.
- Primary girders are linked by secondary trusses and tapered fabricated girders running front to back to form the main grillage.
- Edge beams span 45m between primary support girders to support the infill sawtooth roof that flanks the narrowing main roof on hangers.



**Above** Stretching out across its desert site, the Abu Dhabi Midfield Complex makes its scale apparent. **Left** Visualisation of the completed processor passenger hub, the truncating roof form drawing people from landside to airside.

**Client** Abu Dhabi Airports  
**Master architect-** KPF  
**Lead structural and MEP consultant** – Arup  
**Joint venture contractor:** TAV, CCC and Arabtec  
**Steel structure contractor:** China State Construction  
**Roof surface contractor:** Chadwick Group



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**Rob Martin - Architect - Tally Ho Training Centre**  
**Nicol Thomas Architects**

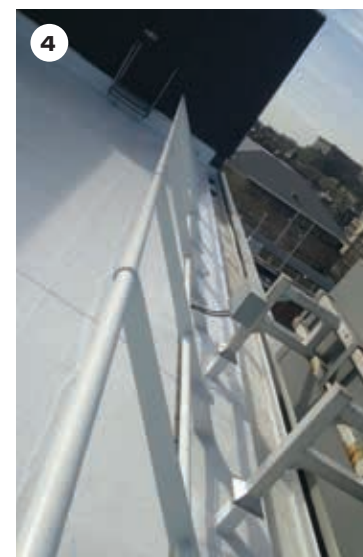


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## SuDS for podium roofs CPD IKO polymeric

So you've bunked off the quarterly executive report meeting and are soaking up the sun on the green office roof, high above the city and the CEO's Investors in People presentation. You could be in Nice or Tuscany; the gentle snipping sound of someone trimming the hedge – oh, my word, look at that new gardener! Rippling muscles, rugged shoulders, stubble ... well hello! Getting the hose out to cool things down, good idea. Just a sec – there's water everywhere! Someone needs some CPD on SuDS for podium roofs. Off to IKO Polymeric immediately with you – it has just the RIBA-approved thing. [ikogroup.co.uk](http://ikogroup.co.uk)

2

## IK-PUR waterproofing membrane Kemper System

Still no sign of the Sun but it was a fine day in Liverpool when this photo was taken from the roof of the Royal Liver Building during work to refurbish the cupolas on one of the world's first reinforced concrete buildings. As preparation for Cunard's 175th anniversary this Grace is being spruced up with Kemper's IK-PUR cold liquid applied waterproofing membrane. Though the Cunard building no longer houses the shipping line, you can bet there will be titanic references to its most famous vessel, with the Cavern Club, Liver Birds and Mersey Beat thrown in to remind us where we are. [kemper-system.com](http://kemper-system.com)

3

## Mardome Reflex rooflights Brett Martin

The railway station conjures heartbreaking adieus... think of poor Celia Johnson, stoically distraught as she plays out her passionate entanglement with Trevor Howard, largely in the gloomy station cafe and on smoky platforms. It was all so terriblair, terriblair wrong... But Brett Martin has briskly put paid to all that in Leighton Buzzard, its 130 Mardome Reflex rooflights brightening the cafe below and exposing to the skies any couples indulging in parting petting. Oooh, that thought before breakfast almost makes you long for the grim old days. Are those buns fresh, miss? [brettmartin.com](http://brettmartin.com)

4

## Decothane Ultra liquid membrane Sika

Arnie Squarejaw, maintenance chief at the hub of local authority operations in a Midlands town, takes his new girlfriend on a romantic adventure to New York. Meanwhile, the team back at HQ are acting worried. It seems an insidious, non-human presence has penetrated the HQ. Tension mounts as they battle to prevent damage to council records and fear stalks the offices. Only Arnie can save the day! When all seems lost he strides in with his Sika at his side, they seal the roof with Decothane Ultra and leaks are banished. Soaked staff cheer, new woman swoons. Who needs NY? [liquidplastics.co.uk](http://liquidplastics.co.uk)





**5**  
**Flushglaze rooflights**  
**Glazing Vision**

Who doesn't have a kitchen extension nowadays, with a glass wall at one end and several pokey Edwardian rooms opened out into one large space with a white kitchen and parquet floor? London prices mean it's the only way to get more space, although losing a separate room for the kids isn't all good. Glazing Vision's Flushglaze rooflights illuminated the whole experience here, so you can see what they are up to, but now you can hear them too, and soz and all that, but it's, like, jarrin'; and then, right, she called me butters, so I said look girlfriend, don't diss me... etc on and on.  
[glazingvision.co.uk](http://glazingvision.co.uk)

**6**  
**Western Red Cedar roofing**  
**Bracknell Roofing**

The comforting thing about the increasingly popular staycation is that you don't need to put yourself through anything unfamiliar to have fun. No exotic smells, unusual sights, uncertain food or difficult currency, no language problems or surprises in the bathroom. At Woburn Forest Center Parcs, for example, you can stay in safety and enjoy any number of different cuisines under one reassuringly green roof. And you can thank Bracknell Roofing for those Western Red Cedar shingles. I said, YOU – CAN – THANK... er... vous pouvez merci... spasibo ... gracias... er... Oh, never mind.  
[bracknellroofing.com](http://bracknellroofing.com)

**7**  
**Thermofol membrane**  
**Bauder**

Military precision will have been the watchword for the creation of The Wing, The Battle of Britain Memorial's new visitor centre. Kent's homage to 'The Few', the pilots to whom so much was owed by so many, relied on Bader – oops, I mean Bauder – Thermofol single ply membrane to keep the Spitfire wing-inspired roof watertight, and the firm's 160mm PIR insulation to give it a 0.16 U-value. In a venue that surely oozes the memory of bewhiskered stiff upper lips and pipes, one hopes that, unlike these pages, there won't be too much careless talk among the artefacts.  
[bauder.co.uk](http://bauder.co.uk)

**8**  
**VerdiRoof green system**  
**SIG Design & Technology**

Say hello, Po. So this is your new house. What – you've run away from Tinky Winky, Dipsy and Laa-Laa? What do you mean, regressive carbon wasters and not a sensible word between them? Ee oh... well, what are you doing to save the planet? Ah, instead of that manicured Tubbytronic Superdome SIG has given you a nice new timber building with a sedum covered VerdiRoof that has a CO<sub>2</sub> footprint of -7kg. And Noo noo is with you to look after it? Won't the others mind? Oh no, you can stop casting aspersions about Tinky Winky right now.  
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Daylight Systems



# Rethinking the pleasure park

Margate's Dreamland is being resuscitated and reinvented with big themes and psychology

Words: Jan-Carlos Kucharek Photography: Carlos Dominguez



Artist Tracey Emin, a childhood resident of Margate, sums up the recent tribulations of the town best, telling PIP: 'When Dreamland closed, Margate died; a sharp, painful death, as though overnight it became overlooked and boarded up. Neon on the Golden Mile disappeared... the hotels ceased to be hotels. The Lido, Dreamland and promenade became barren concrete wastelands. Margate had truly become the last resort... not for fading stars but fading souls.' But, she adds, since the opening of Chipperfield's £17.5m Turner Contemporary on the promenade's eastern edge, it seems 'wherever art goes, regeneration follows... Margate is coming back.'

Acting as the western bookend to the promenade, with the Turner Contemporary to the east, the new Dreamland theme park, phase one of which opened last month, is looking to add momentum to the cultural regeneration of the town centre that began when the gallery opened in 2011. The figures seem to support the 'Turner effect' – by 2013 total tourism revenue in Thanet had increased by 6.5% to £245m, with the total

visitor numbers up 7.3% to 3.36m. The Turner's 850,000 visitors meanwhile have exceeded all expectations. The lady in the wheelkiosk on the seafront says it's not been this good in years.

So the reopening of Dreamland comes as a relief not only to Emin, but to the 50,000 residents of the north Kent seaside town – 20,000 of whom signed a petition to save it when the site was threatened with wholesale redevelopment. This groundswell of public support led Thanet District Council to take the unprecedented step in 2011 of issuing a compulsory purchase order on the site. Despite a legal challenge from a potential developer with a 474-home mixed-use scheme by Assael Architecture, the council wrested control on appeal in 2012 with the intention of reinventing the site as a fully functioning seaside theme park – and secured a Heritage Lottery and DCMS Sea Change assisted funding package of £18m with which to do it.

Client Dreamland, headed by CEO Eddie Kemsley, who herself has 12 years' experience project managing visitor attraction

construction, knew that bringing back the amusement park as it was would not be viable today. So it found a project team that could take its £30m budget, the kind of sum Alton Towers or Thorpe Park might spend on one attraction, and reinvent the whole 6.5ha seafront site with it. Following Guy Holloway Architects' initial proposal, Wayne Hemingway's design firm stayed on to develop the branding; while project design and phasing went to visitor attraction specialist Ray Hole Architects, designer of the RIBA award-winning Snowdon Summit visitor centre.

Neither Kemsley nor Hemingway was interested in taking on the UK's big boys in terms of scale of attraction, but they knew austerity-driven 'staycations' generated greater public interest in UK seaside resorts. 'We didn't think Dreamland could exist as it had been. We needed to embed it somehow in contemporary culture,' says Hemingway. 'It couldn't be just about nostalgia, but be progressive while remaining authentic.' Dreamland's Kemsley agrees. 'Dreamland might have seen up to 100m people pass through its turnstiles but now it has to be re-imagined. It needs to be based not on thrills but heritage,' she explains.

So the proposal to completely rebuild the grade II\*-listed 1920 'Scenic Railway' rollercoaster, severely damaged in a 2008 arson attack is, in a way, a red herring in the wider consolidation strategy for the theme park. For Kemsley the rides are just the backdrop to what she terms 'a thematic experience on the notion of what the seaside town is.' So as well as fairground rides dating from the 1920s onwards – sold to eastern Europe and now retrieved, refurbished and installed here – Kemsley adds: 'We're picking the best bits of a seaside day out and bringing them together here: a sensory collision of sights, sounds and smells. It's all about memory – from Punch and Judy and a 'Wall of Death' to just sitting in a deck chair round a bandstand.'

But Hemingway is also clear that more is needed to draw the annual half a million visitors paying £13/15 a head needed to make Dreamland viable. A significant part of the pleasure park will be a multi-purpose events space, aiming to draw London-based music festivals out to the north Kent coast – to be served eventually by an upgraded, electrified rail link. Overlooked by the ragstone walls and trees of the railway

**Below** The roller disco's metal barrel vault ceiling is being stabilised but left in its original state – all in the name of authenticity.

**Bottom** Beyond the site of the big wheel, Margate's brutalist housing tower looks down over Dreamland.

embankment on its southern edge, the iron bars of Lord George Sanger's 1830s menagerie cages set into them, the new Dreamland remains true to its performance roots of seeing and being seen.

But it will be far more than that if architect Ray Hole has anything to do with it. Brought in by Kemsley to turn a disparate collection of rides and buildings into an experience, his discussions about the attraction typology are initially more neurological than architectural. 'We try to get people in the amygdala part of the brain – to find themselves being drawn in by sights and smells and not quite knowing why,' he says. 'We try to create a psychological platform starting at the door, beginning with anticipation and arrival, moving through the core experiences to departure with memory.' Hole, who's also a non-executive director of the development, concedes that talk like this has lost him some clients. 'Some people just don't think we're architects, but this is more about a psychological, strategic brief than a physical accommodation one.'

Hole feels architects can be too 'passive immersive', dealing merely with the structure of an attraction rather than its total experience. He sees the building as just the start of the project – a reason why 'all the Millennium projects became drains on the public purse'. For Hole 'there are only three ways of maintaining revenue – bums on seats, retail and food and beverages. You use the amygdala to tie them together with the building.' Rides, however thrilling initially, are subject to the law of diminishing returns, which is why companies like Merlin and Disney spend fortunes periodically changing them.

For Hole, Dreamland will ideally be more like the very different 'Flanders Trench Experience' than a theme park, more about a feeling of authenticity than thrill factors, of emotions less susceptible to boredom. He proposes a sensory journey that draws visitors through the site – from the enticing 'entranceology' to smell cues of candy floss and toffee apples from strategically placed stalls, loudspeakers pumping out nostalgic seaside sounds and sightlines that engage at 1.5m and 0.8m high, plus attention to the continued engagement of those watching the rides rather than sitting on them – it's all made to be a haptic experience for both young and old. It's almost sinister, but Hole accounts for almost every sensory minute of the three hours that phase one visitors will experience. As more of the site



It's almost sinister, but Hole accounts for almost every sensory minute of the three hours that phase one visitors will experience

completes, that 'dwell time' will only increase.

This all highlights the issue of phasing – complex for a site that contains listed structures including the Scenic Railway and roller disco. The former ballroom event space is yet to come and, earmarked for third party investment, the 2200-seat cinema and seafront buildings have secured an extra £2m of public funding. While many might carp at the four-phase opening over the next two years, the design team doesn't. On the contrary, it will give it time to decide what's working and what isn't, and to target residual monies better. Hole compares it to Hermann Hertzberger's strategy of leaving routes unpaved until he had seen users' desire lines. 'Optimise the offer at the point of opening, but don't build everything in year one as all attractions see visitor numbers drop in the second year,' he says. 'You try and keep the trajectory going up by adding and upgrading to keep the levels of visitor anticipation high.'

That's easier said than done for a project that will live or die on its £30m investment. Hole insists they can't and won't exceed the figure, while Hemingway called the project a 'rollercoaster ride' for the way it was complicated by stop/start legal challenges. So far it's been about 'make do and mend', most evidently in the roller disco where the holes in the original tin-faced barrel vault ceiling have been left, with strings of light bulbs being fixed straight to the unremediated surface – another nod to that authenticity. For Hemingway, the project's excitement is its sheer contingency. He says: 'If there's a problem you can't just throw money at it, you have to rethink the approach.' This might also account for the novel souvenirs designed by local firm 'Junk Deluxe', fashioned from the burned-out rollercoaster's repurposed timbers.

But it all fits Dreamland's aspiration to rise Phoenix-like from its own ashes. Eddie Kemsley admits it would have been much easier for Thanet District Council to simply hand the site to a private developer. Instead it's financed the scheme, creating 350 local jobs and hopefully consolidating the town's renaissance. 'It's an emotional story about a community that fought hard to save something they believed in and we have an enormous responsibility to deliver for them,' Kemsley remarks earnestly. With nearly £20m of public money already sunk into Dreamland, you can only hope they do. ●



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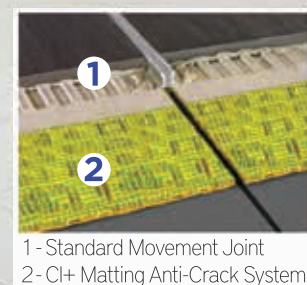
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# Sea Containers House, London

Lighting takes a lead role in creating an art deco theme that evokes the great age of steam travel at a new London hotel

Words: Stephen Cousins Photography: Hufton + Crow



If you've ever felt the urge to act out that famous DiCaprio/Winslet scene on the bow of the Titanic, don't bother booking a transatlantic cruise, just head to the rooftop terrace at the newly refurbished Sea Containers House in London, lean out over the balcony and feel the wind rush through your hair.

Not only does the building resemble a great cruise liner berthed on the banks of the Thames, complete with a funnel-shaped roofline and the words SEA CONTAINERS boldly lit up across the side, the hotel interiors, designed by Tom Dixon, also reference transatlantic maritime history and aim to convey a sense of the classy art-deco sophistication of the 1920 and 30s.

The project's bling factor is underpinned both by an external lighting scheme developed by architect master planner TP Bennett, and by the internal scheme for the hotel, by Dixon's Design Research Studio. Both aspects were overseen by lighting designer Isometrix.

Lighting played a major role in rebranding the building as a hotel, engaging it with the public realm and reorienting the north facade's geometry, explains Mark Stewart, director at TP Bennett. 'On the facade, we wanted to play down the main bulk of the building but emphasise certain parts of it. It was really a question of getting the balance right. We wanted to emphasise the new public functions and the Sea



TP BENNETT

Containers brand to attract people to come in, but not to dominate the surroundings or draw attention away from more historically and culturally significant landmarks along the river – such as the South Bank Centre and Tate Modern.'

Sea Containers House was built in 1978 as a hotel, based on a design by acclaimed US architect Warren Platner, designer of the Windows on the World restaurant at the top of the Twin Towers. Economic troubles meant it was swiftly converted into an office block for the global shipping company Sea Containers.

It remained in that use until 2011, when new owner Archlane revealed plans for a major multi-use refurbishment and redevelopment. The new scheme has mostly offices on the main river elevation, a new 28,000m<sup>2</sup> office block on the site

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of the existing service yard, and a 360-bedroom Mondrian Hotel, housed in an existing block spanning north-south above a road to the rear. The hotel also operates two restaurants and a bar on the lower three floors facing the river, plus a 61-seater screening room, subterranean spa and rooftop bar.

The original concrete facade had a monotonous, grid-like appearance, which was reinvigorated and redefined by a new staggered roof-line and aluminium cladding system on the ground and first two floors.

Where before the river frontage was surrounded by railings and had no active use, full height glazing now provides enticing views into a bar and restaurant which in the evening emit a warm white glow across the river.

Hundreds of narrow grey aluminium cladding panels have been installed between the windows across the rest of the facade, in an effort to emphasis the building's horizontality during the day. The panels are fixed to existing precast columns and read as part of the newly-glazed window system.

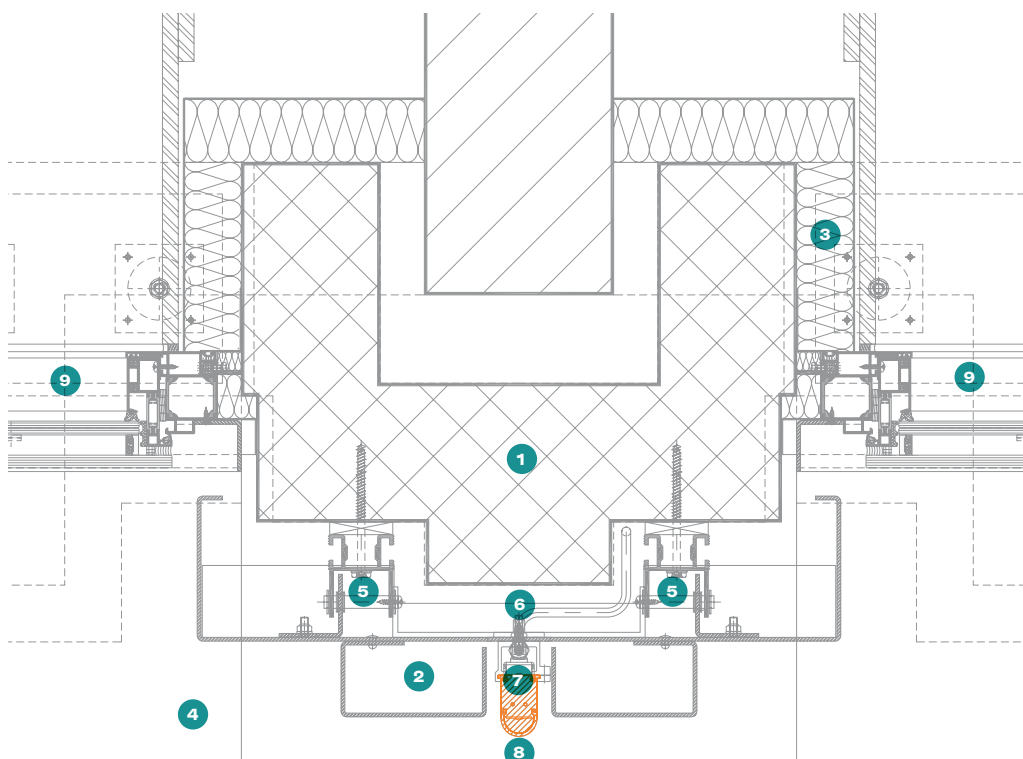
Thin strips of high efficiency blue LEDs concealed in each cladding panel (see diagram), softly illuminate the entire facade in the evening, simultaneously switching its orientation from horizontal to vertical.

'The blue LEDs are designed to define the building's structure and frame, but not the overall bulk and mass. Each is the height of a window and breaks at the sill,' says Stewart. 'The colour, a cool blue, is based on the findings of a study we carried out examining the various lighting schemes along the river. The same colour was used on the Millennium Bridge and elements of the Oxo Tower. It was also used for the LEDs around the edges of the "Sea Containers" lettering at roof terrace level.'

Limitations on the maximum length of cable used to power the facade LEDs meant it had to run across the centre of the building, concealed below the window sills mid-way up, then feeding up and down to connect into the aluminium window cladding. Lights are linked to control mechanisms on some of the terraces and back to the building management system. The low power LEDs form part of the scheme's environmental strategy, while the new build and refurbished offices have achieved BREEAM Excellent and the hotel BREEAM Very Good.

The 'Sea Containers' lettering evokes the rooftop graphics of early New York hotels and is highlighted against horizontal yellow bands of lighting covering a plant screen on the roof. This screen is a ribbed metal support structure with a perforated grey powder-coated screen and applied copper coloured strips concealing LED uplighters. An original ribbed and gilded fibreglass ball on the Eastern-most stair core

Plan of north elevation columns



**Above** The lower three floors of the north facade were replaced with an aluminium cladding system, while two new office floors were added on the roof.

#### Key to diagram

- |  |   |
|--|---|
| 1 Existing precast concrete post                       | 6 50mm vertical gap for LED lighting strip      |
| 2 New metal cladding to post                           | 7 Line and LED chip board in line with cladding |
| 3 50mm insulation and vapour barrier                   | 8 Clear domed cover to LED strip                |
| 4 Precast concrete edge                                | 9 3030mm wide glazed panels between posts       |
| 5 Aluminium sections fixed to post for fixing cladding |   |

The 'Sea Containers' lettering evokes the rooftop graphics of early New York hotels and is highlighted against horizontal yellow bands of lighting covering a plant screen on the roof



was removed and replaced with a matching linear ribbed treatment to the plant screen.

The warm yellow glow on the screens was created by installing white LEDs inside rows of copper-coloured tubing, open on the top so light can reflect off the underside of the tube above. The plant screen has smart art deco curves, evoking the sweeping form of a cruise ship funnel, and is designed to complement other copper elements in the building – most notably a huge copper ‘hull’ structure, designed by Tom Dixon, which penetrates the rear facade on the upper ground floor to form the hotel reception area.

‘Most of the cues for the external branding came from the lighting inside, and were designed relatively late on, after the concept for the hotel was developed. We ran workshops with Design Research Studio and the hotel architect, EPR, to develop a holistic approach to make sure it would work,’ says Stewart.

Dixon’s design for the Mondrian is his most high profile project to date. It takes inspiration from the disco glam of the 1970s, brutalist architecture, the riverside location and the romantic idea of a transatlantic hotel combining the best of Britain and America.

Nautical influences are rife. Platner himself designed for Stena Sealink, and the most literal is a collection of model ships salvaged from the building before work began.

Many original light fittings have been re-conditioned and reused, including ceiling pendants and over 30 original 1950s wall lights, including double lights and triple pendants.

These fittings were taken off site, refurbished and rewired to incorporate retrofit LEDs compatible with exacting energy requirements.

‘We added new bespoke lighting pieces that reference the original building architecture,’ says Gareth Payne, senior designer at DRS. ‘For example, deep art deco-style recesses in the structure above the building’s original main entrance canopy are referenced in new lit recesses, with a similar geometry, in the Dandelyan bar. Our overarching strategy was to create warm and intimate spaces, mostly using warm white lighting, but at the same time a series of different destinations with each space taking on its own personality.’

The Dandelyan bar is very dimly lit and intimate, with a residential quality of lighting, similar to a comfortable lounge. In contrast the entrance lobby is bright, giving a sense of a grand arrival and helping define the thrusting form of the copper hull and a chain-link sculpture. The hull itself is riveted together to create a patchwork pattern across the surface and edged with cove lighting above and below.

Other custom Tom Dixon fittings here include large void brass pendants and a gobo that creates a shimmering water effect across the floor.

Perhaps the hotel’s most exclusive space is the art deco-inspired reservation-only rooftop lounge, described by Dixon himself as ‘a bit titanic’, and that cinematic outdoor terrace. As for my DiCaprio moment? It hasn’t happened just yet, but a couple more cocktails should do the trick ... ‘I’m king of the world!’ ●



**Left** Tom Dixon-designed brass pendant lights hang in the brightly-lit lobby.

**Above top** Art deco style and Dixon lighting in the corridors by the lifts.

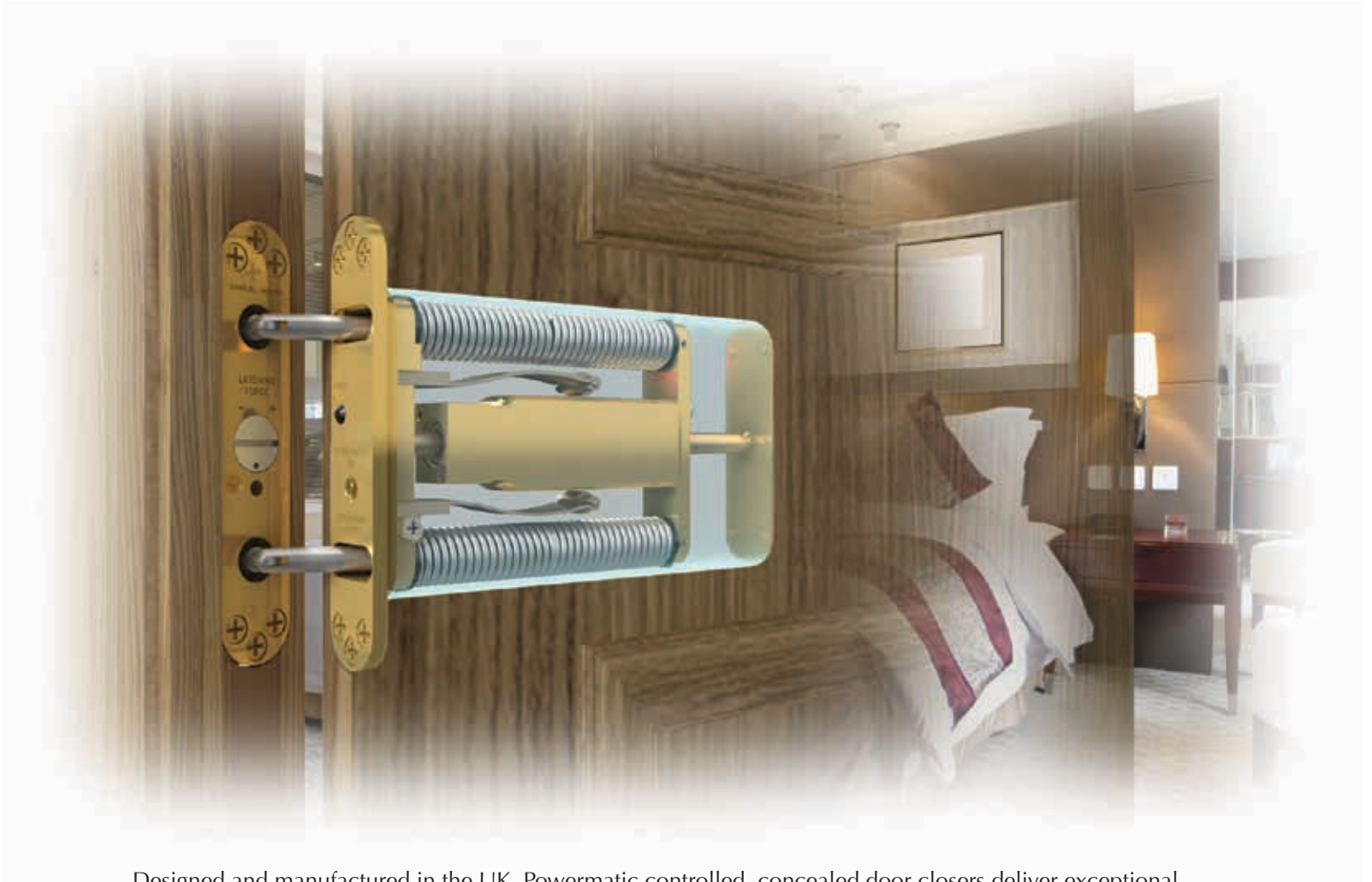
**Above** Pendants resembling firework explosions and sensuous red leather couches in the Rumpus Room bar on the roof.

Our overarching strategy was to create warm and intimate spaces, but at the same time different destinations each taking on their own personality



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# Costed

## Ruby Galloway, of Gleeds Research & Development, considers lighting costs

Lighting is one of the most important elements of a building, whether natural or artificial, and can enhance the performance of both a space and its users. Its purpose has gone beyond simply improving visibility: mood lighting is used to enhance the atmosphere in living rooms, restaurants and even aeroplane cabins, while intelligent systems can detect when lighting is required to reduce energy consumption and provide safer, more secure access.

Different clients have different objectives

and requirements. The most common is to enable a user to perform more effectively and efficiently without discomfort, so its function needs to be identified at the outset. As awareness of energy efficiency grows, natural lighting is often given more thought at design stage, leaving artificial lighting until later. With both, consideration should be given to associated problems such as overheating and glare.

Cost is often a key factor determining how to achieve client objectives. In the UK lighting

consumes about 19% of electricity generated. With life cycle costing in mind, running and operational costs – as well as the capital cost of the equipment – has become paramount when choosing appropriate lighting types and fittings.

There are also legal requirements, for example: the CDM regulations on emergency lighting and minimum requirements for luminaire ratings for specific room functions, according to the Building Regulations. •

Ruby Galloway is associate director at Gleeds

The rates stated below represent a guide to lighting costs and are current as of Q2 2015. No allowance is made for sundry costs or related preliminaries costs. VAT is excluded.

ALL-IN RATES FOR LIGHTING POINTS	£ per point
Cost for lighting points including rose and wireways in PVC excluding luminaires	
Domestic properties	£42-£47
Industrial and commercial properties	£53-£63
Cost of lighting points including rose and wireways in LSF cable, excluding luminaires industrial and commercial properties	£68-£79
Luminaires – fluorescent internal	£ per unit
Batten	
600mm twin, 18W	£26-£37
1200mm single/twin, 36W	£32-£47/£42-£58
1800mm single/twin, 70W	£53-£63/£68-£84
Opal diffuser (surface fixed)	
600mm twin, 18W	£47-£58
1200mm single/twin, 36W	£53-£63/£63-£84
1800mm single/twin, 70W	£68-£79/£79-£95
Surface mounted linear fluorescent; T8 lamp; high frequency control gear; low brightness; 65° cut-off; including wedge style louvre	
600mm twin, 18W	£42-£58
1200mm single/twin, 36W	£42-£63/£63-£74
1800mm single/twin, 70W	£53-£68/£68-£84
Modular lighting; recessed high frequency control gear, low brightness, 65° cut off; wedge style louvre; fitted to exposed T grid suspended ceiling	
600 x 1200mm; 4 x 36W T8 lamps	£105-£132
600 x 600mm; 3 x 14W T5 lamps	£105-£121
Ceiling recessed asymmetric compact fluorescent downlighter; high frequency control gear; TCD lamp in 200mm dia. luminaire; for wall-washing application	
1 x 18W/26W	£160-£180
2 x 18W	£221-£247
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	£221-£242
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	£179-£210

	£ per point
600 x 600mm; 4 x 14W T8 lamps	£200-£242
500 x 500mm/600 x 600mm: 2 x 24W	£168-£210
Downlighter, recessed; low voltage; mirror reflector with white /chrome bezel; dimmable transformer, for dichroic lamps	
85mm diameter x 20/50W	£45-£65
118mm diameter x 50W	£55-£75
165mm diameter x 100W	£132-£158
LED lighting	
Typical LED downlight up to 50W	£105-£143
Recessed LED office luminaire 40W	£221-£274
25A, steel trunking, low voltage, copper conductors, couplers and supports	
Three circuit / 1200mm single	£32-£42 / £42-£63
High/low bay luminaires	£ per point
Compact discharge; aluminium reflector	
150W-400W	£110-£147
Sealed discharge; aluminium reflector	
150W-400W	£263-£384
Flameproof to IIA/IIB, I.P. 64; aluminium body	
600mm single/ 1200mm twin, 18W	£442-£579
1800mm single/twin 70W	£579-£716
Luminaires – external	
Floodlight, enclosed high performance discharge light, reflector, toughened glass	
100W-250W	£137-£305
1500mm circular bollard, vandal resistant with polycarbonate visors	
50W-80W	£137-£305
Bollard lighting	
Bollard lighting fitting 26W TC-D 3500k including control gear, all internal wiring, interconnections, earthing and 25m of 2.5 mm² three core XLPE/SWA/LSF cable	
Approximate installed price excl builder's work in connection	£1,000-£1,400
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	£200-£305



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# Specified



## 1 LEDBar linear system Light Projects

You know we die on these stages darling, it's not about awards heaven knows – who cares?! It's our family, my dears – after all, the audiences are soulless and the critics so utterly drear... We soldier on, night after night, in these simply marvellous theatres, the smell of the greasepaint, roar of the crowds... these places must be treasured – they'll out-last us all, and someone had this simply splendid idea of lighting all the art deco features of the Prince Edward in London with LEDBar... it sets the tone for the audiences you see, looks gorgeous, might prompt just a glimmer of appreciation... [lightprojects.co.uk](http://lightprojects.co.uk)

## 2 Galaxy sunlight collector Lightway

I saw it on a Monday and my heart stood still, Da Doo Ron-Ron-Ron, Da Doo Ron-Ron; Sunlight in the cellar gave me such a thrill, Da Doo Ron-Ron-Ron, Da Doo Ron-Ron; Yeah, it lit the room; Yeah, the crystals banished gloom; Yeah, then I took it home, Da Doo Ron-Ron-Ron, Da Doo Ron-Ron (sax solo)... It's true pop pickers – Lightway's sunlight collectors, including this Galaxy 1200, cleverly use silver, mirrors and crystals to flow natural light into dim areas. At last, the Spector of wasted dark corners need haunt us no more (with apologies to the Crystals). [lightwaydaylight.co.uk](http://lightwaydaylight.co.uk)

## 3 Lavigo LEDs Waldmann Lavigo

As a warm industrial retro look gathers pace in our bars and eateries, it seems office fitout is going the other way. Spartan spaces of exposed modern materials and services with hi-tech fittings and cool colours will prevent screen slaves nodding off, while overhead lighting can help management see what they are up to. Either that or the clear light and efficient spaces ease the working day. Certainly, these Waldmann Lavigo LED luminaires, free-standing and with performance options, can only improve conditions, leaving time for a swift half in the Slug & Lettuce on the way home. [waldmann.com](http://waldmann.com)

## 4 LED luminaires Erco

The loneliness of the long distance bartender. He stands alone at the till, trying to concentrate on the receipt spool, anxious to serve a stein of Stadtbrauerei Spalt to his first customer of the day. In the empty echoing lounge he practises his spiel again. 'Thank you sir. May I give you a mat? How was your tour of Hamburg? How long are you staying at the Ameron Hotel? May I draw your attention to Erco's ambient lighting – subtle yet precise and efficient. Its LEDs put you at ease. I had that Angela Merkel in here once, grumbling about the Grexit. Zum whol! It's the only language she understands. [erco.com](http://erco.com)





**5**  
**Spin lighting**  
**Arkoslight**

There was an executive toy in the large-shouldered 1980s, which consisted of five silver balls suspended in a metal cradle. The bored Yuppie (for those were the days, I'm afraid) could reach over and lift one aside to drop it back and set its fellow at the other end clicking in and out too, while those in the middle carried the energy unremoved. These 'Spin' lights from Arkoslight look like that game grown up, laid back and clad in Ramones black. Thinking about those days it's no wonder we got the fury of punk and the Sex Pistols – was that toy really the apogee of cool, or just pretty vacant?  
[arkoslight.com](http://arkoslight.com)

**6**  
**E-Line continuous system**  
**Trilux**

Time was when tattoos, smoking and football were decidedly naff to the Tristrams and Jemimas of the home counties. Nowadays though, MPs fall over each other to prove their footie knowledge, vaping Hoorays spill from the City pubs and young professionals swap details of their tats en route to the full sleeve. Thankfully, such degeneration isn't universal: when Trilux mentions its E-Line with a UV sleeve, it is talking not of virtual narcotics and fashion accessories but its powerhouse continuous line lighting system for the UK Record & Archive Centre in Hereford. Let there be light!  
[trilux.com](http://trilux.com)

**7**  
**Beacon Muse spotlights**  
**Concord**

It would be a bold boast to compete with an Olympic athlete but Concord's lighting is certainly putting in a bid for a share of Kelly Holmes' limelight. The gold medal winning dame has used customised luminaires from the firm's Beacon Muse range to light her new venture, Cafe 1809 in Kent. Its metallic finish spotlight will be ideal for drawing attention to excessive cake consumption or any grannies tipping whisky into their coffee. Let's hope there's a full complement of loos too – in a marathon cafe session with Paul and Paula you never know when you might get caught short.  
[concord-lighting.com](http://concord-lighting.com)

**8**  
**Stora ring pendants**  
**Spectral Lighting**

What would the great engineer IK Brunel have made of the latest incarnation of his Great Western Railway works building in Swindon, now a designer outlet centre? The works of Victorian giants of invention 'updated' to today's relatively trivial pursuits of shopping and celebrity bling. It's worse for sewer king Joseph Bazalgette, whose descendent continued the family interest in effluent, creating the Big Brother TV show. But at least IKB would like Swindon's use of Spectral's Stora LK pendant ring lighting, another advance in large-scale, efficient well-designed technology.  
[spectral-lighting.co.uk](http://spectral-lighting.co.uk)



# The Foundry, London

An appropriately modest budget produced an award-winning stripped down aesthetic at this workspace for social justice organisations

Words: Pamela Buxton Photography: Rory Gardiner

Workplace interiors don't come much more stripped down than The Foundry, the social justice hub designed by Architecture 00 in Vauxhall, London. With a materials palette of MDF, plywood, buffed concrete and recycled carpet tiles, it's definitely one of the more spartan winners of the RIBA Awards, where it picked up London Building of the Year. Frugal yes – the £5.2m remodelling and extension came in at £1050/m<sup>2</sup> – but generous in terms of what it brings to its tenants. Here, the whole really is far greater than the sum of its parts.

Architecture 00 was commissioned to create a 2,900m<sup>2</sup> workspace for organisations engaged in promoting social justice and human rights out of a century-old, former shoe polish factory. Its brick-fronted original was a utilitarian three-storey building with an accretion of subsidiary structures. The key strategy was to clear away the smaller structures and enlarge the main building by adding an 1800mm<sup>2</sup>-deep concrete-framed extension across the front. This contains the reception, café, and circulation spaces as well as a ground floor conference room, upper level office space and roof terraces. There are more offices at the

back within the original building.

The flexible design facilitates the Foundry's emphasis on tenant interaction and its community-oriented values. The idea is that while each tenant may occupy a relatively small area, the whole building is their office; they have access to communal areas such as the ground floor seating area, soon-to-open café, and the accompanying touchdown workspaces, to encourage communication between organisations.

Interaction is also facilitated by the prominence of circulation routes, such as the main staircase, and through views down into the ground floor reception/café and across the atrium. At the rear of the reception, where the extension joins the elevation of the existing building, glass was removed from the original windows to give clear views into the different workspaces. This approach also creates a background acoustic buzz. Visually, floor to ceiling glazing onto the individual front units and the ground floor reception provide views of activity to further animate the building.

The café will be open to anyone, not just tenants, which, hopes architect Lynton Pepper, will facilitate a 'tacit' understanding of the

work that goes on in the building and how its various organisations might be able to help. Separate external access to the terraces enables organised community use at the weekend.

Flexibility was a priority. 'We don't know what the building will be in 50 years' time – it was a polish factory for only 20 years – so you have to build something strong and adaptable,' says Pepper. Internal office spaces can be re-configured and lighting is designed on a grid that can easily be changed to suit changing office areas. A downstairs unit to the left of reception is designed with its own street access so that it can be used – if required – as a retail unit. To the right, there is separate access to another unit with potential for use as a crèche.

Reception furniture from pigeon-holes to desks on castors so it can easily be moved or configured into a large table for communal events.

The interior aesthetic is driven both by the emphasis on flexibility and the tight budget.

'It's white, spartan and robust – we didn't want our building to interfere with the tenants' personalities,' says Pepper, adding that the interior is very much a background to the things it is enabling, with a feeling of permanence and utility much like a factory building.

At ground level, the concrete floor and exposed soffits combine with the white-painted brick of the original building on the rear reception wall. Visual warmth is added by an MDF and plywood staircase. Upstairs, budget constraints precluded the proposed wooden flooring. Instead, Architecture 00 sourced ultra-cheap recycled carpet tiles. Reception tables made from CNC-cut plywood were designed by the architect as a budget alternative to catalogue furniture. The only interior embellishments are inspirational quotes stencilled onto concrete surfaces.

The overall effect meets the desire of both architect and client to avoid a corporate workplace atmosphere. As Pepper says: 'It's not flash... It's a bit of a gem.' ●

**Below** The new structure wraps around the re-clad existing one.

**Right** The internal atrium space concentrates on emphasising relationships of new to old rather than high specification.



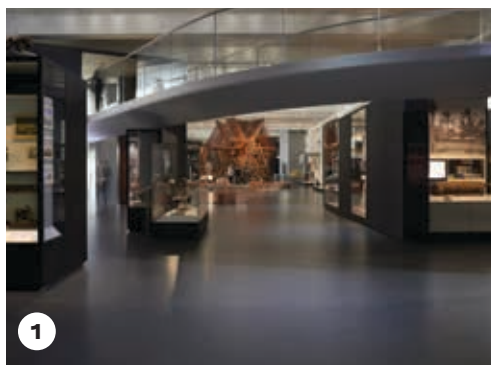




# Specified



2



1



3



4

## 1 Flooring Nora

Nora has been getting in on London's Science Museum action by flooring its Information Age gallery, dedicated to 200 years of comms. Does the 3mm noraplan uni represent the imperceptible creep of time, soft beneath the raised walkway's urgent sweep of the information superhighway? Perhaps that's a bit dreamy for this eminently practical place, where generations of children have twiddled knobs and turned handles to see science in action. Remember the inexorable motion of Foucault's pendulum? Question is, how will today's touch screen approach measure up to that?

[nora.com](http://nora.com)

## 2 Bar furniture Design and Contract Furniture

With just the beer light to guide it, Design and Contract Furniture had a perfect flashback designing this mid century retro room for the Adventure Bar in Clapham Junction. I don't know if they serve cherry cola but there is a Ziggy Stardust Cocktail – that presumably comes in platform boots and spiky hair. Of course they won't have crossed the thin white line of 60s zeitgeist into the world of Bowie's Thin White Duke, but think of the soundtrack: you'll feel good. It's a new sensation, a fabulous creation; it's for daydream believers, it's really up the junction. Respect! [designcontracts.com](http://designcontracts.com)

## 3 Oak flooring Kahrs

The ghost of Debenhams stalks Concord House, a one-time department store in central Birmingham converted into homes that showcase local firms' talents. The 'vintage industrial' look is underpinned by Kahrs' knotty, sustainable floors, grittily named Oak Concrete and Oak Slate. But, one wonders, did Debenhams leave unsold stock to gather dust and rust – now cunningly made into industrial chic furnishings? A propeller from the sports department, anglepoise lamps from lighting, surveyor's tripod from, er fancy goods and, of course, seventies brown. [trfflooring.com](http://trfflooring.com)

## 4 Ceiling Hunter Douglas

You might think a market was by default a pretty 'sensurround' sort of place, filled with sights, smells, sounds and textures to tickle your purchasing palate. But all that hygienic re-imagining for 21st century health and safety regs has seen many lose some of that authenticity. Not in Leicester's historic market though, where Hunter Douglas' glulam roof reverberates at 2-2.5 seconds to create the traditional market 'buzz'. So come on all you lovely specifiers, fantastic glulams over here, can't last, we're practically giving 'em away, not five ply, not four ply... etc etc. [hunterdouglas.co.uk](http://hunterdouglas.co.uk)



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#### Redesigned and updated website FAKRO

Fakro's updated website is compatible with all mobile devices. With a wealth of information on the company's extensive ranges of roof windows, loft ladders and roofing accessories, intuitive navigation makes the site exceptionally user friendly. Content has been dedicated to the needs of general browsers, installers and specifiers with scope to compare product features.

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



#### New sizes for floor-level shower Kaldewei

Made of Kaldewei 3.5mm steel enamel, the Scona floor-level shower surface offers a modern design with superior material quality and a highly attractive price to performance ratio. Already available in 22 sizes, with another 22 from October 2015 (from 75cm by 80cm to 100cm by 180cm), Scona is flexible, featuring a central circular waste set within a perfectly square or rectangular surface.

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



#### Going large in Cardiff Kawneer

Glazing by leading architectural aluminium systems supplier Kawneer feature on Cardiff's largest construction project. The firm's zone-drained AA\*100 and AA\*110 curtain walling, with 50 and 65mm sightlines respectively, were specified with AA\*541 top-hung casement windows for all elevations on the £45m Cardiff and Vale College. Kawneer's mullion-drained AA\*100 curtain walling also features as the bespoke atrium rooflight.

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



#### Greenline standard for hoods Franke

Franke, which uses innovation to make life less ordinary, has introduced a new Greenline energy-efficiency standard for its brushless motor extractor hoods. The Greenline standard gives retailers and consumers a quick and easy visual guide to Franke's most energy-efficient models. Four existing and five new kitchen extractor hoods with brushless motors and LED lighting hold Franke's Greenline status.

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



#### Products boost energy efficiency Klobner

Roofing specialist Klobner now has a permanent exhibit at the Building Centre. Klobner has pioneered the development of tapes, sealants, sealing collars and vapour control layers to seal the roof space, ceilings and tile penetrations. It also manufactures high performance air-open and vapour permeable underlays for all roof types and pitch to provide balanced ventilation and airtightness.

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



#### High quality, on trend thermostats Hansgrohe

White glass and gleaming metal emphasise the clear design language of the latest 'Select' shower products from Hansgrohe. A high-quality glass surface, elegant design and intuitive operation make its new concealed ShowerSelect thermostats an attractive addition to any bathroom. Their timeless and clear design blends well with architectural trends and fits harmoniously into every bathroom.

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



#### Heritage tiles restore Lodge Trust SIGA

Bespoke reproduction stone roof tiles from the SIGA Heritage range have replaced failed imported tiles on the Lodge Trust building – a residential home for people with learning difficulties in Market Overton, Rutland. A Collyweston tile was specially developed to meet an authentic texture and colour match for the building's original roof, and comes with a 25 year guarantee. The Heritage range is hand-crafted so no two tiles are the same.

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



#### Reassuring fire rating Showerwall

For projects where an FR rating is required, Showerwall, the versatile bathroom wall panelling range, can be specified with confidence. The product is the only one on the market to meet European standard BS EN 13501-1:2007 for Fire Retardancy with a rating of Ds1, d0. This guarantees a strong performance level against flammability, smoke generation and speed of generation.

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



#### OPTIM-R slims down terrace refit Kingspan Insulation

Kingspan's OPTIM-R balcony and terrace system and Thermarroof TR27 LPC/FM have been installed as part of a roof terrace retrofit on a house near Cheltenham, helping to minimise heat loss while maintaining the existing floor level. With an aged thermal conductivity of 0.007 W/m²K, Kingspan OPTIM-R panels can provide an ultra-thin solution for areas that are hard to insulate.

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



#### New homes' Energy Collection Twyford

Taylor Wimpey has specified products from Twyford's Energy Collection for five prestigious housing developments in North Yorkshire and Teesside. The 4 and 5 bedroom homes in the Acklam Hall development have been designed to conform with English Heritage. Each bathroom and en-suite will have e100 washbasins and toilets, with the optional upgrade of an e100 vanity unit in high gloss white or grey ash wood.

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





#### A new dimension in flooring Aspecta

ASPECTA FIVE is a stunning collection of over 100 LVT tile and plank designs, bringing a new dimension in flooring to UK contracting. This exciting new range embraces a creative portfolio of colours, textures and styles – with 52 woods, 33 stones and 24 abstracts. Ideal for retail, hospitality, corporate, healthcare and education environments.

[www.aspecta flooring.com](http://www.aspecta flooring.com)



#### Versatile, sustainable marmoleum Forbo

Sustainable Marmoleum Modular offers a distinctive format that allows specifiers to easily combine and connect various shapes, sizes and colours of tiles to develop a completely new and exclusive flooring design. With over 144 items, the variety of colours, designs and complimentary tile sizes, the collection opens up a whole new world of simple, accessible floor design.

[www.forbo-flooring.co.uk/](http://www.forbo-flooring.co.uk/)



#### Make a Real style statement Kahrs

Kährs has introduced its new Real Collection of wood floors. Defined by its imposing format, the majestic oak planks are 2400-3000mm long and 250/300mm wide. The collection includes even and rustic timber grades, and natural, misty white and light grey stained finishes. It includes six individual designs in a choice of timber grades and all have a lightly brushed surface and tactile oiled prefinish.

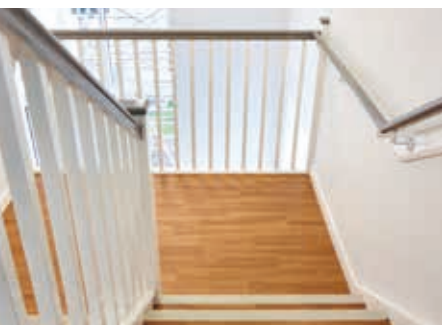
[www.kahrs.com](http://www.kahrs.com)



#### Polyflor wins sustainable award Polyflor

Vinyl flooring manufacturer Polyflor has been recognised for its green credentials, winning the Green/Sustainable Manufacturer of the Year at Insider's Made in the North West awards recently. ISO 9001 and 14001 certificated-Polyflor was chosen for its long term commitment to sustainability and responsible sourcing of materials, and is BES 6001-rated for responsible sourcing.

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



#### Reassuring flooring for care home Polyflor

A combination of Polyflor's high design luxury vinyl tiles and high performance safety flooring was used to help create a bright and welcoming atmosphere throughout Anya Court care home in Rugby, Warwickshire recently. 1300m<sup>2</sup> of Polyflor flooring was installed to provide stimulating, safe and homely environments for residents, including cafés, therapy rooms, hair salons and a cinema room.

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



#### Refreshed ranges look to the future Gerflor

International vinyl flooring and interiors specialist Gerflor has refreshed and rebranded its popular LVT Creation and Insight ranges. Creation 55 is designed for medium traffic areas for light commercial use while Creation 70 is for the heaviest footfall. Rebranding the LVT range has produced some stunningly attractive new colours, designs, effects and formats. It's been a design journey that seems to have paid huge dividends.

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



#### Deckshield at China's Riverside 66 Flowcrete

Flowcrete China recently worked with Hang Lung Properties on the state-of-the-art, LEED certified Riverside 66 shopping centre in the heart of Tianjin's Haihe central business district. To create the car park 60,000 m<sup>2</sup> of Flowcrete China's Deckshield ID deck coating system was specified, which is designed to enhance a site's interior aesthetics, sharpen light reflectively and prevent water ingress.

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



#### Tiles transform Shanks workplace Quadrant Carpets

Frequency, the latest carpet tile from Quadrant Carpets, has been used by IOR as a key element in the transformation of the Milton Keynes offices of waste-to-product company Shanks. In the first project, which used five variants of the range in one setting, IOR employed 1100m<sup>2</sup> of the subtle changing hues to achieve a dynamic office landscape, on which it has reinvented the Shanks workplace.

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



#### Science Museum show covered Nora

For a new exhibition at London's Science Museum, 2,800m<sup>2</sup> of noraplan uni 3mm thickness rubber flooring was installed, chosen for its extreme durability and resilience in high traffic areas. Guaranteed colour consistency, to ensure a uniform colour throughout, and softness under foot with noise reduction properties, also contributed greatly to this large open space with high ceilings.

[www.nora.com/uk](http://www.nora.com/uk)



#### Smiles all round at dental practice Polyflor

Polyflor vinyl safety flooring from the high performance Verona PUR range has given a fresh new look to Midland Orthodontics dental practice in Sutton Coldfield. The pale blue Skyline 5205 shade was chosen to provide safe, easy to clean and attractive flooring with underfoot slip resistance for patients and employees, creating a professional look that complemented the existing décor.

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





#### Cricket stadium's great catch Schlüter

Schlüter DITRA-SOUND insulation, which significantly reduces sound transmission to adjoining rooms, has been used for The Hilton at the Ageas Bowl in Southampton. Its DITRA mattings and membranes are also being used to waterproof and protect tiled installations from lateral movement, cracked substrates and water penetration, and include the under-floor heating system DITRA-HEAT. [www.schluter.co.uk](http://www.schluter.co.uk)



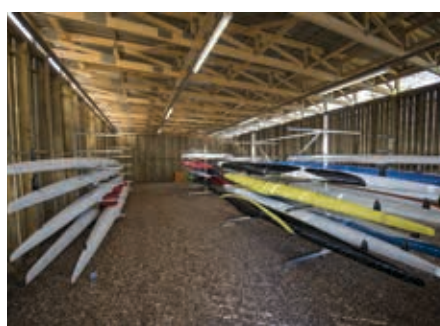
#### Traditional look at garden city Brett Martin

A new housing development at Waterlooville in Hampshire, the Berewood Village scheme is using the Cascade cast iron style rainwater system from Brett Martin for its heritage aesthetic, simple installation and a low maintenance. Manufactured in modern plastic, Cascade offers a traditional appearance without the cast-iron price tag. It met planning approval and offers long term performance. [www.brettmartin.com](http://www.brettmartin.com)



#### Training expands staff knowledge GEZE

More than 20 GEZE UK employees are taking the newly launched 'Foundation in Hardware' qualification from the Guild of Architectural Ironmongers (GAI). The qualification is designed to provide an insight into many of the aspects of architectural hardware, including hinges, closers, locks and furniture, for people who don't 'live and breathe the architectural ironmongery during their day to day job'. [www.geze.co.uk](http://www.geze.co.uk)



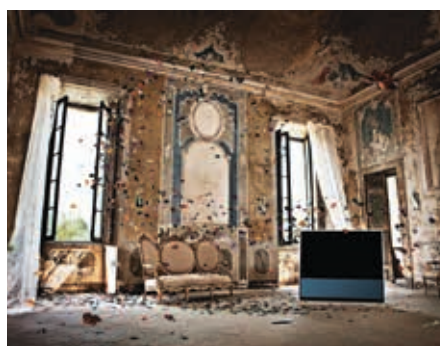
#### Athletes stay on top of their game Calor

Britain's canoe sprint athletes at the Tim Brabants Elite Training Centre near Windsor are on top of their game, thanks to a high-efficiency hot water and heating system supplied by Calor. Located off the mains gas grid, the facility has a robust and proven fuel supply. A single source, bulk LPG supply from Calor, allows the new centre to generate all its hot water and heat with optimal efficiency. [www.calor.co.uk](http://www.calor.co.uk)



#### Tradition at A House for Essex Mumford & Wood

Traditional timber sliding sash windows, casements and French doorsets from the Conservation™ range by Mumford & Wood have been specified in A House for Essex by Grayson Perry and FAT. Victorian-style sash windows, with spring balance operation, have fixed curved semi-circular fanlights to emphasise height and magnitude, while casement windows and doors feature a contemporary-style moulding. [www.mumfordwood.com](http://www.mumfordwood.com)



#### Design studio opens in London Bang & Olufsen

World First Class Danish home entertainment systems brand Bang & Olufsen has launched its unique design studio in London. The specialist team of home integration experts works closely with architects and designers, providing complete design, supply, installation and aftercare service to the end user. [www.bangolufsen.london](http://www.bangolufsen.london)



#### Contemporary style in Lewisham Saint-Gobain Weber

External wall insulation by Saint-Gobain Weber has been specified for new build private apartments set in a conservation area in Lewisham, London. The Rivoli scheme used weber.therm XM lightweight, render protected, external wall insulation system to emphasise the attractive sweeping curves of the front facade, side and rear elevations. Over 600m² of insulation was used on the scheme. [www.netweber.co.uk](http://www.netweber.co.uk)



#### Staircases for every occasion British Spirals & Castings

An 18th century house in Hurley-on-Thames is one of the latest properties in the UK to benefit from a truly bespoke staircase from British Spirals & Castings; in fact not just one staircase but four. All were made from solid oak, some featuring glass balustrades supplied by Vista Glass, and incorporated a variety of designs including straight, kited and spirals to suit each installation area. [www.britishsc.co.uk](http://www.britishsc.co.uk)



#### Operating high windows is a breeze GEZE

Operating high level windows and roof lights will be a breeze with GEZE UK's new natural ventilation system. The OL Line manual window control system has been designed for commercial and public buildings and thanks to its modular design, can easily be retrofitted. A conduit linking the opening vent to a wall mounted operator accesses even the most hard to reach windows. [www.geze.co.uk](http://www.geze.co.uk)



#### Pool renovation goes swimmingly Kerakoll

Kerakoll prepared the product specification for the refurbishment of the Maenporth Estate swimming pool, taking into account the condition of the tank and the need for a speedy completion. The screed, levelling products and adhesive were all rapid setting and the adhesive, grout and waterproofing products very stable in the presence of water. The project finished on time with a satisfied client. [www.kerakoll.co.uk](http://www.kerakoll.co.uk)





#### Low energy heat and smoke alarms Kidde

Energy saving is high on the agenda for the new Firex® range of smoke and heat alarms. Its latest generation of optical and ionisation smoke alarms, and heat alarms now offers Standard, Long Life and Rechargeable battery back-up versions of each sensing technology, giving nine options in all. The latest range is fully compatible with all previous Firex® alarms and has several new advanced features.

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



#### Peace with cruise ship glamour Rockfon

New generation ROCKFON Mono® Acoustic ceilings have been chosen for the reception, restaurant and bar areas of the new London Mondrian hotel in the former Sea Containers' HQ in London. The system brings together the seamless, clean lines associated with traditional plastered surfaces, with performance characteristics thought only possible with modular suspended ceiling and wall systems.

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



#### Stone helps overhaul town hall LG Hausys

HI-MACS natural acrylic stone has been used in the overhaul of Almere Town Hall in the Netherlands, 'to emphasise the building's original characteristics, and create an interior with unique and personal touches'. HI-MACS was chosen for its durability, beauty and ability to comply with the budget. Its thermo cured, non-porous and resistant attributes make it ideal for the job

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



#### Get an ROI of over 4000% Kingspan

New independent research by Sweett Group shows that Kingspan Kooltherm wall insulation can deliver an overwhelming return on investment (ROI) in commercial properties. Superior thermal performance with a thinner profile allows valuable useable floor area to be maximised, so ROIs of over 4000% can be achieved on the product cost, when compared with other common insulation solutions.

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



#### Decorative films, multiple finishes David Clouting

Interior Film from David Clouting is a range of self-adhesive, decorative films manufactured by LG Hausys that transforms rooms in hours with minimum disruption. It adheres to most substrates including wood, metals, plaster board, plastics and melamine. It is CE certified and available to view at BIMSTORE. Designs and finishes include: exotic woods, leather effect, textured metals and natural stone.

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



#### A multi-comfort education Saint Gobain

Saint-Gobain, leader in sustainable habitat and construction, is starting its first project in the UK built to Multi-Comfort standards. Multi-Comfort is a holistic approach to building, designed to improve occupant comfort, health and wellbeing. Work has begun constructing the new £1.2m multi-purpose sports and drama hall for King's Hawford Junior School in Worcestershire.

[www.saint-gobain.co.uk](http://www.saint-gobain.co.uk)



#### Innovation in the digital space SAS International

SAS International's new website aims to change preconceptions associated with manufacturer information available online, providing highly engaging, personalised user experience that can adapt to any mobile device. The website is the company's digital flagship information hub, and based on feedback from hundreds of registered users, delivers technical, educational and design-led content.

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



#### Myriad facade design options Hunter Douglas

The Hunter Douglas multiple panel facade system is available in a range of shapes, joint options, materials, finishes and colours. This durable and versatile system is ideal for facades and exterior ceilings that are designed to create a uniform view. Developed to resist high wind loads, it presents architects and designers with an unequalled solution that offers myriad design options.

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



#### Purlins on song at Watford FC Metsec

Specialist structural steel manufacturer, Metsec has supplied its light gauge, galvanised steel zed purlins and side rails for the new 3,000 seat Watford FC Community Stand at Vicarage Road. Installation of the purlins and side rails was carried out by Dudley-based contractor Structural Steelwork. Metsec's Z-section purlins and Z- and C-section side rails have also been used in roofs including Centre Court and the Oval.

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



#### Cherry on Dulwich College cake Kemmlit

Dulwich College's recently opened science building, the 'Laboratory', will provide teaching facilities for science and IT skills, a 240 seat auditorium and an exhibition space. In keeping with the sustainability and high specification requirements of its construction materials, Kemmlit supplied and installed 200 bespoke lockers faced with cherry wood veneer, the wood carcasses having a matching cherry wood finish.

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

# Sign Up

**Claire Pierce**, architect and head of materials research at Walters & Cohen, gives us three of her specification favourites

## HARDWOOD VENEERED ACOUSTIC PANELS

When writing specifications for school buildings we want materials that wear well, are compliant and cost effective and look beautiful. It can be difficult to find products that tick all of these boxes. For sound absorbent materials, we have confidence in Topakustik. At Lady Eleanor Holles School we specified slotted panels with a European oak veneer finish. These panels perform well acoustically and add a visual softness. UK supplier Acoustic Products has been brilliant helping us with particular requirements for different projects.

[www.topakustik.ch/en](http://www.topakustik.ch/en)

## WHITE LIMESTONE

The American School in London is in a conservation area, so external material selection is particularly sensitive. We wanted a high quality, durable material that would respond to the changing quality and colour of daylight. We selected a white limestone from Portugal – a beautiful and economic alternative to Portland Stone. The façade has been designed to emulate the unwrapped geometric flutes of a Doric column, creating a 'curtain' that varies with constantly changing shadows. The photo shows the fading flutes being cut.

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

## CLAY FACING BRICKWORK

The materials for the proposed Vajrasana Buddhist Retreat in the Suffolk countryside are modern and crisp, yet sympathetic to the farmstead vernacular. We wanted earthy materials that had a natural variation in colour and texture. For the shrine room, we specified a Danish waterstruck brick by Egernsund Tegl – a subdued, dark blue colour and a matching mortar. The trowelling of the wet clay as it slides out of the hardwood mould creates a unique textural patina after firing. The brick bond is stack bond with a soldier course between.

[www.egernsund-tegl.com](http://www.egernsund-tegl.com)

# ...Sign Off

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

## BASE CAMP

As every architect knows, your hairdo can have a knock-on effect on structural integrity: just ask Samson – or for that matter, Altrincham celebrity hairdresser Paul Atherton. According to his website, Paul's 'worked on several hairdressing and makeover shows' and 'Extreme Dreams', trekking in Nepal for two weeks with a beardy Ben Fogle and performing emergency depilation on him at a freezing 3000m altitude! Hopefully, the Cheshire home he's building for his daughter, fitted out with Actis Hybrid insulation, won't be such a close shave; but featuring in BBC2 show 'Britain's got the Builders in', will he be tearing his hair out to get them out?

## SILICON SLING

When architect and MIT professor Carlo Ratti isn't trying to convince us that the future of architecture lies in the virtual realm, he puts his feet up and relaxes with a drink. What's more, he can prepare it without moving, with his patented Makr Shagr robotic cocktail system, launched on a 'smart' cruise ship. Using an app, passengers can watch the Bionic Bar's arms stir them up a classic dirty Martini and share the results on social networks. Its lithe anthropomorphic mixology is modelled on the moves of New York Ballet choreographer Marco Pelle. Apparently, the upgrade telling it to lose its keys, send drunk texts and wake up face down in a skip is still in development.

## PULL THE OTHER ONE...

If only, Lancaster's 1857 grade II listed Christ Church has had the luck of Job. Thank God for local practice Harrison Pitt Architects, whose conservation work involves repairing existing church bell fittings and 're-erection of the original, larger bell' which dropped off in 1984. Programme is the priority, with 'more pressing works' first, such as 'repairs to the church roof'; no surprise, with a five tonne bell smashing through it. 'When I took over the parish I was told the larger bell had fallen in the 1980s,' notes vicar Phil Hudd; intelligence garnered no doubt via the PCC and a bloody great hole in the nave. They're a robust lot in Lancashire – I have high hopes!



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



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