

Extreme spec
Common Sky, AKG Art
Museum, Buffalo NY

Doors, windows &
ironmongery
Unesco Building V, Paris

Special report
Agile delivery puts the
NHS round the corner

Kitchens & bathrooms
Three bespoke kitchens

Interiors
Silversprings House,
Ireland

Products in Practice
Sep/Oct 2023

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More online...

'Crudely you can say mitochondria are pretty happy in red light and are hammered by blue light'

Neuroscientist professor Glen Jeffrey of UCL Institute of Ophthalmology warns of the potential negative effects of white LEDs: ribaj.com/mitochondria

↓ PiP's on Pinterest! Designed by Børge Mogensen in 1956, the BM29 Shelf is crafted from solid oak and veneered panels. Relunched by Danish furniture company Fredericia, it is made from trees, and seems to look like one. fredericia.com



Cover image: Detail of new window panel at UNESCO Building V, Paris. Photograph by Nicolas Grosmond

ribaj.com

The Eye of PiP



There's a reason why a golden boat crowns the famous store Liberty of London. The timbers of two old 'three-decker' battle ships, HMS Impregnable and HMS Hindustan, went into its joinery and floorboards. These may be getting a third life, with one of its beautiful staircases up for auction on Salvo. This architectural salvage website was founded to reduce landfill and give materials if not a third life, then at least a second. salvoWEB.com PiP editor Jan-Carlos Kucharek

SALVO

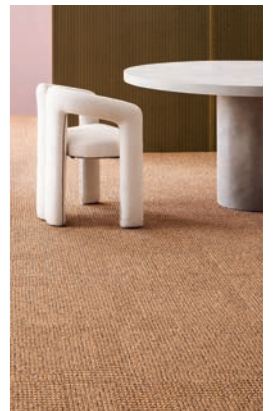
Seen/Green: →

The UK still maintains that it's aiming to meet its 2050 net zero carbon commitments through a transition to a low carbon economy but so far there's been lukewarm take up of heat pump technology. So why not hedge your bets and install hybrid radiators that can work with traditional boiler systems and be compatible with future heat pump systems? The Radiator Company's new Relax Hybrid not only keeps you warm but, when rigged up to a heat pump, will also be able to keep you cool. And styled, it seems, on an iPhone, it even looks cool.



06 ↓ 'We looked to knitwear and woollens for inspiration'

Patricia Urquiola describes the creative thinking behind her new flooring range for Desso



18 Although stunning, 'elemental' window openings were just cast aluminium closers pressing a top hung, single-glazed pane against a silicon seal

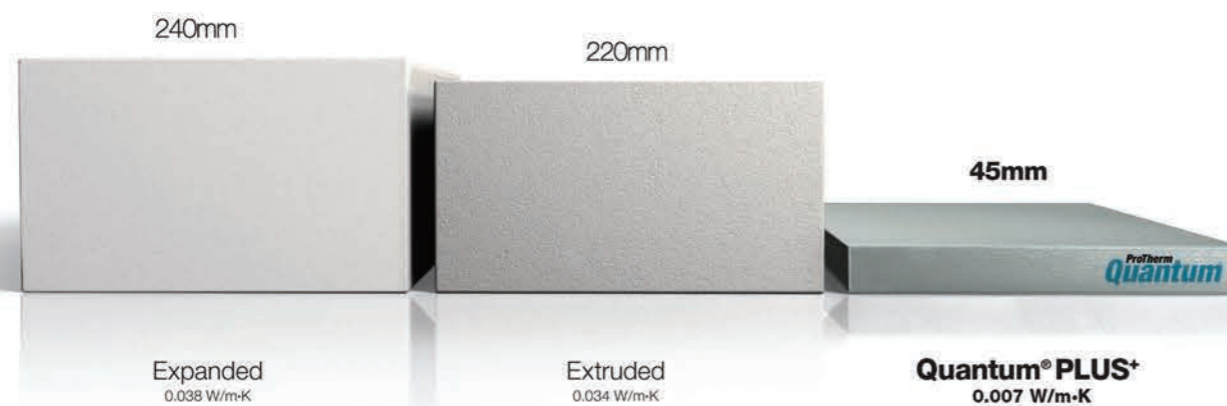


36 ↓ ConForm had the bright idea of creating the new kitchen as if almost entirely hewn from marble



46 ↑ The sides and rear are painted Majorelle Blue, inspired by a somewhat different context and climate to Tipperary

Products In Practice September / October 2023



The depth of board to achieve an R-value of 6.250m²K/W – rounded up to the nearest standard depth.

The world's **thinnest** inverted roof insulation just got thinner.

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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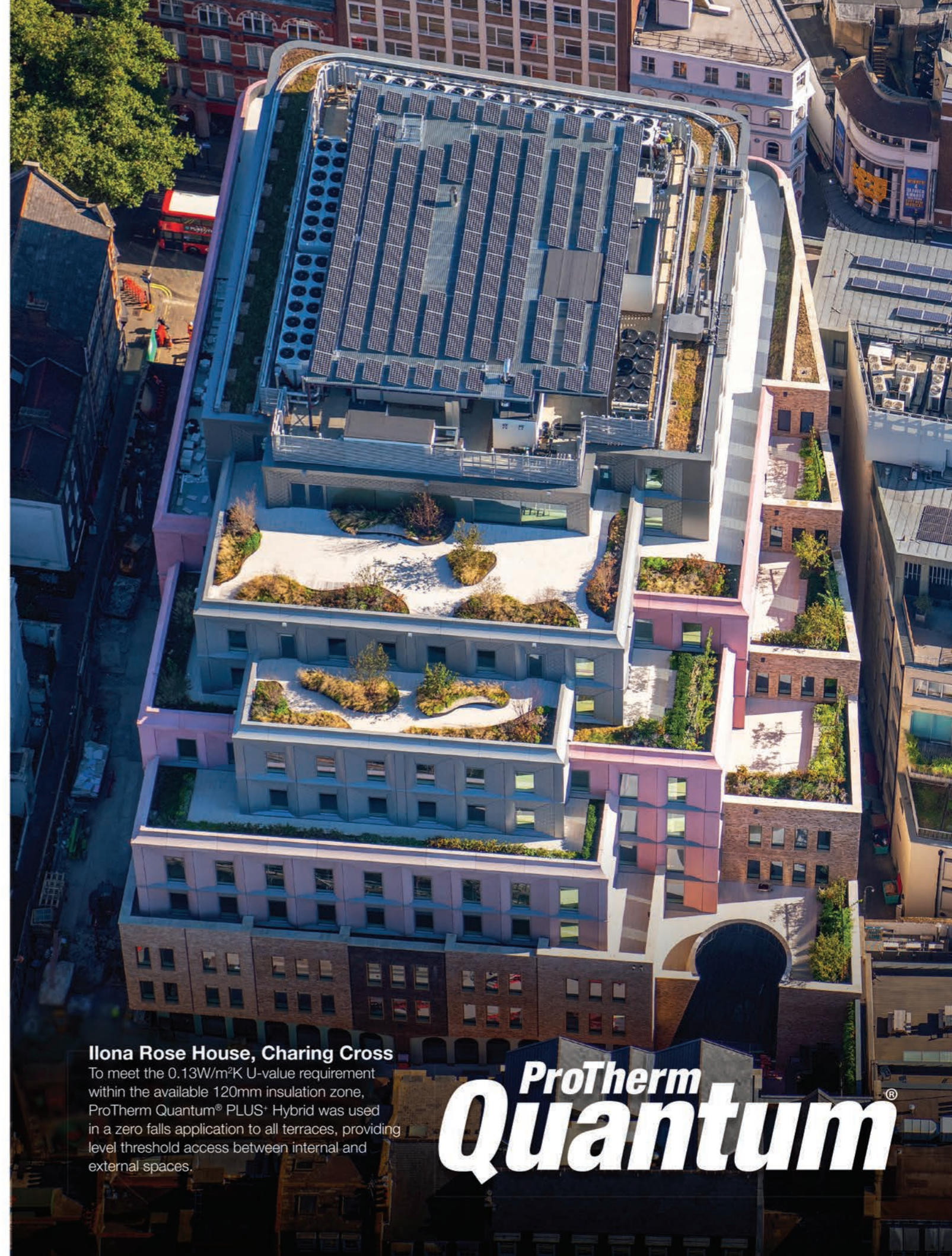
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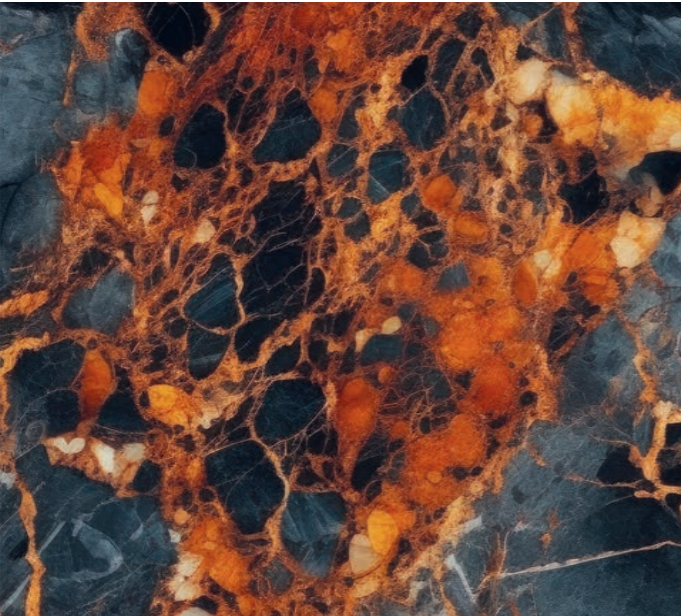
Ilona Rose House, Charing Cross

To meet the 0.13W/m²K U-value requirement within the available 120mm insulation zone, ProTherm Quantum® PLUS+ Hybrid was used in a zero falls application to all terraces, providing level threshold access between internal and external spaces.

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Compendium



REPLY, ACPV ARCHITECTS

Solid State ceramic

It was only a matter of time before 21st century technology affected one of civilization's oldest crafts. Italian ceramics firm Marazzi teamed up with Antonio Citterio Patricia Viel Architects in what they claim is one of the first collaborations to use AI for tile design. Using Stable Diffusion and Midjourney, ACPV worked with Turin-based machine learning expert Reply to generate digital 'marble' templates, giving the rest of us plenty of opportunity to debate the great themes of nature versus technology and artifice.



Northern Seoul

Given east Asia's ancient and beautiful traditions in ceramics, why would they go elsewhere? But it's a topsy-turvy world and cost need not be an imperative for one of the world's strongest economies. Seoul's Yeouido district is home to its stock exchange and other multinational institutions. One of its office towers now adorns its lobby floor and walls with Ceramiche Caesar's 'Anima Futura' marble-effect porcelain stoneware. Either conscious high-end specification or a case of 'lost in translation' – what if they were after 21st century murals from Studio Ghibli instead?



Bath-time Eureka!

The Greek frieze pattern, the meandros, whose labyrinthine lines first adorned ancient temples and then just about everything English in the 18th century, was named after the Maeander River in Turkey – about as oxbow as it gets – and duly noted in Homer's Iliad. The Greek Key, as it is otherwise known, seemed to prove the inspiration for design studio King & Miranda's new Tetris towel radiator, with enough snaking rails for the whole family to hang their togas off.

The weight of history

Dutch firm MVRDV is the latest to add to the menagerie of buildings in Rotterdam's Museumpark. Depot Boijmans Van Beuningen is an innovative, publicly accessible art storage facility, an ovoid repository standing 40m tall and clad in 1664 mirrored panels, giving it a 'predator-like' cloak of invisibility. Fire protection and burglary resistance were just two factors that resulted in Pyroguard's cladding panels. Some weigh in at over 1000Kg, allowing 250,000 visitors a year to safely peruse 150,000 artefacts amassed over nearly 200 years.



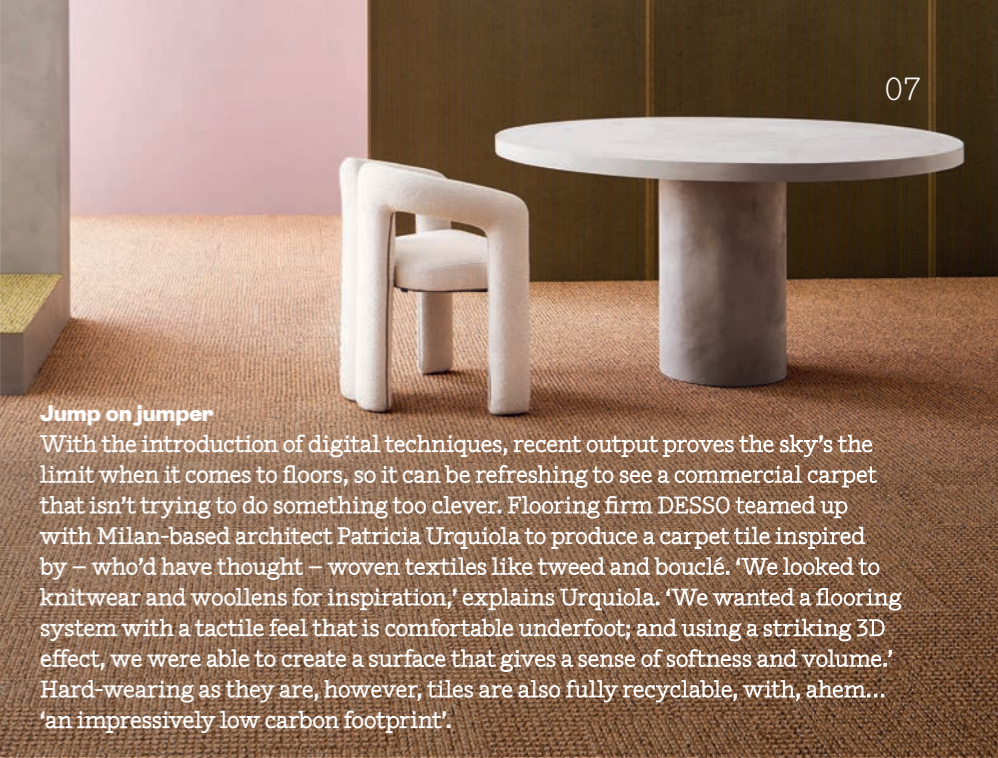
Memento mori

It would be hard – and in most cases inadvisable – to attempt an intervention in Wren's masterpiece St Paul's Cathedral, but very occasionally the times will demand it. Caroe Architecture with Connolly Wellingham was charged with the responsibility of creating the Remember Me memorial to the Covid-19 dead, set beyond the entrance doors of the north transept. Created as a piece of oak joinery, the act of entering the beautiful elliptical memorial space might be one of silent wonder; a balm perhaps to the shock and tragedy of the pandemic itself. The architect specified GEZE automated doors, to offer comfort and privacy for condolence book signing, as well as limiting air flow to the cathedral itself.



Method in madness

Things are on the up with Moxon, the seeming UK pedestrian bridge designer du jour. Now its own office – in a wood near Balmoral in the Cairngorms National Park – has bagged RIAS' 2022 Andrew Doolan Award for Best Building in Scotland. Keen to work with the woods' atmospheric darkness, the firm chose a dark Kalzip 65/400 finish for roof and walls to help it 'disappear' into its context. But if you thought it was just about moodiness of site, think again. 'Aluminium provides a much tighter finish than steel or zinc, allowing us to create a flush look with sharper edges,' says Moxon associate Andrew Macpherson forensically.



Jump on jumper

With the introduction of digital techniques, recent output proves the sky's the limit when it comes to floors, so it can be refreshing to see a commercial carpet that isn't trying to do something too clever. Flooring firm DESSO teamed up with Milan-based architect Patricia Urquiola to produce a carpet tile inspired by – who'd have thought – woven textiles like tweed and bouclé. 'We looked to knitwear and woollens for inspiration,' explains Urquiola. 'We wanted a flooring system with a tactile feel that is comfortable underfoot; and using a striking 3D effect, we were able to create a surface that gives a sense of softness and volume.' Hard-wearing as they are, however, tiles are also fully recyclable, with, ahem... 'an impressively low carbon footprint'.

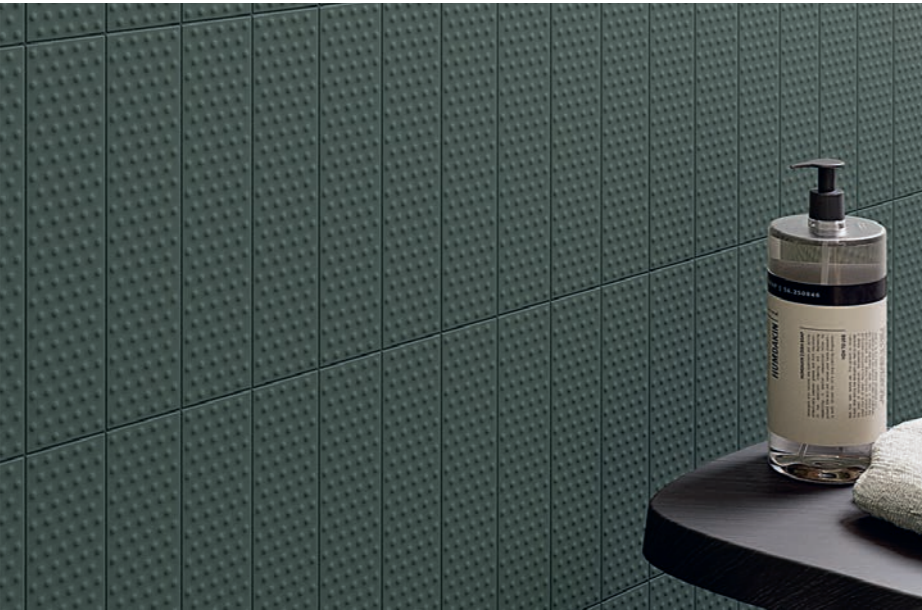


DAVID BARBOUR

Edge of ruin

Scotland's Ann Nisbet Studio displays its characteristic light touch at Cuddymoss – the Doolan-Prize shortlisted home in a ruin – maintaining a sense of a partial dereliction outside while creating a state-of-the-art, highly insulated interior shell. Wanting to keep new openings in the building's stone walls to a minimum, the architect opted for The Rooflight Company's 'Neo' frameless rooflights, which sit discreetly in both the old structure and new intervention, flush to the edges of both.



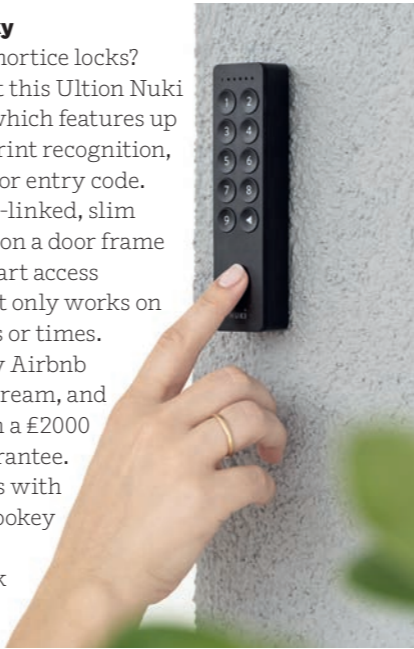


Everything Everywhere All At Once
How many versions of 3-dimensionality are there? Five, if Ceramics firm Sartoria is to be believed. Their latest Vibes collection of tiles comes in Flat, Fold, Quilt, Punch and Peak, each producing a distinct interpretation of reality, handily manufactured to adorn a wall near you. Flat seems to be the baseline state from which Fold creates a vertical relief, Quilt forms waves across its surface, Punch generates curious stipples and Peak bulges with a satisfying meniscus. Available in six achingly trendy colours – Niveo, Mattone, Azzurro, Salvia, Pino and Indaco – and in ‘matt’ and ‘gloss’ (Peak ‘gloss’ catches the light in a compelling way), Sartoria’s versions of 3-dimensionality could in fact be five times six times two. It’s a ceramic multiverse!



Children of the Stones
If your National Trust card has expired or you can’t stretch to renewing your English Heritage membership, you could do worse than pop the kids in the back of the car one fine day and drive them to the Northampton village of East Haddon, where Haddonstone’s ornamental products can be encountered in its lovely show gardens, which are free to visit. No kids in the boot of the estate though – judging by the offers on the entrance door when PiP visited, you just might be able to pick up a discounted urn to up the status of your own back yard.

Kiwi for Nicky
Who needs mortice locks? Take a look at this Ultion Nuki smart lock, which features up to 20 fingerprint recognition, or app, voice or entry code. It’s bluetooth-linked, slim enough to fit on a door frame and has a smart access function, so it only works on specific dates or times. It’s like every Airbnb superhost’s dream, and it comes with a £2000 security guarantee. It even works with one of those pokey metal things that you stick in a door and turn.



Madeleine moment
One winter morning in 1989 Japan, PiP sat ‘seiza’ at the low table of an old timber farmhouse in Noto village on Honshu’s coast. A tatami room’s shoji screen had been slid open earlier by a now-absent host, offering me a lone view to the garden where snowflakes fell lazily from a cloud-thick, still sky. Looking to my bento box of grilled fish and o-shinko pickles beside a square bed of rice, I observed a single, red, umeboshi plum bleeding slowly into its sticky white. It all came flooding back with Bento Starck Box, the French designer’s new range for Duravit, where he at once comprehends the box’s art – that the blending of wet and dry be a conscious choice, not an inevitability.



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Beginner's guide hikes green role of timber

Widespread misconceptions and misinformation around the use of timber jeopardise carbon reduction targets

The free primer Timber Typologies, by Waugh Thistleton Architects with trade association Timber Development UK, aims to improve the sector's understanding of building in timber and help designers, clients, specifiers and engineers to avoid talking at cross-purposes.

Timber is one of several scalable low embodied carbon materials needed to help construction meet statutory targets on carbon reduction. However, says Alastair Ogle, lead author of the book and associate at Waugh Thistleton, misunderstandings about its structural properties lead to the use of 'higher carbon and non-renewable materials like steel and concrete instead, which can significantly increase the embodied carbon of a project by up to 75%.'

Although timber's material qualities are not best suited to some projects, such as large infrastructure, 'the majority of concrete and steel used in the UK construction industry could easily be replaced with a lower carbon and renewable timber alternative,' he adds.

Timber Typologies criticises lack of transparency on definitions of timber systems, which tend to get grouped as 'timber frame', 'mass timber' or 'stick build.' Architects unfamiliar with working with timber could benefit from the guide's explanation of how timber components can be combined to create different structural systems in response to factors such as building use, height and layout, plus other constraints.

Timber volumetric systems, classified as MMC Category 1 by the government, use cross-laminated timber (CLT), or closed timber panels, for walls and slabs to 'minimise junctions and defects, increasing quality and in-use performance,' the guide states. Turnkey solutions including finishes and services are possible, although 'the supply chain is less mature than for other systems.'

Timber is a lightweight material,

but modules can weigh up to 20 tonnes, the guide notes. When CLT is used to form modules, various configurations are possible 'as internal spaces can be liberated from load-bearing walls.'

Post and beam systems combining MMC Category 2 and 3 products like glulam timber and laminated veneer lumber should be specified to span no more than three storeys vertically, due to transportation and installation constraints. Post and beam enables more flexible larger spans – 'ideal for open plan'.

Hybrid mass timber systems that combine mass timber components with steel or concrete maximise structural efficiency but can, says the guide, be more challenging to procure and construct because prefabricated components must be sourced from different suppliers.

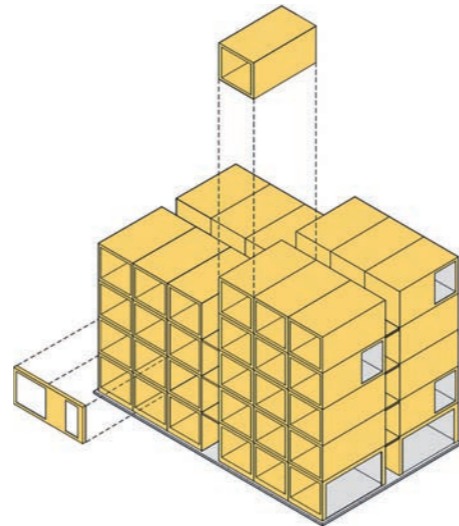
Additionally, to reduce carbon impact, hybrid systems should 'prioritise the use of timber in horizontal elements'.

One of architects' most common and damaging mistakes is not considering a timber system in the first place, says Ogle. 'Misunderstandings about the structural properties of timber products and construction systems leads to timber being overlooked as a suitable structural material for a project without being fairly discussed and assessed,' he asserts.

'We would like to encourage all architects to consider the suitability of structural timber for projects, and hope Timber Typologies can provide a starting point, informing people on which timber system might be the most appropriate for their project,' Ogle concludes.

According to International Energy Agency figures, the built environment generates 40% of annual global CO₂ emissions and embodied carbon is responsible for 13% of that, the rest coming from building operations. ●

See more industry innovation and IT stories weekly on ribaj.com



Volumetric timber construction improves accuracy and quality that can be achieved using prefabricated timber components. Find the whole guide at: timberdevelopment.uk/resources/timber-typologies/

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PORTRAIT: STEPHANIE WUNDERLICH

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Creating safe havens in communal spaces

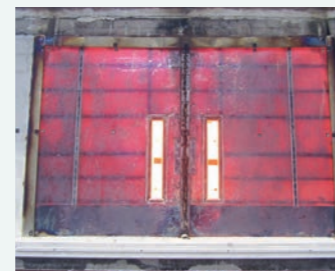
With full implementation of the Building Safety Act imminent, fire safety must also take greater precedence in commercial settings to raise building standards and ensure the safety of occupants

Fire safety within commercial premises is of the utmost importance, but when it comes to procuring fire doors for the protection of people, there is often a misconception that performance and aesthetic appeal sit at odds with one another. The common thinking is that fire doors are either technically proficient – capable of withstanding harsh environmental pressures – or architecturally attractive. In truth, it's a balancing act; one that Rhino Doors has spent significant time perfecting.

Over the last 18 months, Rhino Doors has worked on two projects for Transport for London to design, manufacture, supply and install high-performance, stainless steel fire doors in Bank and Moorgate underground stations. Extensive fire testing took place, which resulted in the double leaf doors far exceeding expectations and achieving a two-hour rating. But it isn't just within a rail setting that these doors find applications.

The architectural appeal of the doors, as well as their oversized build – suitable for clear openings up to 4m wide by 2.6m high, with fire ratings up to two hours – means they're well suited to office buildings with large atriums, where fire doors might be concealed in a recess and held in the open position until activated. The result is the creation of a large open space which preserves interior design while enabling the creation of smaller, segregated safe areas once the doors close in an emergency.

As well as manufacturing integrity-only fire doors that are capable of withstanding high-temperature flames, Rhino also has experience in producing architecturally



Above Bank Station, London – Double Leaf Fire Doors. **Far left** Insulated door (RHS) versus uninsulated fire door. **Left** Fire door test – 4.32m wide x 2.8m high.

appealing, insulation-rated fire doors (up to 90 minutes) to provide enhanced protection during emergencies. These doors offer specifiers assurances in terms of strength and performance, minimising the radiation of heat from one side of the door to the other.

Manufacturing a door with both a fire insulation and integrity rating is a challenge. Sufficient insulation is required in the leaf core to limit the transmission of radiated heat to the safe side of the door while ensuring that the temperature differential does not distort the door, which would result in an integrity failure.

Procuring a door with the performance credentials to protect against physical flames and radiated heat, while maintaining

the aesthetic of a standard commercial door, is no easy feat. But Rhino Doors, through its three decades of experience and commitment to research and development, has taken a tried-and-tested rail design and created a product suited to both new and existing office buildings.

Any setting in which a fire door is required to provide a safe haven for people while they await rescue will benefit from a combined integrity and insulation-rated fire door. Now, architects and specifiers should look to procure doors that offer exceptional performance capabilities, combined with aesthetic appeal – to protect lives and retain the design and character of commercial premises. ●



Left Common Sky's faceted mirrored inner surface creates kaleidoscopic visual effects for the museum's visitors. **Below** The clever double skin structure allows the structure to have a very low arch.



Curved faceted glass roof

What Common Sky

Where AKG Art Museum, Buffalo, New York

Common Sky is a canopy of glass and mirrors enclosing the internal courtyard at the Gordon Bunshaft-designed AKG Art Museum in Buffalo, New York, to create a new space for public events.

Designed by Studio Other Spaces and inspired by the city's intense weather, the canopy is designed to work both as a site-specific sculpture and a fully functioning roof. 'We went for a clearly sculptural language because we wanted something distinct from museum's modernistic design that, at the same time, offered a maximum experience of being exposed to the outside,' says Sebastian Behmann, architect and SOS co-founder with artist Olafur Eliasson.

At its perimeter, the canopy's steel structure rests lightly on new beams carefully concealed in the roof of the listed 1960s museum. Its domed skin of tessellated glass triangles curves gently upwards before plunging steeply groundwards at a single, off-centre funnel-shaped column, positioned asymmetrically within the space at the precise point in the courtyard where its only tree once stood.

The funnel's tapering diagrid verticals of interconnected steel members, like an angled, hollow tree-trunk supporting the canopy's steel branches, minimise the additional load imposed by the canopy on the existing structure. Says Behmann: 'up to 50%' of the load is carried by the funnel, with the remainder distributed equally around the edge of the roof. 'It was a nice coincidence that the one major load-bearing point also allows rain and



Above Bringing steel structural nodes together as hexagons avoids unsightly weld concentrations.

snow to enter the space at the funnel to be a part of the structure,' he adds.

On the canopy's underside, a tubular steel second structural layer adds strength and rigidity. Designed by structural engineer Herwig Bretis, MD of Art Engineering, this double layer allows the dome to have a flatter, less intrusive profile – and can support a design snow load of 1000kg/m² from the 5m deep drifts common in the lakeside city.

SOS has interspersed the inner structural layer with myriad mirrored triangular panels to create a fragmented, reflected kaleidoscope of scudding clouds for visitors in the courtyard below.

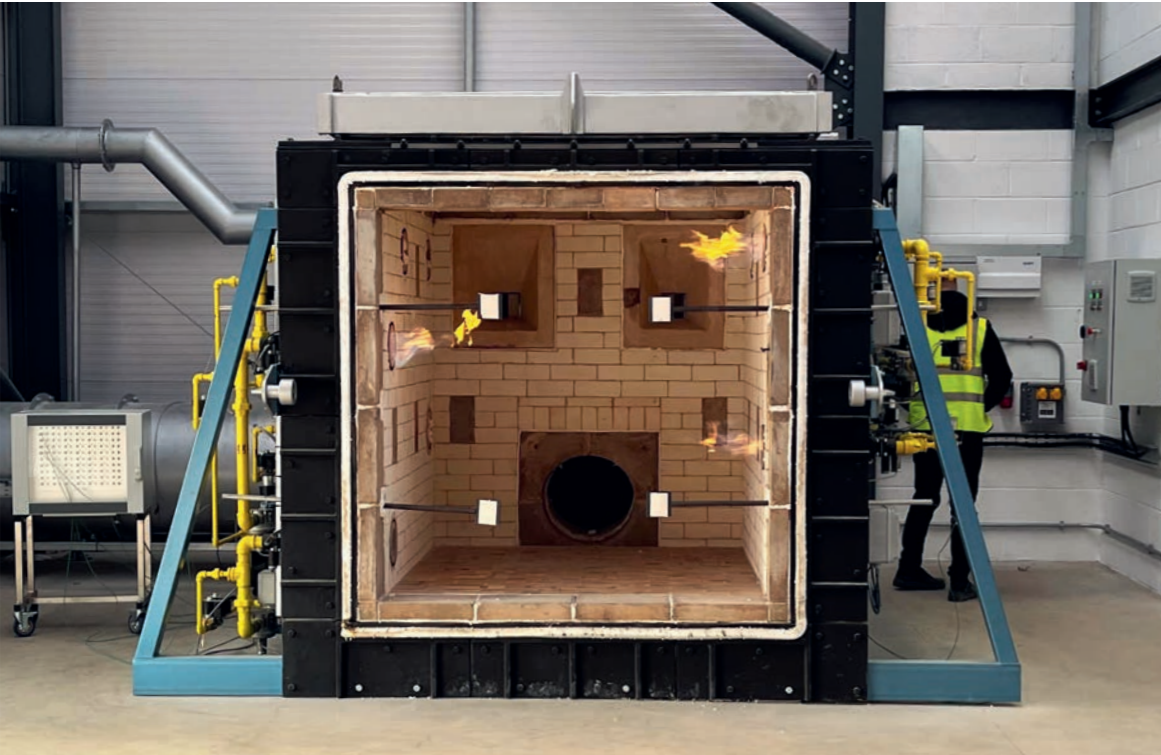
The roof's slender steel members are welded together in what Behmann calls 'hexagonal decentralised nodes'. It is a clever solution: normally with a triangular grid structure all six steels meet at a single node which he says makes

it difficult to weld. But here only two members meet at any one point on the hexagon, greatly simplifying the canopy's construction – and welcome no doubt to German fabricator Hahner Technik.

Behmann says early involvement of the structural engineer and fabricator was key to a design that was feasible from both a construction and cost perspective. 'The structure becomes affordable because you take out all the risk,' he says, while tendering it would hit the price because 'they would say it is too complex'.

The canopy was built in Germany, cut into sections and shipped in standard containers. 'Transportation was part of the design process because you can only cut the structure in certain areas, which must be defined early in the design,' explains Behmann. Flanges were welded to the cut steels to be bolted together when the structure was reassembled. Then the cut steels were welded back together and flanges removed. 'Only a few welds were needed on the construction side, but not too many,' he says. ●

Made



Left Built by Manchester-based specialist Furnace Construction, the new gas-fired furnace reaches 600°C in five minutes and temperatures in excess of 1000°C after 1.5 hours. It will take about seven hours to return to ambient temperature. **Below** Siderise's new Innovation centre at its Maesteg production plant.

What: Siderise production facility
Where: Maesteg, Mid-Glamorgan

You can feel the wave of heat the minute you walk into Siderise's £1m Innovation Centre. The latest addition to the company's Maesteg production plant, its showpiece, is the state-of-the-art test furnace. This allows Siderise to develop and fire test its own products, evidence of its intention to remain the UK's pre-eminent manufacturer of passive fire protection systems and products.

'We finished a test about an hour ago and it's still cooling down,' says test centre manager Matt Purbrick, adding that there will be another seven to go. He explains that the sizeable cube-shaped furnace was built by a UK firm whose founder had worked with NASA, helping deliver facilities that would test their technology under extremes of temperature. 'It took a team of engineers months to build and commission it,' continues Purbrick, 'and they designed all the specialist software linking to the air and gas valve actuators that control the furnace, so that the results of any fire test here should be identical to any of the

same done on the other side of the world.' That is important to Siderise, because this is a company with big ambitions. With a £50 million turnover, not content with being market leader in passive fire solutions for the building envelope in the UK (the firm's products were installed at Canary Wharf over 40 years ago) it has now also become so in the UAE. But with offices in Mumbai and Singapore, it is also forming strategic partnerships in the Far East, with work in the USA too. Most of the firm's 200+ employees work out of the Welsh valleys, but the agenda is clearly a global one.

CEO Adam Turk, who has worked in construction for decades, wishes to ensure Siderise is at the vanguard of passive fire safety, hoping the Grenfell tragedy will be the spur to ensure such events never happen again. 'I've never felt as much momentum for change in the industry,' he says, 'and everything we do

Everything we do is about raising the bar to improve safety



is about raising the bar to improve the safety of buildings we live and work in.' So how is the firm evidencing that? The new furnace – rare outside a dedicated fire testing facility – is key, allowing Siderise to carry out in-house R&D to ensure its products are ready for third-party fire testing. Not content to test the performance of any product just once, the firm now regularly pulls items off the line to randomly test them and make sure they meet requirements every time. Able to carry out fire resistance tests to BS, EN, ISO, UL and ASTM standards, the aim is to become a UK Accreditation Service (UKAS) lab,

allowing tests to be signed-off on-site by accredited, independent fire engineers.

Beyond the product itself, the other aspect of the firm's safety matrix is what Turk calls its 'technical wrapper' – its comprehensive, free, technical support function. At its most fundamental, this is a technical team not only offering design, specification, installation and compliance advice, but promoting use of Siderise's inspection app, which allows fire-stopping installations to be photographed, sent through and checked for compliance, and form part of a digital record of the building. Nearly a third of the company's people are technically qualified; still more engaged is its team of on-the-road technical experts who criss-cross the UK, both training installers and checking installations in person. Turk adds that Siderise's partnering with a distributor in Israel highlighted safety flaws in its tall buildings policy and resulted in changes to local regulation; the firm's commitment to safety, he implies, goes beyond national borders.

But Siderise's drive for expansion seems tempered by caveats. 'One of our golden rules is that any market we'd consider entering must be legislation driven,' explains marketing director Richard Bishop. 'Our ideal would be to feel a real desire to use high-performance solutions and if this wasn't the case, we'd think twice about engaging.'

In the meantime, there are plenty of challenges closer to home, for it's not just about volume but typology. Turk highlights the firm's continuing R&D work, not only with volumetric housing but structural timber frame and masonry buildings too, to ensure both compliance and confidence for specifiers to innovate in these sectors. He adds: 'Industry is shifting to low embodied carbon products and we're working with trade bodies and our supply chain to achieve that.' He thinks the firm's new 1000°C furnace, and what it can facilitate, sets it firmly in that white heat: 'because our vision is to be the global leader in passive fire solutions for the building envelope – on all building types.' ●

Produced by RIBA® in collaboration with Siderise



1 SLAB LOADING
Siderise's base product is a special formulation stonewool, modified on the production line to realise its properties of passive fire stopping in curtain wall, masonry facade, and cladding systems. The firm uses Taguchi experiment and statistical methods to monitor production by testing, changing temperature, speed or compression levels to optimise product quality. Operations is looking to move supply of the stonewool from single to different slab sizes to reduce factory waste from 7% to 4%. All 'waste' material is reprocessed at source.



2 STEEL BRACKETS
The simplicity of the manufacturing process belies the product's complexity when exposed to fire. With little intrinsic strength in its 'raw' state, this stonewool fibre allows compression and resilience – fire-integrity enhancing qualities capitalized upon in Siderise fire stopping. To help this integrity, finished products will soon be mechanically held in with pre-bent stainless or galvanised steel brackets. Typically bent and installed manually on site, Siderise's unique simple bracket innovation will facilitate better, and safer, installation of fire stops and cavity barriers.



3 STRIPS CUT AND ROTATED
Siderise gives fire stopping intrinsic strength by rotating strips cut from the base slab. Rotation exposes the cut heads of the stonewool fibres which densify and bond well with the finishing foil, which is yet to be applied. Meanwhile, vertical fibre orientation generates the fire stopping lamella's compressive component, whose ability to repeatedly expand and contract under stress is critical to the performance of the finished fire protection. Capacity of the production line's 'cut and turn' capacity is 6m/min, although the new £1.8m line is able to run at 8m/min.



4 FOIL HEAT FUSED TO 'COMPRESSED' SLAB
The foil layer is critical to the mechanics of fire stopping. Once the lamella strips have been lined up side by side, they are mechanically compressed laterally into panel form before a thin mesh, scrim-impregnated, aluminium foil is heat-adhered directly to the lamellas' 'cut' face. This foil is sacrificial – when exposed to fire it delaminates and latent expansion potential of the product is released – expanding to ensure integrity of the cavity barrier or fire stop. The foil's brand name and cutting instructions help the tech team confirm correct installation visually via the inspection app.



5 EDGE TRIMMING AND INTUMESCENT TAPE
Compressed panels can be made into different products; if they are to be open state cavity barriers pieces are cut down and intumescent tape (colours denote fire performance credentials) applied to the edge of panels. The 'EI' number relates to fire integrity (E) where joints may start to fail and fire insulation (I) where the non-fire side reaches 180°C above ambient temperature. The highest performing open state cavity barrier has an EI120 attribution. They intumesce once the tape is triggered by heat from the fire to help close an open cavity.



6 QUALITY CONTROL LAB
Siderise's £100,000 in-plant Quality Lab allows the firm to constantly monitor its product lines. Here the firm carries out its own dimensional, compression and ignition testing. The Taguchi experiment and statistical method helps ensure the line turns out products with the correct specification every time. The product is also tested to ensure it can withstand handling and installation on site without its integrity being affected. Needing, as it does, to be 'spared' by the galvanised bracket to be secured on to the building, the thinnest section being manufactured is 75mm.

One-of-a-kind hidden induction cooking with RAK

State of the art technology enables the CookingRAK to heat food invisibly on an elegant yet durable kitchen surface that is hygienic, stainless and scratchless



RAK Cooking
CERAMICS RAK

For more details visit [Cooking RAK | Hidden Induction System for Modern Kitchens](https://www.cookingrak.rakceramics.com)
www.cookingrak.rakceramics.com

CookingRak presents a new invisible induction cooking system through a process of integration between material and technology, offering the highest quality with an avant-garde design that fits perfectly into any space. Cooking RAK is a revolutionary idea for the kitchen.

Creating a stylish impression and professional results in the modern kitchen, CookingRAK is a one-of-a-kind hidden induction cooking system that is the perfect combination of aesthetics and functionality.

Designed to create a multi-functional

kitchen space ideal for daily use, the system is integrated into the countertop, opening possibilities for users to prepare, cook and dine in the same space; a seamlessly designed kitchen top made for dining and entertaining. The technology combines the high-performance of RAK Ceramics porcelain slabs, with an innovative induction system that operates through a magnetic field. Porcelain has always been the ideal choice for kitchen countertops as it is a durable material, with a surface hardness that resists heat and scratching. It is also moisture resistant and does not easily stain, making it easy to clean.

CookingRAK is exclusively produced with RAK Ceramics in 135.5cm by 305cm porcelain slabs with 14.5mm thickness. The slabs can withstand high temperatures and are an ideal material for kitchen countertops as they are very hygienic, food-safe and less likely to harbour moulds and bacteria.

To conveniently locate the cooking zones on the countertop, the RAK Ceramics slabs can be customised to add special markings in six modifications that will suit any kitchen style. The system comes with four silicone pads, to protect the countertop while cooking.

Safety in the kitchen is always important, and with CookingRAK's induction system, the countertop surface does not heat up. Using electromagnetic currents, it will only heat the cookware placed over the hob. An efficient way of cooking, the induction system operates by generating a magnetic field in contact with a metal container. Using the magnetic waves, the induction plate detects a container on its surface and agitates its particles, heating the vessel and cooking the contents. No heat is transferred to the surface, which makes it safe to use even in the busy family kitchen. In addition, the CookingRAK systems undergoes thorough testing and meet all the expected requirements and regulations, making them safe for domestic and commercial use.

Simple to use, the system can be controlled in two ways, via remote control or through a free downloadable app. The CookingRAK app is the ultimate solution for controlling the hidden induction system, enabling the easy management of zone control, timer, power control, temperature control and security shutdown.

CookingRAK can be chosen in a wide range of colour schemes, designed to meet the latest trends, from the modern and minimalist to classic or rustic. ●

CookingRAK: the benefits at a glance

Aesthetic and functional

A seamlessly designed kitchen countertop made for dining and entertaining.

Versatile

Available in a wide range of colours and effects that perfectly fit any style and can be installed indoors or outdoors.

Energy efficient

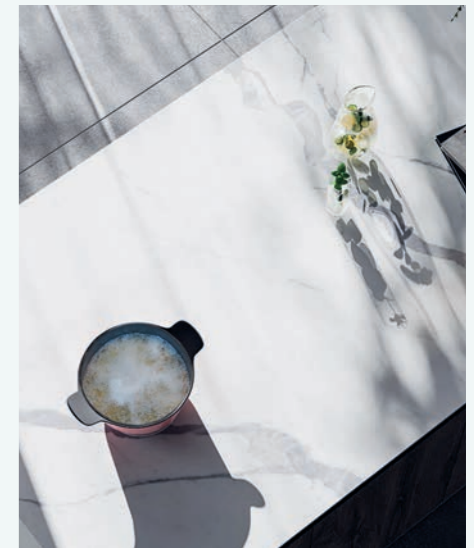
Uses less energy than traditional electric systems and gas without compromising the cooking quality.

Safe to use

No heat is transferred to the surface, which makes it safe to use by all.

Easy to clean

Made of non-porous material that does not harbour moulds and bacteria, making it food-safe and easy to clean.



Opposite Blu Del Belgio Blue available in full lappato and honed finish.

Above Calacatta Extra White available in full lappato, honed or natural finish.

Below Uni Hyper White available in polished or honed finish.



Unesco Building V

A climate crisis-era retrofit of Jean Prouvé's and Bernard Zehruss' design spends money on windows and facades but has to eke out savings on interiors. Patriarche is charged with the balancing act

Words: Jan-Carlos Kucharek

Sitting literally and historically in the shadow of the 1958 Unesco HQ in Paris, by Marcel Breuer, Pier Luigi Nervi and Bernard Zehruss, Unesco Building V on nearby Rue Miollis, completed in 1970, is itself of architectural note. Designed by Zehruss and Jean Prouvé for expanded member state delegations, it is the subject of a retrofit and upgrade by French architect Patriarche, who won the €33 million OJEU project in mid-2020. Project architect Marion Barray says that the former was obsessed with the primal mass of Béton brut, to which Prouvé's fascination with technology and pre-fabrication seems antithetical. But she thinks the collaboration played to their strengths, with weight and lightness sitting in striking counterpoint.

Zehruss was responsible for the 17,000m² building's spine superstructure, characterised by pairs of huge concrete piers at ground supporting 12m wide office floors above of concrete and exposed steel columns, with four lower level 'public' patios extending out. Prouvé took on design of the innovative steel cladding systems for the facades as well as office and entrance hall interiors, fixtures and fittings. Barray concedes however, that their experimental nature didn't fare well on time or climate change. Modern users suffered from severe summer overheating, despite Prouvé's attempt at solar shading – beautiful, clip-on curved aluminium 'cheeks.' And although stunning, some 'elemental' window openings were just a cast aluminium closer pressing a top hung, single-glazed pane against a silicon seal; the building was haemorrhaging heat in winter.

After a 2002 Unesco estates report identified a need for a major upgrade, Patriarche's task was to marry faithful restoration with a 'longer life, ensure it complies with fire safety and accessibility

requirements, and... have technical operation facilities that complies with comfort, energy saving and low-carbon building standards.' With Phase II in progress, this is no mean feat; the building remains in use while being a construction site, with delegations decanting around the building to accommodate the three-phase project. But staged completion also means Patriarche can take stock of the project and consider how approaches improve or otherwise affect the original design.

Prouvé cladding panels to office floors

Originally fixed directly to the superstructure's 1.4m centre perimeter steel columns, the elemental simplicity of Prouvé's pre-fabricated panel system proved to be its fallibility. Each 2.9m by 1.4m panel was a sandwich of thin steel enclosing 40mm of a rudimentary form of mineral wool insulation. Curved outward-opening aluminium window frames held in a single-glazed pane with silicon seals. Bolted back to columns, aluminium grille brises soleil sat between cast aluminium brackets holding clip-on

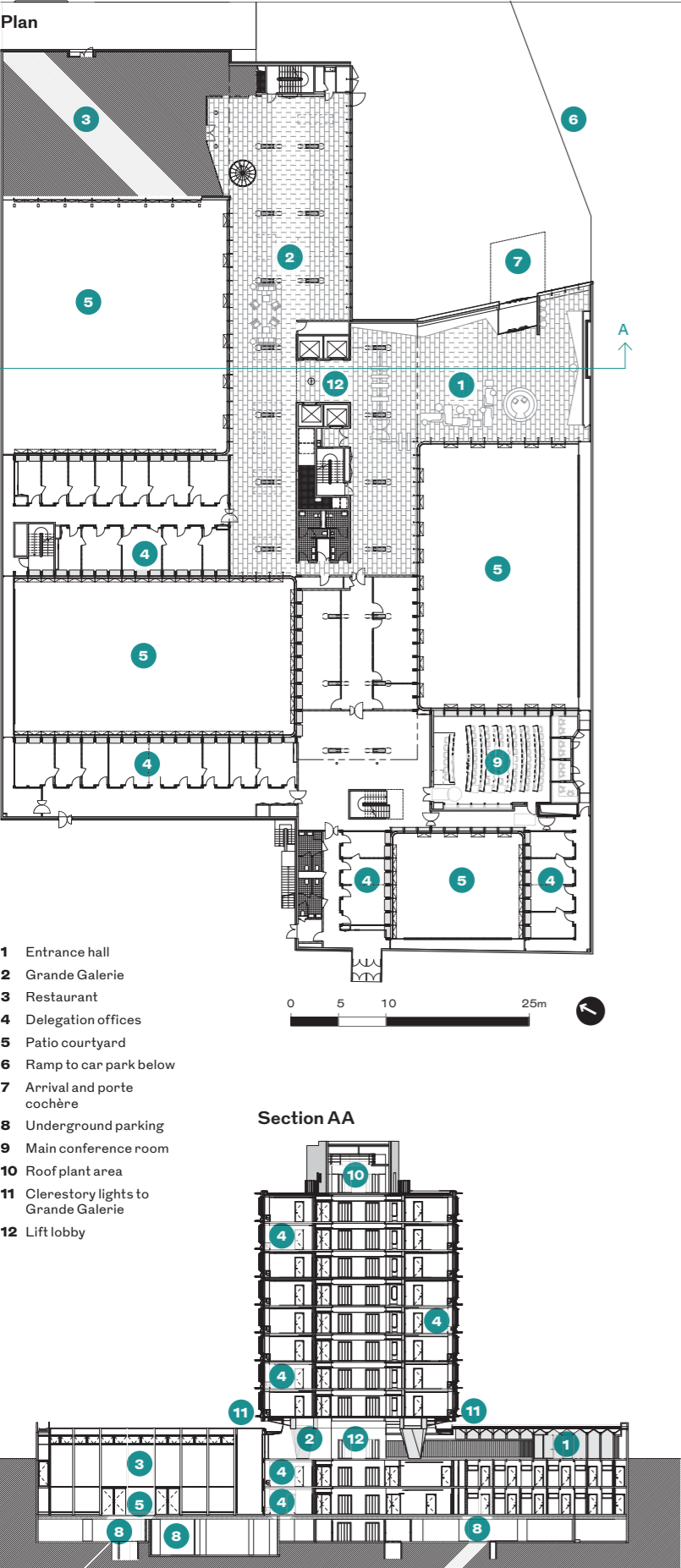
Top left Unesco Building V looking east. A staggered spine of offices sits above lower levels of public and meeting spaces. Note the 9m high restaurant glazing to its patio, back left. The rear office block has been retrofitted.

Right Bernard Zehruss' concrete piers dominate ground floor circulation spaces.

Centre External view of the Toblerone steel roof structure and travertine wall of the entrance hall area with offices above.

Far right Internal view of the entrance hall with lozenge shaped polycarbonate rooflights.





double-curvature aluminium ‘cheeks.’

‘Panels were unsuited to modern regulation, with single glazing, no thermal breaks, no air tightness and air leakage,’ says Eckersley O’Callaghan’s Charles Chevalier, the facade engineer for the project. ‘With powder coating only on panel outer faces, when window seals eventually failed, water ingress was retained by the insulation and panels just rusted from the inside-out.’ Total replacement was proposed – tempered by Prouvé’s component-based approach – meaning his bolt-on and clip-on aluminium elements could be restored on-site and then reinstated.

Patriarche’s solution was to make the thermal upgrade of the facade distinct from the cladding system. It proposed a simple, 150mm thick timber framework in front of, and attached to, the steel columns – filled with Rockwool insulation and set behind a rainscreen membrane. Onto this cladding fabricator C-MOB bolted new aluminium sandwich panels, which had a rigid back face to emulate the look of the original panels. Prouvé’s aluminium frame elements were cleaned and reinstated in new panels but inward-opening double-glazed aluminium window frames by Facal now sit behind this, aligned with the timber frame, placing the glass line 30mm further back than originally – ‘setting the eyes deeper into the face’.



JAN-CARLOS KUCHARÉK



Above Original Prouvé patio window detailing with handles that merely pulled glass panes to a silicon seal to close.

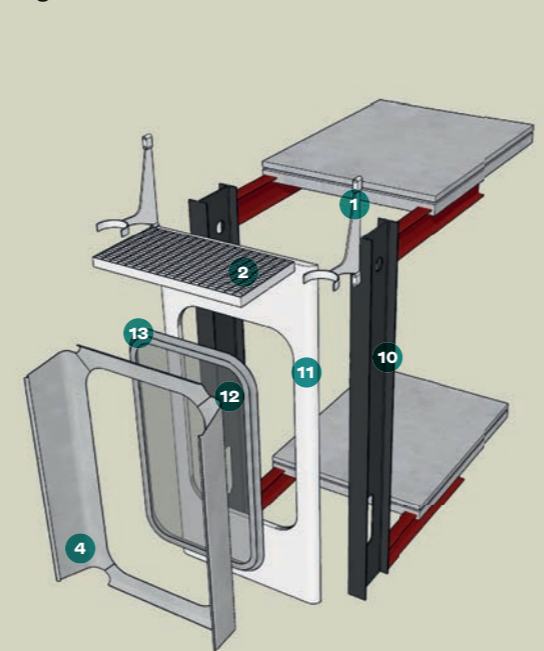
Top right Restored office spaces still respect the 1.4m module, allowing walls to be moved. All exposed steel has been dry lined for fire protection purposes. Windows are now inward opening for user ease and maintenance purposes.

Right Office space partitions have full-height doors to allow for internal flow between delegation office areas. The Prouvé bespoke doors and storage wall were formerly on this right side.

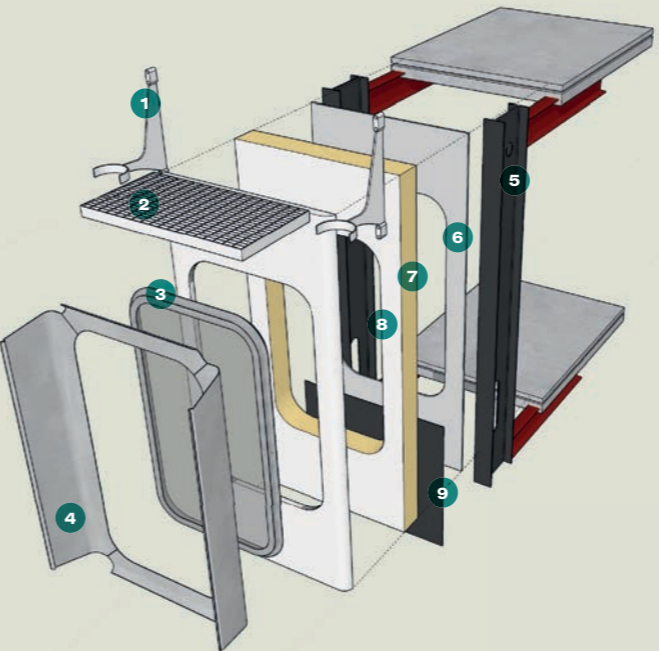
Below right Detail of the newly retrofitted installation, with slightly deeper glazing line.



Original installation



Proposed installation



- 1 Cast aluminium renovated support bracket for ‘cheeks’
- 2 Renovated aluminium brise-soleil
- 3 New aluminium inward-opening window frame with thermal break and double glazing
- 4 Existing anodised aluminium solar protection ‘cheeks’ renovated and reinstalled
- 5 Exposed steel structure now encased in dry lining
- 6 Interior finishing panel
- 7 New thermal skin and rain cover
- 8 New pressed aluminium panel
- 9 Steel sheet
- 10 Exposed steel columns and beams
- 11 Pressed steel sandwich panel with 30mm rock wool insulation fill
- 12 Single glazed pane
- 13 Aluminium frame with silicon seal



NICOLAS GROSSEMOND (3)



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At corners metal channels are supplanted by identical, but curved, cladding sections.

The 'heroic' 9m tall sheets of single-glazed float glass that form the restaurant glazed courtyard wall will be replaced by a Reynaers system. It is a more risk averse specification, with a lower transom running at 2.57m height with a second one 4.44m above that. Being south-facing, the new iteration will have external blinds and top louvres to mitigate solar gain.

Office interiors and entrance hall

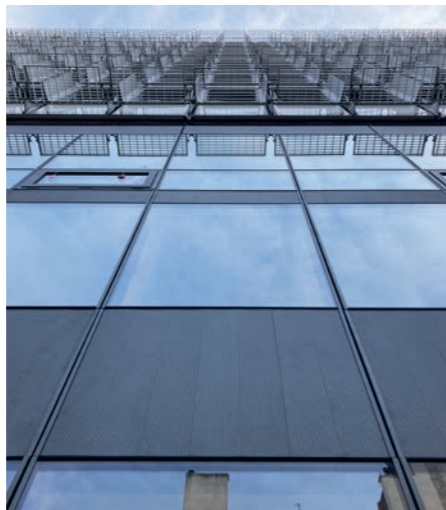
Interior refurbishment has been driven by the need to meet fire escape and access regulation, user comfort and changing user needs, which has resulted in radical reconfiguration, while attempting to maintain the spirit of Prouvé's internal flexibility. Originally, this manifested as full-height movable walls between office spaces, curious floor-set power points that were independent of their positions and crisp, clip-fix metal housings to air conditioning units and radiators. This has all been removed in the new design, which sees low energy air recycling conditioning housed in a boxed-out voids below the windows and the introduction of a modern and more substantial Vallee partition system – which maintains a sense of spatial flow between offices with full-height opening doors. These partitions meet a considered suspended ceiling, also by Vallee, with well laid-out and detailed lighting, fresh air feed and PIR sensors.

Perhaps the most radical intervention is in fire escape corridors, with ongoing removal of Prouvé's bespoke partition and storage system. The architect had integrated timber office doors and side lights of stippled privacy glass with novel 'back-to-back' storage units that faced into both offices and the corridor, divided by stippled clerestory glazing. Alongside exposed steel corridor columns, the arrangement generated a complex interplay of materiality, light and shadow. But cost, fire and acoustic concerns led to its removal, Patriarche instead installing a one-hour-rated dry-lined wall and encasing the corridors' structural steel. Barry cites a modern demand for privacy as a concern too but the sense is that value engineering has resulted in a utilitarian space that bears scant resemblance to the original.

More in keeping should be the retrofit



JAN-CARLOS KUCHAREK

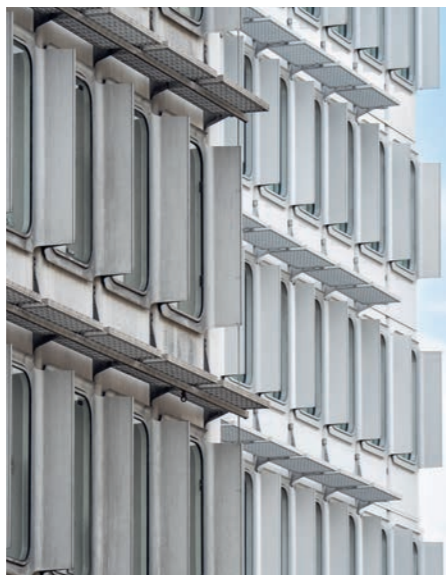


MARION BARRY

Top Hiding heating coils, Prouvé even designed click-fit aluminium radiator housings which sit between the ground floor's exposed steel columns

Above New patio glazing is quite different from the Prouvé original but maintains its spirit.

Below Image showing the difference between the retrofitted facade in the background and original panels in front.



NICOLAS GROSSE

of the entrance hall with an intriguing 'Toblerone' metal beam soffit and porte cochère, which spans the 21m lobby space. With an existing 160mm thick roof, Patriarche will be installing a further 140mm of Rockwool to bring its performance up to standard, but will keep this additional thickness back from roof edges to ensure the slenderness of detailing remains. Achieving requisite thermal performance where glazing interfaces with triangular soffits was complex, so the new entrance hall glazed wall by Reynaers will be moved forward by 200mm and an insulated panel section fixed to the roof's aluminium reveal, setting the structure vitrine-like behind the glass. On the other side of the entrance travertine wall cladding will likewise be moved out to allow for insulation behind, with a new double-glazed unit set on the top of the wall rising to meet the new roof edge detail. Funky but poor performing 3-D lozenge-shaped polycarbonate rooflights will be replaced with flat double-glazed units.

With reclamation firm Mobius contracted to repurpose stripped-out materials and Saint Gobain taking the original glass, melting it down and creating new float glass, material re-use on the project should amount to 15%. Unesco's 2002 report had allocated €26.25 million to the project – around €39 million at today's value; if so, Patriarche is doing well to deliver Building V for £33 million, significantly less than even this figure. It seems clear that money is being directed at upgrading the performance of the envelope and meeting fire and acoustic regulation for office interiors, the latter affecting levels of retention of original Prouvé interiors. Once phase III completes in mid-2025, the aim is for the retrofitted building to meet French 2009 BBC (Bâtiments neufs à Basse Consommation) Effinergie Rénovation standards, yielding a 63% U-value improvement and 70% improvement in regulatory energy consumption. ●

Client Unesco

Architect Patriarche Architecture, Environmental Building Quality [EBQ] & Patriarche Ingénierie

Facade engineer Eckersley O'Callaghan

Landscape architect Michel Desvignes Paysage

Asbestos lead engineer Omega Alliance

Acoustic design Lamoureux Acoustics

Fire safety Casso & Associés

Lighting design Atelier H.Audibert

Site scheduling, management and co-ordination Quatorze-IG

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Costed

Sam West, information research manager, and James Garner, global head of data and insights and analytics, at Gleeds, provide supply and fix costs

Rates for doors and windows were researched last January but it is prudent to revisit them after a turbulent period for material prices in 2022, followed by cost metrics for materials and commodities which remained volatile throughout the first half of the year. The latest BEIS ‘All work’ Construction Materials price index for May 2023 showed a fourth consecutive improvement from January. Meanwhile, its monthly update of materials and components shows a 1% increase in prices

Rates are based on the UK averages and are typical prices at 3Q 2023. Prices can vary significantly depending on exact specification

DOORS	
Softwood external doors	£ each
Standard doors and hardwood frames; doors painted; incl ironmongery	
matchboarded, framed, ledged and braced door, 838 x 1981 mm	680-820
flush door; cellular core; plywood faced; 838 mm x 1981 mm	690-840
Heavy duty solid flush door	
single leaf	1490-1810
single leaf; emergency fire exit	2050-2480
Steel external doors	£ each
Standard doors	
single door, incl frame, ironmongery, powder coated finish	1200-1460
single security door, incl frame, ironmongery, powder coated	2480-3040
Bullet resistant doorset	
single, 1 m x 2.1 m steel doorset overlaid with ply veneer	4960-6130
Overhead doors	£/m²
single skin; manual / single skin; electric	190-240 / 350-430
electric standard lift, 42mm insulated sandwich panels	270-330
rapid lift fabric door, external, electric operation	1150-1370
uPVC external doors	£ each
entrance doors; residential standard; PVCu frame; brass furniture (spyhole/ security chain/letter plate/draught excluder/multipoint locking)	
overall 900 x 2,100 mm half glazed	610-740
overall 900 x 2,100 mm half glazed; WER A rated	620-750
overall 900 x 2,100 mm half glazed; coloured	690-840
Automatic glazed entrance doors	£ each
automatic revolving door; 2.1 m diameter, 2.2 m high; clear laminated glazing; 4nr wings; glazed curved walls	36,170-45,500
automatic sliding door; bi-parting 2m x 2.3 m opening	10,970-14,000
Internal doors	
Following rates include for supply and hang of doors, complete with frames, architrave, typical standard ironmongery and finish	
Standard doors	£ each
Cellular core; softwood with architrave; aluminium ironmongery (latch only)	
single leaf; moulded panel; gloss paint finish	380-460
single leaf; Sapele veneered finish	430-510
Purpose-made doors	£ each
Softwood panelled; softwood with lining and architrave; aluminium, brass or stainless ironmongery (latch only); painting or polishing	
double leaf; four panels; mouldings	1150-1350
Hardwood panelled; hardwood lining and architrave; aluminium ironmongery	

of metal doors and windows from January, albeit at a much steadier rate than that 6% increase from the July 2022 peak. Key considerations during specification are thermal efficiency (U value), solar gain (G value) and air leakage (L value). Acoustic performance and aesthetics are also important. The following rates include the supply and hang of doors and windows, complete with all frames, architrave, typical medium standard ironmongery set and appropriate finish. ●

(latch only); brass or stainless ironmongery (latch only); painting and polishing double leaf; four panelled doors; mouldings	2280-2770
Fire doors	£ each
Standard type; cellular core; softwood lining and architrave; aluminium ironmongery (lockable, self-closure); painting or polishing;	
single leaf; Oak veneered; 30 min fire resistance; polished	620-750
double leaf; Oak veneered; 60 min fire resistance; polished	1780-2130
Ironmongery sets	£ each
Stainless steel ironmongery; euro locks; push plates; kick plates; signage; closures; standard sets	
office door; non locking; fire rated	390-480
standard bathroom door (unisex)	350-430
accessible toilet door	200-250
fire escape door	2160-2600
WINDOWS	
Softwood windows (U-value = 1.6 W/m²K)	£/m²
Standard windows	
painted; double glazed; up to 1.50m²	560-680
painted; double glazed; over 1.50m², up to 3.20m²	420-510
Purpose made windows	
painted; double glazed; up to 1.50m²	800-960
painted; double glazed; over 1.50m²	680-860
Hardwood windows (U-value = 1.4 W/m²K)	£/m²
Standard windows; stained, double glazed	1230-1490
Purpose made windows; stained	
double glazed	1490-1840
Steel windows (U-value = 1.6 W/m²K)	£/m²
Standard windows, double glazed; powder coated	750-910
Purpose made windows, double glazed; powder coated	1040-1260
uPVC windows	£/m²
Windows; standard ironmongery; sills and factory glazed with low E 24mm double glazing	
WER A rating	270-330
Secured by Design accreditation	280-340
extra for colour finish to uPVC	80-100
Composite aluminium/timber windows; U value = 1.5 W/m²K	£/m²
Purpose made windows; stainless steel ironmongery	
fixed windows up to 1.50 m²	350-430
fixed windows over 1.50 m² up to 4.00 m²	310-380
outward opening pivot windows up to 1.50 m²	860-1040
outward opening pivot windows over 1.50 m² up to 4.00 m²	380-460

HIMACS gives Garda impact

Robust, durable and hygienic Nebula brings architectural style to Dublin’s new Garda HQ



HI·MACS
HIMACS. Because Quality Wins
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Modern, spacious, state-of-the-art and practical, Walter Scott House is the new Garda Síochána headquarters that has opened its doors at Military Road, Dublin 8. HIMACS in Nebula is used for the cladding of its central atrium stair balustrades and handrails.

This new police headquarters was made possible by the collaboration of John Paul Construction, Solid Fabrications and James Latham Solid Surface. HIMACS in Nebula was selected for cladding the internal facing of the extensive system of walkways and stair balustrades over three floors and includes an alcove for the handrail and a top cap.

Marc Beattie, managing director of Solid Fabrications, said: ‘We are proud to have worked on this demanding project and we feel that HIMACS was a great solution in terms of workability and durability, as well as how it compliments this contemporary aesthetic’.

Part of the Aster Collection, HIMACS Nebula T010 is a 12mm thick solid surface material suitable for every indoor use, for commercial, residential and public spaces. Robust, durable, hardwearing and fire resistant, it is the perfect choice for offices, headquarters, business premises and residential projects alike. It’s also extremely hygienic and resistant to wear and tear, scratches, stains and UV rays, while its non-porous surface makes it very quick and easy to clean.

The thermoformable properties of HIMACS also allow this flexible material to be moulded into any shape and size. ●

Project name Garda HQ
Location Dublin, Ireland
Designer Office of Public Works
Fabricator Solid Fabrications
HIMACS supplier James Latham
Construction John Paul Construction
Material HIMACS Nebula T010
HIMACS elements Atrium stair balustrades and handrails

MARIE-LOUISE HALPENNY (2)



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VitrA x TOM DIXON

Specified

PiP specifieds are compiled from supplied company press releases



1
NTech StormGuard windows
NorDan

‘We, the wet men of Wetmen, demand satisfaction!’
‘Aye! And we, the cold men of Coldmen also remain unsatisfied, with a shocking high wind in the Gorbals! The dry men of Drymen are getting NorDan aluminium clad timber windows in their prize-winning low-energy social housing – and we hereby petition First Minister Humza Yousaf to make these low-carbon 0.8W/m²K triple-glazed Passivhaus windows compulsory across Scotland! Nicky the Fish wouldnae fought for our U-values! Nicky wouldnae tilted and turned! Nicky wouldnae leave us with fuel bills 75% higher than they need to be!’
nordan.co.uk/



2
ID30 internal glazing system
Jack Aluminium

‘Curious sort of a name, isn’t it? Jack Aluminium?’
‘Yes. Nominative determinism has been my life’s curse. Throughout my youth I was tormented with ‘jokes’ from numb nuts like you, so I grew up with a mission to really understand the material and use that knowledge to make a better world for my children. That’s why I invented these slimline, heritage-style internal glazed partitions with minimal sightlines, concealed hinges, and 3D-printed components. Look: there’s a locking mechanism hidden in the door stile, too. And with its acoustics, all the stupid questions stay on your side.’
jackaluminium.co.uk



HUNDVEN-CLEMENTS

3
Slimdrive SCR sliding door
GEZE UK

‘Town or gown?’
‘Eh?’
‘Is he a techy, life-science, smoothy-cool Cambridge grad or is he carrying a delivery and looking a bit sweaty?’
‘Well, he doesn’t look the freshest.’
‘This is exactly why this tech park’s got the Slimdrive SCR curved automatic bi-parting sliding doors with access control system. Go outside and sign for it.’
‘Done! And he didn’t half whiff! Blimey!’
‘Which is why the Slimdrive has a powerful integrated air curtain. It’s not just for heat loss! Just run it through the steriliser and bring it to the lab. Cheers!’
geze.co.uk



4
EL Evo unitised facade system
WICONA

Wandsworth is fashionable now. Jeff Banks said so. Ronnie Kray, Pete Doherty and Gary Glitter have all done time here, adding to its ‘notoriety-chic’. Inside this building on a hot day? It’s cool too! The versatile modular triple-glazed unitised facade system with thermally-insulated slim aluminium composite profiles is what makes it cool, though. And when it’s cold outside? Well, if she ever came to Wandsworth in November, Paris Hilton would definitely describe the thermal efficiency as ‘hot’. Seriously though, folks, WICONA’s unitised facade is as seamless as the pretence that Wandsworth is cool. Even though Jeff meant Walthamstow.
wicona.com

Specified



MARRIOTT HOTEL



LANCETANKARD



5
Harmony smart windows
SageGlass

‘Polidori! Fancy seeing you here!’ ‘Mary flippin’ Shelley! Blimes!’ ‘I know! Villa Diodati was so awful Percy wanted to give this new Marriott a go. Its electro-chromatic ribbon windows are sensor-controlled – but manually controllable, too. Big phew! Don’t want these electrified thingies getting out of hand!’ ‘Fer shiz babe! Even when oppressive clouds of volcanic ash are hanging low over Lake Geneva, it’s bright in here! And when the searing UV of a post-industrial sun threatens to fry us to a crisp – not just Vampyres, hahaha – we can enjoy managed daylight!’ ‘Good times, Polidori, good times.’
sageglass.com

6
W30 steel windows
Cotswold Casements

Article 4 Directions, eh? Don’t you just love them? We’ve had pink, purple, orange, and then canary yellow. After that it was dark blue, light blue, off-black, off-white, and then greige. The council loved the greige, but the client didn’t. We ended up settling on this rather conservative leaf green. Thank God Cotswold Casements are only down the road, hand-making slim hot-rolled energy-efficient double-glazed steel windows with krypton gas and low E coatings. They can do RAL colour keyed powder-coating til the cows come home. Which they did, several times, while we were getting sign-off on this project.
cotswold-casements.co.uk

7
Roof windows
Keylite

‘You ‘forgot’ to put the integrated electric thermal blackout blind down again, didn’t you, you naughty things? Even though you’d have been 20% warmer. I think you wanted me watching. It’s that integrated expanding thermal collar making you careless. I love it when you do that. Yeah, this is a dark sky reserve, so you really should have closed that blind. With the light on in there, there’s not much left to the imagination. ‘Who am I? Look out the window. Yeah, I’m that oak in the distance on the top of the hill. A mammal curious watcher – a bit like John Craven in Countryfile but with the shoe on the other root.’
keyliteroofwindows.com

8
Panoramic Sliding Door
Schueco

My wife and I reside on Chris’n’Sheil, our private island. This morning, your cruise liner passed so close that, with concealed flush-fitting frames and only a 35mm interlock obscuring our panoramic vista, all 7000 passengers could see right in! Our Ashera cat shredded the cashmere on six Loro Piana chairs, trying to get through the locked burglar-resistant automatic sliding door. It then went out through the pantry, ruining a year’s stock of the Fortnum’s hampers on which we exclusively live. I look forward to receiving Royal Caribbean’s cheque for \$23,789,000 to cover upset, missing cat, and damage.
schueco.com

PiP specifieds are compiled from supplied company press releases

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 - Installed at the end of construction avoiding the usual site damage to cast stone. 2.4m lengths (fewer joints) available in any shape; custom mouldings no extra. Easy to install, delivered in 4/6 weeks.
 - Sytex is renowned for its service and aftercare. Specified by architects and chosen by national housebuilders.

FoamStone® Stone, with a lightweight core®
Custom mouldings any shape in 4/6 weeks



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Agile delivery puts the NHS round the corner

With giant hospitals that cover all services proving slow and unwieldy, healthcare is seeing the advantage of community diagnostic centres

Words: Josephine Smit



The number of people waiting for routine hospital treatment in England reached a record 7.5 million in May, as industrial action compounded Covid-induced delays.

In an effort to reduce waiting lists, the government and NHS are creating a string of new centres to carry out common procedures, treatments, scans and tests. These facilities are also part of a shift in healthcare delivery, drawing on pandemic lessons and the findings of Mike Richards' 2020 independent review of diagnostic services for NHS England, which talked of establishing new service models in new facilities, away from acute hospital settings.

So far, the government drive has seen more than 100 community diagnostic centres (CDCs) alone built in England since 2021 and more facilities are on the way. CDCs were specifically intended to be sited in town centres and high streets, for ease of access and to help address healthcare inequalities.

Add to this government ambitions for rapid delivery, more standardisation, modern methods of construction (MMC) and sustainability in NHS projects and expectations are high. Not surprisingly, some clients have been struggling to

Above Newcastle's Freeman Hospital has opened a new Day Treatment Centre, by P+HS Architects, in a bid to deal with the backlog of elective surgery for day-case procedures.

Opposite The success of BDP's CDC, set in vacant units in Poole's Dolphin Shopping Centre, has seen its original two-year life extended, and brought extra footfall to the retail centre.

meet them all, as can be seen from last year's analysis by think tank the Kings Fund, which found only one in five CDCs were being built in the community.

Need for speed

'With ageing estates, healthcare clients have identified an immediate need to improve clinical facilities as soon as possible', says Derek Shepherd, director at P+HS Architects, but at the same time, cost constraints have become even more acute, with capital finance failing to keep pace with inflation and materials costs. 'You don't get as much for your money these days, so we have to balance rapid timescales with value for money, while maintaining quality of clinical output'.

Shepherd's practice is working on numerous projects to tackle the NHS

backlog, from day surgery centres to CDCs and endoscopy centres. The Day Treatment Centre (DTC) for Newcastle Hospitals NHS Foundation Trust at its Freeman Hospital was made to shorten 4-5 year waits for elective surgery, a situation that had been declared an emergency. The centre, which opened last September, provides four much-needed surgical theatres for day-case procedures, 44 pre-operative and post-recovery bays and staff and welfare facilities.

To get the DTC up and running fast, the trust provided initial capital funding, while also bidding for funding from NHS England; and it called in P+HS Architects and contractor Robertson Construction, which it was already working with. Its reduced programme required pro-active consultation with the local authority and followed a permitted development planning pathway. Aligning initial design work to the timescale called for a 'very rapid and intensive' design process, says Shepherd, with two or three stakeholder meetings a week.

These exceptional ways of working enabled the project to be delivered in just 12 months. That has a direct benefit, says Shepherd, as it is estimated the trust will be able to undertake around 16,000 more surgical procedures than if its project had been approached traditionally.

The client initially hoped off-the-shelf modular would accelerate delivery, but the architect's review found otherwise. 'The challenge on this and other projects when considering a volumetric approach or MMC is finding the balance between benefits and timescale,' says Shepherd. 'We needed some flexibility so we could progress with construction on site in a more traditional manner, while we were still finalising some of the design.'

As a result, hybrid construction was adopted, with theatres and plant rooms



RICHARD GREASE

– which needed to be in place early to allow for equipment installation – constructed using conventional steel frame and blockwork. At the same time, design of pre- and post-operative areas was finalised, these subsequently being constructed in light gauge steel.

Design appraisals for some of its CDCs have produced similar findings. In Stockton-on-Tees, P+HS is advising North and South Tees Hospitals NHS Foundation Trust on the development of a centre on the site of the now demolished Castlegate shopping centre, which will provide scanning, ultrasound, X-ray and respiratory and cardiology consultation. In Workington town centre, it is working with North Cumbria Integrated Care NHS Foundation Trust to provide a similar CDC.

Taking non-emergency healthcare services off the acute hospital campus brings benefits and challenges. In Stockton, the architect carried out initial feasibility and design work for the trust, which included assessing more than 20 potential sites. In Workington a former car park site was acquired by the trust in collaboration with Allerdale Borough Council, while the trust has procured the construction partner, via NHS England's ProCure23 route. Building health facilities in town centres brings care closer to home but finding land or suitable buildings requires client need and development viability to be carefully considered against costs, says Shepherd.

Coffee and consultation

University Hospitals Dorset NHS Foundation Trust turned to vacant department store space on the first floor of Poole's Dolphin Shopping Centre to

house its CDC. The trailblazing move enabled the trust to create its centre in just six months, with its December 2021 opening timed to help meet the demands of the winter surge in patients.

The trust set the project's location and timescale, with BDP and contractor CFES resuming a working relationship they established creating the NHS Nightingale hospital in London's ExCel exhibition centre. Ehren Trzebiatowski, architect with BDP, sums up the CDC's design as 'a hospital in a box', which was sustainably delivered using partitioning and other components recovered from decommissioned Nightingale hospitals by Innova Care Concepts.

The retail unit had few columns and plenty of space, so accommodated the three clinical streams needed – ophthalmology, breast screening and general services – as well as allowing flexibility for future expansion and rooms for several health charities. A linear route takes patients through the centre without cross-flow in a pandemic-influenced strategy, while banks of consulting rooms are connected by staff corridors, allowing staff to work effectively across appointments.

Ahead of the conversion, existing fire systems, lighting, energy supply,

The trust will be able to undertake around 16,000 more surgical procedures than if its project had been approached traditionally

toilet provision and other infrastructure had to be assessed for its suitability for a healthcare setting. Lighting and HVAC systems were found to be adequate, but other areas required closer focus. A structural engineer confirmed the integrity of the floor before the breast screening unit's weighty mammography machine could be installed, and fire safety was enhanced. 'We had to improvise a fire alarm system because the shopping centre's escalators are in an open plan area and could act as a chimney in the event of a fire,' says Trzebiatowski.

The ceiling and fire sprinkler system were left undisturbed, the latter preventing partitioning from reaching full ceiling height. Although that compromised acoustics, background noise including HVAC ultimately proved effective. The most obvious disadvantage of adapting the shopping centre, however, is its lack of windows and so potential for natural daylight and ventilation.

The centre was intended to be temporary, but its two-year lifespan is already being extended as NHS pressures continue. When its doors close for good, circular principles will see internal materials and components refurbished for re-use again. Meanwhile, the shopping centre owner, which recognised from the start the potential benefits of the health centre, is seeing increased footfall and spend, as patients follow consultations with a trip to a shop or café, BDP's post-occupancy evaluation of the project found.

Such centres are an agile response to NHS service needs and are generating broad benefits. They are essential to the NHS' future as it works to provide care amid severe staffing challenges and estate maintenance backlogs, while the government New Hospital Programme proves slow to deliver.

'We've identified several services that don't need to be carried out in an acute hospital so could be moved to a community setting – whether a shopping centre or a new building on a car park, that people are more familiar with,' says P+HS's Shepherd. 'It's also more viable to build specialised centres targeting preventative care than mega-hospitals dealing with both planned and emergency care,' he continues. 'It's unsustainable to keep building beds. What we need to be doing is reducing the need for beds, so the diagnostic and elective surgery programme is the way forward.' ●

Healthcare specified: Ulster Hospital, N. Ireland

Ulster Hospital’s new acute services block is deliberately outward looking and built with future flexibility in mind. Avanti Architects reveals the details



Rainscreen cladding
Porcelanosa Urbatek vitrified ceramic tile rainscreen cladding system in Avenue black natural porcelanosa.com

External fins
Cortizo powder coated aluminium cladding to connecting fin structures cortizo.com/en

Cladding system
Cortizo aluminium curtain walling system with anodized bullnose caps in 16G Light Emery Acer (horizontal) and recessed U-shaped gasket seals (vertical, horizontal) and recessed U-shaped gasket seals (vertical) cortizo.com/en

Glazed units
Guardian double-glazed units with internal secondary glazing and integral blinds guardianglass.com/gb/en

Spandrel panels
Guardian double-glazed black-painted spandrel panels in RAL 1013 guardianglass.com/gb/en

Glazed louvre system
Fieger aluminium double-glazed motorised ventilating louvre with Vanceva coloured interlayer (Orange 0041) fieger-lamellenfenster.de/en

Sundry cladding
Kalzip FC facade system to stair core, roof plant rooms and canopies kalzip.com/en/

ARCHITECT’S STATEMENT Andrew McKeown, director, Avanti Architects

The Acute Services Block is the last phase of the extensive Phase B Redevelopment Programme at the Ulster Hospital and completes a new central cluster of in-patient and emergency accommodation.

Along with 213 inpatient beds, the eight-storey building provides an emergency department with observation and ambulatory care beds and radiology with nuclear medicine.

The design integrates with the surrounding hospital buildings in a clear and logical way that is sympathetic to their scale and form, and to create spaces both internally and externally that provide a warm, therapeutic, and

safe healing environment. This design ethos has been applied holistically from considered enclosures and views to carefully landscaped courtyards, including the detail and material choice of fittings in bedrooms and early integration of art.

Large, full-height windows and transparency through the depth of the plan ensure that all departments feel strongly connected to nature and the seasons, breaking with the inward-looking, institutional feel that still dominates many hospitals.

Externally, ward accommodation is expressed through the large areas of curtain wall with either transparent glazing or back coloured glass spandrel panels. Extensive use of glass unifies the

curtain wall area so that it appears as a seamless glazed surface, which is framed within a light ceramic tiled dark grey rainscreen cladding.

A concrete frame with flat slab construction and lightweight internal walls maximise future flexibility and allow the building to adapt to future clinical and servicing needs.

The ASB and surrounding buildings enclose abundantly landscaped courtyards that provide generous light levels and views. Internally, careful consideration has been given to the choice of materials and colours to create different identities for each department. This assists with wayfinding and orientation and gives patients, visitors and staff a therapeutic environment. ●

Ceiling dry lining
Siniat MF plasterboard ceiling system with Dulux Diamond matt paint finish siniat.co.uk/en-gb

Partition glazing
Space double-glazed screens with motorized interstitial blinds in two-part steel frame and Integral architrave spaceci.co.uk/

Flooring
Tarkett Eminent vinyl homogenous flooring with coved skirting tarkett.co.uk

Lighting
Flush recessed Erco lighting with Casambi wireless controls erco.com/en casambi.com

Ceiling system
Ecophon Meditec stone wool inlay tile system with aask transition trims ecophon.com

Internal doors
DorSuite laminated timber doors in two-part steel frame and integral architrave dorsuite.com

Partition system
Siniat drywall partition systems with Dulux Diamond eggshell paint finish siniat.co.uk/en-gb

Reception desk
Corian reception desks with integrated task and feature lighting

TEAM
Client Strategic and Capital Development, South Eastern Health & Social Care Trust
Architects Avanti Architects in association with Kennedy Fitzgerald
Landscape architect Gillespies
M & E engineer Cundall
Structural engineer Baker Hicks
Civil engineer Aecom
QS & CDM Capita Property & Infrastructure
Contractor Graham Barn Healthcare Partnership joint venture

Area
32,000m²
Construction cost
£125m
Construction period
2016 to 2021
Total beds
213
Predicted on-site renewable energy generation
60.37kWh/yr
Annual electricity usage
70.77kWh/m²/yr

Three bespoke kitchens

Greek mythology, ‘a bit of drama’ and a saffron test set challenges for ConForm, ROAR Architects and Farshid Moussavi Architecture

Words: Pamela Buxton

There’s very little in common in terms of materiality between the three kitchens on the following pages. Two are rear extensions, one resplendent in marble, the other sporting a distinctive roof of CNC-cut plywood that gives both a warm character and a sense of drama. The third is an RIBA Award-winning new build with a crisp combination of steel, concrete and oak. Despite their differences, all share a boldness of conviction and a desire to create a kitchen experience tailored to the particular, and very different, needs of their clients.



HOUSE IN HOVE
Will it pass the saffron test? That was one of the considerations when Farshid Moussavi Architecture specified the kitchen materials at House in Hove, a new build home for her parents. Saffron – a popular ingredient in Persian cooking – as well as other potential stain-risks such as red wine and tomato were tested when the practice came up with the idea for the stunning burgundy-tinted concrete island unit, which passed with flying colours.
This element forms the focal point of a kitchen on the lower ground floor of the compact new house. Arranged around a courtyard with an olive tree, the kitchen



LORENZO ZANDRI (3)

is divided into wet and dry areas with adjacent study and living room spaces. The clients often eat informally in the kitchen, as an alternative to the more formal dining area on the ground floor.
The wet kitchen can be opened up to the glazed courtyard when required as an easy alternative to extract ventilation, ensuring that smells are kept away from the rest of the house.
The wet kitchen’s long pre-scratched stainless steel counter continues into the dry kitchen area, separately by a glazed door. This enables the cooking area to be enclosed but still linked visually. Inspired by her experiences of her own kitchen, Moussavi designed in a sink large enough to accommodate an oven tray, as well as plenty of bespoke integrated storage for recycling.
In the dry kitchen, the stainless steel counter contrasts with the island unit, which cantilevers from a base and was craned in through the courtyard. This is tinted with a burgundy pigment.
‘The colour makes it inviting and gives it warmth,’ says Moussavi, who

likes the kitchen’s calm atmosphere.
The floor is also polished concrete – hard-wearing enough to cope with any dropped food and comings and goings from the courtyard. This has been tinted with a subtle blue pigment – a strategy continued throughout the house.
The kitchen’s third key material is oak, treated with white oil to make the yellow hues recede. This clads a bank of storage cabinets on the rear wall alongside the concrete counter. Moussavi likes the way these different materials ‘play with each other’ rather than forming a unified system.
‘Kitchens have become too much of a system. This is playing a different game,’ she says.

Architect Farshid Moussavi Architecture
Contractor Cheesmur Building Contractor
Architecture technologist/ M&E consultant Cityzen
Contract administrator/quantity surveyor Robinson Low Francis
Structural engineer Mitchinson Macken
Selected suppliers Steyson Granolithic Contractors (floor)

This page Burgundy-tinted concrete island unit with oak storage to the rear.
Far left View through ‘dry’ area of the kitchen.
Left Inside the ‘wet’ kitchen, with ‘dry’ area visible beyond.





TENNYSON ROAD

‘It was quite a leap of faith,’ says ROAR Architects director Shaun O’Brien of the CNC-cut vaulted kitchen roof that steals the show at the practice’s Tennyson Road project in Walthamstow, east London.

The 28m² new kitchen is part of a £240,000 refurb and extension that has enabled a growing family to remain in its home, and accommodate regular family visitors from overseas. As well as extending into the loft space and reconfiguring the rest of the end-of-terrace Victorian house, ROAR added a brick-faced side and rear extension overlooking the garden to create a generous kitchen space, in sharp contrast to the cramped galley kitchen of before. At the far end, an extra 4.5m long and 3m wide projection provides additional social space and a window seat, with three windows folding back to increase interaction with the garden.



CHRIS WHARTON PHOTOGRAPHY (5)

The distinctive roof shape met the client’s wish for ‘a bit of drama’ while keeping within the 2m maximum eaves height required by planners on the side infill extension. While the effect is a little like the upturned hull of a boat, ROAR was also inspired by historic gathering spaces.

To save costs, the architect worked closely with the contractor to realise much of the CNC-cut roof themselves. ROAR measured, templated and tested the birch-faced rib components on site before arriving at the final specification for milling. The ribs for the frame generally have two 22mm layers of plywood, increasing to four around the two deep skylights. Ribs were glued and screwed and stained in OSMO oil. The joists were glued and installed by the contractor.

It was the first time the practice had worked with the CNC process and it was, admits Evans, ‘pretty hairy’ at times, although in the end only a few pieces had to be trimmed to fit on site.

The base of the exposed ribs provides a shelf for plants and ornaments, while two deep skylights and lighting are incorporated into the roof structure.

More CNC-cut plywood was used to create the other key bespoke feature – a sliding kitchen pocket door with an elegant pattern and Perspex infills. This allows views through while restricting smells and sounds from permeating beyond the kitchen.

Cupboards are from Howdens with sprayed MDF fronts, while the counter top is Frosty Carrina, a grey-veined ivory white surface from Caesarstone. A stretch of brick wall indicates the extent of the previous kitchen. Like the floorboards, this is painted white.

‘They managed to get 20 people in here over Christmas,’ says O’Brien. ‘We got the biggest buzz from this project. It wasn’t just about adding a space. It has transformed the clients’ family life.’

The refurbishment was longlisted in the 2023 Don’t Move Improve! awards.

Architect ROAR Architects
Contractor LMK Constructions
Engineer Derek Lofty & Associates
Selected suppliers Caesarstone (counter top); Cut & Construct (CNC); Howdens (kitchen units)

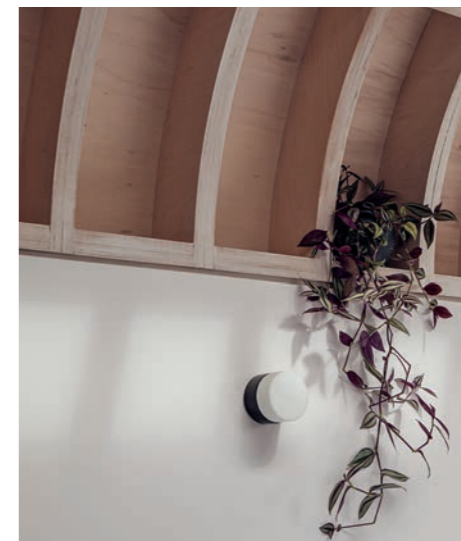
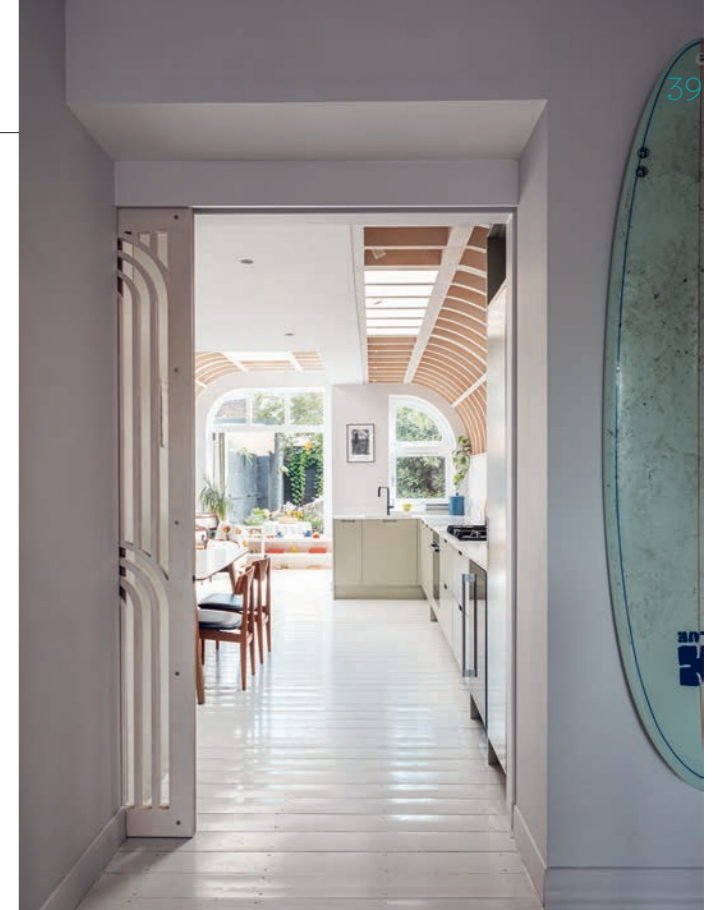
Opposite A bespoke sliding door screens off the newly extended kitchen.

Opposite below Rear windows fold back to open up the extension to the garden.

Right View into the extended kitchen, with rear social space beyond.

Below right Exposed brickwork indicates the footprint of the previous kitchen.

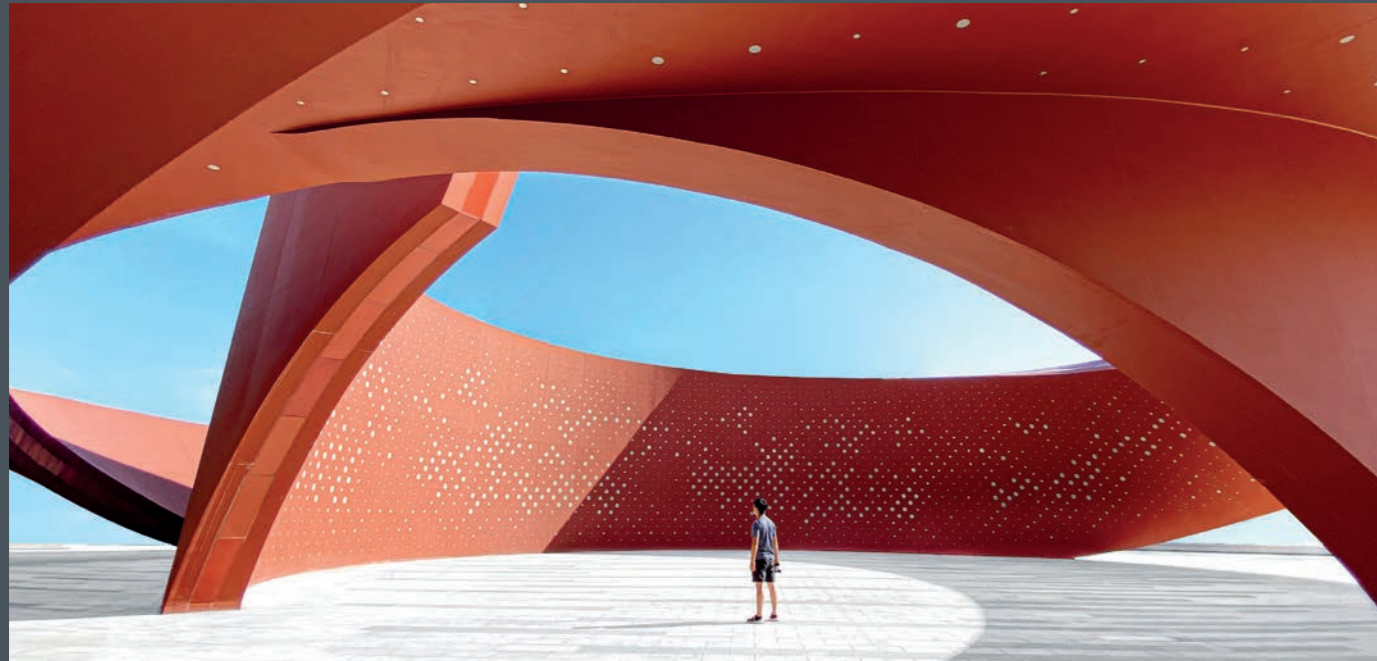
Bottom Eaves detail of CNC cut roof.



The distinctive roof shape met the client’s wish for ‘a bit of drama’

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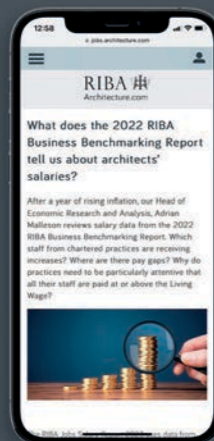
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Kitchens & bathrooms

41



ACHILLES

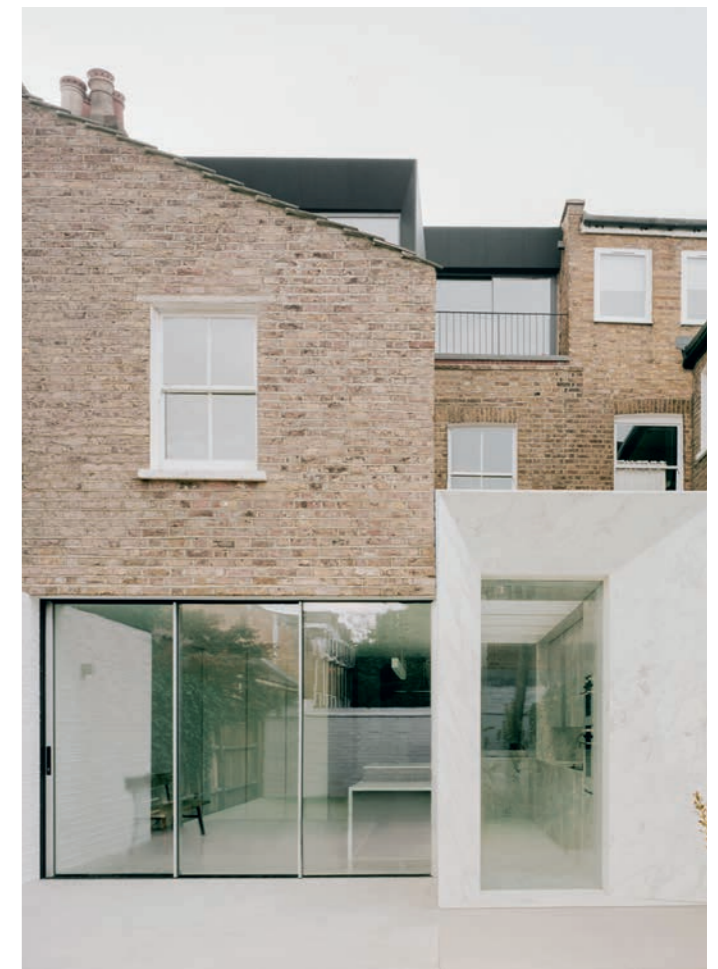
While the typology may be what ConForm's Ben Edgley calls a typical side return extension, the execution of this kitchen addition to a Victorian terraced home is anything but the norm. Taking inspiration from the site's address of Achilles Road, one of several Ancient Greek themed road names in this Hampstead neighbourhood of north London, ConForm had the bright idea of creating the new kitchen as if almost entirely hewn from marble. Impressively, the practice was able to deliver this bold concept largely intact – from floor to soffit, doors to wall cladding, creating a largely enveloping marble volume.

The new kitchen is part of a whole-house, 188m² refurbishment creating a serene, functional and robust interior with improved circulation, light and storage and more flexible space. The marble-clad side extension forms the new social heart of the family home, dramatically announcing itself in the living room with a chamfered aperture that provides views into the kitchen three steps down. At the rear, the marble intervention projects into the courtyard garden in similarly assertive manner, contrasting with the original brickwork.

ConForm had worked with marble

Above The kitchen's side extension is resplendent with marble floor, wall cladding and cabinet fronts.

Right The marble theme continues externally, where the extension terminates in a chamfered, marble-clad projection.



LORENZO ZANDRI (2)



LORENZO ZANDRI (2)

Left Inside the top-lit, marble-clad extension.

Above Marble-framed view into the extended kitchen from the lounge.

Below Corian countertops complement the Carrara marble.

before, and knew that while typically it is used 20mm thick, such a depth wouldn't work for functionality of the cupboard doors, soffits and appliances, and would be too heavy. Getting this right proved to be the biggest challenge of the whole project. In the end, the practice used a 6mm veneer on an aluminium substrate with a 12mm door front, in combination with Howdens cupboard carcasses and appliances. The fridge has a recess on the door for ease of opening. They decided not to book match the veneer but allow 'a natural flow' across the units.

While the thickness of the marble ceiling cladding is also 6mm, that used for the floor and walls in the side infill is 20mm. The same Carrara marble is used throughout – Staturio Venato, which gives a very white appearance infused with soft grey veins.

However, marble was considered too much of a stain-risk for the countertop. Instead, ConForm used pure white Corian Quartz solid surface for the counter and the sink, chosen for its durability and stain-resistance.

As part of the original house, the area parallel to the marble zone is treated differently, with a polished concrete floor. The kitchen is flanked by the equally eye-catching central unit, which combines Corian counter space and storage at a



When it came to the countertop, however, marble was considered too much of a stain-risk

height of 900mm, with a dining table at a lower level of 750mm. The counter is clad in stained oak to give a warm counterpoint to the marble, and appears to 'float' while contained within a box section frame of white powder-coated steel. The unit contains kitchen-related storage on the kitchen side, and more general items on the living room side.

'We worked very hard to come up with a way of treating this that wasn't too distracting,' says Edgley.

On the non-kitchen side, the rear is fully glazed to give a lighter contrast to the visually heavier marble zone. Edgely said the practice spotted an opportunity 'to elevate the typical Victorian terrace with a restrained yet rich material palette' that its clients will enjoy for years to come. The marble may be Italian rather than Greek, but the kitchen is nonetheless a heroic execution worthy of its inspiration. ●

Architect & interior design ConForm Architects
Structural engineer Foster Structures
Main contractor AroBuild
Marble specialist Nida (UK)
Principal designer Simply CDM
Selected suppliers Direct Wood Flooring (timber flooring); Greg R & Son (joinery) Nicola Azzollini Marmi (marble); The Concrete Flooring Contractors (polished concrete)


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HANS GROHE/HANS GROHE SE



1
EluPura S540 wall hung toilet
Hansgrohe

‘But Mummy, why can’t I clean my teeth in the toilet? It’s got a dirt-repellent glaze and no rim, so I can’t catch germs from it! And it only uses 4.5 litres of water per flush, which is less than I use when I leave the tap running! And if I use the little button it only uses 3.1 litres! I can use the little button and we’d save lots of money!’
‘And Daddy was crying last night about bills again, wasn’t he Mummy? So Daddy would be pleased, wouldn’t he?’
‘Alright. Go on then.’

hansgrohe.co.uk



2
Essentials Bright Olive splashback
AluSplash

When the Hoods traded their Nottinghamshire treehouse for this Streatham terrace, Marion wanted to retain a leafy aesthetic. All work was done by gold trader husband Robin, so it was important to find a material that was quick to install, and that lent itself to easy bending and cutouts. ‘AluSplash was the perfect material’, says Marion. ‘The recycled aluminium-based substrate has a fire resistant core, and both sharing an arboreal background, obviously we were really wary of fire. It’s shatterproof and easy to wipe over, too – which is great for when Robin brings friends home.’

alusplash.com



KRISTOFER JOHNSON

3
The Statement Kitchen
Nordiska Kök

Psst! Over here! On the windowsill! Yes, we’re gone-over Dutch tulips, what of it? We can still have an opinion. This kitchen is meant to be minimalist! They call it their ‘Scandinavian Statement kitchen!’ Well! Its made in their actual Swedish workshops and it’s well blimmin’ fancy! Where’s the Gustavian paintwork? The oiled timber? It’s all handmade bespoke cabinetry with stainless steel countertops and book-matched, Deco-stepped, Arabescato Corchia dark-grained marble! Alabaster lamps! Honestly! Hiding your appliances don’t make it minimalist, matey! If this is minimalist, we’re a jug of buds!

nordiskakok.com



VINCENT ESCHMANN/ESTUDIO.FR

4
HIMACS Modular bathroom
LX Hausys

Hey Briony She/Her, I’m attaching a picture of the original. The AI has done a great job on the 3D printing, it’s got the visually seamless modular integration, and the white looks have come off sick, but the client is raging. It’s great, everybody loves it, but they said they want ‘more than a (expletive) design’. They want it in non-porous, durable, easy-clean thermoformed HIMACS as specified. Bit awkward: we forgot to prompt for HIMACS so it’s only gone and done it in gypsum; so less ‘solid surface’ and more ‘dissolving surface.’

lxhausys.com

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Silversprings House, Ireland

18th century classrooms become bedrooms with the living area above in CANICE Architects' home conversion that explores heritage, nature, modern intervention and materials

Words: Will Jennings
Photographs: Ste Murray

There's no denying that the sharp blue of this well-proportioned mid-18th century property stands out against County Tipperary's luscious rolling greenery. The sides and rear are painted a stark Majorelle Blue, inspired by a somewhat different context and climate to Tipperary – Jacques Majorelle's house and garden in Marrakech, later home to Yves Saint-Laurent and Pierre Bergé.

'The minute you come around the building, you're shocked by it – which is a little fun twist for anybody coming to visit,' says Emily-Ann Gilligan, director and architect at CANICE Architects of Kilkenny. There is, however, much more than a bold splash of colour to the firm's renovation and reimagination of what was originally a charter school designed

by English architect Richard Harrison.

Already a Protected Structure, the building was afforded Recorded Monument status following a local community petition against a hotel scheme that was considered to be an over-development. A decade and a half of abandonment and squatting followed, before an art lover purchased the property to create a family home. Gilligan says that from the start CANICE took a sensitive approach, working closely with the conservation officer on a scheme with minimal physical alterations, celebrating its historic fabric and context. There have been physical changes though, largely to pare back or remove latter additions.

Recognising that former classrooms on the ground floor made better bedrooms



Top The usual domestic layout is flipped, with reception spaces on the first floor and bedrooms below. Interior colours complement the original building. **Left** Meanwhile outside, Maison Majorelle comes to County Tipperary. **Right** The Richard Harrison-designed former school is a Protected Structure.



Left The mild steel and American walnut cantilevered stair is sharp and starkly contemporary. **Below left** A delicately-framed inset Corten steel door at ground gives views out to the landscape beyond. **Below** A walnut screen wall divides the main bedroom from the ensuite bathroom and walk-in wardrobe. **Bottom** A sense of the building's history remains palpable through light touches in the loft.

than the larger spaces above, they decided to flip the traditional domestic structure. This also created first floor living spaces with dual aspect views across the garden to distant hills. A Corten steel box has replaced a latterly added bay window, offering a small balcony from the kitchen/dining room. 'We're very interested in the work of Carlo Scarpa, and a very sharp aesthetic right next to historic elements,' Gilligan explains.

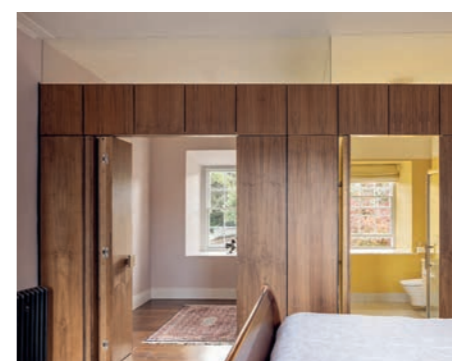
A mild steel cantilever stair, replacing a section lost to rot, is another sharp, contemporary addition. 'The handrail and treads are American walnut, rich and warm, so if you're coming down with bare feet in the evening, you're touching some beautiful timber,' says the architect, speaking of a subtlety within a material, colour, and lighting palette designed to draw attention to the existing fabric.

The same walnut is used for entrance hall panelling, which replaces rotten wainscoting, conceals storage and a door to the guest wing, and frames a painting. It is also used to screen an ensuite and walk-in wardrobe from the main bedroom, where a glass panel admits light above and retains the room's original proportions. Lighting is designed to focus the eye on historic architectural elements and the owner's art collection.

Internal colours are more restrained than the Majorelle shock outside. Tones have been chosen to connect to nature without overpowering original floorboards and the Kilkenny limestone fireplaces.

The roof, which had suffered nail sickness causing serious structural damage, has been completely replaced. Loft spaces nestled within it will be used as an artist's studio and carry the deepest sense of history, retaining as much original material as possible, says Gilligan: 'The attic has a fantastic atmosphere; you get a real sense of its previous use as a charter school.'

Suppliers list
Ceramic tiles/sanitary ware Mary Barry
Flooring screed Ardex Building Products
Underfloor heating/shower drain Schlüter Ditra Heat
Doors and windows Ottostumm
Door systems Hafele
Lighting Willie Duggan
Insulation Thermafleece Sheepswool
Paint Lime mineral paint 'beek' by Ed Byrne
Osmo oil underpaint by Timber work
Ironmongery Knobs and Knockers Dublin
Radiators Wilsons Yard Radiators
Rainwater goods Alumasc



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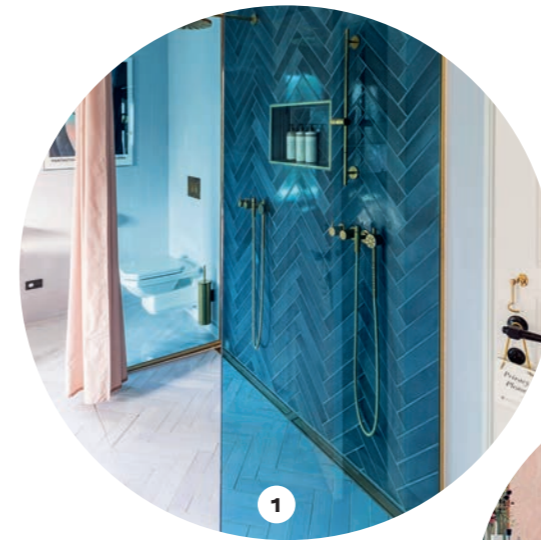
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1



3

RORY NOBLE-TURNER



2



4

1 Bespoke brass linear floor drain Unidrain

'Hi, yeah, I'm PM on this new Pondside build? You specified this bespoke double-width Unidrain, but I'm afraid I'm going to have to overrule.' 'I know. I know! If it was me I'd love a Showerline drain, with its custom configuration options, easy-clean outlet, ready-sloped frame and wide choice of cover plates – but it's not my house. Have you never heard of our client? He's incredibly well known and he has this... sloppy-sloppy thing.' 'No, it's not a gimmick. It's his whole vibe. Mr Jeremy Fisher. He'll hate it. Look him up! unidrain.com

2 Taralay Impression Compact Gerflor

'Hi, I'm Barbie, and I just love my new Taralay Impression Compact display here at the Barbie Dreamhouse!' 'Pink? Oh, pink is so over! Using the MyTaralay digital printing service I could have had it any design I wanted, but now I've seen the real world, I've developed a real appreciation for the ProtecSol2 stain protection, transparent wear layer, printed surface, fibreglass reinforcement and compact backing, so these cool new designs are just fine. I've even been trying to feel it under my feet, but you know... I can't! gerflor.co.uk

3 Custom overmantle HiMacs/ Rory Noble-Turner/ Solid Fabrications

Robert Adam here. Just wanted you to introduce you to my new favourite material: HiMacs in 12mm Aurora Bianco. Why? Well, you know how it used to go: you melt the glue, stir in the whitening, rosin, linseed oil, pressurise it in the mould, and then you've got to apply it while it's still warm and bendy. Boring! Well, no more! Thanks to HiMacs, you can now get custom laminated, inlaid and engraved thermoformed fabrications to match existing features – and no need for messy marbling! It's a faux-classical game changer! solidfabrications.co.uk rorynobleturner.com lxhausys.com

4 Feature wall panels International Decorative Surfaces

'Yeah, me again. I know, but this job is going totally sideways. Feature Wall. Yeah. IDS panelling. NOT lairy wallpaper from the Lawrence Llewellyn-Bowen range!' 'It's meant to be noise-absorbing slatted MDF panels in Charcoal Oak wood veneer. All easy to cut and simple to install, and we've had that Handy Andy off of Changing Rooms in here, trying to set up his pasting table in the middle of the new open concept living room. He can't even fit the smaller 2400mm by 600mm inch-thick panels on it – the bloke's a nightmare!' idsurfaces.co.uk

School design must make the grade

How do you build schools that aid learning, wellbeing and community? PiP’s webinar expands on theory and practice, and considers exactly what a school is

At a time when the UK government and Ofsted seem intent on reducing complex educational scenarios to simplistic one-word assessments, and amplifying STEM subjects over creative arts, architects must resist the drive towards over-simplification in the design of school buildings. Indeed, begins chair Jan Carlos Kucharek, such policies, with their reductionist, quantitative, value-for-money based criteria, risk turning students into ‘bots being processed through pedagogical spaces’. This runs contrary to the philosophies of educationalists such as Maria Montessori, Rudolf Steiner and Loris Malaguzzi, who believed that school should offer holistic and individual development for the child to develop as a person. He draws attention to André Jaque’s recent Reggio Emilia-inspired school in the outskirts of Madrid – an excellent example of architecture embracing a child’s imagination: one of its pupils described it as a ‘robot made of butter’. This is not a factory, but a ‘multiverse’.

‘A school isn’t a building... it is a community of learners,’ says Sharon Wright, senior associate at the-learning-crowd – who with Helen Taylor, director of practice Scott Brownrigg, has co-authored Community Schools: Designing for sustainability, wellbeing and inclusion (RIBA Books). Their focus is bottom-up change, empowering clients and design teams to take control of the agenda to make schools that are centred on community, wellbeing, collaboration and other future-looking aspects that go beyond the curriculum. Scotland’s Learning Estate Strategy, with its 10 key principles (including joined up learning, community engagement, outdoor learning, and sustainable and inclusive economic growth) drew praise; schools are local employers which sit at the heart of the community and spaces should give agency to pupils and engender a sense of belonging, they argue.

Taylor talks us through case studies including Scott Brownrigg’s Three Rivers Academy in Surrey, praised for its transparency and sense of security; Melopee School, Ghent, by XDGA architects, a multi-



Above Hackney New Primary School’s exterior circulation creates a charming intimacy for the larger housing development.
Right Reiach and Hall’s Forth Valley College Falkirk Campus concentrates on openness and transparency, both internally and in its relationship to the town.
Far right Niall McLaughlin Architects’ 2022 Stirling Prize-winning New Library for Magdalene College, Cambridge.

storey educational space acting as a visible community hub in a developing port; and Silver Birch in Argyll and Bute, a school invested in outdoor learning and creating positive spaces where ‘children and their families experience nature, push boundaries and experience risk – which is often difficult for schools to manage.

Fundamentally, the authors want their clients to ‘see school buildings as something they can have a relationship with, that can change, and that can be used as a resource’. They want them to be active building users rather than passive occupiers, and then the rest will follow.

Ben Hancock, managing director of sponsor Oscar Acoustics, outlines the

importance of sound insulation in learning environments, pointing out that several high profile educational projects used acoustic finishes of high grade recycled paper and renewable plant based fibres. Poor quality sound is stressful and makes words inaudible for those with hearing loss, while unintelligible lessons affect student behaviour. But products such as SonaSpray counter reverberation. Sprayed or trowelled at varying thicknesses, it can drastically improve the sound quality of a space.

Next Noel Cash, associate director and project architect at Henley Halebrown, discusses Hackney New Primary School



RIBA BOOKS

NICK KANE (2)



KEITH HUNTER

and 333 Kingsland Road, a hybrid scheme of 68 apartments and a 350 pupil primary school, occupying a constrained site to break environmental norms. The residential block funded the school, and the two entities co-exist harmoniously to enjoy an enhanced sense of community.

The school wraps around the residential building on two floors but maintains privacy thanks to the oblique angles at which flats are positioned and the strategic use of canopies and balconies. A colonnade provides shelter and communicates a civic presence, while the hall and courtyard offer community space at weekends. There are also no corridors – access to classrooms is via galleries, and stairs are all external yet covered. A sensory allotment garden sits on the roof space. Clerestory windows, north lights, canopies, shading, MVHR and other sustainable ventilation strategies create a calm and cool environment, making for a

A school isn’t a building... it is a community of learners

climate-resistant building, comfortable even in a heatwave.

The 2022 RIBA National Award Winner, Forth Valley College, Falkirk Campus, forms the basis of a presentation by associate director at Reiach and Hall Architects, Mark Dawson. The site, on the outskirts of Falkirk, also enjoys expansive views, so the arrangement of the campus creates a presence to the south at the entrance to the town, while to the north, the first part of a ‘green link’ joins the western Helix Project with Victoria Park to the east. On the southern side, maximised glazing animates the facades, facilitating communication with the street.

Sports facilities and trainee beauty salons are open to the community here, and dining spaces likewise. Specialist workshops, for subjects such as welding and bricklaying, sit further back within the campus, and are given a separate identity and industrial character with anodised aluminium and windscreen panel products. Elsewhere, the alluvial landscape to the north of the site is expressed in a ‘sedimentary’ materiality of handmade brick. Heating and cooling is through geothermal energy. The school is, unusually, barrier free – as a further education college it serves a local community with a curriculum based on local business need, so this collaboration was manifested in the architecture from the outset.

On the topic of aluminium facades, UK technical director of Kawneer, Gary Ledger, discusses how educational design can be optimised through the early stage specification of correct product types; Kawneer makes high performance, robust curtain walls, windows, doors and shading. Security, safety and durability are essential for schools, and his talk covers how to specify optimally, to limit waste and achieve the highest-performing outcome within a budget.

Tim Allen-Booth, associate at Niall McLaughlin Architects, delivers the final presentation on the design of the Stirling Prize winning New Library at Magdalene College, Cambridge. The role of libraries has changed in the digital age, but the brief from the college was for students to be able to put aside distraction.

This tied in with the idea of monastic seclusion on which the college was founded by Benedictine monks in the 1470s. Inspired in part by the painting of St Jerome in his Study by Antonello de Messina, the practice used this basic unit – the scholar and their desk – to create a tartan-grid like plan of intimate dimensions.



There is an ‘oscillation of major and minor components’ says Allen-Booth. Partly inspired by Herman Hertzberger’s plans; reading rooms are divided by passageways and bookcases which accommodate over 1km of bookshelves. Twelve roof lanterns act as node points within the grid, and, combined with the rhythmical forms of the roof, the whole creates a volumetric complexity that is revealed only by walking through the building itself. Bay windows and the repetitive pattern of gables and chimneys of Elizabethan buildings contributed to the references while handmade red brick with a thick mortar joint links the materiality to other buildings on the site.

The level of contextual research that characterises all the projects discussed today is testimony to the importance of architectural education. ‘Education is something we all hold dear,’ says Kucharek, rounding off. ‘The education of those who come after us, especially as designers, relies on us having facilitated as much as possible’. ●

Watch the webinar in full at ribaj.com/education-webinar-2023

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It seems we love the office after all

Would more office time improve our wellbeing? How do workplace environments need to update post-pandemic? Why are flexible fitouts and transparent spaces important? Our webinar investigates

‘Today my water cooler moment is a chat with my neighbour downstairs or the opportunity to put the washing on,’ notes webinar chair Jan Carlos Kucharek, opening RIBA’s PiP’s Office and Workplace Design webinar. Frank Lloyd Wright’s Larkin Administration building, Foster + Partners’ Hongkong and Shanghai Bank Headquarters and Richard Rogers’ Lloyds’ Building each reinvented the way we conceive of the office environment; none could have imagined the post-pandemic remote, home-based scenarios which resemble more of a ‘cottage industry,’ Kucharek says. Technology has allowed us to transcend the confines of location, but where to from here? In the metaverse, Kucharek muses, ‘will we visit our offices again, as avatars moving through our virtual working lives?’

With that futuristic thought in mind, the first speakers are Nicola Gillen, head of total workplace EMEA, and Sophie Schuller, head of applied research EMEA consulting – both based at Cushman & Wakefield’s Netherlands office – drawing lessons from their book, *Reworking the Workplace: Connecting people, purpose and place* (RIBA Books).

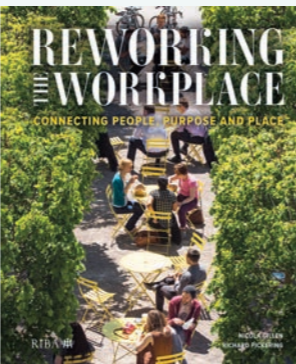
In it they investigate the impact of the pandemic on work culture and community, hybrid working and built environment consequences. They also explore possible outcomes for the evolution of cities, physical and virtual work models for the future and how workplace architecture interfaces with the wellbeing of individuals and the environment. The book showcases 50 case-studies, some of which are touched on here (such as Brent Cross Town project play, and the WELL-surpassing Royal College of Physicians Headquarters, Liverpool) promoting work, wellbeing and community.

The integration between our virtual and physical worlds is shifting, says Schuller, with VR helping to recreate communities and face-to-face interactions in immersive online settings. Yet what suffers most in a remote working model is ‘serendipity’ and the maintenance of a connection to place. Recent research from the Centers for Disease Control & Prevention states that our ‘physical



and social environments account for over 50% of our sense of wellbeing’ says Gillen. So the book encourages conversations about what architecture can do to enhance community, entrepreneurship and regeneration to help our working lives evolve positively and our workplaces to serve the community.

In office settings, acoustic comfort is a crucial for mental and physical wellbeing. And with hybrid working, offices need acoustically-optimised spaces that aid good quality video calls and encourage face to face



collaboration – a reason why employees now visit the office. Oscar Acoustics managing director Ben Hancock says a study by global architecture firm Gensler found that UK employees are spending less than half their working week in the office, yet believe individual and team productivity would be improved if they were there more. Gensler’s own London office used Oscar Acoustics’ spray-applied SonaSpray (made from recycled paper and plant based fibres) was used to enhance the workplace experience. With many companies wishing to entice their workforce back to the office, better acoustic conditions should feature as one of many environmental improvements to enhance wellbeing, productivity and satisfaction.

Acoustic barriers are a crucial part of the next project with its unprecedented mix of uses. Ross Heffernan, senior associate at FaulknerBrowns, discusses the £42m Sunderland City Hall, a major civic component of the city’s regeneration. It comprises workplaces for council employees and private tenants, as well as community outreach facilities. Materials and finishes on the transparent building were inspired by existing buildings in the vicinity, such as the magistrates court which has a sandstone like appearance.

The publicly accessible atrium contains an oxide red steel staircase inspired by Sunderland’s industrial history, locally sourced and fabricated and with accessibility consultancy from Proudlock Associates. The flexible space has been embraced for many purposes, including children’s activities and yoga, in a building also occupied by the Coroners court and the DWP, ‘setting a bar for the public sector workplace’ according to the British Council for Offices. Most interestingly, the ground floor debating chamber is now visible from outside, generating initial nervousness from councillors. This, says Heffernan, has made ‘the transparency of the democratic processes inside clearly visible’ – a much needed step towards openness and accountability.

In terms of transparency, Emma Green, commercial director of IQ Glass, gives two examples of bespoke external facade glazing: Tontine Street, in Folkestone, Kent – the regeneration of a former nightclub into

Physical and social environments account for over 50% of our sense of wellbeing



Above Waugh Thistleton’s Orsman Road offices in London, whose hybrid CLT structure is proudly expressed internally. **Opposite** The entrance atrium of Faulkner Browns’ Sunderland City Hall, with its red steel oxide staircase linking both different levels and the city with its industrial heritage.

a co-working space with a floating and undulating facade; and The Gem, Manchester – with its faceted facade, curved in plan and elevation. She outlines the complexity of these projects and their technical details, ultimately showcasing the creative potential of glass and how the company collaborates with architects to achieve such designs.

Next, Alistair Ogle, senior associate, Waugh Thistleton Architects – a practice known for its use of engineered timber products – discusses 6 Orsman Road, a flexible timber office on the Regent’s Canal. This stepped volume, with views of both the canal and the City, necessitated a lightweight structure; piles over 8m were not allowed due to the presence of Crossrail below. The hybrid structure of CLT and minimal steel is a simple, Meccano like construction. All connections are bolted for future demounting and four floors can be rented out separately to tenants. It took seven weeks to construct the frame with one crane.

Intumescent paint was applied to the exposed steel, and wood has been left exposed in the stairwell. To the south, upper floors are set back with angled balconies to minimise solar gain and lower floors have ribbon windows. To the north, the facade is fully glazed, improving daylight and visual amenity to the canal and the sky.

Internally, floor coverings are linseed oil and cork-based linoleum and clay plaster is used on walls. Work surfaces are constructed from recycled aggregate and upholstery is natural fabric. Some furniture was made

from CLT offcuts. Halfway through the process, the building was acquired by British Land who altered the brief; the flexibility of the structure and materials enabled a new staircase to be cut out of the CLT even after the floorplates had been constructed. A versatile office meeting today’s needs.

Lastly, Stephen Roberts, sales director of CMD, introduces Miro, a new dynamic, ergonomic monitor arm. The company integrates technology and electrical products (USB ports, wireless charging, AV equipment and so on) into office furniture and manufactures in the UK. Miro is a steel-tube based cable management system and desk clamp monitor support offering vertical adjustment which outperforms traditional solutions, helping maintain good posture while keeping desk space clear. So no more balancing your monitor on a 1980s product directory... how office life changes. ●

Watch the seminar in full: ribaj.com/offices-webinar-2023

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Ricky Evans, associate at PAD Studio, gives three of his specification favourites



RICHARD CHIVERS

Sweet chestnut by English Woodland Timber

Chestnut Farm was the perfect project on which to specify UK-grown sweet chestnut rainscreen cladding. Working with English Woodland Timber, we optimised the profile to minimise waste while maximising length and stability. Each timber is a 4.8m length with no joints. Sweet chestnut is durable and versatile, weathering to a natural silver-grey tone. It naturally resists decay for longer than many other types of timber so does not need to be treated with preservative chemicals. The deep profile and spacings create a distinct shadow between each vertical timber, animating the surface and giving the elevation depth.



JIM STEPHENSON (2)

Pluck Kitchens

We were introduced to Pluck Kitchens by our client on the Clay Retreat. Made in the UK, from British grown timber and using British ironmongery, Pluck is a carbon neutral company with its own colour and material palette, constructed of a high-pressure laminate on plywood. The modern yet relaxed and playful style perfectly complements our own. Its kitchens are high quality and extremely durable, with elegant simple details providing many storage solutions and bespoke layouts. Its Clay Retreat design won 'Kitchen of the Year' in the Ideal Home Awards this year.



Clay Plaster by Clayworks

Manufactured in the UK, this natural alternative to gypsum plaster is pre-mixed, pre-pigmented and comes in a range of colours. We have specified Clayworks on several projects including the Clay Retreat and a current historic brick barn conversion, combining it with natural insulation for a fully breathable fabric. In the Clay Retreat, we applied the finish to all walls and ceilings throughout. Its tactility softens spaces to make a neutral relaxed backdrop, with warm and inviting subtle tones and texture. The product is extremely low in embodied carbon (0.048-0.068kg CO₂ e/kg), non-toxic, compostable and a passive regulator of humidity.

Read up

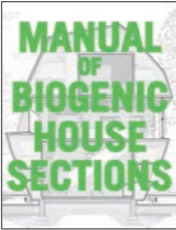
RIBA editor Jan-Carlos Kucharek flicks through the latest tech titles. Buy at ribabooks.com



Aluminium: A Studio Design Guide

Michael Stacey. RIBA Publishing 240pp HB £45

Michael Stacey is a practitioner, Bartlett professor and author of numerous books on digital fabrication. This, the latest of several titles on the durability, sustainability and strength of aluminium, is an inspirational overview of its use in architecture and infrastructure – with a technical level of detail showcasing how useful and versatile it is. From curtain walling and cladding to roofing and structural uses, Stacey uses exemplars to showcase its design flexibility. And with recycling requiring only 5% of the energy needed to produce primary aluminium, he proves it can be re-used almost infinitely.



Manual of Biogenic House Sections

Paul Lewis, Marc Tsurumaki and David J. Lewis. Oro Editions 351pp PB £35

This book feels like a labour of love. Concentrating on the use of plant and earth-based materials, it looks at 55 buildings worldwide that sequester carbon and help reposition the profession in a time of environmental crisis. Broken into 10 chapters on materials such as hemp, bamboo, stone or mass timber, the carbon attributes of each are analysed before projects are beautifully illustrated in section with accompanying images. This book is a feast for the eyes and food for thought.



Fabric(ated): Fabric Innovation and Material Responsibility in Architecture

Tolya Stonorov ed. Routledge 271pp PB £34.99

'The beginning of building coincides with the beginning of textiles,' noted Gottfried Semper in one essay on aesthetics. But the author also sees textiles as key to architecture's future. Inspired by Petra Blaisse who draws attention to the architectonic qualities of fabrics, Stonorov brings together writings from specialists in the field. She not only looks at methods of stretching and moulding it to realise contemporary curved surfaces but addresses sustainability and social justice though its use. Weighty issues, but think about it – the space suits of new Moon explorers are unlikely to resemble that of Neil Armstrong.

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