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**The RIBA Journal**

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0.12	75	270	295
0.11	80	290	320
0.10	100	320	355

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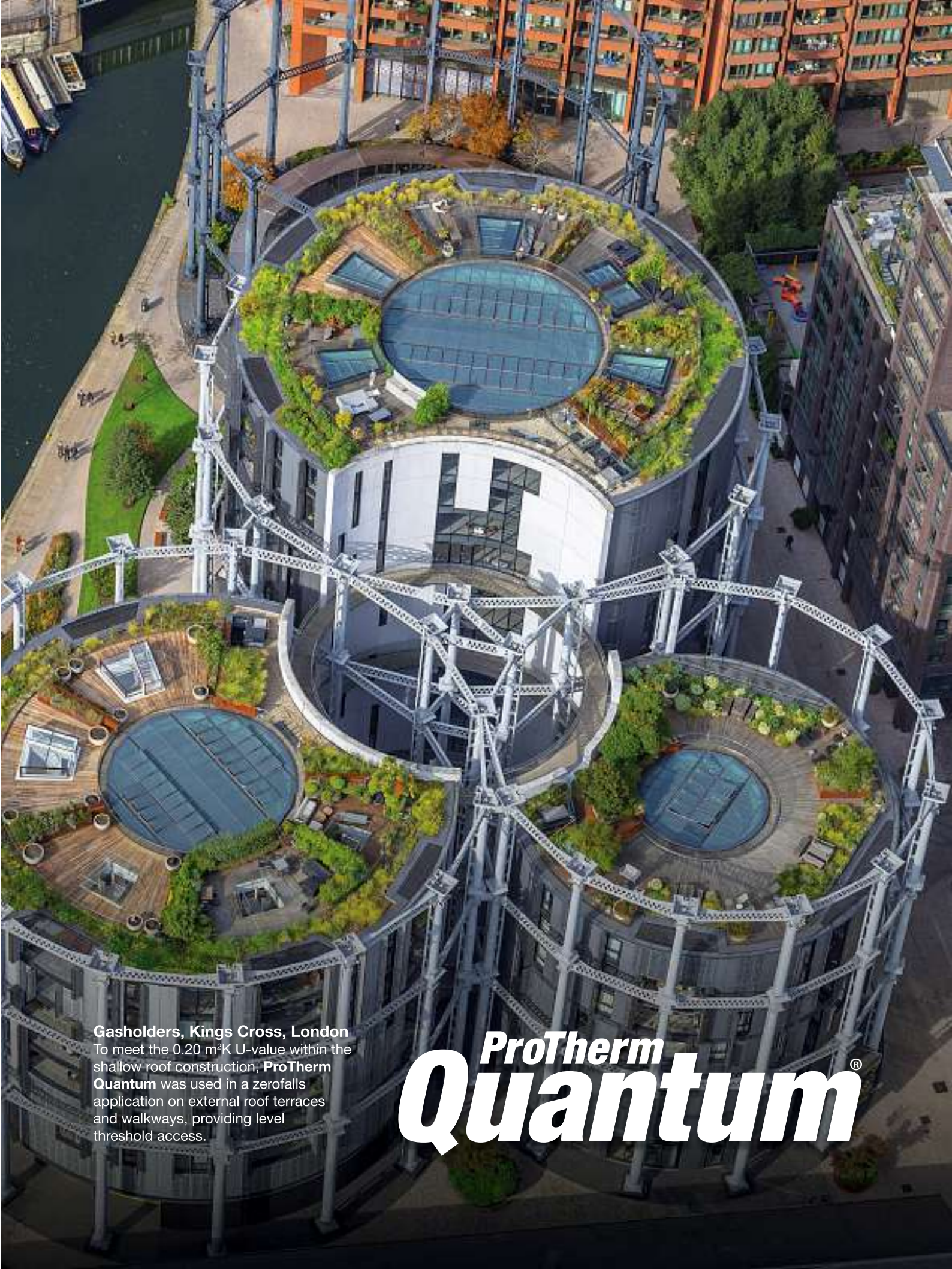


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# 1: Buildings

## TORNADO, FENIX, ROTTERDAM

MAD ARCHITECTS

Read the full story:  
[ribaj.com/tornado-fenix](https://ribaj.com/tornado-fenix)

Twisting up from a former shipping warehouse, MAD Architects' gleaming steel Tornado is an intriguing addition to Rotterdam's city harbour – a striking double helix staircase lunging around a lift core, sweeping up to a 30m-high viewing platform.

The intervention forms part of Fenix, the city's new museum of migration, and bucks the trend of Western architects building big in Asia. Instead, the Chinese studio's first cultural commission in Europe exports its distinctive, curving megaforms into a historic Dutch context. To some, the Tornado may appear out of place. But for this project, that's apt. Sited in Rotterdam's port district, which moved millions of people and vast amounts of cargo across the globe in the 19<sup>th</sup> and 20<sup>th</sup> centuries, the museum explores stories of migration through art, food, personal objects – and its architecture.

'For me, the Tornado is a metaphor for the journeys of migrants who passed via this building,' says MAD Architects founder Ma Yansong. It offers a meandering, disorientating ascension from

the entrance foyer, past exhibition spaces and up through a new glass roof. While circulating, warped reflections flash in and out of view as shadows and shimmers dance across surfaces. The experience is surreal, uncertain, yet also exciting.

While ostentatious, the Tornado creates a much-needed focal point in the existing warehouse and introduces verticality, spontaneity and lightness. Crucially, the original architecture doesn't tussle for attention. There's a pleasing rhythm to the project, with lulls and crescendos in the right doses.

Ultimately, the Tornado is a spectacle – but deliberately so. The museum aims to supercharge Rotterdam's cultural offering and, with the work of MAD Architects, has captured global attention, creating a landmark to remember. At a time when migration is increasingly politicised, Fenix and its Tornado do not cower. They rise boldly from the ashes of a semi-derelict space to share stories of love, loss, hope, movement – and what it is to be human. ●

Flo Armitage-Hookes





# Reap what you sow

After close collaboration with the community at a London food growing hub, architects Studio Gil and Material Cultures are putting down roots

Words: Chris Foges Photographs: Luke O'Donovan

**This image** The hall by Studio Gil has a zinc roof and wood cladding.

**Opposite** The office and education building by Material Cultures divides the two courtyards.





Wolves Lane Centre must be among the most bucolic spots in north London. A stroll through the community horticulture facility starts at the entrance building, where green-fingered growers toil at benches laden with seedlings. Dense-packed glasshouses that descend the sloping site are crammed with exotic plantlife, from peppers to palms and prickly pears. Emerging at the bottom, one finds three earthy new buildings before a screen of trees. With big, pitched roofs of crinkly tin above rough-plastered walls they look like a little farmyard, but this is not some Arcadian fantasy – a bit of cod-rusticity transposed to suburban Wood Green. Their homespun character grows out of an unusual brief and a bold ecological agenda set by architects Studio Gil and Material Cultures.

The pairing of architects reflects a project in which everything is plural: two clients, several funders, and numerous user groups and local people whose voices – and hands – helped shape the outcome. 'From the outset,' says Studio Gil founder Pedro Gil, 'we've tried to push what can be done in a progressive public building, with community participation not just in design but also construction.'

In the background was site owner Haringey Council, which sought new

'We've tried to push what can be done in a progressive public building with community participation'

Site plan



operators for an overgrown former plant nursery. Its candidate was the Ubele Initiative, an African diasporic social enterprise based in a ratty Portakabin on the 1ha site. Ubele had a connection to Gil, whose practice has a particular interest in partnering with minority communities. Meanwhile, Paloma Gormley of Material Cultures had been working with food-growing cooperative OrganicLea on a similar site in Epping Forest. A joint venture between the two organisations was initiated by the Mayor of London's Good Growth Fund, which put up half the money for new facilities.

With the client consortium, the architects evolved a scheme for four buildings – three after inflation spiralled – which frame two courtyards and support activities fostering nature connection, localism, skill-building and cultural diversity. There's a workshop and barn for volunteers cultivating the 1970s glasshouses, ranging from a micro-farm for upscale vegetarian restaurants to gardening group Black Rootz. That was led by Gormley, along with the central building providing offices for Ubele, classrooms for educational programmes and a communal kitchen in a central covered passage. Nearest the street is an ample community hall led by Gil, clad in



timber slats for a less agricultural, more 'civic' look, which can host plant fairs and seminars or be rented for events.

Outside, Gil points out ways that public co-design sessions shaped the £2.33m scheme. 'One thing that came across was the importance of adaptive, flexible infrastructure,' he recalls. 'So open spaces are as important as enclosed spaces.' At the entrance to the hall an overhanging roof makes a useful outdoor room; at the back a canopied timber deck with an outdoor kitchen offers a sylvan setting for impromptu parties.

The participatory agenda also shaped the buildings' appearance. Trussed roofs on light timber frames could be put up quickly, making shelters below which walls were built at a more languid pace, with volunteer help. Contractors can be wary of such complications but, says Gil, they were part of tender documents.

After tuition from the School of Natural Building, amateurs stacked straw bales for insulation, and under the guidance of expert Will Stanwix others got their hands (very) dirty slapping on clay plaster inside. Some facades are finished in a rough and reddish scratch coat of lime render, allowing easy repair by unskilled community members.

Bio-based building materials are Gormley's main interest, and Material Cultures has experimented with products from bark resins to bundled



**'Empowering people, and enabling them to take care of the building, is an important legacy to leave behind'**

**Top** The thick walls of the hall allow for window seats inside and out.

**Below** In the working yard, the offices and barn opposite are faced in rough red lime render.

**Below right** From high ground, roof pitches are in 'dialogue' with nearby terraced streets — a nod to the urban context.

reeds. Her first major building, Flat House, prototyped hemp cladding panels, and she is using hempcrete at larger scale in a Sussex housing scheme. Why choose more well-established methods at Wolves Lane? One reason is the use of volunteer labour: hempcrete is easy to apply but involves caustic lime and hazmat suits. More importantly, it is only processed in Yorkshire, and here the aim was to demonstrate the possibility of bio-regional construction, using natural materials found within a 25-mile radius.

Given the location, this has been a success. Timber came from the usual supply chains, but wheat straw was sourced from farms on the edge of London. Internal partitions are made from Strocks – big bricks of unfired clay and chopped straw – from Chesham, Buckinghamshire. Other materials were found even closer to home. Clay from the site was mixed with straw for mortar, and to plaster internal walls. Breaking up an area of hardstanding produced rubble that was crushed and compacted to make cement-free strip foundations, capped with corbelled bricks.





It's a proven, though unusual, method. How did the engineer feel? 'He didn't love it,' says Gormley. 'Every organisation involved in the project had some worry about taking on extra risks, so we had to get them to come with us on the journey'.

Determination was needed to resist the homogenising effects of insurance and regulation. Some battles were lost; Gormley is pained by 'unnecessary' MVHR cowl that sprout from the roofs like giant mushrooms. But the architects have avoided pressures to conceal the build-up of natural materials behind fire-resistant plasterboard. Holding out has paid off. The exposed structure serves an educational purpose, and is beautiful.

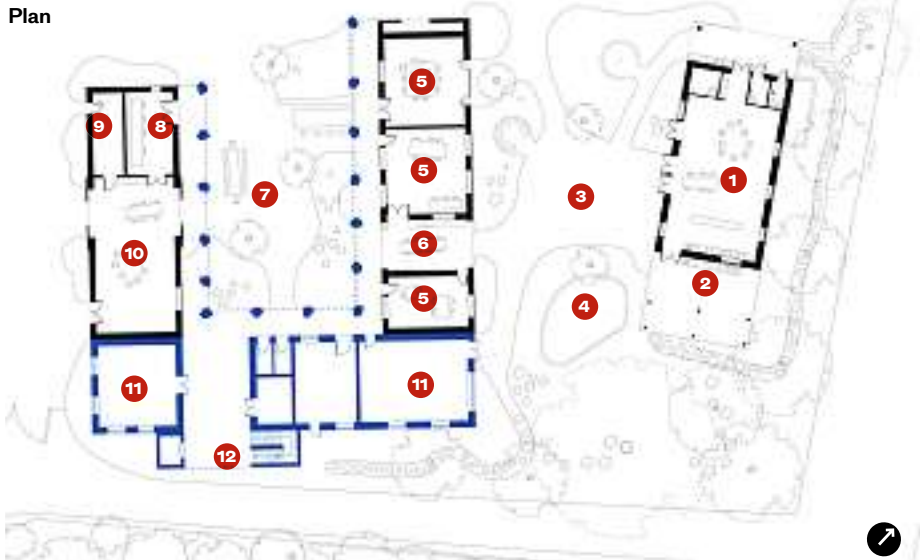
The offices feel both expansive and protective, their high, vaulted ceilings and thick walls emphasised by deep, timber-lined window reveals. Muddy colours and the textures of straw-speckled brick and clay lend visual warmth. Gormley enthuses about unfired clay's beneficial properties, from softening the acoustic to regulating temperature and humidity.

While some finishes lack finesse, every design detail suggests care over the ways the buildings work, and communicate. Rainwater downpipes are dangling tubes of corrugated black plastic, but are fed from concealed gutters that preserve the purity of the hat-like roofs. Gormley's buildings have metal windows powder-coated in a deep acid blue, intended to counteract any suspicion of romantic nostalgia for the pre-industrial age. 'I can't resist adding a naughty element,' she says. 'It's like cooking: you need something to cut through the fat, which for us is usually the browns and greys of a natural palette'.

The unheated barn is made in the same way as the other buildings, so its thick insulation keeps stored vegetables cool. Crates of produce are already piling up, among heaps of tools that speak of unfinished business. Sliding barn doors need a bit more funding, and some willing volunteers. Outside, footings are in place for a covered walkway around the garden, but it, too, will have to wait until resources allow. The missing building may even materialise in time.

Overseeing the final touches, along with educational events and other

## Plan



- 1 Community hall
- 2 Deck
- 3 Events yard
- 4 Irrigation pond
- 5 Office/classroom
- 6 Outdoor kitchen
- 7 Working yard
- 8 Workshop
- 9 Cold store
- 10 Warehouse
- 11 Office/classroom (phase 2)
- 12 Stair to second floor (phase 2)

**Below** The hall and office building frame a landscaped yard for events; the three completed buildings occupy 3,356m<sup>2</sup>.

## Credits

**Client** The Wolves Lane Consortium  
**Architects** Material Cultures, Studio Gil  
**Main contractor** Work Tisserin  
**Structural engineer** MEP engineer XCO2  
**Principal designer** TOCA  
**Landscape architect** JCLA  
**Straw bale consultant** Straw Works  
**Reedbed consultant** YES Reedbeds  
**Photovoltaic panels** Drakes Renewables  
**Approved inspector** Salus  
**Cost consultant** Jackson Coles  
**Ecologist** Arbtech  
**Straw bales** Longhay  
**Strocks** HG Matthews  
**Lime render** Lime Green  
**Limecrete floor** Miles Yallop

hands-on work, will keep the architects returning to site every couple of weeks, as they have for the last seven years. 'Our relationship to the project goes far beyond what's in the contract, which is not great financially,' says Gormley, 'but more rewarding than the role architects often have as service providers.' Gil sees this extracurricular activity as integral to the project's, and his practice's, aims. 'In the lifespan of a building, our involvement as designers is very short,' he says. 'So what can we leave behind? Education, empowering people, and enabling them to take care of the building is an important legacy.'

Much like gardeners, Gormley and Gil have planted seeds which must be tended. The Wolves Lane community is now enjoying the fruits, but they should also feed wider conversations about how we build for people and the planet. ●



# The hidden barrier to office return: how noise is undermining UK workers' productivity

A new study from Oscar Acoustics shows how office noise is proving a significant obstacle to a return to the office with acoustic issues in office design often overlooked

OSCAR  
acoustics

**Below** SonaSpray K-13 Special acoustic ceiling spray in Light Grey throughout dMFK's HQ offices.







Ben Hancock, managing director of Oscar Acoustics, commented: 'Productivity in the UK is already under scrutiny, with the Confederation of British Industry (CBI) reporting declines in Q1 2025 and EY revising GDP growth forecasts down to 1%. Employers, architects and developers cannot afford to treat acoustics as an afterthought. Investing in sound management isn't just a matter of employee wellbeing; it's a strategic priority for business success.'

Neuroleadership coach, Lara Milward, added: 'At this pivotal moment in the evolution of the workplace, we have the chance to redefine what the office actually means. It shouldn't just be a place where people show up; it should be a purpose-built environment that actively supports health, wellbeing, focus and collaboration. This isn't just about designing workspaces; it's about creating environments that give people real reasons to come together and do their best work.'

Oscar Acoustics calls on companies to prioritise workplace acoustics as part of their return-to-work strategy, empowering employees to thrive in environments designed for both productivity and collaboration. ●

**Above** SonaSpray K-13 acoustic ceiling spray in Grey throughout Henrietta House offices. Morey Smith, CBRE Offices London.

**Left** SonaSpray fc in white inside private office and SonaSpray K-13 Special in light grey in main offices for a sprayed concrete look.

To find out more about Oscar Acoustics' study, download its 2025 white paper *Shaping Spaces for The Great Return to the Office*, [here](#)



Rochester, Kent, 23 April 2025, 9am:  
A new study from Oscar Acoustics, Great Britain's specialist in architectural acoustic finishes, highlights a growing workplace challenge. Excessive office noise is undermining productivity, employee wellbeing and the 'great return to the office'.

Noise has become a major deterrent for employees returning to in-office work. The push to end hybrid working is gaining momentum, with corporate giants like Amazon, JPMorgan Chase and Barclays leading the charge and setting the tone for what some call 'the great return'. Yet, despite efforts by employers to improve office environments, more than half (56%) of UK office workers still describe their workplaces as noisy, and fewer than one in three believe their surroundings fully support their productivity.

The findings, based on a survey of 2,000 UK business professionals, reveal the impact of poor acoustic design on employee satisfaction and productivity:

- 36% of employees work from home to escape office noise.
- A third have shifted their hours to find quiet periods.
- 26% have relocated their desks, while one in five report conflict caused by noise-related tensions with coworkers.
- 47% struggle to concentrate, 36% feel irritated, 30% report stress and 7% – one in 14 – say they've suffered hearing damage from prolonged exposure.

The data also reflects a generational divide. Two in three employees aged

25-34 say they would quit if forced to return to full-time office work, while just one in ten Gen Z workers actively prefer office hours.

### A productivity problem ignored

Despite the global focus on workplace wellbeing, the percentage of employees who describe their office as noisy has remained stubbornly high – from 59% in 2019 (Oscar Acoustics, Noisy Workspace, 2019) to 56% in 2025. Noise-related productivity issues are also worsening. In 2023, 81% of employees reported that office noise affected their performance – up sharply from 41% in 2022.

To cope, employees are increasingly turning to noise-blocking methods, including headphones, with usage nearly doubling from 23% in 2022 to 41% in 2025. While effective in the short term, this reduces collaboration and team cohesion, stifling opportunities for spontaneous learning and innovation, especially for junior colleagues who are in a stage of their careers where they require mentorship and on-the-job coaching.

### It's all in the design

Acoustic issues continue to be overlooked in office design despite the growing evidence of their impact. Only 29% of workers feel their office acoustics meet their needs, with the same number revealing that implementing acoustic solutions would improve their productivity. This aligns with reports from architects that highlight a lack of focus on sound management in project briefs.





# Blue horizons

Everton's new stadium was cited by UNESCO when it stripped Liverpool's World Heritage Site status in 2021 because of dockside development – but four years on, that criticism feels misplaced

Words: Hugh Pearman Photographs: Tony McArdle / EFC

## IN NUMBERS

**52,888**  
stadium capacity

**9,000**  
capacity of entrance plaza

**279**  
wheelchair positions

**33.89°**  
maximum angle of rake  
on South Stand

**480,000m<sup>3</sup>**  
sand to fill dock





A building 240m long by 213m wide by 45m high is a megastructure by any standard. If that structure is a football stadium, it's also an exercise in fluid dynamics: what other building type expects you to house, service and rapidly move a population of – in this case – nearly 53,000? Everton FC's new home, then, is at the point where a single object becomes a civic realm.

Once you've strolled round the outside of it, you've walked a kilometre. Inside, the arrival and breakout spaces with all their bars and restaurants, shops and events venues, are cavernous, the central spectator bowl immense. All this in the service of a grassy rectangle where people kick a ball about in competitive fashion. Such is the power of top-flight football.

The game is all about stats, so here are some more. This megastructure is nowhere near the biggest among its Premier League peers. It may be a major step up from Everton's venerable former home of Goodison Park two miles or so east, with its sub-40,000 capacity, but compare that with old neighbours and rivals Liverpool FC at Anfield (61,276 after a recent expansion), one of an elite group of 60,000-plus-seaters also including Arsenal, Tottenham Hotspur and West Ham in the trimmed-down former London 2012 Olympic stadium. Way ahead of the pack sizewise is Manchester United's Old Trafford, at 75,653. Even that's not enough for the Red Devils, who want to build a Foster-

**Left** The canted south elevation overlooks Nelson Dock.

**Below** For night games the silver top section is lit in Everton blue.





designed 'New Trafford' seating 100,000, audaciously eclipsing the national stadium, Foster's Wembley, at 90,000.

But at what used to be Bramley-Moore Dock, a couple of miles north of the heart of maritime Liverpool, as marked by the Liver Building, the relatively modest new Everton ground is quite big enough, and expensive enough at a (reported) £800m. Indeed, it took a deal of effort to shoehorn it into its site. This was one of the city's string of interlinked North Docks, part of a set of five designed by engineer Jesse Hartley that opened in 1848. The stadium stands between the Mersey and the spine road running along the rear of the docks, behind a listed granite-rubble wall with turreted gatehouses.

Here the stadium had to allow enough space on its eastern (road) side for a generous approach plaza, and on its western (Mersey) side to maintain a respectable water channel within the basin linking to the other littoral docks north and south. To build the stadium, the dock was filled with sand dredged out at sea and then compacted. Once construction finished, the linking waterway was excavated, though fixed low bridges make it unnavigable. Beneath the stadium, the rest of Hartley's listed basin retaining walls remain



**Above** Brickwork and metal cladding evoke dockland heritage and allude to the fabric of Goodison Park.

**Below** West facade. Bringing 1.4m extra annual visitors to the city, the stadium will aid regeneration of the northern docks, extending 2.3km along the Mersey.

**Credits**  
**Client**  
 Everton Football Club  
**Architects**  
 Meis Architects  
 (stages 1–3),  
 BDP Pattern  
 (design development  
 and delivery)  
**Client design guardian**  
 Dan Meis  
**Main contractor**  
 Laing O'Rourke  
**Engineers and all  
 building performance  
 disciplines**  
 Buro Happold  
**Landscape and public  
 realm design**  
 Planit-IE

intact. In the eastern plaza, their restored tops sit flush with the new paving, with original iron bollards still in place.

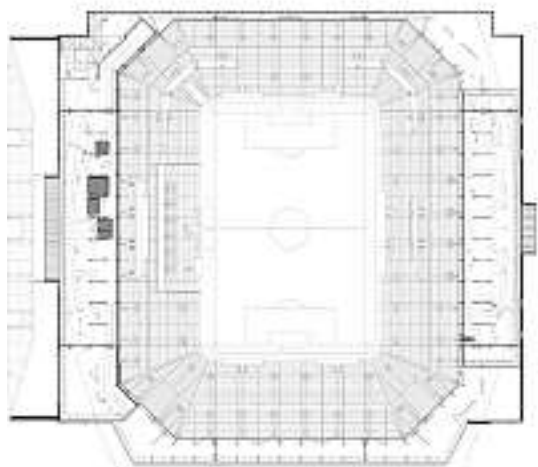
This attention to industrial heritage, including the restoration of a tall, listed red-brick 1883 hydraulic engine house at one corner of the site and the careful reinstatement of dockside railway tracks, was not enough to prevent the stadium plans being cited by UNESCO when it withdrew World Heritage Site status from Liverpool in 2021 because of development of its historic waterfront.

Now it's built, was that decision fair? Not in the case of the stadium in my view, which is on a scale, and with a tough, industrial quality, entirely suited to its site. Walking along the dock road towards it, it hoves most satisfyingly into view above the dauntingly long wall which kept the docks a private domain for so long.

It is a handsomer beast than most of the cruise liners you find moored at the Pier Head. The concept design by American architect Dan Meis, refined and developed from RIBA Stage 3 by stadia specialist Pattern (BDP Pattern since 2021) with contractor Laing O'Rourke, is pleasingly unusual. Its curvaceous silver top section oversails a plinth of vertically arranged brick and black metal sections, drawing on the banded facades of the mighty 1901 Tobacco Warehouse on Stanley Dock. While BDP Pattern was the delivery architect reporting to the contractor, Meis (now leading AECOM's sports division) was appointed design







Level 4

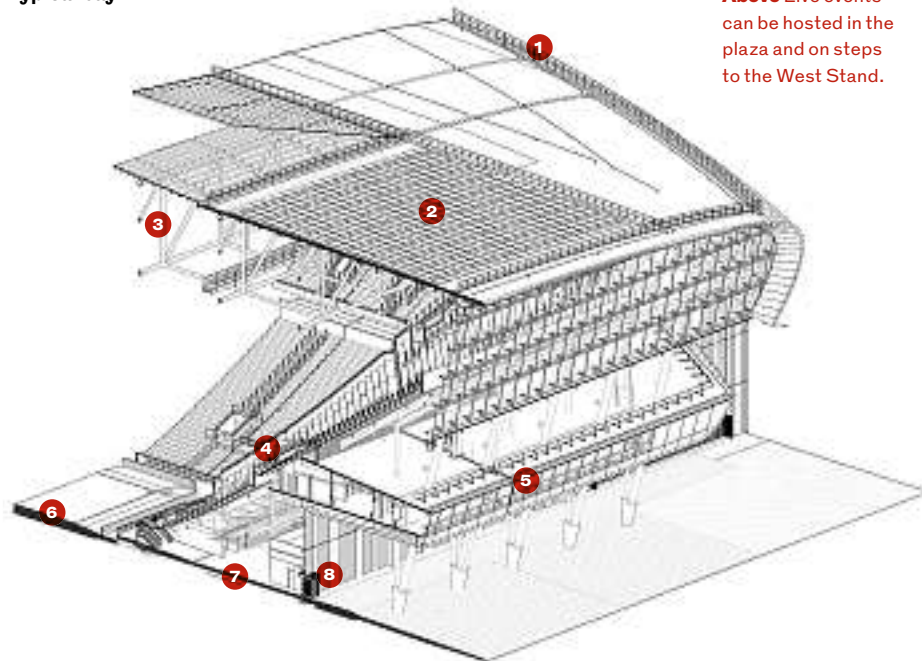
guardian by the club. The fans chant his name at matches, I'm told.

Early arenas such as Goodison Park or Arsenal's former Highbury ground in north London, both by Archibald Leitch, the early-20<sup>th</sup>-century stadium king, simply followed the shape of the pitch, with a stand on each side and across the ends, making a rectangular whole. Many recent football stadia, including Arsenal's and Spurs' new homes have gone for an oval plan. But Everton have returned to the rectangular because of the shape of the site, and although the structure's curving silvery top section oversails this plinth, it is sliced off at the north and south ends to fit. On the south side, its glazed angled end comes right up to the Nelson Dock. On the north it abuts a very large enclosed sewage-processing plant and another dock. As BDP Pattern project director Jon-Scott Kohli says: 'We really drove down on the size of things – everything is as compact as we could possibly make it.'

That exercise in space-saving has a benefit when it comes to the spectator bowl. Seats swoop close to the pitch. Especially on the tall South Stand, the rake of seating is as steep as regulations allow: it's quite a stiff climb to the top if you don't use the lifts. Up there, you get a great view of the mighty tubular-steel trusses spanning full-width to support the end roofs, while the roofs on each side are on cantilevered jibs. Looking around, you can see that the disabled-access seats with their extra space are in groups dotted evenly around the arena at



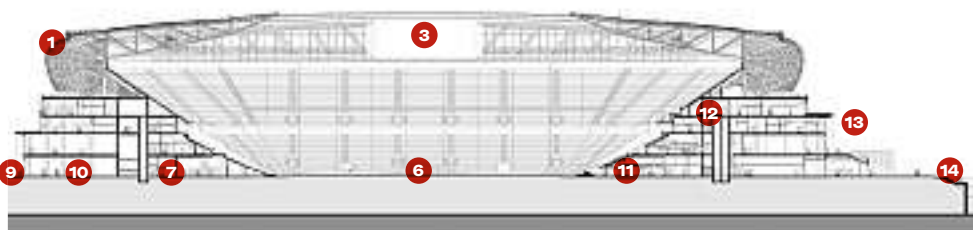
Typical bay



**Above** Live events can be hosted in the plaza and on steps to the West Stand.

- |                              |                |                        |
|------------------------------|----------------|------------------------|
| 1 Barrel roof                | 6 Pitch        | 11 Players' facilities |
| 2 PV array                   | 7 Concourse    | 12 Hospitality lounges |
| 3 Giant LED screen           | 8 Brick facade | 13 West terrace        |
| 4 Home stand (safe standing) | 9 Fan plaza    | 14 River Mersey        |
| 5 Balcony bar                | 10 Shop        |                        |

East-west section





## Buildings Stadium



Concourses incorporate quiet rooms and 95 baby-changing facilities alongside restaurants and bars, all fitted with low-level counters.



The steep South Stand is intended to recreate the atmosphere of Goodison Park.



various levels. The posh western section, with its glazed private boxes and upscale catering, also has an open area with lounge sofas. It's not just about overall seat numbers, notes Kohli; it's also about their grading in nine levels from basic to super-premium, so increasing income.

You don't look for fine detail in a football stadium, though all the exterior red bricks are handmade, mixed, then cast into 6m-tall panels (the constrained site led to maximum prefabrication of components, whether concrete, steel or brick sections). The look they were aiming for, says Kohli, was 'a building which wears its industrial heart on its sleeve'. That means almost no trim. What you see is how it is made.

On the western, Mersey-facing side there is an open terrace outside the main bulk of the stadium: a promenade space when the weather's good. When it's not, much of the pedestrian approach is under the skirt of the stadium where there is a system of built-in high-level perforated steel baffles to attenuate the winds that can howl in off the Mersey.

The boost of the Hill Dickinson stadium (recently named for its law-firm sponsor) will certainly accelerate development in what the docks' owner Peel Group calls 'Liverpool Waters', an Enterprise Zone. But for now, you can gaze out south from within the stadium through large windows right along the docks back to the Liver Building. Perhaps they should protect the view of the stadium from the other direction too. ●

**Left** Accessibility is enhanced by lifts to step-free platforms in every stand, and more wheelchair positions than any English club. **Below** The home dressing room.





An aerial photograph of a modern, multi-story building with a distinctive green roof. The building features a grid-like facade and is surrounded by other urban structures. In the background, a dense city skyline is visible under a clear sky.

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# Where innovation and historic design collide

Clerkenwell Design Week offers a chance for the London district's ancient buildings to host fresh design innovations – and for architects and manufacturers to meet. For 2025, Kunle Barker took attendees on a special walking tour



**Below** Alex Chinneck's *A Week at the Knees*, fabricated from Michelmersh bricks, Crittall windows and 4.6 tonnes of reclaimed steel.



SAM FROST (2)

From its earliest days as the site of the 'Clerk's Well' – a location where monks gathered – Clerkenwell has been a place of convergence. Historically, it was where town and countryside met – with cattle brought via Caledonian Road to Smithfield Market – and where the sacred met the secular at the Priory of the Knights Hospitaller.

Today, it acts as a crossroads between London's West and East Ends and the City, where culture merges with industry and commerce. It's no surprise that, with such disparate influences, Clerkenwell should evolve into a design corridor. For centuries, watchmakers, metalworkers, printers and other guilds shaped a built environment that, today, accommodates contemporary showrooms nestled comfortably among historical remains.

Each year, Clerkenwell Design Week offers an opportunity for the neighbourhood's ancient buildings to play host to the latest in design innovations. For 2025's event, which took place May 20–22, RIBA partnered with architectural commentator and built environment expert Kunle Barker to lead a curated walking tour through this fascinating London district.

The tour began at Cosentino's showroom, a repurposed former bank near Holborn Circus. Here, participants were invited to explore surfaces not as static displays, but as working elements embedded into the space, with product ranges including Dekton and Silestone used on floors, walls, skirting boards, bathroom vanities and a fireplace. The building provides an inviting and airy space for designers and manufacturer to collaborate on specifications – and FYI, they serve good coffee. (On the other two days on which this tour was run, sponsors Blum and König + Neurath had the honour of hosting the breakfasts.)

'Clerkenwell is where the city's story starts to split in all directions,' Barker observed, pausing near St John's Gate, the 16<sup>th</sup>-century portal to the former Augustinian medieval priory. It's also an area that seems constantly in flux. Skirting past the Barbican to reach Smithfield Market, we encountered this



ASHLEY BINGHAM

first hand: the 900-year-old meat market (active until 2028) is being transformed into the future London Museum, thus witnessing the simultaneous preservation and destruction of Farringdon's heritage. Despite the imminent closure of the businesses, a large portion of the expansive site is yet to be allocated a new function. However, this week, above Smithfield's cast-iron arcades (designed by Horace Jones in 1866) an exhibition space hosted CDW participants such as Johnstone's Paint, Silent Gliss and Paper Lounge, the latter providing a playful pop-up display of recyclable concertina seating.

Further along, London's oldest surviving parish church, St Bartholomew the Great (founded in 1123) was temporarily dubbed 'The Church of Design'. Inside, among displays of contemporary furniture and Iznik tiles, eco-resin Koolique champagne serveware framed a Byzantine icon with icicle-like forms. This church has an illustrious history: it was here, confirmed Barker, that Hugh Grant absconded in 1994's *Four Weddings and a Funeral*. The church building, too, is an architectural mishmash, comprising Gothic and Romanesque elements, a wooden Tudor gateway and a flint facade – a

**Above** Kunle Barker leading a walking tour taking in showrooms, history and makers.

**Below** Smithfield Market arcades repurposed for Clerkenwell Design Week.



rare material choice for London. Near the entranceway, Damian Hirst's sculpture of the martyred Saint Bartholomew (*Exquisite Pain*) greeted visitors with his flayed skin draped nonchalantly over his arm.

But the most theatrical part of the tour was yet to come, in Charterhouse Square (once a bubonic plague pit – but we will move swiftly on), with artist Alex Chinneck's rippling new installation *A Week at the Knees*. Fabricated from Michelmersh bricks, Crittall windows and 4.6 tonnes of reclaimed steel, the reimagined Georgian facade would have been at home in *Alice in Wonderland*; it provided a unique and fluid frame through which to view the eclectic mix of architectural styles surrounding the square, from the medieval Charterhouse complex to the Art Deco Florin Court.

At Charterhouse, once a Carthusian monastery, exhibitors including Geberit showcased their installations within cloistered courtyards. The number and range of exhibitors at CDW appears to grow year on year, and as one tour member commented (after they had been hurried out – so much did they enjoy it), CDW presents a rare opportunity for architects to speak to this many manufacturers face to face, side by side.

Our walk concluded at Sessions House, a neoclassical former courthouse reanimated as a design venue, where the Pantheon-inspired dome illuminated yet more displays below. Of course, no discussion of Clerkenwell would be complete without mentioning its legendary pubs, including one, the Crown Tavern, where Lenin and Stalin reputedly met in 1905. Throughout the walk, Kunle Barker brought enthusiasm, knowledge and characteristic humour to his commentary; the morning offered an inspiring look at what is possible when product innovation and historical design converge. ●





# Garden Kitchen



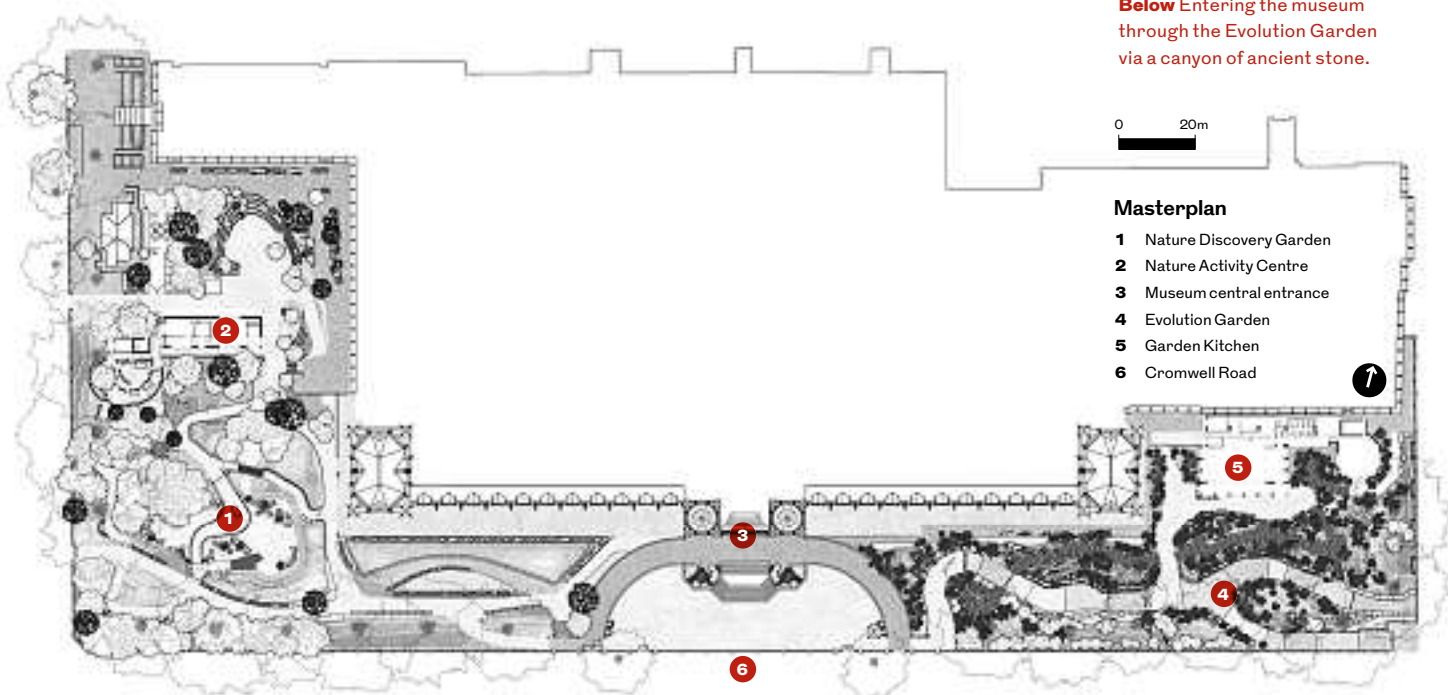
# For the ages

The Urban Nature Project offers a memorable stroll through millennia, while beautifully reframing the Natural History Museum

Words: Eleanor Young Photographs: Jim Stephenson

**Opposite** The landscape and buildings of the Urban Nature Project share a geological slant.

**Below** Entering the museum through the Evolution Garden via a canyon of ancient stone.



The Urban Nature Project, in London's South Kensington, exists in the landscape wings of the Natural History Museum. Yet with just a few small built interventions and a storytelling weaving of landscape routes, it radically changes the context of the museum. From disconnected objects in a sunken leftover space, the grand Victorian walls of Alfred Waterhouse have become part of the connective tissue of the city while also, somehow, Feilden Fowles and J & L Gibbons' scheme brings the fossilised dinosaurs of the museum alive by walking visitors through landscapes spanning millennia. At the same time, small new museum buildings speak to developments in architecture and our treatment of knowledge.



London can feel like a hellhole sometimes. Hot tarmac, hot feet, a closed tube station, crowds of confused tourists, loud lorries... I arrive at the museum frustrated and cross. It takes time for the new landscape to seep into my psyche; the curving paths are still busy, but with happily engaged people, relaxing in the shade of the huge plane trees around the site, taken up with the intricacies of the ferns and details of little brass creatures that pop up here and there.

Of course, you should arrive through the tunnel from South Kensington Underground Station into the project's Evolution Garden, to the east. Visitors are led up into the garden past steep walls of rock, angled to evoke geological formations. This route starts with the





earliest rock types and the plants from around when they are formed, before moving through time, with a metre representing five million years. Here, I get caught up in the story. Even the stone aggregate in the terrazzo matches the geological time of that part of the journey; when we reach the Anthropocene era you can see glass and ceramics creeping in.

Walking around with Edmund Fowles and Matthew Glen from Fielden Fowles, and Neil Davidson from J & L Gibbons, it is hard not to be drawn into the poetry of selecting plants and stones for it, from Lewisian gneiss sourced from the Outer Hebrides to grey, then pink granite. The team visited quarries, photographed and then digitally mapped each slice of rock ready to be dry laid. The practice's drawing of the wall, referring back to those of pioneer geologist

**Above** Stone benches ground the walls of the Nature Activity Centre, and are already well used.

- 1 WC and showers
- 2 Volunteer room
- 3 Office
- 4 Changing Places WC
- 5 Teaching space
- 6 Lab touch down
- 7 Verandah

#### IN NUMBERS

**660m<sup>2</sup>**  
Garden Kitchen

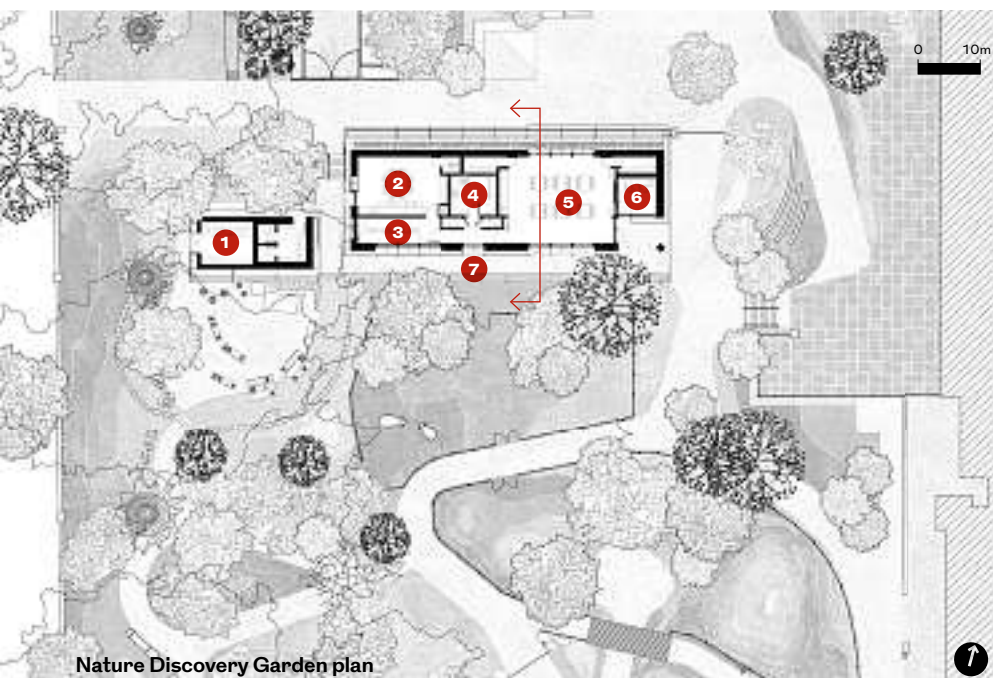
**220m<sup>2</sup>**  
Nature Activity Centre

#### Traditional

Form of contract  
(JCT Standard  
Building Contract)

**547kg**  
Whole-life carbon  
CO<sub>2</sub>/m<sup>2</sup>  
Garden Kitchen

**636kg**  
Whole-life carbon  
CO<sub>2</sub>/m<sup>2</sup>  
Nature Activity Centre  
(A1-A5 and C1-C4)



## Buildings Gardens

William Smith, will no doubt be taking its place at the Royal Academy show this summer. But it is the detail of the inset brass dates – and occasionally footprints – and the sense of calm that impressed me more on the ground. For many dinosaur-crazy visitors, it will likely be the life-sized diplodocus cast.

On this eastern side, no buildings were planned. But a café, the Garden Kitchen, now nestles up to the 1960s museum extension – which has a blank base no more. It cleverly taps into the existing services undercroft, with new toilets and storage in there. An elegant octagonal event room has also been claimed from the projecting undercroft, softened by a clay plaster ceiling and felt made of recycled bottles, then sharpened up again by delineation with brass edges.

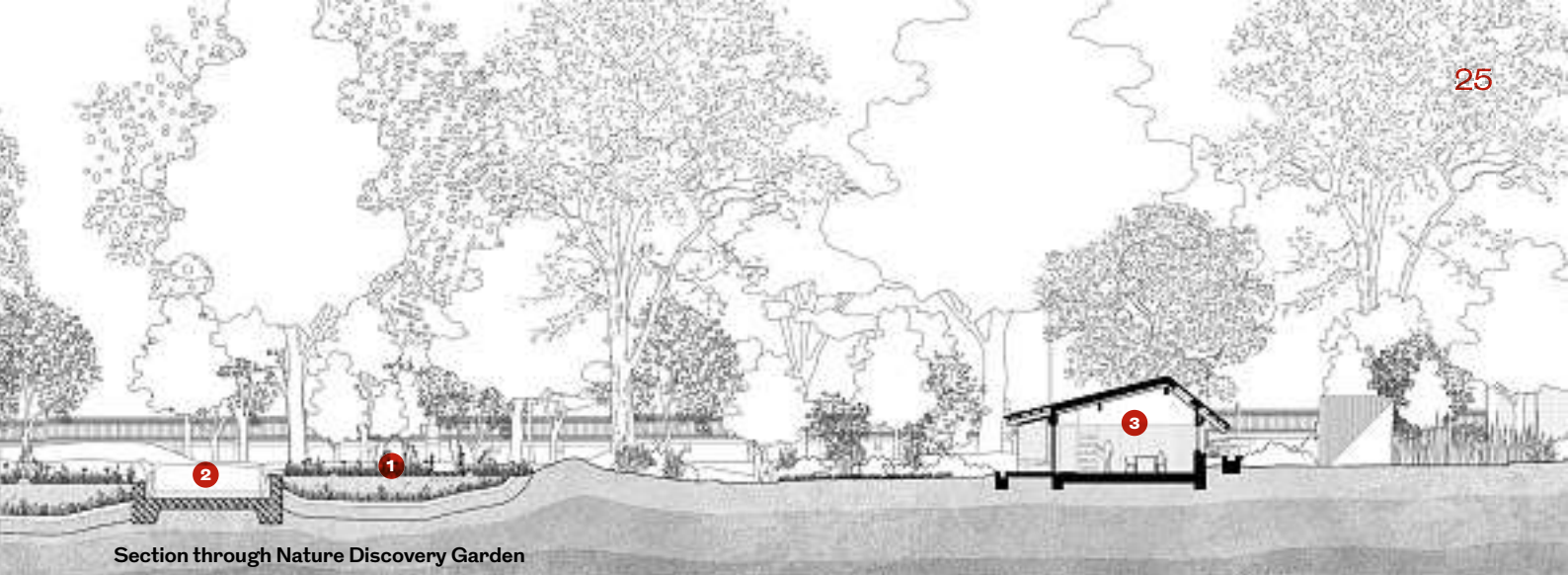
The café has a robust modesty. The lantern above the main volume provides welcome height and light while timber, glulam and wood wool, combined with large plants inside and views onto those outside, offer an airy, natural feel. The winter garden running along the front of the café, meant as an area to keep tender plants warm, seems likely to be too valuable for café visitors; but it has at least driven the design of a deep sill, which works as a perching place inside and out.

The Natural History Museum's central entrance has not been touched

Offset planes of stone bring a playfulness to the column supporting the generous roof and massive glulam on the Nature Activity Centre.







Section through Nature Discovery Garden

- 1 Pond
- 2 Path
- 3 Nature Activity Centre

**Below** Inside the centre, north-facing rooflights and ply lining make for a pleasant teaching space.

**Suppliers**  
**Timber** Cosylva / East Brothers Timber (supplier), Xylotek (sub-contractor)  
**Stone** CED (supplier), Szerelmey (sub-contractor)  
**Shingle roof** Marley

**Terrazzo floors and micro-cement plaster** Avantgarde  
**Clay plaster** Clayworks  
**Steel windows and doors** Schueco / Jansen  
**Green roof** Axter  
**External poured paths** Lazenby

**Bottom right** The deep roof overhang gives an outside space that is under cover, perfect for extremes of heat, or heavy rain – when it comes to life.

by this project, since it was recently repaved. This is a little disappointing, and leaves the institution's queue to be managed by metal crowd barriers.

Over the years, the west side of the museum has seen the addition of HOK's hung-glass Darwin Centre and a concrete coated 'egg' designed by C.F. Møller, behind another glass facade. These have not been touched either, but two distinct gardens have been reworked and the Nature Activity Centre added between them. The rather bleak paved amphitheatre has been reimagined for our warming world, with the hard surfaces generously interspersed with drought-tolerant plants. It's a delight.

The ponds of the wildlife garden have, meanwhile, been raised. You can walk between the walls feeling almost part of the water: at this level there is no need for pond-dipping to be a high-







stakes activity. Thanks to the museum scientists studying the gardens, many new species have been identified here. And the retention of all the water on this part of site has driven the architectural expression of the centre.

The Nature Activity Centre is part classroom, part local lab and part volunteer station. The roof of the centre is all about the joy of water, its patterned tiles signalling the drop of water as much as picking up on the famous terracotta patterns of Waterhouse's main museum building. And the rills on either side are justifiably oversized, but also celebratory. The generous roof overhangs allow rain to encase the building when it falls, without gutters – and are wonderful as well on a hot day. The verandah has the same wide sills as the café, but here they will be a base, and shelter for, kids pulling on welly boots.

The centre shares a modesty in scale with the Kitchen Garden building. It also speaks to its sister building with a cutaway corner of a projecting roof and a limestone column. Both buildings have a stack of three limestones: Purbeck spangle, Clipsham and Ancaster. On this highly visible corner they are jauntily mis-stacked giving a sense of dynamism and of the – somewhat playful – hand of the designer. It is here I that stop to consider the low-tech mantra that Feilden Fowles has espoused – and quite how hard that is to achieve. The masonry column is load-bearing but the stone is only a thin face, for cost reasons. But if you don't think too deeply about it, you can still enjoy the column for what it is.

Despite its unassuming character, the Nature Activity Centre is as

- 1 Evolution timeline wall
- 2 Winter garden
- 3 Garden Kitchen
- 4 Back of house



Section through Evolution Garden

**Top left** The Garden Kitchen has long spans of glulam and a lantern over the main space.

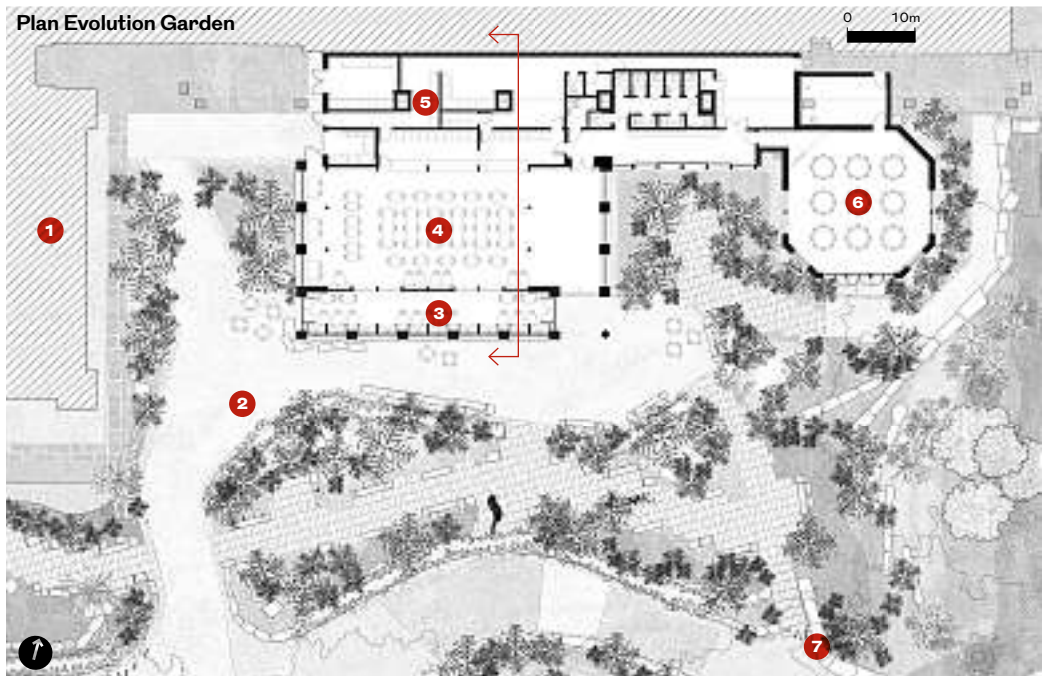
**Credits**  
**Architect (lead designer, building design and timeline wall design)** Feilden Fowles  
**Landscape architect** J & L Gibbons  
**Structural engineer** HRW  
**3D design** Gitta Gschwendtner  
**M&E, lighting and acoustic engineers** Max Fordham  
**Principal contractor** Walter Lilly  
**Project manager** Mace  
**Quantity surveyor** Mace  
**Sustainability consultant** Mace  
**Civil engineer** Infrastruct CS

- 1 Main museum building
- 2 Terrace
- 3 Winter garden
- 4 Garden Kitchen
- 5 Garden Kitchen back of house
- 6 Converted event space
- 7 Evolution timeline wall

generously and joyously executed as you might guess from its references: that of Fielden Fowles' own studio near Waterloo, pushed in the direction and solid materiality of Carlo Scarpa (water channels; straight lines; a circle). As with these tested forebears, it has a warm charm that builds a calm expectation.

In 2018, Niall McLaughlin won an international competition for this site. It had a far greater scope to intervene, with a new level below the gardens providing entry to the museum. It was never built. We are now in an age of reusing and retweaking buildings and the Urban Nature Project, with a rethought brief, does that beautifully, reframing the Natural History Museum and extending its learning out towards the streets beyond. ●

Plan Evolution Garden



# eba Marylebone: a destination for architects and interior designers

The central London location provides a collaborative space dedicated to refined kitchen and living furniture, providing design quality and project support

eba

eba Marylebone, at 28 Wigmore Street, is a new destination for architects and interior designers seeking refined kitchen and living furniture solutions. More than just a showroom, it's a collaborative space focused on design quality, technical precision, and project support.

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**Below** FINE Cashmere and Rustic Oak kitchen with plinth drawers and solid wood island table.

**Above** FINE Silk Mink Grey and Smoked Oak kitchen, with retractable doors unit.

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[marylebone@ebainterior.com](mailto:marylebone@ebainterior.com)  
[ebainterior.com](http://ebainterior.com)



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We invite you to visit eba Marylebone and discover how our collaborative approach can support your next project.





The Collections Hall  
expresses the plan and  
ambition of the institution.





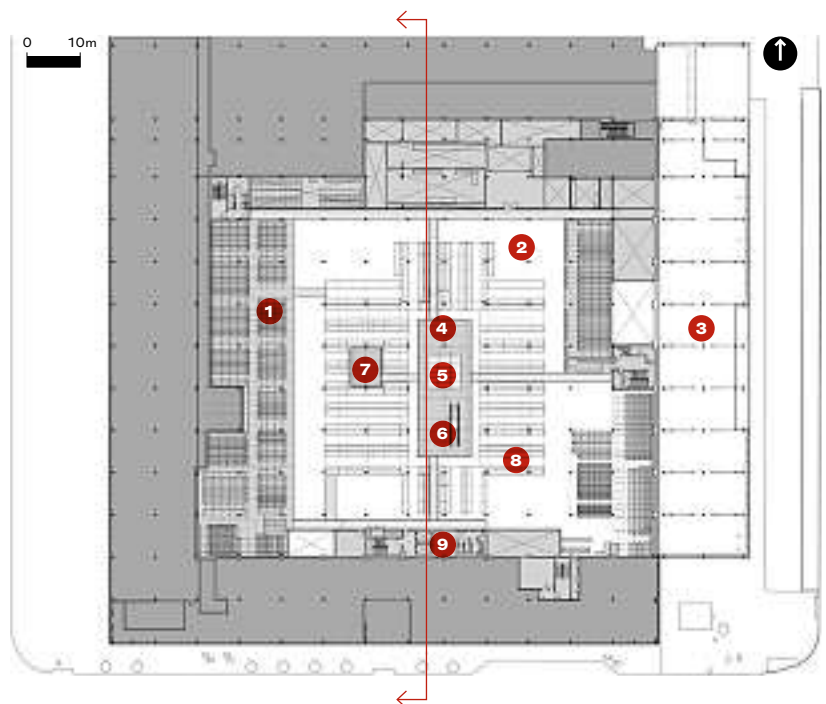
# Possible worlds

V&A East Storehouse's kaleidoscopic variety, unfolding within a vast, deliberately anonymous setting, sets a benchmark for what a responsive institution can be, offering near-infinite scope for future adaptation to the needs of its users

Words: John Jervis Photographs: Hufton + Crow

## Level One floor plan

- |                        |                        |                             |
|------------------------|------------------------|-----------------------------|
| 1 Level One storage    | 4 Collections Hall     | 7 Gallery One               |
| 2 Ground floor (below) | 5 Glass floor          | 8 Adjustable pallet racking |
| 3 Gantry               | 6 Front of house stair | 9 Passenger lift lobby      |







As you probably know by now, V&A East Storehouse is a triumph – a gallery-warehouse hybrid that transforms public access to museum collections. Given the public hadn't been in when the headlines were written though, perhaps a little caution is required. And if you're looking for a revolution with Pompidou pizzazz, you'll definitely be disappointed.

As a repurposed portion of the 2012 Olympics Media Centre in east London's Queen Elizabeth Olympic Park, rented on a 100-year lease, this is essentially a branded unit in a business park. When you pass through the flush metal entrance, the lobby resembles a co-working space or affluent academy school: exposed services; floor-to-ceiling glass; laminated wood scattered round and about; poured concrete floors; the requisite café; and 'creative spaces' (aka classrooms). Though, interestingly, no shop. It's pleasant enough, and that's fair enough – a loose-fit, in-between space where visitors decompress before hitting the main show.

#### IN NUMBERS

**16,000m<sup>2</sup>**  
GIFA

**>100**  
mini curated displays

**250,000**  
objects

**350,000**  
books

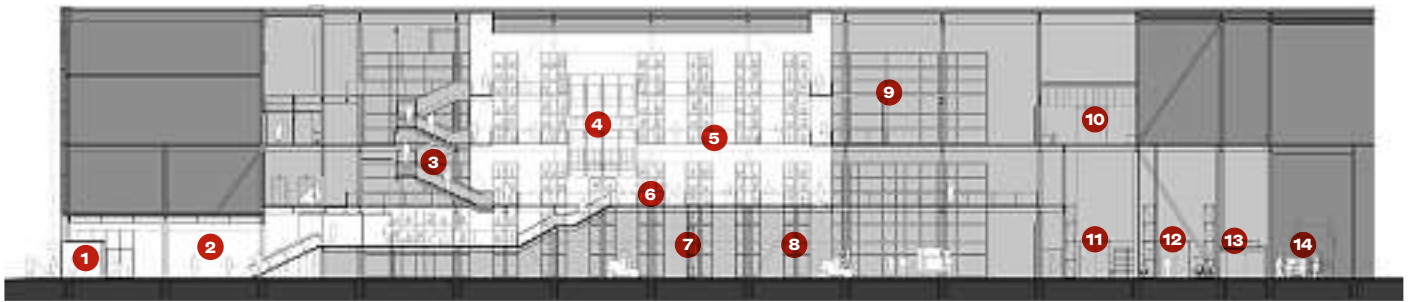
**1,000**  
archives

**Above** The patched-up structure of the 530-year-old Torrijos Ceiling is exposed, top-left of image, on one balcony.

Which is when things get interesting. Leaving the lobby via a compact metal staircase, you pass through two sets of doors with airlock vibes; the stairs rise through tight storage racks; then you are released into the 20m-high void at the centre of the Collections Hall. Having 'burrowed in', as Liz Diller of architect Diller Scofidio + Renfro puts it, you need a moment to adjust. Under a ceiling composed of LED panels, four levels of storage fill every corner of your vision (there is even a glass floor), crammed with a gallimaufry of 'precurated' objects: armoires, reliefs, costumes, swords, paintings, marquetry, machinery, mannequins, a bust of Lord Carrington, a chunk of Robin Hood Gardens, a Moulton bicycle, all cheek by jowl, some still under wraps, most with minimal information.

The architecture is deliberately anonymous, and the effect is mesmerising – the vastness, variety and slight craziness of the V&A's collection, and of its remit, become the building. It's a bit Turbine





Hall, a bit Safestore, a bit Cast Court, a bit Raiders of the Lost Ark, a bit Cabinet of Curiosities (the last is the official one). Here, objects are clustered as much by the taxonomies of storage – size, type, weight, fragility, sensitivity to light – as those of curatorship. Similarly, display stands are minimal, with technical teams ‘hybridising’ the straps and pallets of warehousing for the display environment. Some items have panels or QR codes to help you out. Most just have an old linear barcode on a tag.

For those of us hidebound by the old ways, this requires recalibration. There is a frisson of trespassing, going off limits, as you pace balconies and head into racks, autonomous and (if you’re like me) completist, set free in an enormous junk store. In V&A East Storehouse, there are no rules – until you run up against one of its demure security gates. But these can be moved around, allowing the visitors’ domain to be the subject of constant experimentation. And that frisson is deliberate, derived from Diller’s own thrill at going behind the scenes at the V&A’s previous warehouse – the converted headquarters of the Post Office Savings

#### Section

- |                             |                             |
|-----------------------------|-----------------------------|
| 1 Entrance vestibule        | 8 Adjustable pallet packing |
| 2 Welcome entry             | 9 Collections storage       |
| 3 Front of house stair      | 10 Photography studio       |
| 4 Robin Hood Gardens facade | 11 Transit store            |
| 5 Collections Hall          | 12 Crate storage            |
| 6 Glass floor               | 13 Quarantine               |
| 7 Agra Colonnade            | 14 Loading                  |

0 20m

**Below** The 18-tonne Agra Colonnade is on display for the first time since the 1950s.

**Bottom left** Rack ends have been ‘hacked’ to create rotating mini-displays.





Bank in West Kensington – enjoying the self-sufficiency and secrecy of its logic and language.

The stepped entrance to the Collections Hall isn't great accessibility messaging, but has justification beyond the spectacle. Hawkins\Brown's original two-storey structure proved admirably adaptable – a large hole was punched in its single supported slab to open up the main void, and additional walkways and balconies hung off its structural columns. The ground floor (super-sturdy, given the building's origins) is now reserved for the realities of a working warehouse-cum-museum. A couple of forklifts trundle about the well-appointed space, which is almost always in view, whether via sideways glimpses or deliberate vistas. Colourful ceramics are visible through the glass flooring, while viewpoints look over work in progress, including one with a live feed of delicate conservation work in a multipurpose studio.

That last example of exposure feels like it asks a lot of staff, thus may require tweaking to survive a prolonged encounter with real life. Similarly, when I revisited, the child-focused suggestions board had angry cards criticising the occlusion of the East End's Anglo-Jewry in displays. But perhaps such vulnerability is a necessary part of opening up the

**Right** The art storage at V&A East Storehouse is, to date, inaccessible to the public.



**Below** The facade of Robin Hood Gardens hangs in the Collections Hall, with the balcony acting as a 'street in the sky'.



institution of the museum; of removing practical and psychological barriers between its users; and of flipping the norms of access, storage, conservation and display. Symbolically, the most public space is now at the centre of the building, ringed by semi-public archives, with private study and deep storage areas at the edge. You really do feel enmeshed within the institution's activities.

Despite the overall architectural and curatorial reticence, with both parties preferring to 'lean into the delirium of the collection' (as Diller puts it), decisions are still required. The experience of visiting V&A East Storehouse may be less filtered, more autonomous, but the outward-facing ends of racks offer multiple opportunities for objects to be plucked from obscurity and plonked on a plinth, almost at random, to surprise and delight on a rotating basis. 'You can twist the kaleidoscope however you like,' in another of Diller's apt phrases.

There are also more traditional displays in occasional vitrines, which largely eschew the 'story of an object' approach for explorations of what it means to collect, install, conserve and interpret. That museological introversion offers insights, but risks becoming repetitive, as 'baring all' tips over into 'droning on'. At some point, the lens will need to turn out again, re-engaging with the objects themselves. In this respect, the success of those displays prioritising local themes, from music hall to protest, is encouraging. Many have been produced in collaboration with community groups as part of an aim for 'relevance' to the population east of Tower Bridge, who might not see themselves reflected in the existing institutional experience. Long-term, though, the eternal curatorial challenge remains – to communicate that all the objects stored here are rich in humanity, that all are relevant.

Finally, six 'large objects' have been embedded across V&A East Storehouse: Frank Lloyd Wright's Kaufmann Office; one of Margarete Schütte-Lihotzky's Frankfurt kitchens; the 15<sup>th</sup>-century

Torrijos Ceiling (embellishing a gallery space on one level, but with its patched-up wooden structure laid bare on the next); Picasso's massive front cloth for *Le Train Bleu* (in an acoustically controlled auditorium); the 17<sup>th</sup>-century Agra Colonnade (the heaviest item in the V&A's collections, installed at ground level but visible through the glass floor); and the aforementioned chunk of Robin Hood Gardens, completing its long journey from desperately needed social housing to middle-class fable. When it comes to understandings of design, it all feels rather last century, but, again, impressive local projects inject fresh perspectives and life. Perhaps the opening of the David Bowie Centre in September, designed by IDK, will offer the chance for a plot twist.

After the headlines fade, it will be interesting to follow visitor numbers, demographics, security, and how people engage with the building and with the collection. Presumably, there will be regular press releases on 'Order an Object', which lets visitors select up to five items for close encounters in the extensive Study Centre – a Berlin-era Lou Reed poster is being enjoyed as I look down from the allotted vantage point. It's a great idea, fraying the increasingly obsolescent line between enthusiast and scholar, and is emblematic of V&A East Storehouse's new approach to display, to access, to the purposes and responsibilities of a museum. This is a model for a responsive institution, one always

#### Credits

**Design architect** Diller Scofidio + Renfro  
**Local architect** Austin-Smith:Lord  
**Engineering (structure, services and lighting)** Arup UK  
**Principal design advisers** ORSA  
**AV** Hoare Lee  
**Cost consultant** Gardiner & Theobald  
**Project manager** Colliers  
**Exhibition consultant (competition phase)** Studio Adrien Gardère  
**Lighting** Beam Lighting Design  
**Designer, adaptable archival display system** IDK  
**Fabricator, adaptable archival display system** Solved  
**Designer, wayfinding and interpretation** Fieldwork Facility  
**Fabricator, wayfinding and interpretation** Standard8  
**Pallet racking** Link51  
**Roller racking** Bruynzeel  
**Rolled textiles, arms and musical instrument storage** Polstore  
**Automated large rolled textile storage** Kardex  
**External signage design** We Not I  
**Project manager** Artelia



being experimented with, adapting to the needs of visitors, scholars, staff and schools, but also those of the objects and collection, offering an almost constant feedback loop.

Like most things in life, a museum is a series of balances – between conservation and display, quantity and quality, accession and deaccession (the racks have space for only five years of new acquisitions), didacticism and autonomy, or any combination of the above. Here, those balances can be played with, radically at times. If things don't work, they can be changed, the institution can change, then it can change again, and again, possibly for 100 years or more. Even if proof of concept has barely begun, V&A East Storehouse really is a model for the future. ●



**Above** Signed by Picasso, the front cloth for *Le Train Bleu*, by Les Ballets Russes, has been newly restored for display.  
**Left** One of four new multipurpose conservation studios.  
**Below** The understated public face of V&A East Storehouse.





# Glimmers of hope

Affordable housing provision may be at a low ebb, but a RIBA webinar heard about some inspirational projects where quality and affordability go hand in hand, writes Michèle Woodger

With a 22 per cent reduction in the number of new homes planned, an 88 per cent drop in affordable housing starts, and targets consistently undermined by well-paid planning consultants – ‘experts in unpicking social and affordable housing obligations’, as RIBA’s Jan-Carlos Kucharek soberingly observed – London’s affordable housing provision is in a sorry state.

Nevertheless, glimmers of hope do exist. Projects such as Lots Road on Chelsea Waterfront and Archio’s trailblazing Citizens House in Sydenham, are, says Kucharek, ‘proof that with belief and community-led will, affordability and quality can go hand in hand’. With more stringent application of such London Plan policies H4 and H5 and creative land use (like Community Land Trusts), it can be achievable.

Can lessons be drawn from elsewhere? Architect Paul Karakusevic, author of the forthcoming *Dual Cities: Social Housing in London and New York*, shared insights from a three-year transatlantic comparison. London and New York differ vastly in scale and governance. ‘A single housing authority manages over 200,000 homes in New York. In London, we have 33 boroughs,’ he said. New York City’s centralised housing authority



PHILIP VILE

**Above** The civic simplicity of Appleby Blue’s main elevation, beyond, which lie layered and complex internal and external spaces.

**Below** Graphic illustration from KCA’s *Dual Cities* (RIBA Publishing), looking at comparative headline figures for housing in London and New York.



KARAKUSEVIC CARSON ARCHITECTS

benefits from philanthropy and tax credits, encouraging deeper stakeholder investment. While not without its own systemic challenges, the authority allows for typology innovation, mix of uses and community involvement, leading, perhaps, to greater ambition.

‘Architects can’t fix the system, but they can absolutely shift the dial,’ Karakusevic asserted.

## An architectural response to loneliness

Wetherford Watson Mann’s Appleby Blue almshouse project in Bermondsey is one such dial-shifter, achieving a rare balance of quality, longevity and social value. Often, said practice director Stephen Wetherford, ‘what developers want is value. What we fought for was legacy.’

Providing 57 apartments, the project reimagines the almshouse typology to meet the needs of older people who, too often, end up retiring quite literally from public life. ‘Loneliness is the true urban epidemic, and this project is an architectural response,’ Wetherford explained. Communal gardens, a cookery school, hairdresser and shared community facilities help merge the civic and domestic.

Kucharek described this as ‘civic heroism’ ... robust, generous and sensitive to place in the way that it responds to

Bermondsey's architectural fabric.

'We began with no preconceptions,' said Witherford, 'just the challenge of rethinking how older people can occupy the city.' He emphasised the approach of 'working with the city as found' to create architecture with meaningful materiality and rhythm.

Unsurprisingly, brick featured prominently here and across all the webinar's case studies. As Michelmersh Brick CFO Ryan Mahoney commented: 'Brick doesn't just last 200 years, it often gets better with age.' Brick's sustainability credentials are often undermined by a carbon-intensive manufacturing process. But Mahoney pointed to Michelmersh's sustainability drives, including hydrogen fuel kiln trials, recycled content, and a 20 per cent cut in embodied carbon since 2016 – an important step in the right direction for this indispensable, versatile building material.

Another material that features in Appleby Blue is zinc. As Jonathan Lowy, operational marketing manager of manufacturer VM Zinc, put it: 'Zinc isn't just for cathedrals and prestige builds; it works for housing, big and small.' He presented its benefits in roofing and cladding: flexible uses, aesthetic options and longevity. Addressing cost preconceptions, Lowy described zinc as an affordable material offering century-spanning value for money.

The link between thoughtful architecture and social conscience

extended further. Snug Architects founder Paul Bulkeley discussed Hope Street, a pioneering alternative to prison for women in the justice system.

Developed for the charity One Small Thing with financing from philanthropist Edwina Grosvenor, the Southampton-based scheme enables convicted women to live with their children. Its well-considered acoustics, materiality and privacy facilitate a social model that successfully balances safety and trust. 'One of the key things people often say about this building is that it's very, very generous,' Bulkeley observed, adding that the women 'are often not expecting to be treated in that way'.

Blending into its residential surroundings, Hope Street is not institutional. A public café and counselling hub face the community with dignity. Family-friendly apartments address children's wellbeing as well as that of their mothers. The building sets a new standard for rehabilitative design, and is already influencing thinking about how justice should be administered for women.

### A matter of social justice

It is widely agreed that a lack of sustainability disproportionately affects the poor, making design decisions such as building materials and energy choices a matter of social justice. One such issue is fuel poverty. Andrew White (managing director of heat network company Metropolitan) and George Gillow (new build framework manager at Kensa Group) have introduced networked ground-source heat pumps as a scalable, efficient solution for residential settings. Unlike traditional centralised heat networks, this model places compact heat pumps in each unit, connected to shared boreholes. 'Think of it as a white box in the kitchen and pipes in the road, just like gas, but green,' White said.

This approach – a partnership between the two organisations – relieves pressure on the grid, and is more space



KKE ARCHITECTS

efficient than air-source heat pumps. With 24/7 servicing and oversight from Ofgem coming soon, this model aims to pass efficiency benefits onto consumers in the form of lower bills.

Returning to the theme of working with the urban fabric, KKE Architects director Jorge Eguiguren presented the practice's RIBA West Midlands award-winning transformation of Worcester's Old Fire Station. 'Though the fire station wasn't listed, it was locally cherished, and we approached it with that reverence,' he said. The derelict 1938 building was turned into 28 apartments. A communal roof garden, retained facades, and vibrant red steel cladding reinterpret the building's past. Minimal changes to the street frontage ensure it integrates into its surroundings, while new rooftop structures boost density.

'You can't design good housing unless you've done civic buildings, and vice versa,' said Witherford, paraphrasing Alvaro Siza. This sentiment came out very strongly in this webinar. The showcased projects challenge the wider system, respond to community and strive for justice in their own way. But such projects cannot simply be cut and pasted elsewhere. Rather, as Bulkeley said of Hope Street, 'it's a building that has an influence by inspiring people'.

In that spirit, the projects shared at the RIBA Spec webinar surpassed their briefs by respecting locality while offering inspiration and hope. ●

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**Left** Hope Street, Southampton, by Snug Architects, provides an alternative to prison.

**Top** KKE Architects' Old Fire Station housing project in Worcester.



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# 2: Intelligence

**INTANGIBLE LEGACIES,  
TANGIBLE OUTCOMES**  
SELASI SETUFE,  
CO-DIRECTOR,  
BLACK FEMALES IN  
ARCHITECTURE

Black Females in Architecture formed organically in 2018, motivated by the lack of visibility of black women in the built environment sector, and rigid architectural teaching and practice approaches that fail to accommodate our lived experiences. Reflecting on our journeys through the academic space, where you're supposed to be nurtured, no one shared our perspectives; many of us found ourselves subject to issues of accessibility, race, and class.

Our aim is to create an equitable space for others who feel this disconnect. A lot of time is spent listening to and advocating for our community, bringing people together to share experiences navigating the industry. Since 2020, there's been a greater awareness of the challenges of being in such a minority (primarily in Western contexts), and the need for such initiatives as decolonising curriculums, but there's so much more to do.

We're proud of our contribution and will continue pursuing these intangible legacies. But eventually we thought, we want to create something tangible from the conversations we've started. Like most grassroots organisations, achieving financial sustainability has been tough, but we now have over 500 members, many of them architects, designers, construction managers and so on. Yet, as directors, we never practise architecture – it seems a shame.

In our exhibition *Earth, Memory and the Spaces We Inhabit*, we interrogate how women engage with space and shape communities, through lenses of sustenance, leisure and ecology. It isn't about pulling answers from the sky, but learning from the past to inform future practice. In some ways it transcends race, but there is something powerful in harnessing historic practices from the African context for the collective community.

It also gave us the chance to actually design and build something for the first time, hopefully opening doors to future collaborations. It may even be a step towards forming a practice based on concepts around womanhood, culture and identity, defining positions around ways of being in the world. But our ultimate goal is an architectural environment that welcomes multiple cultures, perspectives and lived experiences, and has the creative freedom and openness to explore, express and embrace those ideas, wherever they may lead. ●

*'There is something powerful in harnessing historic practices from the African context for the collective community'*

**Below** Akua Danso, Neba Sere and Selasi Setufe are co-directors of Black Females in Architecture, a social enterprise and global community of black women within the architecture, design and construction industries. For the London Festival of Architecture, it staged *Earth, Memory and the Spaces We Inhabit: Matrilineal Legacies in Contemporary Architecture* at NOW Gallery, Greenwich, London, co-curated by DêpART Consultancy, and supported by the Public Discourse programme at re:arc institute.



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





# Lambeth Palace aims for net zero

Wright & Wright is carrying out a sustainable retrofit of the Archbishop of Canterbury's 800-year-old Thameside home. Practice partner Stephen Smith showed Chris Foges how the work is progressing

Heritage buildings pose a particular challenge in meeting national net zero commitments. England has around 400,000 listed buildings, where retrofit options are limited, so it is essential to develop workable, high-performance solutions. In that context, the low-energy renovation of Lambeth Palace by Wright & Wright has particular significance: few buildings are as sensitive as the 800-year-old, grade I-listed home of the Archbishop of Canterbury.

'Historic England has tracked the project carefully,' says Wright & Wright partner Stephen Smith as we tour the Thameside complex. 'They want good examples showing how sustainable retrofit can actually work in practice, and we don't believe any building of this size and age has been tackled in such a holistic way.'

This is the first major overhaul of the palace since it was bombed in the Blitz, and follows Wright & Wright's 2020 addition of a library tower within its walled gardens. The current project was won in a separate masterplanning competition and had three principal aims: first, general repair of the eclectic collection of buildings ('everything was falling apart'); second, to repurpose spaces liberated by the new library; and third, to improve energy efficiency. That

**Left** The Blore Building is the main focus of the first phase, which included replacement and salvage of 140 radiators and 39 tonnes of timber.

grew in importance as the brief evolved. In 2020, the General Synod announced that the whole of the Church of England should be net zero carbon by 2030, and the palace is a 'test-bed' for strategies that might be applied across its portfolio.

Working with Arup, Wright & Wright adopted a fabric-first approach and developed a plan that could be implemented in stages. The newly complete first phase is concentrated on the 17th-century Great Hall and the 1833 Blore Building. Later phases will cover the Tudor gatehouse, along with older towers overlooking the river, and Victorian cottages housing 130 people on site. The £40 million first phase also prepared the way for future upgrades.

The most significant example is the site-wide installation of air-source heat pumps (ASHPs), replacing gas boilers that had been housed under the palace's 13th-century chapel. A new energy centre occupies a service yard tucked away on the edge of the complex, where three giant ASHPs sit hidden behind metal screens.

One ASHP is sufficient to supply buildings renovated in the first phase, and the second will cover the remainder. The third is a back-up. From the energy centre, a 2km network of pipes radiates out across the site. Where they lead to unrenovated buildings, plate heat exchangers allow compatibility with existing plumbing.

Routing the pipes was a delicate operation. Wright & Wright mapped the history of the site to anticipate the location of archaeological remains, which were duly uncovered in the excavation of the shallow trenches. Most pipes are below courtyards, but pass through one historic building to keep an adjacent archway open during construction.

Extensive research also informed the renovation of buildings. The Great Hall, now an events space, had been a repository for the palace archive since the 1830s. Referring to its more distant past



Design, construction  
& technology

helped to make the case for conversion, but Wright & Wright was nonetheless determined to retain existing fabric, and bookcases installed in the 1940s have been recomposed as panelling, complete with original caps and trims – ‘Part of our circular economy,’ says Smith.

New trench heaters in existing floor voids run off the ASHPs, and the temperature now rises above Conservation Heating standards. Overhead, the twisting timbers of the gothic hammer-beam roof have been painstakingly checked and stabilised – an unexpected task necessitated when a cornice fell from height shortly before construction work began.

The newly accommodating hall reflects a desire to open more of the palace to the public, also supported by the relocation of kitchens from a stygian basement to rooms nearby. The high-spec, industrial-scale electric facility gives another big carbon saving, says Smith, and can feed up to 2,000 people.

The most significant alterations were made to Blore Building – the palace’s administrative hub. On the raised ground floor, the Archbishop’s offices are flanked by grand state rooms. Below are shared offices, while the top two levels provide guest bedrooms. ‘It is the biggest and most intensively used building, and also the youngest and most easily changed,’ says Smith.



- 1 Morton's Tower
- 2 Great Hall
- 3 Cloister
- 4 Lollard's and Laud's Towers
- 5 Chapel
- 6 Infill building
- 7 Blore Building
- 8 Cottages
- 9 Energy centre
- 10 Garden Museum
- 11 Archive and library



**Below** A rebuilt staircase in the Blore Building.  
**Below left** State room. So far, 140 radiators and 160 windows have been replaced.





Outwardly, the only visible alterations are modest additions to improve accessibility. Curved stone ramps now allow all visitors to use the front door, and a lift overrun has been accommodated by rebuilding a 1960s 'infill' structure nestled against the Great Hall. Faced in stone and with a lead roof, it blends comfortably.

Another significant change goes unnoticed: replacement of all 160 windows accounts for much of a 40 per cent reduction in energy demand. Here, the architects were lucky. Following wartime bomb damage, original windows had been replaced with inauthentic leaded lights. 'We were able to tell Historic England that reinstating sash windows is a benefit rather than harm,' says Smith, 'and could double-glaze with airtightness seals while restoring the building to its original appearance.'

As windows were critical to the larger strategy, Wright & Wright had detailed discussions with suppliers at an early stage, and included details of several potential types in the planning application. The chosen profile is used for all windows – mostly in wood, but with a steel version for the main stair. Considerable variation in size was addressed by laser-scanning the whole building. Though the box sashes are relatively thick, they sit neatly in existing reveals.

The job was given to SB Joinery, which Wright & Wright knew through previous renovations that also forged useful connections with specialists in plaster and stonework. It was a large order for the firm. 'With this kind of project, it's good to have subcontractors who are a bit out of their comfort zone,' says Smith, 'but are pushing themselves to prove what can be done.'

Inside, the first-time visitor would hardly suspect that the building has been 'gutted' (as Smith puts it) and recomposed to meet present needs. Staircases were rebuilt, and timber floors on the lower levels reconstructed to create level access and allow the addition of insulation. More insulation was added in the relaid roof, though not to walls.



**Top** In the Great Hall, warm air from adapted trench heaters rises in front of and behind panelling made from former bookshelves.

**Above** Cladding around air-source heat pumps echoes the nearby Garden Museum.

'That's a no-no for listed buildings unless they are very plain,' says Smith, 'because you have to change decorative features.'

Interiors look closer to their original condition than at any time since the war. The architects rediscovered original paint records, and cold blue-grey walls have been repainted in a warmer stone colour. And where existing plumbing was surface-mounted, new larger-bore heating pipes required by ASHPs are discreetly concealed. 'We were conscious of the fear that sustainability is going to damage listed buildings, so hiding it became like a mantra,' says Smith.

Existing pipework rose from the boiler to the roof then dropped down through a series of risers before snaking back through asbestos-lined channels on the ground floor. 'Completely bizarre,' says Smith, 'but useful as we could reuse the risers in a more logical way, as flow-and-return loops from the ground floor. And because the building is so chunky there was room to super-insulate the pipes.'

Other technologies tested here include greywater recycling and some rooftop photovoltaics, but the cost-benefit analysis showed limited energy savings in this setting, says Smith.

This mix of pragmatism and ambition has seen annual CO<sub>2</sub> emissions drop from 647,000kg to 233,000kg following the first phase, set to fall to 81,000kg when all proposed works are complete. The final stretch to net zero will be covered by offsetting, but it's a destination the church says it is determined to reach – both for the immediate practical benefits and to demonstrate responsibility in the creation of a more just world. ●

#### Credits

**Architect, lead designer, principal designer**  
 Wright & Wright Architects

**M&E, structural engineer, lighting, acoustic and sustainability consultant** Arup

**Archaeologist** MOLA

**Main contractor** Walter Lilly

**Project manager** 3PM

**Plaster repair** James & Sons

**Air-source heat pumps** Powermaster

# Aiding smarter bathroom design

Wetwall™ panelling systems streamline bathroom design and installation by offering a grout-free, quick-to-install alternative to tiling, says Wilsonart's Specification leader for UK and Ireland, George Emms

In residential architecture, balancing design intent with practicality is a constant challenge – particularly in bathrooms. Wetwall™, part of the Wilsonart® portfolio, offers a smart specification solution that addresses both aesthetic and technical demands through its range of engineered, waterproof panelling systems.

Developed to streamline bathroom design and installation, Wetwall™ panelling systems are 100% waterproof, grout-free and significantly reduce installation time – fitting is typically completed within four to five hours for an average-sized bathroom. This makes them a practical alternative to tiling, especially in projects where tight deadlines and skilled labour availability are key considerations.

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Designed for architect specification, Wetwall™ panels meet both aesthetic and technical demands.



Above Wetwall™ panels delivers waterproof performance with no grout and minimal installation time.

installation finish that is modern, sleek and comes in a choice of designs with finishes – stone, wood, marble and industrial – that reflect the décor.

Wetwall™ enables architects to specify with confidence across a variety of residential projects. All panels are also supported by a lifetime guarantee when installed with Wilsonart Adhesive and Sealant, providing additional peace of mind after completion.

Wetwall™ also offers co-ordinated vanity splashbacks, vanity worktops and prefabricated solid-surface shelving solutions, that are 100% waterproof. Allowing for cohesive detailing and simplified procurement, these solutions are designed to integrate seamlessly.

## Standards and surfaces

Importantly, Wetwall™ systems are suitable for direct application over existing surfaces, including tiling. This reduces the need for extensive surface preparation, reduces disposal of waste material and simplifies retrofit work.

Architects who are exploring durable and stylish alternatives to traditional bathroom finishes, including traditional tiles, glass panelling, modern marbles and textured stones, will find Wetwall™ to be a compelling proposition both for new projects, or to refresh and revamp any existing washroom space ●



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HYPHEN

# Data centres: designing for change

With technological innovation accelerating, demand for power expanding and regulations diverging, experts gathered to discuss how to tackle designing for a sector with multiple variables and very few certainties

Booming demand for AI processing power requires data centres to pack a higher computing punch, with additional plant, cooling systems and structural support. The resulting issues faced by architects and engineers were the focus of our latest roundtable, held in May in London in association with Tate Europe.

Alongside flexible infrastructure, retrofit, and regulatory hurdles over power and planning, one major area under discussion was cooling systems, vital to operation and safety. Even recently, a rack of servers and associated hardware might consume less than 10kW, cooled by air-based systems. But, with power-hungry AI, many are now turning to liquid-cooling technologies to dissipate heat, whether water-cooled server racks, similar to traditional rack-mount servers but networked with water blocks and tubing to circulate fluid; or immersion cooling, with whole components submerged in specially designed tanks.

## The retrofit dilemma

'I think we're reaching a point in the evolution of technology where many data centres built in the 2000s, or even early 2010s, have equipment coming to the end of its life, and they're not necessarily fully utilising the power connections available to them,' explained Dylan Bussey, associate principal at Corgan. 'They've not been fitted out to the highest level of efficiency, so there's a chance to revisit the tech deployed, assess how to make best use of the power – now a very precious commodity – and densify the facility.'

But designing for AI, and thus liquid cooling, adds weight, so load-bearing elements need to be strengthened. 'Innovative design solutions can address these challenges, and reusing primary structure offers significant carbon benefits, but there are many factors determining feasibility, including roof plant space, impact on layouts and rack spacing inefficiencies, as well as structural upgrade costs,' said Nick Bishop, European leader at Gensler.

Muhammad Khan, director at Hyphen, agreed: 'Retrofitting legacy data centres is complex – modern demands are difficult to accommodate within outdated parameters. With 20–25 year lifecycles, these facilities often face demolition due to design constraints. As clients assess technology on six-month cycles, rebuilds increasingly outweigh retrofits as the strategic, futureproof investment.'

The decision may also relate to downtime. Orlando Baghaloo, associate director, studioNWA, explained that if a data centre is being upgraded from a multi-tenant facility to a hyperscale one – capable of housing thousands of servers for a single large-scale operator – it may need less space for offices and support. This opens up the possibility of phasing works without a full shutdown. Retrofitting half an existing building before demolishing and rebuilding the other half, even where land is available, can also accelerate both market access and income streams. Even so, some attendees said that they were seeing buildings demolished

**Above** Hyphen's new masterplan with Elea Data Centers for Rio AI City, in Rio de Janeiro's Olympic Park, explores the potential to create multifunctional, future-ready and human-centered ecosystems, powered entirely by renewable sources.

## Guest content

### Data centres roundtable

because retrofitting was not feasible. Asked if they faced pushback on grounds of embodied energy, Angela Vico Correas, director at studioNWA, said the catalogue of materials used in data centres is often similar and can be recycled post-demolition – including the steel structure and aluminium panels.

#### 'An Nvidia for coolant distributors'

As data centres are updated, one solution is to opt for hybrid cooling systems. Juan Borrego, associate at TTSP, explained: 'You can programme a system to have cool liquid for high-density racks, and use an air-cooled system to deal with lower-density ones. That often makes the system overall more cost-effective and efficient.' This requires infrastructure to be flexible, but Gus O'Rourke, head of specifications at Tate Europe, highlighted the firm's work with design teams to create integrated solutions for adaptability and long-term flexibility. He emphasised that in future-ready centres, infrastructure must evolve quickly and without disruption, adding, 'With innovations like Tate Forte LEC, designed to integrate seamlessly with both hot-aisle containment and our liquid-cooling manifolds, we're enabling systems that minimise downtime and scale effortlessly as demands grow.'

As yet, few were seeing immersion technology in use, despite potential performance and environmental benefits over a centre's life cycle. And, although popular, chiller technology faces major challenges to keep pace with power consumption: 'If a company can do for CDUs [coolant distribution units] what Nvidia did for the chip, they'll make a lot of money,' as one participant put it.

#### You can't keep pace with the future

Ensuring the design of a data centre isn't obsolete before it opens is an acute challenge. It's made even more difficult as designers are often asked to spec buildings to allow the developer to market them as co-location data centres, enabling various businesses to host their IT infrastructure, but keeping the option open to sell them on to 'hyperscalers' – big IT-based firms like Amazon and

Google – with very different specs and requirements. Also, current regulations mean that, to get a slot on the connections queue for power (which may not be available for a decade), developers need to produce a fully detailed design, which necessitates second-guessing what the industry might want in 10 years' time.

As these issues around plant, power and planning multiply, the aesthetic challenge continues to grow. As Borrego put it, 'Where before, with the lower densities, you had more flexibility to change facades or the shape of the box, designs are now more constrained, as the plant pushes out against the facade, which means the contours of the building can't really change that much.'

Given the envelope was one of the few elements left to play with, attendees said architects have to work even harder to inject character and get planning. Going forward, Eva Diego, director at Hyphen, reckoned these constraints provide a chance to show architects' skills: 'You can design skins that capture carbon. You can use different materials that are more visually friendly to the community, or even reveal what's going on inside.'

#### But the fast pace attracts talent...

Many firms partner with universities to offer internships or employ Part 1 and 2 architects. Benjamin Champion, senior architect, SNHA, revealed: 'It requires a particular kind of architect to see beauty in data centres. Often we're not the lead designer, or doing the roles that ARB or RIBA think we should be doing, yet we're still having to wrangle to get it all to work within sometimes ludicrous constraints in quick time. You need a certain brain and intensity – and that's where universities are so helpful.' ●

STUDIO NWA



**Above** One of the data halls at studioNWA's Telehouse South, highlighting operational efficiency, airflow management, and scalability to ensure efficient technical delivery and robust detailing in mission-critical environments.

#### PARTICIPANTS

John Jervis, managing editor, RIBA Journal  
Gus O'Rourke, head of specifications, Tate Europe  
Michael Baggs, associate, ARC:MC  
Orlando Baghaloo, associate director, studioNWA  
Nick Bishop, European leader, senior associate, Gensler  
Juan Borrego, associate, TTSP  
Dylan Bussey, associate principal, data centres, Corgan  
Benjamin Champion, senior architect, project team lead, SNHA  
Eva Diego, director and board member, Hyphen  
Viral Doshi, associate/architectural designer, programme manager, SNHA  
Muhammad Khan, director and board member, Hyphen  
Nicola Lombardi, project director and sector lead, Scott Brownrigg  
Angela Vico Correas, director, studioNWA

# Tate.

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# A price worth paying

How can we design homes that don't – in any sense – cost the earth? Rural sole practitioner Daniel Mattholie of Dig Architects talks through the specification choices and costs relating to Hillside, his own low-impact home at Millbrook in Cornwall



Sustainable architecture



Design, construction & technology

The village in southeast Cornwall from which I practice does not sit in an affluent area. Construction budgets are not lavish, and decisions tend to be cost driven despite a benign awareness that buildings should sit well in the surroundings and be uplifting. My practice aims to design simple, pragmatic, robust buildings that are easy to build, well executed and high-performance in operation – hopefully with moments of spatial joy. I applied these principles to my own 209m<sup>2</sup>, four-bed, two-office home, Hillside, which, despite its sustainable ambitions and cost challenges in light of 2022's global events, came in under £2,040/m<sup>2</sup>.

## Design

I thought about how the building was going to be built and perform from concept stage, with most technical hurdles resolved pre-planning to minimise nasty surprises. During design development stage, I commissioned an energy consultant to crudely PHPP-

model it. I wanted to create a zero-heating house, much like Passivhaus, but without the certification (and price tag!) and treated Hillside as a case study to launch my sole practitioner career.

I interrogated the PHPP model over three things: will it overheat in summer, how much heat input will it need in winter, and what impact will some thermal mass have on it? The answer was 0 per cent overheating (PH homes are permitted up to 5 per cent), with minimal heat demand in winter. But the thermal mass question had a less straightforward answer.

I ended up building a house with no thermal mass – just a timber frame – to simplify a complex build situation (access constraints, sub-contractor overlap, global supply chain issues, wider project management). In an ideal world, the central spine would have been masonry construction to stabilise temperatures more. But even without this, the home performs really well and is comfortable throughout the year.

I was drawn to Robert and Brenda Vale's book *New Autonomous House* as a student, and its core takeaway was the benefit of a 'fabric first' approach of keeping it simple – with a 'low-tech/high-performance' build. At Hillside I made all the insulation outboard of structure (fully warm and easy to construct with no vapour control layer), with careful glazing and overhangs (to control levels of solar gain). Elemental breakdown of U-values for the home are: floor 0.125, walls 0.14, roof 0.13, doors and windows -0.8. And with high

**Above** Hillside might have million-dollar views, but the near-Passivhaus home was built on a surprisingly low budget.

**Below** The timber structure was designed to allow for 'frameless' corners, maximising views through triple-glazed sliding doors.

levels of airtightness (0.84m<sup>3</sup>/h/m<sup>2</sup>) and MVHR (a necessity when airtightness is below 3) for heat retention), any space heating demand was almost eradicated, meaning no air-source heat pump (ASHP) requirement. It felt like a sweet spot in terms of upfront cost to performance (pay back) over time.

As electric batteries are expensive and have a limited lifespan, much like ASHPs, I wanted to champion low-tech approaches. Instead at Hillside, on the roof I opted for a 40m<sup>2</sup> array of electric PVs, generating 10.5kW of energy. As a baseline, about 40 per cent of a home's energy demand is for hot water, so I decided on a strategy of hot-water storage as a form of 'energy battery'. I installed two standard 300l hot water cylinders –

DOM MOORE (2)



**Below are the costings associated with the build of Hillside along with technical installations according to 2022 prices. Adjustments should be made to reflect current inflation levels, although Construction Index reported a 2.3 per cent annual growth in the BCIS All-in Tender Price Index in the last quarter of 2024, down from its 10.3 per cent peak in Q2 2022.**

<b>COSTINGS</b>	
<b>Main contractor works</b>	<b>£312,670.31</b>
<b>Enabling and driveway (100 per cent house cost, 50 per cent of driveway/prelims cost – shared with adjacent house)</b>	<b>£71,234.10</b>
Demolition and clearance	£13,881.60
(incl. new opening in hedge, works to existing structure, topsoil distribution)	£20,452.80
Prep works house (utilities etc)	£2,587.20
Retaining and prep works (driveway)	£10,416.00
Main contractor – prelims (profit allowed in prices through)	£23,896.50
Reuse of bungalow (crushed on site, reuse as hardcore), work with existing levels (reduce earthworks / retaining structures / damp proofing) and structures on site (retaining wall), shared driveway (maximise amenity space / split car infrastructure and costs).	
<b>Foundations</b>	<b>£10,399.20</b>
Prep (dig out and distribute hardcore), spoil retained on site	£3,420.00
Install (concrete pour; including masonry piers and steels over pad foundations)	£6,979.20
Foundations minimised / simplified to small strip and pads for ease of dig out – means reduced pour volume (cost + time / access) and zero muck away. Note: 50 per cent GGBS concrete (further reduces embodied carbon).	
<b>Deck and thermal blocks</b>	<b>£17,235.60</b>
Prep (incl. piers, steels, etc). Dig out allowed in enabling works	£2,880.00
Supply / install beam and block (B&B) floors (incl. screed)	£12,588.00
Thermal blocks and straps	£1,767.60
225mm deep B&B beams – enabled long spans and mid-span loadings (from above) = simple structural strategy. (Central spine wall with outer 'goal posts' enables two simple beam spans in first-floor (FF) joists (including overhangs). Celcon thermal blocks = pragmatic.	
<b>External fit out (first fix stage)</b>	<b>£18,998.40</b>
Door / window reveals – opening prep (ply boxing)	£5,071.20
Rational install (including tapes and supply, and install of aluminium sub sills)	£10,200.00
VELUX (50/50 manual and electric) – supply and install	£3,261.60
Roof penetrations	£465.60
Simple details to doors and windows for ease of build and install (cutting lists provided), minimal cold bridges, with standard compriband and foam detailing. 4no. VELUX 2 elec @ high level (North side) / critical to summertime cross-stack purge vent strategy.	
<b>Internal fit out (first fix stage)</b>	<b>£28,234.80</b>
Form mezzanine / attic spaces	£3,232.80
Rockwool	£1,977.60
MVHR ducting install	£4,440.00
Plasterboarding (walls, ceiling, internal scaffold)	£18,584.40
Mezzanines create drama, making use of vaulted ceilings and wind walls (sheathed) for future fixings. Educated contractor to enable low-cost MVHR install, so no impact on contractor programme.	
<b>Airtight membrane and tape, insulation, battens and fixings</b>	<b>£39,435.78</b>
DPC, DPM, MR T&G chipboard deck over insulation (substrate / working deck)	£3,378.00
Airtight membrane + tape (pro Clima)	£4,983.60
Insulation (PIR – thickness varies – 150 / 120 / 25mm)	£18,615.00
Fixings + battens (helical screws – Helifix; treated SW battens – thickness varies)	£10,479.18
Breather membrane	£1,980.00
Low form factor. Insulation 100 per cent outboard of structure, making for easy and efficient install, near zero thermal bridges (enhanced performance / reduced costs associated), ease of air tightness (0.8 at first-and only-pressure test).	

<b>Cladding and roofing</b>	<b>£46,366.43</b>
Cedar cladding – board-on-board cladding, and fascias	£34,846.4
Slate roof (Brazilian grey green 500 x 250mm), natural slate ridge over vented roof system	£11,520.00
Rainwater goods (Alutech – Alu 125 half moon, circular downpipes)	£3,014.40
Cladding – max PAR dims retains 20mm timber thickness, no T&G lips (as weak point) for robustness. Machined to length means reduce wastage on site. Canadian western red cedar to outer face (robustness), with UK cedar to inner face (less durable) – both beautiful. Slate roof (originally sheet metal) to de-risk project (supply chain and ease of contractor install). Brazilian slate most cost-effective option.	
<b>Second-fix joinery details – stair, kitchen / bathroom, benches, shelving etc</b>	<b>£20,340.00</b>
Stairs – standard stair box components and joinery pine rail / posts; on-site detailing	£2,400.00
Skirting and architraves (Howdens standard, painted white)	£3,228.00
Flooring (install ground-floor (GF) engineered wood floor; ply prep for Marmoleum)	£2,712.00
Internal doors (Howden Holdenby; self finished)	£3,660.00
Kitchen / utility install, on-site detailing	£4,320.00
Shelves/ cupboards, recesses in frame etc	£4,020.00
Stairs / kitchen / shelves etc: used standard off-the-shelf components, but executed differently to add a unique design aesthetic. (Contractor self-built the kitchen unit doors). Exposed wood – Osmo oiled, as per oak flooring / doors. Skirtings white = cost-effective.	
<b>Internal decorations</b>	<b>£12,720.00</b>
Paint throughout (spray and hand touch-ups)	£12,720.00
Brilliant white-painted finish, except bathrooms, saving £5,000. Timber frame will require touching up in future due to movement.	
<b>External works</b>	<b>£47,706.00</b>
External access from parking – steps, finishes (gravel grid), etc	£6,090.00
Works to existing retaining wall to raise height and form new planters	£6,510.00
Paving to north of house (22mm sandstone)	£5,610.00
Timber decking to south (Millboard – limed oak – elevated timber frame, over pads)	£12,000.00
Gabion baskets to level / landscape lower site levels. On-site topsoil distribution	£13,296.00
Bridge access to office	£4,200.00
Economic materials (gravel grid / sandstone paving / reclaimed sleepers). Reused leftover paving. Gabions used for landscaping.	
<b>Sub-contractors</b>	<b>£28,762.90</b>
Plumber (supply and install – note: cylinders supplied by contractor / fittings by client)	£7,812.00
Electrician (supply and install – except feature lights / renewable overlap supplied by client)	£13,030.90
Plasterer (labour only – materials supplied by contractor)	£7,920.00
No ASHP or underfloor heating (£20,000 saved and no maintenance). 1kW rad downstairs, and 2x 250W bathroom towel rails. No electric battery, as sums at the time suggested no payoff in anticipated life span. Opted for 2x 300l water cylinders (£450 each) used as thermal stores – using diverters, cylinders priority heated by PVs. No water heating demand from grid, and optimises PV array.	
<b>Client supply items</b>	<b>£134,348.11</b>
External doors and windows	£38,941.71
Rational AURAPLUS, triple-glazed – supply only (no sub sills)	£14,441.71
Internorm HS 330 lift-and-slide doors, triple-glazed – supply and install	£24,500.00
Rational is a pragmatic and cost-effective option (Passivhaus performance	



with low budget). Simple top-hung opening and large pane size for picture frame views. Triple-glazed, as aiming for near to zero heat input. Aluminium-clad for robustness. Internorm for sliders (potential weak point in thermal performance) = highest performance / creating dramatic frameless corner.

### Timber frame (incl. glulam and steel and sheathing – supply and install) £49,234.03

Original price £45,490.98

Cost uplift (timber supply price increases etc.) £3,743.05

Simple design – gable / barn forms, low form factor, simplified structure of minimal steel with glulams exposed in parts made for a cost-effective frame while supporting passive strategy. Supply and install procurement due to tricky site access and supply chain volatility at the time.

### Bathroom / WC fittings (supply only) £6,894.19

Appliances (including radiators) £5,474.47

Mandarin stone £1,419.72

Reuse of machined quartz offcuts (over contractor-built shelving) £0.00

Engagement with quartz supplier meant machining tolerances were understood and cutting lists maximised use of quartz sheet around house.

### Kitchen / utility units (supply only, unless stated otherwise – installed by main contractor) £10,897.65

DIY kitchens (contractor built doors, shelves) £3,204.81

Full stove worktop materials £1,654.00

Quartz work top (supply and install) £2,622.00

Appliances £3,416.84

Cost-effective, robust, off-the-shelf products. Carefully detailed, and played to contractor's strength – many of the on-site carpenters were joiners.

### Flooring (floor finishes not provided by main contractor) £9,233.81

Engineered oak to GF – supply only (installed by contractor) £4,348.59

Carpet (incl. coin barrier matting at GF) – supply and install £3,469.80

Linoleum to FF wetrooms and office – supply and install £1,415.42

### Light fittings

Feature fittings (pendants / wall lights) not provided by electrician £1,616.56

### MVHR

Titon HRV 10.25 Q+ Eco HMB and associated equipment – supply only £3,204.81

Cheaper than Zehnder unit, with only marginal drop in performance – cost uplift of Zehnder unit was not project-economic in this case.

### Renewables

10.56kW PVs and associated equipment; EV charger; Owl Int – supply and install £9,532.40

Low-tech / high-performance, fabric-first approach (no maintenance, long life – walls, insulation, airtight, controlled solar gain, passive venting) with PV array (cost-effective with long-term warranty).

### Utilities

National Grid (three-phase supply upgrade), Open Reach / SWW (existing upgrade) £4,792.95

### Total cost £475,781.32

Approx cost of driveway / landscaping works £50,000.00

House only cost £425,781.32

Floor area m<sup>2</sup> 209

Cost/m<sup>2</sup> £2,037.23

a domestic hot water (DHW) 'primary' connected to a 'secondary'. PV energy heats the DHW cylinder first, with any leftover preheating the secondary one, which feeds warmed mains water into the primary DHW cylinder. It is in fact a form of crude battery: a very low-cost system that massively reduces the operational energy demand of the home.

### Build

I had the main contractor on board at tender stage: The Renovation Men, based in nearby Cawsand, with whom I've previously worked and have built up trust. We went for a cost-plus contract and a 'target price' arrangement, entitling the contractor to half the savings if it came in under but reduced profit margins if it came in over.

Here, as with all projects since, at tender stage (to establish outline/ target price) I provided drawings and details, and an extensive itemised spreadsheet. This was primarily to aid the main contractor with pricing, but became a tool for monitoring budget performance during the build so we were forewarned if things went off track, and were able to make informed decisions to address this.

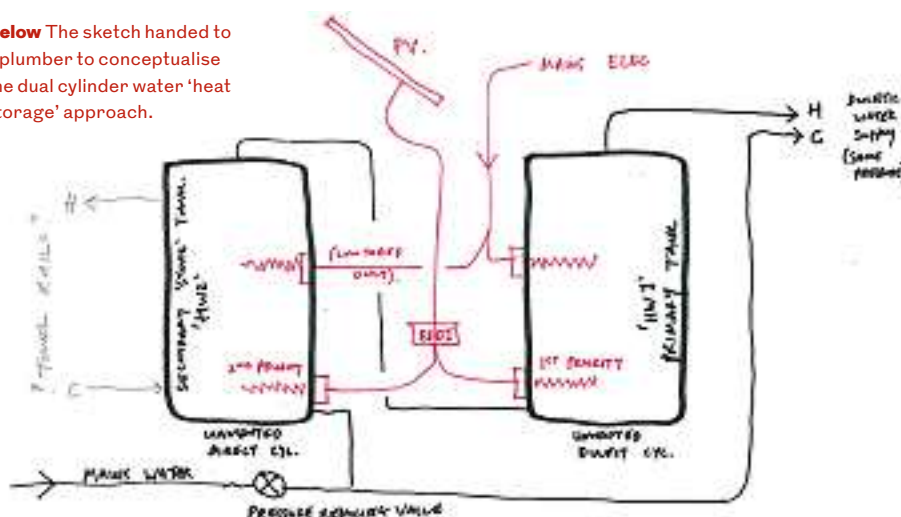
On site, I provided lots of set-out/ detail drawings and was in regular contact with the contractor, conducting a weekly site visit (walkaround with the foreman, branching off with other operatives when relevant). I usually simplified some drawings and details, so they were legible for all workers and were focused on each stage or task. This approach was more time-consuming for me but worked well with the site team and helped avoid issues or abortive work. While it goes beyond the traditional

architect role on site, it worked well on Hillside and I've adopted it as my working method since.

### Operation

Hillside is a delight to live in for a young family who enjoy its beautiful setting and views – we're now in our third year of being here. It's an all-electric home (there is no local mains gas) which generates an energy surplus that saves us £3,000 annually, and builds in resilience against future global price hikes. ●

**Below** The sketch handed to a plumber to conceptualise the dual cylinder water 'heat storage' approach.





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Housestead - Sanel Hopkins  
Image - Peter Landers



# RIBA Spring Economics Panel finds cause for hope amid current gloom

Experts and international practice leaders came together for RIBA's twice-yearly Economics Panel webinar to analyse forecasts for 2025 and 2026 and reflect on the current business climate for architects

Ever since the world's most powerful politician began a game of economic ping-pong using a handheld chartboard – Antarctic penguins somehow included – one thing became certain: a new era of policy unpredictability is ushering in uncertainty, adversely impacting on current global growth.

As the chair of the panel, Helen Castle, director of publishing and learning content at RIBA, stated at the start of the Economics Panel webinar: in April, the World Economic Outlook of the International Monetary Fund delivered the 'grim message' that Trumpian trade policies have now pushed economic uncertainty to levels higher than those seen at the peak of the Covid-19 pandemic. And in our own industry, with instability driven by geopolitics, trade tariffs, conflict and economic inequality ('the richest 1 per cent have captured two thirds of all new wealth since the pandemic'), architects are 'once again being called to adapt with resilience', she said.

## But don't worry – the news isn't all bad

Noble Francis, director of economics at the Construction Products Association, provided a cautious yet hopeful forecast. Total UK construction output is in fact projected to grow by 1.9 per cent in 2025 and is forecasted as 3.7 per cent in 2026, according to CPA research.

## Private housing offers hope

Private housing is leading us out of the mire, with 4 per cent growth in 2025 and 7 per cent projected for 2026. That's important, because housing makes up around a third of practice revenue (34 per cent) overall, and a majority of revenue for smaller practices, explained Adrian Malleon, head of economic research at RIBA, drawing on the findings of RIBA's Benchmarking and Future Trends surveys.

While private housebuilding is slowly recovering from a 20–30 per cent drop in completions in 2023, interest-rate reductions and increased demand – particularly in the build-to-rent sector – are helping its revival.

**Below** Msheireb Downtown Doha is a vibrant new district in Doha, Qatar.

**Below right** Studio Saar's Cowshed in Rajasthan, India, used a hybrid of modern and traditional practices.

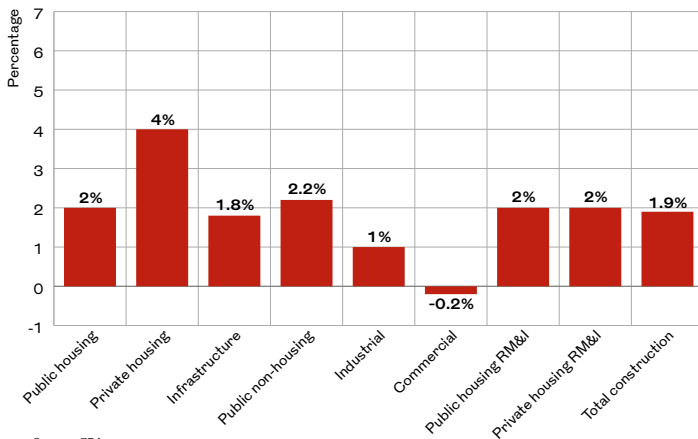


ALLIES AND MORRISON



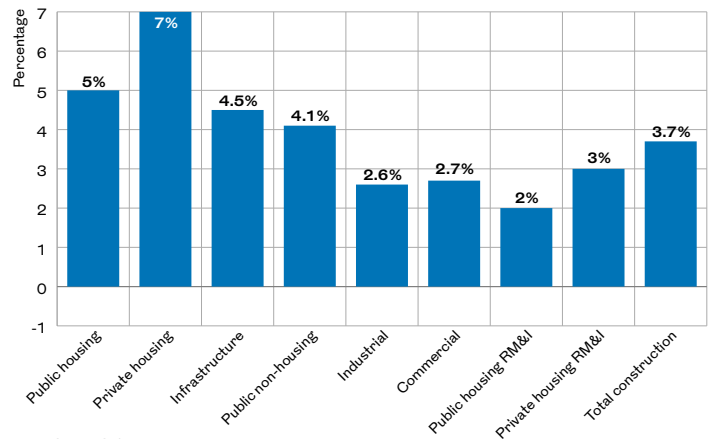
STUDIO SAAR

CPA forecasts for 2025 (excluding tariff disruptions)



Source: CPA

CPA forecasts for 2026 (excluding tariff disruptions)



Source: CPA

Unfortunately, delays from the Building Safety Regulator (BSR), especially for high-rise residential, remain a major risk. The BSR's statistics put delays at around 14 weeks. But 'that's not what most of the high-rise residential developers are saying', reports Francis. Word on the ground is that delays look more like six to nine months. Mid-rise projects offer some relief, despite similar, albeit lesser pressures affecting them too.

Private housing repair, maintenance, and improvement (RMI) work, another sector in which many small practices are embedded, is also set to grow by 2 per cent this year. 'RMI covers everything from fixing a boiler, to a loft conversion, to a conservatory and everything in between,' explained Francis. 'Small value work, but aggregated across a UK housing stock of 29 million, it all adds up.'

Lockdowns drove a spike in activity (from cooped-up homeowners), followed by a dip due to the cost-of-living crisis and rising energy and commodity prices. Now the cycle is tentatively back on the up; wage growth (inflation at 6 per cent) and homeowners' savings are positive drivers, but enthusiasm is tempered by risk-aversion to loans. 'There are two exceptions,' Francis said, 'energy efficiency and fire safety work.'

#### Cautious enthusiasm in other sectors

Public sector construction – schools, hospitals, and prisons – ('grim for years', deadpanned Malleon) is finally reviving due to government investment, though delivery issues persist. This represents

20 per cent of architects' work, according to RIBA data. In the commercial sector (30 per cent of work), while new towers and retail schemes lag, high-end fit-outs and refurbishments are taking the slack.

Further risks generally include wage inflation, as mentioned, material cost hikes, and subcontractor insolvencies, 'a delayed outcome of the downturn', said Francis. On balance though, positivity is not misplaced in 2025, with broad sector recovery tentatively expected – provided policy and tariff volatility stabilise.

#### Architects' revenue

When it comes to architects reporting on the health of their businesses, strong revenue growth is being dampened by squeezed profits. 'Revenue of RIBA Chartered Practices broke the £4 billion mark for the first time,' Malleon said, though profit margins remain flat due to rising staff costs and NI contributions, PI insurance, and software expenses.

Panel member and architect Jo Bacon of Allies and Morrison admitted that recruitment and staff retention pose challenges for her business: 'Salaries in our industry are not rising adequately in line with demand, [nor] with cost of living in our cities, whether it's London, Cambridge or Manchester, and that's a big regret,' she said.

Back to RIBA's data – service-wise, all-stage architectural services still dominate (45 per cent of work), but consultancy and early-stage design now account for over 40 per cent combined. This has also played out in Bacon's

experience. Clients approach her practice 'to secure permission for complex and/or sensitive sites', she observed, often with lower fees – and then hand off to design-and-build contractors.

'That's competitive, but it's also very frustrating,' she said. 'Quality is what really matters for design, for safety, for sustainability, for public support and for the reputation of the profession,' and that is at risk of being compromised.

#### Repeat business

Importantly, Malleon noted, '64 per cent of work comes from repeat business or word of mouth,' which demonstrates the need to nurture client relationships very strongly. Bacon agreed: 'We have quite a lot of empathy for [our clients' difficulties over cost certainty] and our role has been to support them... As a consequence, we are now seeing some of those outcomes from this hard work coming through.'

#### International experience

RIBA data also reveals a 'striking trend' toward internationalisation of UK practices: almost 25 per cent of revenue now comes from overseas. For Allies and Morrison, growth is especially strong in the Middle East, Canada and China.

Meanwhile, panellist Ananya Singhal of Studio Saar highlighted the contrast between his practice's operations in Rajasthan, India, and its small UK studio in Somerset. While the UK faces slow approvals, high costs, and limited skilled labour, India offers rapid planning, client optimism, and shorter build times. 'India



is booming while the UK isn't,' he stated frankly. 'In India we are looking at a rapid rate of growth, especially in cities, and that gives us an opportunity.' Moreover, Singhal noted that, in his arena at least, sustainability targets and the drive to meet net zero are felt with more 'zest' in India. 'Here [in the UK] clients are doing it to meet regulatory needs, whereas in India it feels patriotic,' he said.

### A different practice model?

Singhal also advocated for a radical rethink of UK practice models. Studio Saar is, unusually, a subsidiary of a much larger electronics and manufacturing business. 'That means we have a very different outlook when it comes to the economics of how our practice works,' he said. Its unique nature (and the diversity of projects Studio Saar takes on) leads Singhal to believe the UK would benefit from a 'revolutionary change' in terms of how practices are run as businesses.

### Agility, and looking beyond

Speaking from Hong Kong, panellist and architect Wai Tang, co-founder of QUAD Studio, described how his firm pivoted creatively in the wake of China's burst housing bubble in 2020. 'This was incredibly painful to architects in Hong Kong, because a lot of practices there are working in mainland China. With that kind of a downturn in the market, we had to search for other ways of making a living... we had to go back to our roots.'

Initially this involved infrastructure projects (which dipped in Hong Kong generally, though the sector is now moving again) and also university projects. 'They're looking for design and build led by architects, which is very different from a lot of things I've experienced,' continued Tang.

Equally interesting has been the outward-looking mindset of Tang's practice. Looking further afield has led to major commissions in Morocco, after a competition entry gained local government attention. This opened new markets across Africa – a major growth area. It was by maintaining a good relationship with a former colleague – RIBA chartered architect, Meryem

IMAGE BY IM VISUAL TECHNOLOGY CO., QUAD STUDIO



Although unbuilt, QUAD Studio's competition entry for Rabat Racecourse in Morocco got attention.

Benyahya, of BENY Architects, based in Casablanca – that the opportunity arose, causing the practice to 'look further afield than we ever expected'.

### Managing uncertainty

The panellists had more advice for managing uncertainty: remain open to collaboration (Tang); invest in people during downturns (Singhal); and prioritise client and staff relationships (Bacon). Flexibility, global thinking, and mutual support emerged as key takeaways from this candid discussion.

To sum up: despite economic shocks, medium and large firms with diversified portfolios have cause for optimism in the near term, especially those with opportunities overseas. Smaller, housing-focused practices remain vulnerable to fragile consumer sentiment and planning delays, but with interest rates inching downwards and the cost of living crisis easing, have reason to be hopeful too. Taking steps now to futureproof business is wise – because every forecast is dependent on there being no further bizarre tariff announcements from across the Atlantic. In other words, watch this space. ●

RIBA Economics Panel is sponsored by Milient, the all-in-one project management software system for architects.

**Below RIBA Spring Economics Panel in progress: international networks can lead to collaboration.**



### TOP TIPS FROM THE PANELLISTS

- Open your mind and learn from elsewhere: 'There is a lot that the UK can learn from India,' said Ananya Singhal. 'We have had to be diverse and go further than we were ever expecting,' added Wai Tang. 'Be flexible to follow the work and the clients with interesting projects,' reiterated Jo Bacon.

- But also, pay attention to what's under your nose: 'Your future work is often very close to home,' observed Malleson. 64 per cent of architects' work comes from repeat business or word of mouth.

- Nurture your talent: 'Maintain your staff – it will pay off in the long term,' said Singhal. 'Look after the talented people who work for you.' Bacon agreed: 'They are the problem solvers with enormous amounts of dedication.'

- Understand your supply chain in order to mitigate risk: 'This isn't 2015. We can't just source from the cheapest place,' said Noble Francis. 'Security of supply is having an understanding of where your products are coming from, not just getting them from builders merchants or from the subcontractors... Understanding your supply chain is going to be just as critical as the cost of supply.'

- 'Collaborate, collaborate, collaborate... make friends and influence people,' advised Bacon. Make use of RIBA groups, both locally and internationally, 'because looking after each other is also worthwhile', she said.



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# Three-course banquet

A trio of London townhouses from very different eras demanded equally divergent heritage kitchen renovations. Their contrasting flavours prove a delight for Flo Armitage-Hookes

The three kitchens featured here showcase extraordinary heritage renovations. All respond to historic London townhouses, yet each revolves around a distinctly different material. One is a refined, wood-focused refresh to a mid-century terraced home. Another is a new addition to Grade I-listed building, awash with marble and lofty ambitions. Finally comes a RIBA Award-winning brutalist retrofit, which doubles (or trebles) down on concrete. Between them they offer a feast for the design-hungry and curious...

## Pine Heath

Studio Hagen Hall has a rule about kitchens: 'three materials max'. At Pine Heath, the renovation of a modernist Hampstead townhouse for a young family, wood certainly leads the triad.

The studio worked with long-term collaborator and joiner TG + Co to design a bespoke 2.3m x 3.1m x 3.5m wooden frame to reinstate the 'room within a room' kitchen layout on the ground

**Above** Bespoke stained cherry joinery elaborates upon Pine Heath's remaining mid-century features.

floor. Cabinetry sits below and elegant shelving above, with a service hatch to the dining area between two columns.

Following tests, stained cherry veneer on 1mm poplar plywood was chosen to mimic and amplify the house's remaining mid-century features, notably Paraná pine strip ceiling and stair cladding. For cabinets, inset handles were milled from leftover original mahogany stair treads.

The kitchen's second material, 150 x 150mm porcelain stoneware tiles, cover the stove backsplash and floor, providing a soft, neutral backdrop. Stainless steel worktops – material three – offer a robust working surface at the client's request. With the wood, they form a materially rich yet sophisticated palette.

The family's characterful collection of old Italian teapots is exhibited on shelves with sliding Stippolyte glass

and illuminated with integrated LEDs. However, less glamorous items are cleverly concealed by the joinery. For example, service pipes, plug sockets and a spice cupboard are located within one pillar and the fridge in the other. Studio founding director Louis Hagen Hall cites the compact wizardry of 1960-70s sailboat interiors and American architect John Lautner's Los Angeles houses as inspirations.

Meanwhile unique louvre shutters, mechanically operated using a stainless-steel lever, screen the kitchen window. The clients sometimes wanted privacy from the busy street, yet also for light to stream in at other times – and challenged the studio to find a solution. 'We basically had to invent it from scratch,' recalls Hagen Hall.

## Credits

**Architect** Studio Hagen Hall

**1960s architect** Ted Levy, Benjamin & Partners

**Joinery** TG + Co

**Main contractor** Michal Madejczyk

**Selected suppliers** Wincklemans (tiles);

Cavendish Equipment (countertops)





JAMES RETIEF

### Fitzroy Square

Grandeur, with a pinch of restraint, imbues James Gorst Architects' new mews house. The building extends a 1798 Georgian home in central London designed by esteemed architect Robert Adam, also restored by the studio. 'It shares the same architectural language as the Adam house' says director David Roy – albeit with added modern flair.

The 30m<sup>2</sup> marble-centric kitchen, located on the mews house's second floor, leads through to a formal dining room and outside dining terrace and connects to the townhouse via a new glazed link.

It operates both as a professional kitchen, catering for the client's dinner parties, and as a family space. A large

**Above** A lofty, double-pitched roof evokes the spatial grandeur of the adjoining Georgian townhouse.

1.8m x 2.2m central island provides ample area for food preparation and is well-equipped with two full-size dishwashers and storage. An internal bronze-framed glazed screen allows the kitchen and dining spaces to partition guests and chefs. However, a lower, more modest counter allows residents to sit around and chat while cooking.

Calacatta Oro marble is lavishly employed in specific areas, enveloping counters, the hob alcove and framing cupboards along the south side of the room. The material appears largely uninterrupted – as if carved from a

single block. Drawer handles form continuous horizontal grooves and veining has been carefully arranged to flow in the same direction. However, full-height fumed oak cupboards, joinery, bronze taps and Portland stone flooring introduce elements of warmth to the muted palette.

A dramatic, asymmetric, double-pitched roof topped by a rooflight is the kitchen's key spatial move. 'It's slightly cathedral-like' says Roy – and offers a nod to the toplit Georgian main staircase.

#### Credits

**Architect** James Gorst Architects

**Main contractor** Westgreen

**Joinery** Suffolk & Essex Joinery

**Selected suppliers** White & White (stone and marble); Dornbracht (taps)

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JOHAN DEHLIN

### Chelsea Brut

'The client originally wanted the room to be a concrete box,' recalls Pricegore co-founder Dingle Price. However, even for a kitchen in a 1960s brutalist townhouse, that may have been concrete overkill. Instead, the studio aimed to create a robust space featuring the material, as part of its four-storey home renovation.

The kitchen-dining-living room was the project's biggest move. Detective work revealed that a split-level Victorian house previously occupied the site and that the ground floor could be excavated 1.4m, without needing underpinning. The resulting 3.6m-high volume creates a generous and significantly brighter space, since taller glazing could be used. 'It's a big win,' says Price.

Counters line the room's southwest wall with cabinetry above, facing a 2.4m

**Above** Three concretes harmonise with original pillars in the 1960s Kensington home.

x 0.9m island with an oval dining table sitting beyond.

Three different concretes and techniques were deployed in the space: flooring (screed), wall sections (cast in situ) and countertops (precast). To capture similar tones, Pricegore tracked down the exact gravel used in the cast concrete for use in the precast.

Muted, 'fleshy' pink cabinets were inspired by the abstract Rococo-style paintings of artist Flora Yukhnovich – an intriguing yet playful pairing with all that concrete. The colour was mixed by the studio from primary colours, after testing exact shades, and then sprayed on. ●

Cabinet fronts were originally conceived as being made of solid timber boards glued together, but this proved too costly in the end. Instead, beech veneered plywood was chosen and sheets scored with a CNC router to retain a clapboard-like effect.

The final flourish comes from the bespoke black steel handles, designed by Pricegore, which run atop drawers and along cupboard doors, and are pleasingly tactile. 'They made everything a bit punchier,' says Price.

#### Credits

**Architect** Pricegore

**1960s architect** Morgan and Branch Architects

**Joinery** Laki

**Main contractor** Allstruct

**Selected suppliers** Blum (drawer mechanisms),

Nida (concrete in situ), Da Vinci Designer

Concrete (concrete precast), The Concrete

Flooring Company (concrete floor)





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# Soaking up the luxury

Three very different – and indulgent – bathrooms highlight the reinforcing impact bespoke features can have, finds Pamela Buxton

The three bathrooms on the following pages couldn't be more different – an opulent marble penthouse redesign in central London, a tranquil new build in the Hampshire countryside, and a quirky restoration of a Jacobean listed property on an east London square. All make effective use of bespoke features to create memorable spaces that respond to their diverse contexts, from a marble-clad bathtub with a 50/50 colour split to a bathroom with sliding doors that fully embrace a home's river-view location.

## Chalk River Farm, Houghton, Hampshire

'The real focus is on the view,' says Oliver Leech of the tranquil master bathroom at Chalk River Farm, a new-build house in the Hampshire countryside. And when the aspect is this agreeable – views, over an extensive garden, to a river and countryside – that's certainly a winning strategy, enhanced by full-height glazed doors that slide open to leave the vanity unit as the only barrier between bathroom and the great outdoors. And if there are any anglers out on the river, a button in the walk-in wardrobe activates automatic white curtains to ensure privacy before entering.

The main bathroom – one of six en suites – is accessed via two pocket-doors in a walk-in wardrobe. Straight ahead is the sleek vanity unit, designed without rear or floor fixings for a minimal look. One of many bespoke items, this was,



**Above** High-end finishes in the bathroom are complemented by bucolic views out, left, via full-height (curtained) glass.

said Leech, quite the engineering feat, supported with steels in the walls on either side, and along the length of the 3m-wide unit. Built by joiner Weymont & Wylie, the suspended, painted MDF unit has a fluted front and a white quartz countertop inset with two porcelain sinks and two drawers. Concealed pipework runs through the adjacent wall to join the plumbing in the shower area.

In another bid to cut impediments to the view, bespoke mirrors to each side are attached to the wall, and extended out only when required using a hinged steel frame made by a specialist steel fabricator. In an added layer of complexity, the units contain electrics to enable demisting when the mirrors are extended. The system deactivates when the mirrors fold back against the wall.

The architects avoided the distraction of strong colours, instead using whites and greys but with some pattern; for example, the herringbone pattern of the stone-effect porcelain

floor and the brushed marble effect of the porcelain wall tiles in the shower, to the right of the vanity unit. Mandarin Stone supplied both items (Fusion and Arena). 'As you're looking at the view rather than any sort of colour that takes you away from that inside the house, we thought: make it interesting with texture and materials,' says Leech.

In the shower, a recessed ledge provides storage. The tiles do not stretch the full height of the 3.5m-tall space, with a recessed arch above the walk-in shower emphasised by uplighting. The enclosed WC is opposite. Elsewhere, mirrors give the illusion of space in what is a fairly modest-sized room. Storage is in a floor-to-ceiling mirrored cabinet facing the vanity unit.

Monochrome and minimal, the room ensures that view takes centre stage.

### Credits

**Architect, interior designer**

Oliver Leech Architects

**Structural engineer**

Momentum Structural Engineers

**Principal contractor** Bluefish Construction

**Selected suppliers** Mandarin Stone (floor and wall tiles); Original BTC (lighting); Studio Ore (taps); Weymont & Wylie (vanity unit, mirror)

JIM STEPHENSON





**Above** Why have one when you can have both? Verde Ming and Portuguese pink marble were specified in the couple's shared bathroom.

**Right** His-and-hers vanity sinks in an antespace to the bathroom are specified in the same marbles.



### Marylebone Penthouse, London

When a client couple couldn't agree on their colour scheme, it presented an opportunity rather than a problem for development practice Wendover, designer of a revamped 350m<sup>2</sup> penthouse near London's Regent's Park.

This is demonstrated to dramatic effect in the primary bathroom of the redesigned apartment. Rather than plump for one or the other of green or pink marble, Wendover went half-and-half down the middle in an eye-catching his and hers bathroom. As well as the floor and walls, the central bathtub – positioned in pride of place in front of the window – benefits from the split-colour treatment. The designer specified Verde Ming and Portuguese pink marble, and for the tub used this in a fluted design to create a play of light on the surface and added visual interest.

'We typically use stone quite boldly in most wet rooms we design,' says Gabriel Chipperfield, co-founder of Wendover. 'We understand it well, working with an in-house stonemason. In this case, an early disagreement as to whether the colour palette should be more [stereotypically] masculine or feminine led us to propose the dual marble. Our clients were comfortable to be more adventurous here, which gave us the confidence to go ahead.'

Before stepping up into the bath area, sinks, also his and hers, sit opposite each other in an anteroom between the master bedroom and main 'wet' area. Each is in their individual client's respective colours of marble for the floors, with walls and vanity units continuing the 50-50 arrangement.

The bathroom forms part of a complete renovation of the central London penthouse, which also involved a replanned layout and the introduction of oversized rooflight penetrations. Throughout, Wendover's ambition was to meet the client's brief for a 'modern-traditional aesthetic'.

#### Credits

**Designer and contractor** Wendover  
**In-house stonemason** Nicola Bombagi  
**MEP** EM Tecnica  
**Structural engineer** BG Consulting

FRED HOWARTH (2)

## OntheSq, Hackney, London

In OntheSq, an ailing Jacobean townhouse that has been reimaged by Irenie Studio, even the shower curtain and the knobs to the bathroom cupboard have provided opportunities for playful reinvention.

Located in Hackney's De Beauvoir Square, the Grade II-listed house had been sitting empty for several years and was in need of a major overhaul when it was taken on by AA-trained Irenie Cossey, who delivered the project with executive architect Studio Dera. She restored the four-storey house, adding a rear extension and collaborating with more than 38 artists, designers and suppliers to create a colourful interior full of surprises that acts as 'a living showroom' for their work.

The main bathroom, which is located on the first floor in what was originally a bedroom, epitomises this approach. Cossey had been keen to retain an existing diagonal sightline from the square right through the house and the bathroom area at the rear. This entailed avoiding permanent visual barriers within the bathroom when it came to choosing the curtains around the shower and bath.

'It's basically an installation – it's an art piece that you can play with,' says Cossey of the distinctive curtain that extends around the freestanding bath, which is positioned in front of a fireplace. This item was made by textile designer Tomoyo Tsurumi using interwoven remnants from the curtains that were left in the house prior to the restoration, in combination with Kvadrat deadstock fabric.

'It was really important to bring back the past and to actually honour it and be faithful to what was there before,' Cossey continues. She describes this curtain as providing a 'conversational buffer' between people in the bath and the rest of the space.

At the rear, next to the window, is the raised shower area, which stretches the width of the room. Here, a combination of fixed and moving screens protect the original timber flooring in the rest of the bathroom. The central portion



**Above** The expansive shower space has more the feel of an art installation.

**Below** A blue-stained ash unit supports double sinks with Barber Osgerby designed taps.



is a bespoke, mustard-coloured metal screen with reeded glass, which provides privacy while retaining light from the original 1840s window, as well as bringing a hit of colour. On either side are fabric shower curtains.

These different 'cocoon' spaces create microzones in the same space, according to Cossey, as well as referencing curves in the original architecture.

The freestanding bath, likewise curved, was supplied by Laufen, which also provided the double sinks. These are incorporated into a blue-stained ash unit with taps by Barber Osgerby for Axor. An original built-in cupboard has been kept and given new handles fashioned from pink and black snooker balls.

'I had a lot of fun with this – it's really playful,' says Cossey. ●

### Credits

**Designer** Irenie Studio

**Executive architect** Studio Dera

**Selected suppliers** Axor (taps); Domus Tiles (tiles); Fenwick & Tilbrook (paint); Kvadrat (curtains); Laufen (bath); MetalForm (metal screen); Mutina (floor tiles); Stilling (shower tracks); Tomoyo Tsurumi (shower curtain)



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# Now wash your hands

David Archer on four distinctive toilet areas his practice, Archer Humphryes, has designed for restaurants, each complementing the overall design aesthetic of the dining spaces they serve

When considering the design of toilet areas in restaurants, there are two modes of expression. The first is to reinforce the design aesthetic and narrative of the dining spaces so that customers' appreciation of the space as a totality is enriched by passing into the bathroom areas. A second approach is to counterpoint the main spaces, so customers encounter an alternative language, atmosphere and lighting, with a shock or change in mood.

The four bathrooms here take the first tack. Two are at Brooklands Bar and Restaurant at the Peninsula London; another is at the Guild, a 'live-fire' restaurant in DIFC Dubai. The last is Pinna, a small Italian trattoria at Shepherd's Market in London.

The aphorism goes that any good restaurant can be judged by its loos, so it's important they receive the same level of detail, imagination and thinking as any of the other restaurant spaces.

## **The Peninsula, Grosvenor Place, London ↖ Brooklands Bar**

At Brooklands Bar, our client briefed us to draw inspiration from the Brooklands motor and aviation museum in Surrey. Looking at the industry's founding to its 1960s and 70s heyday, it includes a study of the client's own collection of cars. We used vanity cabinets that followed the stainless-steel detailing of a portable snap-on tool storage system, including being finished in black lacquer, with stainless-steel handles, angles and sprung drawers. Bespoke sinks were based on the sump trays used in automobile workshops to catch oil and prevent spillage. Taps with industrial valve detailing were specified from LeFroy Brooks, while the lamps, from Collier Webb, were replicated in burnished aluminium from the bodywork of a 1931 Napier Railton – replete with copper rivets and brass

**Above left** Brooklands Bar adopts the aesthetics of 1930s cars as well as the garages in which they were maintained.

**Above right** The moulded plastic fixtures of aircraft WCs morph into high-end marble and cast aluminium at Brooklands Restaurant.

hinges. WC door handles were replicated from a Rolls Royce Silver Ghost, and walls and floors were lined with marble. The combination of detail, lighting and approach to replicating historic vehicle details reinforces the bar's narrative, completed with period posters and artwork taken from the museum itself.

## **↑ Brooklands restaurant**

The dining room is notably marked by a facsimile of Concorde's undercarriage, which was milled in aluminium plate, and installed to remind guests of the emotional impact of watching this famous aircraft flying above. Concorde Delta 1 is an exhibit at Brooklands but its actual WC cabin brought real challenges



as the inspiration for the toilets. The space is tiny and, in the main, formed of grey plastic. Nevertheless, there were aspects of the design that we were able to explore. Concorde's toilet cabins provided a dissolution of the wall, floor and ceiling plane as they are all formed in a single material following the shape of the fuselage, making the space seemingly homogenous. Its toilets were cast from the same material in moulded form, with toilet lighting discreetly hidden from guests' eyes. At Brooklands, we substituted this for far richer materials, forming the floor in a single piece of Calacatta d'Oro marble, and jet-cutting the walls and hand basin in the same material, to the continuous curves of the cubicles. Mirror details followed those of aeronautical bathrooms, with folded sheet metal providing discreet lighting details and shelves for paper towels. Taps were based on recessed conical details appearing across the fuselage, and the paper towel bin was recessed in the same way as the original. This material exchange is a suitable corollary to the 2-star Michelin

restaurant experience, with the spirit of design and detail lifted directly from Concorde's minuscule but famous WCs.

↙ **The Guild, Trade Centre DIFC, Dubai, Client: EATx; Tom Arnel**

At the Guild, a large restaurant catering to over 500 diners a night and including bars, dance floor, crustacean counter and smoking room, bathrooms are conceived almost as a public meeting place or lobby. Floors are made from Ketley Quarry tiles and hand basins are monolithic blocks of cast terrazzo from BW interiors. Cubicles, lining one side of the room, have doors faced in burr oak veneer with A&H brass door handles. Walls are lined with soldier-course brick slips, made by Lambs bricks in Kent, while the ceiling is polished plaster, giving a rich, warm, clay-like tone to the space. Bathrooms are in constant use with people meeting and socialising while using them. The space forms a continuum of the restaurant's use of natural materials, brick, terracotta and timber to play on a sort of Dubai vernacular. Unpretentious in nature, it allows the focus to be on the

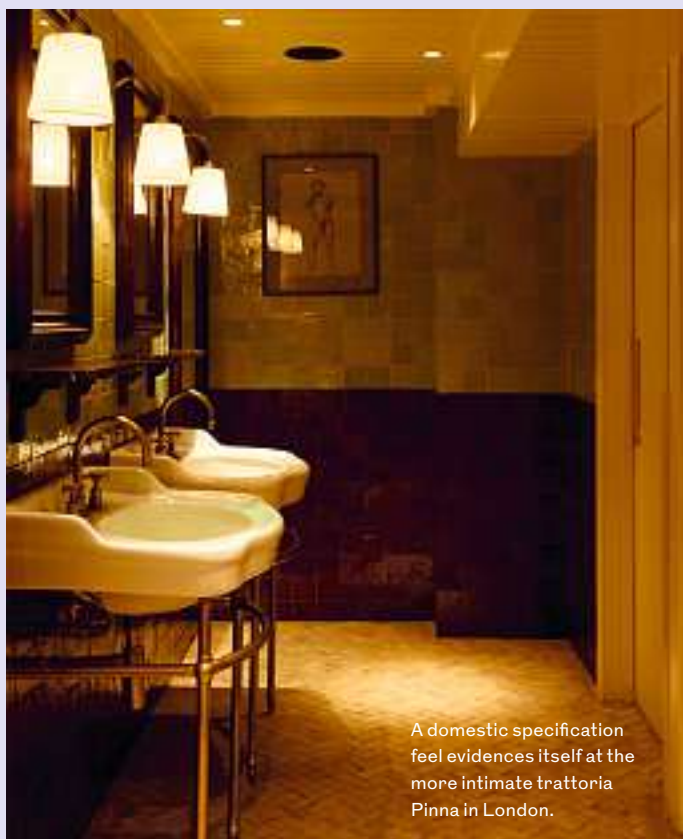
live-fire cooking, its open kitchen and convivial energy of the dining room.

↓ **Pinna, Curzon Street, London Client: Free Spirit Hospitality; George Bukhov-Weinstein and Ilya Demichev**

Pinna, in Mayfair's Shepherd's Market, is an interpretation of a small, traditional Milanese trattoria. The site was a former bank and, while having good windows on Curzon Street, was neither dramatic nor spatially generous. The restaurant depends on polished timber surfaces, beautiful lighting and a terracotta panelled ceiling to create a comfortable and soothing ambience, further activated by an open kitchen. Bathrooms follow the tone of the dining room: traditional faucetry, cast-porcelain sinks from Lefroy Brooks on brass frames, sitting on terracotta herringbone floor with tiles from Mr Habibi. Walls have glazed Moroccan tiles floor-to-ceiling. Salon artwork of figurative paintings and drawings, which adorn the dining room, are also found in the wash rooms accompanied by soft light, generating a rarefied and gentle atmosphere. ●



At The Guild, natural materials of the restaurant continue into the washroom areas, and form an effective extension of the social area.



A domestic specification feel evidences itself at the more intimate trattoria Pinna in London.



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# Costed: kitchens and bathrooms

Data drawn from the Hive, Turner & Townsend's cloud platform for specification, offers some helpful baseline ranges for the price of kitchen and bathroom materials

Unlike many more basic construction materials, the quality of specification – and hence price – of materials used in kitchens and bathrooms varies significantly. A very basic mixer tap can be bought for £20, but it is equally possible to specify a high-end tap for a price perhaps 50 times higher.

Even within a narrower specification band, the price of materials will vary significantly depending on the

numbers of units being constructed. Therefore, the prices provided below seek to represent a mid-specification based upon a medium-scale development – in other words, more than 50 units.

Current delays in residential apartment schemes being brought to site mean there is a risk that, as this backlog clears, we may see increased prices as a result.

## KITCHENS

Wall finishes	£m <sup>2</sup>
Ceramic tiles to walls	25–75
Porcelain, 4mm sheet	75–125
Engineered stone	100–125
Floor finishes	
Ceramic tiles to floors	35–75
Carcass	
Base units	£ each
18mm melamine-faced chipboard carcass with matching ABS/FVC edging to exposed edges and full replacement ends, height-adjustable feet.	
Door-line base unit – 18mm super-matt PET ABS-edged board with anti-fingerprint technology, laser-edged 18mm MDF, 720mm high	70–120
Door-line sink base unit, 600 x 600 x 870mm, 18mm MDF	75–250
Drawer pack – three-drawer unit, standard metal box drawer with standard 110° hinges, 600 x 600 x 870mm, square chrome bar handle/matt black	135–200
Plinth, timber, 3,000mm	50–150
Wall units	
18mm melamine-faced chipboard with matching ABS/FVC edging to exposed edges and replacement ends.	
Wall unit – one shelf, laser-edged 18mm MDF, doors dropped to act as finger pulls – no handles	65–230
Wall unit extractor housing, 600 x 320 x 900mm, laser-edged 18mm MDF	95–150
Appliance housing	
18mm melamine-faced chipboard with matching ABS/FVC edging to exposed edges and replacement ends, height-adjustable feet.	
Tall fridge-freezer housing, 600 x 600 x 2,120mm	170–275
Tall oven housing, 600 x 600 x 2,120mm	180–290
Fittings	
Postformed laminate worktops, 40mm premium laminate, 3mm radius, Arctic Marble / Aged Copper	
Postformed laminate worktops, 3,000 x 600 x 38	70–350
Laminate upstand, 3,000mm width	45–100
Stainless steel hob splashback, 600 x 700mm	35–100
Glass splashback, 8–10mm thick	75–100
Sink and taps	
Sink – inset single bowl, Blanco Livit XL 6 5, stainless steel with depth of 165mm	135–350
Mixer tap	75–200

## BATHROOMS

Wall finishes	£m <sup>2</sup>
Ceramic tiles to walls	25–75
Floor finishes	
Ceramic tiles to floors	35–75
Marble to floors or tops	75–275
Sanitary appliances	£ each
Bathtub and taps	335–750
Shower tray	150–450
Shower screen	125–475
Shower	250–750
Grab rails etc	250–400
Wash hand basin and taps	75–200
WC with push plate	75–250
Mirror	50–250
Electric heated towel rail	220–500
Towel ring	30–50
Toilet paper holder	20–40
Wall units	
Wall unit – one shelf or draw, laser-edged 18mm MDF, door/draw front	125–300
Mechanical	
Toilet extractor fan	235–500

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# 3: Culture



Irish architect-turned-photographer Peter Molloy recalls his student days in Dublin with a twinge of ambivalence. Not the studio environment, which he has always loved, even when that was an office – but in recalling his issues with designing in a vacuum; for Molloy, a historical context was prerequisite for him to be able to respond to it. But the thinking contextualises his mention of Carlo Scarpa as his hero; he tells me of a recent visit to Palermo's 15<sup>th</sup>-century Palazzo Abatellis, where, in 1954, Scarpa performed surgical curation of its bomb-damaged then restored spaces, in its new guise as the Gallery of Sicily.

The thrill he always felt for the model-making of his project work's early design stages has, via photography, returned – but this time at the end of the process rather than the start. Conversations with his architect clients, he notes, still stray into the comfortably familiar territory of 'concept, design intent or means of execution'. Only this time, with the design a done deal.

Commissioned by Allies and Morrison as the photographer to record construction of the practice's London College of Fashion Stratford campus, Molloy was mesmerised by the elemental nature of the newly-struck concrete stair snaking up through the building's more public lower levels. Sans handrails, nosings, acoustic soffits or light fittings, it felt to him like the archetypal interplay of light on solid, but here with a temporal aspect: 'Like hopping back into the card model that they'd made all those years ago.' ●

Jan-Carlos Kucharek

**Peter Molloy**

**Garments, Stratford, London, 2022**

Canon EOS 5D Mark IV with Canon EF 85mm lens



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*'Competence needs to be nurtured, put into practice, and taught to others to cement the knowledge'*



## What is competence?

The current focus on competencies is necessary and right – but true competence lies in practice, writes Eleanor Young

The wheel spun, faster and faster, and he shifted through the gears at great speed, watching the chain flip cogs before stopping it with an oily glove, tightening up the wheel and flipping the bicycle back over, ready to be ridden. With tools to hand, knowledge and a steady competence he had fixed the bike in the time it would have taken me to find a spanner.

Competence is a comfortable place, where you feel happy and capable, confident to operate. Where is that? Is it trawling records and taking photos for site analysis, door schedules (done one, done a hundred), delivering a waterproofing package, pulling together a design and access statement, or knocking out hard-nosed replies to claims on variations of contract?

As you read each example, reflect on how you built your competence (yes, this is a bit like a lesson – I'm playing teacher), and how these became things you are good at. Maybe you had someone talk you through the first time, advising you at strategic points, or perhaps you attended some training. Or did you find out the hard way?

However you gained it, that learning may well have affected your subsequent behaviour, so that you became far more assiduous at documenting conversations with contractors and writing minutes, or made up a folder of waterproofing solutions for next time, or ensured the template was saved on a shared drive so everyone knew what was needed?

Competency has become core to how we discuss building safety since the Grenfell Tower disaster in 2017. For the Health and Safety Executive, competency is 'the combination of training, skills, experience and knowledge that a person has and their ability to apply them to perform a task safely'. The levers of knowledge have necessarily been focused on training, with

the ARB competency framework closely tied to CPD and the RIBA introducing mandatory competencies on health and life safety, as well as training for the role of principal designer.

But we cannot mistake training for competence. It needs to be nurtured, put into practice, and taught to others to cement the knowledge. Daniel Mattholie, on page 44, shows how strategic thinking and taking his intentions back to core principles enabled him to build a home warmly and cheaply. He used his competence in design, and his confidence talking to sub-contractors to show the plumber what he meant when setting up the hot water tanks to store his PV energy. And now, here he is, sharing that in RIBAJ. It is how we learn – not just for ourselves but at a wider scale, sharing lessons with the profession.

**Below** Hands-on expertise goes well beyond training-based competencies.



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## Notice of RIBA Annual General Meeting

The RIBA Annual General Meeting will be held on Thursday 25 September 2025, 14:00 to 15:00 (BST) at The Holiday Inn Regents Park, Carburton Street, London W1W 5EE and online.



**Find out more  
and register.**

The Agenda, together with the Annual Report and Accounts, will be published on [architecture.com/agm2025](https://architecture.com/agm2025) on Tuesday 2 September 2025.

To attend the AGM, please register at [architecture.com/agm2025](https://architecture.com/agm2025) no later than 12.00 on Wednesday 24 September 2025. When you register, please indicate whether you wish to attend the meeting in person or online.

Whilst all RIBA Members may attend the AGM, only Chartered Members are entitled to vote.

Yours sincerely,  
Roger Shrimplin,  
Honorary Secretary

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# Shaping the future

As he prepares to pass the RIBA President's baton on, Muiyiwa Oki reflects on two years of reinforcing the groundwork for change

I began to doubt whether architecture was right for me at the end of my first year of study; I had struggled in my structures module.

But then I joined an Open House tour of the Lloyd's of London building – and something shifted. I could understand its boldness, its exposed systems, its refusal to hide complexity. This struck me as both radical yet precise. The visit didn't erase my doubt, but reminded me why I started and gave me enough reason to continue.

As I reflect on my time as RIBA President, the reality of it has only now begun to sink in. Here is this nearly 200-year-old institution – and I've had the honour of helping shape its future.

At my inauguration nearly two years ago, I said that I was elected to represent, and that our time had come. It was time for architecture to be seen as a profession with the power to reimagine and reinvent itself; one capable of solving big problems, striving to be ethical and fair, and inspiring the next generation. I'm proud to have reinforced the groundwork for change.

Fairness, diversity and inclusion have been at the heart of everything I have done. We've issued a practice note on the Real Living Wage, because fair pay is the bedrock of dignity in our profession. Our workplace and wellbeing survey, which more than 1,450 architectural professionals took part in, has been a springboard for a new workplace wellbeing taskforce which will embed the principles of dignity, safety and fair treatment within the profession.

Our awards shone a light and redefined excellence in architecture – both with the public and the profession. As chair of the Honours Committee, I've been proud to expand who and what we celebrate. From Lesley Lokko in 2024 to SANAA in 2025, our Royal Gold Medal winners reflect a broader, more inclusive vision of architecture.

Through our public programmes, we've also opened our doors to new voices and perspectives, from Raise the Roof, our exhibition on decolonising architecture, to inviting the wider public in to shape our ideas for House of Architecture, our ambitious project to open



up RIBA through investing in our collections, upgrading our digital platform and improving our landmark building at 66 Portland Place.

On policy we've been a constant voice for safer, more sustainable buildings, whether that's via our campaign for second staircases in residential high-rises, advocating for 'high-quality' design over 'beauty' in the National Planning Policy Framework, or backing the creation of the UK Net Zero Carbon Buildings Standard. One setback that most starkly revealed the work ahead was the government's recent decision to defund Level 7 apprenticeships for over-21s – at a time when we want to open up the profession.

I've also helped drive innovation and digital technology, from awarding the Stirling Prize in part to architecture that excelled in digital design and delivery such as the Elizabeth Line, to launching our AI report and establishing our Expert Group to guide the profession in these ever-changing times.

Beyond this, I hope my presidency has helped others to recognise themselves in the profession, and shown that RIBA, and architectural practice, is open to everyone – at a time when the world is walling itself off in echo chambers. I've done my best to reach out and help shape an institute that is outward-looking and welcoming. As my time as RIBA President comes to an end and I hand over to my successor, Chris Williamson, I can look back with pride at what we've achieved, and forward with optimism – and with enough still in the tank to keep going. ●

**Left** The Lloyd's of London building, sprezzatura embodied in its studied elegance in the face of complexity.

## BURSARIES BOOST

RIBA has received £1 million from grant-making organisation the Sandys Trust, to provide financial support to students undertaking postgraduate study. The new Sandys Bursaries will be awarded via the RIBA Part 2 Bursaries scheme to architecture students who demonstrate talent, commitment to studies and financial need.



# Route finder

**Below** Leanne Tritton  
is joining dots thanks to  
her wide-angled view.



## Leanne Tritton's years in PR make her a formidable built-environment advocate, driven to unpick the obstacles barring the path to a sustainable future

Words: Flo Armitage-Hookes Portrait: Ivan Jones

For over 25 years, Leanne Tritton has been uniquely positioned across and between largely siloed construction professions – involved enough to be informed yet detached enough to see a bigger picture. She was recognised for her contribution to the built environment with an RIBA Honorary Fellowship earlier this year.

Australian-born Tritton was an early trailblazer in the world of public relations, communications and the built environment. She had an eye for an untapped market, though it wasn't always in her chosen area. 'I launched Peppa Pig,' she recalls. 'In the early days, we would work for anyone!' The PR company she founded, ING Media, has worked with the UK's largest and high profile architectural firms, including BDP, AL\_A and Hawkins\Brown. The firm is now 50 strong and represents a vast array of clients – from institutions to whole cities as well as developers, property managers, investors and contractors.

Since she stepped back from ING in 2022, this wide-angled view makes Tritton an invaluable advocate for the built environment – someone who can spot the pitfalls, join the dots and start to untangle the barriers to a more sustainable, compassionate and logical reality.

**Right** ING Media worked on MAAT, Lisbon, by AL\_A in 2016.

**Below** Don't Waste Buildings case study: Republic in East India Dock, London, reused empty offices for an education campus.



HUFTON + CROW

Sitting down to interview her in ING Media's trendy Shoreditch office, it's clear that every hour of Tritton's day is already accounted for. While her work is largely pro bono now, retirement seems a long way off. She is chair of the London Society, co-chair of campaign group Don't Waste Buildings, a Design Council ambassador and a mentor – all while also managing a woodland in Northamptonshire with her husband. 'There's no set schedule to my days; I try to be as flexible – and as opportunistic – as possible,' she tells me, reeling off her meetings, organisational work and speaking engagement from the day before.

'What motivates me is making a difference, but also sheer frustration at the lack of logic to a lot of policies.' She lays out the contradiction between the government's ambitious 2050 net-zero target and the absence of regulation and financial incentives in the building industry to support it. The gap is particularly notable when it comes to the government target to deliver 1.5 million new homes by 2030. However, for Tritton, exasperation bears fruit; she is not deterred by tangled and tediously opaque systems.

Don't Waste Buildings was formed in 2022 to spell out to policy makers what seems obvious to those within the industry – there is value in existing buildings and reusing them minimises environmental impact. 'The endgame is so clear. How is the runway such a mess?', she asks, mixing metaphors with incredulity. The multidisciplinary group advocates for new policies and highlights procedural barriers, and is creating a resource of case studies.

As well as a knack for the nitty gritty, Tritton understands the value of communicating the basics of 'how things work' to the public. She recalls the elation of the first residents who moved into homes at the Queen Elizabeth Olympic Park



DIRK LINDNER



in 2013 – and their natural indignation when, not fully cognisant of the masterplan, they saw more and more blocks going up around them. ‘They had a sense something unfair was being done to them... And [if you didn’t understand the process] why wouldn’t you?’

The London Society, which Tritton joined in 2021, aims to address this knowledge gap. The group was founded in 1912 by eminent Londoners to discuss planning in the capital. But in recent years, its focus has shifted to publicising issues which affect the city and its users through talks, tours, research and podcasts. ‘We have very small budgets, but we punch above our weight in trying to get those messages out,’ says Tritton, who co-hosts a podcast series for the society, *Talk About London*. It explains what’s happening behind the scenes; episodes have covered pedestrianisation, greening and the London Growth Plan, framed by genuine curiosity and animated by guests (including ‘the rockstar of the landscape world’ Charlotte Harris).

Top of Tritton’s campaign bucket list is the chasm between volume housebuilding and high-quality, robust design. The issue is personal – Tritton recalls how her father helped build their first home and would often organise family trips to enthusiastically survey half-built estates. Later, the family purchased a unit by a volume housebuilder. ‘I remember Dad being so gutted because it was really badly built – and he knew it.’ The separation between architects and developers still persists, and it’s the public who are losing out. ‘The market hasn’t needed to innovate, so the volume builders are able to sell what they’ve always sold,’ laments Tritton. How she’ll approach the issue isn’t yet clear, but the pinpointing of impracticalities and opportunities has already begun.

Tritton values her collaborators: ‘I love working with people who have a sense of ambition and can-do, who aren’t afraid to just have a go.’



**Above** Victoria Embankment Public Toilets by Hugh Broughton Architects, 2021. Improving public WCs is a London Society campaign aim.

It’s humanising to hear that something, other than her own innate drive, is sustaining Tritton’s high-octane volunteering. She warmly recounts the shared values of her Don’t Waste Buildings co-chairs, the knowledge gained from London Society members and the passionate energy of the young people she mentors. Removing the pressure of running a business opened up new opportunities and the freedom of ‘trying to make something happen without having to’.

However, before we wrap up the interview, I’m intrigued to know about the process of stepping back from ING Media. ‘Working with architects for 20 years meant I saw the good, the bad and the ugly of succession planning,’ sighs Tritton. As a confidant to uncertain practice owners and a sympathetic ear to their frustrated staff, she saw the process unfold from both sides. Clear dos and don’ts emerged, which informed her own staggered departure from ING. ‘Once you start it, you need a clear timeline. People need clarity,’ she says. At present her role is very limited, only meeting with the new managing director once a month. And, in time, she will step away completely. However, Tritton admits that the initial decision to leave took time for her to come to terms with.

Throughout our conversation, Tritton is assured and to the point: a true PR pro. Her words on transcript are remarkably tidy, yet her answers don’t feel scripted or shallow. She seems open and opinionated, and there is tangible passion behind her concise responses.

As I get up to leave, Tritton remarks on the strangeness, after decades promoting others, of speaking about herself. I am not sure she has. We’ve spent far more time discussing the inconsistencies and complexities in the way of a better built environment. Her work now is removing obstacles others may not spot. The tools may be different to those of architects but Tritton is working to the same goals. ●

**Left** Tritton was elected chair of the London Society in 2021.

DIRK LINDNER

# Eye Line 2025

The parameters of realism in architectural images were up for discussion by the judges this year – but the quality of entrants won out

Given the ongoing debate around social media image manipulation and ‘fake news’, there were some interesting discussions around this year’s Eye Line judging table which, despite the subject being the act of drawing, touched on related issues. What criteria govern the veracity of an architectural image? If the narrative of a drawing is based on a fiction, does that actually matter? One entrant quoted Le Corbusier, an architect not famed for his objectivity: ‘I prefer drawing to talking. Drawing is faster and leaves less room for lies.’ It boils down to the old question posed by, among others, Plato, Pilate and Orwell: ‘Truth? What is that?’

This year saw fewer student entries, with practitioner submission numbers coming into closer alignment than is usual. Perhaps it was because the latter are feeling more comfortable using AI that we saw more of such entries from them. But as a self-confessed AI Luddite, judge Mary Duggan posed interesting questions, asking about the nature of ‘a prompt’ and what this said for authorship of work. What could we take, say, from three very adept, stylistically different AI images, duly prompted, from the same person? Duggan was unswayed by any beauty: ‘I don’t read this as a set, if that’s what they are,’ she said bluntly. ‘If there was evidence of consistent style I’d feel happier; as it is, I don’t get any sense of



## 2025 JUDGES

**Mary Duggan**

Director, Mary Duggan Architects

**Samantha Hardingham**

Independent writer, designer and educator

**Luis Miguel (Koldo) Lus Arana**

Winner Eye Line 2024. Associate professor, University of Zaragoza School of Engineering and Architecture

**Bongani Muchemwa**

Director, McCloy + Muchemwa Architects

**Jan-Carlos Kucharek (chair)**

Deputy editor, RIBA J

conscious authorship – it feels like AI without commitment.’

Then there were entries playing on reality. Beirut Arab University’s Sara Taleb’s Poetic Ruins, a ‘real’ image of a bombed-out city (in Gaza? She doesn’t say) turned out to be artifice, with more investigation revealing doctoring and manipulation – but soberly challenging our readiness, perhaps, to revert to visual assumptions we have become inured to via social and mass media.

In the end, both category winners asked us in some way to suspend our disbelief. One, a Lidar scan of a real place – but superimposed and layered to create a conscious and particular rereading of a literary-loaded physical context. The other, a powerful, political, image-based human story we wanted to believe but ultimately weren’t sure if we could; a literal tapestry that left judges swept along in the wake of its narrative. Fake news? Who knows? But further evidence, if any were needed, of the enduring power of images to beguile. ●



**Above** Practitioner

Carlos Medel-Vera:

The Impossible

Inn. Midjourney

and ChatGPT.

**Left** Bartlett student

Lizhe Zhang Zhuo:

Rewrapping the

Envelope. Rhino 3D,

Photoshop, Illustrator.





**First place, Practitioner**
**Nic Clear and Hyun Jun Park**

 Professor, School of Arts and Humanities, Huddersfield University (Clear)  
 and architecture course director, Leeds Beckett University (Park)

It says a lot about the complexity of Clear and Park's submission that, just by looking at them, judges were sensitised to thinking that their images were – at some point in their evolution – stills from a video, so filmic do they appear in their nature. But throughout the judging process, the vaguely haunting, digitally created images lingered on in the minds of the judges to see them ultimately materialise in first place.

Academics Clear and Park 'capture, edit and manipulate point cloud data to document spaces, create speculative projects and spatial propositions that engage with, and respond to, specific site narratives'.

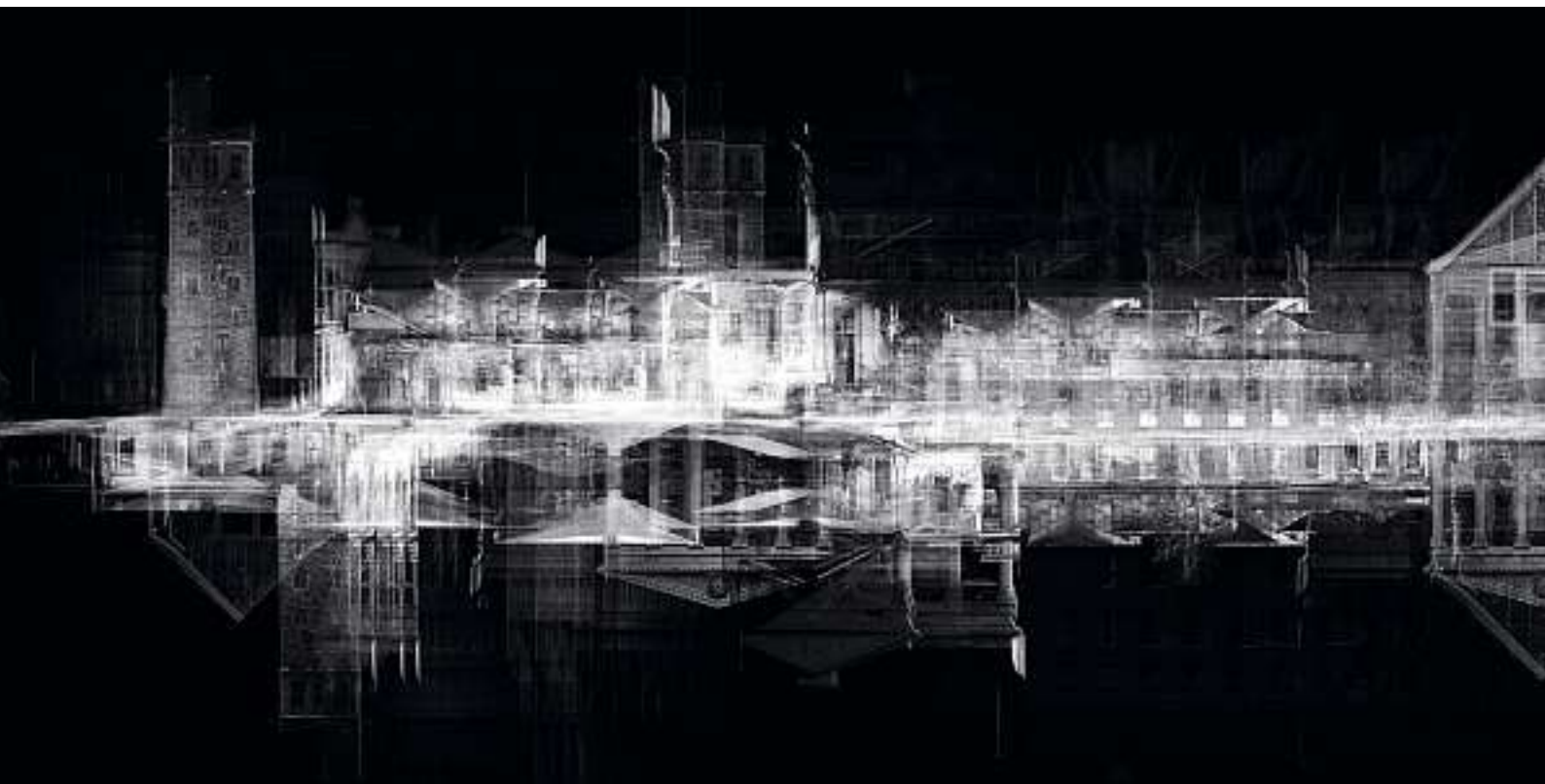
The Ghost image declares itself 'a collage that blurs delineation between actual and virtual'. The 3D laser scan echoes 'drawings of Beaux Arts academicism', rendered as black-and-white overlays of images, feeling like 'X-rays' but critically 'alluding to issues of time and the patina of age'. Judges responded to the highly composed nature of this image, intimating AI but remaining firmly under the control of the authors.

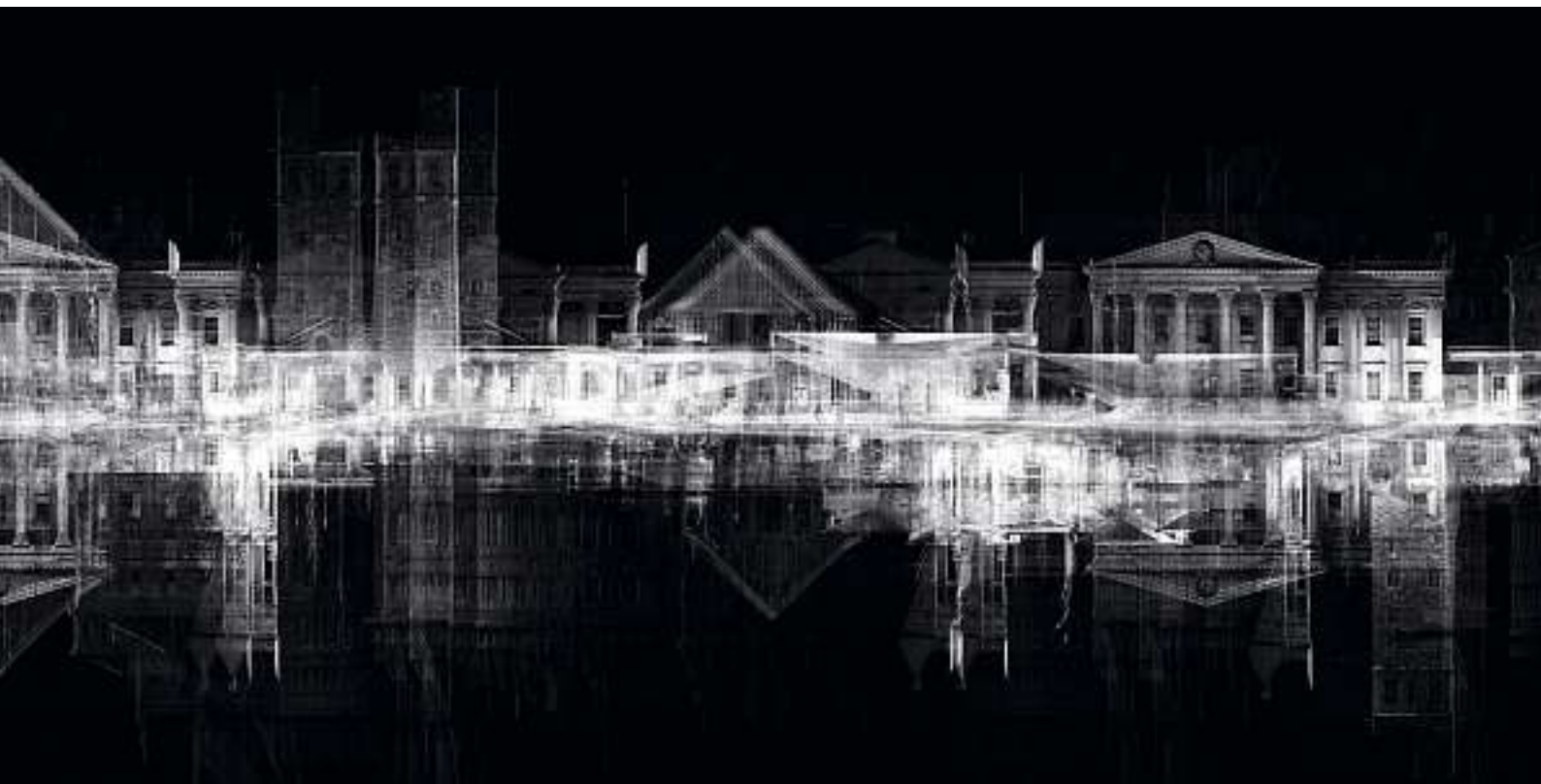
But it was 'The WavEs' – renders extracted from a point cloud scan video of Virginia Woolf's garden and writing lodge at Monk's House, her home in Rodmell, East Sussex – that really excited judges, 'tracing dream-like vectors as if motivated by the desire-lines of Woolf's restless characters'. 'The other work is to some extent just beautiful collage,' observed Samantha Hardingham, 'but this one really feels like an evocation or a study of a place in time.' Koldo Lus Arana agreed with the technical skill and 'familiarity' of the former, but said the latter had an 'Eadweard Muybridge cinematographic feel – of flattened time passing'. Mary Duggan felt 'compelled to move through the image' while Jan-Carlos Kucharek felt 'a strange sense of being drawn through both time and space on paper'.

'The scans are able to capture the garden in ways that appear both substantial and yet ethereal,' wrote Clear. But it was the artful complexity of the layering that somehow reified the drawing, with Lus Arana noting 'a highly adept composition that becomes more alive the more you look into it.'

**Right The WavEs.**  
 Composite  
 3D laser scan;  
 1210mm x 610mm.

**Below Ghost.**  
 Composite  
 3D laser scan;  
 3000mm x 750mm.








**Second place, Practitioner**
**Thomas Parker**

Teaching fellow, Bartlett School of Architecture, UCL

An AI-generated image so complex and painterly that it defied detailed interrogation, Parker's Post-Lenticular Baroque offers a glimpse at where traditional architectural representation may be heading.

It may have started life as a 3D scan model, but Parker applies neural radiance field (NeRF) modelling, 'essentially an AI-driven form of photogrammetry, which allows for the "training" of positional data rather than direct measurement resolution'. Confused? You will be. The Baroque ceiling you are looking at only exists as a text prompt, and the neural radiance Parker applies to it exposes 'stochastic uncertainties' in the image resolution, where optical spatial impressions are subverted; one which captures the 'epistemic thought of LLM models and the subjective nature of the viewer'.

The 3D machinations applied to the 2D image result in one that seems to dissolve into millions of coloured pixels, while still thrumming with a sense of the three-dimensional image it wants to be. Duggan, confessing ignorance of all things AI, sensed something truly architectural was happening here, 'dissecting the image yet somehow intimating materiality; organic in a way that none of the other AI submissions are'. Hardingham concurred: 'Of all the AI entries, this feels the most experimental, transformative and unexpected.' Bongani Muchemwa felt 'there's a skill at play here that doesn't rely on simple ChatGPT prompts – it's a collage not of images, but of digital interrogation techniques.'

The result impressed in how it defied scrutiny. Simultaneously suggesting fractal imagery as intimating the textural flourishes of an oil brush, the classical subject is perceived through a form of future lens, where the drawing is the medium, is the message.

**Above** A Post-Lenticular Baroque-Study Model #5. 3D scanned model, large language model image alterations, neural radiance field reconstruction and rendering; 420mm x 290mm.

**Right** Scenography 3.  
Watercolour;  
500mm x 750mm.

**Bottom right**  
Scenography 1.  
Watercolour;  
500mm x 750mm.

### Third place, Practitioner

**Erik Rokke**

Lead architect, Stenungsunds  
Municipality, Greater Gothenburg

In counterpoint to the defined algorithmic parameters of the other winners, Rokke's entry presented itself as a form of liberation, the effect of his pen and watercolour drawings washing over judges as loosely as it did across his paper. There were a few hand-drawn and painted submissions – in the main from practitioners – but Rokke's fluid, instinctive interpretations of architecture felt next-level.

Lus Arana admired the 'effortless' qualities of Rokke's cathedral cupola. 'I love how the general watercolour wash is offset by the consciously picked-out details in the centre of the image in a 'classic' way,' he said, adding: 'It retains "sketch-appeal" but has all the detailing of a finished drawing.' Muchemwa agreed, also noting its unfinished quality 'as a sign of real skill and confidence, allowing the viewer to bring their own interpretive imaginations into play'.

Hardingham loved the works' compositional strength, seeing 'amazing control to the images – a lot of observation and a lot of technical decisions being made, while Kucharek remarked on its 'simultaneous looseness and precision'.

But it was Duggan for whom the drawings' sheer expressive humanity resonated most. She concluded: 'It feels utterly genuine, which is what I love about it: that it was done without anyone having to press a button.'





# RIBA J

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**Commended, Practitioner**

**Hamish McAndrew**

Hamish Angus McAndrew Architect, Fife, Scotland

Consider this entry (below) a highly evolved form of site study. With a brief to breathe new life into a listed cottage in the village of Crovie on Scotland's northeast coast, McAndrew concentrated less on the building in question and more on what he saw around it. As inspiration for his collage of multiple pen drawings he sought to evoke 'the landscape of jagged rock pools and turbulent waters', and to highlight the 'aesthetic parallels between the building's lime-pointed stone walls and some of the marine life it shares the area with'. The drawings were layered to give a sense of depth.

'It's a good example of a "thinking drawing" that bothers to investigate the nature of a site,' said Hardingham, while Lus Arana enjoyed its 'perceived "flat" narrative of many layers'. Duggan loved 'the story it tells about the architecture in the background, formed from materials in the foreground that could be zoomed in on and interrogated'. A work born of observation, time and energy, she relished how it 'still feels incomplete, always asking questions'.



**Above** In My Canvas Room. Acrylic and monotype on canvas; 800mm x 600mm x 80mm.

**Bottom right** Little Studio Box. Ink on IKEA cardboard box; 100mm x 100mm x 50mm.

**Commended, Practitioner**

**Jolene Liam**

Freelance architect, London

Liam has been a regular entrant to Eye Line and her idiosyncratic, loose drawing technique has always come to the attention of different cohorts of judges. This year was no different. The joy stems from how Liam treats drawing as both a personal investigation and technical experiment, and over the years readers have been privy to its development.

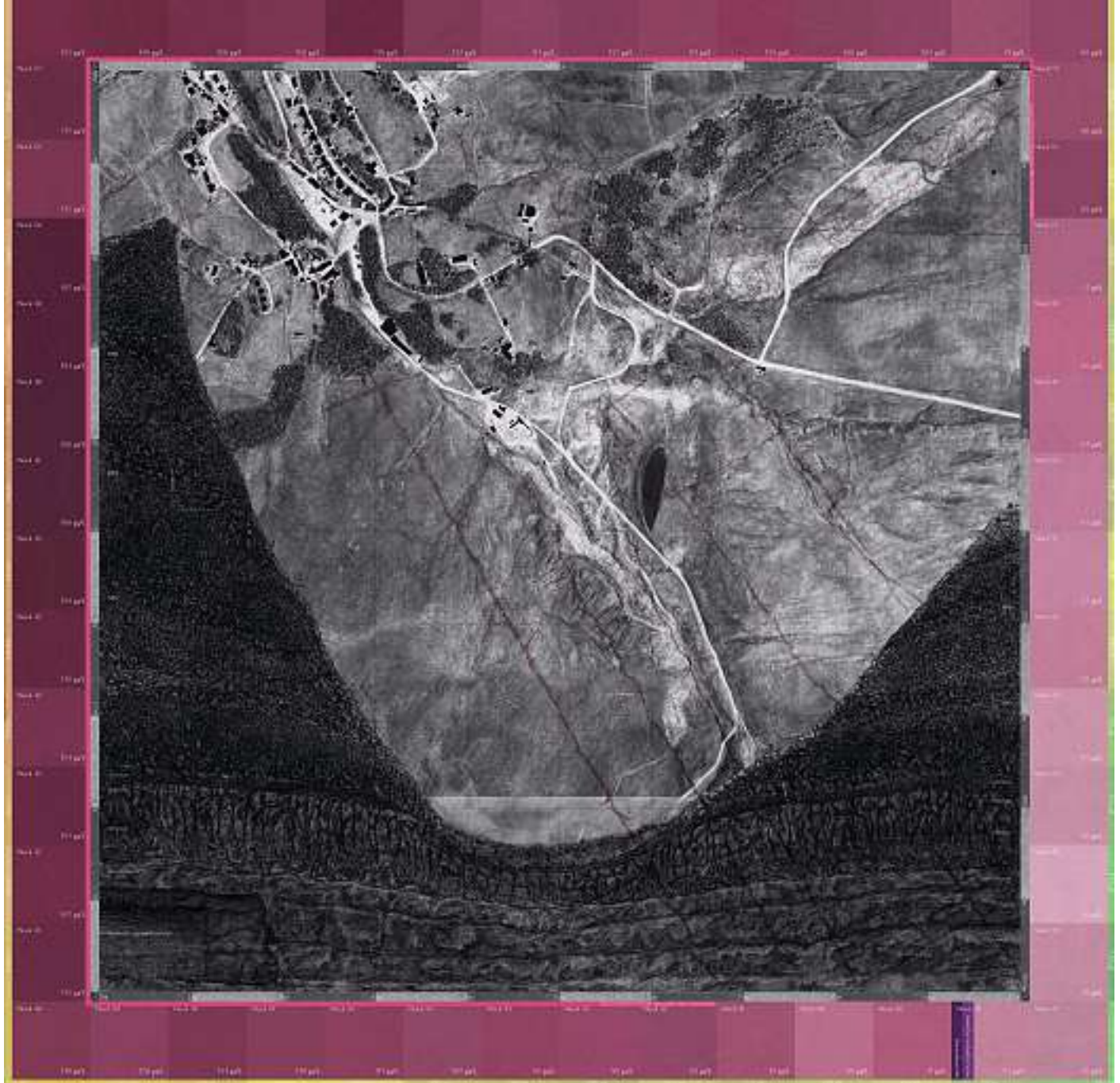
Muchemwa, who follows her work on Instagram, saw it as 'familiar to me but also work that's developing over time'. Duggan liked the layering of material techniques, lending it depth, but also that 'it's anti-AI and really saying something about the act of drawing and the method of its containment'. Hardingham agreed, valuing her activity here 'as clearly part of a bigger body of work investigating the world around her'.

Lus Arana appreciated the idea of using objects and doodles, feeling the work 'very reminiscent of Saul Steinberg', but was more measured in his praise. Feeling that the clarity of voice needed honing here, he added: 'For me, the result is not yet as engaging as the process.'



**Left** 45 Crovie - a Site for Shore Eyes. Hand-drawn pen collage; 400mm x 680mm.





## First place, Student

**Max Cooper-Clark**

MA Architecture, Royal College of Art, London

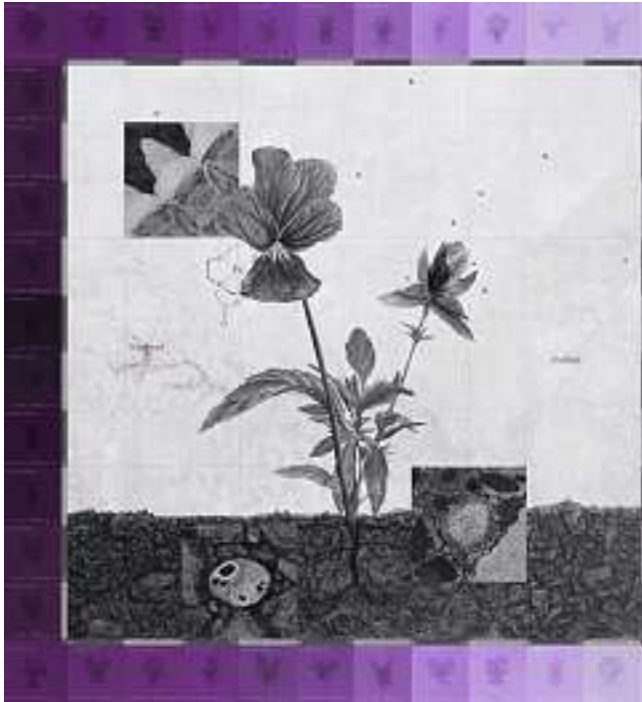


Max Cooper-Clark reached third place in the 2023 Eye Line competition, drawing a worrying but beautifully rendered picture of industrial olive farming processes and the effects they have on land and communities. This year he wins Eye Line with his stirring, emotive study of the village of Nenthead in the Pennines, where lead mining over 200 years has had long and lasting effects on the landscape, the local community, and even the physiologies of people living there. Within the old smelting mill, 'lead levels in the soil reach up to 134,000mg/kg – 2,000 times the Environment Agency's safety limit'.

These issues dictated almost every decision in the process. Eric, pictured opposite left, now deceased, was a former miner suffering the effects of osteoporosis brought on by decades underground. The purple mountain pansy Cooper-Clark portrays flourishes on the surrounding lead-rich slag heaps, the anthocyanins in its white petals absorbing toxic lead and turning white petals purple in the process. These petals would go on to create the dyes for threads Cooper-Clark sewed into banners that

were taken to the 2024 Durham Miners' Gala, or pictured next to the slag heaps or in a community centre. 'He's compellingly using the essence of the material that caused the environmental catastrophe to make the drawings,' Duggan observed, with Kucharek adding that 'the mode of creation and display has been made inseparable from the story of the project'. 'The artefacts he's created are beautiful,' said Hardingham. 'Each piece is approached slightly differently, but they clearly all belong together.' The angles of interrogation and holistic nature of approach to the subject – not least direct engagement with the affected communities – made the entry this year's Eye Line winner.

There were still contentions. 'The images are great, but I get the strange sense some have been enhanced,' said Lus Arana. 'If he has doctored them, perhaps this is not a real but a theoretical narrative project?', Muchemwa posited. 'Maybe,' mused Hardingham. 'But even if that's the case, the scope and intelligence of the project are such that I can entirely suspend my disbelief.'



**Opposite and above, clockwise** Extraction; Toxicity; Kinship. Charcoal, pansy dyes, paint, acetone transfer, archival photography and metal thread on fabric; 1500mm x 1500mm.





**Above** The Exquisite Corpse of St Vitus – The Church. SketchUp, D5 Render, Photoshop; 594mm x 841mm.

**Below** The Exquisite Corpse of St Vitus – Architect's Office. SketchUp, D5 Render, Photoshop, hand drawing and physical model-making; 594mm x 841mm.



## Second place, Student

**Dominik Los**

Part 2 assistant, rg+tp

A quick search on 'monastery of St Vitus' in Naples yields nothing. But facts should never get in the way of a good story – and Dominik Los spins a fine one. His project, on the remains of the city's 'second-century monastic complex' (Alexa: does he mean Santa Maria della Vita?) posits a radical reimagining of the site: 'a tricephalous narrative... merging functions of a homeless shelter, builder's yard and nightclub to meet modern necessities of the crumbling city.'

Views from the architect's desk to the 'Materdei Neighbourhood Rehabilitation & Repair Centre' and of the church-cum-nightclub are exquisitely rendered at almost photographic levels of quality. As if to scotch any argument that he might not have proper drawing skills, he counterpoints them with a lovely pencil-drawn axonometric section of the reimagined site, showcasing a heavenly level of ability.

'They show a clear suite of architectural skills that beguile the viewer into believability,' said Kucharek. Lus Arana saw the Architect's Office image as 'within the tradition of Joseph Gandy's work with Soane', while Muchemwa loved how it 'distilled elevation, plan interior and model into one'. Duggan loved Los's 'wit and play', making him seem an architect 'comfortably residing' in his project. 'He brings the processes and thinking of his vision to bear in a concentrated form,' added Hardingham. 'These are totalising drawings'.



### Third place, Student

**Quadri Oyetunde**

**MArch, University of Greenwich, London**

'I'm just enjoying the glorious immersivity of this set of images,' said Kucharek of Oyetunde's three architectural visualisations highlighting indigenous Nigerian Yoruba culture and the rich, vibrant traditions of its Egungun Festival, creating 'an architectural realm where the culture is not merely reflected but is woven into every structure and space'.

Even though there were many examples of high student skill levels in evidence in this year's entries, the singular nature of the intent here – and its execution – was not lost on the judges, with Hardingham commenting that 'the saturated nature of the colour in this set of images is so difficult to do and so easy to get wrong'. With brightly coloured textiles used as an expression of ancestral flamboyance, wealth and cultural pride, Oyetunde literally went to town, his all-encompassing fabric-store architecture serving 'as a means of cultural amplification'.

Lus Arana acknowledged a 'great development of texture as well as colour in the images'. The design of the urban realm 'is to showcase the emergence of a local architectural language that reflects the people's ownership of their environment', wrote Oyetunde. Duggan agreed: 'The colours and the fabric patterns help create a world from this strong, visual amalgamation of ideas.'

**Above** Ilé Egungun – Architecture by The People, for The People. 3D modelling and rendering: Modo by Foundry, post-production: Photoshop; 594mm x 420mm.

**Below** Ilé Egungun – The Fabric Store. 3D modelling and rendering: Modo by Foundry, post-production: Photoshop; 594mm x 420mm.





### Commended, Student

**Jack Oaten**

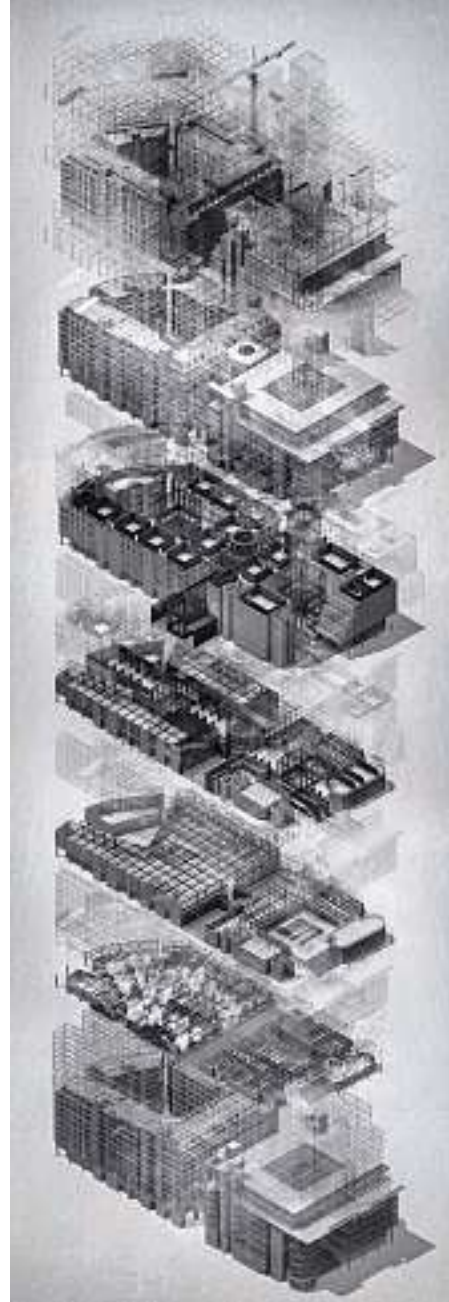
Part 2 assistant, Scott Whitby Studio

In another example of world-building, Jack Oaten's proposal to create a literally home-grown timber industry proposes the idea of a new national forest stretching from the Forest of Dean in Gloucestershire to the Forest of Bowland in east Lancashire. With production for the construction sector being carried out on a grand scale, Oaten suggests that 'the sawmill will become a piece of rural infrastructure, processing timber grown in this new forest using digital methods to extract more than a traditional sawmill ever could'.

His skilled visualisations of these megastructure production facilities in the landscape suggest a form of rural metabolism, appearing atmospherically from some bucolic mist on the edge of Mortimer Forest. Muchemwa thought the renders 'very tectonic' while Duggan enjoyed their ambiguity, 'feeling as if they're occupied while under construction'. Lus Arana considered the images to be 'in a sense conventional renders – he's just doing it better... It's like a utopian Cumbernauld town centre'. Hardingham agreed, adding: 'They are very well composed as images; the angles and framing are spot-on.'

**Below** Mierceholts new national timber reserve pre-afforestation.

Render using Rhino and Twinmotion; 420mm x 594mm.



### Commended, Student

**Oscar Ssu Kuo Lo**

Architectural Association, London

Oscar Ssu Kuo Lo is doing nothing if not dealing in big themes. Three drawings attempt to explore the 'understanding and formulation of architecture', each one peeling back a building's layers to reveal it as politically, structurally, programmatically or logistically 'skinned'. The work led to plenty of discussion among the judges around how much they succeeded in communicating these complex issues. Muchemwa was the biggest fan, with one circuit-board image 'looking like a mind map of connections between processes'. This drawing analyses an office building mutating into a cultural institution before the viewer's eyes. Lus Arana enjoyed the 'fantastic compositions', which Kucharek felt have 'an intensely detailed, obsessive quality'. They are 'definitely questioning the logic of the profession and how we design and procure,' added Duggan.

**Above** Anomaly Choreography. 3D modelling, rendering, collage and line drawing; 420mm x 1235mm.

# BUILD ON-SITE



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RIBA COLLECTIONS

### RIBA library reception room, 66 Portland Place, London, 1940

For the first time in its 91-year history, the RIBA headquarters at 66 Portland Place is to undergo a major refurbishment, starting later this year, which will allow it to better meet the requirements of its current use. At the time of its inauguration in 1934, it only had to host the activities of a membership organisation, while it is now open to the public, and offers a vast range of cultural events. The library has always been at its core. Established from the very beginning as an integral part of the institute, and enriched over the years by world-class collections of

architecture-related items, its expansion prompted the RIBA's move from its previous home in Conduit Street to the purpose-built Portland Place premises. During the Second World War, its contents were kept safe at the National Gallery of Wales but, as this photograph shows, basic library services were retained in the first-floor reception room. In the next few years, the RIBA Library and RIBA Collections will again be temporarily displaced, but access will be guaranteed at alternative locations. ●

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