

Stirling shortlist 2025
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What do architects earn?
Profile: Chris Williamson

The RIBA Journal
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1 Buildings



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STIRLING PRIZE SHORTLIST

07
Simon Henley runs down the six projects in with a shout for the top prize

SOCIAL HOUSING

08
Witherford Watson Mann's Appleby Blue reimagines the almshouse for the 21st century

CONSERVATION

16
Purcell's conservation of the Elizabeth Tower is the first such project to make the Stirling Prize shortlist

HOME EXTENSION

26
Hugh Strange Architects' hillside addition has a repair-first attitude and a careful eye on circularity

On the cover

Three-dimensional BIM model of building services at the London College of Fashion by Allies and Morrison

EDUCATION

36
Allies and Morrison's London College of Fashion makes a bold statement in the East Bank quarter

SCIENCE

44
Herzog & de Meuron / BDP's Discovery Centre shakes up the possibilities of laboratory buildings

HOUSE

52
Takero Shimazaki creates a remarkable, accessible family home on a constrained London plot

2 Intelligence



KILIAN O'SULLIVAN

REGENERATION

63
Victorian Society director James Hughes warns of false choices at Liverpool Street Station

EMPLOYMENT AND EARNINGS

64
Annual salary survey highlights architects' mid-table place among peer professions

EDUCATION

70
In Tanzania, Hassell Studio is creating a community centre with 3D-printed earth walls

ARCHITECTS CONNECT

94
Rethinking the balance of freedom and security in architecture

SPEC: FLOORING

This issue, our technical section takes a look at the performance and aesthetics of underfoot materials

DOLPHIN SQUARE

78
Major renovations are under way at the vast, notorious Pimlico estate

RAY DOLBY CENTRE

84
Sensitive scientific equipment means vibration is a no-no

STUDIO MOREN

88
Hotel floors enrich the atmosphere of the spaces they connect

CHECKLIST

91
SpecStudio's guide to specifying flexible floor finishes

3 Culture



IVAN JONES

PHOTOGRAPH

103
Marcus Peel goes underground in Winchester

LEADER

105
Jan-Carlos Kucharek is adrift in an ocean of competing statistics

PROFILE

108
As his tenure begins, new RIBA president Chris Williamson is eager to get things done

OBITUARY

113
Poundbury masterplanner Léon Krier's incisive wit masked a generous nature

PARTING SHOT

114
Romney's House, London in 1931, soon after its transformation by Clough Williams-Ellis

'This type of site lends itself to repetition and replication, bringing economies of scale, which is really needed to make it work from a financial point of view'

Stephen Cousins reports on tiny homes being trialled on garage plots in Bristol: ribaj.com/gap-houses



An aerial photograph of a city skyline, likely London, featuring a mix of modern glass skyscrapers and older brick buildings. In the foreground, a modern building with a distinctive facade of vertical slats is visible, along with its rooftop structure. The background shows a dense urban landscape with various buildings and green spaces under a clear sky.

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1: Buildings



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HOUSE OF COMMONS

Each year the Stirling Prize honours the memory of James Stirling – an architect equally fascinated by history and technology, typology and composition, city and landscape. This year's shortlist reflects many of those interests in buildings that diverge in scale and circumstance: two houses, an affordable housing scheme, a university building, a research facility and a high-profile conservation project.

The six reflect the varied ways architects are asked to work, the range of opportunity, and the incredible motivation and breadth of expertise of them and their wider teams. They show a concern for composition, and a commitment to continuity as well as innovation, to repair as well as build new, to climate and landscape, and to an architecture that celebrates the city, community and sociality.

The conservation of the Elizabeth Tower brings Charles Barry and AW Pugin's 1859 Gothic Revival tower to a new, larger and more inclusive audience. The vertical campus of the London College of Fashion displays an ingenious, beautifully crafted internal anatomy. At the Discovery Centre, composition, matter and light bring humanity and, with it, the necessary conditions for innovation in a vast medical research facility. Hastings House, the smallest on the shortlist, is a finely detailed extension to a Victorian house that introduces light timber structures into a repaired landscape, attuning its inhabitants to the world. Niwa House is a new courtyard home that explores the poetics of engineered forms of timber and stone construction, blurring the threshold between house and garden. Finally, Appleby Blue rejuvenates the almshouse model with homes and social spaces around a richly planted and cloistered courtyard in the city.

Half of all RIBA Award entries are houses and housing, half cost less than £2 million and half are conservation and refurbishment schemes – stats that are to a great extent reflected in this shortlist. Together, the projects are a clear demonstration that architecture informs our way of life, and has the capacity to bring about real change in society. ●

Simon Henley is chair of the RIBA Awards Group

Clockwise from top left A varied shortlist: Niwa House; Appleby Blue; The Discovery Centre; Elizabeth Tower; Hastings House; and the London College of Fashion.

Elders and better

Wetherford Watson Mann's Appleby Blue reconsiders the almshouse for the 21st century. Practice director William Mann reflects on the decade-long evolution of a new community

Photographs: Philip Vile

IN NUMBERS

£25.1m
contract value

5,800m²
GIA

£4,330
cost per m²



Appleby Blue reimagines the traditional almshouse for the 21st century. Located on a disused care home site in Bermondsey, it provides 57 high-quality supported apartments for seniors, all for social rent. Funded via a Section 106 agreement, it is owned and operated by United St Saviour's Charity (USSC).

The project represents architecture as a vehicle for social change. Inspired by the horseshoe formations of traditional almshouses, the five-storey blue-brick building, with a stepped-back zinc top floor, is conceived as a community of equals around a shared space – a glass-and-timber-fronted double-height garden room.

This building gives south Londoners social connection and continuity into their senior years. It also sets a new benchmark for older people's social housing, challenging society's view of retirement.

Can you outline your design process?

Our pitch to USSC focused on how to foster a mutually supportive community and tackle social isolation. From the start, the trustees were clear about their ambition to reinvent the almshouse, saying: "We've already got an almshouse and a 1960s apartment building, and we know the difference; we want an almshouse." That was nicely clear, but open.

We settled on the courtyard layout within weeks, but then there was a lot of kneading: six months of iterative design, then further refinement with planning officers through a planning performance agreement.

How did the context influence the design?

The site is 40m deep, with the main street to the north. We explored several massing strategies, and established that with a courtyard layout we could achieve a similar capacity to a block with flats either side of a corridor. But the density was higher than several proposals Southwark Council had already rejected, so we had to model it with some sensitivity.

The scheme is made up of two overlapping horseshoe forms, one inward- and one outward-facing. They frame shared spaces at street level. We originally planned a café there, but this became a cookery school when Martyn Craddock joined USSC as CEO; his vision inspired a more active social hub.

The context also brought constraints. To the south is a conservation area with fine Victorian villas, while to the north are postwar slab blocks, towers and industrial sheds. The almshouse is on the edge of the flood plain, so the ground floor is slightly raised. We responded to the neighbouring volumes, making the building lower to the south and higher to the north, folding it against the slow bend of Southwark Park Road.



Facades of dark Danish brick feature projecting headers and timber-framed windows.



Sliding timber windows open onto the sunny courtyard garden.

What were your main architectural priorities?

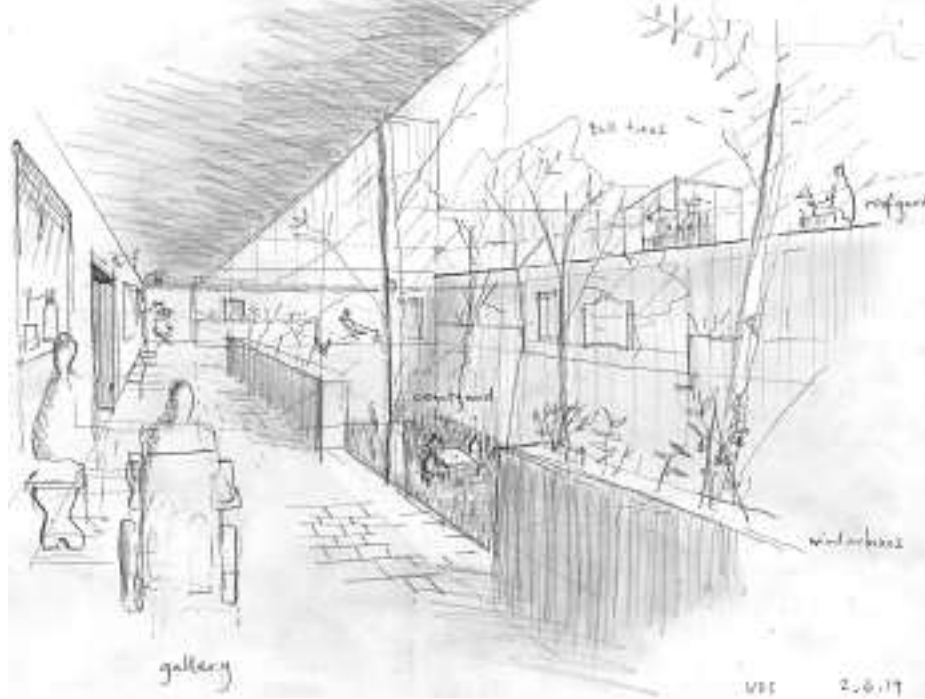
It was important to nurture a sense of community. Rather than a single collective space, there are lots of spots: small, quiet corners and larger areas for group activity. We were designing for a broader social vision, not just the building.

For example, we initially proposed a modest, one-storey café fronting the street. The board responded that it looked like an apartment building with shops in it. We went away with our tails between our legs, but when we returned with a more ambitious two-storey glazed facade, they said: "Now that's starting to look like an almshouse." They pushed us further than many housing clients.

What other influences informed the project?

USSC wanted it to feel like a Bermondsey building, which we took seriously. Bermondsey has a specific texture – a mix of building types and heights. In a way, that gave us an opportunity to gather together different scales in a single building.

Our references included other almshouses such as the Museum of the Home on Kingsland Road, as well as old local coaching inns. Those had a kind of early deck access layout, with wood-framed walkways around a narrow courtyard. The dimensions of our courtyard match those of The George on Borough High Street. That nice mix of continuity and evolution gave us confidence.



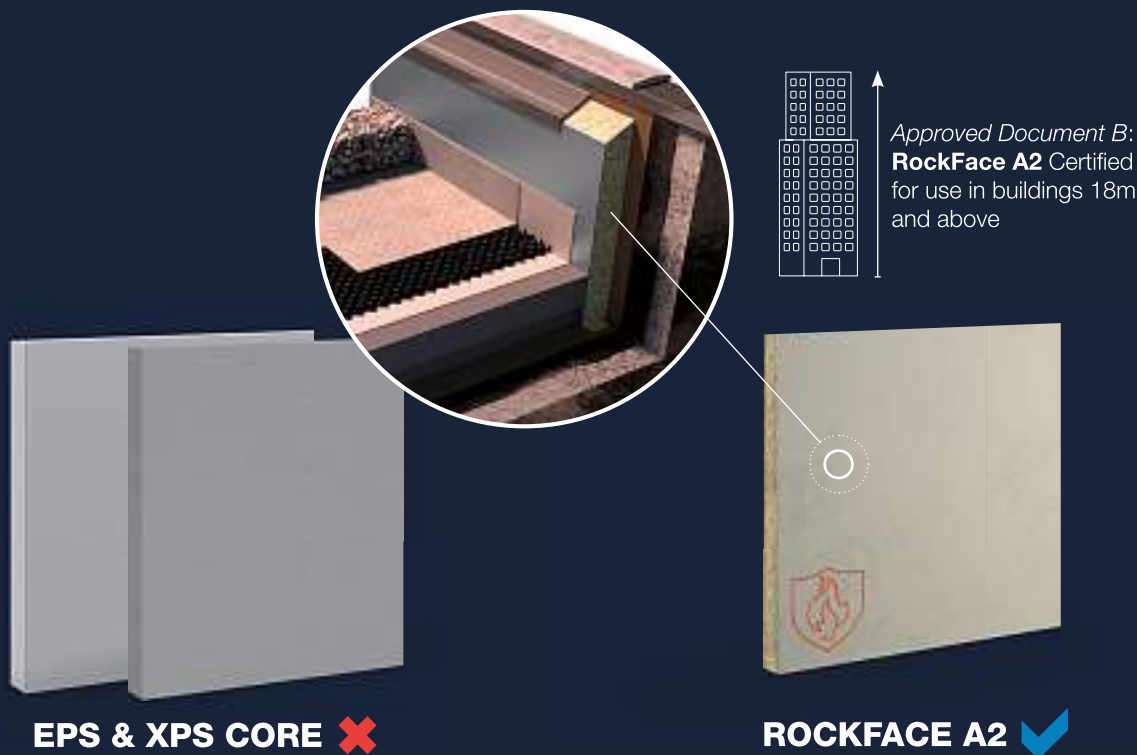
Above Sketch view, with the courtyard overlooked by enclosed galleries and a roof garden.

Below Generous glazed walkways provide additional social space outside adjoining residents' apartments.

We'd also built some older people's housing in Gistel, Belgium: an L-shaped block on two sides of a courtyard, offering that intimate scale and shared focus. On a return visit, the oldest resident said that we should have made a bigger window to the square, giving more contact with public space. That really stayed with me. And when we asked residents at USSC's almshouse in Purley about their private balconies, they told us: "We never sit on them. We're on our own all day – why would we want to be on our own more?" Instead we added the area to the galleries, so you can sit outside your front door and meet neighbours.

WITHERFORD/WATSON/MANN





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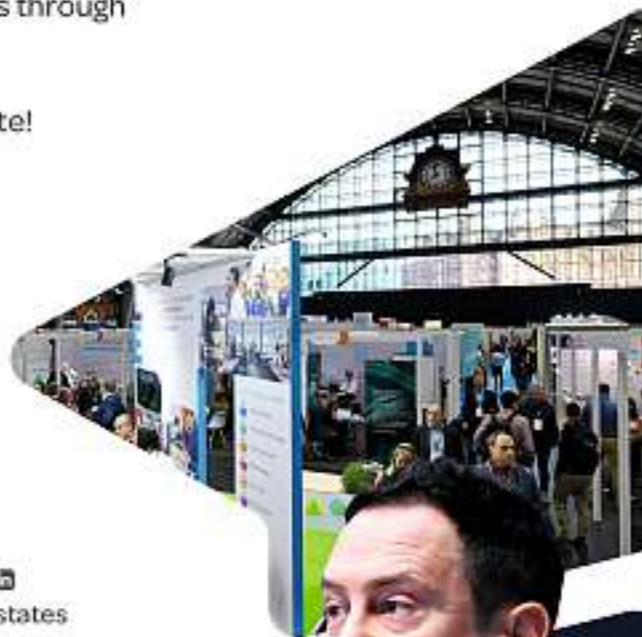
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Above Early concept model; the U-plan is typical of almshouses.

Left The Garden Room overlooks the street and passing buses.

- | | |
|--------------------------------|---------------------------------|
| 1 Garden Room (community room) | 7 Parking |
| 2 Cookery school | 8 Residents' lounge |
| 3 Staff office | 9 Training and skills |
| 4 Courtyard garden | 10 Craft room |
| 5 Plant | 11 Hairdresser and bathing room |
| 6 Scooter and bin stores | |

WITHERFORD WATSON MANN

What were the greatest challenges?

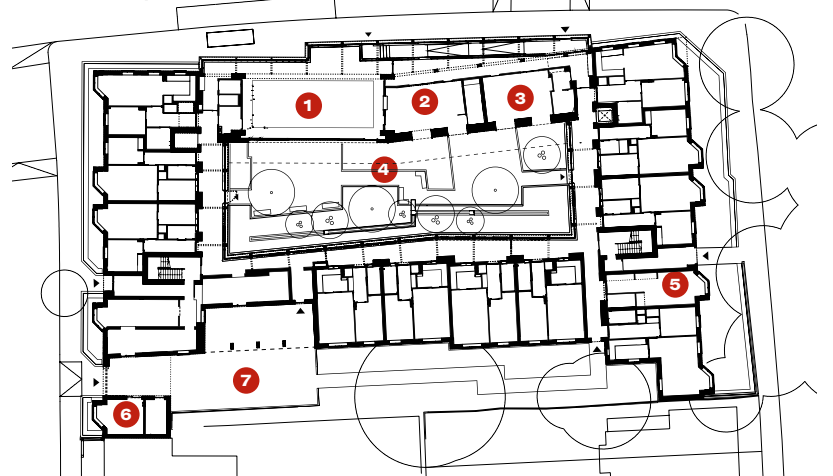
The project took almost 10 years to complete, during which time standards changed, fire regulations changed, the developer changed, there was consultant turnover and we had four project architects. Despite the bumps in the road the scheme kept its shape, probably because we and USSC managed to stay in tune with each other. It was a lengthy gestation with complexity layered onto it, but that's something we are wearily used to in the kind of projects we do.

What techniques did Witherford Watson Mann use to develop the design?

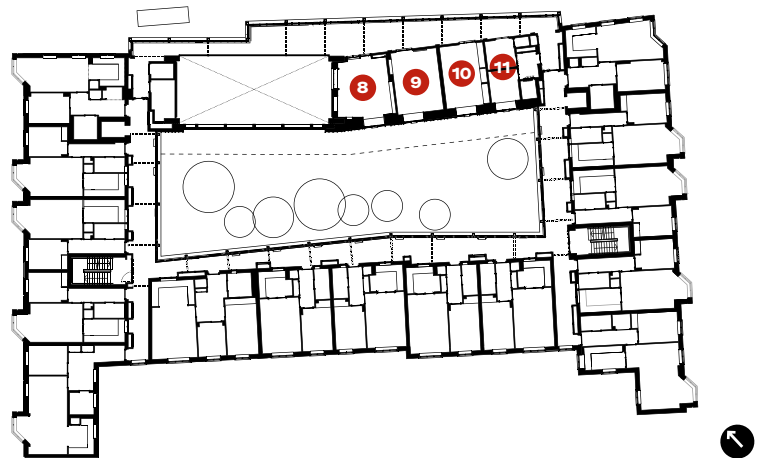
We used physical models to explore structure, volume and articulation, but it was a huge number of perspective views that helped us test things at the scale of the body, thinking about openness, intimacy, and people's experiences. Some were eyeballed, others traced over digital models. It's about imagining yourself in the space. All the little sketchy figures in our drawings are us, asking, "Where do I sit? What do I see?"

That helped us create the conditions for some great unpredictable moments of contact. At close range the glazing has a beautiful quality, similar to Tony Fretton's Lisson Gallery, fostering a dialogue between inside and out – particularly with people getting the bus. Because the building is elevated a metre above street level, it creates a kind of privacy which means that interactions are deliberate; the bay window has become a popular spot to watch the world go by.

Ground floor plan



First floor plan




Who were your most important collaborators?

Social historian Ken Worpole took part in workshops and writing for us, and was really thoughtful and insightful. These collaborations are part of how we work: we know what we can bring, but also where we need help.

Photographer Philipp Ebeling took portraits of older people living locally and in almshouses. His great skill is engaging with people, and he came back with real, grounded insights. Some collaborators can tease open enriching conversations, whereas if we ask too many questions people get unnerved – perhaps because they look to us for answers. (We do still ask a lot of questions).

What do you consider to be the project's success?

One of the most rewarding aspects has been watching USSC's team nurture the community. It's been inspiring to see our early ideas about shared spaces, multigenerational life and mitigating loneliness become real. That feels both validating and surprising. They run baby and toddler sessions in the garden room, they've had art classes from the local school, there are shared meals and dance classes, where people on passing buses mime like they're joining in.

The garden by Grant Associates has also evolved: a shady area below, a vegetable garden above, where residents sunbathe, and even some guerilla planting. You can't always predict how people will use space, and that's the beauty of it.

Martyn Craddock talks about creating social housing for older people that's aspirational in the same way as market housing. That's powerful because building housing is not just about numbers; doing it well is fundamental to our wellbeing, individually and as a society. ●

Top left A first-floor walkway makes a place to congregate.

Left On top of the two-storey wing dividing the courtyards, a roof terrace is used by both gardeners and sunbathers.

Credits

Contractor JTRE London
Structural engineers Price & Myers, Pringuer James Consulting Engineers
M&E engineers Skelly & Couch, AWA Consultants
Fire consultant The Fire Surgery
Principal designer Bespoke Safety Solutions

Planning consultant DP9

Quantity surveyor Thompson Cole

Landscape architect Grant Associates

Social historian Ken Worpole

Facade and acoustic consultant Ramboll



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Standing proud

Project partner Andrew Dobson and associate Matthew Wittrick recount Purcell's masterful conservation of the Elizabeth Tower

Photographs: House of Commons

Purcell's restoration of the Grade I-listed Elizabeth Tower – home of Big Ben – is the first conservation project to be shortlisted for the Stirling Prize. As part of the Palace of Westminster, it faced the added challenges of a sensitive and high-profile context, quite apart from the technical complexities of the conservation itself.

Completed in 1859, the tower was designed as part of Charles Barry and AWN Pugin's rebuilding of the Houses of Parliament. Successive repairs had left their mark, for better or worse, before Purcell took on the most comprehensive renovation in its history. Informed by extensive research, the renewal tackled everything from condensation and leaks to gilding, stonework and the clock. It was also an opportunity to make careful new interventions, such as lift access. Fuelled by a healthy balance of vision and pragmatism, the 10-year project is a tour de force of coordination and craftsmanship.

How did the project get started?

We'd been on parliamentary design frameworks for over 20 years, and did an internal tender. We began with a feasibility study, scoping a range of options, and the one selected was major refurbishment.

The tower was in a fair condition overall, but when you looked in detail there were some troubling elements. One was water ingress in the belfry above the clock. Another was condensation resulting from

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Right Now shining brighter: sun reflects off gilding on the clock face and roof.





the perspiration of tour groups climbing its 334 steps. Stonework in general was an urgent concern, given that some had fallen elsewhere in the Palace.

What ideas informed your work?

We have extensive experience across the Palace, so where materiality was similar we worked from what we had already tested. We have been refurbishing the cast iron roofs for over 15 years, which brought some efficiencies to this project.

For everything we changed, our strategy was informed by research into what it was like originally. That revealed what was important and had been lost, such as the view of Big Ben at the top of the stairs that was blocked by a brick enclosure in the 1950s. We were able to replace that with a glazed one to revive the original intent. Conservation philosophy has developed over the past 35 years, and there's now a broad consensus behind using historic research to guide creativity, not constrain it.

Other repairs recreate the tower's original condition. When the scaffold was erected, we discovered from paint analysis that the colour scheme had subtly changed every 30 years or so, ending up with a black clockface in the 1930s. We reinstated the original Prussian Blue colour to the dials. And during the works we found photographs of a 1950s refurbishment which showed the cast iron tile at the top of the roof with specks of gold on it. Looking at Victorian photographs we found that it was originally gilded. We reintroduced this on all four sides, so the sun reflects off the tower like a beacon. That was a really satisfying moment.



Above Back in time: Prussian Blue paint is reinstated on the clock face dials. The original colour was identified from a watercolour in the RIBA Collections.

Can you outline the design process?

With any conservation project, we first look at the history of the building. We did lots of documentary research, working with parliamentary estates historian Dr Mark Collins and principal architect Adam Watrobski, and reviewing the original design and earlier alterations. These didn't always follow what now constitutes conservation best practice.

That involved looking through thousands of photographs and drawings, and speaking to lots of people who'd been involved in previous projects. With that knowledge we developed a repair strategy prioritising safety-critical items and longevity.

We essentially divided the project into distinct conservation elements, all delivered by specialist craftspeople. These included: the cast iron roof, including the lantern-like Ayrton Light, which shines when either House is sitting after dark; the internal lime plaster and paint systems; the stonework; and the clock, face and dials.

Below A glazed stair enclosure restores a lost view of Big Ben, the star of the show.



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Buildings

Stirling Prize shortlist

What contemporary alterations were needed?

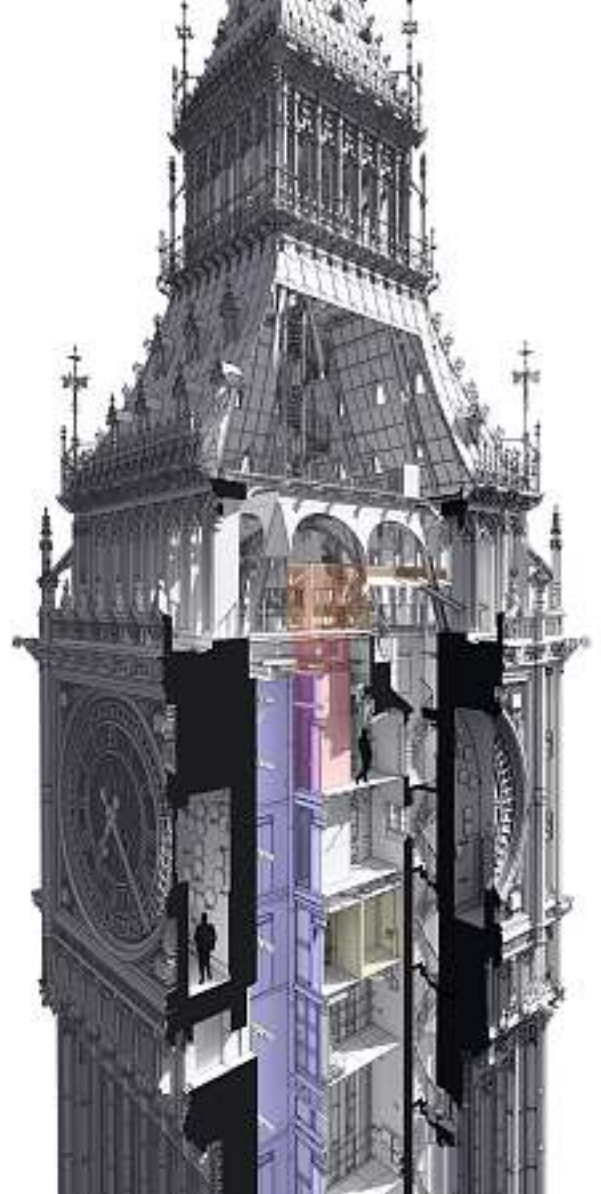
New interventions included completely reservicing the tower, including LED clock dial lighting, and the integration of a lift. Previously the only route up the tower was the spiral stone staircase.

It wasn't possible to take a conventional passenger lift all the way up because of structural constraints, so we added one with bespoke chamfered corners up to the clock mechanism room, and put a smaller platform lift within an existing vent shaft for the last storey and a half. Although this makes access to the tower much better, it can't be fully accessible because there's only one lift. People would still have to evacuate down the stairs if it was to break down.



Credits

Contractor
Sir Robert McAlpine
Architect, lead designer, principal designer
Purcell
Building control
SOCOTEC
CDM advisor
AtkinsRéalis
Cost manager
Currie & Brown
Fire assurance
Falck
Fire engineer
Buro Happold
Fire assessor
Ashton Fire
M&E engineer
SI Sealy
NEC supervisor
Purcell with Buro Happold and Alan Baxter
Project manager
Lendlease
Structural engineer
AECOM



What were the greatest challenges?

Access: as the 12m by 12m, 100m-tall tower is on one of the major thoroughfares through the parliamentary estate, it was difficult to get people in and out without disruption. It's one of the reasons, along with Covid, why the programme was longer than usual for a conservation project.

Once on site, we found more repairs were needed than had been agreed. That increased the cost, but we delivered the project within the increased budget with a lot of attention to cost control. We had to make calls on what to leave out, like architectural lighting in the belfry. The star of the show is Big Ben and the clock – it just needs looking after for the long term, and that's where our focus lay.

Who were your most important collaborators?

The client team was incredibly understanding of the challenges. They fostered a strong ethic of teamwork and craftsmanship. A key benefit of working for Parliament is the in-house expertise, including their architecture and conservation team, who reviewed our work and were instrumental in demonstrating the need for full refurbishment.

Above right A BIM model was a vital tool in the project which included the numbering, removal, restoration and replacement of all cast iron roof tiles.

Left Paint systems are breathable and compatible with the lime plaster used originally and for repairs, and are in original colours.

One of the real benefits of co-locating the project team was that there was no distance between the architect, designers, contractors, project managers, the QS and the client. We always knew what they wanted, and had open daily discussions to resolve problems collectively.

There was a mixed procurement approach, with direct appointments for different consultants on parliamentary frameworks, and various other specialists who we introduced as our sub-consultants. An awful lot of specialist skills were required, and few people have them. But we worked with the best people, including some who had worked on the Palace for many years.

What is the project's greatest success?

The most important is that we solved all of the problems we set out to solve. Two things made the project possible: teamwork and craftsmanship. Everyone was committed to doing the job really well, which reduced the pressure and made the long project a joyful journey.

Another success was our use of BIM. It was the first Level 2 BIM project on the estate, and a huge help in scheduling repairs. We've given the client a model detailing everything from the petrology of the stones to all of the individual cast iron components, which come apart like Meccano. In 50 years that



Above Clockwork on display. The project improves access to the tower, and the visitor experience.

wealth of information can be retrieved to plan the next renovation.

We all enjoyed working together on a real once-in-a-lifetime project. One big difference with other schemes is how visible it is to the public. We continually had tourists looking at and commenting on what we were doing. That added a kind of complexity we weren't used to dealing with, but we've not heard anything negative. The public's love for the building has increased, and that's a really special thing.

As a conservation architect, you never think that such a project might be shortlisted for the Stirling Prize. It's a huge honour and a good day for conservation – a sign that it has moved into mainstream architectural thought. ●



Left Carving Cadeby magnesian limestone, chosen to closely match the original Anston stone. Around 1,000 pieces have been replaced.

Right Clock faces feature hand-blown glass – the only specialist craft skill sourced from outside the UK.





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Easing the strain

Many people find offices bad for productivity, and creating sustainable, healthy new spaces that appeal to employees used to working from home is a challenge for architects. A RIBA Spec webinar sought solutions

Rising rents in London's West End – up 14 per cent over the last year – show a strong desire among the city's workforce to 'Go West' as the famous song puts it, believes Jan-Carlos Kucharek. According to Cushman and Wakefield's London Moves analysis, central London saw strong rental prospects and lower vacancy rates compared with non-central locations last year. This has tightened competition for space and driven rents upwards, with the West End averaging more than £1,700 per m².

It's clear the capital's workers still seek the "holistic experience of the living, thriving city", despite home or hybrid working becoming common. To encourage office attendance, and avoid predictions of a hollowed-out CBD at the heart of cities, the British Council for Offices (BCO) – in its post-Covid research report *Towards Experience Utopia* – advises designers to treat office staff like customers to be "acquired and retained".

So how is this achieved? Working from home has many benefits, including the comforts of peace and quiet, reduced anxiety and increased productivity. Effective modular partitioning screens, which can be configured to different workstation setups, are one simple method. They contribute to an attractive office environment for staff acclimatised to the privacy of home. At Egypt Post's New Cairo office base, manufacturer Gemino System implemented a six-



'Statistics on workplace conditions aren't abstract numbers – they're your team's daily experience'

Above One Centenary Way required a steel transfer structure to enable it to be constructed above Birmingham's A38 tunnel.

Below The Howells project utilises 97 per cent recycled steel – and the structure is also demountable.



phase process, spanning concept, design, and post-installation care. Its system integrates acoustic control, smart tech, and reconfigurable workstation layouts. With seamless detailing (profiles recessed into floor, wall and ceiling), the "most clean design possible" was achieved. As Tomas Caloprisco, head of general operations for Gemino System, stressed, spaces "change continuously and very fast", and workplaces must adapt.

Adjacent to privacy is of course acoustic comfort. As Ben Hancock, Oscar Acoustics' managing director, explained, acoustic insulation is key to a healthy and happy working environment. In a 2025 white paper, the company asked 2,000 workers across the UK about workplace conditions – with sobering results. Seven per cent said their workplace was damaging their hearing, 47 per cent struggle to concentrate, 36 per cent feel irritated, 30 per cent feel stressed, and 81 per cent said noise affects performance. "These aren't abstract statistics," said Hancock. "They're your team's daily experience." The stats provide a wake-up call for employers wanting to encourage office attendance, and to promote collaborative, sociable, productive workspaces that meet both neurodiverse and neurotypical employees' needs.

In terms of how architects have solved the challenges of creating these attractive, sustainable and healthy new office environments, examples are not

limited to the capital. One Centenary Way, the first building in phase two of Birmingham's Paradise masterplan, is the epitome of flexible problem solving. These offices are part of the regeneration of Birmingham's severed city core, on a site shaped by 1960s concrete buildings, highways and the A38 tunnel running below. Shauna Bradley, partner at Howells, explained how the building has just 200mm to 300mm clearance above this tunnel in some places. The project faced huge structural constraints, which led to a decision to utilise an exoskeleton structure, aligned along a supersize 12m x 12m grid, and transfer trusses. Unusually, there was at the time no tenant for the building and, Bradley said, "we didn't even know how tall it needed to be", so the grid/exoskeleton "started to dictate the architecture". To emphasise the large 3m spans of the grid, and to avoid the "tyranny of 1,500mm window modules", these commercially viable units were rotated 90 degrees and demarcated by extruded fins.

Challenges like delivering the 38m x 5m, 200t trusses from BHC in Scotland required innovative solutions, such that "the story kept evolving". Designed as a "naked, honest" building, its visible steel structure also tells a sustainable story: to mitigate issues, rolled sections and up to 97 per cent recycled steel were used – and the structure is also demountable.

HUFTON + CROW



Altogether 5,173t CO₂e was removed from the fabrication process. The building is crowned by a colour-changing light box; at the base, an inviting reception space breaks the corporate mould, in keeping with the masterplan's people-first urbanisation strategy.

Meanwhile, in Milton Keynes, Santander's new main office, Unity Place by LOM Architects, consolidates four buildings into one efficient 44,000m² campus. "It goes beyond being just a building" for Santander, a major regional employer, said director Ben Taylor. Rather, it is an ecosystem for the bank (whose ESG ethos it seeks to represent) and the wider community, including retail, a co-working hub, a 300-seat auditorium and a public food market. The design balances access and transparency with secure banking operations.

The building features flexible floorplates, extensive natural light via the atria, an environmental wrap facade for solar control, and smart systems, and is all-electric. It is built with a post-tensioned concrete structure, exceeds LETI 2030 embodied carbon targets and achieves BREEAM Excellent. The offices offer flexible work settings and community-focused facilities, and are open at weekends, all in support of a modern, adaptive workplace model for banking and beyond. "We wanted to draw on some of the modernist context of Milton Keynes," known for its boulevards and tree-planting arrangements, said Taylor. Views from the terraces capitalise on this greenery to dramatic effect.

Back to London, with an equally dramatic project, Sam Scott, AHMM associate director, drew on experiences from Tower Hamlets Town Hall, a conversion of the disused Grade II-listed Royal London Hospital building, Whitechapel, into consolidated council office space for the London borough. The project represented a relevant, contextual and sustainable 21st-century expansion to a 1759 Georgian building, which had undergone notable changes during the

Left LOM Architects consolidates four of Santander's buildings into one at Unity Place.

Above right Old dramatically meets new at AHMM's Tower Hamlets Town Hall.



TIMOTHY SOAR

Victorian and Edwardian periods such as an 1890s portico, Arts and Crafts-era operating theatres, nurses' housing and a chapel dating from 1906. The upgraded building accommodates 2,400 staff in an open-plan setting, council chambers and public event spaces. A six-storey extension integrates the Georgian formal facades into the interior, and public realm improvements engage the public at street level: a work of extreme complexity.

Finally, what of staff in architecture practices? According to AEC lead Joe Emanuele, LOM Architects and Santander have utilised CMap project management tools in their construction ventures, which offer strategies for budgeting, risk assessment, resource planning and cash flow management. When these vital business operations run smoothly under the bonnet, architects are freed up to do what they do best – designing buildings which perform for clients and occupants alike. ●



Step change

For a multi-level extension to a hillside Victorian home, Hugh Strange Architects approached the project with an attitude of repair, a careful eye on circularity and a readiness to rethink relationships

Photographs: Rory Gaylor

On a Hastings hillside, Hugh Strange Architects' extension to a detached Victorian home cascades its way up a steep and complex site. Three new timber-framed structures trace the existing concrete terraced garden, rising to a pergola with views of the coastal town and sea beyond.

The client, a property developer, had wanted to move closer to his family and appointed the practice in 2021 during the home purchase. The house had been made dark and disconnected by a shoddy 1980s rear extension, and the stepped garden was precarious and scattered with ramshackle structures. Before building, these additions had to be demolished and the landscape painstakingly repaired.

Now the project is complete, the original kitchen and dining room have been connected and open up into a new gallery space, lined with large glazed sliding doors and facing a raised yard. To the north, the gallery steps up to a garden room and, via a new external galvanised steel staircase, to an office on the lower terrace. Routes have been created and revived which intuitively thread across the site and pass a patchwork of interventions blurring old and new, inside and outside.

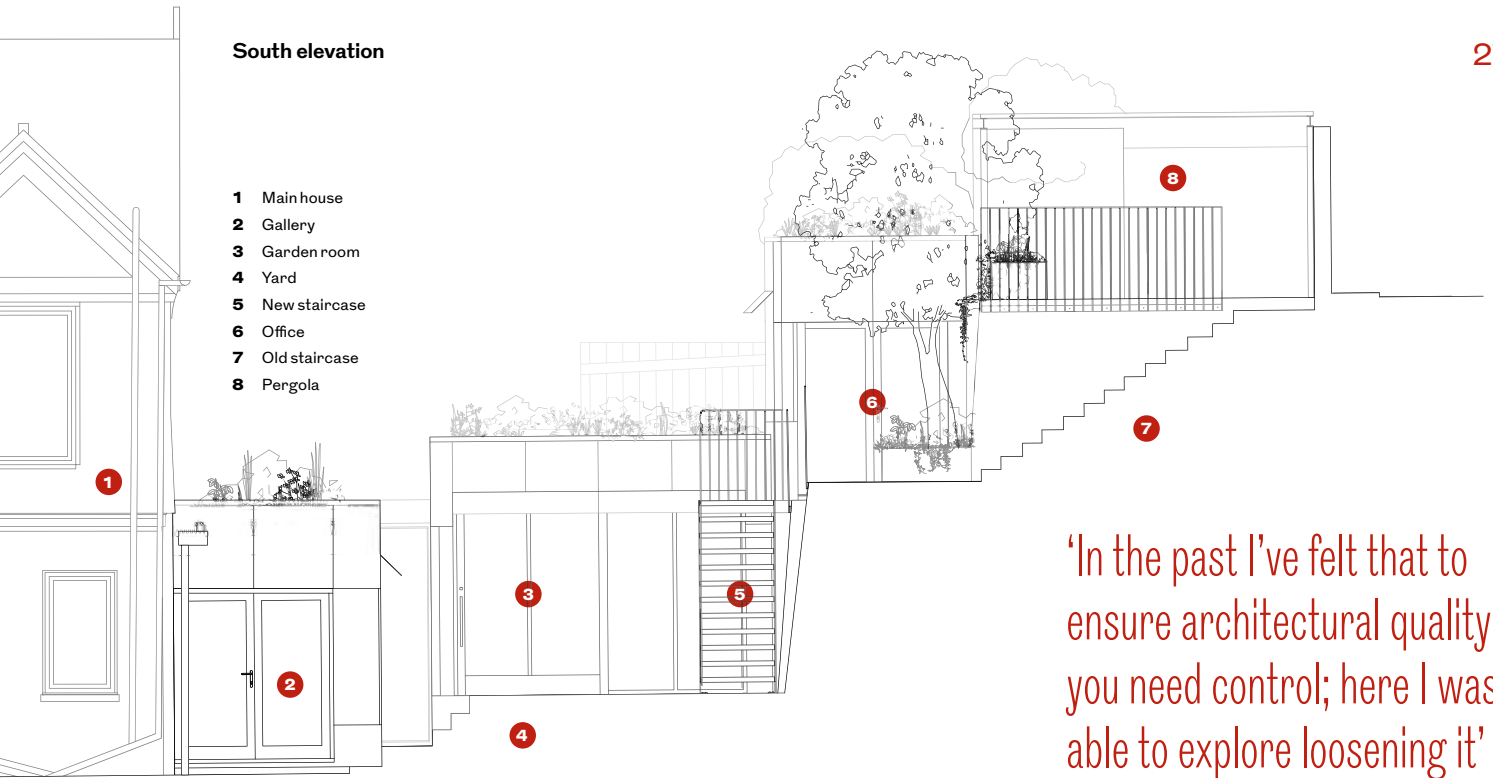
Interiors are light-filled and beautifully framed by the exposed laminated veneer lumber (LVL) structure and detailed joinery. New rooms are topped with galvanised steel cladding which softly mottles with the passing clouds and visually links with the new metal staircase, pergola and circular anchor caps in the concrete tiers.

The end result is elegant, flowing and underpinned by a methodology of mending and precision, and the practice's contextual approach to materials and construction.

Below New rooms ascend the steep terraced site.



South elevation



- 1 Main house
- 2 Gallery
- 3 Garden room
- 4 Yard
- 5 New staircase
- 6 Office
- 7 Old staircase
- 8 Pergola

'In the past I've felt that to ensure architectural quality you need control; here I was able to explore loosening it'

Can you explain your design approach?

Early on in the process, we became aware of the site's poor structural condition and knew we had to make good the ground before building. The client, structural engineer and I all agreed that it would be too environmentally and financially costly to completely flatten and rebuild the terraces. In some ways, it would have been simpler to knock it all down and cast new concrete, but we decided to embrace the existing levels and routes.

Our approach was to stitch the hillside back into a usable form, responding in a very specific and contingent manner. I sometimes compare it to darning – it would have been easy to throw this pair of socks away, but instead we've carefully repaired through anchoring, underpinning and patch repairs.

Did the design develop during the construction process?

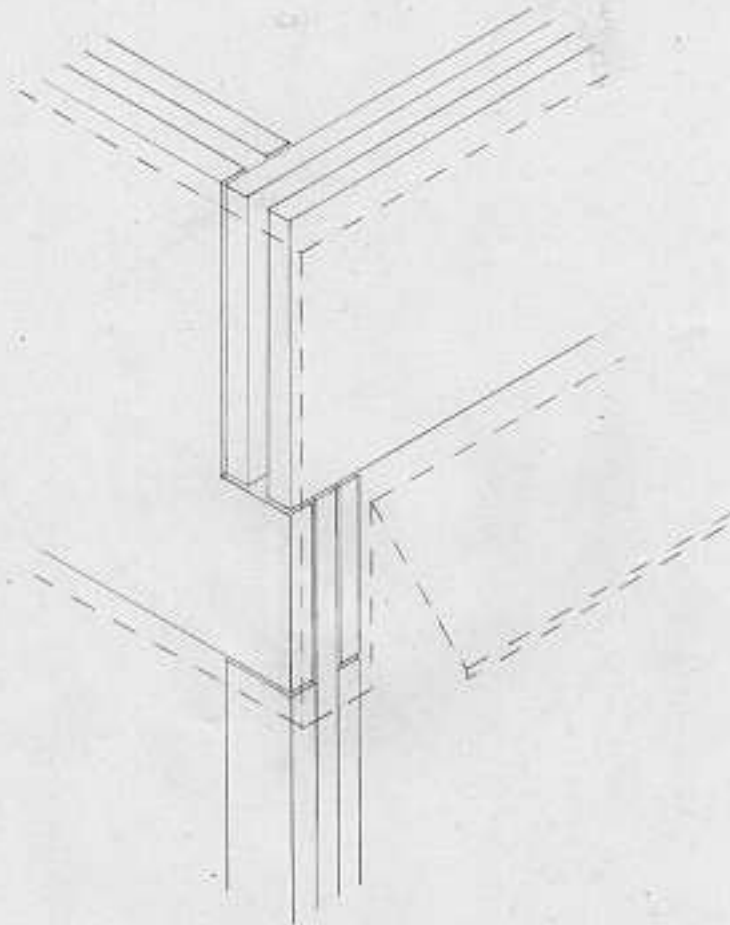
To some extent: you always need to plan things out ahead of time in British construction, but we do enjoy the parts which aren't mapped out and where you can respond to the site and learn from the builders.

Unusually, the client didn't employ a single main contractor but managed things himself, and employed some general builders and a series of subcontractors. This loosened up the process a bit, allowing for multiple tenders and more time for us to develop ideas as we went along. Normally we do 90 per cent computer drawings and 10 per cent hand-drawn site drawings. But here a much larger percentage of drawings happened in a fluid way on site.

Timber structures are topped with galvanised steel hoods and green roofs.



Below Drawing of the LVL structure's 'traditional' detailing.
Right Three types of wood create warm, tactile interiors.



Buildings Stirling Prize shortlist



How was the timber frame devised?

The timber frame is made of LVL, which is more efficient than traditional timber and means you can have thinner timbers or longer spans – hence the frame's lightness and delicacy.

We worked with a specialist subcontractor, but their way of detailing felt troublesome to me. In their proposals, the timbers didn't touch one another and used lots of metal nails and fixing plates. I like the legibility of support and its history of being given meaning in architecture. But also, in terms of reuse and circularity, if someone wanted to reconfigure a heavily nailed structure in the future, how on earth would they do it? So we pushed back and said we wanted to detail the new material in a more traditional way through transfer of load – where a post supports a beam and that beam is notched to support another beam.

What was the greatest challenge?

The LVL subcontractor confessed they were too busy to install the timber frame for nearly five months – which could well have scuppered the entire project. However, the client had the confidence to build the timber frame himself with general builders and even a little help from the project architect. This was partly possible because we had already substituted the nailed connection plates for simple bolted joints. It was enormously important regarding the client's personal investment in the project. He can stand back and say: "I lifted these beams."

HUGH STRANGE (2)

Model of the new structures and routes traversing concrete tiers.

A fresh start for washrooms

With many employers prioritising improvements to washroom facilities as they seek to lure workers back into offices, the launch of Polyrey's new range – which blends design appeal with high performance – is perfectly timed



Polyrey, a brand of Wilsonart – the market leader in decorative surfaces – is excited to launch its new cubicle and washroom range for 2025. Investment in the enhanced range follows quality washroom spaces' emergence as a priority in commercial design, as employers look to improve workplace environments and entice staff back to their offices.

The company's new collection brings together high-performance materials, expanded colour options, and the latest innovative surface technology. At its core is Reysipur Compact Grade, a dense, waterproof laminate suitable for all applications in humid, high-traffic environments. These designs coordinate



seamlessly with the brand's HPL, a hard-wearing high-pressure laminate solution for heavy-duty washroom applications, and Panoprey, a cost-effective melamine-faced board option for dry areas.

With 18 new decors bringing the total to 55 overall, including warm woods, bold colours and playful Signature Library designs, architects can specify with confidence across an array of A&D-focused sectors including commercial, hospitality, education, healthcare and retail. A key feature of this anticipated launch is the integration of TOUCH, Wilsonart's ultra-matt, anti-fingerprint finish, now available in large-format sheets; it ensures an impeccable finish for even the most demanding projects.

Polyrey's newest digital print technology enhances the range by bringing imagination to life with a collection of playful prints, designed to inspire and engage. Ideal for child-focused environments, these designs meet the creative and functional needs of architects and specifiers alike, combining visual charm with practical performance. Whether for schools, hospitals, or public spaces, this range offers a fresh, durable solution that supports joyful, child-friendly design.

All panels in the range feature built-in antibacterial protection certified to JIS Z 2801 (equivalent to ISO 22196), with silver ion technology embedded during manufacturing to actively reduce contaminant presence and ensure a more hygienic environment. Reysipur Compact Grade panels are also certified as hypoallergenic by the European Centre for Allergy Research Foundation, helping facilitate healthier indoor environments.

Bolstered by Polyrey's market-leading support network and specification expertise, the new range provides architects with visually appealing solutions that meet the highest performance standards. ●

Above
DR1A - Dream Unicorn,
DR2A - Dream
Construction,
C018 - Chardon - FA,
H035 - Hacienda - FA,
B015 - Blanc Menuires
- FA

Left
N005 - Noir - Touch,
C202 - Chêne Zermatt
- FA



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BUILD ON-SITE

FLAT PACK

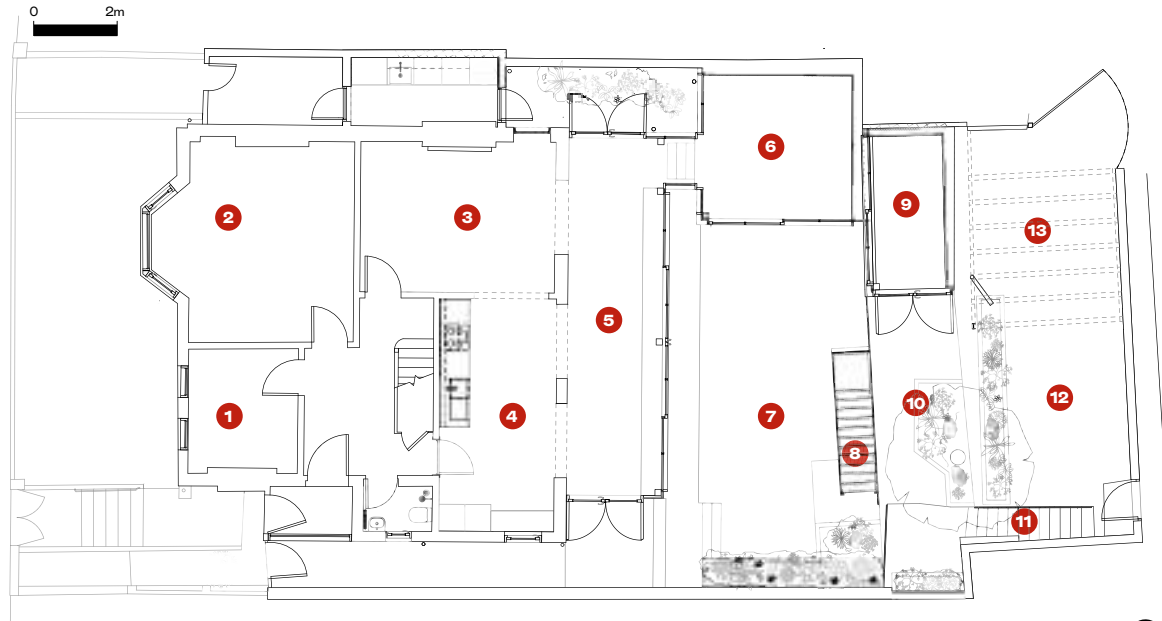
COMMERCIAL MVHR UNITS ASSEMBLED ON-SITE

*BlauBuild RV 1200HE successfully installed within the Royal Albert Hall



V E N T I L A T I O N





Ground floor plan

IN NUMBERS

Confidential
contract value

209m²
GIA

- 1 Music room
- 2 Living room
- 3 Dining room
- 4 Kitchen
- 5 Gallery
- 6 Garden room
- 7 Yard
- 8 New staircase
- 9 Office
- 10 Lower terrace
- 11 Old staircase
- 12 Upper terrace
- 13 Pergola



How did this project differ from your typical architect-client relationship?

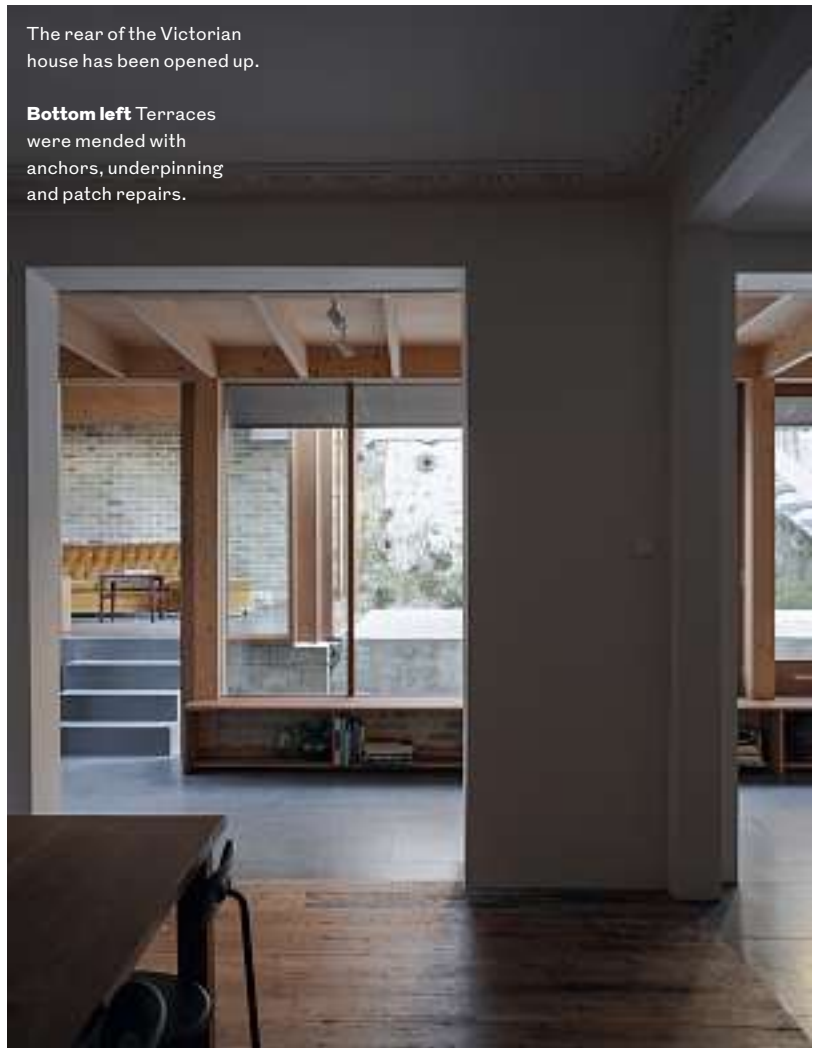
There's this tendency – and I'm half quoting writer Colin Ward on Walter Segal here – for the architect, client and builder to sit in three corners of a triangle. I've always found that separation to be frustrating, and have been interested in the social, cultural, architectural and economic benefits of challenging it.

This project was unusual because the client, as well as being project manager and sometime builder, was also part designer. We had a full appointment for the new rear works and the transformative aspects of the main house – the kitchen, bathrooms and so on. But the client, a developer by trade, led on the other parts of the house.

In the past I've had a sense, which is probably commonly shared, that to ensure architectural quality you have to have control. And this project was fascinating because I was able to explore loosening that control.

The rear of the Victorian house has been opened up.

Bottom left Terraces were mended with anchors, underpinning and patch repairs.



HUGH STRANGE



Tell us about your approach to materials

Timber is the starting point for all our projects because of the environmental benefits. Then we consider to what extent it's relevant. For Hastings House, it was the right approach as we had to tread lightly on the terraces. Structures are made of LVL, windows and doors of Red Grandis, and built-in furniture of cherry. I think the internal environment all the timber creates is fantastic.

Concrete and galvanised steel were the two secondary materials. I was really keen to retain a limited palette. There's a lot of variation in the context, which is a patchwork of repaired and old things, but the new additions have a consistent feel.

What other buildings influenced the project?

Nothing specific, but Alison and Peter Smithson's Upper Lawn Pavilion is an endlessly intriguing reference point for me. It has this confidence about taking a site, using it and completely reinventing it, while incorporating a precise idea of construction.

Which aspects are the most successful?

The hillside repair and construction of the timber frame. They posit how we as a society might build in the 21st century: by approaching situations with an attitude of repair and adding to them in a way that recognises the logic of circularity and anticipates what may happen in 50 or 100 years. ●

Above A vista of existing conditions and new interventions from the gallery space.

Right The upper terrace has planting and a pergola.



- Credits
- Architect** Hugh Strange Architects
- Client/project manager** Simon Basey
- Structural engineer** Price & Myers
- Principal designer** Hugh Strange Architects
- Approved building inspector** Jhai
- Environmental / M&E engineer** Ritchie + Daffin



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A bright future for aluminium

Aluminium's many qualities have long made it a favourite among architects – and its green credentials look set to extend that run, a RIBA/Aluprof event on designing for sustainability heard

Architects have had an enduring love affair with aluminium. In the UK, the silvery metal has charmed practitioners from postwar modernists to high-tech pioneers such as Foster + Partners for its ability to deliver sleek forms, structural efficiency and timeless appeal.

It's not just icons like the Gherkin, its curved facade featuring an aluminium and glass diagrid structure, where the material has made its mark. Aluminium rainscreen cladding systems and unitised facades are common in flats, office blocks, schools, transport hubs and public buildings. More than 60 per cent of commercial windows and curtain walls are aluminium, according to the Council for Aluminium in Building.

But these days, of course, pressure is increasing for materials to demonstrate

carbon responsibility as well as performance. This was a timely subject for the first in a series of talks that aluminium products manufacturer Aluprof is hosting with RIBA.

In a breakfast event at the Design Centre in Islington in June, speakers addressed the issue, armed with an array of information on aluminium recycling and carbon footprints alongside case studies where aluminium components formed part of holistic sustainability strategies, including the UK's largest Passivhaus student accommodation.

"Aluminium is becoming the background material of our cities," noted Michael Stacey, an architect and academic who has helped pioneer sustainable uses of aluminium in building envelopes, structures and prefabricated systems. He also wrote *Aluminium: A Studio Design Guide*, which has become the definitive manual on the subject for architects.

Stacey delivered a passionate advocacy of aluminium as a sustainable construction cornerstone. "Aluminium has always been part of a circular economy," he said. "There's evidence it's been recycled since the 1950s. We all add value – whether you're a miner or an architect – but the crucial phase is stewardship. That's the responsibility of owners and managers to maintain, reuse or recycle the built environment."

Stacey described aluminium as highly adaptable: able to be extruded, cast, rolled, laser-cut, or even 3D printed. "That's the tip of the iceberg," he said. "It's for you to design with."

Architects everywhere have met the challenge. From research facilities like the Large Hadron Collider at CERN on the French-Swiss border, to Peter Barber's affordable homes in Greenwich and such celebrated architecture as the Lord's Cricket Ground Media Centre, aluminium has proven its range.

Its sustainability credentials are also compelling. Recycled aluminium uses 5 per cent of the energy of primary production and can be recycled infinitely. Stacey drew attention to its compatibility with closed-loop systems in the UK and Germany, and highlighted the environmental efficiency of finishes such as super-durable powder coatings, which can last over 40 years with minimal impact. "A 60-micron polyester powder coating adds just 0.25kg of CO₂ – that's a remarkably low cost for such long-lasting protection," he said.

"This is the future we need," Stacey concluded. "Aluminium is of vital importance to the construction of contemporary cities – and its durability is key to delivering net zero."

Emma Holt, director at Ben Adams Architects, gave a presentation on Graphite Square, a mixed-use scheme

This page Completing this year, Graphite Square by Ben Adams Architects is a mixed-use scheme in Vauxhall, with facades that mix sustainability and contextual sensitivity.



in Vauxhall, London, emphasising its sustainable ethos and sensitivity to context. It includes 160 homes, 35 per cent of which are affordable, flexible workspace and 1,800m² of new public realm designed to reconnect previously inaccessible land via linked pedestrian routes and landscaped courtyards.

Holt described how the design draws on the site's industrial past, referencing warehouse buildings, sawtooth roofs and Crittall-style windows, to inform architectural form and material choices. A robust brick palette evokes the area's masonry traditions, while metal detailing and a contemporary glazing strategy echo its historic character.

A key sustainability feature is the use of a lightweight brick slip system, which reduces structural demand, shortens build time and minimises material use. "It has a reduced amount of materials, because you're using 50 per cent of the brick, cutting it in half. Disassembly is also easier to achieve," Holt explained. The system helps maximise net internal area and simplifies future adaptation.

The residential components are naturally ventilated, with most units dual aspect, and are designed with fully opening windows and winter gardens to enhance passive cooling. Roofs across the scheme support multiple sustainable functions: PV panels, green roofs for biodiversity, blue roofs for attenuation and rooflights that maximise daylight while reducing glare. The podium roof provides outdoor space, including biodiverse planting and play areas.

'Windows have a central role'

Tomasz Jemiol, associate architect at Stride Treglown, presented on Purdown View, a Passivhaus student accommodation development at the University of the West of England (UWE), currently the UK's largest certified scheme, with 900 beds and associated communal and study areas. UWE was committed to sustainability and determined early on that Passivhaus was the best route to net zero, he said.

Key performance figures include a heating demand of around 13kWh/m²/year (below the 15kWh threshold), and a



Primary Energy Renewable (PER) value of around 79. Roof photovoltaics provide 20 per cent of the building's energy; full operational net zero would have required 8,000m² of PVs. Airtightness is strong, and the EUI is around 62kWh/m²/year, well within the UK Net Zero standard of 75. The development will become net-zero once the grid is decarbonised.

Window performance was central, he said. "The window has to do so much – balance overheating, solar gains, ventilation and daylight and provide a good view – but must also be easy to put together." Proportion and buildability were key to achieving both Passivhaus standards and architectural expression.

The approach was a huge learning curve for the contractor, which had no Passivhaus experience at appointment stage, Jemiol admitted, and was similarly challenging for subcontractors. "Quality assurance is vital in Passivhaus, because you not only design it to work, but also provide evidence to certify it works."



Some M&E subcontractors "didn't grasp this, and we did have a few teething issues", Jemiol continued. "It's vital the main contractor ensures subcontractors are trained to work to Passivhaus disciplines – and I think since the UWE project, the industry has developed massively."

Despite those early supply chain issues, Jemiol is convinced of the system's value. "With such a dense occupation and a large scale, I think it's the way to go. There's always a lot of concern about cost – I think in simple terms, bigger is easier." When it comes to net zero, he is blunt: "For large student accommodation like this, Passivhaus is a total no-brainer."

'The future is about real carbon cuts'

Aluminium systems giant Aluprof is leading the charge on cutting embodied carbon without relying on offsets, according to James White, the firm's London and South East project consultant. He set out Aluprof's "holistic strategy for real carbon reduction", built on control of every stage of production.

"We don't just source aluminium; we melt, extrude, finish and deliver it," he said. "That vertical integration means we reduce emissions linked to transport and outsourcing, and ensure accountability on recycled content."

Aluprof uses billets with up to 85 per cent post-consumer recycled aluminium, cutting carbon to as low as 1.2kg of carbon dioxide per kg, far below industry averages, he revealed.

With demand for aluminium expected to rise 50 per cent by 2050, White is convinced that "offsetting isn't enough – the future is about real, verifiable carbon cuts, and aluminium can be a part of that solution." ●

This page Bristol's Purdown View, by Stride Treglown, is the UK's largest certified Passivhaus scheme.



Let's Build a Better Future – aluprof.co.uk

Different cloth

The new London College of Fashion is the largest such facility in the world. Allies and Morrison's Alex Wraight discusses making a 'statement of confidence' as education faces huge pressures

CHRIS BEARMAN, ALLIES AND MORRISON





IN NUMBERS

38,144m²
GIFA

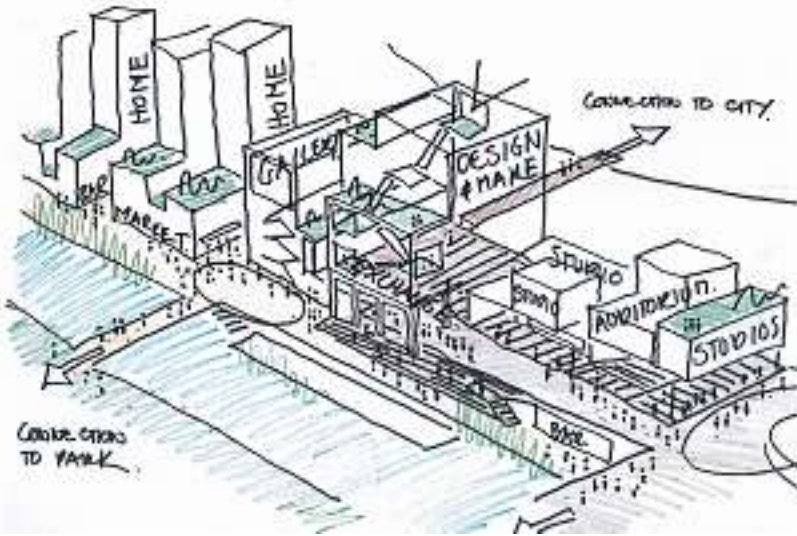
41,439m²
GEFA

Confidential
contract value

Shaping a cultural quarter for London, in a fragile era for arts and education, is a responsibility. In 2015, following an international competition, a team led by Allies and Morrison – a practice with over a decade in Olympics planning behind it – was appointed to masterplan Stratford Waterfront. The firm also took on the design of the London College of Fashion (LCF) for the site, which today forms part of the ‘East Bank’ cultural cluster that includes its own BBC Music Studios, and V&A East and Sadler’s Wells East, both by O’Donnell + Tuomey. Standing 17 storeys tall, with an internal area greater than those three buildings put together, this ‘factory for fashion’ symbolises the transformation of an industrial hinterland into an authentic piece of city.

The London College of Fashion is a hugely important investment for its clients: the London Legacy Development Corporation and the University of the Arts London. The largest centre for fashion education in the world, it is a statement of consolidation and expansion, bringing more than 5,000 students and faculty to the immediate area, and broadcasting international ambitions. It is also a profound moment for the college’s schools, extracted from historic homes across London to a single site designed to cater to their evolving needs for the next century or more. That focus on longevity contributes to the building’s BREEAM Outstanding rating, and offers hope for cultural production in the UK.

East Bank, with the London College of Fashion at its heart, has been key to realising the Olympic legacy and creating a successful new neighbourhood for London.



Faced with this tight wedge of land in 2015, what were your first thoughts?

From the off, we wanted to ensure all buildings had their own identity, but felt like part of one place – Stratford High Street had become an architectural zoo, and we didn't want to increase the noise. We held back the team and said: we're not going to fall in love with designs until we've established parameters. How much space is there, how much does each institution need, and how can we make the most of their relationships?

Initially, we riffed on the Economist Building, proposing a clustered 'brickopolis' unified by a single material, but as air pollution fell, and views across London cleared, heights proposed for the residential component became untenable. Sadiq Khan's election in 2016 offered a chance to step back, resulting in a far denser proposal: a terrace of cultural buildings with public realm running in front of, underneath and through, plus a shared material palette based around casting, referencing local industrial heritage without being too 'shiny'.

Did the site's constraints impact on designs?

It's a long, thin strip, running between railway and road to the north, and river to the south. With a brief about four times the site area, we knew all the buildings needed to be vertically configured to achieve both density and permeability. This became a virtue, enabling us to be super-efficient about land use, and to focus on the balance of scales between structures. The level change of about 6m to 8m also revealed opportunities, with servicing movements – and there are a lot for museums and symphony orchestras – on the roads below, which also provide bus routes, and access into and through buildings. Pedestrian movements and primary entrances are accommodated on the upper level, with a stepped landscape mediating between the park and the buildings.

Above An early Stratford Waterfront study exploring dual building orientations and incorporating connections to both park and city.

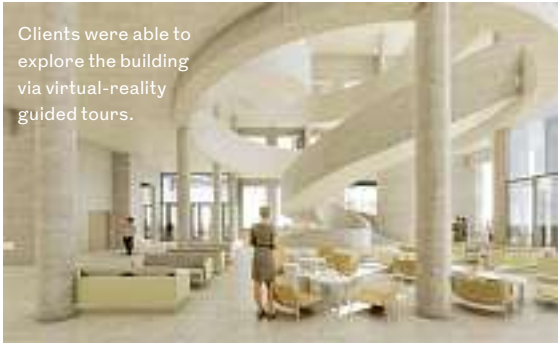
Below Staggered circulation adds complexity to a simple plan, while providing intuitive orientation.

How did LCF's form take shape?

We've worked on lots of speculative masterplans where end-users aren't involved, but here we were designing specific responses for specific briefs, working out buildings' technical requirements, and their interrelationships. It was an intensive process lasting about a year, with all teams refining the physical model, and and it necessitated an extensive BIM model of the entire site. That let us tour clients – some of whom hadn't procured before – round the projects in virtual reality, which was massively helpful. The other buildings each had one big space dictating their footprint, so for LCF we essentially had a 60m x 60m square left over. We understood how its schools occupied their previous locations, and their aspirations going forward, so developed an efficient diagram early on tackling natural light, soundproofing, specialist machinery, ventilation, floor heights, all those kinds of decisions. The budget wasn't too constraining – for the clients, this wasn't a moment to scrimp; they wanted to create a robust long-term asset, with flexibility to accommodate their evolving needs. That concern for durability included ambitious targets around sustainability, and embodied and operational carbon, which were incorporated into the brief.



Clients were able to explore the building via virtual-reality guided tours.



And were there any more experiential ambitions?

Cultivating the possibility of interaction in a natural way, as well as providing a sense of welcome and transparency, was key. So, to avoid confronting new students with some awe-inspiring void, every floor is different. The square structure at the centre of the plan – the ‘heart space’ – accommodates core functions and open-learning areas. It’s based on a simple rectilinear grid, but we played with the placement of voids and circulation, creating a feeling of motion and connection, while ensuring that, wherever you are, there are views through the studios and workshops wrapped around the perimeter, out to the landscape beyond.

Those perimeter rooms have deeper spans on the southwest and southeast, and shallower ones to the northwest and northeast, where reduced solar gain allows natural ventilation. Each one is adapted to individual needs, with an unbelievably long process involving end-users – librarians, technicians, students – resulting in a space plan for every room. Services run from the heart space, while a universal perimeter column and window detail allows lightweight partition walls at any three-metre location, providing acoustic and fire-rated enclosures. External windows are a modern

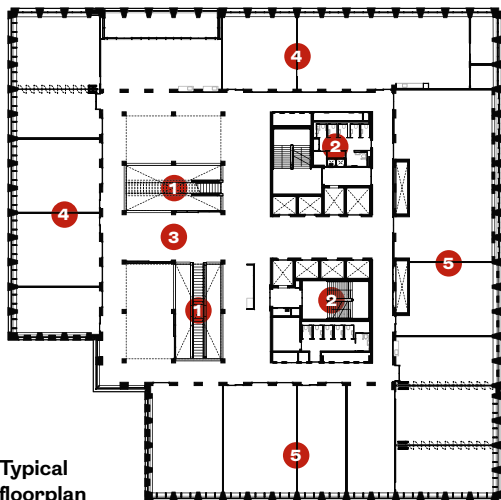


Above ‘Orange peel’ staircases in concrete signal public access at lower levels while creating catwalks for events and social media.

interpretation of traditional factory windows, optimising daylight but with enough depth to offer somewhere to sit; or to store stuff, dry it out or hold it up to the light. Eroding the perimeter in the west corner brings natural light (including great sunsets) to the middle of the footprint, while the associated setbacks give beautiful views from ironing boards, and create outside terraces for teaching and gardens.

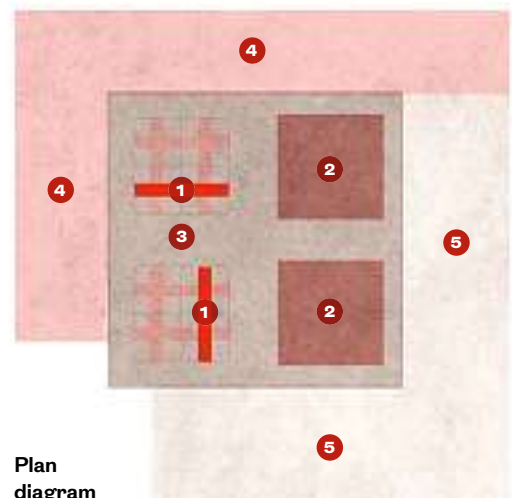
How did you arrive at the approach to materials?

It’s quite a gritty building – it will be used by 3,500 people or more every day, so we minimised fragile linings and finishes. Colour will be brought by students and their work rather than architecture, reducing carbon and generating a certain robustness. We proposed just three materials: the concrete structure with fair-faced walls and precast



Typical floorplan

Left and right Shifting staircases and voids (1) animate the ‘heart space’ with core functions (2) and open learning areas (3), while flexible workshops occupy the perimeter: those to the north (4) with narrow spans and natural ventilation; those to the south (5) with deeper spans and mechanical ventilation.



Plan diagram

Buildings Stirling Prize shortlist

ALLIES AND MORRISON



hollowcore slabs; black metalwork to deal with services; and maple joinery, for warmth, wherever you touch the building – doors, balustrades, and so on – including diverse non-loadbearing partitions based on structural dimensions that allow for reconfiguration and, ultimately, deconstruction.

There is an expressive aspect too...

There is a playfulness, choreographed to how people move around the building. To indicate public access to the lower levels, we placed epic external colonnades outside, and 'orange peel' staircases inside, unfurling from the ground level. As you ascend to private areas, these transform into switch-back stairs, then to linear stairs crisscrossing the voids. Approaching the top, the concrete is replaced by steel, giving a lighter, intimate feel. All the time, the cross-section communicates where you are, offering views, encounters, and performance. I'm not sure we anticipated that play between staircases and voids being quite so successful, but it echoes the tension between privacy and display in fashion, and was part of a process of confronting dualities in the brief – analogue and digital, singular and multiple, creation in a quasi-industrial space, and so on – that

SIMON MENGES



SIMON MENGES

Above left and right Generous glazing and an industrial ambience at the previous Lime Grove site inspired LCF's multifunctional window bays.

resulted in a more nuanced experience, giving intricacy to a relatively simple diagram.

This building feels like a significant one for you.

Being involved all the way from masterplan to loose furniture means there's no point at which architecture ends and occupation starts – that's been rewarding, and I think the building feels so much richer as a result. And I'm delighted it has arrived at this moment, when education budgets are dwindling – it is a huge statement of confidence, focused in one place. From the Olympics bid on, there's been a sequence of good, well-implemented ideas – and that includes Boris Johnson's decision to incorporate culture, shifting London's focus east in the process. This is probably an admission too far, having walked around the model countless times in virtual reality, but it's not until getting here, and experiencing the London skyline laid out in front of you, that you really sense how important this project is, and what an opportunity these students have. ●

Credits
Architect Allies and Morrison
Client University of the Arts London and London Legacy Development Corporation
Contractor / project management Mace
Structural engineer / environmental engineer / M&E engineer / acoustic engineer / facade engineer / access consultant / lighting / sustainability Buro Happold
Quantity surveyor / cost consultant Gardiner and Theobald
Landscape architect LDA Design
CDM principal designer PFB

Below left and right Garment studios at the top of the building draw students to the upper floors, their sawtooth roofs adding life to its profile and echoing those of nearby Sadler's Wells East.

CHRISBEARMAN, ALLIES AND MORRISON



Flat roofs: The functional fifth façade

Flat roof project? Know the risks.

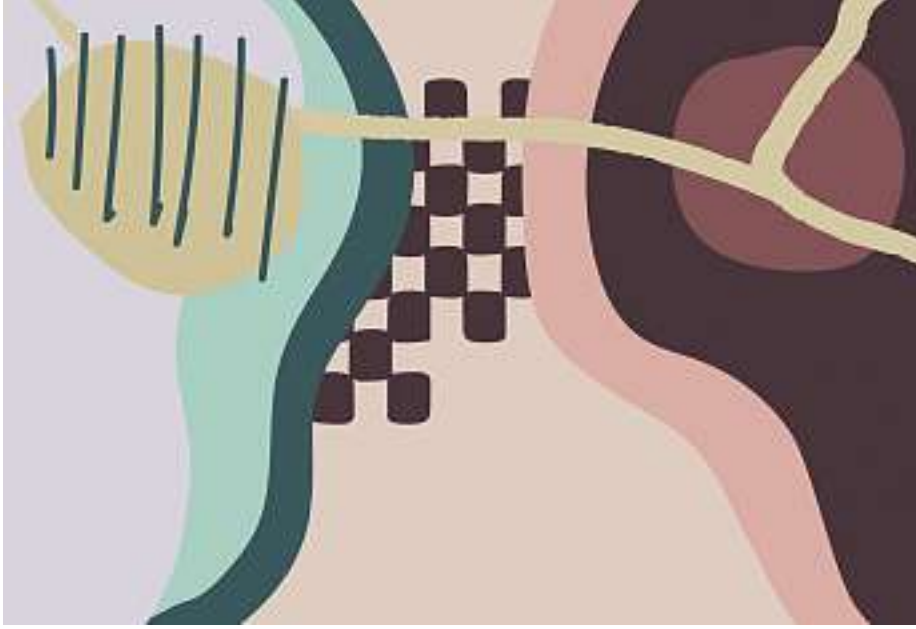
To make the most of a flat roof by adding solar panels, social spaces, or functional installations, you need to be aware of the fire risks.

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Gaudion highlighted recent research project *Space in Mind*, carried out in collaboration with neurodivergent staff and students at the RCA, which went beyond exploring the accessibility and functionality of public spaces to consider “the intangibles: the sensory, social and emotional experiences”. A key theme was how to create a sense of belonging, something often overlooked in existing design guidelines. Alongside design considerations for physical space, Gaudion said social infrastructure is key; for example, autistic people can get anxious about spaces’ social etiquette.

Good design intentions can inadvertently create points of conflict. Another RCA research project, *Streets for Diversity*, found blister slabs, designed to help blind people or those with low vision identify crossings, caused problems for some neurodivergent people who found their impact on balance disorientating.

“Highly saturated colours should be used in smaller quantities because they can be overpowering for some neurodiverse people... Similarly, large expanses of white surface can create a lot of glare, which can be distressing,” observed Jemma Saunders, colour specialist at Crown Paints, who divulged the findings from the company’s recent report, *Designing for Neurodiversity*.

Based on a survey of 250 architects and specifiers, and interviews with a panel of experts at a sponsored roundtable, the report found three in five had seen neurodiversity cited more prominently when bidding for projects, demonstrating that this is now a focus “not just among the A&D community, but also among clients and end-users”.

While 48 per cent of respondents said they relish the opportunity to engage in design for neurodiversity, 42 per cent felt it was restrictive, perhaps indicating a reluctance to design buildings that cater to all potential end-users’ needs.

Some neurodiverse individuals have trouble navigating spaces. Saunders noted that tonal contrasts, used on stair treads, door handles and handrails, can highlight navigation routes, while strong colour combinations or highly patterned walls and floors can distort experiences of spaces and cause confusion.

A Victorian home, with a confusing layout and too much sensory stimulation for a neurodiverse teenager with autism and ADHD, was the subject of an interior design project carried out by Dr Maria Xirou, who is also a medical doctor and consultant in neurodiversity.

In a presentation, Xirou explained that the intelligent, capable young girl was experiencing severe depression. Combining clinical insight with design thinking and input from all family members, Xirou’s interior scheme exploits “calming colours and familiar textures to reduce sensory triggers, improve layout clarity, and introduce private safe zones for the teenager”.

Walls on the ground floor, and in other main areas and corridors, were painted light blue/grey, to create visual continuity and avoid abrupt changes that neurodiverse people find hard. Dark blue walls on either side of the lounge

Top left An illustrative graphic from Crown Paints’ new *Colour Insights* report.

Top right Natural daylight and neutral colours can help mitigate negative impacts on neurodiverse people.

fireplace help support ADHD, especially concentration, and create a focal point.

In her bedroom, where the teenager wanted to avoid bright light but also feel a connection to the sky, light-blue blinds placed over two windows and a skylight over the bed gently filter, rather than block out, natural light. These and other minor design choices have helped create a space where the teenager can feel more secure and regulated, leading to a “noticeable improvement in her mood and behaviour, with the parents reporting fewer meltdowns and more moments of connection”.

Xirou’s ability to liaise directly with the family to understand their needs was clearly beneficial. But would a designer working on a commercial development, require a very different approach?

It might need a bit more work, Xirou noted, to identify a group of neurodiverse end-users and find ways to engage those who may be reluctant to participate, for example by asking for written responses.

Gaudion pointed to the need for a hybrid approach to design. While guides such as PAS 6463 *Design for the Mind* offer a valuable starting point, to avoid a box-ticking exercise “there is a need to understand the context and some of the people using the space”, and carrying post-occupancy evaluations can help capture people’s practical experience.

As Saunders commented: “While it’s mandatory for new or refurbished buildings to be designed to be accessible for those with physical disabilities, that’s generally not the case for neurodivergent people.” Clearly then, greater efforts are required to ensure their needs are taken into account. ●

Passing the test

Herzog & de Meuron project director Tomislav Dushanov reflects on the process of creating the Discovery Centre, a laboratory building that is 'humble on the outside and completely endless inside'

Photographs: Hufton + Crow



The Discovery Centre – DISC – gives new form and expression to science buildings. As a type, labs have strict security requirements and are often hidden away. Herzog & de Meuron and BDP's biomedical research base for AstraZeneca, by contrast, was designed for an urban site in Cambridge and puts science on display, both to the staff and the public.

A triangular glass disc with rounded edges sits on three pairs of rectangular glass boxes, encircling an open courtyard. The boxes extend

Below A public courtyard has the scale of a university quad.

vertically through the building, forming glazed labs allowing transparency across the floors. Around them, open-plan workspace was conceived to foster collaboration and an intimate, convivial atmosphere that is attractive to young scientists.

The hugely complex project took creativity and commitment from both the client and its architects, but the result prepares the ground for better development in the emerging district, and for discoveries whose impact will be felt far beyond.

IN NUMBERS

62,842m²
GIA

Confidential
contract value



Can you outline the design process?

AstraZeneca wanted the building to reflect the spirit of the city it was moving to – open, collaborative and innovative. It was an unusual competition, including three top-level client workshops within a month. This process created a heavy workload but was extremely valuable: our winning scheme remained practically unchanged.

Architects and scientists share certain qualities: both are experimental and accept the risk inherent in research. Even after we had developed the building's form, we continued to explore numerous options in the plan, while the client used that process to design their ways of working. Should we put labs on the perimeter, with write-up areas and public spaces in the central zones? Will it work better the other way around, so labs share technical infrastructure? Or should they be combined in a completely mixed way? We went to the root of what these spaces and relationships can be to make something we don't think of as a laboratory building, but as a landscape for collaboration.

How did the context influence the design?

Visiting the site, we quickly realised we were not in the 1,000-year-old centre of Cambridge, but in a district being shaped by growth and the convergence of life sciences institutions, with a masterplan that provided the flexibility to define how the building could engage with the broader environment. The triangular site was not ideal for a lab building but it was central to the district, and the client wanted it to be a gathering place for the scientific community.

When you look at aerial photos of central Cambridge, they show amazing simplicity: the



The deep-plan building is fully glazed with a northlight roof.

Credits

Client AstraZeneca
Architect Herzog & de Meuron
Executive architect, landscape architect, M&E engineer, structural engineer, acoustics, lighting and sustainability consultant BDP
Cost consultant Turner & Townsend
Building physics consultant, facade consultant Emmer Pfenninger
Gastronomy consultant Tricon Foodservice Consultants
Laboratory planning Abell Nepp Architects
Traffic consultant WSP
Fire consultant ARUP
Signage New ID
Construction manager MACE

white of well-developed streetscapes within an expansive green background. That's something we wanted to bring to the building. It loosely follows the shape of the site, making a continuous street edge, with a publicly accessible courtyard in its centre. At ground level, people can touch the glass facades of labs.

We also felt the building should fit within the scale of Cambridge. Existing university buildings are typically 18m to 21m high. Although the masterplan allowed for a collection of taller buildings, we reflected that precedent by creating one 18m building with a very deep plan. While the floorplate is large – it's actually wide enough to accommodate a jumbo jet – and the building itself would feel out of scale in central Cambridge, the courtyard within is the same size as the quad at St John's College in both plan and section.

What other ideas informed the project?

In traditional lab buildings, it can sometimes feel as if equipment takes priority over people. We have done quite a few projects which explore what makes the best environments for innovation, and people need to come first. It comes down to some simple but important elements. A diversity of spaces is required – high, low, visible, secluded, busy, quiet – and people must be able to move seamlessly between them to avoid interrupting the creative flow.

Around the labs we have created continuous inner and outer rings, so while you may be in one room of 15,000m², it contains double-height spaces along with places to eat, or to 'camp out' for a while. You can go around the building without opening a door, but never feel lost.

Materials are key to the delineation of spaces. For functional reasons, laboratories must be pristine, monochrome spaces, but everything else



R&D: testing plan diagrams in three dimensions.

Cladding worthy of an 'eye-catcher'

In Saint-Nazaire, France, property developer Arteco selected Renson's Linius facade cladding and Fixscreen sun protection to deliver high performance and sleek aesthetics at its local operations base



Impress with surprising choices and stylish combinations? Arteco does the trick. The property developer showed off its skills in the French town of Saint-Nazaire, flanked by the surging Loire. The impressive facade is dominated by the Linius aluminium facade cladding, from Renson. The invisible screens ensure pleasant indoor temperatures.

The Arteco house in Saint-Nazaire, in Loire-Atlantique, is a conceptual building. "This local branch is about 200m²," explains manager Mickaël Euzenat. "For this project, we relied on suppliers of high quality and utilised special products, such as external insulation, innovative heating systems, and Renson's facade cladding."

High-end concept with refined materials

The 'out the box' building combines a domestic exterior with an office interior. Aesthetics and practical added value come together in a selection of refined materials. "[It's] the principle of a high-end concept, but in a homely atmosphere," emphasises Mickaël. "Customers can see the products here in a different way. And our ideal geographical location called for a real eye-catcher."

Above Fixscreen solar shading keeps interiors cool without compromising the sleek facade.

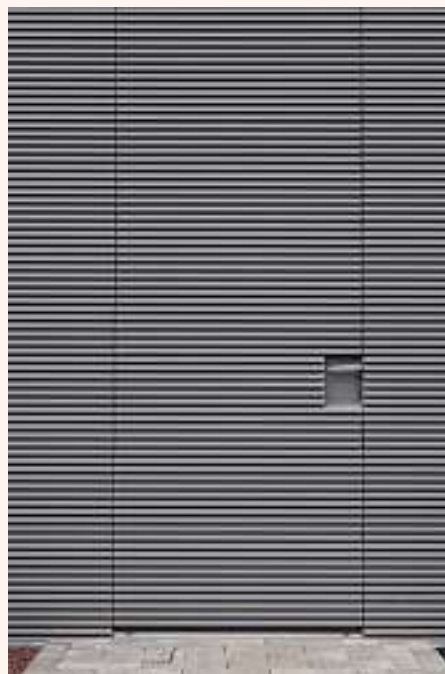
Below Linius aluminium blades turn the facade into a true architectural statement.

Instead of traditional wooden or aluminium cassettes as facade cladding, the architects opted for blades, for external insulation and to really draw attention. The horizontal aluminium Linius blades – which are resistant to the salty sea air – create unique and fascinating shadow effects. Meanwhile the white facade cladding on the first floor provides an attractive contrast to the Linius blades on the ground floor.

Lessons from the past

Renson was also the point of contact for efficient and windproof (up to 130km/h) sun protection, a practical choice with no impact on the facade appearance, despite the thick layer of insulation.

In opting for blinds, Arteco drew lessons from the past. A branch in Lorient, built in 2007 without sun protection, quickly ran into an overheating problem and needed active cooling. In Saint-Nazaire, Renson's Fixscreen solar shading system prevents the same scenario from occurring, all while maintaining the sleek appearance of the architecture. ●



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is made of other non-white materials: concrete ceilings with timber floors, facades and partitions create a very warm experience.

What techniques did the design team use to develop the scheme?

We work with a lot of physical models, because architecture is still a physical discipline. Everyone in the team makes them, from directors to interns. There is a huge variety of models, and they imply different levels of proposal, discussion or decision. A small piece of foam can represent the central thought of a masterplan, while detailed study of the interface between materials, even at an early stage, has benefits later in construction.

Models are efficient: in a split second you can check perspectives that are not possible with the most advanced VR goggles. They are an important tool for communication in big teams. And even after you have thought of an idea, drawn it and modelled it digitally, seeing an independent three-dimensional object can be a revelation – regardless of how experienced you are – that always allows you to understand something new.

Who were your most important collaborators?

Our key collaborator was BDP, the executive architect which also did all the engineering. One important aspect was that from Stage 3 we had a team of around 200 people in one room at BDP's office in London – architects, consultants and the client. Work was also happening at our office in Basel, and you can imagine the amount of coordination required. The Revit model was essential and is so detailed, down to every last bulb and fuse.

We also had close collaborations with suppliers. A lot of effort goes into building personal relationships, and many of these people have become friends. We have almost no standard elements in the building, but were able to mock up



Top left Modelling complex junctions with the roof.
Above Labs are orthogonal to give future flexibility.

Below The zig-zag plan helps to break down apparent scale.





many pieces at full scale – facades, roof, concrete, labs, stairs. It's very helpful in making design decisions, but also reduces risk for manufacturers.

What was the greatest challenge?

Structurally it was the northlight roof, which has a linear geometry imposed on an irregular overall shape. Internally it interfaces with sealed technical spaces and moves differently to the partitions, but visually it appears uninterrupted. Those details are among the most complex because they are doing so many things, from acoustic isolation to airtightness.

In a broader sense the great challenge of an innovative project is, of course, the innovation itself: we had to discover and rethink as the project progressed. Of course we had a programme, a budget and strict regulations – but also many unknowns.

What do you consider to be the project's greatest success?

It's the response from the users, many of whom have never seen such a building, which is like a hybrid of a lab, an office and a modern social setting, wrapped in a flowing space like a stadium concourse, and with museum-quality light. Those things together result in a building which feels quite humble on the outside and completely endless inside. ●

Left Oak and exposed concrete lend colour and texture.

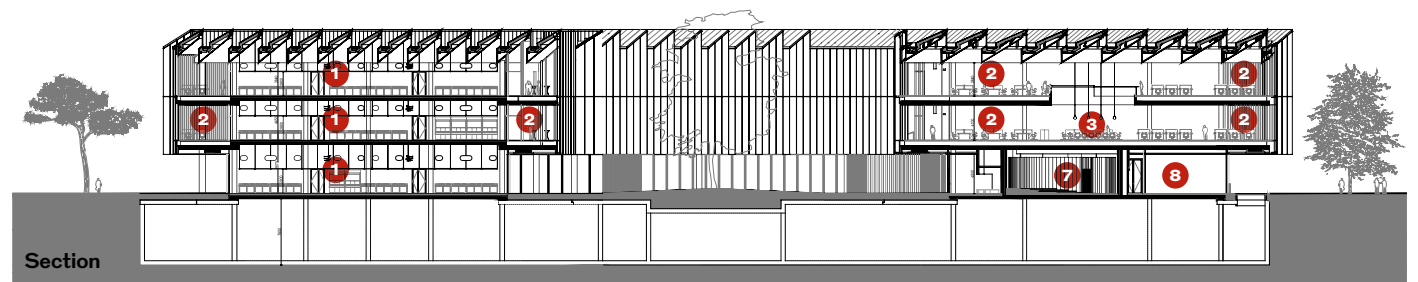
Above Spatial variety allows for different working habits.



0 20m

First floor plan

- 1 Laboratory
- 2 Write-up area
- 3 Workspace
- 4 Collaborative work area
- 5 Presentation area
- 6 Project area
- 7 Auditorium
- 8 Conference centre



Section



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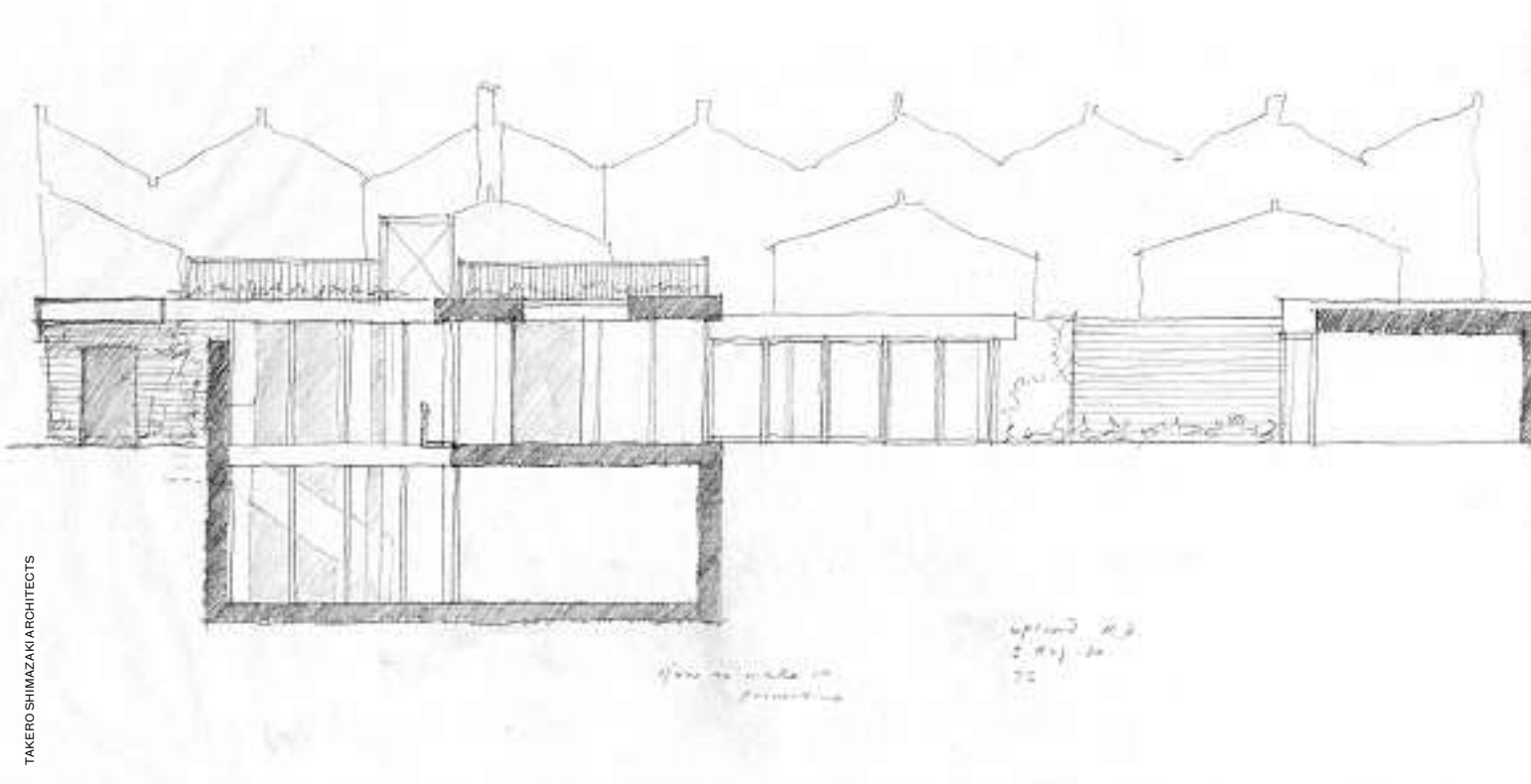
Of Japan and not:
Niwa House draws on
visual references like
tonii gates, or abstract
structural ones such as
tokonoma, in a radically
contemporary home.



Beam me up

In southeast London sits a remarkable hidden home, its web of timber framing courtyards and supporting a stone roof. Its architect Takero Shimazaki explains how the client's needs and site limitations shaped the project

Photographs: Anton Gorlenko



In a visual synecdoche, a box of Jenga sits on a shelf in the living space of Niwa House, a home that looks as if it is built with it – but of Brobdingnagian proportions. Designed by Takero Shimazaki Architects, it sits on a completely hidden, landlocked site in southeast London, created for a couple – one of whom had undergone a recent life-changing accident – and their young family. Unable to find a London property that offered them the independence and freedom they demanded for themselves, they chose to find a site and build one.

The result is a home that is only perceived once you pass the front door; an almost free plan

at ground that can be opened out to the courtyards it defines and garden spaces it sits within. With three bedrooms, plus a gym and home cinema in the basement, the ground level is a serene symphony of oak posts and beams, structural stone roof and sliding glass walls, which dematerialises boundaries of inside to out.

With its 'engawa' verandahs, the home might seem inspired by traditional Japanese architecture, but with sheer curtains filtering light like melting shoji now bending in the breeze – and beyond its block-like timbers – Niwa House not only feels utterly contemporary, but definitively Western.

Above Sectional elevation through the hidden home, showing rear faces of the terrace to its southeast.



Left The sizeable stealth site is completely hidden from view, accessed only by a narrow pedestrian lane.

Right Shimazaki recalls the 'cathedral-like' proportions of the timber structure when it was first installed.



FELIX KOCH

How much did the site affect how you designed?

A lot. It was a former workshop yard, and while quite large at 360m², it was derelict and surrounded by boundary walls of existing houses and accessed only by a long, narrow lane from the street. Planning had been granted in 2019 for a single-storey villa-type design, with a courtyard and basement, beside a garden. We imagined something different but were keen to get changes through as an amended rather than new application, which meant working within its conditions, while addressing exactly how the client wanted to live.

Our idea was for an open floor plan interspersed with small courtyards, sitting in a garden. Over time and through client discussions, this plan would zig-zag over the site, based on orientation, getting light into the basement or overlooking issues, eventually morphing into the final iteration. The footprint might be the same as the original permission, but it is a fundamentally different building.

IN NUMBERS

360m²
overall site area

365m²
GIA

What were your design inspirations?

I kept thinking about a contemporary version of a Miesian pavilion, but was also aware of the recent trend by young Japanese practices who restore traditional sukiya or machiya houses by inserting post-and-beam structures to shore them up, or by creating extensions that are crafted but radical.

It seems to me as if firms like SANAA established a contemporary 'slimmed-down' architectural language, and new ones are working in that vein but using hybrid forms that incorporate ancient crafts in modern guise. That feel of lightweight post-and-beam architecture appealed, and we wanted to apply that material approach here.

What ideas did you think of initially?

Webb Yates' Steve Webb is a bit of a stone evangelist, and we considered an ambitious 'floating' stone roof, held aloft by post-tensioned bars on stone perimeter columns, but while we wanted to work with



Left The material choices for the home were distilled to a tiny, natural palette.

Right The final design form was derived from hand drawings and simple model making.



TAKERO SHIMAZAKI ARCHITECTS (3)



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Buildings Stirling Prize shortlist

sustainable design and materials, we felt it wasn't about screaming 'innovation' for the sake of it.

We also weren't sure of the cost or programme implications of such a complex design solution, or of specialist installers who might be able to do it. The client didn't seem convinced by what they might gain from it, either. I just wanted a house that was calm and where any innovation would not be the focus of attention but would be integrated seamlessly into the design.

So you chose to keep it simple?

I was taken with the counterintuitive idea of a heavy stone roof being held aloft by light timber columns, so we decided on a hybrid structure of simple oak glulam posts and beams supporting a 50mm-thick roof of 1.4m x 0.75m stone panels, with glulam ring beams run around courtyards to create rigidity. The stone slabs are not reinforced; they are not even fixed to the structure, just laid in an interlocking arrangement, with their load working in compression with the edge beams. There's just a membrane and extensive sedum roof on top of it, all supremely simple.

Self-supporting sliding glazed doors run around the perimeter in front of the frame, held at the top by projecting cantilevered beams. Done to avoid cold bridging issues, it also helped create a hierarchy to the expressed structure, making clear what was supporting what. Modular stone slabs spanning secondary timbers are reflected below in the

Right Glazing sits in front of structure, held by cantilevering beams. Sliding doors open onto level exterior paving.

Bottom left A basement courtyard with a tree allows dappled light into the two bedrooms on either side of it.



limestone floor, similarly bisected into two squares, with the ground floor formed of timber joists. We deliberately oversized the glulam frame, wanting to make it all feel very elemental. It's visible from the outside through the glazing in front.

How did accessibility manifest in the design?

From the outset I thought about the dimensions of a wheelchair and how the architecture could respond to its module. Even at the house's 'pinch point', where two smaller columns define the circulation area from dining space, everything stays wide and generous. We set columns away from corners so the client would never need help opening big sliding glazed doors, and nothing about the bathrooms makes them feel 'accessible'.

Did the home require mechanical servicing?

The client was quite keen to have a predominantly naturally conditioned building and the plan form encouraged cross-ventilation; Webb Yates did the

- 1 Entrance lane
- 2 Genkan
- 3 Lift
- 4 Stairs down
- 5 Courtyard at basement
- 6 Balcony
- 7 Dining
- 8 Living
- 9 Kitchen
- 10 Pantry
- 11 WC
- 12 Study/en-suite bedroom annex
- 13 Garden

Ground floor plan



MEP too, so we were always thinking holistically. Obviously, the whole timber-and-stone hybrid strategy was such that it acted not just structurally but as thermal mass, retaining heat and releasing it slowly, to be cool in the summer and warm in winter. The placement of the pergolas and planting was part of that strategy, mitigating heat gain as well as dealing with overlooking. Floor-to-ceiling curtains help create a home that opens completely to its site, but also feels private and cocoon-like.

How did the construction phase run?

We procured under a traditional JCT contract and thought groundworks would be tricky, so to minimise risk considered letting it as one package with the building as a separate one, but we didn't need to do that in the end. We worked with contractor New Wave, which has done a few high-end homes, not least Carmody Groarke's Highgate House. Ed Pepper, who worked for us for four years, is one of their project managers. He and I would sometimes sit and think what we could do with a timber or a shadow gap, so they really understood how we worked and what we wanted.

The dig-out took more than six months but to offset that a lot of the main house elements were fabricated off site. It was amazing watching the glulam beams being installed; it felt cathedral-like before it was enclosed. Craning-in of double-height



Above The hierarchy of the post-and-beam structure is beautifully articulated in oak glulam.

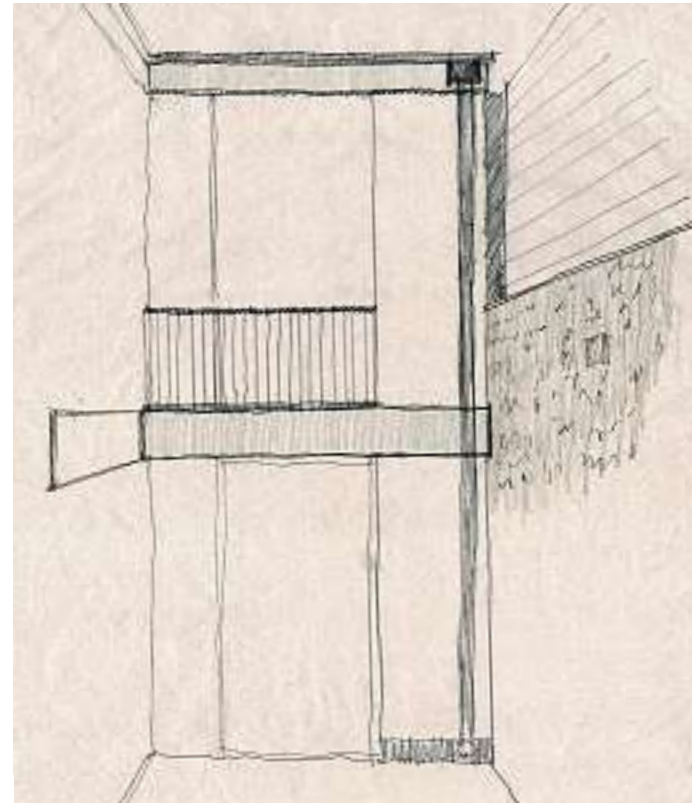
Bottom left Inside and outside merge together in a contemporary expression of 'engawa' principles.

Bottom right Takeru Shimazaki's early sketch of the double-height courtyards bringing light into the basement bedroom spaces.

glazing for the stairwell and master bedroom courtyard was a delicate process, but the main structure was up in a few weeks. We sourced limestone from a quarry in France and there were some delays getting that over and installed on site; but all in all, the programme ran smoothly.

What was your biggest challenge?

Dealing with the site, with its walled boundaries and ground conditions. While I called it a pavilion, it's really the antithesis of that: a negative space of courtyards and garden areas. The architecture is, in a way, almost incidental; there aren't any elevations to speak of. Dealing with site limitations came first – the opposite of Mies – as the house could do nothing but fit into them. ●



Credits

Architect Takeru Shimazaki Architects
Structural engineer Webb Yates Engineers
Services engineer Webb Yates Engineers
Landscape Rich Landscapes
Cost Box Associates
Interior designer Covet Noir
AV specialist Pyramid

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by JAMES & TAYLOR



James & Taylor began its romance with bricks, when 'brick is beautiful' was on everyone's lips, and was a reality.

We then sadly saw the self-induced demise of so many truly wonderful brickworks, as brick became anonymous in the name of volume and low cost. This was a dark period for architects and all of us who loved brick.

There followed two decades of brick lying fallow and dormant before it began to find its soul again. While many of those treasured brickworks are lost forever, those that remain have stepped up to the challenge of recovering lost time and aesthetic ground.

An awakening and belated realisation of what made brick so special has re-emerged and brick is beginning to return to its rightful place. Brick has always been affordable, durable and high performing. But what has set it apart is that it doesn't fight against its heritage, intrinsic nature or character.

Brick is often craggy, misshapen and all over the place in size. But that isn't something to fight against; it's something to embrace. It makes brick human and real.

The art of bricklaying is also inextricably linked to what makes brickwork special. Bricklayers do two crucial things. They incorporate all bricks of sound quality of pretty much whatever face height, which can range from approximately 58 to 70mm, and



still be standard compliant. They also, critically, level the tops of the bricks for every course with a string line.

Yet traditional brickwork has ever-present challenges, including a short supply of quality bricklayers, a high incidence of injury through repetitive heavy lifting, weather dependence and a requirement to scaffold facades.

Brick slip systems: good, bad or ugly?

In an effort both to overcome these challenges and to embrace modern facade rainscreen technology, the brick slip system was born. The question is, though, are brick slip systems good, bad or ugly?

The good or bad categorisation hinges on long-term performance expectation and safety to the public and/or residents. The ugly is unfortunately, from our perspective, the norm with most brick slip systems. Either the choice of brick is dictated by the system, rather than reflecting the architect's choice, or the system perversely levels the bottom of the bricks. Typically, the cut or formed grooves in the brick slip sit down under gravity onto a rail.

In life we all have choices. We can plagiarise existing mediocrity, or we can start from scratch and create something unique that does what it needs to do. The Barracuda Brick Slip System is that gem of an idea. James & Taylor has developed Barracuda over six years into what we believe is the optimum brick slip system.



Barracuda automatically levels the tops of all brick slips and architects are entirely free to choose whatever brick they want, regardless of how misshapen and characterful. The full extent of brick height tolerances is accommodated by the system, and its extensive testing enables James & Taylor to provide a design life warranty. We are pleased to announce that the Barracuda Brick Slip System has now been shortlisted for the Society of Facade Engineering's 2025 Design and Engineering Awards, under the Product of the Year category.

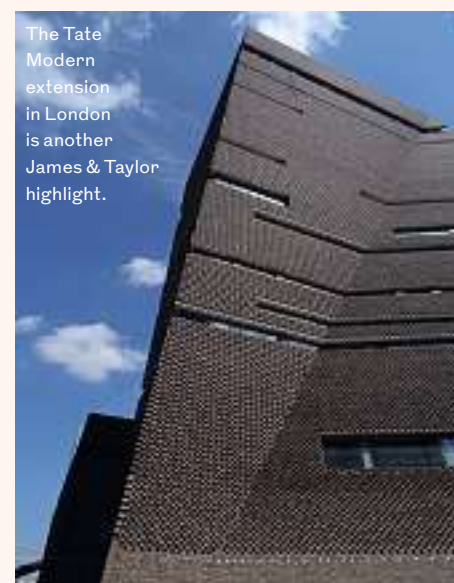
James & Taylor is proud to have worked alongside many of the world's leading architectural practices and construction teams to deliver facade projects of stunning appearance and outstanding performance. Liverpool's Everyman Theatre, the Tate Modern extension in London and the New Museum Of Contemporary Art in Manhattan are a few of the highlights.

We remain dedicated to the many projects to come, which will no doubt span many facade genres and disciplines. But sometimes a section of the market that is growing exponentially needs a better solution. Our revolutionary Barracuda system, we believe, is the brick slip technology architects have been waiting for. ●

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James & Taylor supplied the Everyman Theatre in Liverpool with its perforated aluminium facade.



The Tate Modern extension in London is another James & Taylor highlight.



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2: Intelligence

**LIVERPOOL
STREET STATION:
A FALSE CHOICE**
JAMES HUGHES,
DIRECTOR, THE
VICTORIAN SOCIETY

A familiar argument tends to surface whenever major redevelopment schemes face public scrutiny: that opposition to dramatic transformation is simply resistance to change. It's a convenient framing, which portrays the heritage lobby as nostalgic sentimentalists while enabling developers to position themselves as the only grown-ups in the room, carrying the torch of progress. This is a tired mischaracterisation that bears no relation to reality – and one that is based invariably on either misinformation or ulterior motive.

The campaign to prevent the hugely damaging proposals for the redevelopment of Liverpool Street Station is not rooted in a fundamental opposition to change, nor in a denial of the need for operational upgrades at the station. It is founded on a refusal to accept a false choice: that we must either accept what is proposed – the demolition of a large portion of the listed station; the littering of its historic sheds with multistoreys of retail; and the erection of a near-20-storey office block atop the station – or accept no improvement at all.

The redevelopments carried out at St Pancras and King's Cross stations are landmark projects, which demonstrate that delivering operational upgrades while saving and celebrating what makes these sites special is by no means impossible. Crucially, these schemes (like so many 'heritage' projects) have delivered not just for transport, but for jobs, for the economy, for communities and for the wider urban realm.

Liverpool Street deserves no less. Yet, instead, Network Rail and its partners have advanced a scheme that would seriously harm the famous station, claiming – without compelling evidence – that it is the only way forward (even though its own financial report asserts that the scheme is not, in fact, viable). This is not progress or positive change, nor the sort of 'development' that future generations will respond to with any sense of gratitude.

Good design doesn't flatten context – it responds to it, elevates it. The best cities embrace their past as a springboard for meaningful evolution. We do not ask for no progress at Liverpool Street; we demand better progress. As architects and stewards of the past, present and future built environment, that, surely, should be our baseline expectation. ●

'The St Pancras and King's Cross redevelopments have delivered not just for transport, but for jobs, for the economy, for communities and for the wider urban realm – and Liverpool Street deserves no less'

Below As part of new proposals at Liverpool Street Station, Network Rail is planning the insertion of two elevated retail galleries along the 19th-century train sheds.



Intelligence is officially approved RIBA CPD. Look out for icons throughout the section indicating core curriculum areas.

Flatlining real-terms pay behind peer roles

Architects' salaries hold steady with inflation, but lack other professions' premiums, finds Aziz Mirza



Business, clients
& services

KEY FINDINGS

- Architects' average earnings as of 1 April 2025 were £52,000
- The annual profession-wide rise was 4%
- Salaried architects in private practice saw earnings rise by 7%, sole principals by 6%, and partners and directors by 3%
- 13% were working part-time, lower than last year
- 5% were unemployed or not working for other reasons, higher than last year

More than 1,200 RIBA chartered architects contributed to this year's RIBA/The Fees Bureau employment and earnings survey – thank you to everyone who participated. At the centre of 2025's findings is a headline figure: the median salary of a full-time architect is £52,000, a 4 per cent rise from 2024. Indeed, since 2020, average architectural earnings have grown by 32 per cent, nominally.

Yet this growth must be qualified. The macroeconomic environment has been dominated by inflation during this period, eroding purchasing power in virtually all professional sectors. This year's rise exactly matches inflation – the Consumer Prices Index (CPI) also rose 4 per cent, suggesting real earnings have at least held ground. Stripping out the effect of inflation over the past five years, real-term gains for architects appear far more modest, at 3.4 per cent.



Michael Laird Architects' Rosebank Distillery, Falkirk: Architects in Scotland have seen a 14 per cent increase in salaries.

Growth is also unevenly distributed. Salaried architects working in private practice saw average earnings rise 7 per cent this year, nearly double the rate of inflation and substantially higher than the average for all architects. Meanwhile sole principals' average earnings rose by 6 per cent. A lower rate of growth was recorded this year by partners and directors, whose average earnings grew by 3 per cent to reach an average of £69,000. This modest rise follows a much stronger increase last year, and does not imply a downward trend; it is more likely partners and directors have sacrificed some of their short-term increase to enable better pay for salaried architects in their practices. Staff retention must play a large part in practice owners' thinking when considering pay awards.

The highest average earnings, nearly £75,000, 7 per cent up on last year, are again commanded by private in-house

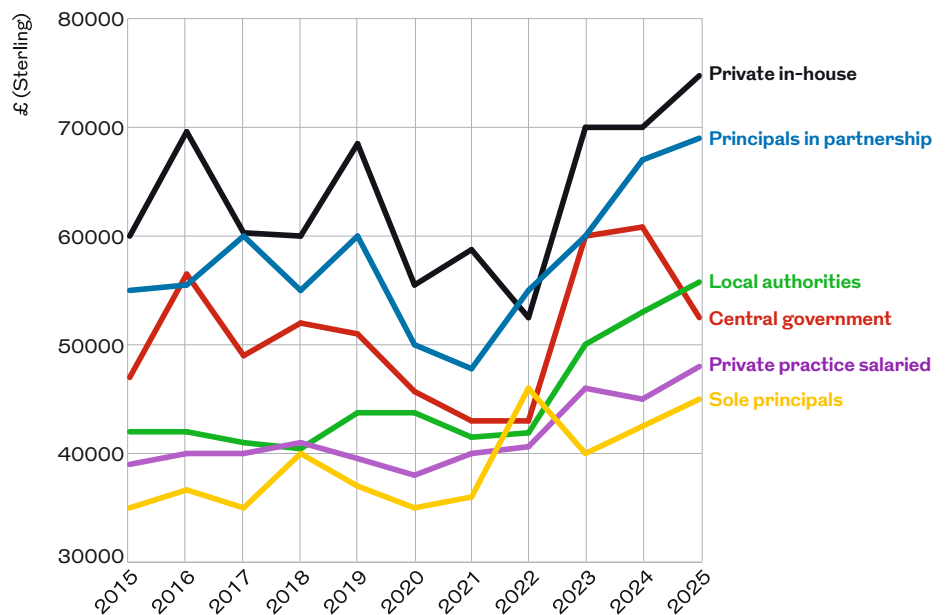
architects. Meanwhile, the public sector presents a mixed picture. Local authority architects saw moderate income growth, but central government roles registered a decline in average earnings.

Regional earnings disparities are a perennial part of UK labour economics, with architecture no exception. London continues to lead with a median salary of £64,000, £12,000 above the national average. This is no surprise, reflecting the capital's cost of living and its role as a hub for large, internationally engaged firms. Average earnings in Scotland, while £16,000 lower, saw a 14 per cent rise, this year's highest regional growth.

Earnings in architecture track with experience, peaking at £62,000 at age 50 to 54. After this point, they begin to decline, with this year's peak at a slightly younger age than in previous years.

The 2025 survey reveals a persistent gender pay gap of 11 per cent, with male

Average earnings by main field of employment, trends 2015 to 2025



architects earning a median of £54,000 compared with £48,250 for female counterparts. The disparity is largest among sole principals. The gender pay gap is close to zero among architects aged under 30. Despite this, the gap shows no signs of closing in any meaningful way and remains similar year on year.

Practice size also exerts an influence on pay. Architects employed in practices with fewer than five employees earn less, on average, while those with 11 or more staff receive more competitive salaries – suggesting economies of scale, project size, and commercial maturity play important roles in compensation.

Earnings in context: how architects compare with other professions

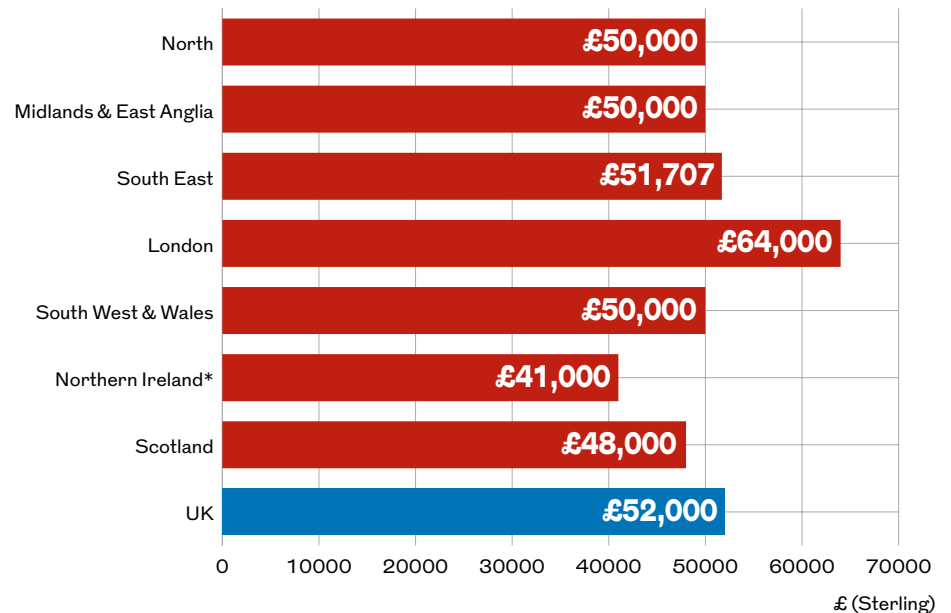
Discussions about architectural remuneration frequently invite comparisons with other skilled professions. To provide meaningful context, this analysis draws on salary benchmarks published by other professional bodies. These figures are based on large-scale surveys comparable to the RIBA/The Fees Bureau employment and earnings survey.

It is important to note that data from recruitment agencies – often cited in media headlines – tends to present a different picture. Such figures typically report mean average salaries, which are often skewed by high earners and can significantly exceed the median average values used in this and other professional surveys. For consistency and accuracy, only median salary figures from professionally conducted surveys are used in the comparisons that follow.

Accountancy is often viewed as a well-compensated profession. According to the Institute of Management Accountants (IMA), the median salary for management accountants in 2023 was £51,107, essentially on par with this year's figure for architects.

Data from the Association of Accounting Technicians reveals a wide disparity within the accounting profession. More junior accounting technicians, whose qualifications and responsibilities are generally below those of fully chartered professionals,

Average earnings by region, 2025



* The size of this sub-sample is small; results should be considered with caution

earn a median of £35,000 (2023), lower than architects. However, self-employed accounting technicians report average earnings of £74,500. This figure exceeds that of the average sole principal architect, whose income, at £45,000, remains substantially lower.

Self-employed accountants have higher average earnings than architects because they often benefit from regular, repeat business, clear pricing structures and a broad base of small business clients. The contrast with architects continues as the accountancy profession benefits from well-defined career paths and near-universal demand across all sectors, often to comply with government regulations.

Legal professionals, too, continue to command high median earnings, supported by a strong market for advisory services, litigation and compliance. A 2018 survey by the Law Society placed solicitors' median salary at £62,000, and despite the age of the data, inflation-adjusted comparisons confirm that solicitors maintain a consistent earnings lead over architects.

The gap is even wider for barristers. Extrapolating figures from a 2022 survey by the Bar Council suggests a median salary in the region of £92,750. Although

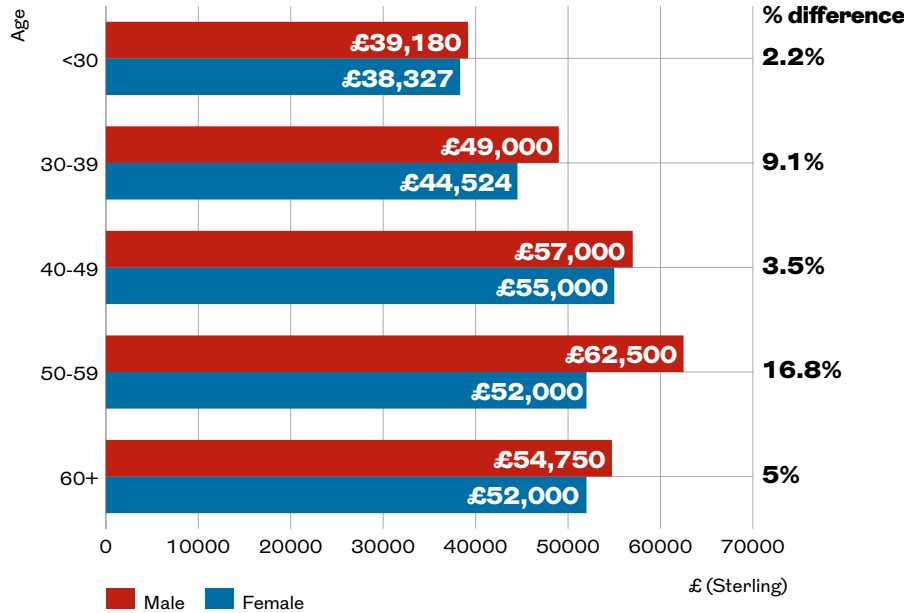
junior barristers in criminal law may experience income instability early in their careers, mid-career barristers typically see significant earnings growth. These figures highlight the premium placed on legal expertise, particularly in corporate, commercial and regulatory domains.

Public-sector roles, though often associated with modest base salaries, offer job security, pensions and career stability. In 2024, the median salary for all civil servants stood at £33,980, well below the architect median. Yet at senior civil service level, average earnings are substantially higher at £88,970.

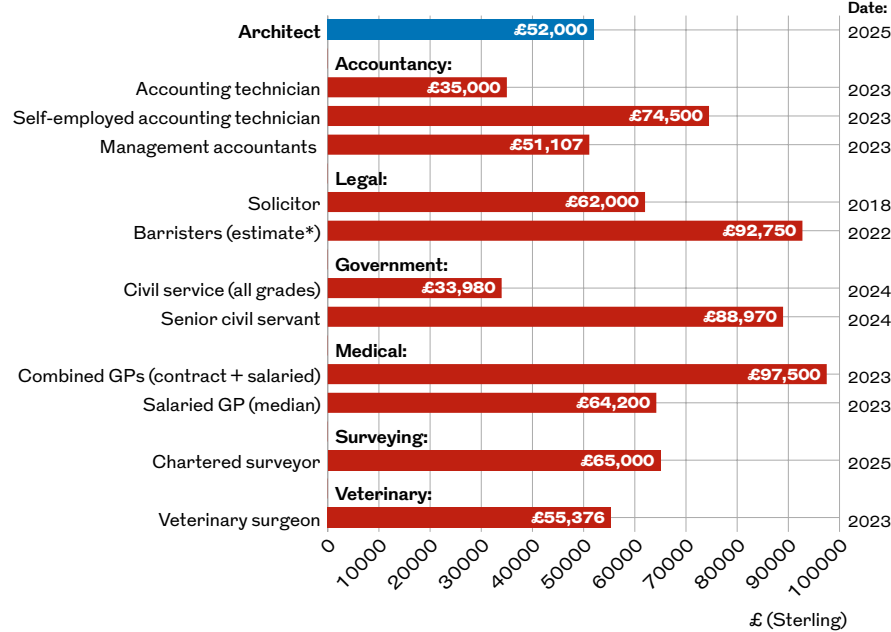
This disparity underlines the public sector's pay stratification. An architect in central government, for example, earns around 60 per cent more than the average civil servant – but 40 per cent less than a senior civil servant. Comparatively, partners and directors in architect practices report median earnings of £67,000; again, substantially lower than senior leaders in public-sector executive roles.

Medical professionals consistently top the professional earnings hierarchy. NHS Digital data shows salaried general practitioners' (GPs) median income as £64,200, while combined GPs who

Average earnings by gender and age, 2025



Average median earnings by profession



Sources: Association of Accounting Technicians/Institute of Management Accountants/ The Law Society/The Bar Council/The Institute of Government/NHS Digital/Macdonald/RICS/ Federation of Veterinarians in Europe

Notes: *Estimate calculated from 2022 survey, source above.

operate both as salaried and contract command an average of £97,500.

Even the income of salaried GPs exceeds architects' median earnings by 23 per cent, while the combined figure nearly doubles it. This disparity may be a result of society's willingness to place a

premium on life-critical roles, enhanced by a publicly funded system that has strong cross-party political support.

Chartered surveyors, meanwhile, report a median salary of £65,000, £13,000 above the average architect. The reason may be partly structural.

Surveyors often operate closer to capital and client finance, making their roles directly tied to asset performance. In commercial projects, they can be appointed as client representatives, which may translate into stronger fee leverage and higher pay.

Finally, veterinary surgeons, with a median salary of £55,376 in 2023 (Federation of Veterinarians in Europe, UK figure), occupy a position only very slightly above architects. Both vets and architects face similar challenges: high public expectations, uneven access to clients, and limited price flexibility.

The comparison suggests that societal respect for a profession does not always correlate with financial reward. Both architects and vets serve essential roles, yet neither commands the income of finance, law, or medicine. The premium put on animal health, for example, appears to be in a substantially lower league than that on human health.

With a median salary of £52,000, architects in 2025 occupy the lower middle of the professional earnings scale. They earn more than civil servants and accounting technicians, and roughly the same as management accountants and vets, but fall short of the higher-earning professions of medicine and law.

This placing may reflect economic realities, but also highlights a lack of understanding by the wider public and business of the value architects provide. Leadership roles in architecture, especially in small and medium-sized practices, do not command the earnings of strategic positions in government or healthcare. This may, in part, stem from the fragmented nature of the profession, where many practices remain small, rely on project-based work from one-off clients, and are especially exposed to the volatility of economic cycles. ●

Aziz Mirza is a director of The Fees Bureau.

The annual RIBA /The Fees Bureau architects' employment and earnings survey is a research survey conducted among UK-based RIBA members. A sample of members was invited by email to complete an online questionnaire between April and July 2025.

A full report on the survey, including detailed tables and charts, is available to purchase from The Fees Bureau, see feesbureau.co.uk

Fire-rated solutions you can lean on

With high-rise fire regulations growing more stringent, Q-railing's balconies and balustrades are delivering sturdy, stylish and fully compliant solutions at landmark developments

Q-railing

Below and top right
Q-railing's fire-rated glass balustrade pictured at Deanston Wharf.

As fire safety regulations for high-rise residential buildings continue to tighten, specifiers and developers are under pressure to meet performance standards without sacrificing architectural vision. At Deanston Wharf, a landmark development of 769 homes and over 1,100m² of commercial space on the River Thames in London, Q-railing's fire-rated glass balustrades provided the perfect solution.

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Ground works

In Tanzania, Hassell Studio is creating a community centre with 3D-printed earth walls, and a roof inspired by a trivet, as part of a scheme that will help care for vulnerable girls. John Jervis reports



Design, construction
& technology

Below The central hall is a multipurpose space, accommodating school assemblies and performances as well as communal meals.

IMAGO



It's hard to know, when you come prepped to discuss 3D-printed earth and tensile roofs, and leave with notes about governance and image generation, whether that counts as a successful interview, but it certainly shows that design plays many roles beyond form. In conjunction with Australian practice ClarkeHopkinsClarke, Hassell Studio has been involved in masterplanning the proposed Hope Village Project in Tanzania, for Melbourne's One Heart Foundation. The goal is to provide secure, welcoming homes for around 70 vulnerable girls, with accommodation for carers and families; schooling for 480 students; and food-cultivation, healthcare and sports facilities.

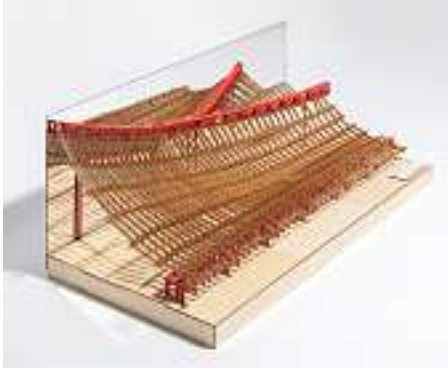
A 12ha site has been purchased in Kibaha, an hour or so from Dar es Salaam, with the aim to build in stages and involve local communities in construction and operation; forging such connections are seen as vital to the project's success. Over time, Hassell's involvement has increasingly focused on a large community centre, which will stand near the entrance, accommodating performances, educational programmes, assemblies and meals, as well as kitchens and storage. It will play a key role in the village's daily life, and host shared events for the local neighbourhood. As such, its brief includes both a visual identity and a collective purpose, aiding initial fundraising and long-term viability.

Rising construction costs post-Covid led Hassell to explore alternative

Below Concept model of the tensile roof, inspired by a jointed wooden trivet.



HASSELLSTUDIO



building methods, in collaboration with London-based structural engineer Eckersley O'Callaghan and the Institute for Advanced Architecture of Catalonia (IAAC). The latter was involved in Hassell's recently completed Performing Arts Centre at the Bidi Bidi refugee settlement in Uganda, where parametricism has been combined with local materials and labour, including adobe bricks manufactured on site. This engaging design story (and its eye-catching imagery) enhanced the project's fundraising potential in development, as well as its operations in practice.

The IAAC's Edouard Cabay took a trip to Tanzania to look into construction processes and materials, meet local contractors and visit factories. Xavier De Kestelier, Hassell's head of design, based at its London studio, says: "We wanted to create something that was totally in tune locally, and one of the most important things Edouard came back with was that there were lots of timber workshops around, using local wood – and, interestingly, lots of small-section wood, because the big pieces get exported to the Middle East and China."

Achieving the desired long-span roof for the community centre with these slim 1m lengths is a challenge. The answer comes from unexpectedly humble sources – jointed wooden trivets and flexible rubber doormats. "The local timber resource is a little unreliable in its supply chain, and in the kind of species you're working with," says Toby Ronalds, director at Eckersley O'Callaghan, "but we've built the current design off that module, with holes screwed through the ends, which is achievable in a quickfire process on site. A rod or cable passed



Above left The jointed sections curve in two directions, generating a fabric-like aesthetic.

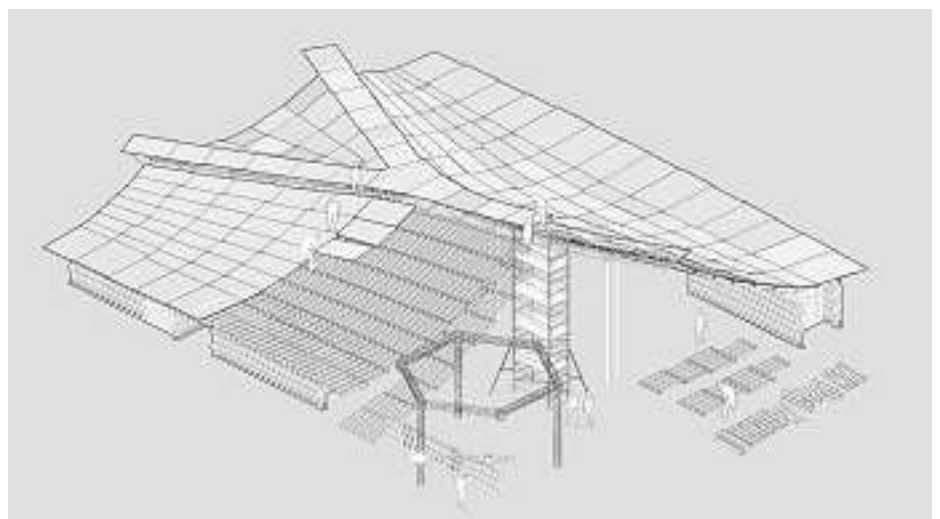
Above A key goal was providing a strong visual identity for the village, as well as a hub for engaging with the local community.

Below The wooden 'blanket' is draped from a Y-shaped steel ridge beam, which rises to create the main entrance.

through ties the units together to create a flexible structure."

This solution will enable an elegant tensile roof to be draped over a substantial Y-shaped steel beam (welded steel is common in local construction), creating a 'timber blanket' that offers curvature in two directions. Clad in corrugated metal panels, it can sweep low to protect the internal climate, and rise to announce the entrance. Achievable with local resources, it accommodates a large, flexible, open-span space, with few columns, capable of subdivision for the centre's multiple needs. Ronalds adds: "There's no way we would have been able to afford the sort of glulam catenary structures being created in North America and Europe, importing that timber technology to Tanzania... The result may be relatively labour-intensive, but is also lower-tech and smaller scale, while chiming with the idea of an efficient, tent-like structure that offers a focal point for the community."

There has been even more interest in the proposed 3D-printed earth walls,





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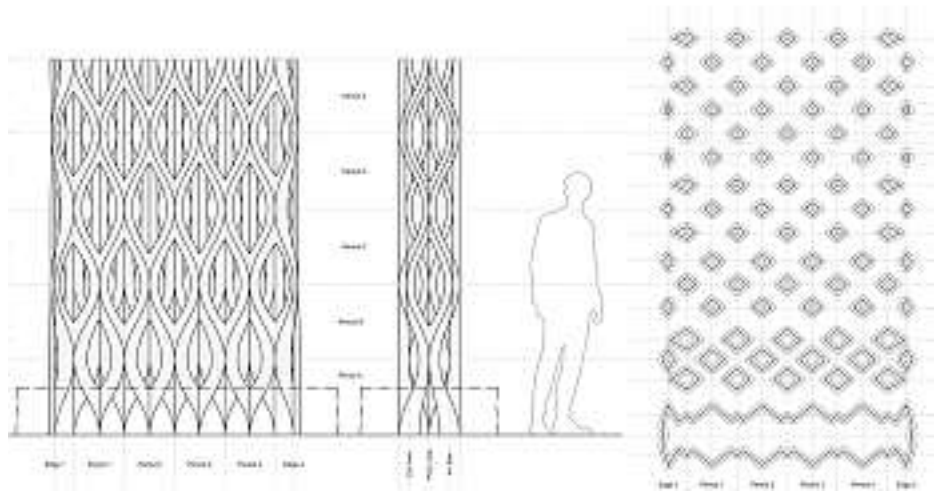
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Intelligence Education

again chosen to maximise ‘on-site’ materials and labour. The IAAC, known for its postgraduate course in 3D Printing Architecture, produced a full-height prototype last year, funded by Hassell, at its Forest Campus in Collserola Natural Park near Barcelona. It uses parametric design to achieve a complex open structure with air cavities configured to specific needs around ventilation, insulation and light. In Kibaha, Cabay had determined that local soil, reinforced with readily available organic matter and enzymes, could give a suitable mixture for printing such walls, using a Crane 3D printer from Italian maker WASP, as featured at the Venice Architecture Biennale and Osaka Expo 2025.

Printed onto a base containing extra lime or cement for stability – itself cast in an earth-printed formwork – the walls minimise energy usage and maximise recyclability, but the technique is still experimental. The exact soil mix is being tested, as are potential reinforcements such as chicken wire for strength and longevity. In this instance, the earth walls support only their own weight, so are doubled to conceal the independent structure for the overhanging roof, which will protect the walls from the elements. The rough texture needs to be accepted – even embraced – for both its aesthetic and its vulnerability, resisting the desire to include multiple additives that would reduce circularity. The ambition is to provide the community with one or more WASP printers for its future needs, enabling ongoing repair, and production of further buildings customised to specific sizes, purposes, materials and conditions, which would also expand local expertise and employment.

Design is, of course, more than function. A further aspiration, says Mark Loughnan, principal at Hassell’s Melbourne office, is delight: “We wanted the community centre to be designed so as to uplift people and make them feel safe, secure and get a sense of joy in their lives.” Another, he concedes, is investment: “We thought, there’s an opportunity here – collateral and fundraising are key, so we want to use innovative design to create a story that



Above Diagram detailing the printing of the prototype earth wall at the Institute for Advanced Architecture’s Forest Campus, Collserola Natural Park, Barcelona.

Below The weaving of the earth walls is customised to materials and climate, ensuring structural integrity while providing a porosity absent in most earth construction.

Credits
Client
 One Heart Foundation
Location
 Dar es Salaam, Tanzania
Structural engineering
 Eckersley O’Callaghan
Collaborators
 ClarkeHopkinsClarke,
 Institute for Advanced
 Architecture of
 Catalonia



reaches a wider audience.” Delivering a philanthropic project of this nature is “a slow, slow process”, adds Loughnan, “attracting international and local support, raising funds, and, almost more important than anything, trying to find a governance model that makes it a realistic proposition for someone – ideally local – to come on board and run it”.

There is clearly some nervousness about using experimental design to drum up interest and funding for such charitable projects. When it comes to the crunch, conservative construction methods may prove more practicable, or the project may stumble in the face of economic or political challenges, resulting in perceived failure in either case. But for Loughnan, the foregrounding of design is not window-dressing: “There’s a world out there that doesn’t benefit from design and design thinking – poorer communities, refugee settlements, victims of conflict and climate change. We don’t entirely know where this will go, it’s a journey, and it’s complex, but as an idea, and a future for building, we felt it should be interrogated. When others see the ambition around the design, they put their hands up and want to get involved.”

For De Kestelier, it’s about mindset as much as output, leveraging technology’s benefits while working with local conditions. He points to the practice’s NASA 3D-Printed Habitat for Mars: “The same ideas and logics apply: they’re extreme environments, hard to get to, you need to utilise available materials, work out your constraints, and then you come up with an architecture that is embedded in the environment.” If the result is a sustainable, replicable model for secure care for vulnerable girls in the region, it definitely seems a risk worth taking. ●



Joe Hudson is dedicated to making an impact.

IBSTOCK

Time for a national effort on housing

Having grown up in a North Tyneside council home, Ibstock chief executive Joe Hudson's perspective on the value of good housing has been shaped by lived experience. Government and industry must come together to drive change and nurture communities, he argues

As childhood homes go, Joe Hudson's was pretty ordinary for 1970s England: red brick, terraced, a three-bedroomed house with young Joe's bedroom so small you "literally couldn't swing a cat". The 1960s-built council house in the village of Annitsford, north of Newcastle, Joe shared with his mother and sister was part of a community that was "a bit rough around the edges", he recalls, but where everyone knew your name and frequented the local sports ground, pubs and churches.

That way of life is being eroded, as council housing is diminished by right-to-buy, delivery of new social homes dwindles below 10,000 a year, housing costs push lower-income households into more precarious ways of living, and amenities that should bind communities together are deemed unviable. But as chief executive of building products giant Ibstock, Hudson is now in a position to influence and is passionate



Ibstock
At the heart of building

'With good materials that stand the test of time, people can feel good about walking around their communities'



about driving change. "You have to take the initiative as a leader and help move things forward," he says. "I have a voice and can now make an impact."

He is doing that through Ibstock's research, partnerships and dialogue – including a recent letter to deputy prime minister Angela Rayner. All aim to foster fresh thinking, innovation and a shared ambition around new housing and placemaking, that perhaps looks to the values of home and neighbourhood that rooted Hudson's own life. "That's not just building, but building well," he explains, "with good materials that stand the test of time, where people can feel good about walking around their communities and where there are social amenities and landscaping."

This is not the first time Hudson has looked to social impact in a career that has taken him to Kenya, Uganda, the USA, the Middle East, Nigeria and France, in industries from horticulture to cement. Working for Lafarge in Uganda in the early 2000s, he set up a voluntary anti-retroviral counselling and testing scheme for HIV/Aids that reached out to around 50,000 people.

Since taking the helm at Ibstock eight years ago, Hudson has fortified teams and organisational structures and put a fresh focus on sustainability and innovation – a major undertaking for a business with 2,000 staff, across 34 sites, which makes everything from flooring to roof tiles. That has brought some rationalisation and closures but also significant investment: £300 million across the factory estate over Hudson's tenure, which includes investment into Ibstock's lowest-carbon bricks at Atlas in Walsall and the Nostell automated brick slip cutting lines and larger ceramics facade factory in Wakefield.

The company has also embarked on housing and placemaking research with Birmingham City University (BCU). Initiatives have included collaborating with BCU's STEAMhouse innovation centre to convene a workshop of 30 industry leaders and stakeholders to discuss more resilient neighbourhoods, and, notably, Project 80, a housing project alongside housing association Midland Heart, local practice Oakley Architects and interest group Building Alliance (see case study, overleaf). Collaboration with clients is also being reinforced, says Hudson. "We're able to look at supporting partners not just with products and materials but with skills, connections or community investment, to build long-term partnerships," he says. These efforts serve a common aim: establishing a better, longer-term, more strategic approach to delivering better new homes and communities.

As well as benefiting communities, that would help stabilise an industry enduring a level of volatility Hudson admits is "challenging". "There was a downturn after Brexit, then Covid,

where we had to reshape the business," he says. "Then came the housing downturn where we lost 35 per cent of our volume almost overnight and had to resize the business while investing in it." Instability has consequences: "It keeps shaving off the industry's capability to deliver in the long term."

The chancellor's £39 billion affordable housing pledge in the June spending review, around 60 per cent of which is expected to be dedicated to social housing, is good news, and there are signs of recovery in the private housing market. But government must go further, supporting first-time buyers by reintroducing the Help to Buy initiative, to fully restore the industry's health, argues Hudson. He contrasts Ibstock's core business now with the last year of Help to Buy applications: "I think this year we might deliver a maximum of 1.8 billion bricks as an industry; in 2022 we did 2.5 billion."

Still, he remains optimistic. In his career, he has drawn on his childhood to manage change and challenge. "I remember my grandad saying he had all these ideas, but wouldn't tell his bosses because they wouldn't listen. That stuck with me," he says. "Empowering people, listening and appreciating that anyone can have good ideas, is vital."

Now it is industry and government voices he is working to bring together, hence the letter to Rayner. "Postwar, we had a national focus on housebuilding and education – I benefited from that in a sense," he says. "We need a similar national effort now." ●

Above and left Ibstock worked with BCU's STEAMhouse innovation centre to bring together industry leaders and stakeholders to debate the future of housing.



Building for a liveable future

The Future Homes Standard is due to be implemented this autumn. A pioneering project in the Midlands has produced valuable learning around meeting the challenges of the new rules on low-carbon development

Below and opposite
Project 80's
Handsworth homes are
built of traditional brick
and block and come in
two-, three- and four-
bedroom layouts.

When the government launched its first consultation on the Future Homes Standard (FHS) in October 2019, it pledged to introduce it by 2025. Since then, there has been a change in government but commitment to the standard has held firm.

The final FHS – due this autumn – is expected to remain true to the original intentions. This includes requirements for new homes to deliver a carbon reduction of 75 to 80 per cent on 2013 building regulations and be 'zero carbon ready', by removing gas boilers and cooking and deploying low-carbon technologies, including heat pumps and solar panels. Housebuilders are already transitioning to the standard, notably by adopting 150mm wall cavities, but the FHS still brings significant change for the construction industry and for residents, who must learn to live with unfamiliar technologies.

Many demonstrator projects have been built over the past six years to help industry prepare for this moment.

The first and only one completed in time to feed into the FHS consultation process is Project 80, an initiative by housing association Midland Heart, Birmingham City University (BCU) and interest group Building Alliance. This tracked the design, construction, performance and lived experience for an infill scheme of 12 traditionally constructed houses, built using Ibstock brick, in Handsworth, Birmingham, all for affordable rent (see box). Its aim was to show how the standard could be achieved cost-effectively and without the unintended consequences BCU visiting professor and co-lead of its Centre for Future Homes, Mike Leonard, says have come from previous regulatory changes. The initiative also sought to explore customer experience and, ultimately, provide data and insights for policymakers.

Project 80's interim findings, published in 2023, noted challenges throughout delivery and beyond. Its final report, published this month, will



PROJECT 80, MIDLAND HEART (2)



‘There is no benefit to producing homes that meet a standard if people can’t live in them hassle-free’

add further detail and insights from post-occupancy evaluation (POE). As well as helping industry prepare for the arrival of the FHS, learning from the initiative is now playing into changes in construction practice and culture being driven by the Building Safety Act.

“The biggest learning from Project 80 was that technically there are many ways to deliver the FHS,” says Dr Tony Hopkin, head of construction, quality and innovation at Midland Heart. But its focus on the consumer was also telling. “What we need to be most conscious of is how easy those options are to use on a day-to-day basis,” he explains. “There is no benefit to producing homes that meet a standard on paper, if the people living in them can’t live comfortably and hassle-free.”

POE has given insights into the experiences of residents, diverse in their ethnicities and cultures. All were found to open windows in winter. Some didn’t use a cooker but relied on air fryers, while others cooked for six hours a day, both practices having implications for ventilation strategies. Running costs are typically higher than expected. “That’s due to the way customers are choosing to occupy their homes, and points to the need for better education about how to run them,” says Leonard.

Since the homes were completed in 2022, some things have inevitably changed. As the Project 80 homes were adapted from standard house types, their architect had to find space for technologies and a hot water tank. The nationally described space standard has facilitated that, although Simon Oakley, director of Oakley Architects, cautions, “For some clients now we’re saying that we’ve probably got to go beyond that

because you start filling every cupboard with PV batteries, inverters and so on.”

Meanwhile, knowledge gaps are being plugged. Building Alliance, working with partners including Studio Partington, has produced Recognised Construction Details, two free suites of details for key areas – thermal and fire junctions – in traditionally-built housing, which are available online.

And team working has evolved too. On Project 80, Oakley says he saw the benefit of early involvement of specialists and subcontractors, and he sees such approaches being more commonplace as the new building safety regime takes hold. “Procurement is still predominantly a cost-driven process in the housing association sector,” he says, “but there is a swing back to a more collaborative way of working”.

It’s a theme picked up by Leonard. “Over the past 20 years we have approached design and construction as a series of packages, with specifications commoditised and changed without checks and balances or reference back to the original designer,” he says. “We need to see wall construction – and other elements – as complete systems, and specifications not changed unless there is reference back.”

Midland Heart and BCU want to follow Project 80 with a net-zero housing scheme, Project 100, looking at how different construction methods and nature can help embed resilience at a neighbourhood scale. The focus needs to be on ensuring homes are “more energy efficient, resilient to future climate, adaptable and, of course, safe and comfortable”, says Leonard. “My plea to designers is to take more of a lead in saying what good and safe look like.” ●

WHAT WENT INTO PROJECT 80

Project 80’s home designs were based on standard Midland Heart two-, three- and four-bed home layouts, designed to 2013 building regulations and adapted to the notional FHS. They featured increased wall insulation, airtightness and enhanced window specification.

“Specifying Ibstock was driven by the desire to select a locally produced brick, which is highly attractive and chosen to blend in with the wider neighbourhood. It offered Midland Heart and its tenants a very low-maintenance cladding solution,” says BCU’s Mike Leonard.

External walls had a target U-value of 0.13, achieved using Ibstock’s Manorial Mixture brick, attaining one of the company’s lowest embodied carbon figures of 130kg CO₂/tonne, 150mm Unilin PIR insulation and H+H aircrete blocks, with other walls using Besblock, with polymer spray offering enhanced airtightness. Four homes built to near-Passivhaus levels underwent tests that showed floor, roof and wall U-values exceeded Passivhaus standards.

Homes used air-source heat pumps, and hot water heating-only heat pumps with electric panel radiators (a likely apartment solution). On completion, the project was calculated to have a 15 per cent cost uplift over the same house types built to 2013 building regulations. Leonard believes that could drop as low as 12 per cent depending on the spec, but electricity substations will add cost and complexity on larger sites.

All material specifications in Project 80 were carefully considered. While Ibstock’s involvement supports thermal efficiency research, the bricks were also specified because of their resilience, safety and longevity, Leonard concludes.



Coming up for air

At Pimlico's vast, notorious and neglected Dolphin Square private housing estate, a multi-phase renovation scheme is under way. Pamela Buxton takes a deep dive

NICK GUTTRIDGE © What links Oswald Mosley, Christine Keeler, Princess Anne and William Hague? Along with other politicians, celebrities, writers and – it is rumoured – spies, all were once residents of Dolphin Square, the famous 1930s development in London's Pimlico. Designed by Stanley Gordon Jeeves in a neo-Georgian style, it is the largest privately owned apartment complex in the UK, with a gross internal area of 74,000m².

Although not itself listed, Dolphin Square encloses a Grade II-listed garden open to the public, something of a hidden oasis, and forms a designated conservation area. While the original 1,234 apartments were modest in size – considerably smaller than regular space standards – the red-brick development was packed with an enviable level of amenities including a 24-hour nursery,

squash courts, indoor pool, spa, gym, restaurant, shopping arcades, petrol station and riverside tennis court.

Despite its pedigree and prime location stretching down towards the Thames, it was in dire need of an overhaul when GRID Architects and Interiors first got involved back in 2019, following several either unexecuted or unsuccessful interventions down the years. The practice is now on site with the second phase of a major regeneration, led by AXA Investment Managers (IM), which bought the complex in 2020.

According to Roshan Ramlugun, AXA IM's residential sector lead, while its structure was sound, the estate was nearing the end of its useful life after decades of patched repairs, with ageing infrastructure including hugely inefficient heating in need of

replacement, as were the lifts, roofs and more than 6,000 single-glazed windows. The complex also needed upgrading to suit contemporary lifestyles.

"We saw the potential to restore it and effectively provide an income stream for the next 50 years," he says.

Ramlugun describes the old reception area as resembling a closing-down department store on its last legs. "Atmospherically when you walked in,





Far left The former secondary entrance, which became over time the main one, has been celebrated by cutting through the first-floor slab.

Left The north entrance has been refurbished and extended as a new social hub for the complex.

Above Hardwearing wood-effect vinyl flooring gives a domestic feel to the new lobby's social spaces.

it felt pretty tense whereas now it is relaxed... it was a bit of a ghost town, not very welcoming," he said.

That's certainly no longer true. When RIBA visited after the initial phase completed, there was a healthy occupancy in the new workspaces and bistro above the reception, and plenty of residents and visitors relaxing in the lounge seating, some with their dogs (Dolphin Square is pet-friendly). The first phase was fully let in just two months, well ahead of expectations.

GRID director Laurence Osborn is frank about the scale of the challenge the practice had to meet. "From a sustainability point of view, it was a nightmare," he says, with residents having no control over their heating other than opening a window. Now, the complex has switched from gas-fired communal heating to 40 roof-mounted air-source heat pumps and renewable electricity. Each apartment has its own MVHR unit, as well as

new double-glazed sash windows that match the aesthetic of the original.

Beyond the infrastructure problems of the 13-'house' estate, the key tasks were to address the inadequate entrance and associated communal areas, upgrade the amenities and reinvigorate the outdoor space, which included an underused Moroccan garden, pergolas and a colonnaded pavilion.

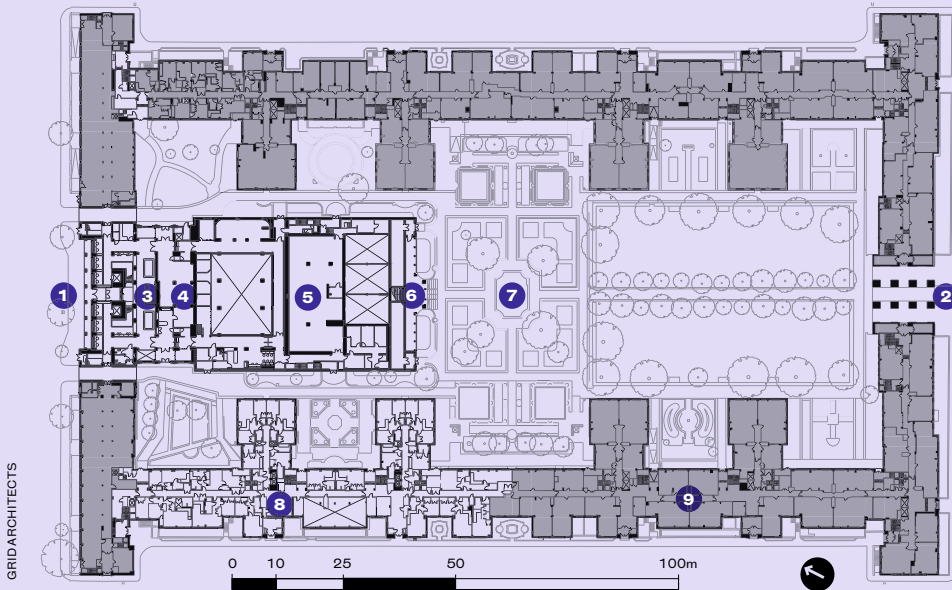
"There were lots and lots of missed opportunities. Our job was to recapture those and enhance wherever we could," says Osborn, adding that the practice aimed to keep any interventions sensitive to the original architectural intentions, while ensuring they could clearly be read as new elements.

The entrance problems date to the early 1970s, when the opening of nearby Pimlico underground station prompted the use of a secondary entrance at Rodney House on Chichester Street, designed for deliveries and taxis, as the main way in, rather than the original, rather grander entry point further away on Grosvenor Road at the opposite end of the site. The subsidiary entrance was not only lacking in a sense of arrival, but linked unsatisfactorily with the amenity block and outdoor areas to the rear.

GRID's key move was to reconfigure and extend the entrance as a new circulation hub and social space, cutting through the first-floor slab to create a double-height arched, glazed frontage, and amplifying the sense of arrival with a new toplit reception desk straight ahead. Staircases lead to a new bistro as well as work and meeting areas, in line with expectations for contemporary build-to-rent developments. These are positioned within a two-storey pavilion clad in Portland stone – the only new-build element – between the reception and the pool enclosure at the rear.

The new arches nod to the original main entrance, with the arch motif also used in the bespoke, bronze-finished balustrading on the first floor overlooking the reconfigured reception. The upstairs social areas and workspaces lead to a new terrace with views out over the gardens. Fluted oak detailing is used to flank the lift core.

Ground floor



GRIDARCHITECTS

- 1 Chichester St entrance (Rodney House)
- 2 Riverside entrance
- 3 Reception area
- 4 Lobby, social and work spaces
- 5 Bistro
- 6 Exterior terrace
- 7 Listed gardens
- 8 Completed residential block
- 9 Future residential phases

Right The terrace above the new extension at the north end offers views over the gardens below – and a sense of the development's scale.

Opposite The new reception desk is a standout feature.



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Intelligence Spec: Flooring



Left Porcelain tiles run from public areas into the spa reception.

Below left Functional rubber mat flooring defines the new gym area.



"The materials are in keeping with the style, trying to be contemporary but respectful of the building at the same time, creating contrast and highlighting existing elements," says GRID's head of interiors Ilaria Ferraboli.

The practice's stated flooring strategy for lobby areas aimed to balance durability, comfort and visual interest. In heavy-traffic primary circulation routes, stone-effect porcelain tiling (Bera and Beren by Domus) was specified as a robust, easily cleanable surface, with some carpet (Desso Retrace by Tarkett) for quiet seating areas. Metal trims delineate transitions between the flooring materials. Wood-effect vinyl in a dark brown tone – Karndean's Looselay – gives a residential aesthetic throughout the upstairs social and work spaces, and was also chosen for its hardwearing and acoustic properties given the potential for the area to be used for events.

Around the bistro area, marble-effect porcelain tiles (Marvel Pro Crema by Atlas Concorde) were cut to a bespoke 60mm x 60mm and laid in a diamond pattern with metal trim, with the non-absorbent tiles particularly suited to an area of potential spillages.

In smaller entrances to the different blocks, terrazzo-effect porcelain tiles (Pinch by Marazzi) were specified for robustness, and to complement the scheme's original Art Deco language.

Given the four miles of corridor at Dolphin Square, the flooring choice for the circulation routes was crucial. This had to be sturdy and mop-able, given residents now carry rubbish bags out along corridors (they used to be stored in cupboards by the front door), adding leakage risk. GRID specified Bolon's Artisan woven vinyl to replace the previous carpet. Easy to clean and durable, its textured surface also helps reduce noise. Above, the double coffered ceilings conceal the new servicing (previously surface-mounted), while maximising the limited headroom.

Besides the entrance and main communal areas, the first phase included 363 apartments across three houses, including a block of formerly serviced apartments, which were stripped back to the beam-and-slab structure to enable the new servicing to be sympathetically introduced. The vast majority were one-bed or studio flats, with modest, enclosed kitchens and little storage. GRID's key

moves were to make everything open plan and introduce new sash windows, and MVHR unit cupboards with discrete circular vents on the exterior wall.

GRID went for timeless, tough finishes including quartz counters in the kitchen. On floors, it specified a light grey tone of Polyflor's Camaro Rigid, used in a narrow plank, in keeping with apartment dimensions, with an integrated acoustic underlayer. Skirting is detailed to reference the stepped roofs of the blocks. "It's neutral: everyone who moves in can make it to their taste," says Ferraboli of the apartments' aesthetic.

Shower rooms have a 1930s vibe, with contrasting dark details and white sanitaryware along with grey printed and textured porcelain tiles (Peak by Domus) that, she says, "really give the idea of real stone" while being cost-effective and water resistant.

Refurbishment of the gym and fitness studios is already completed, as are the squash courts, where the floors were retained, sanded and refinished.

The second phase, due to complete in 2027, is underway, including a new juice bar by the gym, the refurbished pool, which includes restoring long-blocked-off glass skylights, and more apartments. "I'm still expecting to find a body, or a weapon," jokes Ramlugun, given the rumours of espionage in years gone by.

A final phase will complete refurbishment of the residential house blocks by 2028. Plans to revive two retail arcades are in hand, and there is scope to find uses for the old petrol station and vast lower basement. Another idea is to create a Dolphin Square museum, which, given the complex's rich history, would not be short of colourful stories. ●

Credits

Architect GRID Architects
Interior designer GRID Interiors
Main contractor Galliford Try
Project managers Radcliffes / Baily Garner
M&E consultant Cundall
Structural engineer Heyne Tillett Steel
Lighting designer DesignPlusLight
Fire engineer Affinity Fire
Acoustic consultant Cundall
Quantity surveyor Hollis
Landscape architect Sally Prothero
Planning consultant DP9
CDM principal designer Project4Safety



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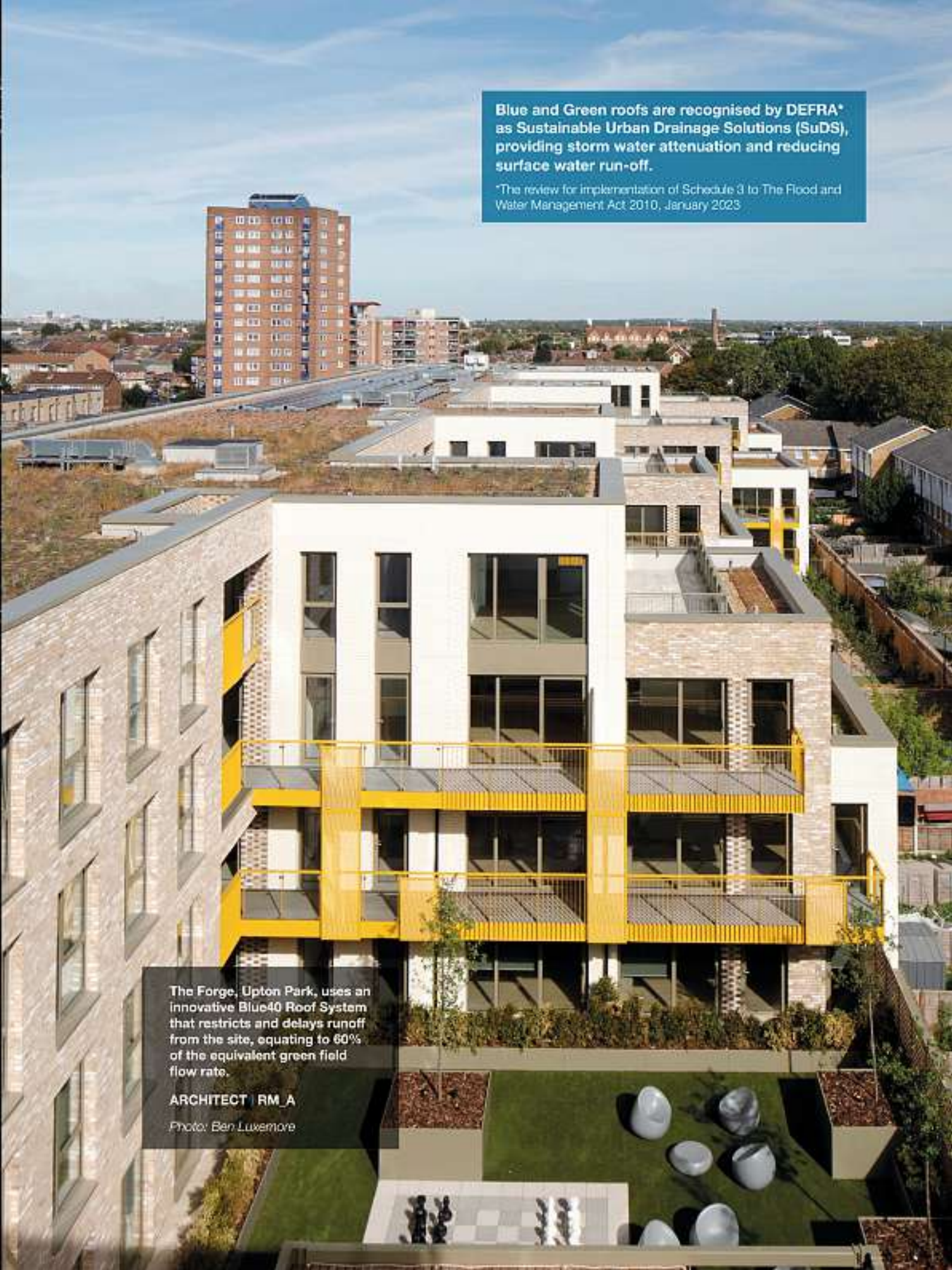
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An aerial photograph of a modern residential building complex. The building features a mix of brick and white facade, with prominent yellow balconies. The roof is covered in greenery, and there are several rooftop gardens. In the background, a tall brick apartment building and other residential structures are visible under a clear blue sky.

Blue and Green roofs are recognised by DEFRA* as Sustainable Urban Drainage Solutions (SuDS), providing storm water attenuation and reducing surface water run-off.

*The review for implementation of Schedule 3 to The Flood and Water Management Act 2010, January 2023

The Forge, Upton Park, uses an innovative Blue40 Roof System that restricts and delays runoff from the site, equating to 60% of the equivalent green field flow rate.

ARCHITECT | RM_A

Photo: Ben Luxmore



Treading carefully

At the University of Cambridge's new Ray Dolby Centre, the presence of sensitive equipment has made designing and specifying floors a highly involved process, especially around mitigating vibration, finds Jan-Carlos Kucharek

The latest addition to the University of Cambridge's western campus is the consolidation of the physics faculty's renowned Cavendish Labs at the new, £300 million Ray Dolby Centre. Named after the former alumni and inventor of noise cancelling and 'surround sound', it is a world-class, 33,000m² research centre comprising 173 laboratories, plus clean rooms, lecture theatres, learning and outreach facilities, workshops and over 300 staff and researcher offices. The centre was designed by

Jestico + Whiles, which won the job in 2015, having cut its teeth notably at Manchester University's National Graphene Institute, the University of Southampton's Mountbatten facility for electronics and computer science and the Institute of Nanoscience at the University of Sydney.

This experience served the firm well, enabling it to hone design ideas developed over years. Being not just a university facility but an Engineering and Physical Sciences Research Council

(EPSRC) national one, there was a demand for high levels of design and execution. With cutting-edge research taking place in atomic force microscopy or nanophotonics, it was also crucial that vibrational effects across the four-wing building were minimised to avoid affecting highly sensitive laser and measuring equipment, and that areas of the facility were suited for storing the low temperature gases that facilitate such work. Realising this meant macro and micro approaches – not least in slab and floor surface specification.

Jestico + Whiles director Jude Harris describes the building's area as spread over those four principal research wings, which are separated by external courtyards. A fifth block, with large and small lecture halls, a library and public areas, connects the two central research wings at their east end. At every wing's west end sits its Central Utility Building (CUB) concept, containing MVHR plant, which feeds services in laterally at high level on each of the building's five floors, to meet the facility's demand for +/-0.1°C and +/-10% humidity.

"With the low-vibration and highly controlled environment needed here, we isolated the CUBs from research spaces so plant doesn't interfere with the experiments," explains Harris. "Services run along exposed mesh trays, allowing researchers to access and reconfigure them as necessary. And it means no



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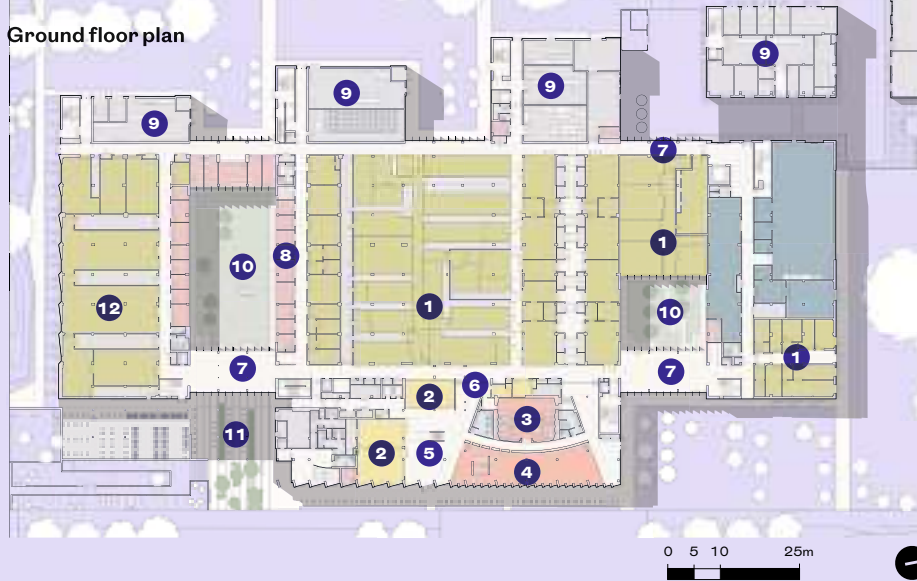
RAMBOLL



KILIAN O'SULLIVAN (3)

Ground floor plan

JESTICO + WHILES (2)



- 1 Laboratories
- 2 Seminar space
- 3 Ray Dolby Theatre (low level)
- 4 Library
- 5 Public reception
- 6 Secure entry to research areas
- 7 Circulation spine
- 8 Offices
- 9 Central Utility Building
- 10 Courtyard
- 11 Bicycle parking
- 12 Cryostat halls

Sectional elevation



risers, so only the structural columns, at 6.8m centres, limit lab flexibility."

Optimising the structural approach drove everything, he continues, ensuring desired flexibility could be married with vibrational concerns. It meant floor 'heat maps' being used at design stage to ensure upper-level, 375-475mm reinforced concrete slabs could handle them, with possible vibration effects predicted at the most vulnerable mid-span. Reflecting on the material decisions the practice made back in 2016, Harris thinks the team would have made the same ones now: "We looked at precast concrete, but in situ was the only material that worked for vibration control, as without any form of jointing, it just tied everything together more rigidly - though we did utilise GGBS to reduce carbon impact."

Vibration mitigation was especially critical in the 8m-deep basement where the most sensitive equipment is located and at the ground-floor cryostat hall, the former requiring the highest vibration criteria: VC-H on the A-H scale. "As an algorithmic scale, each increase is another order of performance and, until now, the highest we'd designed for was VC-E," notes Harris. "I don't think this level has been achieved anywhere in the UK and at only a few facilities in Europe, notably Munich's Max Planck Institute."

Being a performance requirement, contractor Bouygues UK worked hard with structural engineer Ramboll and specialist consultants to come up with a 'proof of concept' control slab, which was cast onto the clay substrate at the correct level and fitted with sensors for a whole year to check it could deal with local vibrational effects. Harris recalls

Opposite top The east elevation of the Ray Dolby Centre, showing the copper-clad small lecture hall, floating above the first-floor public reception.

Far left Looking north to the main entrance. Nearly 800 bikes fit into the first-floor plinth below the stair.

Middle left Stainless steel reinforcing was cast into the basement slab, to deal with the need to avoid ferrous materials in some research areas.

Left The facility has its own workshops to create and modify experiment equipment.

Above Looking south to the main lecture hall, the library below and the secure entrance to lab and teaching areas (unseen, below left).



Intelligence Spec: Flooring

Left Concrete columns in the library prop the copper-lined slope of the Ray Dolby Auditorium's slab.

Below Junckers timber flooring runs through theatre areas. The blackboard remains a staple teaching tool.

Bottom The timber-lined Ray Dolby Auditorium is a high-spec 'showcase' space.



KILIAN O'SULLIVAN (2)



STÅLE ERIKSEN

as anti-static and non-magnetic field requirements. These involved the rare move of casting stainless instead of ferrous steel reinforcing rods in the up-to-2m-thick slab and also up structural columns. Even partitions in the hall were built using timber studs fixed with non-ferrous screws.

And it didn't stop there. Harris explains that with lab floor surfaces across the building needing to resist chemical spills from dewars storing helium or highly corrosive nitrogen, both used for ultra-low temperature research, it took a visit to flooring firm Bolidt's Holland HQ to convince the client of the suitability of industrial grade, 8mm-thick Bolidtop 700 epoxy resin seamless floors for key lab areas. For the cryostat hall and associated spaces, the demand was even higher. "While resilient and cleanable, steel filings are routinely added to resin mixes for durability and slip resistance, so would have been impossible to use here – so we worked with Bolidt to produce a bespoke resin mix that replaced these with aluminium filings, allowing it to be used in these lab areas," explains Harris. That industrial-grade character, he adds, also leads users up from the basement, with AATi heavy-duty carborundum nosings on staircases – "as specified on London Underground".

Luckily, with that achieved, things became less onerous in other parts of the building. In daylit perimeter offices for desk-based research, the architect sought a more domestic-feel material to top the hardworking slabs, so opted for Desso Trace carpet tiles by Tarkett in dark grey, offering a welcome contrast

and acoustic attenuation. It's echoed in seminar rooms that pepper the building.

In lower-level circulation and public areas, the firm wanted robustness with elegance. Wide corridors lend it the latter but via a functional demand to accommodate movement of high-spec laser tables around the building. Both were served with specification of Domus Tiles' stone-effect porcelain planks in 'Limestone' in a 300mm x 600mm tile size. Twin metal lines in the floor demarcate CUBs from the lab areas – offering that necessary isolation. The same tile spec runs through the generous, publicly accessible entrance seat area below the copper-clad profiles of the main lecture spaces above it.

The wide, steeply raked 420-seat Ray Dolby Auditorium lecture hall is propped from columns that rise from the library below it, while the 120-seat smaller lecture hall hangs from the slab above. These showcase spaces are acoustically plumped with soft seating to allow, I'm told, even for music events; though the client curiously deferred from installing Dolby's Atmos system, which enables room acoustics to be digitally modulated. The higher spec of the space is noted not just on acoustic timber panels that line the sides but below your feet. And it's from that Junckers HP Friction Plus timber slat flooring that cocky young physicists, drawn from the centre's 1,100 users, can stride to its old-school width of blackboard, poised to chalk up a future Nobel. ●

Credits

Architect Jestico + Whiles

Client University of Cambridge

Structural engineer BDP

M&E consultant Hoare Lea

Project manager Currie & Brown

Landscape architect Plincke

Lighting consultant BDP

Lighting designer Studio Fractal

Food service consultant Tricon

Accessibility consultant David

Bonnett Associates

Fire engineer RPS

Vibration consultant BDP/ISVR

Civil, structures & vibration engineer, fire

consultant, acoustic consultant Ramboll

Cost consultant, transport consultant,

masterplanner AECOM

Technical architect Jacobs

Executive architect NBBJ

being surprised by the findings: "While we expected the main problem to be the nearby M11 motorway, any spikes registered came from a local bus service running over a speedbump on the access road outside – so we had it removed."

With the basement slab having to host the scanning tunneling microscopy (STM) labs, Harris says there was also a need for electromagnetic interference (EMI) and infrasound shielding as well

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Underfoot statements

Studio Moren partner David Harte and associate Ed Murray discuss four distinctive hotel floors their practice has designed, each enriching the narrative and atmosphere of the spaces they connect

As hotel specialist architects and interior designers, Studio Moren's team members know that a floor is capable of doing much more than stand up to thousands of footsteps. It can set the tone, anchor a design narrative and guide guests through a space without them even realising it.

We approach flooring as an integral layer of a building's interior architecture – and one that must balance atmosphere and beauty with performance and durability. We look carefully at slip resistance, cleaning regimes, how different finishes wear and patinate over time and how they contribute to acoustics, circulation and the feel of a space.

Sometimes a floor may be calm and continuous, creating visual flow. Elsewhere, bold patterns or contrasting materials can define zones and highlight moments of delight. The four examples we've chosen here show how thoughtful specification and craft – from marble to timber to carpet – make a floor far more than just a surface underfoot.

↑ Westin London City Honed Silver Shadow marble

At the Westin London City, the public areas were designed as a calm, sophisticated extension of the hotel's riverside setting. We specified a continuous expanse of honed Silver Shadow marble throughout, creating a seamless visual flow that mirrors the Thames outside. This floor becomes the constant in a space that stretches from the river's edge to the heart of the City, uniting reception areas, lounges and all-day-dining spaces in one elegant sweep. The subtle veining adds movement and depth, while the honed finish reduces glare and improves slip resistance without losing the refined feel that guests expect of a luxury hotel. Durability and ease of maintenance were also key – the stone's natural variation helps disguise wear, and the honed surface is forgiving of scuffs and high footfall. It's a floor that works hard while feeling effortless, anchoring the Westin's sense of wellness and calm amid the Square Mile's buzz.



ENNISMORE & HEIKO PRIGGE

↑ Hyde London City Open bathroom tile and chevron carpet

At Hyde London City, the guestrooms embrace the hotel's spirit of playful surprise through an open bathroom concept designed to make compact rooms feel more generous. Flooring plays a key role in this sense of expanded space. Bathrooms' green-and-white striped porcelain tiling continues into the guestroom entrance lobby, drawing

the eye deeper into the room to create a seamless transition between wet and dry zones. A dark-stained oak border then frames the sleeping area, where an inlaid chevron patterned carpet in light and dark grey adds texture and softness underfoot. The 80/20 wool blend was chosen for durability and ease of maintenance in high-turnover guestrooms, its subtle patterning echoing the hotel's layered, slightly theatrical character, inspired by Victorian illusionists. Together, these surfaces guide guests through the space, helping to open up the plan and adding moments of richness and craft that elevate a compact footprint.

↓ **TAMISÉ, Park Hyatt London River Thames**

Marble chevron and timber plank

At the hotel's elegant wine bar, TAMISÉ, the floor sets the tone, guiding guests through the space. Our interior design team combined a striking black and grey marble chevron pattern with warm timber floors, adding depth and

AMY MURRELL



character to different zones. The marble, Nero Marquina and Gris Pulpis, marks key circulation paths, drawing the eye towards the panoramic riverside views. In the main bar, timber planks laid at 45 degrees create a sense of movement and flow, while in the intimate wine room, a Versailles timber pattern introduces an extra layer of craftsmanship and heritage, echoing the bar's refined, residential feel. Loose-laid rugs over the

timber enable the bar to be reconfigured for events without losing its refined atmosphere. The honed marble provides the right balance of slip resistance and a soft, tactile finish, while the chevron helps disguise wear in this high-footfall setting. Together, these materials define zones, manage acoustics and elevate the guest journey: a subtle, statement-making example of how thoughtful detailing can enrich user experience.

↑ **Vintry & Mercer, City of London Granite cobbles**

At Vintry & Mercer, tucked away off Garlick Hill in the City of London, the main entrance lobby makes an immediate connection to its historic surroundings. Studio Moren's concept brought the granite setts of neighbouring Miniver Place straight into the hotel's interior, creating a floor that feels both unexpected and entirely rooted in place. Granite cobbles reference the area's rich mercantile past, once bustling with wine merchants and trading guilds, while their rugged texture adds a layer of authenticity and tactility that contrasts with the more refined finishes further inside the hotel. From a performance perspective, the granite is exceptionally hardwearing, ideal for high footfall at the hotel entrance and robust enough to handle the transition from street to lobby without visible wear. Underfoot, the slight undulation of the cobbles naturally slows guests down, setting a more intimate pace as they step off the busy streets and into the calm of the hotel. ●

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Checklist: floor finishes

There is plenty to think about when designing and specifying 'flexible' floor finishes: from the visual to practicality, performance, cost and maintenance. Here, the team from SpecStudio runs through some of the most important design aspects to consider in order to develop a thorough, detailed specification

Defining 'flexible' floor finishes

The main types of 'flexible' floor finishes that we come across are:

● **Resilient coverings (primarily), as follows with various material compositions and backing options:**

- Plastics, generally vinyl (polyvinyl chloride – PVC)
- Rubber
- Linoleum
- Cork

● **Textile coverings (primarily), as follows with various material compositions and backing options:**

- Carpets

The main formats for use and application are either 'sheet' or 'tile'.

Key considerations:

- Design responsibility: At SpecStudio we always align our specifications with the procurement and design responsibility matrix (DRM). We need to understand if an element of the design is prescriptive (architect designed) or descriptive (contractor / specialist subcontractor responsibility). Usually, the final design solution would be prescriptive, but this depends on the contractual appointment.
- Bases / substrates / levelling compounds / underlayments; a topic worthy of an article in itself but it is imperative that sub-construction requirements, from primary structure to the final floor finish, are appropriately selected.
- Selection of the correct floor covering is a balance between the desired aesthetics including tactile interaction – how it feels (the latter particularly for textile floor coverings), the performance and attributes of the floor covering as suitable for the conditions of use and, of course, cost.
- It is important to undertake due diligence with reputable manufacturers to ascertain what product options are available and most appropriate for the use and service conditions. The more detail that can be discussed at an early stage with the manufacturer's technical team, the better.
- **Carpets have some specific attributes for assessment prior to selection:**
 - 'Luxury class' ratings: LC1 (low) to LC5 (high).
 - Appropriateness for use on stairs.
 - Tog (heat insulating) rating: the higher the tog, the greater the insulative properties. If used with underfloor heating this should be assessed alongside any underlay, since their use could be counterproductive
 - What skirtings are required at the interface? These may be separate materials, such as timber, or the same material can be used; for example, with plastic / linoleum the skirting can be a continuation of the floor via a coved former.
 - Understand jointing techniques for each product type. These can range from simple butt jointing and interlocking to seam welding. For sheet materials it is often desired that joints / junctions are minimised, and where necessary located in inconspicuous locations. Pattern matching is important.
 - Are applied finishes necessary for the 'flexible' floor finishes? Secondary finishes such as protective treatments, sealers and polishes may be required and should be coordinated with and recommended by the floor finish manufacturer. Required performance attributes achieved with the floor covering should not be negated.

- Thought should be given to the various accessories necessary to complete the installation, such as termination trims / transition strips / nosings. A plethora of products of all different depths and finishes is available for selection.

Best practice

● **Overarching standards / bodies:**

- BS EN ISO 10874: Resilient, textile and laminate floor coverings – classification.
- BS EN 14041: Resilient, textile, laminate and modular multilayer floor coverings – essential characteristics.
- BS 8203: Installation of resilient floor coverings – code of practice.
- BS 5325: Installation of textile floor coverings – code of practice.
- BS EN ISO 10581: Homogeneous polyvinyl chloride (PVC) floor coverings.*
- BS EN ISO 10582: Heterogeneous PVC floor coverings.*
- BS EN 1817: Homogeneous and heterogeneous smooth rubber floor coverings.*
- BS EN 12199: Homogeneous and heterogeneous relief rubber floor coverings.*
- BS EN ISO 24011: Plain and decorative linoleum.*
- BS EN 12104: Cork floor tiles.*
- BS EN 1307:2014: Textile floor coverings: classification.
- Contract Flooring Association.
- The Carpet Foundation.

*Prevalent standards for various 'resilient' materials; not an exhaustive list.

● Technical considerations:

- 'Flexible' floor finishes should be proprietary systems by a reputable manufacturer with independent third-party testing and credentials to BS EN ISO 9001.
- Necessary performance / attributes should be understood and established, since this will form the basis of achieving the correct design solution (consideration should be given to all components of the system necessary for installation: adhesives, floor finish, protective coatings, accessories and so on, not just the floor finish itself).
- Classification: Establish the appropriate general use classification ranging from 'domestic', 'public / commercial', and 'light industrial', with associated type and frequency classification within those categories (compliant with BS EN ISO 10874, noting that BS EN 1307 aligns with the classification but excludes heavy-duty public commercial and light industrial classifications).
- Durability: Propensity of a product to achieve its documented performance / attributes and visual characteristics over a stated service life with cleaning and maintenance undertaken. There is much variation depending on product type.
- **Reaction to fire:**
 - To BS EN 13501-1 expressed as classification letter (A to F) with 'fl' suffix followed by the smoke release category (s1 to s3). As an example, Bfl-s1 or better. Need to be compliant with the Building Regulations for their location of use.
 - Performance using the UK national classification system to BS 476 should not be used.

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● Slip resistance:

- Generally compliant with recommendations of BS 8300 (noting that this does not apply to individual dwellings or to residential buildings specifically designed for the care of people with complex or multiple disabilities), by UK Slip Resistance Group (UKSRG) and CIRIA PUB C653 Safer surfaces to walk on: reducing the risk of slipping.
- A 'low slip' potential (36 Pendulum Test Value – PTV) or better in both dry and wet conditions) when tested to BS EN 16165. Determination of slip resistance of pedestrian surfaces – methods of evaluation.
- A 'low slip' potential (20 Rz but not greater than 30 Rz).
- Particular cognisance should be given to stairs (including nosings), inclines and locations where substances other than water are likely to be spilled, and increase the slip potential – for example, viscous liquids. Also, consideration where slipping or falling will result in other risks, such as near operational machinery.
- Slip resistance to sports flooring to comply with recommendations of BS EN 14904.

● Other considerations:

- General attributes: Selection of products with appropriate properties for certain conditions of use, such as hygienic properties for labs / hospitals.
- Substance resistance: Selection of products should resist deterioration due to any substances likely to be used during the intended use being spilled onto the flooring over the specified use period.
- Movements: Understand location and parameters of building control joints and such joints in interfacing sub-construction and accommodate them in the design. Comply with installation standards and product manufacturer recommendation for movement joints. Flooring materials to accommodate expansion and contraction due to temperature and humidity changes.
- Environmental / sustainability parameters: Comply with overarching environmental performance schemes (BREEAM, WELL, NABERS Passivhaus, over client requirements) and required classification ratings applicable for the project. Ascertain the environmental impact of source materials and manufacturing of products (including recycled content, life cycle greenhouse gas emissions, embodied carbon, net zero, recyclability / cradle to cradle and volatile organic compounds – VOCs – waste). Utilise companies complying with BS EN ISO 14001. Products should have an environmental product declaration (EPD) compliant with BS EN 15804.
- Acoustic: Provide appropriate / required sound and impact reduction / sound absorption, when measured to BS EN ISO 717.
- Light reflectance value (LRV): To assist visually impaired people, and also people with neurological processing differences, PAS 6463 guidance from BS 8300 recommends light reflectance and visual contrast between surfaces measured in accordance with BS 8493. The LRV scale ranges from 0 (totally black) to 100 (totally white). Guidance suggests a minimum 30-point differential between surfaces, though under certain lighting conditions this can be as low as 20 points.
- Anti-static: Where necessary 'flexible' floor covering to prevent generation of electric charges through static, dissipating them to earth.

Other members of the design team should be liaised with such as in the following instances (not necessarily exhaustive):

Structural engineer:

- Building control joints.

Services engineer:

- Compatibility with underfloor heating.
- Integration of anti-static accessories and coordination with discharge points.

It is prudent to obtain manufacturer samples indicating range, since there can be subtle differences between batches. Consideration should be given as to how a product is used in required locations. Tiles should be blended to ensure a patchy appearance is avoided, especially if multiple batches are required for large areas.

Installation shall be compliant with all governing standards and manufacturer's recommendations; and by operatives recommended / approved by or trained by the system manufacturer.

Although all aspects of installation are important, particular attention should be given to the following in order to achieve a quality installation and must be factored into the construction programme. Failure to do so can seriously affect the quality and longevity of the works.

- 'Moisture content / relative humidity of base / substrate': established using appropriate equipment.
- 'Conditioning': exposing the products to environmental conditions commensurate to the suitability once installed. The correct environmental conditions should be maintained after installation.

'Flexible' floor finishes specification checklist

- Who has design responsibility?
- Have all interfaces and coordination with other disciplines been considered?
- What are the performance requirements / attributes necessary for the service conditions?
- Are any 'applied finishes' required? If so ensure product performance / attributes are not compromised and maintenance / upkeep understood.
- Has input and advice been sort and received from manufacturers?
- Comply with client brief / liaison to establish required aesthetics / look and feel of products after elimination of those not suitable.
- Is the proposed product pre-tested and certified for the conditions of use? Check that the products attributes are declared to BS EN 14041.
- Are all elements of the system compatible with each other and interfacing sub-construction?
- Have trims / nosings been selected?
- Have samples been requested and reviewed?

SpecStudio is an independent specification writing team delivering specifications for architectural and design practices: specstudio.uk



Spaces of Trust: rethinking the balance of freedom and security in architecture

Architects from across the UK and Europe gathered at Battersea Power Station in June to discuss security and freedom. There were big questions at stake: Who do we protect? How do we protect? And how do we ensure those protections don't feel oppressive and stop the best of public life in our cities? We heard from a specialist security advisor, and from a physical penetration tester – also known as a burglar for hire. We looked at evolving threats and social possibilities. And leading designers told us how they tread the line between security and freedom. Our mission at RIBA is to make the world a better place through architecture. This challenge is as pressing as ever, as we strive to design and create spaces that are safer, more accessible, inclusive, and comfortable for all. Architecture is about shaping environments that foster connection, security, and wellbeing. June's event opened up conversation on these delicate issues – and you can read some of the highlights in these pages.

Eleanor Young, editor, RIBA J

Following the architects connect 2025 event, the conversation around security and freedom in architecture remains crucial. These concepts often feel conflicting – security can seem to restrict freedom, while freedom might appear to compromise safety. However, the true challenge is finding a balance that respects both.

At dormakaba, we believe security and freedom are deeply connected. Security is often seen as a limitation, but when thoughtfully integrated, it enables freedom. In design, security goes beyond physical barriers; it's about creating spaces where people feel safe without feeling confined.

Well-designed security protects privacy, encourages accessibility, and builds trust. As buildings and their users evolve, solutions must adapt rather than impose restrictions. This balance guides dormakaba's innovation, where smart access and security solutions blend safety with openness – for every place that matters.

As our environments change, embracing this balance is essential, not only to protect but to inspire freedom in how we live and work. It's a conversation that architects, designers, and security experts must continue to explore thoughtfully.

Daniel Schepers, deputy vice president global marketing communications at dormakaba

Above Secure spaces are an important part of the city, as shown in Stallan-Brand and LDA's RIBA Award-winning Union Terrace Gardens, in Aberdeen.

Opposite Throughout the conference, RIBA J Rising Star Steve McCloy of McCloy + Muchemwa gave his interpretation of points raised through drawings – here illustrating very different approaches to designing for security.

CHRISTOPHER SWAN

dormakaba 

Spaces of Trust: architects connect 2025 was a partnership between RIBA J and dormakaba

Look to humanity to design in security

By enabling human connections, agency and guidance through the design process, architects can help give people the sense of safety we crave in an increasingly uncertain world

What keeps us safe and secure? The answer often involves physical features – such as high fences and CCTV cameras – that can, paradoxically, intensify our sense of fear. But look beyond the obvious and a sense of security – like freedom – is inextricably linked to perception and how we feel about ourselves, people and places around us, and our world.

The world is full of uncertainty: a changing climate, geopolitical tensions, conflict, fluctuating economic conditions and other major events. Overlapping changes and threats are occurring in rapid succession with some – like Covid and AI – pushing far beyond the realms of our lived experience.

Human reactions to this polycrisis are being tracked by behavioural experts like Utrecht-based consultancy TrendsActive. The firm's head of inspiration, Aljan de Boer, opened architects connect 2025 by highlighting a common human response to the world's disruptive forces: sitting governments were voted out in many of the national elections that took place worldwide in 2024. This is an emphatic expression of a desire for change and of a sense of social unrest, he said, and of people seeking certainty and security.

That sense of security will ultimately come from building connections to our fellow human beings, rather than more walls, de Boer argued. He identified three trends architects can tap into to help people reconnect with humanity.

Design in a sense of control

The more control a person has over their life, the happier they will generally be; take it away and individual happiness is likely to be diminished. In the present

polycrisis, many people see themselves as being increasingly overwhelmed and overruled and having little sense of self-determination. One priority for architects, therefore, should be to design for a sense of control, proposed de Boer.

Designers can give building users greater agency over their environment. Intuitive navigation and predictable routes in and around buildings enable them to move around with certainty.

Personal control can be something as simple as a heating switch, but there are many other possibilities. In 2020 the Nippon Foundation, a social innovation nonprofit, worked with Tokyo's Shibuya City government to tackle perceptions that public toilets in Japan were dark, dirty, smelly and scary – making people reluctant to use them. Shigeru Ban's designs for the Tokyo Toilet initiative feature colourful glass walls that give clear sight of the cleanliness and safety inside but automatically turn opaque as the cubicle door is locked.

Give security and guidance

We've come a long way in 200,000 years, from small communities where lives were tough but predictable and framed by mysticism. Contrast that with our largely secular, anonymous lives in modern cities, where we have a yearning

for guidance but satisfy it by looking to lifestyle coaches, influencers and personal trainers. Our current mental state can be described as ontological insecurity, in that we have ultimately lost our sense of self, said de Boer.

He saw openings for designers to bring the comfort and guidance people seek, through guiding structures like New York's High Line, or by creating meaningful experiences, like artist Olafur Eliasson's giant glowing sun installation, The Weather Project, at London's Tate Modern.

Harness the power of pluriformity

Well-functioning cities set aside around half their surface area for public space; but few global cities do, according to the UN-Habitat programme. That limits our ability to gather, meet and exchange views, and we now know it can also harm our health. Research, notably a Harvard University study by psychiatrist Robert Waldinger, found positive social relationships are a key predictor of a long and happy life. "Loneliness kills," Waldinger said in 2017. "It's as powerful as smoking or alcoholism."

By creating spaces where diverse people with diverse viewpoints can gather, architects enable pluriformity to grow into community spirit, said de Boer. It's what OMA has done with its Simone Veil Bridge project in Bordeaux, by making it wide enough to host events as well as serving as a crossing point.

When de Boer asked attendees to share their learning at the end of the day, a common thread emerged. Community is security, one volunteered; security plus humanity equals freedom, another said. His words had clearly resonated. ●



Who and what are we protecting?

Choices around the parameters of safeguarding sit at the heart of the debate about security and freedom, and lead to numerous questions that are tricky to resolve



There's a question people sometimes ask: what would someone grab first if their house were going up in smoke? For a home, the answers might be fairly obvious; but ask about a data centre, a big city station, or a power plant that has suffered a hostile act, and the question becomes a little harder to answer.

For example, the data stored and processed by global tech titans is essential to our lives and the everyday functioning of organisations and governments. Such critical infrastructure needs to keep on functioning through all eventualities, but designing for that needs choices to be made about how far the built asset and its contents can and should be safeguarded – and where protection for people in and around it fits into the equation.

This was the dilemma raised by one architect at architects connect 2025, and it struck a chord. Speakers and audience members wrestled with similar questions around who and what to protect. Take the urban gated community, which restricts the freedom of non-residents and forces them to make their way around the enclave using perhaps polluted and hostile streets. Or a renovation that had to enable a building to host meetings for a top national official, accommodate staff and the visiting public, and maintain an adjacent route popular with cargo-bicycling families, giving each group the right level of access within and around a piece of sensitive historic fabric. That was what the client wanted, said the architect leading the project, but heritage and security considerations threw up countless complexities.

Meeting the client's requirements

Security and freedom are often dictated by what the client wants, and there are many decisions to be made about active or passive measures in the building, on site, or beyond. There are times when architects are asked by the client to add

Above and opposite Battersea Power Station's array of access routes and entrances is designed to allow visitors, workers and residents to get to where they want to go easily and safely.



BATTERSEA POWER STATION: OPTIMISING EXPERIENCE ON A MIXED-USE SCHEME

There are lots of reasons why people go to southwest London's Battersea Power Station. Many go to meet at its restaurants, bars and cafés, shop in its retail galleries or enjoy the views from its Lift 109 glazed elevator. Up to 3,000 people work at Apple's UK head office within the building, while the occupants of its 254 apartments call it home.

The jigsaw of uses assembled by developer, Battersea Power Station Development Company, and WilkinsonEyre in the Grade II*-listed building mixes private and public functions. Thoughtful design with security at its heart ensures protective measures have minimal visual impact on visitors, workers and residents, says WilkinsonEyre board director Sebastien Ricard.

That is evident in the journeys made by different groups through the site. Everyone entering the 17ha, largely car-free complex passes through perimeter security, including gates and bollards. Car parking, housed in one of the building's three basement levels, is separated for private and public users, while servicing access is further set apart. The site's Circus Road rings the power station, creating a buffer that allows for control and security.

The power station's entry points have their own hierarchy to serve different user groups. General public and workers make their way into the building through main entrances – often with open doors to mark them out as obvious, welcoming routes. Once inside, office workers travel up to their workplace via entrance lobbies and lifts, the route providing a form of 'soft' security. Discreet doorways lead to the reception areas, concierges and lifts of the residential blocks: Switch House East and West, flanking either side of the building, and the Boiler House Villas above Apple's offices.

Then there's the Lift 109 visitor attraction. Accessed via public entrances and multiple security layers – including a swing gate that serves as both security and a photo opportunity – the attraction enables visitors to ride a glazed elevator to the top of one of Battersea Power Station's chimneys. The lift car has been designed to give great views out while safeguarding people and operations, with its viewing platform being effectively a lift within a lift.

It's another example of how the design integrates protection without compromising user experience. That has been aided by the private ownership of the overall site, according to Ricard, which allowed a coherent strategy to be adopted at a masterplan scale.

barriers where they don't want to, one speaker said frankly in a panel session focusing on these issues. A member of the audience asked if those present had encountered instances where the client didn't understand the security risks their development was open to.

Cultural and social differences also influence security requirements, with CCTV most notably being perceived as reassuring in some contexts and threatening in others. People's sense of trust comes into play here, as in all aspects of security.

In such scenarios, architects in the conference felt they had scant ethical framework to guide them through often difficult conversations and decisions. For larger-scale venues in the UK, that situation changed in April with the coming into force of Martyn's Law – the Terrorism (Protection of Premises) Act, to give its official title. The law, named after Martyn Hett, who was among the people killed in the 2017 Manchester Arena attack, requires public premises and events to be equipped with measures to protect people specifically from acts of terrorism.

Taking responsibility

One audience member took a broader perspective, arguing that it is part of an architect's responsibility to help make the world a more civilised place. Another picked up that point in more detail, highlighting how architects need to work with clients to do that. It is down to designers, she said, to demonstrate

to clients that their responsibility extends well beyond their front door, by explaining, for example, how people flows can be seen as energising but can also be dangerous.

Whatever the security challenge, architects test and explore the options that answer it, but not necessarily in the most obvious way, summed up one contributor. That means meeting a request for a barrier with something sympathetic to context and people, using green or blue landscaping, seating or perhaps an artwork. Going further, another architect said that he didn't even like using the word security, since it sounds intrinsically like a barrier. The more positive vocabulary of equity or responsibility for all was preferred.

The conference debates raised many more questions. Security concerns in one project could sometimes be a symptom of other, bigger challenges in broader society, leaving architects wondering how far they could really resolve them. Some questioned the inclusivity of today's large-scale, private sector-owned and often quite controlled city developments. The availability of data being gathered to build detailed pictures of the particular needs of a city, district or development also gave cause for concern. That data can be important for decision-makers, said one architect, so should you publish it so something can be done about it, to make lives better – or is that unethical? For such questions, the answers appear to come not in black and white, but in many shades of grey. ●

Applying psychology to design



From getting into a burglar's mindset to layering like an onion, an understanding of human behaviour is helping architects to integrate security more sensitively into buildings and the broader public realm

Above and opposite Visitors enter Washington DC's Folger Shakespeare Library via a garden and walkways that both create a welcoming environment and safeguard the building, which is close to Capitol Hill.

Psychology helps sports teams win trophies, smokers quit a bad habit and shoppers to buy stuff. No surprise then that a deeper understanding of human behaviour is helping architects to create places and spaces that comfort or calm the senses.

Conference speaker Jenny Radcliffe, however, deploys psychology to a very different purpose. She is a burglar who breaks into seemingly impregnable banks, business premises and even theme parks to test organisations' security measures, leaving rubber ducks and calling cards where her criminal counterparts might leave hidden cameras. Known as the People Hacker,

Radcliffe uses social engineering to access buildings not by brute force or technology, but by exploiting human fallibility and error.

Like the burglars that US author Geoff Manaugh references in his book, *A Burglar's Guide to the City*, Radcliffe does her homework before a 'break-in', poring over site and building plans, profiling how an organisation works, observing desire lines and identifying staff who might help her mission.

Radcliffe's work identifies human vulnerabilities, but it also highlights those areas in and around buildings where those weaknesses can be most readily exploited. That might be a

‘secure’ entrance, where she pins a fake notice asking staff to ‘please leave the door open’, which is quickly complied with; an emergency staircase that isn’t equipped with security cameras; or a smoking shelter where information can be gathered from disgruntled employees. As she tells her clients: “I’m not going to attack you at your most secure point.”

Looking to layering

Places where crowds or multiple user groups gather, such as sports stadiums, major mixed-use developments or museums, may require a multifaceted approach to protection across a range of scenarios. Conference speakers talked about the ‘onion’, an approach based on deploying multiple passive and active layers of security, from landscaping to guards to technologies to gates and turnstiles. Visitors going to a sports stadium might pass through seven security points before reaching their final destination, with checks beginning as they exit a station leading to it.

Because those checks are woven into the built environment, the visiting public will probably be unaware of around half of them, said one UK architect. And by largely checking security before the public reaches the entrance, the final gate or turnstile can in itself be made less barrier-like and more welcoming, something some clients are now making a priority.

This multilayered method opens up design discussions to a broader piece of work, looking beyond the building to how people use public space and move from transport interchanges or high streets to their destination. But that requires buy-in from the client and local authority, and may come with a host of challenges around utilities and other technicalities, prompting one architect in the room to raise the age-old question of who pays.

Still, one contributor argued for designers to do more to influence the flow of people through spaces, pointing out how even the presence of a litter picker can affect how people move around a street. Station design already puts an emphasis on flow, as well as such

factors as sightlines, passive surveillance and reducing user stresses, which could be heightened by a late train or rush-hour crowds. Space and volume can be important mitigators of such stresses, helping to reduce feelings of anxiety and claustrophobia, and have been used to potent effect most recently in London’s Elizabeth Line stations. Generosity of space can also help people to make a choice on whether to walk slowly or fast, or even linger for a while.

Getting the balance right

But, as a US architect in the room cautioned, it’s not easy to get the comfort level right in a crowd, partly because people’s perceptions of personal space differ according to their culture. Another architect highlighted contextual differences, citing the example of football clubs. Here space provided per person has been significantly increased in concourses – largely to allow the audience to buy more pints and pies – but fans still want to congregate with their community in the throng of the stands.

Debate around space and volume prompted one contributor to reference academic Jay Appleton’s prospect-refuge theory, which asserts that our evolutionary history means we are drawn to environments and spaces that give both a clear view (prospect) and the potential for shelter (refuge). Today, those qualities can be found in rooms with views out or spaces that project, such as porches.

Glass facades have become the most obvious symbols of transparency, but contributors argued that trust and security could and should be provided in other ways. Architecture can delineate thresholds, through elements like the colonnade or steps, so that by the time you enter a building you feel safe, almost imperceptibly, pointed out one architect. A sense of safety comes from the architecture, he stressed.

Over the course of the day the conference’s speakers and audience members had debated, questioned, learned and raised countless concerns. But through it all, they constantly returned to the power of architecture. ●

FOLGER SHAKESPEARE LIBRARY: WELCOMING AND PROTECTING THROUGH LANDSCAPING

The Folger Shakespeare Library in Washington DC wanted its renovation project to create a more inclusive and welcoming environment, as well as more space. Architect KieranTimberlake’s response was to extend the building downwards beneath a terrace rather than up or out, a solution that minimised negative impacts on the 1930s-built library, which is on the USA’s National Register of Historic Places.

This allowed for the creation of an accessible ramped entrance and low-level garden, featuring plants that would have been familiar to Shakespeare. The garden’s sights and scents draw visitors into Shakespeare’s world and the library, which houses a major collection of materials relating to the author.

Like the garden, the library’s overall landscaping is evocative and inviting; it also plays a central role in protecting this highly accessible building in a sensitive location, diagonally opposite the Supreme Court and close to Capitol Hill. Its walkways provide improved access for visitors and guide them to the building, while also allowing control and keeping out vehicles. The library itself sits within a secure zone, set apart by greenery and changes in level rather than fences.

For James Timberlake of KieranTimberlake, this is how protective design should be: multilayered, woven into its setting and human-focused. It is an approach the architect has also deployed at the US Embassy in London and elsewhere.



ALAN KARCHNER (2)

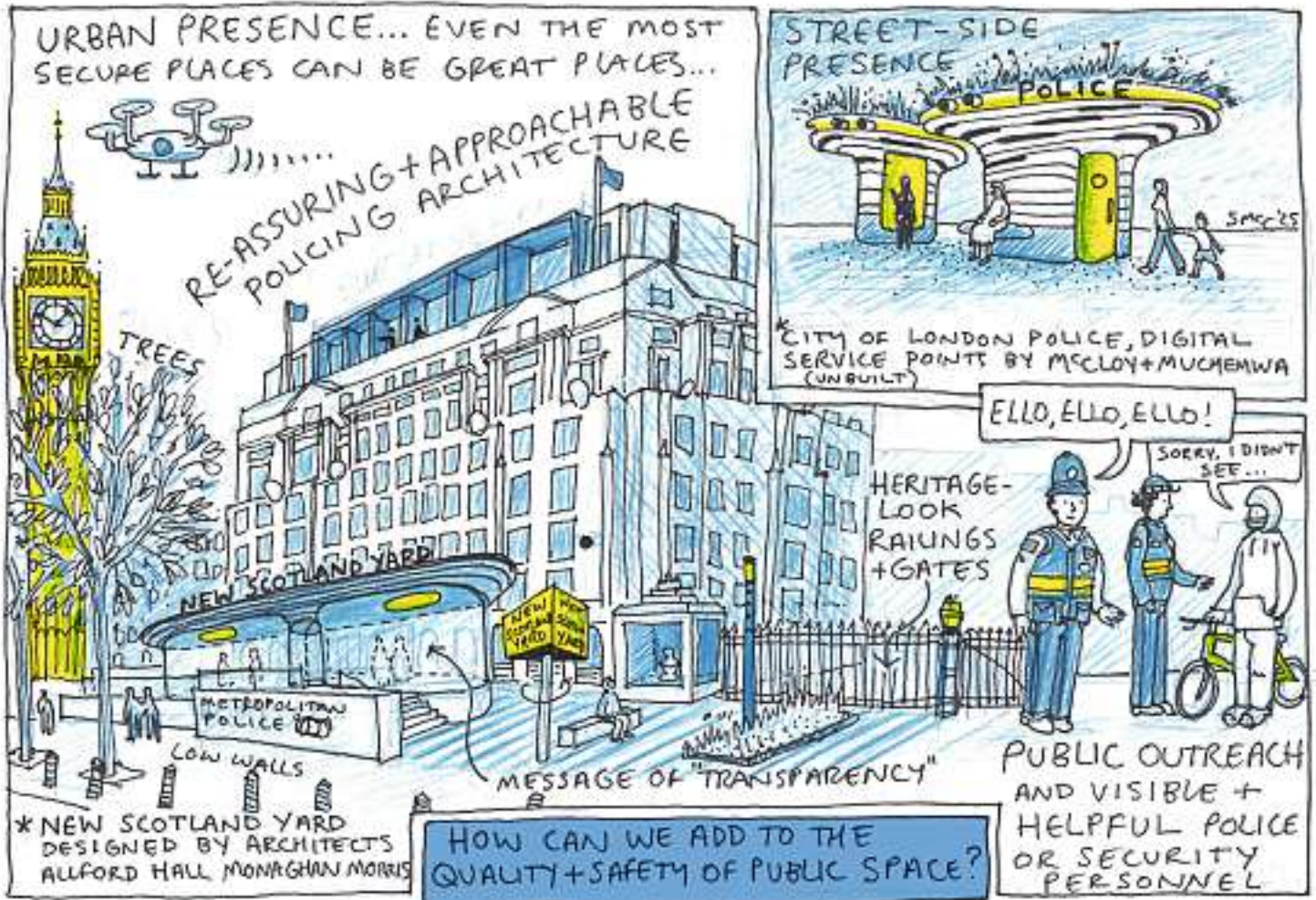
Putting protection into place and practice

The list of passive and active measures architects can draw on to enhance comfort and security is almost limitless – we’ve highlighted a few of the most important points, to inspire future action

A successful development is underpinned by numerous detailed practical choices that are made throughout the phases of design, planning, construction and operation. architects connect speakers set out many individual passive and active security measures available to architects, pointing out that some are not currently being used as widely as they could – and perhaps should – be.

So we have brought together a few of the practical points made by the conference speakers and participants, drawing on and identifying some key reference sources. These points are intended to serve as inspiration for future learning and action, rather than as definitive guidance.

Below How secure places can be designed as welcoming, as drawn by Steve McCloy.



Start by safeguarding your practice and clients

Building penetration tester Jenny Radcliffe's presentation gave an insight into how burglars seek out building plans and other information to help them plot access points and routes. To safeguard against these and other threats at planning stage, applicants should discuss with the local authority what level of detail should be included in an application in order for a decision to be made, advises the National Protective Security Authority (NPSA), the UK's technical authority for physical and personnel security. Where providing sensitive security-related information is unavoidable, the applicant can ask that specific information handling requirements are put in place.

The Sensitive Information in Planning Applications (SIPA) protocol applies to sensitive sites, such as critical national infrastructure, and sets out security precautions local authorities can take, including asking for proof of name and address from anyone requesting to see such an application. The Sensitive Information in Licensing Applications (SILA) protocol looks to similarly protect plans relating to venues.

Digital information sharing, collaboration and transparency via building information modelling (BIM) presents potential vulnerabilities through design, construction and operation phases. Part 5 of the ISO 19650 suite of BIM standards gives an overview of the security risks and the controls that should be implemented to manage them.

Think about products and materials

Everyday products and materials that have been designed for added security can blend discreetly into the new and existing built environment. An example is the humble litter bin, which can be a key line of defence against blasts.

Manufacturers constantly evolve products and materials to keep up with demand for more integrated design approaches to safety. The NPSA's website, a vital source of guidance, includes its Catalogue of Security Equipment listing a range of products,

from glazing to lobby speedgates, which have been evaluated against the authority's security standards.

Integrate passive protection into the public realm

Both public- and private-sector city landowners recognise the need to safeguard citizens against risks posed by hostile vehicles in the public realm. Detailed NPSA guidance on the subject goes beyond obvious responses, such as installing physical barriers, to broader masterplan, traffic, architecture and landscaping approaches.

The guidance explains how simply designing in more external space can enhance safety by keeping threats at a distance; introducing chicanes into an access route to slow down vehicle movement is another potential design intervention. While security gates and other openable barriers may be a common solution, the vulnerabilities of human operators can make them a weak point. NPSA therefore advocates the integration of passive measures wherever possible, like street furniture, public art or urban greening. Features such as jet fountains or sculptures can both protect and provide moments of joy for children's play or sensory stimulation in the urban environment.

Place bollards for optimum people flow

More than a decade ago, research at nine London sites, including stations, interchanges and a sports stadium, showed how bollard positioning can be critical. It found that where bollards were arranged in straight lines perpendicular to the direction of movement, there was little divergence from desire lines and pedestrians fairly easily raised their hand or twisted their body to avoid contact with a bollard or another pedestrian. But when bollards were arranged in straight lines parallel to movement, as along a kerb edge, pedestrians felt they needed to change their path to be sure of avoiding contact. When positioning potential obstacles, factors like this must be considered alongside guidance and legislation relating to accessibility. ●

CONFERENCE LEADING VOICES AND PARTICIPANTS

Orlando Baghaloo associate director at studioNWA

Christopher Burton architect director at BDP

Paola Cattarin director at Zaha Hadid Architects

Kirsten Lees managing partner of the Paris studio of Grimshaw

Steve McCloy director of McCloy + Muchemwa

Caroline Mills associate principal and architect at Populous

Marcus Morichetto studio director and senior lead architect at Sweco Architects, Sweden

Kossy Nnachetta partner and architect at FeildenCleggBradley Studios

Ed Parham director of innovation and design at Space Syntax

Markus Pfisterer architect and associate partner of the Berlin office of gmp

Jenny Radcliffe the People Hacker

Sebastien Ricard board director at WilkinsonEyre

Alex Soto associate director and head of sustainability at studioNWA

James Timberlake founding principal at KieranTimberlake

Chris Williamson president-elect of RIBA and founder of Weston Williamson + Partners

Matt Wilkinson associate director at AL_A

Duncan Swinhoe managing principal, Europe at Gensler

Host: Daniel Schepers deputy vice president global marketing communications at dormakaba

Keynote speaker and moderator: Aljan de Boer head of inspiration at TrendsActive

Chair: Eleanor Young editor of RIBA J

WANT TO KNOW MORE?

NPSA Security considerations in the planning process

ribaj.com/npsa-security-considerations

NPSA Introduction to BS EN ISO 19560-5: 2020

ribaj.com/sensitive-information

NPSA Catalogue of security equipment

ribaj.com/security-equipment

NPSA Public realm design guide for hostile vehicle mitigation

ribaj.com/hostile-vehicles

Bollards and pedestrian movement: Department for Transport/Centre for the Protection of National Infrastructure, Traffic Advisory Leaflet

ribaj.com/bollards-pedestrian-movement

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3: Culture



One of the wave of people who opted to move out of London after the Covid pandemic, Marcus Peel left for Winchester. He remembers his first visit to its cathedral and being “awestruck” at this resting place of early English kings, with their uncanny, Dark Age names: Aethelwulf, Eadwig, Cnut.

“Its sounds, smells and soft light seemed to awaken my senses,” he tells me of the near-thousand-year-old shrine. “I walked into some parts of it and they felt as untouched as when they first built it.”

But that is not the case, Peel caveats, since that would be to forget the Herculean efforts of diver William Walker. With the cathedral seriously subsiding back in 1905, civil engineers had decided they would shore up its footings by digging 6m-deep perimeter trenches to enable concrete to be set below them. The excavations revealed a precarious cross-section of clay, a raft of rotting beech trunks and wet peat on gravel. And when the water table breached the trenches, they flooded, eroding the base away even more perilously. Desperate, they called on Walker.

For five years, he worked in their murky depths: six hours a day, six days a week, in a heavy diver’s suit, using only his bare hands, in near-total darkness. By the time he was done in 1911, he had laid 25,000 bags of concrete, 115,000 blocks and 900,000 bricks.

Of course the River Itchen still rises as it always has, but the cathedral now sits on its hand-set haunches, so Peel could safely capture the timeless vaults of its Quarr stone crypt, rising from and reflected in seasonal, murky green waters; just as nature – and man – intended. ●

Jan-Carlos Kucharek

Marcus Peel
Crypt #1, 2024

Canon EOS 5DS with 50mm tilt-shift lens



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'In an increasingly digitised and quantified world, we have so many stats to choose from that it can seem they are what makes it go round'



The numbers don't lie?

The myriad statistics surrounding us can make seeing the bigger picture a challenge, reflects deputy editor Jan-Carlos Kucharek

It was 19th-century prime minister, Benjamin Disraeli, who reputedly coined the aphoristic phrase 'lies, damned lies, and statistics'. But what makes an aphorism an aphorism is that it contains some truth. And an increasingly digitised and quantified world, we have so many stats to choose from that it can seem they are what makes it go round: feeding industry, audit bodies, think tanks, lobby groups and, ultimately, government.

So, to remind ourselves of the key stat for housing: the government intends to deliver 1.5 million new homes in England by the end of this parliamentary term. According to gov.uk, at the time of writing it claimed to have built just shy of 187,000. Not quite the mooted 300,000 homes per year, but Labour aims to remedy that with its £39 billion Social and Affordable Homes programme.

So correlating with that target, it means more material use, right? 'Yes', if you're the CPA predicting a 4 per cent rise in private housing in 2025 and 7 per cent in 2026 from its members' figures, or the Department for Business and Trade which, in May, saw brick sales up 15 per cent year on year, at 138 million. The Building Cost Information Service is optimistic too, seeing a 23 per cent rise in brick deliveries to May. But it's 'no' if you are the Mineral Products Association, whose total ready-mixed concrete sales have been falling since 2021, including by 6.3 per cent in Q1 2025. Curiously, mortar sales rose 3.8 per cent in the same period, signalling "tentative improvements in housebuilding activity". But the MPA's big figure is that demand has fallen to 3 million m³ per quarter, its lowest level in 60 years.

What could all this imply? Are we getting, say, less high-rise and more Noddy housing? With Gateway 2 HRB approvals still being ironed out, planning issues and the new Future Homes Standard likely to stymie development, at least

initially, perhaps Planning Portal operator TerraQuest's latest announcement for Q2 2025, that 69,600 new homes were applied for (17,300 more than Q2 2024) suggests a positive direction of travel. These figures will, though, need to rise and be consistent to meet the government's target.

In the melee of conflicting stats, and with somewhat downbeat predictions for future housing implied by architects' workloads, perhaps we can draw succour from one figure recently released by RIBA: the four projects shortlisted for its Neave Brown Award for Housing. Tower Court, Hackney, Citizens House in Lewisham, Appleby Blue in Southwark and Hazelmead in Bridport all showcase the power of direct engagement with users over the often tick-box exercise of 'community consultation'.

Having read many planning reports as part of my job, where such consultations can be framed to cynically serve client agendas, I'm reminded of dull casual work as a student at a market research firm, poring over banking questionnaires, while on the wall in supersize font ran the Ronald Coase quote, "If you torture the data long enough, it will confess to anything." Truth aside, sometimes we just make the numbers work for us. ●

ONLY ON RIBAJ.COM

'Lower windows and ground-floor openings have been accented with galvanised steel. On overcast days, the building appears to peter out – from grey brick to grey steel to grey sky.'

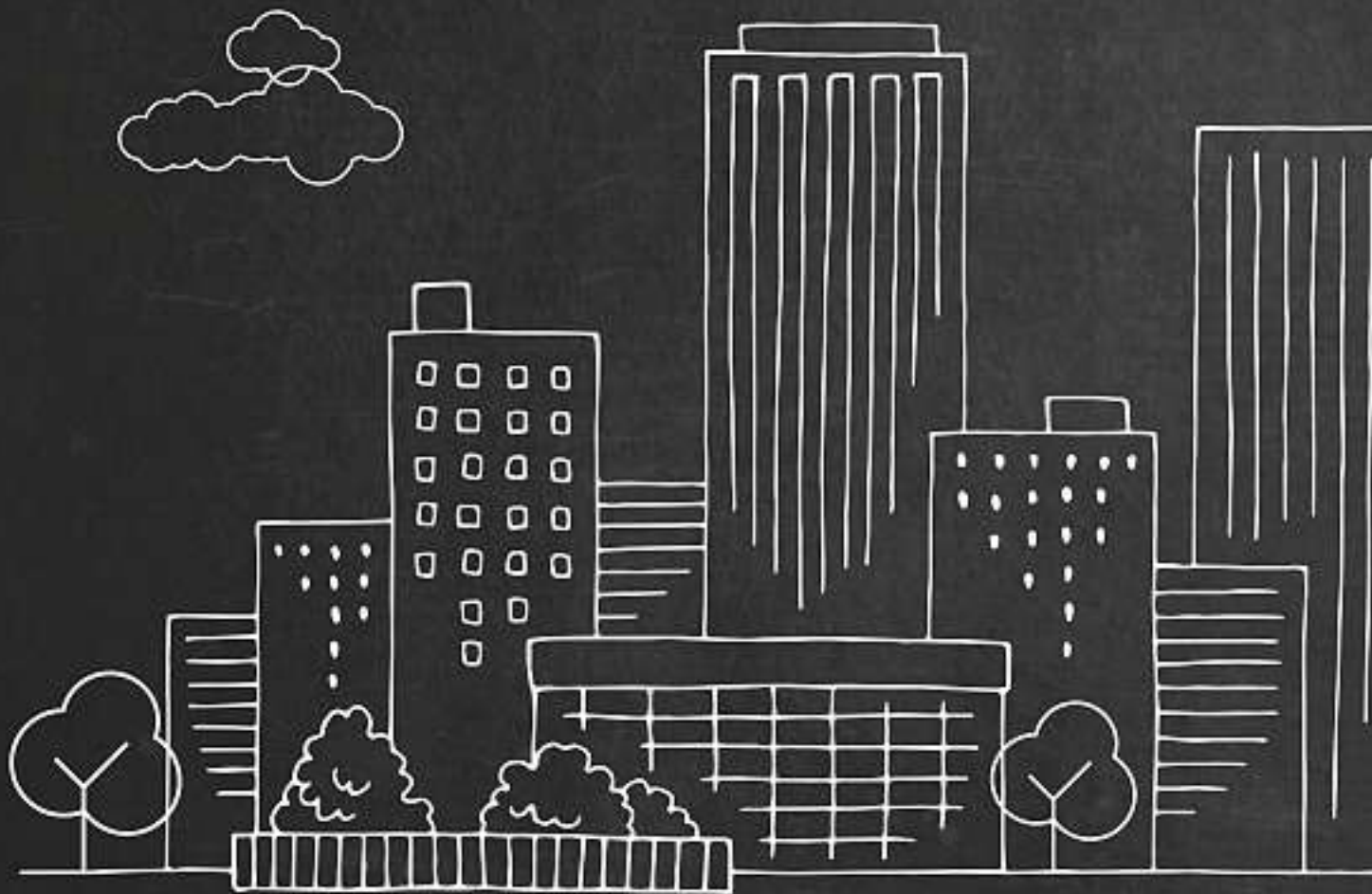
Carmody Groarke's reworking of 469 Bethnal Green Rd
ribaj.com/bethnal



Left More than just numbers: person-centred design at the heart of Adam Khan Architects, Muf Architecture/Art and Child Graddon Lewis Architects' Tower Court, Hackney.

The windows advice bureau

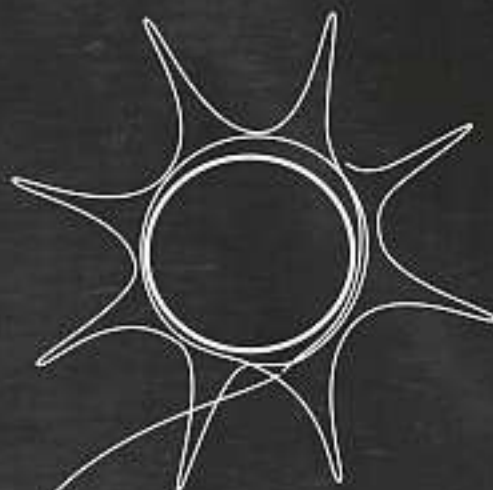
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Coming into his two-year tenure as RIBA president, Chris Williamson is a man eager to get things done

Words: Flo Armitage-Hookes Portrait: Ivan Jones

No time to waste

Incoming RIBA president Chris Williamson believes he is facing one of three scenarios: "Either I have a nervous breakdown because I care too much and nothing is happening; or I become institutionalised and accept that I can't do anything; or I'm successful and I start making changes."

After winning the election in 2024, the co-founder of Weston Williamson + Partners takes office this month. His campaign promised to increase the profession's profile and reputation among politicians, clients and the public, to overhaul CPD into a more valuable and targeted form, and ensure RIBA stays relevant. Above all, he pledged to make things happen.

We meet at 66 Portland Place, the institution's 1934 purpose-built home in central London. It's on the cusp of closing for major refurbishment: lights are off, cardboard aisles traverse floors and balustrades are swaddled in packaging and duct tape. What's it like taking office without an office, I ask? "In some ways it's a pity because I love this building. It means a lot to me, this is where our practice started in the RIBA's 40 under 40 exhibition," says Williamson.

He met co-founder Andrew Weston while studying at Leicester Polytechnic in 1975, after their class was divvied up in alphabetical order for group projects. "We realised we had similar concerns about architecture and the way that we wanted to practice," he recalls. However, he notes they have different skills – and certainly contrasting music tastes. "I love late 70s and 80s disco; Andrew hates it and loves modern jazz. He once famously told me to write down the lyrics to Get Down On It, just to realise how crap it was – and I still think it's one of the best songs ever written. So we don't agree on everything, but on architecture we do."

The pair went their separate ways following university, with Williamson working for Michael Hopkins and Weston for Richard Rogers, before setting up practice together in 1985. Williamson credits that 40 under 40 exhibition, which showcased their work alongside Allies and Morrison, Amanda Levete and Stanton Williams, as a career catalyst: "It made you think you were going somewhere, that we could actually do this."

A flurry of competitions followed, with a mixture of success, letdowns and pure chance eventually leading to their London Bridge Jubilee Line Station commission in 1992. While the firm has worked across sectors, transport and infrastructure is undoubtedly where it has thrived, with major projects including the Dubai

Opposite Chris Williamson at Paddington Station on the Elizabeth Line, whose design he led at Weston Williamson + Partners.

Below London Bridge Jubilee Line Station: transport became a key sector for the practice.



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Metro masterplan, Paddington Elizabeth Line Station, multiple Docklands Light Railway (DLR) extensions and the Melbourne Metro. “My friends joke that I’ve built more below ground than some have above ground. There’s some truth in that,” Williamson admits.

It may sound clichéd, but architecture feels a calling for Williamson. A religious upbringing instilled a sense of social responsibility and love of storytelling, which seemed to resonate with the role of the architect, as laid out in the book *Your Architect*, by Derek Senior. Williamson stumbled across the title in the school library and it motivated him to pursue architecture rather than graphic design. “To me, architecture is all about belief... It’s part of our job to say the world could be a better place, and this is how I think it should be,” he asserts. “We shouldn’t just wait and get commissioned to make change.”

Belief is at the heart of ILKON, a transformed church in Williamson’s hometown, Ilkeston, Derbyshire, which he bought as a ruin in 2021 with the intention of restoring it to community use. “Years ago, I picked up a newspaper and the headline said: ‘Welcome to crack town’ – it was about Ilkeston,” he sighs. The area gave Williamson “the most amazing free education” and employed his father at the local ironworks. But following the closure of key industries, and with no alternative plan in place, it lost its major employers and spiralled downwards. Williamson says he felt compelled to give back to the town.

Now a contemporary arts museum, ILKON has an artist in residence, an events programme, café and education spaces. Work is also under way with architecture students Nottingham Trent University, the town council and the local community to try to drive creative industries in the area. “I wanted it to be a sort of Norman Foster Foundation,” he says, “but for the East Midlands.”

With significant personal projects ongoing, why stand for the RIBA presidency now?

Above left Keeping faith: Williamson has transformed a disused church into a vibrant arts space.

Above right Weston (left) and Williamson (right) met at Leicester Polytechnic in 1975.

Williamson is no outsider to the institute, and has held several roles within it over the years. But recently, he’s identified areas of personal concern where he feels that he can make a difference and, after stepping back from WW+P in 2023, has the energy and time to act. There’s a pastoral sense – he loves RIBA, but at a critical moment in its history, thinks it needs guidance.

“Most architects I speak to have two major concerns that everything else spills out from: low fees and low wages; and low esteem in society.” The solution to both, according to Williamson, is lifelong learning. His vision is to reshape CPD into a form tailored to architects’ career stages and specialisms, which will demonstrate value to clients and decision-makers.

In tandem, he wants better mentorship frameworks for young architects. “There’s always a handful of people in your life that sort of lead you to get to the next level, that spur you on... I think everybody needs that,” he reflects. For Williamson, these career beacons were a school art teacher, fellow Leicester Polytechnic student Ken Shuttleworth, and a handful of people at Michael Hopkins Studios.

Throughout our conversation, Williamson leans back in his chair, generous with his answers and smiling nostalgically when recalling childhood or early days in practice; whether it’s doodling rockets on exam papers, facing the wrath of middle-aged football players as a teenage referee, or picking up the Smithsons from Leicester station in a Triumph Spitfire.

Yet it’s the immediate future which is forefront of his mind. Williamson is ready to act – with belief, passion and expertise – for architects. He is also acutely aware that the two year presidential tenure is short, and wields limited power. “I need to instil a sense of urgency,” he says. “It’s easy to write things and say, ‘This is what we’re going to do.’ It’s quite another getting them done.” It’s clear he’s looking forward to the challenges ahead. ●

RIBA reaches confidential settlement with former president

Jack Pringle, chair of the board on behalf of RIBA, commented:

“RIBA has reached a confidential settlement with the past president of RIBA, Professor Alan Jones, in respect of his claim that information relating to him was not adequately protected and controlled by RIBA. RIBA regrets the fact that unauthorised leaks occurred and the harm that this caused Professor Jones and his family.”

Professor Alan Jones commented:

“I am glad to have reached a confidential settlement with RIBA regarding my complaint that information relating to me was not adequately protected and controlled by RIBA.

“RIBA is important to our profession and the value architects create for society and our wider world. My commitment and enthusiasm for RIBA continues and I wish the incoming president the very best for his presidency, as he takes up his role in leading the membership forward.”

The Luxembourg-born architect and Poundbury masterplanner had an incisive wit and could be uncompromising, but was a warm, generous man

RGGI/WIKIMEDIA



Léon Krier 1946–2025

I knew of Léon Krier long before I met him. He was a key figure in the postmodern movement in the mid-1980s, known particularly for his polemical drawings. With an economy of line and a caustic wit, they seemed to cut to the heart of debates about architectural theory and style.

Born in Luxembourg, Léon followed his older brother Robert into architecture. Having completed just one year of study in Stuttgart, he joined the office of James Stirling in London and taught for 20 years at the AA and RCA. From the 1970s he was also a visiting professor at many universities in the USA, where the New Urbanism movement was heavily influenced by his analysis of the traditional European city, and by his own buildings in classical and vernacular styles.

I first saw him at a lecture he gave in London in the late 1990s. He was a distinctive figure, in a cream-coloured suit with a white scarf, a great shock of white hair, angular features and piercing eyes. He seemed fearless and entirely driven by conviction. In 2008 I saw him again in a debate at the Royal Geographic Society, set up as a battle between traditionalists and modernists, as if postmodernism had never happened. Léon, on the traditionalist side, soon came under attack.

The focus was his masterplanning at Poundbury, the Dorset new town commissioned by the then-Prince of Wales. Experimental from the outset, Poundbury tried to reverse many modern planning assumptions by prioritising pedestrians over cars, mixing different uses in streets and squares, and designing affordable homes to private housing standards. Léon was in the firing line for accusations that it was fake, soulless and kitsch, but seemed immune, dismissing criticism as uninformed and childish.

Not long afterwards, I was approached about designing some buildings in Poundbury. I was

conflicted, given the criticism it had attracted. But after visiting, and talking to my friend Ben Pentreath, who had designed some of the best buildings there, I was persuaded that the Duchy of Cornwall was committed to improving the architectural quality, and Ben and I began working together on the next phase. Léon would often return my sketches covered in red pen. I was surprised the masterplanner should be so deep in the architectural detail, but as more was built the scribbles became fewer. It was clear he felt the architecture of the later phases was in safe hands.

Léon spent much of his career fighting against objection, officials and bureaucrats, and a planning system he was trying to rethink from first principles. In this war of attrition, Léon had become used to only getting perhaps 60 per cent of what he wanted. It therefore became a tactic to inflate his demands, knowing they were likely to be diluted. A walk around the earliest phases of Poundbury will confirm this to have been the case: if parts of buildings look over-scaled or exaggerated, they will likely be the result of Léon's influence, always pushing against a tendency towards meanness or compromise.

In marked contrast to the intimidating figure I first encountered, Léon exuded kindness and generosity and became a friend. I think he always knew he would be proved right. His warmth came from seeing his singular conception brought to reality, defiant of opposition. A week before he died I sent him some photos of recently completed buildings. "Powerful!", came back his reply.

Léon Krier was an extraordinary man: a deep thinker, rule-breaker and visionary. If you haven't been to Poundbury, go there with an open mind: you may well be challenged. ●

George Saumarez Smith is a director at
ADAM Architecture

IN MEMORIAM

Richard Owen
Elected 1955, Southend-on-Sea

Clifford Lunn
Elected 1960, Leatherhead

Norman Anthony Sharp
Elected 1965, Wakefield

Robin Jacques
Elected 1968, Chippenham

Nathan Silver
Elected 1972, London

Stuart Leslie Marshall
Elected 1974, Dorking

Robin William Nugent
Elected 1976, Horsham

Neil Raymond Ruffles
Elected 1982, Cambridge

Roger Francis Latham Jorgensen
Elected 1985, London

William Stuart Baxter
Elected 1988, Edinburgh

Simon James Webster
Elected 2000, London

To inform the RIBA of the death of a member, please email membership.services@riba.org with details of next of kin



Romney's House, Hampstead, London, 1931

Sydney W. Newbury's photograph of 5 Holly Bush Hill peers into the building's entrance porch soon after its transformation by a new owner, the architect Clough Williams-Ellis.

The late 18th-century weatherboarded house was previously home to the artist George Romney, who added a large picture gallery and studio at considerable expense. But Romney stayed less than three years, and the house soon fell into disrepair. Three decades later, the studio and its hilltop views over London attracted the interest of Williams-Ellis. His modifications included a

new upper storey with an attic writing room, the installation of central heating, and the insertion of an extra staircase off the open porch, which made it possible to access Williams-Ellis' office in the studio without going through the house.

A playful scalloped balustrade, and a cornucopia of fish and seashells that tops the staircase's newel post, gesture towards the whimsical Baroque style that would become Williams-Ellis' calling card in his designs for the Welsh village of Portmeirion. ●
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