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POLISHED CHROME

BRUSHED GOLD

BRUSHED NICKEL

MATT BLACK





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The Eye of PiP

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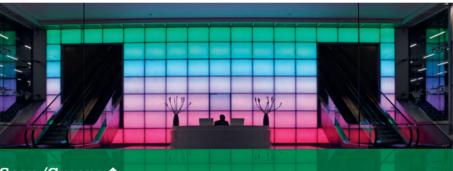
PiP editor Jan-Carlos Kucharek



14 'The bulk of the scheme creates a Hostile Vehicle Mitigation secure zone for pedestrians and cyclists'

LDA calms and greens a heavily congested bottleneck

11↑ 'As soon as you move away from a dome you need to form-find – which needs a good understanding of how timber behaves'



Seen/Green: 个

Magna Glaskeramik UK's sintered crystal, formed from waste glass, is durable, non-toxic, resistant to staining and scratches and totally closed-loop (can be recovered and reused). Using no resin, epoxy or additives in its production and powered primarily by renewable wind and solar energy, the product has an EPD and is certified by the Cradle to Cradle Products Innovation Institute at Gold level.

Glass from different glass waste streams produces different colours. Or you can just have it in white and backlight it, as on this City of London project. It works outside and in, and even as furniture.



← 30 'Flooring specified on the heavily trafficked central staircases was as much an aesthetic choice as a practical one'

How MCW Architects chose the right flooring for the right place at Anglia Ruskin University Peterborough

Cover image: Anglia Ruskin University, Peterborough. Photograph: Richard Fraser

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U-value chart

_ Depth of insulation required

	/	/	
U-value req. W/m²K	Quantum® (mm)	Extruded (mm)	Expanded (mm)
0.15	60	220	235
0.14	70	230	255
0.13	70	250	275
0.12	75	270	295
0.11	80	290	320
0.10	100	320	355

Sample range of U-values based upon a typical roof terrace construction with a 200mm concrete substrate and product Lambda value as noted.

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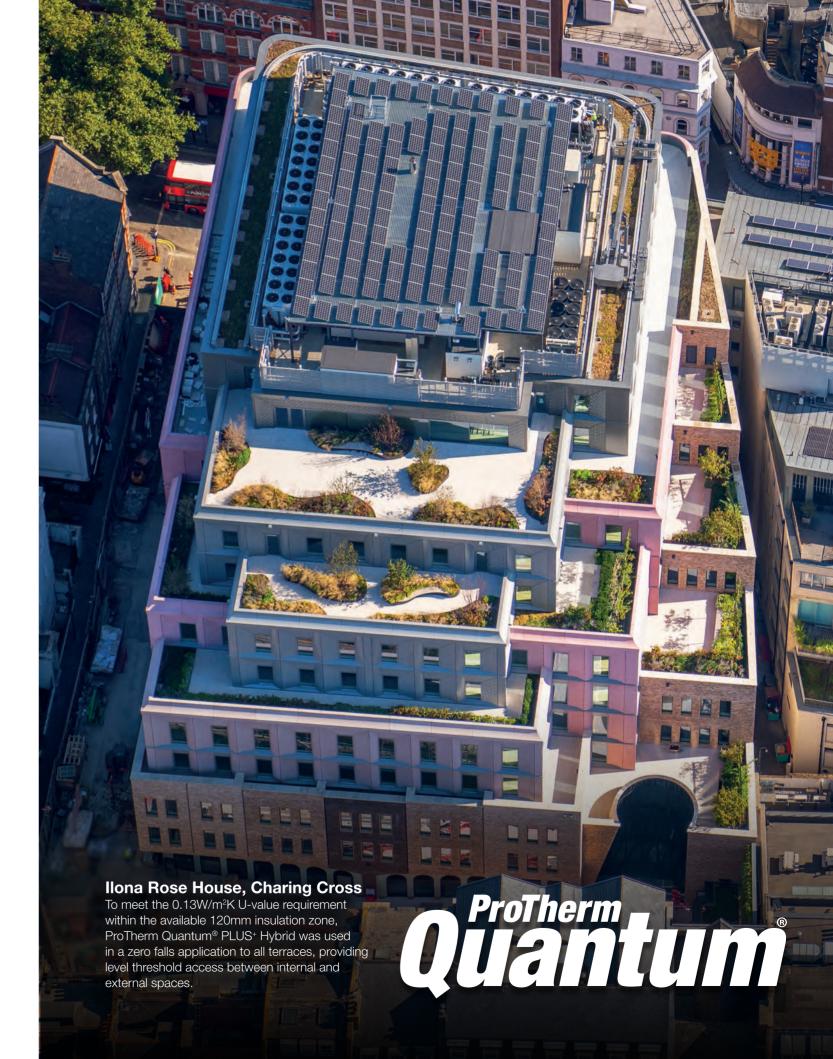
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Compendium

From cistern to system

You'd associate South American civilizations with worship of the sun rather than water but that doesn't seem to have stopped Italian bathroom brand Agape from picking up on South American tradition in its latest collaboration with Spanish designer Patricia Urquiola. The cenote, or sinkhole, an ancient source of water for Pre-Columbian cultures, had mystical significance that's echoed here with the firm's latest bathroom range – its own Cenote, moulded from fireclay, and Cenote Lava, hewn from Sicilian lava stone. Outside surfaces are left deliberately rough, with interiors polished and glazed in Mexican whites and blues. With low, wide bowls, there's a certain ancient, ceremonial quality to both, even if they come supplied in the more Cartesian and contemporary dimensions





Classic khazi

It's 60 years since Ferdinand Alexander Porsche's 911 sports car first rolled off the production line and 50 since he set up his dedicated product design studio. Now premium German bathroom furnishings manufacturer Keuco has teamed up with Studio Porsche for its new AXESS range, accessible bathroom fixings that play down their barrier-free functionality to create products that are as pleasing to look at as they are easy to use. Suitable for hospitals, nursing homes, hotels, spas and the home, it aims to use intelligent design to support independence and autonomy in the bathroom, whatever your age or physical ability.



In the reductio ad absurdum of minimalism, some designers just want to smother all surfaces with the identical material, a trend that has been picked up by Italian porcelain stoneware brand Florim. Its latest Optidek Magnum Collection offers the ability to create walls, worktops, splashbacks and upstands in eight matt and gloss marble patterns. The 6mm-thick surface comes in large format panel sizes of 2360mm by 760mm. Waterproof, hygienic and easy to clean, the PR states they're good for the bathroom – and being resistant to high temperatures, work just as well in the kitchen. Which leaves the minimalist designer with the conundrum of where to NOT marble...





Kings of the wild frontier

CIBSE's annual Building Performance Awards highlights the best performing projects, services engineering and products to help slow the effects of climate change. NorDan UK's timberbased windows won a gong for their low embodied carbon, highperformance system while the Welsh School of Architecture Low Carbon Built Environment Team won another for its retrofit of six homes, which will be monitored over the next four years. And Building of the Year went to Max Fordham LLP's work with FCB Studios on the new Passivhaus Cranmer Road student accommodation for King's College, Cambridge, above.



Students sleeping rough

Built in 1961, Sheffield's Park Hill estate is not only the largest listed building in the country, it's also one of its most famous examples of rough Brutalist architecture. Grade II-listed, it has long been undergoing regeneration into the city's trendiest address. Whittam Cox Architects has just refurbished Béton House as student housing for Alumno, providing accommodation for 356 students, including townhouses, twoand four-bedroom apartments, and studios. To retain as much of the original building's facade pattern as possible, while providing discreet-looking opening lights, the architect ran with Technal's FY65 Minimal system, which offered a slim and elegant aluminium frame while meeting thermal performance demands and replicating the sightlines of the original timber glazed units. The windows were designed, fabricated and installed as combination frames of fixed and opening units by Bradford-based glazing and facade specialist Quest Solutions.



Vintage cave

Located in a vineyard in Aumelas, a village in southern France, craftsman Nicolas Yazigi was charged with designing and fitting out a kitchen in the dark, vaulted stone interior of a farmhouse on the estate. His response was two runs of units in oak, each 4.3m long, topped with a Himacs solid surface for the worktop, splashback and side edges, into which both hob and sink are embedded. Part of his attention to detail, the wall-set units have been worked to adjust to the stone contours using carpentry techniques Yazigi acquired during work on mountain cabins. An initial wood template was made to follow the contour, laid atop a Himacs sheet, and cut using a wood router.



Pan-handles

With the aim of creating a consistent, minimalistic look and feel across a building, aluminium glazing system manufacturer Wicona has looked to its handles to create one design compatible with all its proprietary window, door and sliding systems. Being of solid, extruded aluminium, the 140mm Wictouch handles, with square edges and rectangular rosettes, also allows for powder coating as well as anodising. Available for all handle types; standard, lockable and tilt-first options, they have been produced using a minimum of 75% recycled, post-consumer scrap, ensuring that their manual handles have very small carbon footprints.



Weave and believe

It's not often you get Indian mysticism completely covered but this latest collaboration between Jaipur Rugs and designer Ashiesh Shah has created the Brahmaand Collection of five rugs, each one a hand-weaved interpretation of the infinite universe, phases of the moon, creation and astronomy such as with the Manthan rug, pictured. That's a lot to take on board, so content yourself knowing the company's carpets apparently help keep 40,000 Indian artisans from rural communities gainfully employed – over 85% of them women. Find out more from the Jaipur Rugs Foundation.

Groundbreaking solutions

Spanish tiles meet the evolving demands for modern flooring, from hygiene to high-traffic and from sophisticated aesthetics to safety and sustainability



Valued worldwide for an inspiring blend of style and technical innovation, Spanish tiles draw on a rich heritage of skill and creativity while leading the field in forward-thinking design. Architectural ceramics from Spain offer high-performance solutions for a vast range of specifications, enabling both elegance and confidence in hard-working floor coverings.

Robust resilience

Porcelain slabs offer the kind of beauty, resistance and durability that is required of today's flooring. Non-porous and impervious to chemical agents, abrasion-resistant, weather proof and easy to clean – tiles from Spanish manufacturers can answer multiple needs with their compact composition and excellent mechanical properties.

Safe and sound

Slip resistance is an essential factor not only for outdoor or wet areas, but also for retail

and hospitality environments subject to spillages and footfall from damp exterior conditions. Tiling solutions from Spain offer classifications equivalent to those in the UK. Other wellbeing concerns are met by the latest anti-bacterial coatings, adding even greater hygiene to the list of attributes for which Spanish tiles are renowned.

Brilliant beauty

Printing and firing innovations by manufacturers in Spain enable stunning visual effects to be produced, with creative offerings to meet almost any decorative need, from neutral, natural looks to high-impact drama. What's more, the versatility in terms of how the various patterns, shapes and formats can be arranged allows for strikingly distinctive projects.

Smart and sustainable

Large format, slim profile tiles not only mean easy installation with minimal grout, but also offer multiple benefits to specifiers, from raised-access flooring

Above The Stravaganza series from Vives, a terrazzo-effect anti-slip porcelain tile with recycled content, supplies a robust and forgiving floor covering.

www.vivesceramica.com

systems to achieving level floors on rough or sloping surfaces, and compatibility with underfloor heating. Sustainability remains a key and progressive ethos within the industry, while the enduring resistance and performance of ceramic makes for both easy maintenance and reliable life cycles.

Tile of Spain

Tile of Spain is the voice of the Spanish tile industry, representing more than 120 tile manufacturers. Manufactured in Spain and widely available in the UK, these products embody the spirit of an industry that prides itself on beautiful, meaningful and highperformance solutions to floor and wall coverings, work surfaces and furnishing, exterior paving and cladding.

Right Neo-Memphis inspired hexagonal floor tiles by Aparici, the Lined collection in 25x29cm porcelain creates fascinating, colourful and unique patterns for each project.

www.aparici.com

Below LookBack from Land
Porcelanico gives the metallic
trend a subtle glossy effect in
a striking yet relaxed pattern
with an industrial edge.
www.landporcelanico.com
Below right Keraben's Universe
range recreates the oxidised
effects of metals to offer a large
format and safe choice for easycare flooring that can go the
distance. www.keraben.com





Below Halcon's Icon range is ideal for high traffic areas with its intriguing stone look and anti-slip finish. www.halconceramicas. Right Pulsar from Saloni's Care collection is ideal for wet areas — sleek, highperformance porcelain that's anti-slip and antibacterial, www.saloni.com









For further information, visit tileofspain.com

Steel reuse tool cuts embodied carbon

Free-to-use FerrousWheel software automatically matches reclaimed steel with digital building designs

A digital tool that automatically matches reclaimed steel sections from a live stocklist with data in building design models is being developed by a team of UK researchers.

FerrousWheel is the result of a fourmonth research collaboration, funded by Innovate UK's Accelerated Knowledge Transfer initiative, between structural engineer Symmetrys and London South Bank University.

The free plug-in for Revit is due to launch at the end of the month as part of a drive to help the industry cut embodied carbon associated with steel production and make steel part of the circular economy.

According to Matteo Attanasio, senior structural engineer and head of sustainability at Symmetrys, the software will be an open source and more user-friendly alternative to existing tools that perform a similar function.

'Existing tools are either in-house only or they use Excel spreadsheets to give a list of stock, making them relatively inaccessible for lay users,' explains Attanasio. 'We're looking at visualising the stock in a 3D model so architects or engineers can take a quick screenshot and show the client straight away. It's making the process more accessible for people who don't necessarily have the technical knowledge.'

FerrousWheel scans analysis models or 3D visual models, catalogues structural steel sections and matches them instantly with a live stocklist of reclaimed beams and columns in the cloud. In addition, it calculates the carbon savings of any selections made and produces easy-to-interpret graphical summaries for clients.

Architects can also make use of the tool, particularly during RIBA Stage 2 or 3, says Attanasio, to give the client and wider design team an idea of the potential for steel reuse on projects. 'It gives a really good indication to demonstrate the potential to clients, pending confirmation of the steel being available to procure at Stage 4,' he explains.

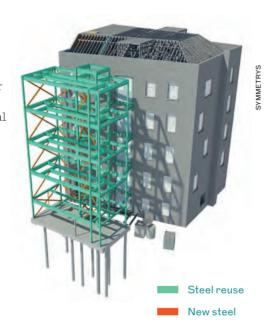
The tool currently taps into data provided by Cleveland Steel and in future will also include metal recycling company EMR Global. One challenge for researchers was the complexity of logging parameters for factors such as damage to steel and penetrations for connections in a standardised way.

Volume of supply was another issue. Even though the UK recycles around 90% of its steel, that's still not enough to keep up with demand and virgin steel is constantly being manufactured. Attanasio says that the more buildings are taken down and disassembled for reuse, the more stock will be available in stocklists used by the software.

The amount of steel available depends on the size of the project. 'If it's a 40 storey tower, and you're looking for 80% reuse, you might struggle,' says Attanasio. 'However, for most mid-rise projects, you're almost certain to find a few sections you can include.'

Although the research project ends in April, the team plans to continue research and development to refine the product until September. There are many challenges associated with incorporating reused structural elements in a project programme (Riba Journal, February 2023, p58). •

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Symmetrys' steel re-use study for the refurb and extension of a grade II listed warehouse at Great Suffolk St, Southwark, by Hawkins\





Glulam lattice pavilions

What Circular gathering spaces Where Regent's Place, London

Inspired by the randomness of a pile of sticks, the design and engineering of Nex-Architecture's timber lattice pavilions at London's Regent's Place has been anything but haphazard.

The three curvilinear structures were conceived as soft, natural organic forms to enliven the public realm at the British Land-developed office campus, and to encourage people to gather. The first pavilion is a simple screen wrapped around a curved bench; a second, larger pavilion surrounds a rotating circular bench; larger still is the third which encloses a circular performance space for use by the local community theatre. 'Our concept was for three timber lattice pavilions that would sit lightly in the landscape to act like a trail of breadcrumbs to draw people in, explains Nex-Architecture director Alan Dempsey.

Nex- developed the early designs through sketches, study models and VR simulation to determine the form, size and location of the pavilions. 'We didn't know the exact shape,' he goes on, 'but as soon as you move away from a dome you need to form-find and to do that you need good computing skills and a good understanding of how timber behaves.'

Nex- approached Xylotek at Stage 3, having persuaded the client to involve the timber structure specialist in the precontract design. 'Xylotek was great, we had to engage with manufacturers early to avoid creating a standard grid-like product,' says Dempsey.



Top left The pavilions seem to pick up on the timber latticework of an English garden, reinterpreted in a contemporary way.

Top right Pavilions in the new landscape between buildings at Regent's Place.

Above left Xylotek rationalised the forms to keep the slenderness of the oak laths.

Above right Interfaces with steel bolts were optimised via Format engineers' design input.

Xylotek rationalised the form using an iterative, collaborative process that kept the timber laths slender, and stiff enough to self-support the lattice. He says: 'They look random but there is an order to them.'

Oak was selected for its strength and durability. Over 400 laths are used to form the three structures. Each lath is assembled from oak lamellas, formed by finger-jointing short lengths of sustainably sourced French oak end-to-end to make 8mm thick, thin 9.5m long strips of timber. Five of these are glue-laminated in Xylotek's Bristol workshop to create a single, 65mm by 40mm cross-section lath.

Each pavilion is assembled from four concentric rings of laths. Within each layer the laths share the same curved



shape, so every lath in that layer could be formed on a single bending jig. The bent laths spiral in opposite directions on alternate layers; the overlaps add rigidity while appearing random. Deliberate variations in the length of the laths add to the structures' seeming haphazard form.

Laths are bolted together at specific intersections through holes drilled in the centre of each strip. 'We didn't throw bolts in everywhere. Our structural subconsultant Format worked out where they would be most effective,' says Martin Self, design director at Xylotek.

The structures are bolted to metal baseplates. The bottom edge of each lath is square-cut and incorporates a slot for an angled steel flitch-plate which is welded to the baseplate. 'In a weird way, there is more complexity to assembling the steel because the angle variation is taken out there, rather than in the laths,' he explains.

He says segments of the pavilions were pre-assembled by Xylotek 'to give us something to build off when we got to site'. Assembly of the stick-inspired pavilions was completed late last year. •

Doors and windows to enlighten the educational day

Durable, distinctive, and cost effective — why Velfac is the ideal choice for education projects

From a modest classroom extension to a landmark new build school, Velfac composite windows and doors are a competitive alternative to all-aluminium systems and come with a range of impressive performance benefits:

- Aluminium/timber frame: add a natural finish to learning spaces while external aluminium delivers both distinctive style and durability
- Slim frames maximise natural light: bring more daylight into classrooms and communal spaces and reduce energy costs
- Impressive thermal and acoustic insulation: U-values as low as 0.8W/m²K for triple glazing
- Environmentally conscious design: from FSC certified wood to 93% recyclable window units
- Versatile ventilation: combine different opening functions, trickle vents and louvres, or specify sensor controlled units for precise
- Secured by Design accreditation: for maximum safety and security
- Expert technical and design consultancy: from initial ideas through to post-installation support •



CROMER ROAD PRIMARY SCHOOL, NEW BARNET

Velfac slim-framed windows and doors are a key feature of every facade in this distinctive, L-shaped red-brick classroom building, by architect Innes Associates, helping architect Corrie Rounding meet challenging regulatory and sustainability targets while maximising usable space, increasing natural light and improving ventilation. 'We pushed the contractor to specify Velfac as we knew it was the right fit for Cromer Road,' says Rounding. 'Its sustainability and low energy performance met Department of Education requirements, while the robust external aluminium frame is ideal for a busy school environment.' Velfac could also meet key ventilation, daylighting and budget

targets: 'To manage costs and maximise daylight we concentrated glazing at areas of most activity,' Rounding explains. 'For example, we used tall slim units to illuminate the staircase but placed larger windows directly under the stairs to create an extra useful breakout space.'



POWELL AND WHITEHORN STUDENT HALLS, UNIVERSITY OF ST ANDREWS

These award-winning university halls, designed by HLM Architects, provide comfortable and stylish accommodation for over 380 students. with Velfac composite windows giving excellent thermal insulation and maximum natural light. Combining dark grey external aluminium frames with clear lacquered internal timber, Velfac windows enhance the halls' architectural design and meet users' needs, says architect Adam McAvoy: 'The quality of Velfac glazing supported the university's aim to build world class student accommodation,' he says, 'with the composite frame delivering a sleek external aesthetic across a range of different facades and design elements.' Study bedrooms feature large, full height Velfac windows: 'Pale wood provides a more "domestic" finish,' McAvoy adds, 'and the slim frame results in a high glass to frame ratio which increases daylight the room, contributing positively to residents' wellbeing.'





THE AISHER BOARDING HOUSE, SEVENOAKS SCHOOL

'A home not a hotel' was the guiding design principle for Aisher Boarding House, designed by Tim Ronalds Architects. Velfac composite windows and doors are a major element in every facade, with the slim, low-energy frame increasing daylight in private and communal spaces, while giving external durability and a more 'domestic' interior finish. This combination was one reason why the Velfac

system was specified, reports TR A: 'We've used all-metal systems in previous school projects but wanted a more homely interior for Aisher House, which we achieved with the white-painted timber frames.' Windows bring light into study bedrooms, kitchens and common rooms, with the manually operated side-hung units also part of the building's natural ventilation system. The Velfac units also delivered the thermal performance to achieve a BREEAM Excellent rating.



Find out more about Velfac composite triple glazing: Contact 01480 759 510 email sales-support@dovista.com or visit velfac.co.uk

Products In Practice May/June 2023



LDA banishes heavy wheezing traffic to conjour a calm, green and sociable stretch of space in London's West End

Words: Pamela Buxton

The sound of bells and birdsong – that was one of the more poetic aspirations of LDA Design's ambitious recasting of the traffic-clogged Aldwych end of The Strand in London's West End as a new public space for the capital.

Anyone familiar with the area before will appreciate the scale of the transformation, courtesy of a £22 million investment from Westminster City Council, that has re-routed traffic from that part of the Strand around the arc of Aldwych. The traffic jams of taxis and buses inching past Somerset House are

long gone, and the 'island church' of St Mary le Strand is no longer marooned in a hostile sea of vehicles. Instead, it is the focal point for a new sequence of public spaces with seating galore. Meanwhile new crossings over Aldwych ease pedestrian flow to the surrounding area.

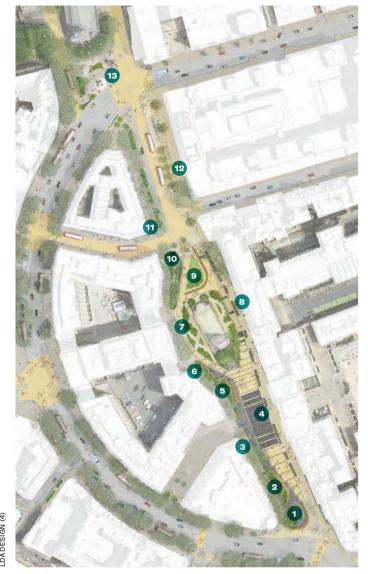
I'm not so sure about birdsong, but I can certainly hear the bells of nearby churches. LDA director Cannon Ivers points out that the Courtauld Gallery's ventilation system, previously drowned out by traffic, is now also audible. But that's a small price to pay for this bold

Above St Mary le Strand is the centrepiece of a new stretch of public realm at the Aldwych end of the Strand.

Right Aerial 'before' view of Aldwych, with unusually light traffic flowing past the church along the Strand.



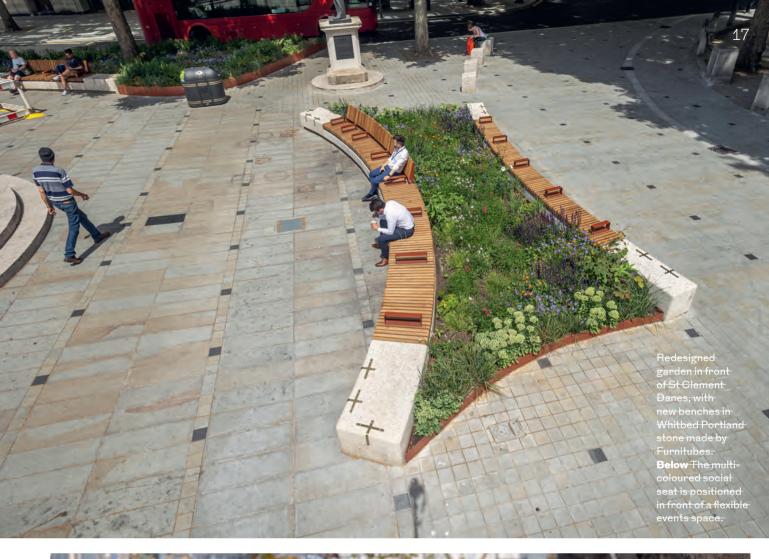
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intervention in the streetscape which, Ivers says, prioritises people over cars for the first time with the provision of 7000m² of new public space.

LDA won a competition in 2018 for the complex project, which covers the stretch of the Strand from just east of Waterloo Bridge to St Clement Danes just beyond Aldwych. By then, traffic studies had already produced the decision to make Aldwych two-way, which was key to the whole project. Tasked with designing a setting for a new cultural and education district, LDA sought to create a peoplefriendly space both for pedestrians including tourists – heading for nearby Covent Garden, and for users of a resident cluster of notable institutions such as universities LSE and King's College; cultural spaces Somerset House, The Courtauld Institute and 180 Studios; the embassies of Australia and India; and the

- 1 Garden room
- 4 Flexible space
- 5 Collective dining 6 Workstations
- 7 The Sanctuary
- 8 The Squiggle 9 Activity lawn
- 10 Garden walk
- 11 Rain gardens
- 12 People's Catwalk 13 St Clement Danes

Left LDA Design created a sequence 2 Spectator edge of different zones 3 Social seat throughout the new

> Top Render of the garden room sculptural bench, due for installation at the western entrance later this year.

public space.

Above middle: A second bench is planned for the Activity Lawn behind St Mary le Grand.

Above Another bench will curve around the Spectator Edge.

churches of St Mary le Strand and Wren's St Clement Danes. As well as encouraging cross-pollination between all these, Ivers was keen to introduce green space and promote health and wellbeing in this previously heavily polluted area.

There were plenty of challenges. What kind of uses should the public space facilitate? How can it accommodate vehicular access when required while providing sufficient security protection? And how can the materiality and design do justice to the considerable surrounding architectural heritage?

Covid put a big spanner in the works, resulting in the implementation of a substantial part of the scheme with 'meanwhile' furniture and ground surfacing for 3-5 years as a fast track way of regenerating the area. The meanwhile version also, says Ivers, gives the opportunity to test out various ways of



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using the new public space. He hopes the subsequent final version will implement the natural stone landscaping used in the rest of the scheme.

LDA's overall design strategy holds true regardless of the finishes and furniture. The bulk of the scheme creates a HVM (Hostile Vehicle Mitigation) secure zone for pedestrians and cyclists from the western end of Aldwych to Melbourne Place just beyond St Mary le Strand, which has pride of place in this transformed space.

However, the new civic space is not entirely without cars – a shame but unavoidable given the need to provide occasional, controlled vehicular access for embassy, hotel and services through the secure perimeter. It was also necessary to ensure that this part of the Strand could still be used as part of the historic processional vehicle route from St Paul's to Westminster Abbev if required. Nonetheless, the result is still a huge shift in favour of pedestrians and

Marking the western end, a 20m long shard of steel inset in the ground points into the new public space towards St

Above New public space to the rear of St Mary Le Grand at the eastern end of the HVM secure

Mary le Strand. Within this stretch, LDA has provided spaces for both relaxation and activity with different zones along the south-facing northern side.

Two yet-to-be-installed accoya benches have been designed by LDA to form a gateway feature of sculptural seating that wraps around a new garden room. Next is a flexible use space intended for public performances in the same way as the piazza is at Covent Garden in the summer. At the northern edge is the 'social seat' – a curving line of 57 multi-coloured seats which, says Ivers, has a playful and sculptural quality. He also envisages that spectators will be able to perch on 'The Squiggle', an undulating low rail that serves as a unifying element throughout the scheme. This feature also provides a border to planters and protects the basements of buildings from vehicles mounting and parking on the pavement.

LDA has introduced interest into what would otherwise have been a long expanse of floor surface with banding echoing the footprint of adjacent buildings and aligning with the arches of Somerset House. This is achieved in different shades of buff and dark grey surface-dressed tarmac that reference the Indian sandstone and Yorkstone visible at the western entrance and in the permanent parts of the scheme to the east.

All this leads to the focal point – the grade I* listed St Mary le Strand. Once derided as St Mary's-in-the-way by taxi drivers, this is now surrounded by a new outer sanctuary garden that serves as a green embrace. In front of the church to the west, temporary furniture by Vestre includes tables for eating and working. To the east are further gardens and a 'social lawn'. This will be bordered by another of the bespoke sculptural benches to mark the eastern end of the secure zone. The bench will also disguise some of the security furniture for the sliding bollards. These, and the accompanying steel-clad concrete blocks, are painted reddish-brown to give the required

Landscape & place





Above Markings in the surface of the new public space relate to the footprints of adjacent buildings.

Left Render showing view through the garden room towards St Mary le Grand, with the planned sculptural bench to the right.

Although the omens are good, it's a little early to judge the success of this promising new public realm. Visiting on a wet and chilly day in early March. it is still fairly well populated with streams of pedestrians crossing through but this is surely nothing compared to how it will be used in better weather. when it should really come into its own as a social space.

It's great to see so much public seating, and the scheme will also benefit from the addition of the distinctive gateway benches later in the year. It will be interesting to see in a few years' time how the meanwhile elements are incorporated into a more permanent arrangement of furniture and surfacing. The hoped-for installation of natural stone throughout would certainly boost the overall cohesion, consistency and material quality, especially given the inclusion of so many different zones. To do otherwise would surely be a missed opportunity after the big move of redirecting the traffic.

Whether LDA's vision of birdsong materialises remains to be seen. But it's certainly already a much more convivial habitat for humans, who are no longer pushed to the pavement margins of The Strand but are instead encouraged to linger, socialise and relax.

'The reality is it's still an urban space. But now it's totally about people,' says Ivers.

degree of contrast with the paving.

Beyond the security zone, the final stretch of Strand – which is still accessible by vehicles – incorporates 'rain gardens' for sustainable drainage and seating to the north. To the south, a new row of Liquidambar trees outside 180 Studios provides further greenery.

In this area, LDA's material intent for the whole scheme is clear. A combination of Yorkstone planks and Indian sandstone – including setts – creates a more pedestrian-friendly junction with Aldwych with a level change-free edge. While Yorkstone is often used in the vicinity, the sandstone is a new addition to the Westminster palette and was chosen as a 'dense, hardwearing stone with a nice warm tone,' says Ivers. This is used outside 180 Studios where LDA has relocated street furniture to create a new linear plaza, including a 30m-long 'People's Catwalk' in Laurel Bank and

Thornlake sandstone.

Outside St Clement Danes church. LDA's redesigned public space has Yorkstone interspersed with small black squares of Vega granite inspired by plaques inside the church, and rows of sandstone setts. New permanent seating gives people somewhere to linger. LDA took inspiration from the pocked, bomb-damaged walls of the church when choosing the fossilheavy Whitbed Portland stone as the base for two curves of new bench seating made by Furnitubes, one addressing the church, the other the nearby monument to Victorian prime minister William Gladstone. The new seating has details in the form of inset metal crosses to protect the stone from skateboarders 'grinding' along the edges of the bench. The same Portland stone is used for chunky bollards that double as seating.

Client Westminster City Council Landscape architect and design lead LDA Design Engineer and project manager WSP Traffic engineer NRF Lighting designer Michael Grubb Studio

BBS Jordans Whitbed Portland stone • Furnitubes furniture and metalwork including The Squiggle • **Kinley** steel edging to planting around St Mary Le Strand • Marshalls Laurel Bank and Thornlake Indian Sandstone; Scoutmoor Yorkstone; Vega granite • Millimetre bespoke accova timber sculptural seats designed by LDA Design • Vestre Meanwhile furniture

20 Landscape & place 21

Costed

Nicola Sharkey, UK insights and research lead, and James Garner, global head of data and insights and analytics, at Gleeds, cost external works.

External works – those carried out in the outside environment of a building project – typically comprise site preparation, hard and soft landscaping, fencing, railings and walls, external fixtures, drainage and services. Meeting functional and aesthetic requirements requires careful design and execution. Factors to consider include durability, cost, access and maintenance.

Landscaping is vital in sustainability strategies – particularly for improving biodiversity and drainage. The government encourages the recovery of nature from land

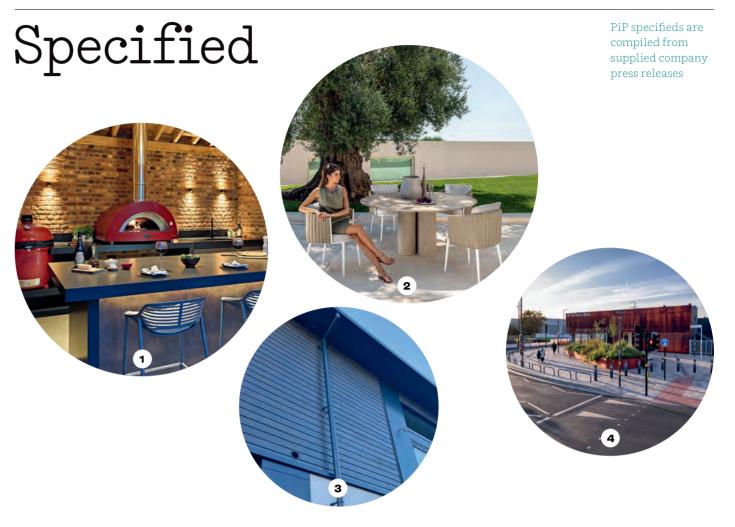
development through biodiversity net gain, to ensure wildlife habitats are improved after construction. Rules will apply from November 2023 for schemes in the Town and Country Planning Act 1990 unless exempt, and for small sites from April 2024.

Research shows that access to external space helps wellbeing. It can also help to define space use – for example, it can ensure that an area is inviting or help to promote security. Street furniture can help to create an identity, with a wide range of styles and materials available. •

The following rates are based on the UK average and represent typical prices at 1Q 2023. Please note that prices can vary significantly depending on the exact specification. PC - prime cost; nr - number

Soft landscaping and planting	£/m²
Spread and lightly consolidate topsoil from spoil heap 150mm thick by machine	3-3.50
Spread and lightly consolidate topsoil from spoil heap 150mm thick by hand:	9.50-12.50
Seeded areas — supply, planting, maintenance and 12 months guarantee	6.50-8
Turfed areas — supply, planting, maintenance and 12 months guarantee	8.50-12.50
General planting	27.50-35
Shrubbed planting	65-85
Standard root balled tree: (PC sum 40)	130-200/nr
Heavy standard root balled tree: (PC sum 100)	250-400/nr
Semi-mature root balled tree: (PC sum 150)	550-650/nr
Living walls, roads, paths, pavings and surfacings	£/m²
Resin bonded 1 mm-3 mm golden pea aggregate pathways	90-110
Tarmacadam paving — two layers, limestone or igneous chippir finish paving on subbase, including excavation and type 1 sub-b	
Grass concrete grasscrete, 100mm thick for cars and light traffic — in situ continuously reinforced cellular surfacing, fill with topsoil and peat (5:1) and fertiliser at 35g/, seed with dwarf ryegrass at 35g	125
Grass concrete grasscrete, 150mm thick for HGV traffic — in continuously reinforced cellular surfacing, fill with topsoil and p (5:1) and fertiliser at 35g/, seed with dwarf rye grass at 35g	
Precast concrete paving slabs on sub-base, including excavation	100-135
Precast concrete tactile paving slabs on sub-base, including excavation	165-225
York stone slab paving on sub-base, including excavation	250-400
Imitation York stone slab paving on sub-base, including excavation	150-200
Pedestrian granite sett paving — traditional cropped setts, on sub-base, including excavation	350-400
Pedestrian granite sett paving — traditional cropped setts, on sub-base, including excavation	375-425
Drainage	£/m
Access chambers	
Excavate inspection chamber, concrete base, half section pipe benching	work and

	£/m
Precast concrete inspection chamber:	
$600 \times 400 \times 900$ mm deep including excavation,	
half section pipework and benching	750-900/ea
Polypropylene inspection chamber: mini access chamber 600mm deep including excavation, half section pipework and benching	425-475nr
Excavate and lay 100mm diameter upvc pipes over 1.0m deep	65-85
Excavate and lay 150mm diameter clay pipes over 1.5m deep	125-150
Excavate and lay 300mm diameter concrete pipes over 2.5m deep	200-275
Excavate and lay 150mm diameter cast iron pipes over 1.5m deep	225-300
Street furniture	£
These rates are for standard street furniture — instal can be significantly more expensive	lation/bespoke pieces
Road signs: reflected traffic signs 0.25 area on steel post/illuminated	225-450/nr
Lighting to estates' pedestrian areas: 4m-6m column with up to 70W lamps	s 325-400/nr
400W high pressure sodium lighting to main roads: 12m-15m spacing	850-1050/nr
Benches: hardwood and precast concrete	1750-2000/nr
Litter bins bolted to ground: concrete/hardwood	275-325/300-350
Litter bins bolted to ground: cast iron/large aluminium	750-1000/800-1000
Street planters: Supply and locate precast concrete planters, fill with topsoil: 50mm shingle and drainage mat, plant with 5 litre and 3 litre shrubs for instant effect, 700mm dia. × 470mm high, white exposed	1050 1000//
aggregate finish	1350-1800/item
Living walls	
Living wall: Design and installation of planted module irrigation systems	s with automatic
Fabric based systems: indicative area rates as shown	
Wall up to 20m²/50m²	800-1000/650-850
Wall up to 100m ² /150m ²	600-750/575-725



T Outdoor surfaces Königoutdoor by Königstone

'Yeah, we've got 'im. He's a wriggler!'

'Ace! Get here quick. The pizza oven's fired-up and the heat, scratch, stain, frost and UV resistant sintered stone surfaces are all crying out for a chef who's up to this kitchen's al fresco standards.'

'He's moaning about his 750 children and a new series he's filming. He is not a happy bunny.'

'Put him on. Oliver?

Samie? Mate! Don't cry! Yeah
you're my slave now, but
we've got a KönigOutdoor
kitchen! Iron Corten Satin
doors by Neolith! Leathered
Absolute Black Granite
surfaces...'

'Cool! See you in ten.' konigoutdoor.co.uk

Salinas furniture collection Talenti

'Ibiza not exciting enough for you, love?'

'Yeah, don't get me wrong – and ta for the free holiday and everything – but I can't help being attracted to that other Salinas Collection table next door. Yours might evoke the Balearic landscape in monolithic concrete, but that one's patented Accoya wood, acetylated from sustainably-harvested softwoods, so it's even more durable than tropical hardwoods!'

'You should've swiped left on me Kelly, girl. You crave wood but I still offer a powerful monolithic base. Dimensional stability only gets a girl so far.'

'But it's non-toxic as well, Brian. Just saying.' en.talentispa.com

Aluminium guttering and fascias Alutec

'Noah! NOAH! What in God's name are you doing?'

'Installing these Aligator
Boxer gutters with 765mm
Flushfit downpipes of course,
Mrs Noah! Why are you
getting all aeriated like that
down there on the ground
while the stinking waters
are rapidly rising? Get on
the blinking ark, light of my
darkness, while I finish this
maintenance-free installation!'

'But you still need time for cutting and forming the Evoke panelling, silly!'

'Don't worry, my succulent nectarine! The whole system is quick and easy to install on site, so it'll all be done before the deluge-y comeuppance hits us!' marleyalutec.co.uk

4 Hard landscaping solutions Marshalls

(Spoken in thickest Peaky Blinders accent) Orroite me babba, yaouw coomoon sit dowwun ere an feast yawor oyes on this redevelopment araowound the stayshun ere in Burminggum's cosmopolitan oob a Perry Baaarrrrrgh. Aymin tao evoke the fusion melange of the famous Brummagem dish of a bostin Balti coorri, Marshalls provoydid a full suoite a landscapin materials cos theyum offer sooch a rayinge loik, includin granites in laodsa diffren coolas, tactoile payuvin, kerbsanbollards and even the beddin system yaouw need for gettin the stawon dawun! Loovly? Innit? Done well on tha wun, eh bab? marshalls.co.uk

Drink. Prep. Clean: all you need, all in one place

With the kitchen growing ever more important in our homes, Blanco has a neat all-in-one unit to make life better





To find out more about BLANCO's full portfolio of products and services visit: https://source.thenbs.com/manufacturer/blanco-uk-ltd/wQmDwU43KvVLyk7Ang1NN5/overview

Contact:
Mark Craine, contracts manager
07909 682757
mark.craine@blanco.co.uk

As UK consumers spend more time in the home thanks to hybrid working patterns, greater focus is being put on functional interior design that makes everyday tasks easier. The role of the kitchen has evolved and consumers are increasingly making conscious decisions about how their kitchen setup can enhance daily life.

Blanco has made a name for itself as the industry leader when it comes to a holistic and complete approach to the kitchen water place, and at the centre of this is the Blanco Unit. This combines a multi-functional sink, stylish mixer tap, in-cabinet waste and organisation in an

Above Blanco Unit with CATRIS-S filter tap, Volcano Grey SILGRANIT® sink and pull-out waste management and storage space

all-in-one system – offering a seamless solution to the kitchen water place. Its set up is designed to maximise available space and the combination of multifunctional parts makes kitchen life that bit easier. Whether it's washing up, disposing of vegetable off-cuts quickly, creating cool drinks easily with fresh filtered water or making a tea with a boiling water tap, the Blanco Unit makes tasks easier. And that no-go area under the sink becomes fully used with storage and waste systems suited to individual's setups. Whether it is used to separate recyclables, organise cleaning products or store other items, Blanco has a solution.

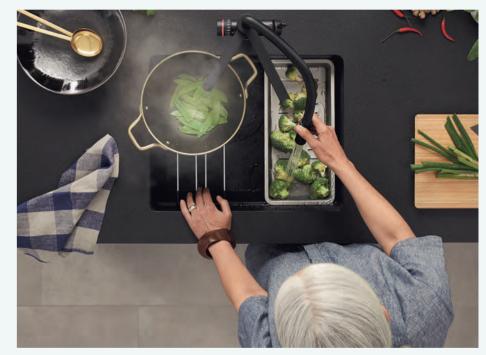
Research from Mintel shows that style and appliances are among the most important considerations for buyers investing in a kitchen and the Unit gives interior designers a stylish solution to the kitchen water place, allowing them to give homeowners a beautiful yet multifunctional area of the kitchen.

Sinks, taps and bins are among the most commonly used items in the kitchen but are often not considered as important in the planning phase as they should be.

The setup of the Blanco Unit brings together these three items in a perfectly integrated system where components have been carefully selected to ensure seamless integration with one another, making kitchen life more joyful. The Blanco Unit combines the brand's premium products, letting designers choose the right items to suit their customer's kitchen style and lifestyle. For example, Blanco sinks and taps can be selected in various colours or materials and finishes to match the aesthetics of the rest of the kitchen. Interior designers can also help consumers choosing to add clever accessories such as over-thesink chopping boards, soap dispensers or matching InFino sets to create an overall cohesive look. Whether it's the inclusion of smart or boiling water taps, sinks in a huge range of designs, materials and installation options, or additional incabinet storage, organisational products, waste management systems and food waste disposers, a Blanco Unit combines intelligent solutions and new materials to ensure it all flows naturally.

Through many years of research and development, Blanco has simplified the water place so that homeowners can find everything they need, all in one place.





Top Blanco Unit with EVOL-S Pro drink system, pull-out waste management and storage space. Middle Blanco EVOL-S Pro drink system, SILGRANIT® sink with integrated step for rails and colander. Right Blanco Unit LINUS-S satin gold. Soft White SILGRANIT® sink and pull-out waste management and storage space.



Social housing can harness Passivhaus principles

Local authorities want energy-efficient homes. It's a realistic proposition if they fully understand what's involved

Words: Josephine Smit

There's no escaping the fact that homes for the poorest in society sometimes fall short in their purpose of providing shelter from bad weather or harm, highlighted most recently by the death of two-yearold Awaab Ishak from a respiratory condition resulting from exposure to mould in his home. The Better Social Housing Review, commissioned by industry bodies the National Housing Federation and Chartered Institute of Housing, recognised the poor quality of social housing in its findings last year, while the government's Housing Ombudsman continues to report failings.

After Ishak's death the government announced improvement measures. including guidance on damp and mould, but rising fuel poverty has prompted fears that mould problems – often dismissed by landlords as 'lifestyle issues' - could become more prevalent.

It doesn't have to be this way, as the Better Social Housing Review panel found at Mikhail Riches' new Passivhaus homes in Goldsmith Street, Norwich. 'It was striking that people were so happy with the fact their homes were warm and comfortable,' says panel member and architect Sumita Singha. It's rare.

Newbuild reality

Numerous studies, including the fiveyear-long Building for 2050 research project, funded by the Department for Energy Security & Net Zero (formerly BEIS), have highlighted challenges in delivering healthier, more energyefficient homes. These range from complex designs with innovative technologies, which resulted in poor installations, a performance gap and hard-to-manage homes, to common misconceptions. Among the latter is that, 'Clients often think low carbon equates to low energy bills and that's not

the case,' says Tom Dollard, partner sustainability and innovation at Pollard Thomas Edwards, who worked alongside project lead Aecom on Building for 2050.

The study's in-depth look at four new low-carbon housing schemes found energy bills weren't as low as expected at design stage, with some significantly exceeding expectations. The 2022 update of Part L of the building regulations may not help either. 'You'll get a significant energy bill on a new house whose builder made minimum fabric improvements, such as insulation and airtightness, and just put in heat pumps,' says Dollard.

Extensive research on ventilation in new homes also makes unhappy reading. and is largely unnoticed by policymakers because, he says, 'until recently, there hasn't been enough lobbying for good air

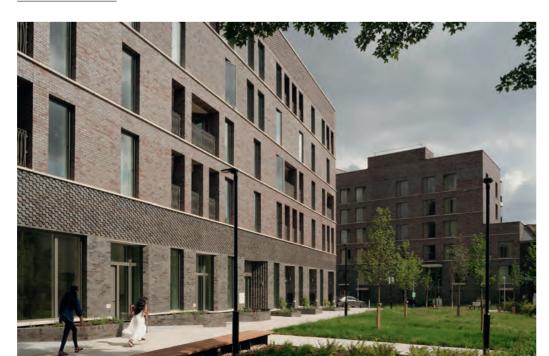
Clients often think low carbon equates to low energy bills, and that's not the case

quality, and it's been led by researchers, who don't have a powerful voice.'

The core issue is a lack of controlled mechanical ventilation, combined with an increasingly airtight fabric. 'On a still day in a relatively airtight home built to the new regulations (without centralised mechanical ventilation), levels of air change rate will be very, very low, so any sort of moisture build-up from – and this is where resident use comes in – drying clothes or even boiling a kettle will start to result in mould,' explains Dollard.

Doing better

The government's forthcoming Future Homes Standard is likely to phase out System 1, which calls for intermittent extract fan in the bathroom and trickle vents in windows, instead requiring continuous mechanical extract ventilation (MEV) or mechanical ventilation with heat recovery (MVHR). When reconciling low carbon, low energy and air quality, Dollard cites the mantra of sustainability consultant Peter Rickaby: 'no insulation without ventilation'.





Below left Mae's Agar Place scheme in Camden, London - part of the Agar Grove regeneration. the country's largest Passivhaus project. Left Bell Phillips' Riverside Road housing for Watford Borough Council, a terrace of five family homes that the firm designed according to Passivhaus principles.

running costs and impacts on health, wellbeing and the environment. Bell Phillips' design incorporates brises soleil to minimise overheating, high insulation and airtightness levels, MVHR,

photovoltaics, good form factor, air source heat pumps and carefully considered windows. All are designed to improve on Part L requirements by 70% – matching schemes targeting certification. 'The big criticism of the approach of saying we're going to have Passivhaus principles is that it works in theory, but you're never required to prove it,' admits Phillips, but he argues it's better to aim at Passivhaus principles than Part L.

And like clients, contractors are still

learning: 'As they get more familiar with

Passivhaus, hopefully it will get easier

and prices will drop correspondingly.

Scaling up

Among schemes helping to establish Passivhaus in the UK is Agar Grove's estate regeneration, the UK's largest Passivhaus project and part of Camden Council's programme to develop larger, energy efficient homes to give families the space they need while limiting energy costs and carbon emissions.

Of the scheme's 507 homes, 359 will meet the standard, with around half of all homes being affordable. With every phase of the development, Hawkins\ Brown and Mae are creating diverse architecture and house types that refute the idea its principles produce monotony.

While the project's budget included a premium for increased insulation and the workmanship for good airtightness, cost savings were made, notably by linking to a district heating system rather than combined heat and power. Triple glazing was needed anyway for elevations close to a railway. 'The additional cost routinely associated with Passivhaus is not always clear cut,' stresses Alex Ely, principal at Mae. 'You can often find savings elsewhere and in Camden there's a clear value uplift because it's reducing costs longer term.'

Such projects show value in building healthier, cheaper-to-run homes, but Passivhaus remains the preserve of enlightened clients. 'We were appointed to work on Agar Grove in 2012 so it's already a 10-year-old project in its design concept,' says Ely. 'Even among councils, it's still far from standard. I wish Passivhaus - or at least this level of performance - was the norm now.' •

These are two of the five 'pillars of Passivhaus', as detailed in Dollard's book, Designed to Perform. In it he describes Passivhaus as 'the optimum fabric-first solution', one of the factors attracting clients like Cambridge Investment Partnership (CIP), an alliance of Cambridge City Council and Hill Investment Partnerships. CIP is developing Passivhaus schemes for social rent and market sale in the city. with Pollard Thomas Edwards' projects ranging from six houses to 70 apartments.

The practice also wrote the council's Sustainable Housing Design Guide, which mandates Passivhaus certification. But setting that requirement in the Future Homes Standard would be a step too far for the housebuilding industry and its supply chain, says Dollard.

Growing understanding

Councils and community groups have been in the vanguard of low-carbon housing provision as they respond to climate change and local housing need. Hari Phillips, director with Bell Phillips, which works largely with local authorities, says, 'Passivhaus comes into conversations a lot more. I think clients do want that badge.' Local authority clients are placing increased emphasis on building performance, he explains: 'Because councils are concerned about

tenants and are there for the long game, more are looking at post-occupancy evaluation to go back and monitor energy consumption and see how buildings are performing against expectations.'

The practice has hosted seminars for councils on designing low-cost, lowenergy principles, addressing some of the myths surrounding Passivhaus as well as common concerns, particularly the demands and cost of certification. 'Full Passivhaus is a learning process and some councils are discovering it's not as easy as they thought,' says Phillips. 'The principle must be followed through carefully from outset to completion, and it's more technically challenging for contractors so they price in that risk.'

Given constrained council budgets, it's not surprising to find some opting for Passivhaus principles but stopping short of certification, like Watford Borough Council with its terrace of five family houses at Riverside Road. This council pilot in tackling climate change achieved a four-star ranking in BRE's Home Quality Mark, which considers

Local authority clients are placing increased emphasis on building performance

Housing specified: Idlewild Mews, Croydon

vPPR reveals the what and why of its specification decisions for an infill housing scheme in south London, marrying a specific identity with a contextual response

Folded metal balustrade

The folded solid metal profile creates a sense of depth in the facade and the two-toned colour palette creates a chequerboard effect alongside the brick. Folded aluminium sheet: Type Z-20/160, PPC RAL 060 85 10 & RAL 080 80 05 cadischmda.com

Two contrasting brick colours were used to playfully break down the overall mass of the building and connect it to the palette of the surrounding context. Brick 1: Rosado. Brick 2: Pagus Grey. Mortar colour: Dove White Stretcher bond, bucket handle pointing. jamesmossman.co.uk

Curved handrail

The bespoke handrail curves outwards at the base of the stair, inviting visitors up to the first floor units. Polyester powder coated metal balustrade Charcoal Grey - RAL 7031

Fabricated by PEC playleengineering.com

Slatted timber benches

To promote a sense of space and community within the narrow site, a timber bench and deep planter are located opposite the two entrances. Pressure treated softwood from Alsford Timber Ltd alsfordtimber.com

Planting and planters

Planting sits in custom integrated metal planters fixed directly to the balustrade. Not only does the greenery soften the edges of the building, it purposefully creates a setback where overlooking needs to be mitigated between the terraces and existing neighbours, garden and windows.

On the front face of the building, the Idealcombi windows are set back a whole brick, reinforcing the play of the light and shadow on the facade. As with the terrace doors above, windows in the recessed entrance areas are flush with the brick. Futura + i, 149mm frame, Idealcombi

Precast concrete treads For efficiency of

construction, the concrete stair was cast offsite in two sections with the wider lower two treads being cast on site. The stair was finished in resin to match the access way. Precast stair by Milbank milbank.co.uk

Permeable resin bound

Acting as a SuDS system,

Precast concrete strips

The long access-way is broken up through a by precast concrete layout. Precast concrete strips stonewellconcrete.co.uk

Catherine Pease, director, vPPR Architects

Idlewild Mews, an affordable rent, eightunit housing scheme, uses a playful combination of form and materials to unlock a challenging, narrow infill site. Volumetric design gives nearby residents privacy while engendering a sense of community within the development. It's characterful shape and materiality offer the homes a sense of identity, yet they are clear references to the built landscape.

A chequerboard pattern of different coloured brick on the exterior further mitigates its perceived mass. The bricks

were inspired by the tonal palette of neighbouring properties and ensure the contemporary architecture fits its surroundings. The terraces are wrapped in folded metal balustrades adding to a sense of light and shadow, while in-built planters act as an additional buffer zone.

A diamond pattern running along the access-way breaks down its length and a change in colour outside the front doors demarcates a small shared space. With benches opposite the main building, it is hoped this simple hard landscape will encourage dwell time and conversations between residents. Little moments of communality will help reinforce a sense

of community, which can be achieved through design on a modest budget.

The development occupies a former garage site and is completely surrounded by existing houses, with glimpses of the new project appearing from across gardens and over fences. A narrow pathway leads to the front of the homes where the volumes have been alternately pushed back to create covered entrances on the ground floor and terraces on the first. Inward focused to prevent overlooking, these can be accessed directly from living rooms and bedrooms, bringing light and air into the upper level of the homes.

Aluminium ceiling panels

The two recessed entrance areas are defined through their grey aluminium ceiling Square edge aluminium ceiling panels RAL 7035 Supplier Cadisch MDA cadischmda.com

ARCHITECT'S STATEMENT

Meter cupboards

Due to the limited space. bespoke meter cupboards sit below windows. A bespoke metal door reads as integrated parts of the windows.

Bespoke powder-coated aluminium RAL 7035 Fabricated by PEC playleengineering.com

gravel

the cast in situ resin-bound gravel allows for a complex diamond pattern along the access-way, where two contrasting colours define entrance and sitting areas. 6mm, Addaset addagrip.co.uk

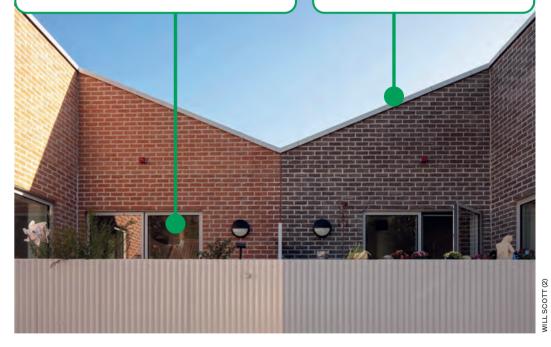
diamond shaped grid defined 100mm wide x 150mm deep channels, textured, Cool Grey

Glazed doors

The roof terraces were conceived as private outdoor rooms where both the living rooms and bedroom open up to the space. The doors were chosen for their minimal profiles and sit flush against the brick (unlike the windows which are recessed) to emphasise the continuity between inside and outside. Futura +, 149mm frame, Idealcombi idealcombi com

Zinc coping ties the project together - its colour both reinforces the bold profile of the building but also ties it back to the rest of the structure where windows and doors have a matching

Rheinzink, Linitherm 182mm rheinzink.co.uk



Architect & executive architect vPPR Architects Client Croydon Council

Structural engineer Arcadis/Pell Frischmann M&E consultant Arcadis/Desco

QS Arcadis Ian Sayer & Co Landscape consultant Christina Odell

Acoustic consultant Arcadis

Principal designer/CDM/Project manager Arcadis/Faithful+Gould

Approved building inspector Croydon Council Building Control

Main contractor Selsdon Building Contractors CAD software used Vectorworks

Gross internal floor area 527m²

Gross external floor area 624m²

> Form of contract Design & Build

Start on site September 2020

Completion date

August 2022

Design and practicality fuse with Anvil metal cladding

Taylor Maxwell's system is quick to install, non-combustible and available in a wide range of colours and finishes



Left Anvil pressed plank secret fix system on Seren student accommodation in Swansea.

TAYLOR MAXWELL

To speak to the team at Taylor Maxwell about Anvil metal cladding and how we can assist with your project, call 0203 794 9377 or email enquiries@taylor. maxwell.co.uk

Designed for facades, Anvil metal cladding is a range of innovative aluminium rainscreen systems that allows precise and efficient installation, with perfect joint lines and accurate tolerances.

More and more developments are calling for fast track construction techniques to improve build times and programmes. Alongside strong demands for reduced build time, updated building regulations now prohibit the use of 'combustible cladding'

on relevant high-rise buildings. Suitable for new builds and projects where re-cladding is required, Anvil metal panels are available in an extensive portfolio of polyester powder coated (PPC) colours and finishes, all of which are A2 fire rated (tested to EN13501-1).

To achieve a striking and unique design, metal panels can be perforated in a range of shapes and sizes to create various patterns. As an alternative, Anvil is available in a range of expanded mesh screens.

Colours and finishes

Depending on the desired finish, Anvil metal panels can be used in a range of shades, including standard RAL colours that are available as a matt, satin or gloss finish. The mineral textures range provides an affordable solution to mimic the look of natural materials such as stone — similar to the anodic-look PPC finishes which provide a cost-effective alternative finish by creating the visual of an anodised surface.

For a more traditional look, Taylor Maxwell provides a number of metal finishes including bronze, copper and Corten, as well as an additional PPC metal-look and metallic range.

Perforated metal

Perforated metal panels are produced by punching holes of different shapes and sizes into cold sheets of metal to create various patterns. This gives designers and architects the freedom to create a diverse range of patterns and designs.

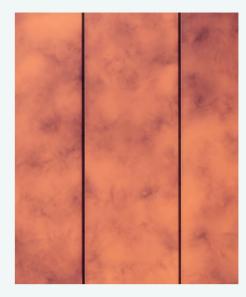
The number and size of the perforations are critical for consideration in the design process. We can supply round, square or special-shaped perforated systems as well as bespoke perforated or embossed patterns to suit your project design requirements.

A range of tools can be used alongside punching machines to create different perforations or emboss patterns, which can be either convex or concave. The material work-hardening properties that result from the embossing process create a much stronger panel solution. As well as their aesthetic properties, perforated panel systems are an effective way of satisfying ventilation and solar shading requirements. Perforated metal panels are available in a PPC, anodised or natural metal finish.

Expanded mesh

Expanded mesh screens are extremely versatile, ideal for creating a contemporary facade, and offer an instant transformation on refurbishments and new developments. Expanded mesh produces minimal waste and is therefore a good option for projects with a sustainable focus.

The cladding system is usually constructed from 3-5mm thick metal sheets, with the individual design of the panel being shaped by the selected material. The amount and size of perforations, or the 'eyes' of the expanded mesh, are an important consideration in the design process. These flexible metal patterns can be used to





enhance the shape of a building and can be manipulated to achieve unusual and striking visual effects. Expanded mesh is available in a variety of weights and aperture sizes to suit your project design requirements.

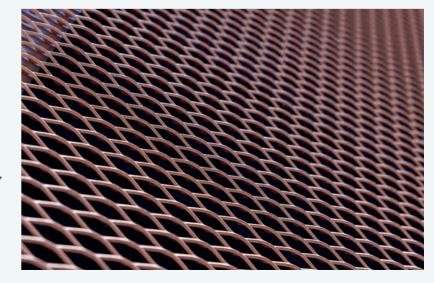
The expanded mesh manufacturing process provides the material with a three-dimensional quality. It can be completely opaque when viewed from one direction and transparent when viewed from an alternative angle. In addition to their aesthetic qualities, expanded mesh screens are extremely strong and flexible enough to be used for metalwork fabrication and metal structures. Our expanded mesh systems are available in a PPC, anodised or selected natural metal finishes

Our team can provide advice and guidance to help you select the appropriate format of expanded mesh or perforated panels. We can assist with advice regarding light transmission and ventilation requirements and offer suggestions to suit individual budgets, designs and installation requirements.

Above Anvil recessed joint fix system on Northampton General Hospital entrance way.

Left Anvil perforated metal panels on Hampton by Hilton hotel in Manchester.

Below Anvil expanded mesh on SWIOT Building, Exeter



Anglia Ruskin University campus, Peterborough

Anglia Ruskin University's new campus ultimately expects 12,500 students. With that footfall, putting the right flooring in the right place was essential

Words: Jan-Carlos Kucharek Photographs: Richard Fraser

Approaching Anglia Ruskin University's new Peterborough campus, south of the city's Norman cathedral precincts, you pass over a wide pathway. It's an expensive consequence of the Ukraine conflict, explains MCW Architects associate Lien Geens, who has been in charge of the £20 million design and build project since the Cambridge firm's appointment in 2019. In the pressured run-up to University House's opening last September, the need to ensure that ARU Peterborough's first phase opened in time for its first cohort of undergraduates meant procuring the warm but robust buff-hued Tarmac Ulticolour floor covering at more than double the originally quoted price.

A lot has been riding on the success of the venture, as bringing a tertiary education institution to the city – the largest after Swindon without one - was a core pledge made by its new mayor in 2016. Perceived as a higher education 'cold spot', Covid 19 brought more challenges. ARU Peterborough's Full Business Case stated that the pandemic's effects were exacerbated by 'education deprivation and the region's low-tech industrial base' - the city is ranked in the bottom 10% nationally for skills levels. So when ARU intervened, with Cambridge and Peterborough Combined Authority and the City Council, to create a new university, it was not before time. MCW was part of a MACE-led multidisciplinary team that delivered it in under two years - despite the pandemic. The 5,300m² University House has just welcomed its first 2000 students, half of those local or mature students, to its faculties of General Science, Health. Education and Computing.

Geens explains that the building concept is simple, a 75m by 32m structure

of post-tensioned concrete slabs and columns set over three floors. Specialist teaching and laboratory spaces are arranged either side of a central 'heart' space, incorporating a circulation zone and informal learning areas and spaces encouraging social interaction. The north side of the building, facing a busy A road, is a mix of full-height, doubleglazed or insulated aluminium panels and opening side vents, with characterful brown, profiled and glazed terracotta demarcating the double-height lecture hall. The cladding is similar on the south side, but here it is set behind a huge, dominating aluminium screen by Sotech. The CNC-cut perforated motif on this 'solar veil' was based on the nearby cathedral's painted timber ceiling, says Geens. As designed, it cuts up to 50% of direct sunlight to the south facade and helps the building attain a BREEAM Very Good rating. This is augmented by a green roof and PV arrays, plus factored-in connectivity to Peterborough Integrated Renewables Infrastructure (PIRI); which





32 Flooring

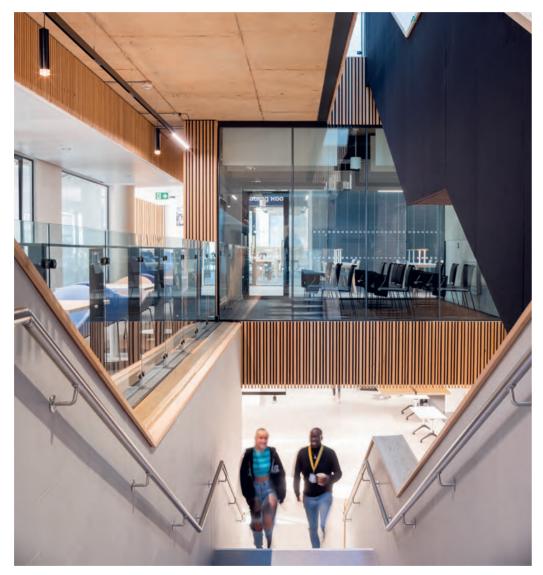
will provide fossil-free heat and hot water.

Also part of the thermal strategy is the building's mixed-mode ventilation system. This concentrates high levels of air conditioning in high-demand areas like laboratory and computer science rooms while using low level feeds in more general areas. Secure ventilation panels in the facade allow for night purging, helped by others set at high level in the six light cannons of the central spine, which also double as smoke extract.

Intrinsic to the strategy for ventilating general lecture areas was the nominal 600mm sub-floor plenum that sits beneath the Kingspan raised floors of the first and second floors, where says Geens, 'there's a lot happening'. She explains that with the plant area at high level on the north side, MCW had to use the 'pinch points' of the central spine bridge crossing to concentrate plenum runs. The process was helped by all the consultants building their models in Revit, which allowed biweekly co-ordination via overlay of the models. Large ductwork for floor-fed, low-velocity air feed required acoustic dampers at the glazed wall partitions where the seminar rooms meet the central space, as well as fire-rated and smoke dampers at all interfaces. Fire batts in the floor were installed every 20m to deal with both plenums and runs of data and electricity feeds, not least to the data-heavy computing training spaces. Multiple below-floor fire separation concerns required close working with the contractor to ensure the correct sequencing of services. A Kingspan Airseal raised floor completed the installation using Alpha pedestals. Marlings Burbury 'Granite' carpet tiles with their acoustic attenuation qualities made them a natural choice for seminar and teaching spaces. Also installed in the central spine, their specification in lighter 'Zinc' helps delineate circulations zones from informal study areas in the corners – the sound further mitigated by wall-mounted acoustic panels.

At ground level, there are deep floor voids in areas requiring only low-level feeds such as in the main lecture hall at the north-west side, but high-level, high air exchange plenums are used in areas such as the science, engineering and health labs. In these rooms, says Geens, floor voids are reduced to 250mm to deal with electricity and data feeds on a more



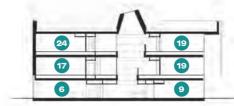


robust Kingspan Simploc raised floor. Heavy duty Forbo Surestep Material vinyl anti-slip sheeting in 'Blue Concrete' was specified here to withstand lab desks and machinery being moved. Laid as a sheet roll, its minimal joints reduce the likelihood of spilled liquids or chemicals making their way into the floor void. Forbo Eternal Material vinyl sheet in

'Beton Concrete' was specified on the heavily trafficked areas of the central staircases. This was as much an aesthetic choice as a practical one – as with the carpet colour demarcating study zones, it creates visual distinction to vertical circulation areas.

Throughout the ground floor common spaces, including café and student hub,

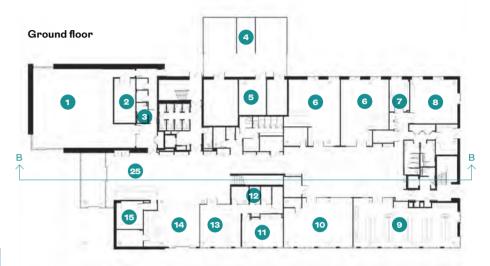
Short section AA



- 1 Lecture hall
- 2 Storage
- 3 First aid
- 4 External plant
- 5 Plant
- 6 Health labs
- 7 Technician office
- 8 Midwifery
- 10 Project room
- 11 Office
- 12 Meeting rooms
- 13 Student and library

- 14 Café
- 15 Security office
- 16 Multi-faith room
- 17 Computer rooms 18 Seminar rooms
- 19 Teaching rooms
- 20 Library
- 21 Cathedral terrace
- 22 Multi-functional rooms 23 Muslim prayer room
- 24 Open plan office
- 25 Reception area



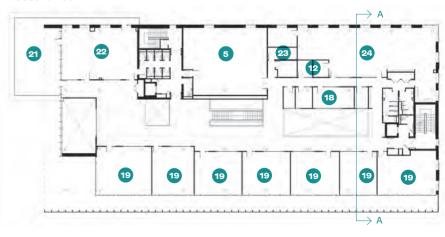


First floor

Long section BB



Second floor





Top left Robust ceramic planks line the ground floor reception, cafe and circulation areas. **Left** Vinyl sheeting in 'Beton Concrete' is slip resistant and gives a distinct identity to the stair

Above Floor level circulation has carpet tiles on raised floor pedestals, beneath which is a deep plenum for air feed.









Top left The central atrium space forms the main circulation hub of University House, topped with six funnels that draw light deep into the building's plan.

Top right Floor levels are interspersed with seminar spaces and open breakout areas for individual or group study — all carpeted. **Above right** Heavy duty vinyl sheeting is used for lab spaces to avoid chemical spillages making their way into the floor void. **Left** Timber slats throughout provide effective levels of acoustic attenuation. Right Glazed terracotta profile tiles bring depth to the elevation and pick out the main

MCW selected ST3 Tiles' 1200mm by 300mm ceramic planks in light grey running lengthways into the building. These give students a robust, slip resistant surface once they're past the Forbo Nuway Grid entrance matting in reception. The tiles in this zone sit on a screeded concrete floor.

Outside, the flat roof above the main lecture hall and library space on the building's north-west corner doubles up as a generous terrace with enviable views over to the cathedral and city. This has been paved with coarse textured concrete paving slabs to the contractor's spec. From here observers can see that tarmac path and the courtyard's Scoutmoor Yorkstone slabs leading to the colonnade beneath the south-facing solar veil. Formed of 200mm by 100mm by 80mm Marshalls concrete block paving, this through-site connectivity is part of the university's strategy, giving the public

intriguing glimpses past the glazing of the lab areas to its day-to-day activities.

Phase 2 of the development, the £16 million Research and Innovation Centre, has just completed on the other side of the courtyard. Of less conventional hybrid steel and timber structure, it's designed to allow tech start-ups the chance to engage directly with the academia opposite. And just breaking ground to the west and completing in 2024 is the Phase 3 'Living Lab', a £26 million 3000m², all-timber structure that will, alongside more general teaching provision, have dedicated specialist science labs. By 2025, the aim is to have 5000 students studying at ARU Peterborough, with a total of 12,500 by 2030, a £60 million academic hub finally addressing the area's general education deprivation and bringing youthful energy – and economic benefits – to the ancient city on the Fenlands' edge.



Client Cambridgeshire & Peterborough Combined Authority, with Peterborough City Council & ARU Project manager MACE Cost consultant MACE Structural engineer Smith and Wallwork Landscape consultant LUC Acoustic consultant Anderson Acoustics Fire Hoare Lee Principal designer Safescope Approved inspector Quadrant Planning consultant Pegasus Transport consultant TTC Main contractor Bowmer and Kirkland

Architect MCW Architects

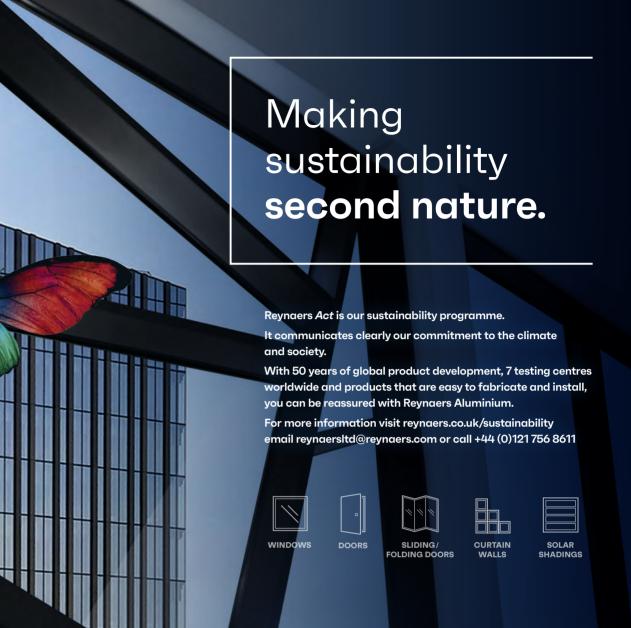




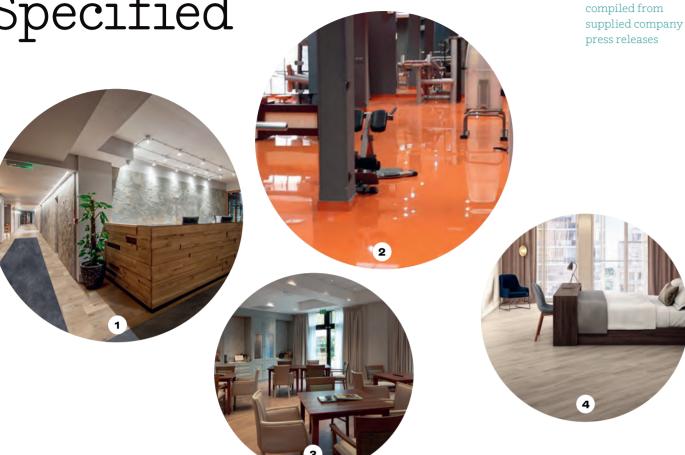


We are contributing to more sustainable buildings and developing circular products. Ensuring we reduce our ecological footprint while never forgetting we are a caring company.





Specified



Nerok 70/55 Compact Gerflor

'Cheshire Plant,' Alice began, rather timidly, 'Would you tell me, please, which way I ought to go?'

'That depends on where you want to get to,' said the Plant. 'I don't much care', said Alice. 'Well.' said the Plant. 'Both paths combine the same Mineral Concrete and Embossed Wood finishes, and both have the same transparent wear layer, PUR+ matt treatment, glassfibre veil, and compact backing. Choosing between two identical paths would be mad!' 'So long as I get somewhere,' Alice added.

'Oh. vou're sure to do that.' said the Plant, 'if you walk long enough.' gerflor.co.uk

Hermetic Neat poured resin floor Elite Crete

It is necessary to study the Hermetic writings. Consult: Liber Hermetis, Corpus Hermeticum, The Book of the Secrets of the Stars, The Secret of Creation, the Liber Hermetis de Alchemia. Read also the Elite Crete PDF. Only then shall you comprehend this high-build flooring system of urethane top coat, body coat and vapour barrier, which is slip resistant, antimicrobial, VOC free, chemical and stain resistant. durable, and low maintenance - yet whose gloss finish shines like the transformational Full Moon, casting Her Mystic Potency upon a vibrational Sunny-D lake of orangey spiritual power. elitecrete.com

Allura LVT Forbo

(Voiceover Sir Richard Attenborough) Here, in the beautiful woodlands of Hampstead Heath, lives a hidden colony of old people. These timid creatures live in communities known as 'social care', sharing cabbagey meals, games of 'Snap!', and reminiscences of knitted bathing costumes. To see them in their natural environment, scientists have installed this accredited dementiafriendly floor covering. Warm, welcoming and easily wipeable - these 'Steamed Oak' vinyl tiles encourage them to gather here in a central clearing. And now, with our cameras carefully concealed, we must wait for the troop to assemble... forbo-flooring.co.uk

Form I VT Amtico

How, tell me, exactly HOW are we supposed to get from the door to the bed?

PiP specifieds are

This flooring is in the Amtico 'Form' collection, ves? Well. My wife is a member of the Listeria community, and I have E-coli heritage. We're completely on board with the need to keep killer viruses out of the building, but embedding ionic silver in urethane coatings exterminates 99.9% of all microbial populations! Including us, innocent British

We booked this room in good faith, and you're trying to kill us? Pure discrimination. Your TrustPilot review is not going to look good! amtico.com

Advertorial All About Bricks

Bricks for style and sustainability

A variety of bricks and bonds give character to Lancaster Grange, the first UK recipient of the BRE Home Quality Mark



Above Soldier bond and sawtoothesque patterned brick detailing, evident in these striking designs.

Below The Bricket Wood blend combines the Rustington Brown and Red Silversand products from AAB's handformatic press.







POWERED BY

Built on the site of disused BRE buildings close to the BRE Innovation Park, this striking development of 100 units represented the first to be certified under the BRE's Home Quality Mark.

The choice of brick as the primary material in the design established a strong and consistent language across all units. In addition to traditional stretcher bond, soldier bond was specified across the various unit types, in particular in the houses' roof parapet details. Window panels incorporating sawtoothesque patterned brickwork added further character to these elegant designs.

The developer's design team approached AAB - the wholly owned UK subsidiary of Rijswaard Bricks and Netherlands' largest independent brick manufacturer – aware that we operate one of Europe's most sustainable manufacturing resources. The factory's solar panels and kiln heat recovery systems generate 25% of the factory's electricity requirements. Rijswaard also transports bricks to the UK from its own quay outside the factory, delivering to the UK in coaster ships carrying close to a million bricks in each crossing.

The initial pallet of materials made reference to the historical term 'Luton Grey'. This harnessed the aesthetic of buildings in the local area, which were constructed using grey and red bricks. Examples include the Holy Trinity Church, East Hyde, built by John Gray of Luton in 1840-41 (British Brick Society, 'Bricks in Churches' May 2015).

Having reviewed AAB's range produced at our state-of-the-art factory in Aalst – and seeking a more striking brick tone contrast to accentuate the development's design details, the developer challenged us to produce a bespoke blend. This resulted in the 'Bricket Wood Blend', which comprises our handmade textured Rustington Brown and Red Silversand Handmade products from our handformatic press as chosen for and used in the development.

Go outside whenever you want

Markilux awnings offer style and flexibility – making outdoor living easy and tempting in almost any weather





markilux.con

design featuring an awning. This should provide equal protection against sun, wind, rain and cold.

Standalone patio roofs are very popular today, and are available in many versions. The open-air seating area of the 'markant' closes at the top with an awning roof,

which protects against the sun, wind, rain

several standalone systems in its range. Now the four-column open-air seating area 'markant' is set to conquer gardens and patios. It does without the typical adjustable louvres in the roof, instead using an airy

and cold, making it suitable for almost all weathers. With its simple geometry, it suits similar house shapes particularly well - whether on a large patio, in an extensive garden or in a restaurant or hotel in order to provide outdoor protection and a pleasant atmosphere.

The awning extends horizontally

On the new patio roof, one or two awnings are integrated into the upper frame of the cuboid system, which is placed on four square aluminium pillars. The open-air seating area measures 6m by 6m if equipped with two individually operable awnings. Another version, with a single awning, is somewhat smaller at 3m by 6m - and a standard height of 2.6m. However, other heights are also possible. What is completely new is that the awning extends horizontally, running flush with the upper frame. This is achieved using the 'tracfix' system, which prevents the material sagging and holds the well tensioned cover firmly in the guide tracks. As a result, the awning fabric is kept stable in winds of up to 6 on the Beaufort scale.

Left As a stand-alone unit or integrated into the existing architecture, the markilux markant makes a big impression in any situation.

A smart solution for rainwater drainage

Setting a horizontal angle was only possible due to a special trick. Normally an awning requires a tilt angle of at least 14 degrees, so rainwater can flow off and avoid the so-called cushion effect, in which troughs of water are formed. But in the 'markant' system, markilux has been able to dispense with the tilt angle because by inserting special openings in the centre of the cover. Rainwater flows automatically through the openings, then away to the side via a rain gutter and down the pillars, exiting at the bottom. Delicate aluminium ribs support the textile roof in dissipating larger quantities of water over the awning.

An airy climate under the awning roof

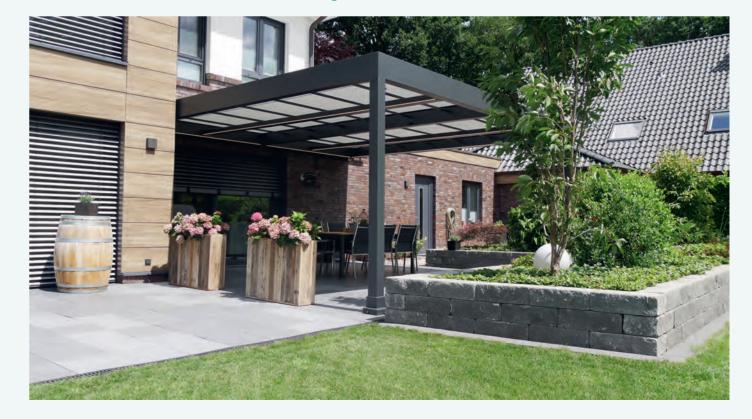
The awning fabrics have excellent water-repellent properties, which, together with their resistance to ultra-violet light, makes them extremely weatherproof. Although a special procedure of impregnating the covers has made them dirt-repellent, they are still air-permeable. This means that heat does not accumulate underneath them in the same

Below The cubic design provides a pleasant climate because heat does not accumulate so severely under the air-permeable fabric roof. In addition, it is possible to design one's own individual colour space using the diverse and extensive range of fabrics.

way as under a closed glass or louvre roof, and the awning does not rattle. The room climate and atmosphere are substantially more pleasant – a sensation enhanced by a cosy awning colour. To this end, the new fabric collection offers consumers a rich selection of colours, right down to their own individually desired shade.

Smart functions for a feeling of wellbeing

Furthermore, LED lighting can be added to the awning roof for illumination, which can add to the sense of wellbeing. For example, a dimmable 'LED line' can be installed around the upper frame or on both sides of the central rain gutter. LED spotlights and a heater can also be integrated here. In order to operate this additional functionality, markilux uses wireless 'io' technology. Sun and wind sensors supplement the safety of remote-controlled operation. And those wishing for more privacy and protection against the cold under their awning roof can combine it with a vertical blind, which fits precisely within the dimensions of the upper frame and the pillars. •



40 Interiors 42

Jacksons Lane, London

A multi-arts and circus hub in a converted church has been reconfigured to create intriguing and much more flexible spaces

Words: Michèle Woodger Photographs: Fred Haworth

Architect Katy Marks, front of house manager Andy Martin and I are standing in a refurbished studio at Jacksons Lane arts and culture hub, a room in the transept of a grade II-listed Victorian Methodist church. As Marks indicates the rigging that now enables circus performers to practise trapeze in this sound-proofed, double-height space, an actress rehearses her set. Suddenly, she yells an expletive (the actress, not the architect) and flings herself into a chair as Bowie blares from speakers. It's our cue to leave. What Charles Wesley would have made of it all is uncertain. But for Jacksons Lane, the performers, theatregoers and Highgate locals, Citizens Design Bureau's transformations are a godsend.

For some years the building's main entrance was obscured by hoardings, the porch stored chairs and access was via a small side door. While budget and planning restrictions has kept most of the refurbishment inside, one of the clearest external interventions is the reopened main entrance, reintroducing a sense of





Top The quirky 'gap space' forms a junction between the theatre, entrance foyer and café, and the back-of house studio spaces. This had been an awkward no-man's-land between the church and its hall. Left A key external

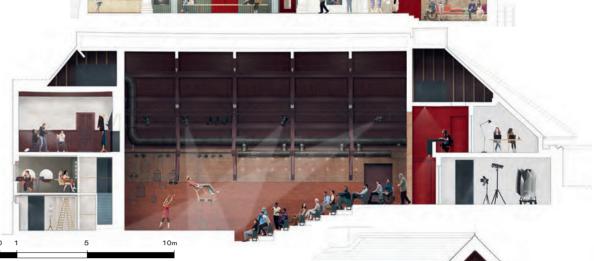
intervention has been to reopen the main church doors, reintroducing a sense of procession.

Right Previously spread over 20 levels, the refurbishment makes for a coherent and accessible experience. Lights, which were designed by the practice, reference a trapeze.



Right Section of the church, now divided into studio spaces, with the 1970s concrete floor bisecting the nave left in situ.

Below right Section of the theatre, which occupies the old church hall.



procession. Churches are theatrical too.

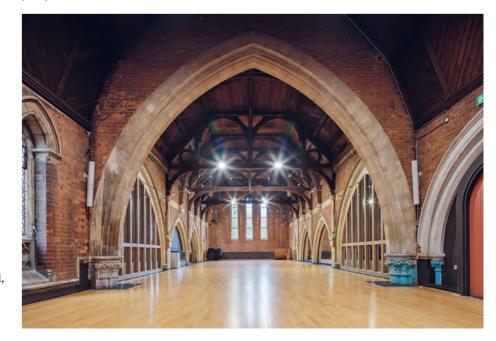
Converted in the 1970s, the centre comprises studio spaces, a professional theatre in the adjoining former parish hall and a café – now large, airy and much increased in capacity and appeal. Yet what once made sense to someone at some point had become nonsensical: the building was arranged over an astonishing 20 levels, with the nave split vertically in two, low ceilings elsewhere, interruptions to circulation and other non-sequiturs. Acoustics were bad so that rooms could not be hired out simultaneously, and certain equipment was available only in the theatre itself, making rehearsals difficult to schedule.

With the budget slashed early on (Marks had six weeks to convince Arts Council England that the designs were viable), the design team had to radically reprioritise the resource allocation (beyond conservation and structural repairs). 'It forced us all to really think: What is the essence of this place? What really makes a difference, creatively and functionally?' Marks explains. 'Sustainability is about buildings that last because they are loved and well used, flexible and robust. So getting the layout and access right was fundamental'.

The earlier layout provided little

Right View of the refurbished theatre from the stage. It now has professional seating and cumbersome technical equipment masking original trusses has been removed.

Below The main studio occupies the top half of the original nave, bringing visitors unusually close to the church ceiling, and offering intriguing perspectives on architecture.



PHILIP VII

PiP specifieds are

supplied company

compiled from

press releases

sense of the original building. Now, it is easy to identify the direction of the aisles, the transept, and so on. The concrete floor bisecting the nave's section has been retained but the upstairs studio created by this insertion has been upgraded with large internal windows in the arches. establishing visibility while remaining soundproof. This space, far higher than the original builders ever intended the congregation to be, is unusually close to the ceiling and restored Victorian glass windows, offering new perspectives on old architecture. New uses for this room include weddings, filming Strictly Come Dancing, and hosting 200 pensioners on Christmas Day – many of whom wouldn't have been able to climb the stairs.

The refurbished theatre includes new removable auditorium seating and an extendable stage. A tension wire grid above has been removed, exposing the trusses, while winches on bars hold the technical equipment. These interventions give a sense of the original room, with greater visibility from the control desk and bringing the audience closer to the action. The room's former life as a church hall has not been prettified – the flooring and exposed brickwork, in particular, retain a slightly worn character, 'in a romantic way', says Martin. Marks agrees. 'This is a workshop for creativity people are making stuff here and you are welcome to come and make stuff too.'

The juxtaposition of old and new, industrial and ecclesiastical, is most evident in the gap between the church and church hall. An awkward triangle, it now links the café-foyer, theatre, backof-house and studios, which were all at different levels. From the mezzanine balcony, where jazz and conversational hubbub float upwards, plant and equipment on the church roof is visible. 'We tried to make the building layers really clear' explains Marks. 'All that was old is in the exposed original brick or painted white. 1970s additions are teal. Everything completely new is in playful volcanic colours. This gap space is totally new, so it can take a bit of character.' A dragon-back roof contributes to the intriguing geometry and adds movement, redolent of a circus performance. Lights, designed by the studio and made from old conduit, suggest a trapeze.

Citizens Design Bureau has worked a lot with theatres. 'There is a kind of cando attitude that you don't find in other





settings,' says Marks. 'We are interested in the idea that the way you design taps into the ethos of that organisation.' That certainly shows here, where playfulness, inclusivity, and something of the quirky, makeshift nature that has characterised Jacksons Lane for decades come together in a welcoming, accessible building.

And accessibility has been the most transformative improvement. Haringey Council is the freeholder, so it should be a building fit for the community. The accessibility strategy goes beyond the obvious. 'We are always very careful that ambient acoustics are pitched correctly', explains Marks. 'If this doesn't work it

Accessibility has been the most transformative improvement... it should be fit for the community

Above The new foyer and entrance way is a welcoming and accessible space. Left The upgraded café, with acoustically performing surfaces, has attracted existing and new clientele.

makes for a miserable, uncomfortable experience, and it's exclusive. For elderly people it's particularly inconsiderate, and children too can get overwhelmed by noise.' Martin is proud to report that Jacksons Lane has been awarded 'dementia friendly' status, on account of its sympathetic lighting, acoustics and signage. Increasing numbers of parents and children visit on weekdays for classes and coffee too. And being accessible is good for business: since the venue reopened, the number of room hires has trebled.

The changes have vastly expanded which performers visit and what they can do. Martin says the architectural improvements have 'definitely' helped increase their creativity. The privacy of the rehearsal spaces allows certain performers to be less inhibited in their work, and their functionality encourages diverse users. The inclusive circus company Extraordinary Bodies now practises here, for instance.

'This project shows that those kinds of measures attract new types of people, artists and audiences,' confirms Marks. Accessibility is not about ticking boxes, but expanding audiences, inspiring new acts, and offering everyone a ticket to experiences that were previously thought of as 'standing room only'. Citizens Design Bureau is aptly named - its wellconsidered architecture at Jacksons Lane is clearly making a tangible, positive difference for all manner of people.



'So it's not tiles, it's low maintenance groutless panels, with watertight "Hydrolock" jointing. Brilliant.' 'I thought you'd be pleased!' 'The client's name is what?' Silence.

Interiors

Specified

any bells?' 'Well, I knew she was called Penny, but yeah, I didn't know

the full name.'

'Penicillium Roqueforti. Ring

'Very fancy family. Very old family. Very big in cheese. They've been developing the blue veins in Stilton since the 1720s. And you've given her a MOULD REPELLENT bathroom. Good job it's recyclable. Beautiful as it is, take it out. Idiot.' multipanel.co.uk

PareauLux Climate Ceilings

SCENE 1: A modern open-plan office. Overhead hangs Hunter Douglas' roll-formed aluminium 30BD climate ceiling whose 130 w/m² cooling system has up to 80% more capacity than competitors with circulation determined by fresh air requirements so draughts are minimised. They do not know

Duane: 'You warm enough over there Stacey? Not too draughty? Not too hot?'

Stacey: 'Just right, Duane love - and me alveoli are enjoying a healthy oxygenation level nonetheless! You breathing alright?'

Duane: 'Yeah, cheers! I love having a breathe. I could do it all day, given half a chance.' [They laugh. Curtain.] hunterdouglasarchitectural.eu



My name. Is Michael Caine. And it's my 90th birthday. This year. Noddaloddapeopleknow that.

I'm revisiting scenes from my youth. They knocked down. The Get Carter. Car park. So we're in Shoreditch. To enjoy. The low-carbon beauty. Of this brand new. Office block. Right next to. A completely authentic. And bloody noisy. Tube line.

This site. In the old days. Was a wood warehouse. And that same old-school firm. Sorted all the wood for this lot. It's done out now. In PEFCcertified. Engineered. Spruce. Like me, it's strong. Stylish. Sustainable. Quite big. And dead good looking. lathamtimber.co.uk

Terrazzo Classico cast surfaces HIMACS

'We're a unicorn start-up, obviously. We get people excited. Then, once they're excited, we teach them how to user.'

'That still doesn't tell me what you actually do! I can't write this profile if you don't tell me.'

'We facilitate data-driven tailored content, transform employee outcomes, and deliver on customer demands! I'm amazed you have to ask! We are very futurish and businessy! Our reception has the grooviest bespoke thermoformed, invisibly jointed furniture in sustainable and durable Himacs Terrazzo Classico solid surface material!'

'Yeah, that is nice actually. I'll just have a little sit down then.' himacs.eu

Products in Practice May/June 2023

From bungalow to Scandinavian-style family home

Vario windows and skylights bring light – and the outside – into a transformed building





Above Single storey bungalow renovation, transformed into a Scandinavian styled home, flooded with natural light and ventilation with the help of Vario by Velux. Cardiff, Uk.

Left Calm, simple bedroom and seating area, featuring bespoke Vario by Velux rooflights.

Reena Simon, interior writer and stylist, bought this 1960s bungalow in Cardiff in 2018. Despite many challenges during the pandemic, she managed to make her dream home a reality.

With only three walls of the original bungalow remaining, the reimagined space incorporates special elements such as various custom Vario by Velux rooflights, reflecting her style and her family's needs.

Ms Simon had a clear vision, and like us loves daylight and fresh air. This is evident throughout her home, and the Danish concept of Hygge – meaning comfort, pleasure and warmth within simple soothing things such as a cosy atmosphere – was also a huge inspiration for her renovation.

Natural lighting to maximise views

The decision to install 11 bespoke windows and skylights was a great way to bring the outside in and take advantage of the natural beauty surrounding the property, while making the most of its location.

The rooflights were installed before the family had moved in, Reena adds: 'It was really special seeing the rooflights open and experiencing that for the first time. The views out to the skies and the trees – it's just incredible!'

Being able to open up the rooflights and take in views of the world outside is a feature that truly makes the home one-of-a-kind.

Why choose Vario by Velux skylights

Ms Simon said 'I was attracted to Velux for the rooflights because you can have a bespoke size and that was really important for the spaces in our home.'

One of the key advantages of the Vario by Velux product range is its flexibility. They give the option to choose from a wide range of sizes and shapes to create a skylight that perfectly matches the design concept. In addition, the Vario range is designed to be energy-efficient and prioritises safety, security and water tightness.

Furthermore, the opportunity to speak to our daylight experts, discussing all the daylight requirements including product details, reviewing drawings and technical product details, was a huge factor in her decision.

Overall, bespoke rooflights are a great option to create a truly cohesive and personalised living space.

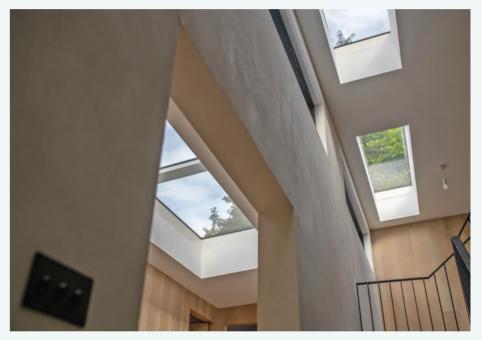
By working with a company like Vario by Velux, it's possible to create a custom solution that expresses individuality and perfectly matches the design concept. The Velux Group has spent 80 years crafting roof windows of the highest possible quality; you can trust us to ensure your daylight needs are met. •

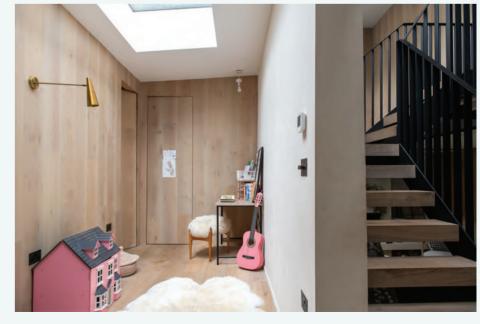
Top Bespoke rooflights made for maximum daylight. Combining 80 years of expertise with contemporary design, they give sweeping, seamless views of the skies above.

Middle The Unlimited and Rectangular Rooflight has U-values as low as 1.1 and laminated inner panes as standard, creating a balance between form and function.

Bottom Internal playroom with no windows, transformed with daylight from above.









https://vario.velux.com/cases
Contact Details: Phone: 01592778246
Email: vario@velux.co.uk

Diversity on the house: one-off homes

Why does Britain have so few self-build homes? When is a home really finished? And how much can you do with refurb? PiP's bespoke housing webinar probed the typology

'This is not just about Grand Designs. It is about diversity,' began Julian Owen, author of Self Build: How to design and build your own home (RIBA Books, 2023). Specialising in custom and self-build projects, Owen is a member of the Right to Build Task Force, which works to make this housing model more viable for ordinary citizens. Owen gave an overview of the model, advocated for its benefits and identified hindrances to its take-up.

Self-build and custom-build operate on a continuum in terms of scale, planning regulations and client input. They also bring about many advantages, claims

Owen: increased opportunities for modern methods of construction, clients invested in sustainability, local training opportunities, responsiveness to community needs, council opportunity to quickly grow housing supply, market diversity, and more attractive and contextual housing. Political parties on both sides are keen, and the Help to Build Scheme – a government equity loan – has been available since June 2022. But uptake has been limited. Why?

Culture (we have less of a tradition of self-build than in Europe and our market is 'stodgy', says Owen), and misconceptions that characterise selfbuild as drama-fuelled and costly don't help. But local authorities themselves are also a hindrance: despite statutory duties imposed several years ago, such as the Self-Build and Custom Housebuilding Act 2015, planning departments (LPAs) are reticent to get on board. Only 45% have met their duties (including regard to a register of custom-build interested parties when planning redevelopment schemes and land disposal), according to the National Custom and Self Build Association (NaCSBA). Clearly more encouragement is needed for planners and clients, who require support in understanding the construction and planning processes and how to mitigate risk.

Next, architect Clara Vicedo Peñarrubia of sponsor ASCER-Tile of Spain outlined this material's applications. From the AA House in Barcelona by OAB studio – whose



Above Prewett Bizley's retrofit converted a dark, cold mews house into a high-performance, light-filled home.

Opposite, below Loyn & Co Architects' contemporary Swansea House incorporated a three-story atrium filled with vegetation.

Opposite, above Mat Barnes' London home, Mountain View by CAN Architects, was inspired as much by memory as it was by style or context.

entire roof and facade is covered in 3m ceramic panels — to Casa Bitxo by Lagula Architects, where colourful tiles contrast startlingly with bare concrete — each example expanded the range of creative scenarios. Spanish tiles are certainly not restricted to Mediterranean villas; whether post modernist or minimalist, ceramic tiles are clearly a versatile choice. Moreover, they are thermally efficient, durable and have low toxicity, contributing to favourable LEED, BREEAM, Well and Passivhaus assessments.

Many will be aware of Mews House Deep Retrofit, shortlisted for RIBA House of the Year in 2022. Robert Prewett, director at Prewett Bizley Architects, outlined the radical sustainability improvements of the project. The home's original EPC was 'F' and the internal spaces were inefficiently configured, contributing to a gloomy sensation at the back of the plan.

Reorganising the vertical circulations enabled space, light and air to flow upwards, improving ventilation, and two new windows were accommodated. Retrofit measures included stripping and coating all walls in insulating plaster, reducing U-values and heat loss. Remade multi-pane Victorian windows throughout used evacuated glass, with external blinds upstairs. An air source heat pump was added on the roof and an MVHR heat recovery system inside. Now, the tripartite spatial rearrangement improves the flow downstairs, the upstairs bedroom is filled with diffuse light, and a dining area



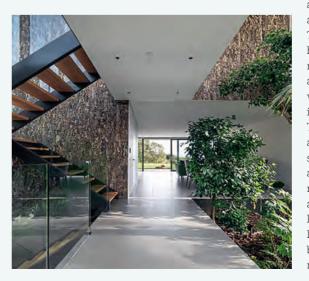
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in the heart of the plan accommodates the semi-structural plywood staircase. The retrofit achieved a 95% reduction in energy consumed at meter.

Chris Loyn, founder, and James Stroud, director, at Loyn + Co Architects discussed Private Residence, Swansea – a sustainable and contextual home in an AONB on the Welsh coast. Replacing an ugly existing building, its sustainability measures include cross-ventilation, photovoltaics, carefully positioned glazing and a sedum roof. The house responds to its context with materiality – a concrete plinth clad in locally quarried stone, topped by a two-storey timber structure faced with Kebony. Inside are a three-storey atrium, cantilevered stair and internal garden. Space partitioned with sliding screens are a nod to Neave Brown. The site's steep topography has been exploited to create a multi-level building with access to ground on each floor, maximising connections with the landscape and views to the sea. 'It's a relatively quiet building but it's strong' says Loyn, 'it sits well in the land'.

As demonstrated here, well specified, high performing glazing can transform the aesthetics and experience of a space. Tony Culmer, director of glazing specialist Maxlight, talked us through a range of applications in architect-designed homes. From a (much copied) oriel bay window and pivot door designed for Platform 5 Architects in Hackney, to an astonishing glass cascade for Elliott Wood and Will Gamble Architects' Parchment Works - which uses extensive glass in its 'building within a building' idea that was also nominated for House of the Year - Maxlight has a long history of collaborating with architects to create bold, cutting edge solutions.

A third House of the Year nominee was



Mountain View, by CAN, home of founder and RIBAT Rising Star Mat Barnes. He rounded off the seminar with a glimpse into this post modernist, hi-tech inspired project, which draws on his experience designing exhibitions at the Sir John Soane Museum, his own academic interests and his wife's career as a geographer. 'It hasn't got one overarching concept, it is a mix,' he said, and there are certainly complex ideas at play.

The outré home has garnered considerable press attention — rightly so considering its intricate references. In a nod to Soane, offcuts from a local plasterworks — cornicing, ceiling roses and so on — decorate the living room walls. 'Does putting something on a wall give it value?' Barnes wonders.

Structural columns in the kitchen hold a dialogue with trees in the garden and are painted as surveyor's ranging poles. The billboard-mountain at the back of the house is a riff off an archive photograph of a reproduction Matterhorn being built over a steel frame, an exploration of a paradox whereby something immensely heavy is improbably supported by something light. The wall of the dining room is conceived as a cave, textured with concrete. The rippled surface of the dining room table resembles a lake, and the work surfaces - made from recycled plastic from chopping boards and milk bottle tops - complements these landscape elements with an overt marble look. A compressed steel fire surround has been moved to an implausible location in a nod to surrealism and Le Corbusier, while

trusses in the extension reference the Hopkins' House.

Barnes' commitment to minimal wastage is enshrined in mosaic lettering on the kitchen stairs: 'Waste not want not' – his grandmother's motto, also appearing on a plate by Augustus Pugin. The original back wall has been left in a state of decomposition, framed with columns that reference the acrow props in the background of a scene from Trainspotting. Soane's drawings often showed scaffolding or buildings in their eventual ruined state. 'How do you know if a building is finished?' Barnes muses. Indeed, most architects' homes never are. •

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Critical steps on the road to good housing

There is still an ambition to make good social housing in the UK. Design, materials and community awareness hold the keys to unlock it



Left While sizeable, Niall McLaughlin Architects' Master's Field development for Balliol College Oxford remained deferential to its context.

Opposite Hall Black Douglas' Gardenmore Green, 14 homes on an existing estate, is an example of 'simple housing done well'.

The residential sector ostensibly represents architecture at its most basic - providing for human need of shelter - but it is also immensely challenging, dragging with it a host of social complexities and moral quandaries linked to the motivations of those in power.

What better illustration of these paradoxes is there than the UK social housing system? John Boughton, honorary research fellow at University of Liverpool and author of A History of Council Housing in 100 Estates (RIBA Publishing, 2022) began this RIBAJ PiP webinar by outlining the history of council homes. His book examines examples from 19th century alms houses to the 2019 Stirling Prize-winning Goldsmith Street in Norwich by Mikhail Riches. He discusses the council house's origins in Victorian tenements, and the political drive in the inter-war and post-war years to increase the scale of these developments. From garden villages and new towns to highrises and Homes for Heroes, Boughton's examples illustrate the ambition and (in many cases) generosity of architecture created at a time when half the profession worked in the public sector.

'But where did it go wrong?' asked webinar chair Jan-Carlos Kucharek. 'In many ways it didn't,' argued Boughton. 'Millions of people live good and decent lives in good quality council housing', but stereotyping and media coverage has focused on the negative. Yet it would be disingenuous to overlook council housing's many problems. Spending cuts and the reduction of newbuild in the 1980s, coupled with the Right to Buy scheme, lost 1.4 million homes to the private sector. This 'residualised' what was left, leaving council homes to 'cater only to the most disadvantaged... It became seen as a housing of last resort,



whereas before it had been aspirational'. Moreover, flawed system building in the 1960s, inadequate maintenance, cultural shifts in attitudes towards the state and a rise in antisocial behaviour sowed the seeds for the Thatcherite death blow.

Bleak stuff. Is there hope? Yes, believes Boughton: 'There is still an ambition to work for the public good' among architects, and sustainability holds the key. Citing schemes such as the Wilmcote House refurbishment, Portsmouth, and Goldsmith Street, he observed: 'It is really encouraging to see some really good architects working on public sector housing now' (RIBA Journal, May 2003).

Regarding high quality materials, Jonathan Lowy from sponsor VM Zinc put the case for the use of this metal. He demonstrated how this malleable material - good for cladding, details, flashings, standing seam roofing and rainscreen systems – can be a sustainable and attractive choice. Although it requires specialist installation and good insulation, it is durable and does not corrode, instead developing an attractive patina. It has a lifespan of 100 years, very low combustibility and is 100% recyclable.

Next, Holly Galbraith, associate at Niall McLaughlin Architects, presented the Master's Field Development, eight purpose-built student apartments for Balliol College, Oxford. Combined with a professorial flat and a sports pavilion, the clusters of buildings – which were conceived as a scaled-up form of the micro social group of a dining table and chairs – frame a new quadrangle in an area of land bordering the civic core of Oxford and its surrounding landscape. Disparate architectural conditions had to be reconciled, Galbraith explains, so the buildings recede and protrude in dialogue with their listed neighbours.

Reducing social isolation was crucial, hence the arrangement of rooms around central gathering areas, and buildings around green spaces. Externally, each bedroom is in a brick-faced precast concrete bay, the windows recessed in the depths of the piers, with a woven motif panel inspired by the facade of the Ashmolean Museum. Many Oxford streets have imposing brick walls hiding internal quadrangles, but this scheme, on the border of the residential district, attempts aesthetic lead from traditional Hampshire to give back to the public realm with a visually permeable site boundary. It is a contextual and sympathetic offering.

Moving further south, to Lovedon Fields in Hampshire, by John Pardey Architects, Carl Gulland talked us through this attractive and contextual development of 50 homes inspired by rural vernacular. Landscaping was central to the scheme, which incorporates a green and a chalkland wildflower meadow beyond. Houses sit perpendicular to the streets, creating a 'perforate rural edge', inspired by local typologies. The

green is a place for play and wildlife habitat, and is central to the SUDS strategy. Terraces and balconies, oak benches, and hedges rather than fences, encourage neighbourly interaction.

The homes' brick materiality matches the colour of local earth; their masonry accommodates bats and bees. Established trees inspired timber-clad facades, while full-width roof photovoltaics take their roofs, where a heavier material is often used from eaves-to-eaves leaving a contrasting line of tiles below.

Over in Belfast, Chris McAvoy, project architect at Hall Black Douglas, introduced Gardenmore Green. The scheme - in an established residential estate with difficult ground conditions - comprises 14 dwellings, that embrace

Below John Pardey Architects' 50home Lovedon Fields in Hampshire was as much about the landscape as it was the built forms.

their sloping topography through a stepped configuration. The development achieved Secured by Design and Life Time Homes accreditation, with the ethos of 'simple housing done well'. The mix of semi-detached and detached homes with pitched roofs makes a staggered streetscape with pockets of landscaping and interesting projecting header courses of bricks adding complexity in detail.

Simple plans maximise natural light in the interior, and a recessed canopied entrance shields residents from the rainy climate. Throughout, small, considered gestures make for a powerful experience.

The diversity of projects featured in this webinar demonstrate the range of possibilities which can be achieved in residential schemes when context, sustainability and the users are respected. In each case, rounded off Kucharek, they are 'trying to create a village and thinking intelligently about creating a critical mass to development'.





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Rob Leechmere, associate at Jonathan Tuckey Design, reveals three of the firm's favourite products



Diathonite Insulation spray - Cornish Cottage

Insulation can compromise form, eccentricities and ambience when retrofitting buildings. To overcome this on our Cornish Cottage project, we used Diathonite insulation spray; a fully breathable lime-based plaster that has impressive thermal capabilities and offers minimal intrusion. The spray helped us achieve our goal of preserving the sui generis character of this quaint English dwelling. The original bowed stone walls are wrapped in a coating of Diathonite which preserves the organic fluidity between spaces while dramatically improving the thermal envelope.



Edmund Bell curtains - Malin+Goetz Canary Wharf

We enjoy the ethereal grace of curtains and often use them as alternative partitions and thresholds. We used heavy weight royal blue curtains in our Malin+Goetz Canary Wharf store to give a luxurious, sinuous backdrop to products while concealing utilities and storage. Of utmost importance is the atmosphere that is formed through use of fabric. An intimate embrace can be felt when immersed by full height curtains, creating a capsule-like retail experience, and offering therapeutic respite from the London bustle.



Artorius Faber stone – Urban Barn

Stone features add a level of gravitas and sculptural permanence to our projects. These furrowed steps in our Urban Barn homestead are positioned in concert to a clean, organised, and muted material palette. The gnarled veins provide a tactile focal point. juxtaposing polished aggregate flooring and white joinery. In this case, the use of solid stone reinforces the project's collaged ethos by transforming a functional essential into a unique statement that draws attention to the composition of elements.

Read up

RIBAJ editor Jan-Carlos Kucharek flicks through the latest tech titles. Buy at ribabooks.com



RIBA Climate Guide

Mina Hasman. RIBA Publishing, 274p HB £40

The author, architect, environmental designer and 'advocate for addressing climate change' at SOM's London office, spends the first two chapters outlining the context of climate fundamentals and preferred sustainable outcomes. Following chapters highlight case studies from around the world covering Human Factors, Circular Economy, Energy & Carbon, Water, Ecology & Biodiversity and Connectivity & Transport. The book is well illustrated with engaging, full-page diagrams that aim to distil core ideas. Nearly 20 pages of reference help take your research further.



Designing Building Structures

Ney & Partners. Foreword by Sigrid Adriaenssens. 224p

An exception for PiP, this self-published book by by engineer Ney & Partners - William Matthews' collaborator on Cornwall's Stirling-shortlisted Tintagel Bridge - documents its work with Low Countries architects. From showcase buildings it moves quickly to technical aspects with drawings, explanatory text and construction shots. Be it their timber kids' pavilion or a fantastic pool proposal, it's a good overview of a country that keeps punching above its weight architecturally.



Extras and Changes - Scope, time, people, resources, services... and fees - A Practical Guide

Tom Taylor, Dashdot Enterprises Ltd, PB 116p £12

A past president of the Association for Project Management, Taylor's idiosyncratic guide to managing contractual extras and changes is an interesting read, with welcome brevity for a book on contract management. It does what it says on the tin, giving advice on how to charge for extras in a quirky, concise way. It is split into 15 chapters that open by outlining a contractual scenario and then spend a few pages going into detail - mostly via bullet point paragraphs. Not exhaustive by any means but a good primer for £12, if only to find out what Taylor's 'McGivity conundrums' are.

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