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Contents

# There's something to be said...



... for Communist dictatorships – they get things | Manchester and Leeds; in the same period China done. When a Radio 4 Today interviewer asked a medical expert recently what more China should be doing to stem the spread of Coronavirus, I thought, 'What? More than shutting down public transport, building 1000-bed hospitals in a fortnight and mass street fumigations...?'

But here, individual rights and social democracy mean everyone deserves a say. Which is why it took years of inquiries after Andrew Adonis' HS2 announcement in 2009 to decide to build the £106bn line to Birmingham,

built 20,000 miles of new high-speed track. But the balance tends to tip the way of political will, despite these showcases of the democratic process. It explains why the third runway at Heathrow is going ahead, flying (literally) in the face of the UK's 2050 zero carbon commitments.

A decision like that, and the probable Terminal 6 public inquiry it will give rise to, will have those architects who cosy-up to power rubbing their hands in glee – much as HS2 does. Architects have long been fascinated with those in a position to realise their visions; paraphrasing John Hejduk, 'name me an architect whose head has rolled.' Public inquiries, meanwhile, should never be about rubber-stamping a political 'grand projet' but an informed, holistic and fair look at the issues from all involved.

'I no doubt should build more and you should research more,' Hejduk once told friend Richard Meier. 'But what to build more of and what to research more of is the paradox.' Sage words: you could always rely on Hejduk to nail it. Jan-Carlos Kucharek, editor



# More online...

Two-storey homes would leave a riverside factory in a completed state before being towed on water to their final permanent location Stephen Cousins on

Grimshaw's designs for floating homes that could cope with rising water levels: ribaj.com/ floatinghomes





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Day Bed One by Another Country



Floating island unit by Moiety



Mix & Match lighting by Foscarini



Atrio Icon 3D bespoke faucet by Grohe

Cover image: Looking up the stairwell at alma-nac's House-in-a-house, Brockley, photographed by Jack Hobhouse

**VMBUILDING** SOLUTIONS

Products in Practice March/April 2020

# Compendium



# **Rock of Ages**

PiP loves a bit of godliness. especially when it's next to cleanliness, so it could barely contain its excitement when Italian stonemason Salvatori's latest PR popped into its inbox. We could well endure a bracing, Cistercianstyle cold shower behind a pleated linen curtain on Elisa Ossino's Balnea shower tray, hewn from Bianca Carrara marble. Salvatori has teamed up on a new Amsterdam showroom with Dutch design agency Piet Boon. which designed the appropriately penitentlooking shower heads and faucets. It could all be enough to lead St Augustine back into temptation. providing he's got the readies to acquire it.



**National Homebuilding and Renovating Show** 

### Parallel existences

**UPCOMING** 

**KBB** NEC Birmingham 1-4 March Futurebuild ExCel London 3-5 March MIPIM Palais des Festivals, Cannes, France 10-

NEC Birmingham 26-29 March

Anna Freud (1895-1982), youngest daughter of Sigmund, is credited as the founder of child psychoanalysis and one of its foremost practitioners. Her paper Ego and the Mechanisms of Defense warned that the principal human defence mechanism, established from a young age, is subconscious repression – a theory that helped develop adolescent psychology. There are mechanisms of a different sort on show at the £40m new Anna Freud Centre in central London, where architect Penoyre & Prasad used Kawneer's AA100 SSG parallel opening vent cladding system to offer both breathing space and privacy. Freud would have approved.



The exotic-sounding Loreto Centre in less-than-exotic-sounding Llandudno was founded in 1919 as a convent and school run by Ignatian sisters and has, over time, morphed into a Christian retreat centre. Light having long been a means for the Christian faith to communicate its message to the masses, cladding company Senior might consider itself twice-blessed that its SF52 aluminium glazed cladding was chosen for the centre's refurbishment – including this modern take on the traditional stained-glass window.



### **Bright spark**

When he's not fraternising with contentious Brazilian presidents on their tourism development plans, architectural enfant terrible Bjarke Ingels, founder of BIG, likes to relax doing lamps designs for Louis Poulson. While they might look decidedly pointy, the Keglen series' main feature is the organic-shaped glass that sits beneath the cone 'as a small water droplet shaped by physics and cohesive forces in nature,' says BIG Ideas partner Jakob Lange. Physical laws that are a whole lot easier to manage, one assumes, than the complexity of Ingels' latest big idea, 'The Masterplanet'.



### Think outside the box

While painter Joan Miró generally stuck to two dimensions, he might have raised an approving eyebrow at the three dimensional piece that is Daniel Williamson's Kumo occasional table for Erik Jørgensen. What Williamson lacks in primary colours he sure makes up for in quality of materials; his limited-edition brass number is a thing of beauty. 'Works must be conceived with fire in the soul but executed with clinical coolness,' said the artist. While not achieving the former, Williamson might well have hit the latter.



## Off the wagon

Inspired by the Shaker movement, Scandinavian aesthetics and Japanese woodworking, Paul de Zwart's craft furniture firm Another Country is a familiar name in design circles. But it's good to know his ascetic taste doesn't extend to his personal life. 'An indulgence I would never forgo is my Friday night Boulevardier,' he told the FT's How to Spend It supplement. 'It's a take on the Negroni, using bourbon rather than gin.' No doubt after three of those you'd find it hard to peel yourself off his latest object of desire, Another Sofa, by designer Daniel Schofield. It is part of the Natural Home range, which aims to 'improve wellbeing and is made with materials that are healthy to live with and kind to the environment'. As part of the brand's sustainability drive, it offers a 'repair and restore' service, although the PR doesn't state if it extends to the after-effects of the Boulevardier...

### Wicker men

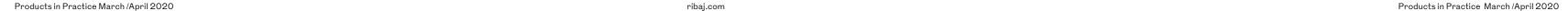
Proctor & Matthews, after its bespoke work at Abode at Great Kneighton outside Cambridge, seem to be having a go at promoting mass production with its new regional office for Homes England at Northstowe in Cambridgeshire. This new Fenland town will provide 10,000 new homes for the county with Homes England doing the lion's share. The office, with its dramatic canopy of woven willow wicker, (try saying that after three of those Boulevardiers referenced above) was manufactured by local crafts people - unlike the rest of the building, which consists of 14 steel-framed modules, all manufactured offsite by fabricator McAvoy Group.





# A bigger splash

With today's plethora of very acceptable (and high performing) stone alternatives, you can forget how striking the natural thing can be. Avert your eyes from the sleeping arrangements here and look at what's behind – stone firm Cullifords latest offering, Jurassic Green. This Brazilian quartzite features deep greens occasionally interspersed by a shock of white. There is a huge quartzite belt in the Brazilian state of Bahia, yielding colours from the whites of Macauba and Nebula through to these amazing darker hues. Quartzite is a relative newcomer to the stone market as its hardness made its quarrying and processing difficult. Industrial production has only become possible thanks to new resins, abrasives and block cutting technology, allowing us to enjoy nature's version of Jack the Ripper.



# Tools to help cut embodied carbon



As sustainability manager for Arup's Structural Skills Network, helping to drive our pursuit of the UN Sustainable Development Goals and pledges like Structural Engineers Declare and SE 2050 Challenge, the role asks me to constantly reappraise my job as an engineer. I've worked on several projects that have been labelled 'sustainable' but that often refer just to operational energy, carbon and water use.

A key impact is embodied carbon – greenhouse gases emitted during the manufacture, transport and construction of building materials together with end-of-life emissions. One of our stated aims as a company is to ensure that sustainability is not simply a standalone discipline but a normal part of our language and thinking as building designers. We are continually improving the tools we use to take account of whole life carbon at each stage of the construction process.

For RIBA Stages 0-2 the Arup Structural Scheme Design Guide includes 'rules of thumb' for embodied carbon and energy to sit along-side traditional rules of thumb which help with

grid selection and initial sizing of structural elements. We are also creating an ever-increasing, searchable database of case studies.

As options begin to firm up, the Arup Project Environmental Carbon Calculator (PECC) can be used — a spreadsheet-based tool, in which quantities of materials/components are input to calculate and benchmark embodied carbon. This can be done for structure and other element types, such as building envelope and internal finishes. The tool, containing benchmarks taken from the WRAP / RICS embodied carbon database, is transparent and customisable; for example Environmental Product Declarations can be 'swapped in' for the appropriate impact value. It is normally replaced by other tools once a BIM model has been created.

Arup's in-house structural software, GSA and Adsec, both display environmental impacts, such as embodied carbon, in a similar manner to traditional structural parameters such as axial stress or deflections.

Once a BIM model of a design has been created, there are a number of tools available to

carry-out the embodied carbon calculation, including specific, proprietary ones which have been approved for BREEAM or LEED credit calculations. However, our 'Arup Carbon' tool has been developed to allow all of our building designers to extract embodied carbon figures directly from BIM models. The tool uses the Speckle data processor to pull quantities from BIMs, calculates the A1-5 carbon equivalent (RICS, 2017) and graphically presents the results on an interactive web interface that can be shared with stakeholders. Users are not only able to see a breakdown of embodied carbon but also where it sits in a model, enabling designers to locate opportunities for improvement.

The approaches have been well received across the organisation, giving engineers immediate, real-time feedback with useful, graphical display of results. There's a balance of ease of use with usefulness of information, all of which is easily customisable and integrated within design tools they are already using. • Conor Hayes is a chartered structural engineer in the Buildings team at Arup





Left The finished building reduced carbon emissions from construction by up to 60%.

Above Panels set in steel frames and mounted on the timber/concrete composite structure.

Below Individual sections of old wall were cut out using angle grinders.



# **Books**

Buy at ribabookshops.com



# Retrofitting for Flood Resilience: A Guide to Building & Community Design

Edward Barsley. RIBA Publishing 333p HB

Ed Barsley, founder and director of design-research-led consultancy Environmental Design Studio, is also pursuing a PhD on flood-resilient architecture and the communication of risk. This book brings together his knowledge and expertise in the field in one weighty tome, and it's a good one. Passive strategies for flood mitigation will seldom set the heart aflutter, but Barsley tries his darnedest to engage the reader with a volume chock-full of images, excellent graphics and illustrations. The book, which seems a labour of love, is packed with guidance to help architects and urban designers understand fully the possible effects of and design to mitigate flooding. A serious study – only Superflex's 'Flooded McDonalds' art installation engaged PiP more...



# Why Plan? Theory for Practitioners Graham Haughton & Jain White

Lund Humphries 144p HB £29.95

In an effort to reinterpret the theoretical framework of planning, Haughton and White, lecturers in town planning at the universities of Hull and Manchester respectively, have produced this concise guide that makes for an engaging read for the associated practice of architecture. Deciding to avoid the accepted view of modern planning in the UK as a vestige of a 'discredited post-war welfare state', the authors aim to help the reader address the 'existential' question of what it is to be a planner. At the end of each short, but well-penned chapter, thy provide further reading and web-based resources such as blogs or videos. Don't expect much by way of illustrations – there are very few – but everything points to this being a brief but solid read for practitioners.



# New Life in Public Squares

Marie Burns RIBA Publishing 198p HB £40

The author, a qualified landscape architect, urban designer and transport planner with her own consultancy, is in a good position to offer opinions on the examples she cites as models of public space development in a number of domestic and European cities. Starting with a potted history of the typology, Burns breaks the study into six other chapters covering both historic and new squares. Each chapter takes three or four examples and provides a simple plan graphic at the start that places the square in the grain of the city, before analysing each in a concise and easily digested way. Well-illustrated throughout, this makes for an inspiring design guide. It's a shame that PiP's current favourite, Tirana's Skanderbeg Square, doesn't make the cut, but you can't have everything.

# Recycled brick cladding panels

**What:** Resource Rows apartment **Where:** Copenhagen, Denmark

Like a patchwork quilt made from old clothes, the facades of the Resource Rows apartment block in Copenhagen are a multi-layered, multitextural composition of square brick panels carved directly from the walls of old buildings.

The super-sustainable project, designed by Danish practice Lendager Group, works to circular economic principles. Extensive materials reuse and upcycling reduced carbon emissions during construction by 50-60%; heat pumps and solar panels provide renewable energy and residents are committed to green living, only buying second hand or upcycled products and sharing things like gardening tools, cars and bikes.

Most of the facade's 1 m by 1 m brick panels were harvested from Carlsberg's historical breweries in the city, with the rest sourced from old schools and industrial buildings around Denmark. Cutting out square sections using angle grinders was the only viable option because mortar bonds too strongly to separate individual bricks. The panels were mounted in steel frames to form facade modules that were fixed

to a composite concrete/timber superstructure.

Other upcycled materials used in the building include windows for the allotment gardens on the roof, and reclaimed timber in the facades and interiors including apartment floors – much of it sourced from a construction site for a new metro station. The most unusual element is a huge concrete double T beam deck taken from an industrial building and used to form a bridge between the two sides of the block.

The intense focus on materials reappropriation dictated a new approach to design and construction. Anders Lendager, partner in charge of the project, told RIBAJ: 'The biggest challenge was convincing the client and the main contractor that this was a viable solution, somehow we had to take the risk out of the equation.'

Facing scepticism, Lendager Group restructured the business so it could function as architect, demolition contractor and materials manufacturer. 'If we could deliver the sustainable materials we could remove the contractor's risk, while using some of the money in the budget to investigate how to make these new materials cost neutral and as durable as regular products.'

The narrow timeframe added pressure to

develop and deliver these innovations as well as locate local various buildings at the end of their lifespan from which resources could be extracted. 'The time from finding a building, to harvesting it, then preparing the materials to build with, involved a much smaller window than if we had used a regular manufacturer who would have products in stock,' said Lendager.

The apartment block was delivered for the same price per square metre as the equivalent block built traditionally. And although flat rentals are slowing in Copenhagen, properties in Resource Rows were the fastest let. The project's low carbon credentials provided the catalyst to help client Nordic Real Estate Partners (NREP) differentiate itself from the competition.

Lengager Group plans a larger project for NREP and has set up a series of spin-off companies that will manufacture products made from waste wood, bricks, textiles and plastics to guarantee stock for future reuse and upcycle projects.

'The people we are building for want to live sustainably and prioritise it above all else. That is what makes these projects a better investment for capital funds, pension funds and developers in general,' Lendager concludes.

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# WHAT DO INSTALLERS THINK?

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- Rick Fullman, Director, RWF Carpentry.







The ideal site for BBC Cymru Wales was also on one of Cardiff's busier roads and beside its train station. How could it be made quiet enough for the studios?

Words: Jan-Carlos Kucharek Photographs: BBC Wales

The changing nature of media and the way it is received, processed and consumed underpinned the recent move of BBC Wales and its 1,000 staff from its former leafy business park campus in the north of Cardiff to Central Square, slap bang in the city centre. But it didn't happen without a lot of soul-searching by the corporation about what kind of organisation it wanted to be in the 21st century.

Sheppard Robson's interior design firm ID:SR, which has collaborated for 10 years with the BBC on its estate, was brought on early in the decision-making process to advise on whether the brutalist campus complex in the city's Llandaff area – designed by Sir Percy Thomas & Sons in 1967 – could, with some tweaking, be made future-fit. But that, recalls ID:SR partner Helen Berresford, proved a tall order for the suburban site, given BBC Wales director Rhodri Davies' aspiration to attract fresh new talent, embed the organisation in the cultural life of its home city, and connect it better with both the Welsh-speaking community and the wider world. With the decision made to develop the Llandaff campus for residential use, the BBC initially looked to its FAT-designed Cardiff Bay studio site before plumping for the Central Square regeneration zone facing the city's rail station.

Putting the new media building at the heart of one of the capital's regeneration projects and next to the city's noted School of Journalism presented the challenge of placing an acoustically sensitive building adjacent to one of the city's main thoroughfares and a transport hub through which goods trains carrying steel from Port Talbot regularly rumble. Berresford also





**Above** F+P's spec office base build was modified at design stage following BBC Wales' decision to be the tenant occupier. ID:SR was on board throughout the process. Left BBC Wales looking north from Central Square. The steel structure base build, clad by Kawneer, forms the centrepiece of the Central Square development. **Below** A notional section through the ground floor broadcasting/public zone.

points out that a prudent budget precluded a purpose-built design. Instead, the BBC looked to leasing a Foster + Partners-designed spec office building from developer Rightakers, part of its 140,000m<sup>2</sup> Central Square urban regeneration. And with ID:SR's expertise – not least on London's BBC New Broadcasting House - it helped tweak the base build and help turn it into this £100m media HQ, delivered on a competitive tender and lump sum basis.

And the acoustic challenges inherent in creating an office building that is now 40% broadcasting centre, 50% news/support space and 10% administration has informed almost every decision, especially since the modified building still contains Rightakers' imposing, four-storey atrium- the kind of space that usually runs counter to any notion of a space designed to perform acoustically. Surprisingly, ID: SR turned it to advantage, making it a palpable element of the BBC's public remit and stated commitment to openness and transparency.

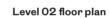
The BREEAM Outstanding, 26,250m<sup>2</sup> former spec office design has now been fitted out with four floors of state-of-the-art broadcast and media facilities, with base build slab to slab height increased at design stage to allow for the necessary lighting rigs. At ground floor

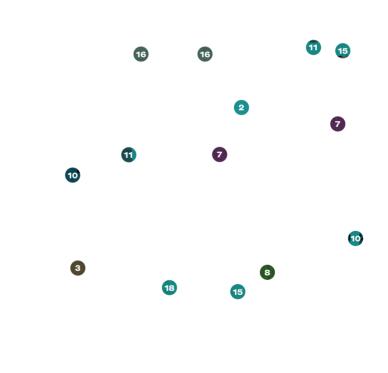
entrance level, viewed directly from the publicly accessible atrium, are two fully-functioning TV studios with audience capacity and a smaller radio drama studio. The first floor is the radio floor with 10 broadcast booths and ancillary support. The second and third are devoted to Welsh and English TV broadcasting; the former with its own high-spec TV news studio and surrounding newsroom. The fourth houses administrative functions, secure server rooms and a restaurant, with a roof terrace sheltered by its oversailing roof.

For a steel building that has an almost completely glazed facade with a large internal

atrium, isolation was key to the whole insulation strategy – both in terms of performance and cost. Berresford explains that it's an office building with specialised 'hot and heavy' broadcasting elements in it. This means that the three TV and 11 radio studios and their editing suites effectively 'float' between standard composite slabs, separated from what's around them, and designed to a much higher specification – so outlay only occurs where it is required. 'If we had designed for the tech only we'd have built a "black box" away from a train stain station,' says Berresford.' But these are multi-functional spaces and with the speed of modern Insulation 13

Ground floor plan







- 2 Atrium
- 3 TV studio
- 4 Secure lobby
- 5 Radio drama studio 6 Retailarea
- 7 Collaboration space 8 Meeting room
- 9 Radio studios





### Level 04 floor plan



- 10 Edit suites and post-production
- 11 Resource area
- 12 Canteen
- 13 Roofterrace
- 14 Server room
- 15 Quiet room
- 16 Gallery
- 17 Administration
- 18 Newsroom

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**Top** The larger TV studio looking to the north entrance. With floating floors and thick acoustic glass, the public can pass through and observe without disturbing a live performance.

**Above** editing and dubbing suites are part of the 'hot and heavy' approach to acoustic separation.

Broadcast 'pavilions' needed outstanding technical and acoustic performance. Zero movement, zero sound, zero tolerance

media, seconds count. Studios and their associated spaces need an open, collaborative connectivity that's in opposition to the black box idea; we had to create a balance between the two.' This resulted in the broadcast 'pavilions' arrangement sitting within open office areas. 'They needed outstanding technical and acoustic performance,' she emphasises. 'Zero movement, zero sound, zero tolerance.'

It turns out they have completely separate floors, walls and ceilings. 'Any studio or editing suite sits on a 150mm resilient concrete slab cast in special steel trays and jacked up on acoustic mounts, set into the grid of the main slab and perfectly aligned but independent of the raised floors around,' says ID:SR's Matthew King. Poured resin floors in the TV studios are perfectly level to ensure faultless movement of camera equipment and, King adds, have a very high structural tolerance for vibration, 'as we can't have the cameras bouncing while on air.'

The section for these spaces is almost an eggin-a-box principle. 'The 400mm thick walls are in fact a pair of independent ones. The inner, sitting on the floating floor, is a Metsec type stud partition with acoustic-grade plasterboard and a steel structural lid to support the lighting rig,' says King. 'There is 150mm of acoustic lining to walls and ceiling within a studio, with metal, fabric or joinery panel finishes and joists

forming a lid. The radio studios are similar but with metal suspended ceilings'. The 'outer' jumbo stud plasterboard wall meanwhile, sits directly down on the base build slab.

King says that the internal glazing – particularly for the studios facing the atrium and newsroom – had to perform to same specification as the walls, with the same density, making them 'at least double or even triple the thickness of a similarly sized standard glass panel'. Radio studios had to perform 25% better acoustically relative to TV, resulting in more wall and small observation windows with special anti-reflective coatings applied 'as radio staffers communicate through it with sign language.'

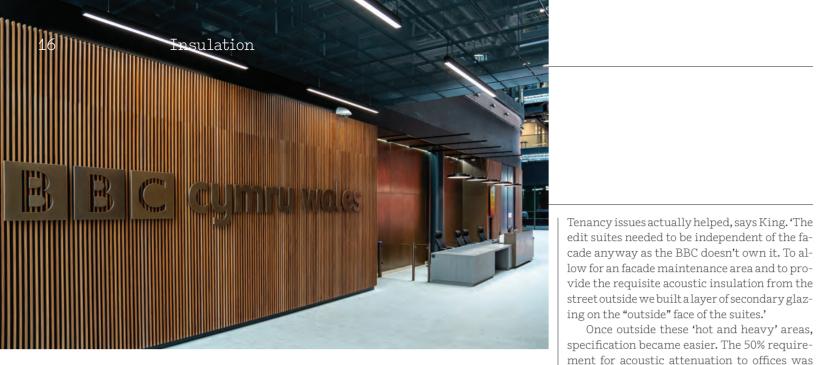
Acoustic separation was onerous as the M&E strategy demanded dedicated mechanical services for each studio. As electronics and lighting generate a lot of heat, the high air exchange rate coupled with low velocities to minimise sound resulted in large ducts with dampers. Not only that, localised plant required not one but two fan cooling and heating coils; one to act as a standby if a unit fails during a live transmission. The additional plant requirement was installed on the 5th floor, set back to avoid impinging on the main central square elevation.

For the Dolby-accredited post-production editing suites on the perimeter of the floor-plate, acoustic concerns also needed addressing.

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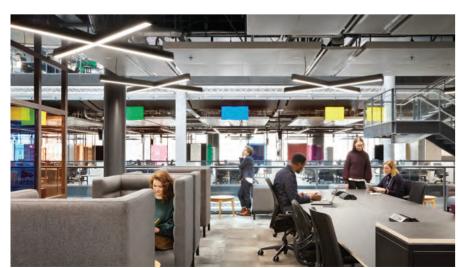
**Above** At ground floor the timber slats of the reception area enhance the robust acoustic performance, deadening echoes in the space. Right Individual banks of acoustic booths allow for more private meetings or individual work. Below The 50% acoustic requirement for the office ceilings meant services were exposed, helping generate the semi-industrial aesthetic.

Client BBC Workplace / BBC Cymru Wales **Developer** Rightacres Interior designer ID:SR Sheppard Robson Base build architect Foster + Partners **Project manager J4 Projects** Base build structural engineer Arup Fit-out engineer AECOM M&E consultant CMB Engineering and Evans Electrical **OS** Currie & Brown

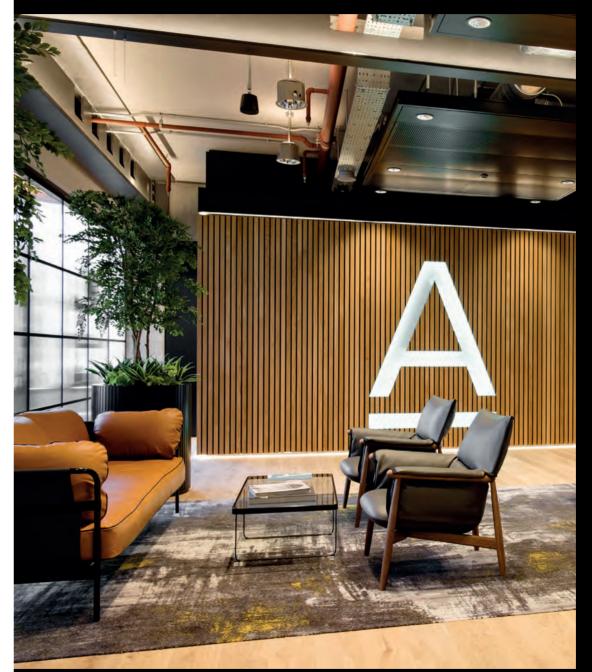
Acoustic consultant Ion Acoustics CDM co-ordinator (principle designer) Fit out contractor Overbury

Base build contractor ISG





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Once outside these 'hot and heavy' areas,

primarily met through the use of perforated

acoustic tiles supported on a concealed grid and

suspended between rows of chilled beams sup-

plying cooling to the office floors. Small banks

of acoustic booths are dotted around elsewhere

for private meetings, but in the breakout are-

as, which suited a more 'buzzy' vibe, exposed

services in the soffits are partially hidden with strategically positioned Rockfon panels. Like

all the furniture, these are covered in Welsh designed and made fabrics. Distinctive cru-

ciform light fittings complete the look, echo-

ing Berresford's aim to 'make the ceiling plane

functional in every respect- in terms of light-

ing, acoustics and space-making. We achieved

50% coverage; no more, no less. We didn't want

as in the circular breakout spaces facing into

the atrium, acoustic curtains can be left closed

or open, allowing for visual drama or cosset-

ing privacy. As the ground floor studios – seen from the public lobby – stand at the ready to

host a Question Time or Breakfast TV show,

wall-mounted mesh baffles are packed with absorbent material fleece and mineral wool to quell echoes. That approach is repeated on the atrium slab reveals, making the overall sound of the working office muted yet still lively. It reflects the public yet private nature of this broadcasting HQ. They do tours in the office, says Berresford, yet up on the third floor there's a highly sensitive 'ingest area' where footage from around the world is streamed in, and in a raw and sometimes scary state.

'It needs to be screened and contained at times. But it's sensitive data entering what's effectively an open, public space – it seems almost counter-intuitive,' says Berresford. 'But BBC's Rhodri Davies' desire was just that; to

show how content is made - right in front of

your eyes.' •

Where live broadcasting might occur, such

to spend any more than we needed to.'

# Specified







PiP specifieds are compiled from supplied company press releases



# **OPTIM-R flooring system** Kingspan

It is with all joy crushed that I write from this 'Royal Pavilion' where we are now compelled to remain for the season, having stupidly paid to lodge in this place which I am now told is at Dorchester and named 'Poundbury' and not indeed at Brighton. All our money is gone, and you will gasp as did I – to learn that we are thus to be entirely denied our summer's larking with dear Prinny! This dolorous Wales, moreover, believes indulgence to rest entirely underfoot – as the thin but effectual Kingspan insulation!

kingspaninsulation.co.uk

# Bespoke hinged secondary glazing Granada Glazing

'Bernie 2020' director of analytics Michael Futch identified a 0.7% reduction in home value growth for 1/3 mile either side of the tracks for every increase in rail freight density of 10 million ton miles per mile (MGTM/mi). A scandal, you'll agree.

Among many snappy and egalitarian Sanders proposals. then, is a pledge to install free Granada secondary glazing in all trackside homes. Here in the 'Socialist' UK, though, we pay for our own. And we trust the market to maintain values: by closing the stations, Listing, and customglazing the rail sheds instead. gsecg.com/

# Eurowall cavity foam board

Further Insulation Be Required? 'Objection: It seems that we have no need of Further Insulation. For man should not seek to know what is inside The Cavity: "Seek not the things that are too warm for thee" (Ecclus, 3:22). 'On the contrary, It is written (2 Tim. 3:16): "All Thermal Board on the site of a former House of God is profitable to install." Now

'Besides The Cavity of brick, will

Scripture, for man's salvation, exhorts a closed-cell PIR board. Therefore damp-free, warm interiors are inspired of God.' - St Thomas Aquinas, Summa Architectura (1276)

recticelinsulation.co.uk

# SonaSpray FCX acoustic plaster Oscar Acoustics

'Hard Rock Café, yeah, I'll sign for it. It's alright, this new fit-out, eh? We 'ad that Keith Richards in 'ere last week.

'Yeah. Very complimentary, he was. Asked about the plasterwork. He actually said 'Is that SonaSpray FCX?'. Mad, innit? Turns out he's a bloody enthusiast! 'is 'earing's not so good, see. He's 'ad his whole place in Parrots Cay done out in the black so's he can hear at parties. A "big fan of its recycled and plant-based credentials", he said. "E's also, it turns out, well into antimacassars.'

oscar-acoustics.co.uk



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# Business parks adapt to survive

Retrofit, densify, diversify: how the out of town business park is fighting back in the age of sustainable commuting, mobile working and work/life balance

Words: Josephine Smit

'Ed always describes them as croutons in soup.' I'm in conversation with Nick Ridout, director at Scott Brownrigg, having just spoken to his colleague, fellow director Ed Hayden. We're discussing out of town business parks and Hayden has used the analogy to sum up the traditional arrangement of box buildings sprinkled across a massive car park to be found on the outskirts of so many towns and cities.

The 20th century suburban business park model has looked increasingly at odds with today's focus on sustainable commuting, urban working and living, mobile working and co-everything. The British Council for Offices acknowledged as much in its 2019 report, The future of business parks, which noted that many were starting to become obsolescent. Inevitably in some locations, like Langley Business Park in Macclesfield or west London's Fairview Business Centre, the solution is to replace most if not all of the workspace with homes.

But others are fighting back and refurbishing, intensifying or diversifying to retain employment and create a more resilient business park, capable of remaining relevant as the workplace continues to evolve. These redevelopments draw on lessons from new workspaces in cities and out-of-town science and higher education campuses and clients are looking to architects to innovate to create new models.

## Taking care of business

A key priority in redeveloping 'croutons in soup' parks is to retrofit placemaking, says Hayden. 'Plots are being redeveloped to be more urban with street facing facades, there is a big push for public realm to prioritise pedestrians and integrate cycling and car parking is being centralised in multi-storeys. Older buildings had car parking ratios of 1:25m² but now it is 1:40m² or 1:45m² as buildings go up and car parks reduce.'

Arrival and departure points – historically traffic pinch points at the start and end of the working day – now have to accommodate vehicle commuters and sustainable travel options, while showcasing the park's presence.



**Above** Scott Brownrigg's Foundation Park in Maidenhead, where staff can relax — and get to work.

**Right** SOG Group's The Heath Business and Technical Park outside Runcorn. A 1960s campus is now being reconfigured, via an RIBA competition, for 21st century working.

Cambridge Science Park includes a transport plaza and arrival portal, which link to a guided busway and cycle network. In future, visitors will pick up an autonomous vehicle here to take them to their destination building. It is fittingly high-tech for a park that was a trailblazer when it was built in the 1970s to house University of Cambridge spin-out start-ups and larger companies wanting to access top academic talent. More than 40 years later the site is adding amenities, including a hotel, and replacing buildings to provide more flexible workspace.

'The original buildings catered for small start-ups, but now the park needs flexibility to

accommodate occupiers taking anything from 10,000ft² to 100,000ft²,' says Hayden. Its designs include a 40,000ft² building for start-ups, created using its own flexLAB concept where space can be adapted to office or laboratory use and demountable walls allow tenants to create laboratories of varying sizes.

Perhaps the biggest change over the life of the business park has come in work culture. 'Business parks were designed for a 9-to-5 culture, but mobile communication technology now means we are contactable and working 5-to-9, so buildings are changing to reflect that, with more relaxing spaces, such as roof terraces, external workspaces and atria,' says Hayden. Amenities are increasingly part of the workplace, and help to spread the flow of commuters at start and end of the working day.

A new hub planned for Foundation Park in Maidenhead will provide café, gym, cyclists' changing rooms, co-working space and meeting rooms. The top floor is designed to open out onto the top level of an adjoining multi-storey carpark, allowing the latter to be used for events ranging from a pop-up cinema to a tenant party, while the masterplan for the improved public realm includes spaces for summer screenings or street food. 'It is emulating the level of amenity we're seeing in London, but without going over the top; the level of amenity needs to reflect the population of the park, and be flexible to accommodate social events. Workers want to feel part of a community,' adds Ridout. Its latest building on the park has a roof terrace for top floor tenants, but its next project will incorporate a communal terrace for all to enjoy.

The team is also exploring the potential to create a building where tenants can expand upwards or downwards. 'We're looking at how you might make that work by having a sliding panel between floors, 'says Ridout. 'We're trying to think of as many permutations as possible so the client can offer tenants flexibility and tenants can grow and remain on the park.' Buildings have to be designed to accommodate not only more tenants, but also evolving leases. 'Leases of 20-25 years coincided neatly with the lifetime of the M&E. Now we have 5-10 year leases so you have got to make the space work harder,' says Ridout. 'In design terms that requires a configuration that allows multiple entrances off an atrium and the M&E has to be flexible.'

Owners and occupiers of business parks are also seeing the value of design, as can be seen from such projects as its design for ARM Holdings' office on Peterhouse Technology Park. 'Ten years ago, business parks were all about net area and minimum toilet provision; now tenants are more discerning,' says Ridout. Its latest building at Foundation Park has a semi-cantilevered top floor to create an entrance canopy, as well as semi-exposed services. 'These features don't add space, but they create identity and clients are saying they can sell them,' Ridout continues. 'Business parks must deliver a viable, attractive alternative to urban office buildings and provide a genuine sense of place.'

### Park life

For clients, however, regeneration is challenging, demanding significant investment and longstanding tackle tenant and lease arrangements. Watford Borough Council is starting to redevelop its Watford Business Park, which



was created more than 50 years ago. The council owns the park freehold but the sale of leases over time has resulted in complex ownership structures and under-investment, which the council is now addressing through compulsory purchase. Like many local authorities, Watford is keen to retain valued employment, the park being home to more than 100 businesses with around 1,200 workers on site.

The council is now appointing an architect to intensify the site, doubling its space to 8,000m² and creating around 300 more jobs. As some buildings to the rear have been replaced, it is looking to redevelop the front of the park, giving it a fresh face. 'The first site is at the entrance so we are looking to set the tone for the development. We want to get away from the stereotypical shed,' says Lauren Sharkey, property development project manager with the council.

The park's tenants include industry as well as commerce and the council wants to retain both. 'We have Leavesden Film Studios nearby, so have businesses like prop makers needing space and don't want to be too prescriptive about tenants,' says Sharkey, 'Often messier businesses are shut out by regeneration, but they make an important contribution to the economy.'

Independent business park operator SOG Group has already guided The Heath Business and Technical Park, in Runcorn, through one renaissance, and has ambitious plans for its future. The campus was developed in the 1960s as a headquarters for chemicals giant ICI, and its departure in 2000 left the site and Runcorn in some uncertainty. Since then, The Heath has become a successful business park with around 2,000 workers — more than in ICI's day — engaged in activities from dressmaking to scientific research in its 300,000ft² of office and

laboratory space. 'Businesses come here because the location is good, we can attract good staff and have affordable space,' says Lesley Banks, sales and marketing manager with SOG. 'But while there is good interest, we know it can't stay like this forever. Our buildings were advanced at the time but are now ageing and energy inefficient'.

The site has potential to densify business space and add housing, which could help offset the cost of major redevelopment. It already has residential neighbourhoods on its fringes and has long been at the heart of its community, many of whose families have worked on the site over generations. 'It is a major hub for Runcorn,' says Ryan Lewis, head of operations at SOG, whose own grandfather worked as a contractor at The Heath. As well as being a source of employment, the site houses amenities open to the community, including a gym and café, and hosts events such as comedy nights.

SOG is seeking ideas that may help shape The Heath's future via an open ideas competition with RIBA. 'We wanted to innovate and speak to world-class experts, whether futurists, technologists or architects,' explains Lewis. The brief for its competition invites entrants to embrace social, environmental and technological factors, including health and happiness, and think innovatively. 'What we'd want to deliver is a place for living, work and play that is sustainable, cleaner, greener and inclusive,' says Banks. That could include such innovations as hydrogen energy, which is already being promoted in the north west of England by the HyNet consortium.

This is a beacon project for Liverpool city region and personally significant for Lewis and for Banks, who worked on the site under ICI. The competition winner won't be announced until June but enabling works are already under way. Redevelopment will continue over several decades.'We'd like to see drastic change in the next decade or so,' says Lewis. 'On the same footprint we would like to have more employment and community and build homes. We can do a lot more of what we're good at, and would like this site to be a model that can be replicated.' The urban office sector may have to watch out. •

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# HARLOTTE COLLI

**Above left to right** Grimshaw's Mark Middleton. BDP's Mike Riley, HS2's Laura Kidd, HP's Phil Oakley, Garcés-de Seta-Bonet partner Jordi Garcés and urban designer Andrea Pavia.

# Positive moves en route to cleaner, quieter transport

PiP's seminar heard some positive stories of existing and planned progress in transport, but more futuristic autonomous vehicles held the greatest allure

### Words: Ruth Slavid

Imagine a future in which we have more trees on our streets, more room for walking, cycling and interaction, and one hell of a lot less noise and pollution. This dream could come about with the introduction of CAVs (connected autonomous vehicles). But it is, warned architect and urban designer Andrea Pavia, only one of a set of possible scenarios, and the only one with a really positive outcome.

Pavia was speaking at the PiP seminar on transport and infrastructure architecture, setting the scene for a range of fascinating discussions. His main point was that this is too important an issue to be left to technocrats and manufacturers. He thinks we will see CAVs with level 5 automation within a decade. The interesting questions are not about the technology but about what we do with it.

He presented a flow diagram with a number of terminations, only one of which, he argued, was good — level 5 automation with the use of CAVs for short journeys. The CAVs would operate as taxis and complement, not replace, other public transport options. This would free up space on streets, making more room for pedestrians and cycles, and allowing further tree planting. Crucially Pavia has worked out not only what the ideal result would be but also a route for getting from here to there, including worked examples — one of which is London's Shoreditch.\*

This was the most future-gazing of the presentations. Others talked about either existing achievements or the near and planned future. The presentation by Laura Kidd, head of architecture at HS2, fell into the second category. First, for any doubters about the appeal of a job like hers, she explained that 'Working on the client side uses your creativity to the full.' She described the delicate balancing act that allows architects to use their creativity while still complying with HS2's requirements.





Above Garcés-de Seta-Bonet's Madrid Metro stations exposed raw engineering while using high spec finishes elsewhere.

**Left** Aerial view of the new London Bridge station. The transformation was described as 'open heart surgery on a patient while still jogging'.

This has been achieved, she said, partly by having very visually led specification documents, and by an emphasis on people-focused design. Some of this has led to quite specific requirements, for instance platforms that are level with trains. This means that people in wheelchairs can board without assistance – a win both for passenger dignity and for efficiency of operation.

Kidd showcased a number of projects that were successful in the RIBA 3 ITT Design Challenge. At Curzon Street in Birmingham, for instance, Grimshaw with WSP argued for a traditional train shed, creating a landmark in the area. Transfer to platforms was a major consideration, since they are 450 m long and some

Some of this has led to quite specific requirements, for instance platforms that are level with trains

trains will stop for only two minutes.

At the interchange station at Solihull, Arup has developed a fascinating laminated timber structure where the only problem will be public acceptance, because it looks expensive even though it is not.

However challenging, none of the stations is likely to have quite the level of complexity of London Bridge Station, the project for which Grimshaw was shortlisted for the Stirling Prize. In a station that is at the heart of the capital's and the country's network, and that has grown organically and not attractively, Grimshaw had to find a way to switch a combination of nine terminus platforms and six through platforms into the opposite — and keep the trains running. In what it described as 'open heart surgery but while the patient is jogging', it has done all this while also making the station more attractive and navigable, and reuniting two separated communities.

Mike Riley of BDP also described a rail project that has significant impact, this time in Manchester. The Ordsall Chord provides the first link between the city's Piccadilly and Victoria stations in an area of rail's earliest history. A pioneer of digital design, it includes a network arch, the first in the UK and the first asymmetric one in the world.

Jordi Garcés of Spanish practice Garcés-de Seta-Bonet explained how his practice used a 'carpet' of ceramic floor tiles as part of a radical fit-out of three new metro stations in Madrid. This celebrated rather than covered up the engineering of the project, leaving exposed most of the as-poured concrete, as well as the services. The almost cathedral-like result was unexpected but highly successful.

It is easy to think that each field has its unique problems, but Phil Oakley, UK and regional) business manager for large format printing at HP, argued that this is not the case. HP is adapting to a rapidly changing world where experience is key, where people are more mobile and where security is a major concern. Like transport, it is changing almost out of all recognition, but remains central. 'The frictions in print,' he said, 'are similar to those in transport and infrastructure'. The speakers at this event demonstrated how much original thinking there is in the field – but we always need more, and learning from another discipline makes sense in our increasingly interconnected world. •

\* Automatic for the City: Designing for People In the Age of The Driverless Car, will be published by RIBA Publishing In association with







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# House-in-a-house, Brockley, London

To avoid demolishing a sad 1950s house, alma-nac built it up and out and wrapped the lot in a cool contemporary skin that insulates it and enhances the street

Words: Pamela Buxton Photographs: Jack Hobhouse

At one point, architect alma-nac was thinking of naming its latest residential project the Russian Doll House before settling for the equally appropriate House-within-a-house. Both are a reference to something you'd never guess from walking past this contemporary addition to a Victorian terraced street in Brockley, south east London – that, hidden inside, is the structure of a much smaller, 1950s house.

It's a fascinating story of how extreme retrofit can deliver a house that is not only substantially bigger, but also far more thermally efficient, while avoiding a pastiche response to the leafy conservation area setting.

The clients, a couple working in the creative industries, were looking for a site with the potential to extend to accommodate their five sons. They struck gold, as it turned out, when they spotted a sorry-looking, three bed detached house in a road of far larger properties. The house was built on a bomb site of what had been a three storey, Victorian semi-detached home, and rising to just two storeys, it was

somewhat marooned on its generous site.

After initially considering a modest extension, the clients enlisted alma-nac to create a more ambitious project. According to director Tristan Wigfall, although a rather simpler demolition and new build approach was considered, they went instead for a retrofit, because the original masonry structure was sound and capable of supporting an additional storey. This more sustainable option retained the structure but extended upwards and at the rear and side, while wrapping the whole lot in a thermally-efficient cloak with a new brick skin. The resulting six-bed house is 380m² (GIA) compared to the 233m² original.

'Our gut reaction was why knock it down?' said Wigfall, adding that although the form was wrong, the footprint was in the right place. He also wondered whether the planners had given the architect more licence in the composition because it was re-using the 1950s structure.

And financially, the clients were able to save not only the demolition cost but also benefit from

VAT of only 5% because the property had been vacant for more than two years. The result was a re-use of 12,670 bricks and 12.85m<sup>3</sup> concrete.

In the composition, alma-nac sought to respond to the character of the conservation area, where London stock brick was prevalent on houses of mostly three storeys, many with steeply pitched roofs and considerable facade articulation in the form of bays and decorative detailing. The three-storey design mediates the storey gap in height between its two neighbours with the inclusion of a pitched main roof that extends higher than it needs to in order to

Top left Extended up and out, the new 'outer' house has a roofline that mediates between the different scales of the two adjacent buildings.

Above The rear elevation extends the ground floor plan into the large back garden.

Right The front and rear elevations of the original

1950s home, built on a bomb site.





27

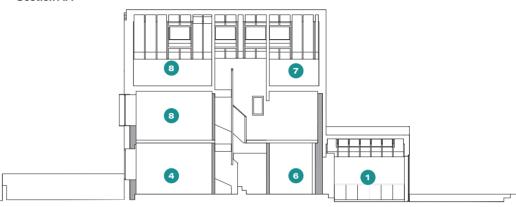
Cladding



Left The new home, with its generous ground floor plan, has a thermal performance that vastly exceeds regulations. Below Beyond the original wall, the

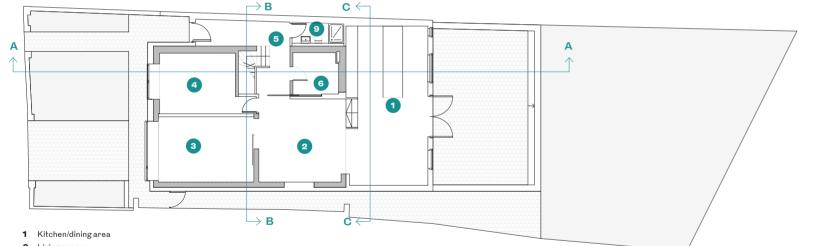
**Below** Beyond the original wall, the kitchen/dinning space is flooded with light.

# Section AA



## Ground floor plan

26



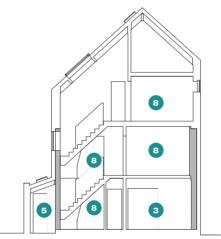
- 2 Living space3 Snug
- 4 Study
- 5 Entrance and lobby
- 6 Utility room
- 7 En suite bedroom8 Bedroom
- 9 Shower/WC10 Family bathroom



# Second floor plan



Section BB





Section CC



match the height of the taller adjacent house, plus a subsidiary pitched bay that relates to the height of the shorter house on the other side.

Rather than attempting to match the brick of the surrounding houses using recycled London stock brick, alma-nac chose a contrasting pale brick by Belgium manufacturer Floren. The relatively austere composition, which meets the clients' preference for a pared-back utilitarian aesthetic, is animated by a small area of soldier course brick adjacent to the side-access entrance, and by projecting,

powder-coated aluminium 'cuffs' on some of the casement windows at the front. These windows follow the general pattern of the 1950s house on

the ground and first floor, with a large picture

window on the site of the former garage. As a result of the new skin, these have deep reveals

The new upper storey is timber-framed to minimise the load on the original structure. Internally there are just a few traces of the orig-

inal house – the former perimeter wall is visible in the entrance lobby and the original stair position has been retained, along with the general arrangement of the first floor bedrooms. Otherwise, the ground floor has been reconfigured to give a more open, expansive design, with the kitchen/dining room at the rear in an exposed timber-framed extension. This was created using Kerto large-span Metsä Wood timbers with an asymmetric pitched roof form,

and is clad in stained Western red cedar from

Vastern Timber. The main clerestory-lit bed-

room plus two others are on the top floor, the

of up to 600mm on the projecting bay.

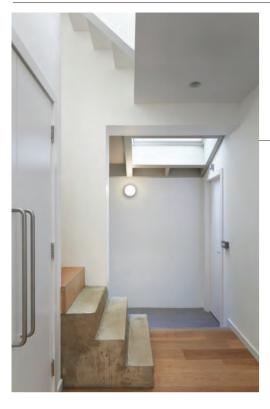
For the elevation, the new outer skin is Floren's Polaris brick, laid with a lime-mix mortar that tones with the pinky-grey variegated

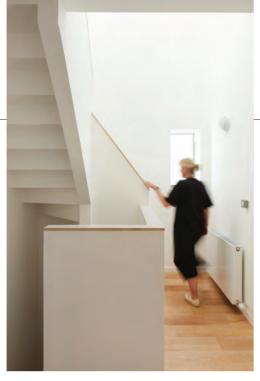
The thermal performance vastly exceeds Building Regulations

The total Regularity of the state of the sta

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Above The rooflit entrance area prepares visitors for the spatial expansion beyond.

Above right Lit from above, the main stair is an ascent to light.

Below The children's bedroom indulges scale changes in the roof pitch.



Credits

Client Dan Witchell and Michelle Anderson

Architect alma-nac

**Building contractor** David Stewart Building Contractor

Structural engineer Constant

**Project manager** Clients Dan Witchell and Michelle Anderson

Suppliers

Floren Bricks

Vastern Timber Western red cedar cladding

**Velfac** Casement windows

Metsa Wood Exposed roof structure

VMZinc Extension roof UK Slate Main roof Kingspan Insulation hues. Between the brick and the existing masonry on the lower two levels is a 25mm cavity (rising to 125mm on the bay) and 50mm of Kingspan Kooltherm K108 cavity board, which is fixed to the outside of the original 215mm brick wall. A further 57.5mm of Kooltherm K118 insulation is fixed to the inside of the masonry wall.

On the top floor extension, the elevation build up consists of the same brick and cavity over a timber framed external wall. This is insulated with 150mm of Kingspan Kooltherm K112 framing board between the studs. On each level, the brick is tied back to the main structure using special remedial brick ties by Ancon that allow for the variation in movement between the masonry and timber structures.

Where the house is extended at the rear, a steel across the back supports the new brick facade, with more steel along the side, where the house is extended by 1m to take in what was originally a side passage to the garden. The main pitched roof is a warm roof structure with rigid insulation (Kingspan Kooltherm K107) and topped by natural slate. The rear extension has a pre-weathered zinc roof.

The thermal performance vastly exceeds Building Regulations, and gives a comparative reduction in annual  $CO_2$  emissions from 61.55kg $CO_2/m^2$  to 16.49kg $CO_2/m^2$ . U values are 0.15 W/m<sup>2</sup>K for both the brick/block external walls on the ground/first floor and for the insulated ground bearing concrete slab, and 0.13 W/m<sup>2</sup>K for the timber external walls at ground level at the rear, the timber/masonry external walls at second floor level, and the main roof. The rear extension roof is 0.14 W/m<sup>2</sup>K.

After one year on site and another finishing the interior, the family is enjoying living in the house-within-a-house, and appreciating that aside from the underfloor heating, there is rarely a need to use the radiators, even in winter.

For the architect, it's also a positive outcome that fits into the wider conversation about the need to consider retrofitting by making creative use of existing structures

'We could have made our life much simpler by demolishing and starting afresh,' says Wigfall. 'However, we think taking on this challenge has resulted in a much richer project that meets the clients' brief and provides an efficient contemporary home for a large family.'

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# Specified









'Nan says they made half a million on Right to Buy, so they're renting in Salford Quays. She says it's a bit weird up in the air with nowhere for peelings, but Grandad loves it. He says tell Dad the Kawneer AA100 50mm curtain walling is a 'stick-frame assembly with weather performance achieved by drainage and ventilation of the glazing rebates'. I had to go and look at all his 'mullions and transoms'. Nan says it's just good the windows can open, specially when they've had cabbage for

kawneer.com

# 2 SureClad ventilated facade Shackerley

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# Quartz-zinc standing seam cladding VM Zinc

Couture's vieille terrible, Jean-Paul Gaultier, revealed this week that he hasn't, in fact, retired, but moved sideways into a new creative field. 'Oui, mon cher,' he told our source, 'I 'ave done ze raw seam, ze asymmetrical seam, ze knit seam, ze lace-up seam, et puis, mon chapitre nouveau: le seam standing!'

In an audacious collab with VM Building Solutions, it's rumoured that so far JP has managed to sign up hardy veteran Naomi Campbell and modelling newcomer Ronny Codpiece (pictured) to walk for his SS2020 'Assemblage Zinc' show.

# Planar glazing system Pilkington

PiP specifieds are compiled from supplied company

press releases

Corporate transparency is finally here, and its first (and probably only) application is at the CMU Tepper Business School. Named for hedge billionaire David Tepper, the \$201 million building's 51ft high atrium lobby exposes frictionless profit fans to scrutiny thanks to Pilkington's Planar system, with 10ft by 7ft 5in Suncool 66/33T panels anchored to laminated SentryGlas fins by countersunk 905 stainless steel bolts. It's all suspended from a steel truss structure concealed beneath the roof. Transparency, then, on (as the MBAs term it) 'The Cayman Principle'. pilkington.com



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# Specifying curtain walling, glazed screens and extra large windows: how to de-risk your project

Glazed walls are increasingly popular as modern technology improves thermal and ventilation possibilities, but a complex regulatory regime means expertise is essential

The drive to maximise daylight has encouraged greater and more innovative use of large scale glazing in both new-build and renovation developments. Modern window technology can now minimise solar gain while also offering improved ventilation strategies, resulting in light, bright and airy interior spaces designed to increase wellbeing and productivity, as well as sale or rental values. Extensive curtain walls and large glazed screens are no longer reserved only for landmark buildings but have become a standard feature in projects of every shape and size, from major commercial buildings to private homes, including low rise housing. Specifying large scale glazing is complex however, especially in the context of regulatory compliance, and expertise is required to minimise the real – and expensive - risk of non-compliance.

# Meeting building, insurer and regulatory standards

From the regulators' perspective, any glazed screen that crosses a floor slab must meet CWCT (Centre for Window and Cladding Technology) standards, which are also required by major building insurers. There is often confusion, however, regarding different window and curtain walling applications in the context of regulatory standards, building regulations and the standards of individual insuring bodies (which may exceed building regulations). The result of this confusion can be costly, both in time and money, if remedial work is required, as evidenced by statistics from the NHBC (the UK's biggest insurer of residential buildings), which show that 33% of claims made in the first two years after a building is complete relate to superstructure, primarily doors, windows and glazing.



**Above** Large glazed facades have been installed at Falmouth University, Cornwall.

### Consult early to save time and money

Technical and regulatory expertise is therefore essential in order to minimise the risk of noncompliance, so fully exploit the knowledge of your glazing supplier at the design stage or even before, to ensure correct specification is built in from the outset. Early stage consultation also provides a valuable 'reality check' on designs, which may in practice prove too expensive or impractical to execute. It is vital to understand whether any glazing element requires bespoke manufacture or structural support in advance of the build, such as extra-large opening windows. Pre-project advice and review will therefore ensure all design options remain open, and result in the specification of better quality, more costeffective windows, tailored specifically to the development and which will gain regulatory sign off without delay.

### CASE STUDY:

## Launchpad Building, Falmouth University

Designed by architect BDP, the Launchpad Building provides a dedicated hub for Falmouth University's ground-breaking postgraduate business incubation and acceleration programme, Launchpad, and is also a link - via the new 'Creative Bridge' – to the Academy for Innovation and Research (AIR, completed in 2012). VELFAC glazing is installed across the whole development (described as a 'new front door' for the University's Penryn Campus) with large VELFAC glazed facades helping to create a highly distinctive local landmark, while also increasing daylighting throughout the open plan interior. Impressive glazed screens, comprising multiple units of varying sizes, front both the AIR and Launchpad buildings: 'The screens bring natural light into an interior which primarily houses

open plan studio workspaces, explains Matthew Mayes. 'They also provide a beautiful view over the Cornish countryside.'

Norfolk Homes' high quality, Scandinavian-

## CASE STUDY:

# Manor Reach, Sprowston

inspired residential development comprises 164 homes ranging from one-bedroom apartments to four bedroom executive houses. VELFAC composite glazing is a key feature of every home, ranging from small punch-hole units to full-height glazed window walls. 'We really like the slim VELFAC frame design, and the fact that VELFAC can deliver some of the largest functioning windows on the market,' says Lea Morgan, buyer at Norfolk Homes: 'The amount of daylight the windows bring into every room is a stand-out feature at Manor Reach, and most definitely adds value to the properties.' The versatility of the system was another important benefit says Morgan: 'Clever design meant we could specify windows of almost any size which could also be coupled horizontally and vertically. In addition, fixed and opening windows look identical when combined and retain a slim, uniform profile - another huge plus point for us.'

Take advantage of VELFAC RIBA CPD resources on CWCT and regulatory compliance to gain an overview of this issue together with specific advice on how to navigate a successful route to project completion. •





For more info about VELFAC glazing and case studies visit www.VELFAC.co.uk

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# NGHA headquarters, Glasgow

Page\Park's office for the New Gorbals Housing Association uses carefully applied transparency to foster a sense of trust and openness



Over the past 20 years the once infamous Gorbals area of Glasgow has been transformed by the gradual demolition and replacement of the high-rise towers and slab blocks of the 1960s. Those were the result of a large-scale demolition and replacement of Victorian era sandstone tenements... which themselves replaced a demolished village. The physical and historical context of Page\Park's headquarters for New Gorbals Housing Association (NGHA) is thus one of cyclical and generational change, decline and renewal over the course of a century.

The latest iteration is a postmodern attempt to return to a traditional tenemental neighbourhood, although this one has become cut off from the city to the north and the neighbouring Laurieston area to the west by a misguided infrastructure in the form of mini bypasses, dead ends and in-filled railway arches.

One of the key successes of Page\Park's civic

intervention is the way it uses the interior to identify these contextual issues and suggest new modes of connectivity at a variety of scales. This is an interior that seeks to connect with the street, the city, history, nature and people; an intelligent and creative composition of spaces in plan and section, offering a variety of ways in which to engage and be engaged.

There is a sense of generosity (but never

indulgence) manifest not only through space, volume and materiality but the provision of opportunities. Social spaces that encourage interaction between staff and residents are organised within and around a timber clad balustrade applied as a finely crafted object that sweeps though the volume of the building. Principal workspaces are arranged to allow a constant view of this balustrade as well as views of the city to the north and a new courtyard garden to the south. The glazed facade that

addresses the garden pulls you close to a piece of nature in the city in a manner intentionally reminiscent of the Barry Gasson designed Burrell Collection elsewhere in the city.

The main meeting space is at the building's northeast corner, protruding through the red brick facade as a zinc and glass box, indicating the principal point of entry at street level and creating a view along Crown Street towards the city centre that re-establishes this neighbourhood within the context of Glasgow.

Opportunities to see not only places but people are carefully curated through the positioning of timber screens, columns, glazing and programmatic organisation. This permits residents to be immediately engaged by staff, allows for meeting rooms to be supervised passively without reliance on intrusive security equipment and for people who work there to communicate and connect with each other. This



**Left** Illuminated at night, the transparency and openness of the NGHA headquarters is immediately apparent.

**Above** The Siberian larch balustrade that sweeps through the building unifies the

space, giving it a flow. **Below** Page\Park has given the interior a simple spatial clarity that invites investigation by users.

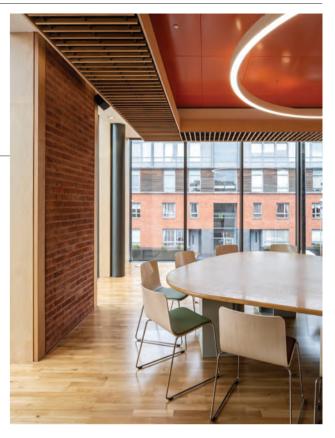


carefully applied transparency fosters a sense of trust and openness between the organisation and the people that it serves.

The building's role as mediator between residents, street, locale and the wider city is also expressed through its materiality. External red stock brick used internally references its application in NGHA's recent housing projects and drags the solidity of street into the building. Softer materials such as orange valchromat, ash veneered ply and Siberian larch identify things to be touched, followed, inhabited and explored.

Alongside the recently completed Health Centre by SM Architects and housing by Elder and Cannon, this contemporary urban block in the New Gorbals re-establishes a civic sensibility to Crown Street and connections to the adjacent neighbourhood. Its interior continues and reinforces these intentions.

The building's role as mediator between residents, street, locale and the wider city is also expressed through its materiality





**Top** The red stock brick exterior repeats internally as part of a minimal palette of materials. **Above** Details, such as the recessed timber handrail, have a warm tactility.

# Specified









# Multipanel BXD acoustic ceiling **Hunter Douglas**

Good evening. It's me. It's just you and me. Here, together. Via broadband. Because we're so close and I tell you everything, my ASMR channel has over seven hundred billion subscribers. I am now Number One Autonomous Sensory Meridian Response Artiste on YouTube. So, yes, I'm celebrating. Quietly. See my new BXD multipanel mixand-match ceiling? Lovely, isn't it? That acoustic ambience is sooooooo calming. The £3.75 I've earned from all those views only paid for part of it though. Unsecured personal loans are ssssssooooooooo relaxing.

# Design Solutions steam enclosure **AQATA**

Since their discovery in 1940, the Lascaux caves endured 1500 visitors a day - until they closed forever, in 1963. CO, from visitors' breath had not only chemically damaged the legendary wall art, but encouraged black mould and led to mass fainting. AQATA and Roccia Tiles' 21st century reimagining of the Palaeolithic installation is, by contrast, compact, airy, easy-clean, ecofriendly and antibacterial. The Clearshield Eco-glass enclosure with minimal chrome fittings ensures visitors still cop a right old eyeful – remaining upright and conscious at all times. agata.co.uk

# ClassicLine linear drain Unidrain

In the main, life's a pain for a linear drain: all that water and loose hair and scum

Though a Unidrain drain in the wetroom domain has an easier time and some fun

Some might maintain that a Unidrain drain can be kind to your feet while it helps wash your mane. unidrain.com

# PiP specifieds are compiled from supplied company press releases

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hunterdouglasarchitectural.eu

# R10 Tarasafe Standard PUR flooring Gerflor

'A big part of wildlife photography is simply having the patience to wait. So I've been here three weeks now, lying low with survival supplies, hoping to capture images of the rare and exotic Homo Arcticus subvariant "Femina Seminuda", at play in their ancestral watering place. Even in camouflage appropriate to the Gerflor terrain, these shy creatures have an acute sense of smell, and seem to be aware of my presence from the doorway. Either that, or they've mistaken the big white reindeer on my year-round Christmas jumper as a clear and present danger.' gerflor.co.uk

Developed with you in mind, the new Outdoor Design Hub is home to unique information, inspiration and CPD-accredited courses, helping you achieve the results you want, faster.

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## ANODISED BRONZE STEEL

We incorporated anodised bronze steel from SFAN in the windows, eaves and coping trims at Thurlow Road, our Hampstead-based family home project. The material was used to create Portuguese Bronze windows, which provides a stunning visual warmth to the home. Anodizing the bronze helps to keep it from cracking, breaking or chipping, especially when it is exposed to the elements for a length of time. This material is fantastic to ensure high quality aesthetics while ensuring essential durability, which makes it perfect for windows.



### CHARRED TIMBER CLADDING

What I particularly enjoy about charred timber is how beautifully it weathers, adding visual warmth and texture. We used it on our Thurlow Road scheme, as it contrasts with a modern and angular form. The technique originates from 18th century Japan – timber cladding boards are charred using a torch or open flame, creating wood preservation and durability, and becoming increasingly weather resistant. Thurlow Road features larch cladding, which is valued for its tough, waterproof and durable qualities, protecting the home against the elements in an aesthetically pleasing way.



### BIRCH PLYWOOD STRIP

Plywood is incredibly versatile, which makes it my go-to material when it comes to high-quality, high-strength sheet material. We often use 25mm by 25mm section strips of stained birch faced ply on residential projects, particularly ceilings, using 10mm gaps with black backing board. Birch comes with a smooth finish, ensuring that the end product is elegant, yet has guaranteed strength and stability. This is due to how the material is crafted, gluing layers of birch together using resin. Aside from these qualities, I particularly like to use birch as it is a fast-growing species, ensuring there is no disruption to biodiversity when the birch is felled.



 $\textbf{San-Carlos Kucharek} \ \text{enjoys three stand-outs from the inbox}$ 



### SUN'S OUT, GUNS OUT

'Post-apocalyptic' is a thing, if lighting consultant Nulty's PR is anything to go by. Far from a bracing outdoor run, it seems millennials prefer working out in a space that looks like Terminator's Sarah Connor's secret bunker. Co-founded by footballer Gareth Bale, boutique rowing gym 'Rowbots' (geddit?) offers deep blue-lit subterranean drama somewhere in London's Fitzrovia. Yep, there can be a re-run of scary 1984 BBC nuclear holocaust thriller 'Threads' going on upstairs and you'd be none the wiser as you complete your last fantasy nautical mile, pass under Chiswick bridge and punch the air in victory before moving to the pec deck to concentrate on your guns.



### BALL. AND CHAIN-FREE

In a 'millionaire's club' version of 'Homes under the Hammer', a replica of Paul Rudolph's 1952 Walker Guest House, originally built in Sanibel, Florida, is going up for auction. The 7m by 7m replica was built in 2015 at Dallas' John & Mable Ringling Museum of Art to draw attention to Rudolph and the Sarasota School. Gaining the moniker 'The Cannonball House' after the bright red metal counterweights on rigging to work its huge sunshades, the sky's the limit for the auction target, even though bidding will start at \$10,000 – the original 1950s budget. One caveat though: as the house enjoyed Spring Break in Palm Springs in 2018, one assumes 'buyer collects'.



### STRANGER THAN FICTION

Asked what house it would like to live in, PiP obvs opts for Capri's stunning, timeless, and tantalisingly out-of-reach to the riff-raff, Casa Malaparte. For fictional residence, we'd say anything a Bond villain lived in – piranha 'greeter' included. Oddly, that doesn't figure on Farawayfurniture.com's PR, who asked 2886 people what their fictional 'dream home' would be and 65% went with Batman's Wayne Manor. And 60% (sic) voted for Bilbo Baggins' Bag End from Lord of the Rings! Though if you really wanted to live in a place with no windows, no room to swing a cat and neighbours from Hell, you'd just plump for any office-to-resi scheme inside the M25.

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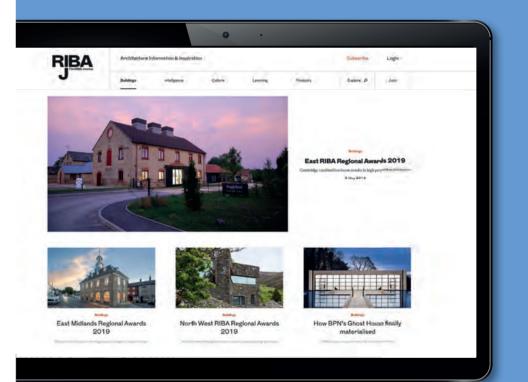
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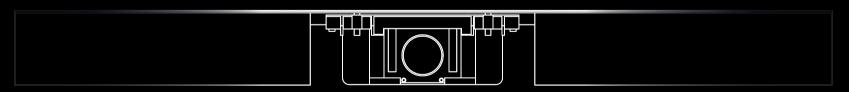
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