

Open to change: 31/44's self-build home

Bêka and Lemoine: real to reel

Biodiversity ups its stake

Eye Line opens to entries

The RIBA Journal

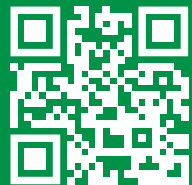
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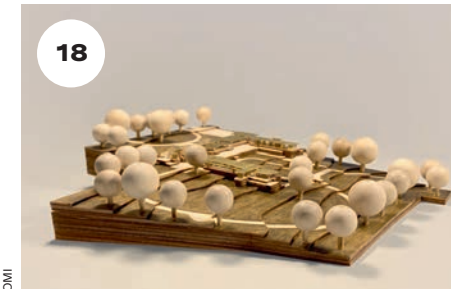
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Populous' Sphere brings wizardry to Vegas, but is it magic enough?

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An office and home lie behind a high street shopfront at Brisco Loran's Costa's Barbers

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Will Burges' self-built Six Columns is a home intended to keep evolving

Interior walls, roof and floor boards are made from compressed cereal straw, a byproduct of rice and wheat farming that would otherwise be burnt in fields

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1: Buildings

THE SPHERE
LAS VEGAS
POPULOUS
Read the full story:
ribaj.com/las-vegas-sphere

Boullée. Buckminster Fuller. God... You're in good company when you design a sphere – I mean a proper one. Not the monumental, hubristic hemisphere that was Albert Speer's unbuilt Volkshalle in 'Germania' or even Japanese architect Takenaka's 1993 Fukuoka 'PayPay' baseball dome which, at a comparable 200m plus diameter, is technically a 'spherical cap', so doesn't count. No; in the annals of architectural history sightings of this particular platonic volume are few and far between.

So if wishing to build such a superlative form, one might locate it where superlatives are already the norm; where possibility eclipses precedent, the past may be plundered for present profit and where only future outcomes have currency. Robert Venturi and Denise Scott-Brown worked that much out in 1972 in their seminal book, but it wasn't until 2023 that Las Vegas truly 'went large' with their idea.

Las Vegas Sphere, Sin City's state of the art events venue, stands 112m high and 157m in

diameter. Partly sunk just off the strip, the massive steel structure has a skin of 1.2m LED 'pucks', so its whole exoskeleton can act as a dynamic, digital billboard. Inside, a 17,600-seat raked, tiered auditorium faces a 76m tall screen nearly 15,000m² in area. Its 16K high-definition LED pixel mesh makes it the world's largest and most advanced, with 1600 high-tech speakers and 'haptic' seats – specs that help explain how the construction budget reportedly leapt from \$1.2bn to \$2.3bn. The sensory effect is astounding – watching a film is like full immersion.

Yet for all its wizardry, the iconic form just loses itself in Las Vegas' bizarre cityscape beside an Eiffel Tower, a huge pyramid, half of Venice and at least one Roman Forum, like a ball kicked into long grass. You couldn't say that of the withdrawn proposal for a second Sphere in London's more strait-laced Stratford. For now at least, what happens in Vegas stays in Vegas. ● Jan-Carlos Kucharek

Below Sunk into the ground, just off the famous strip, the Las Vegas Sphere, with its dynamic facade, can look like anything it wants to.



Life behind the facade

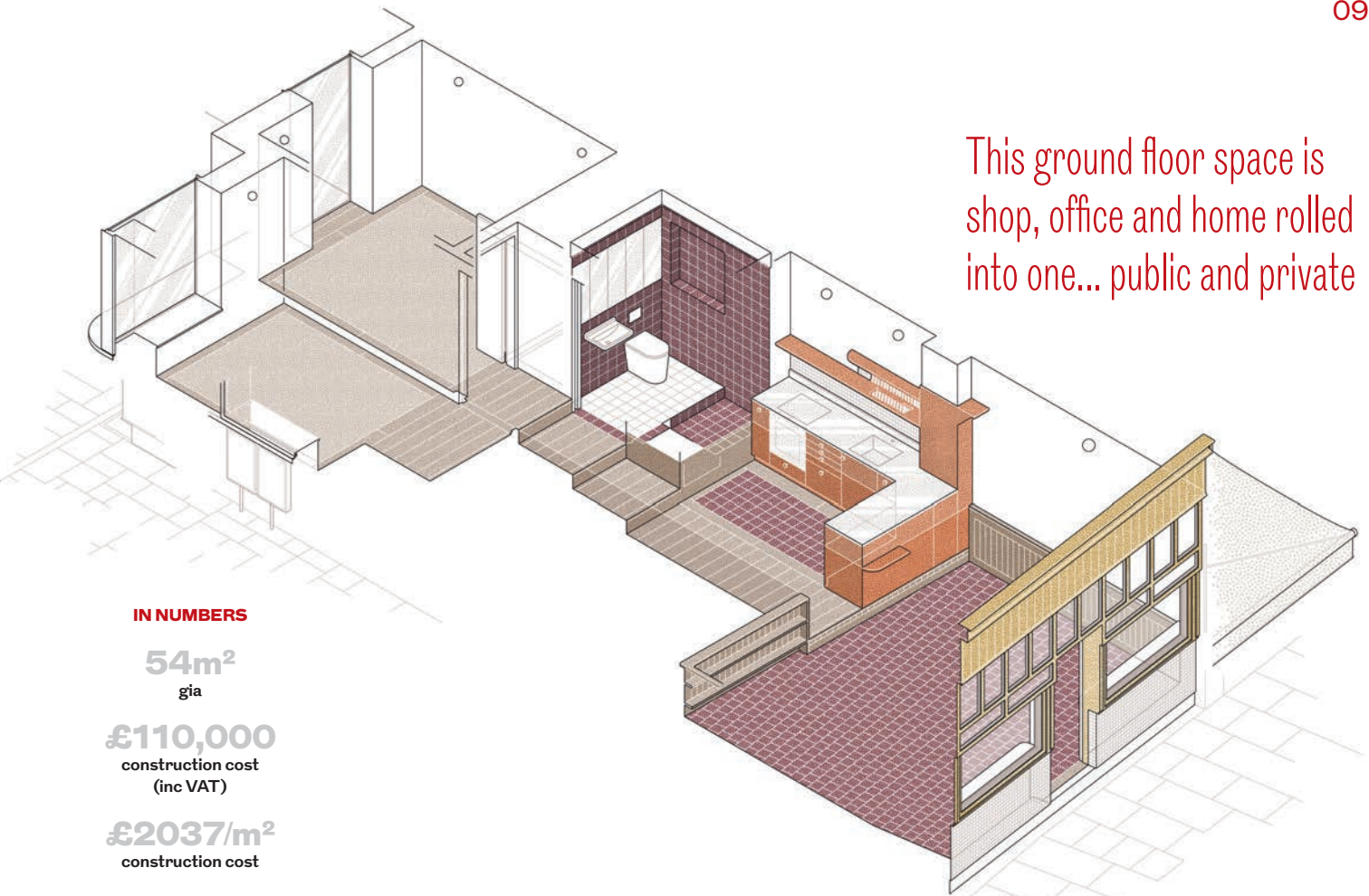
A retail-to-residential conversion by Brisco Loran and Duncan Blackmore offers hope for our high streets

Words: Simon Henley Photographs: Jim Stephenson



Walking away from Costa's Barbers I wondered how different the world might be if many more people lived and worked as architects Thom Brisco and Pandora Loran do. It seems a monumental question to ask following a brief visit to such a humble project: a Battersea shop unit now converted to their home and office. But there were many things that resonated immediately – ideas about the city, about conventions of use, public and private, social and domestic space, and about forms of practice and its impact on the environment. Again and again, the threshold – be it a wall, window, awning, counter or a step – played a crucial role.

Costa's Barbers, with its bright yellow shopfront and awning on Battersea High Street, is a chameleon. This ground floor space is shop, office and home rolled into one. Put another way it is both public and private. Ten minutes' walk from both Clapham Junction railway station and the Thames, this length of the high street



IN NUMBERS

54m²
gla

£110,000
construction cost
(inc VAT)

£2037/m²
construction cost

is quiet on a Tuesday morning, although there is a market on a Saturday.

This collaboration between Brisco Loran and Duncan Blackmore, as Arrant Industries, is a modest but experimental piece of architecture. Blackmore bought the building freehold in 2015, with the flats above already sold on long leases; they remain unaltered. The project to renovate the shop, make a new shopfront, and eke out a number of domestic spaces, began when the ground floor became vacant in 2020. The collaboration between Brisco Loran and Blackmore encompassed both the design and the construction of the project, with the architects living and working on site throughout the build.

The more or less orthogonal C-shaped plan wraps around an existing staircase to the flats above but, due to a curve in the street and the geometry of the party walls, the shopfront is on a tangent to the road and at an oblique angle to the plan. Stepping inside, this dynamic is evident in the pattern of red quarry tiles, which relates only to the shopfront and street. Everything else follows the geometry of the walls.

This ground floor space is shop, office and home rolled into one... public and private

Opposite The shop, last occupied by a marketing agency, adjoins a covered passage to the yard.

Below A new facade to the shared yard is composed of external insulation, render and Thames pebbles.

This first territory one can imagine working well as a living room, office or shop. One step up is the kitchen, a narrower space with counter, cupboards and shelves on the party wall, returning to form a counter between the kitchen and living-room-office-shop. From the kitchen there are two steps up to a shower room and one further step up to two small, beautifully proportioned and daylit bedrooms that overlook the back yard. Every element, every surface, is carefully chosen and crafted. However, this progression from street into shop, past the kitchen, bathroom and on to the bedrooms conjures up many scenarios, and hints at the physical geography of the Thames basin and the broader challenges of climate change. It transpires that the high watermark for flooding dictates the height of the bedroom floors – 960mm above the pavement – a 'tidemark' that is expressed in the gloss-painted timber wearing surfaces that line the space.

Step back outside to the bright yellow timber shopfront, where the glass panes are arranged in three tiers. The top one is a fine grain of 10 clerestory windows, all fixed but for the two fanlights above



the front door which are perpendicular to the party walls, and open. Horizontal panes in the second tier are also fixed. Together, they have the same dimensions as the shop windows below. And this is where it gets even more unusual. These are sash windows that open onto the street, and when fully raised are concealed behind the upper tiers. The cill becomes a counter and the living room becomes a stall, this threshold enabling the occupants to participate in the life of the street. Outside, a large canvas awning extends over the pavement, shading and sheltering both the interior and the street. In its various configurations – pitched low or high and horizontal – it conjures up variously shaped open-sided rooms, prompting different reactions and situations, stretching out to establish another threshold in public space.

This curious poise between public and private is adjusted further with a second layer of sash windows, this time in a modern interpretation of the leaded window, the view obscured by screens of



Above A secondary internal sash, fitted with obscured glass, allows privacy or visibility to the street.

Below Wainscotting marks the 1 in 200 year flood level, above which sit the bedrooms.

glass shapes bonded together in patterns by the designer and manufacturer Jack Brindley. As he explains, they are made by silicone-bonding hand-cut glass to a single piece of tempered low-iron glass, producing an incredibly strong but textured safety glass. A mix of machine-made and mouth-blown textured glass gives variety to the refraction of light and the privacy afforded. Brindley likens the windows to traditional Japanese rice paper Shoji screens, for their translucency and the quantity of light admitted.

The final adjustments to the building are to be found in the yard, where new windows, insulation and a meter cupboard have been incorporated into a precise and poetic composition of fine aluminium sections, used to frame materials and textures, opacities and transparencies, uncannily like a Ben Nicholson painting. Three panels of pebbles chosen when mudlarking at low tide on the Thames complete the picture.

With the architects living on site, in addition to all the social, spatial and

Credits
Design team Brisco Loran and Arrant Industries
Glass design and fabrication Pavilion Pavilion
Shopfront joinery RP Joinery
Structural engineer Elite Designers
Approved inspector Assent Building Control

Below Rich red tilework continues in the bathroom.



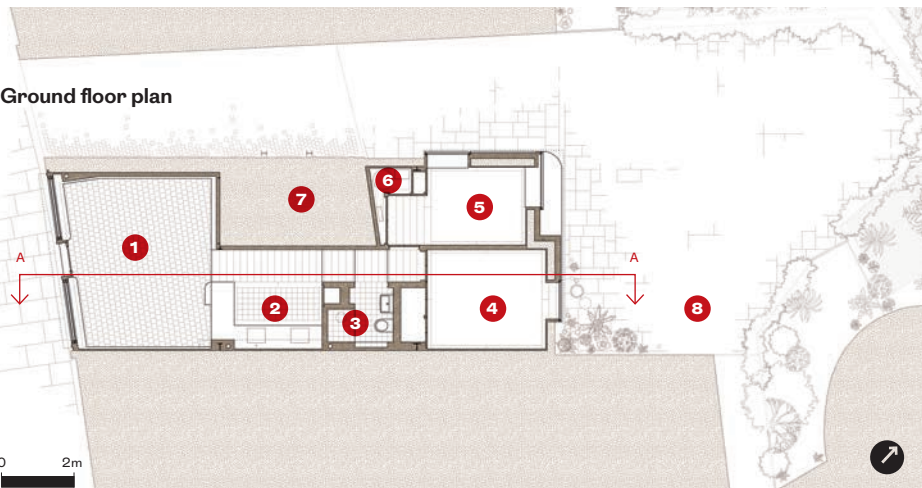
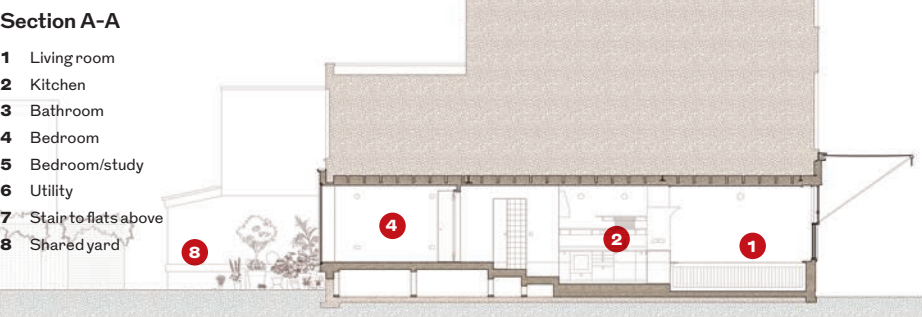
Above New windows look onto a shared yard that was once used as storage for market stalls.

Below East light from a new window enters the second bedroom.

material decisions Brisco Loran and Blackmore made, the intensity of their involvement with the building points to a different type of practice where architects' energies are channelled into far fewer projects, significantly reducing their impact on the planet while making a living. One thinks of Ted Cullinan's self-built house in Camden. Of course, few of us have the ability or the patience to do this.

So many elements make tangible thresholds and territories, and with that a response to the rhythms of day and night, the seasons, home and work, commerce and ritual celebration, time and memory. Each ebb and flow of activity washes back and forth through the plan and the section, much like the tide of the Thames a few streets away. Just imagine a high street full of this type of building, and a city full of this kind of high street, and the vitality, fluidity and ambiguity that could bring to our public and private lives. ●

Simon Henley is co-founder of Henley Halebrown and author of *The Architecture of Parking*



Domestic evolution

Will Burges’ self-build family home in suburban south London is inhabited and looks finished, but this flexible, future-looking house is intended to be a work in progress

Words: Isabelle Priest Photographs: Nick Dearden

Will Burges, co-founder of 31/44 Architects, is keen to emphasise that his own newbuild house Six Columns in Crystal Palace, south east London, is not a ‘finished house’ or a ‘manifesto’ of all his life’s thoughts and interests in architecture. He and his family moved in, possibly slightly prematurely, in the autumn of 2020 when it was still ‘raw around the edges’. They were washing dishes in the bathroom upstairs.

Now, by the usual parameters, the home looks complete – the landscaping is done, finishes are there and I can see no loose ends. However, Burges sees the project as deliberately a ‘work in progress’, which is what he wanted.

What he means is that the design isn’t to be preserved in aspic. It is a starting point from which it can develop and be fine-tuned. One example is the fitted cupboards put in during the build which are being adapted to scoop out a desk niche. Another is that to deal with the ‘overwhelming number of decisions’ that arise during a self-build, they painted everything white, and now they are starting to think about colour. There are, essentially, a host of mini projects to follow that will gently adapt the building. Adding some steel awnings over the south-facing windows is another.

This centring of Burges’ perspective around building and architecture being a



This image The southern elevation from the larger garden section, looking into the main living space. Volumes break down like a Californian Case Study House.

Bottom left Street view of Six Columns in south London showing how a single-storey volume to the left breaks up the formality of the main two-storey volume.

IN NUMBERS

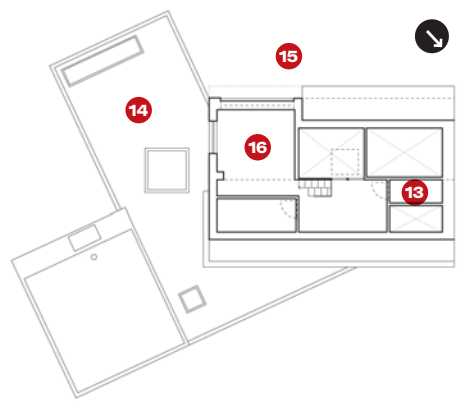
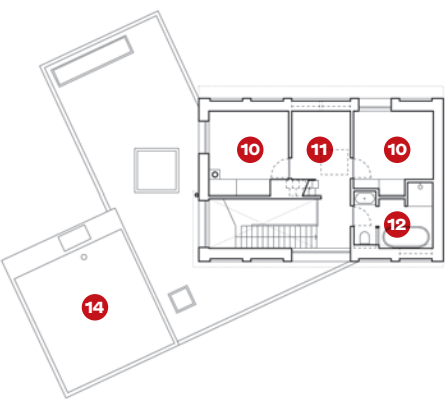
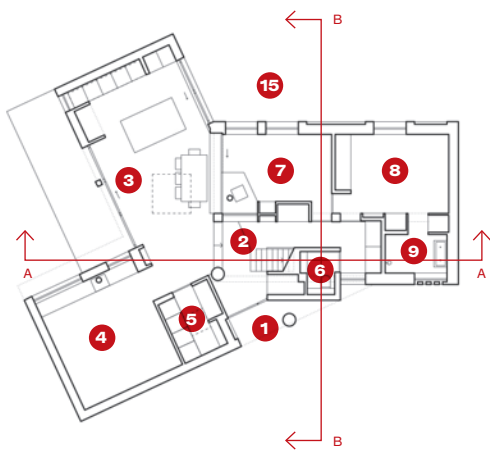
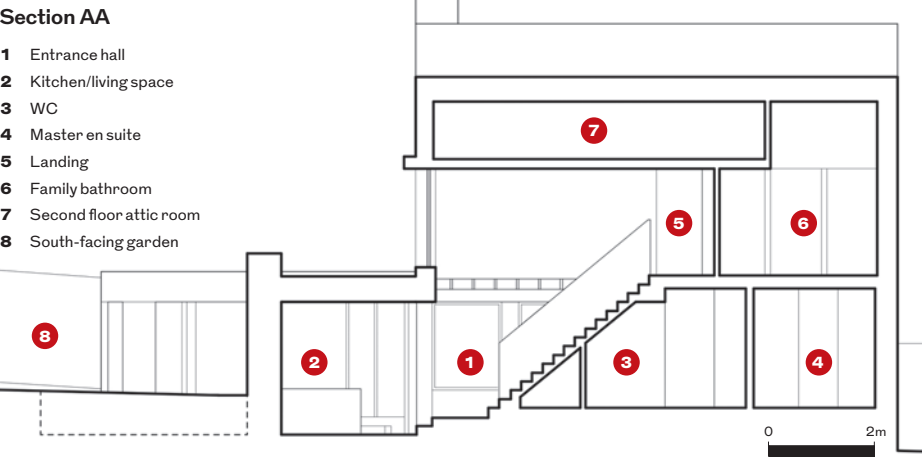
164m²
gia

£490,000
construction cost

£2,988
cost per m²

436kgCO₂eq/m²
whole-life carbon

1.78t
annual in-use CO₂ usage



potentially lifelong process is not unusual for 31/44, but it is often a tricky concept for regular clients. The firm's barn conversion in Norfolk, for instance, was far more highly polished and decided. However, this desire to continually tinker with Six Columns through future small pieces of work resonates with how its design has progressed so far. It is contextual to its suburban surroundings, taking cues from the established patterns, urbanism and expression of neighbouring buildings. It steps up in height and forward by the same measures as other houses, part of the 1950s estate along the road. The design adopts brick and terracotta tiles. Its pitched roof shape matches. Yet, in its flourishes, the house is also a collection and sequence of smaller set pieces accumulated over time and realised here almost as mini projects in themselves.

Do you recognise, for example, that composition of the column standing in front of the white-veined, dark green marble wall? Yes, it's a touch of Mies van der Rohe's Barcelona Pavilion – a memory of the first overseas trip Burges did with his now wife. The diagonal stepped brick wall to the left of the main entrance with its ceiling raised on chunky LVL panels above the boundary roofline to create a clerestory recalls the Louisiana Museum of Modern Art

Left The entrance hall. The main body of the house is characterised by pine partitions, including the wunderkammer wall.

Above Mies van der Rohe-inspired entrance loggia with Verdi Alpi green and white-veined marble backdrop and concrete column.

north of Copenhagen. Moving round to the back, the building's relationship with the garden fragments like a Case Study house in California. The pine Tilly board kitchen fronts and screwed-on bar handles evoke Burges' experience as a Part 1 having cups of tea in Peter Aldington's house Turn End while working for Proctor & Matthews on a house in the same village. For those in the know, Six Columns is down the road from Lubetkin's Six Pillars. There are six columns ('the practice has an affection for them'), but the building's name is a play on that too – as are the six pilasters on the front elevation.

The references continue, including the concept of the wunderkammer, or cabinet of curiosities, in front of you as you enter the hall. There, the pine walls are three times thicker than usual to become cupboards and shelves for



First floor plan

- Credits
- Architect**
31/44 Architects
- Structural engineer**
Price & Myers
- Landscape architect**
Aarde
- Contractor**
Altiant Construction
- Bricks** Furness Brick & Tile Company and Wienerberger
- Cladding** Swisspearl
- Roof tile** BMI Redland
- Windows** Idealcombi UK
- Sliding doors**
Reynaers Aluminium

- 1 Entrance porch
- 2 Hallway
- 3 Kitchen/living space
- 4 Main sitting room
- 5 Utility room
- 6 Under-stair WC
- 7 Snug/small sitting room
- 8 Master bedroom
- 9 En suite shower room
- 10 Bedroom
- 11 Landing
- 12 Bathroom
- 13 Eaves storage
- 14 Green roof
- 15 Sycamore tree garden
- 16 Second floor attic room

Below left Main sitting room with its LVL beam ceiling structure and clerestory windows.

Below right Changing levels from the hallway to the kitchen and living space, and cosy snug beyond.

displaying books, artworks and objects. It's no wonder Burges says he doesn't want to self-build again: it gets down all the thoughts he had been ruminating about over many years onto paper and into built form. Does it all sound a bit much for contemporary architectural sensibilities? No, not at all. The hall is the pivot of the house; down steps to the left the more informal single-storey element unfurls into a generous open kitchen, dining and sitting space. Banquette seating is tucked around the corner with a more formal sitting room to the left again. Here the two parts of the garden can be seen, one behind the side addition and the other behind the two-storey

part. On a fine day you can pull back the full-height windows and feel the breeze connecting them. There are terrazzo floors, white walls, Vitra shelving: sharper, harder surfaces and lines.

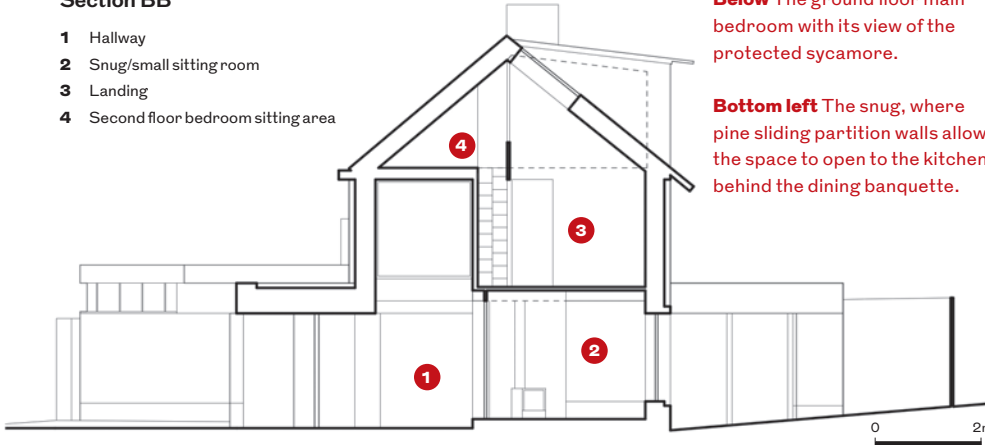
To the right of the entrance, which looks from outside to be more formal, the interior is in fact cellular, cosy and almost rustic – an atmosphere created by the pine, smaller spaces, white-painted blockwork, doors that bolt into the ceiling when closed and red Ketley tiles. There is a snug with a log burner, the en suite master bedroom and an under-stair WC. The wall of the snug does slide back to overlook the dining table and there are internal glazed panels to the hall. Yet the idea of the pine partitions is that even those could be amended.

Upstairs there is more of the openness of the main living space, with white walls, plasterboard partitions, oak floors



Section BB

- 1 Hallway
- 2 Snug/small sitting room
- 3 Landing
- 4 Second floor bedroom sitting area



Below The ground floor main bedroom with its view of the protected sycamore.

Bottom left The snug, where pine sliding partition walls allow the space to open to the kitchen behind the dining banquette.

and free-flowing connecting spaces, although finishes are continuous in the bathrooms. A bright green stepped ladder stair opens into an attic room in a raised box on the rear roof.

There are two other points of interest at Six Columns. The first concerns the sycamore tree at the back of the plot. This has a preservation order on it (it's also rather beautiful) which significantly influenced the fragmented footprint. The main body of the house is, in fact, suspended over its root protection area on screw piles. Its close proximity also influenced the rainwater strategy, which is directed from all the roofs to tumble out from a huge spout at the right side of



the kitchen roof into a cylindrical Corten tank below. From there it overflows into a pebble bed that quaintly circles the sycamore like a stream, replenishing it.

Sustainability is the other point. As teachers, Burges and 31/44 co-founder Stephen Davies run a unit called Mass and Air, studying how to make architecture that feels robust and contextual yet is committed in its response to the climate emergency. This house has been a long time coming. It was a garden belonging to the semi next door. Burges asked the owners to sell in 2015, with the planning application and broad design done in spring 2016. There was a pause, then it kicked off rapidly in 2018 when the owners decided to move. Six Columns operates with 436 kgCO₂eq/m² which met LETI's then target, but the design relies on high-embodied carbon concrete and brick. Some features minimise carbon – a structural timber frame, some exposed finishes and some external 'concrete' beams are timber with cement board cladding. But Burges is conscious of it.

In many ways that's another lesson/object/reference/trinket that Burges can add to his never-finished architecture. At Six Columns, that approach makes a house that didn't exist before 2020 feel like a lived-in, personal home. ●



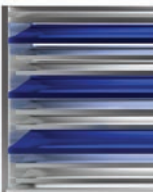
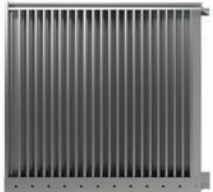
The south-facing rear terrace showing the exterior of the main sitting room. Here, cement boards clad the timber structure.



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At one with the world

Mother Earth played an important part in the Jesuits' brief for OMI's reconfiguration and extension of Manresa House in Birmingham

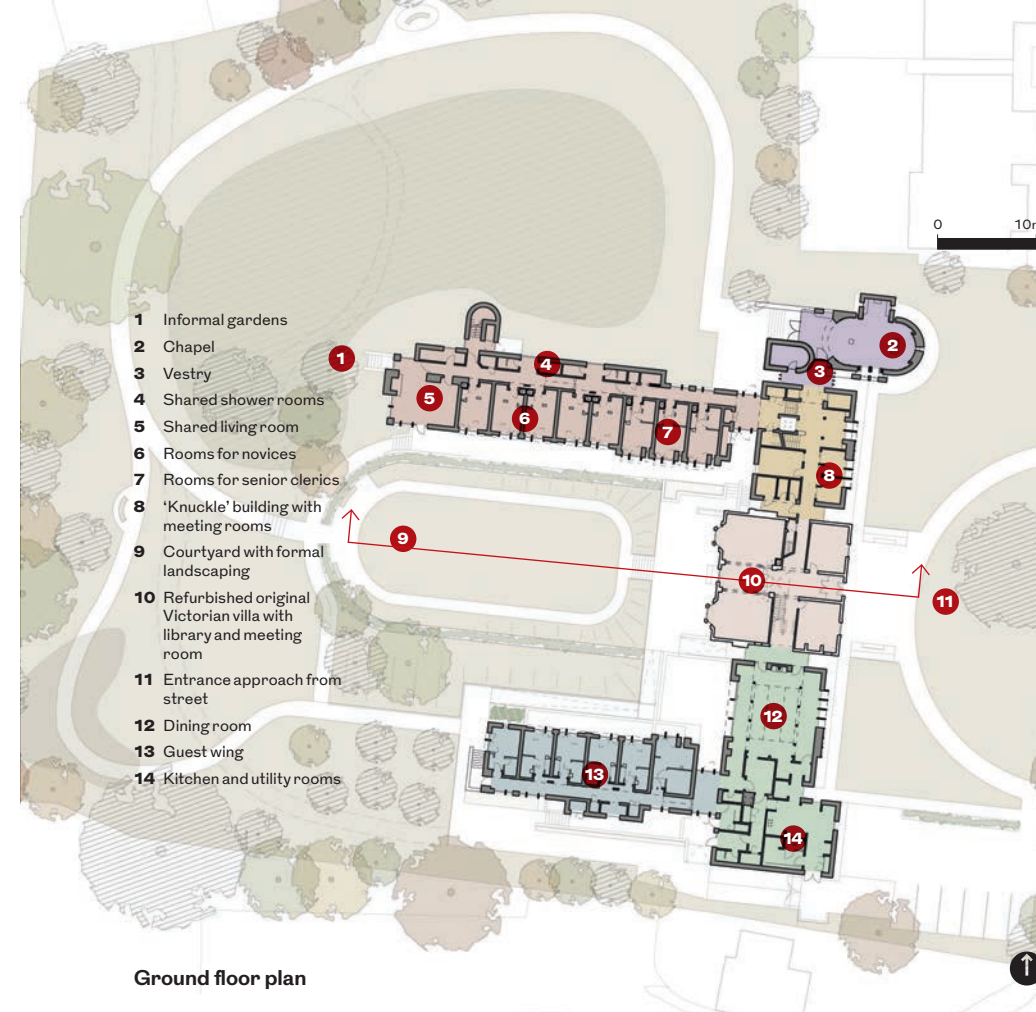
Words: Hugh Pearman Photographs: Paul Karalius

Manresa House in Harborne, Birmingham, is not a monastery, so the people in it are not monks. It is not a seminary either, as it does not train men for the Roman Catholic priesthood. It is a novitiate for the Society of Jesus, usually known as Jesuits. A novitiate is essentially a training centre for those entering a religious order, known as novices. Whereas the monastic life is self-contained, the Jesuits are an evangelising missionary order, out in the world, often engaged in pastoral care of one kind or another. The present Pope, Francis, is the first to be a Jesuit.

Nonetheless, since there is a small permanent community of senior clerics at Manresa House as well as rooms (don't call them cells) for the ever-changing roster of novices and for guests, and since it has its own chapel, communal dining room (not called a refectory) and gardens which the novices tend, there is something of a quietly monastic air about



The new buildings of the novitiate form wings either side of the villa. Left to right, kitchen, dining room, house with library and offices, meeting rooms, chapel.



Ground floor plan

the place. Other closely related typologies impinge: the almshouse, the college quad or court. The novices are students of a kind, their rooms are essentially student rooms, the senior clerics are teachers and mentors.

The brief to Salford-based OMI Architects, which has a track record in religious buildings along with much else from housing to cultural centres and community buildings, was to rebuild the existing novitiate. It had expanded piecemeal over the decades from its original base in a repurposed Victorian villa. So this was to be a fresh start. The society moved out during the works which included a thorough interior remodelling of the old villa as the centrepiece of a new U-shaped composition of side and rear wings. It marks a re-commitment to its Birmingham base, which was by no means a given at first: other options, including selling this large site and moving to Dublin, had been considered.



A formal courtyard unites the wings at the rear. Novice and senior clerics' wing left, dining room and guest wing right.



Section through refurbished house and courtyard facing main residential wing and chapel.

Keeping the old, unlisted, villa as centrepiece to the composition had cost implications: it meant that the whole project attracted VAT whereas had it been demolished and an entirely new complex of the same size built, it would not have. That's the inequity of our buildings taxation system, which actively works against adaptation and extension. But the Society, according to the novitiate's director Father Simon Bishop, saw great value in the continuity aspect of its familiar front door.

Moreover, they were mindful of the 2015 encyclical by Pope Francis, 'Care for our Common Land' concerning ecological sustainability, in which 'our sister, Mother Earth' takes on an almost Gaian character as a living being. The project was therefore designed both to preserve and upgrade the original building, for long life and for low energy in use. Considerable use is made of ground-source heat pump boreholes and rooftop photovoltaics along with a high-performance and robust building fabric.

IN NUMBERS

£4.9m
total contract cost

£3,255
gla cost per m²

1,505 m²
gla

23,850 kWh/yr
predicted on-site renewable energy generation

82.97 kWh/m²/yr
actual annual electricity usage

100 litres/person/day
predicted potable water use

BREEAM Excellent
Stage 2+3 principles applied

Traditional form of contract

Below Dining room wing with high level clerestory. New roofs are in zinc throughout.

Below right The library spans the rear of the old house overlooking the courtyard.

Total annual generation capacity of these renewables is 23,850 kWh.

Harborne retains much of its Victorian suburban character, although the survival of such a large garden around a single villa is less common. Project director Philip Etchells says that when planning the building footprint here, the symmetry of the old house led naturally to the symmetrical plan with a formal garden contained within the wings and more informal garden areas beyond. Within this plan there is not symmetry of form – accommodation needs dictated that one of the rear wings should be two-storey, and one single-storey and shorter – though there are similarities in design and materials (brick in two colours, pale stone trimmings, zinc, sparing use of timber and terracotta, glazed ceramic – perhaps rather too many materials). Meanwhile the chapel, previously invisible on the old house's upper floor, is now very identifiable from the street, forming the northern end of the main range, expressed differently in

Buildings
Religious building

both form and materials from the rest of the complex.

The two levels of senior clerics' rooms in the north wing, three rooms per floor, are framed architecturally in brick on the courtyard side to suggest a 'house'. The rest of this wing is taken up with 12 slightly smaller novices' rooms. On the ground floor at the end is a common living room with a fireplace, which allowed for an architectural endpiece in the form of a chimney. The shorter and lower south wing contains six guest bedrooms.

The corridors in the wings are well handled, the inner walls featuring insets for pairs of room doors to avoid visual monotony. Although the corridors are partly double-loaded because shared shower rooms/toilets are placed on the outer edges, these are not continuous, with gaps left to provide visual contact through to the gardens on that side. The rooms are designed to have ensuite shower rooms fitted later if desired.

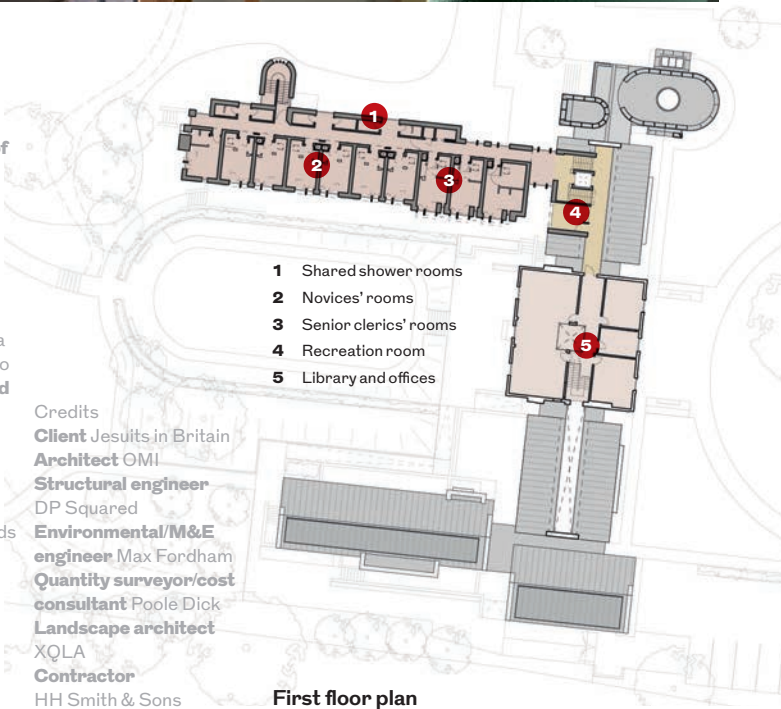
From an energy usage point of view, you don't want to heat rooms or water in areas which are often likely to be empty as their inhabitants come and go: so there are individually operated ceiling electric radiant heating panels in those rooms, and localised hot water generation to keep pipe runs short and heat loss to a minimum. Similarly, the building



Typical bedroom overlooking the gardens.

- Suppliers
Zinc standing seam roof and cladding VMZinc
Clay facing brickwork (Type 1) Ibstock
Clay facing brickwork (Type 2) Wienerberger
Terracotta rain screen cladding NBK – Architectural Terracotta
Timber windows Bereco
Composite windows and doors IdealCombi UK
Commercial kitchen Vision Commercial Kitchens
Engineered board Herringbone – Havwoods
Tiling to floor and walls Mosa
Carpet tiling Milliken
Carpet (broadloom) Danfloor
Anti slip vinyl Altro
Ironmongery Allgood

- Credits
Client Jesuits in Britain
Architect OMI
Structural engineer DP Squared
Environmental/M&E engineer Max Fordham
Quantity surveyor/cost consultant Poole Dick
Landscape architect XQLA
Contractor HH Smith & Sons



First floor plan



The symmetry of the old house led naturally to the symmetrical plan



This image The main residential wing overlooking the courtyard: materials palette of brick in two colours, pale stone and zinc.
Left The two-storey wing terminates in the chimney for the ground-floor living room.

form is designed for natural ventilation throughout, including the chapel.

This, oval in form with a small vestry placed behind it, is better inside than out. Outside, its bull-nosed end incorporates the east window. The liturgical importance of its orientation is emphasised by an uptilted roof, distinguished by its upper cladding of glazed pinkish ceramic tiles. These create facets which admittedly glitter but I kept wanting the curve to be smooth, along with the zinc roof coping above. Inside, however, this is a beautiful bright partly timber-lined space, acoustically well damped, adaptable for a few people or many. Its oval form is broken by a tiny side chapel projecting from its north side, a place for more concentrated contemplation or prayer.

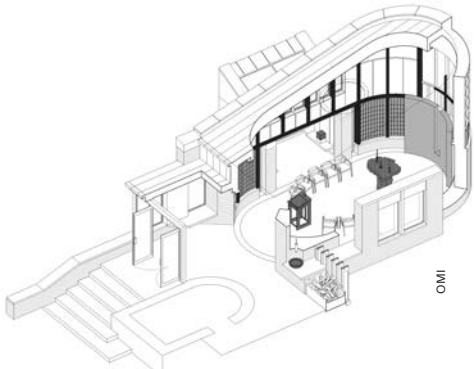
The chapel interior has kept something of the domestic character of its predecessor, with the clients insisting on pale carpet rather than the stone floor originally envisaged by the architects, on the very reasonable grounds that they don't want the noise of chairs or people's feet scraping.

Between chapel and old house is the 'knuckle' of the meeting room wing, balanced on the far side by the dining room, a full-height space to the underside of the pitched roof with high-level clerestory glazing. It has something



Above The chapel interior has acoustically absorbent perforated timber panelling.

Below Axonometric drawing of chapel with the small side chapel on the north side.



Below The chapel is placed prominently facing the street and is distinguished by its glazed ceramic cladding.

Below right The tiny side chapel projects on the northern edge.



of a churchy quality itself. There is no architectural equivalent of the actual chapel at the south end of this front range, which terminates modestly in the kitchen block. Meanwhile the old house, now confidently refurbished with repositioned stairs to allow more daylight from above, contains a large library/informal meeting room overlooking the garden, with offices above.

Externally, the new buildings, of conventional load-bearing masonry, exude an air of toughness rather than delicacy. This works well generally, though things get clumsy at the complex meeting of masses at the rear of the chapel which are too tightly packed. That corner visually needed more breathing space.

Overall, though, this is a place well up to collegiate standards, with a good sequence of interiors especially. It will surprise no-one to learn that I'm not planning on joining the Jesuits, but those that do are well served here in a building designed for the long term with minimum environmental impact. ●



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Bristol retunes

Levitt Bernstein’s thorough refurbishment of Bristol’s Victorian concert hall plays to all audiences with flexible spaces and material warmth

Words: Eleanor Young Photographs: Tim Crocker

It seems a little unfair to the architect of the £130 million Bristol Beacon to start with the concert hall seats. But the blue, black, pink and red textile of triangles, designed by artist Rana Begum, that grace the empty flip seats are reminiscent of one of the classic London Underground fabrics and bring the Beacon Hall to life. These 1880 seats will mostly be inhabited, hidden under coats. But for the audience filtering in, for rehearsing musicians and artists and those left behind looking for a lost glove, the fabric imbues the hall with warmth against the dark brick of the walls and repeating triangular motif of the baffles. It is a sign of the changes involved in the reworking of the hall from external walls inwards, with a complete reconfiguration of

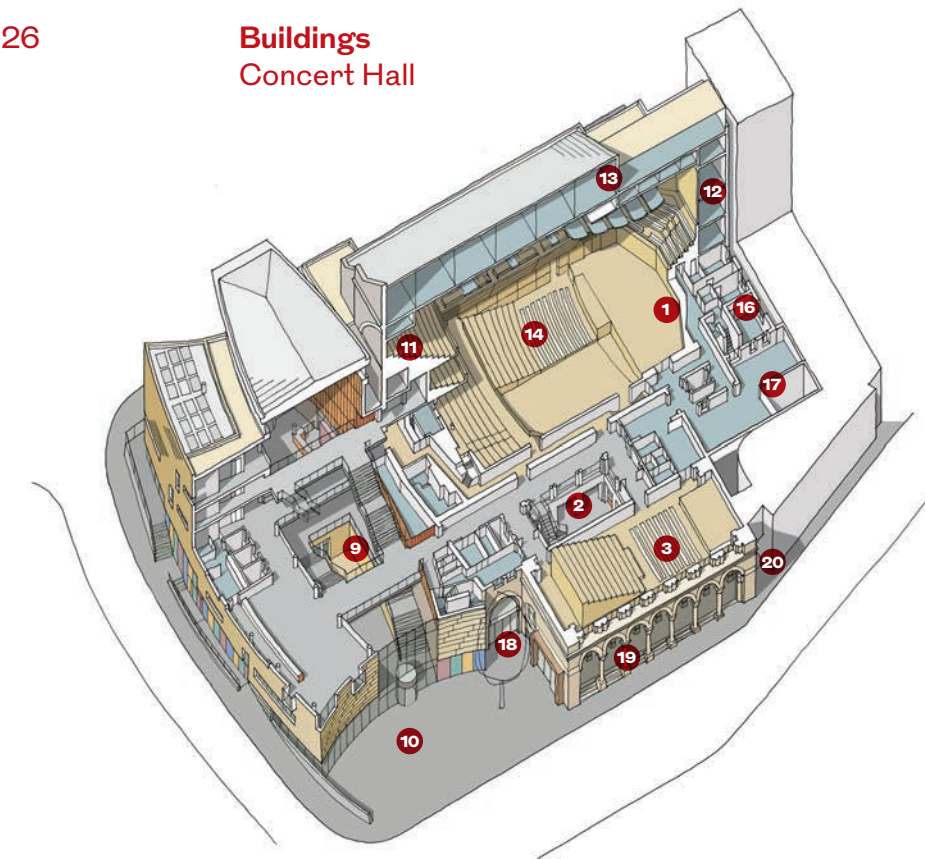
Opposite The reconfigured Beacon Hall with timber-fronted tiers wrapping around the auditorium. Behind the stage are choir seats and organ.

Below The piazza in front of Bristol Beacon now opens up to the main Bridgehouse entrance (left), the entrances to the restaurant and Lantern Hall above (right) and the studios and cellars between them.



SHOTAWAY

TIM CROCKER



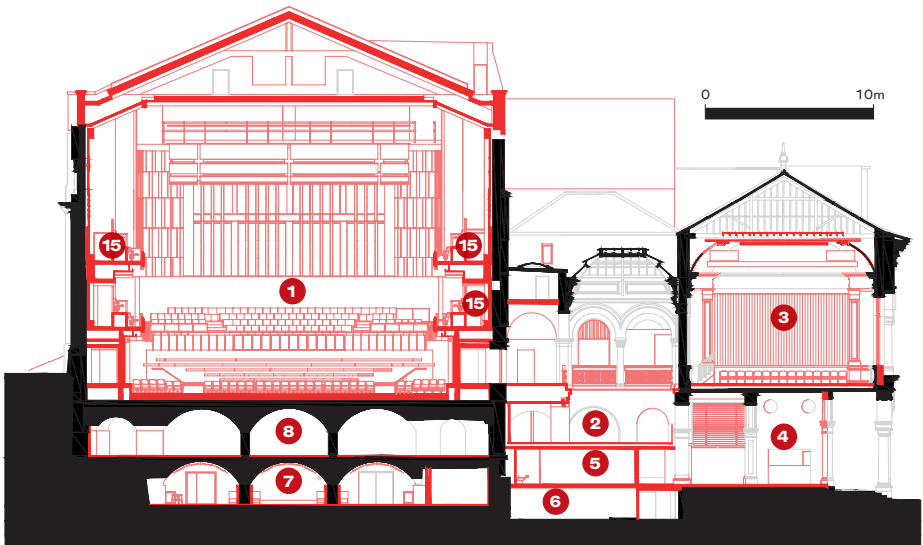
Credits
Client Bristol City Council
for Bristol Music Trust
Architect
Levitt Bernstein
Interior designer
Levitt Bernstein
Project manager
Mace / Arcadis
QS AECOM
Main contractor
Willmott Dixon
Acoustician
Sound Space Vision
Theatre consultant
Charcoalblue
**Structural and M&E
engineer** Arup

Suppliers
Aluminium roofing
Kingspan
Flat roofing Iko Ltd
Copper cladding KME
**Precast concrete
features** Vobster
**Architectural
Colonnade glazing** AB
Glass
Lantern glazing Roofglaze
Lantern Hall windows
Schueco
External steel doors
Design and Supply
**Internal glazed doors and
screens** Schueco / Planet
WC cubicles TSB Amwell
Sanitaryware Dolphin
Solutions D-Line
Vanity units Dolphin
Solutions
Tiles Solus / Domus
Decorative plasterwork
BPB Formula
Polished plaster
Armourcoat
Beacon Hall bricks
Nelissen Steenfabrieken
Brick support system
Vista Engineering
Internal metalwork
Taunton Fabrications
Carpets Ege Carpets UK



the auditorium. It is very different from the pale hall I remember being disappointed in years earlier. That drab 1950s interior sat inside a shell that had seen two major fires and three attempts to rebuild. It is part of a conglomerate building once known as Colston Hall (remember Colston, the slave owner whose statue was toppled into Bristol Harbour in 2020). Beneath the hall were bonded warehouses to securely store products for shipping in and out – and to raise extra money for the original theatre. Built in 1867 on a steeply sloping site, it was given a new face in 1873 with a stone colonnade entrance and extra performance space. Then in 2001 Levitt Bernstein – which was bringing St Lukes, near Old Street in London, back to life for the London Symphony Orchestra – embarked on masterplanning the council-owned theatre. A council office block was demolished and replaced with a metal-clad foyer, referred to as the Bridgehouse, to give the Bristol concert halls spill out space, vertical circulation, a bar and café and all-important loos.

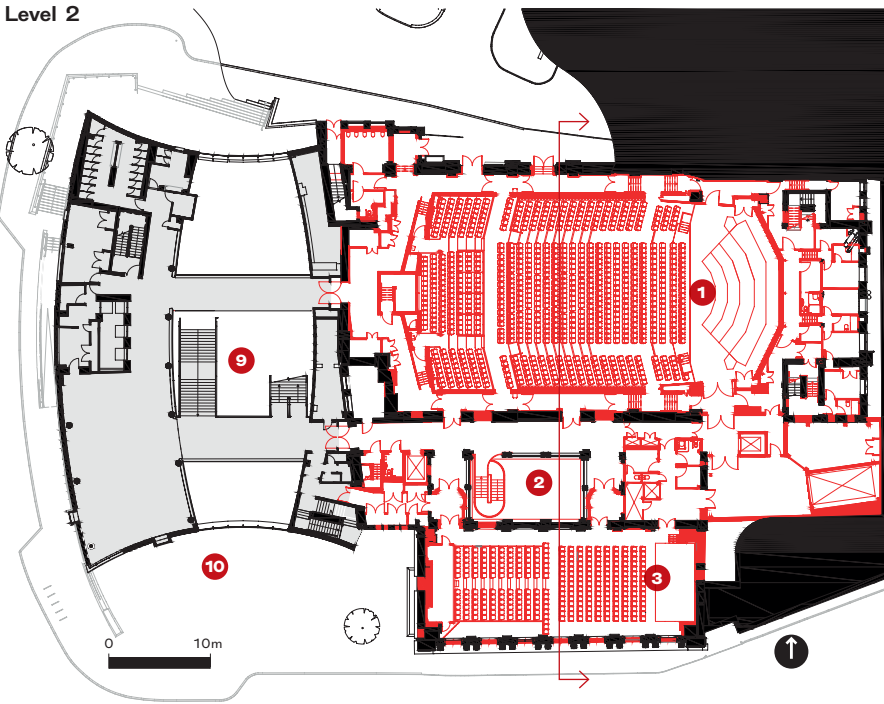
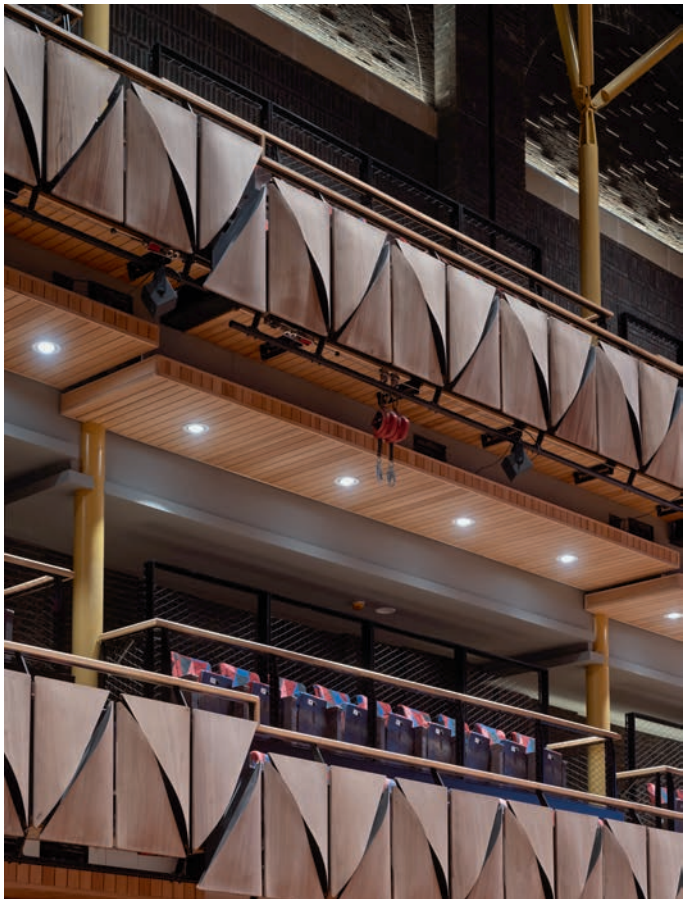
A second phase was always planned. There were two halls which couldn't perform at their best and the old circulation, starting with the colonnade, to be put to use. In the meantime the Bristol Music Trust had been formed and took under its wing music education in schools as well as programming the concert halls. It leases the building from the council and bid for money for Bristol Beacon's upgrade from the Arts Council among others, although the council footed much of the capital costs. This was due to rising expenditure: the

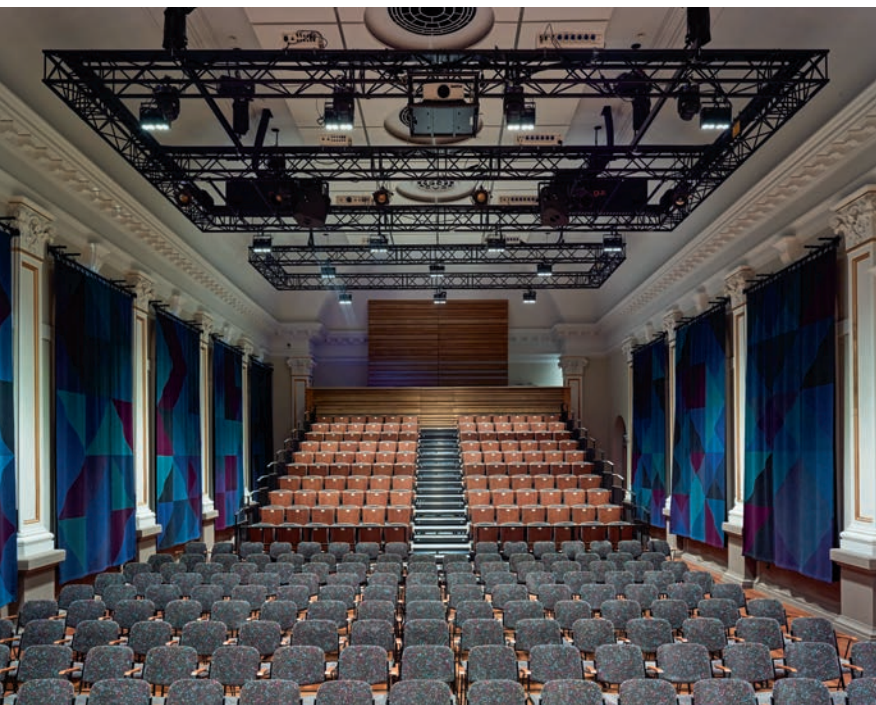


- Section**
- Opposite bottom** The steel columns work as structure and enclosure, bright against the new brick skin.
- Below** Even when half hidden the seat covering works with the timber baffles to bring the hall to life.
- | | | | |
|----|-----------------------------|----|--|
| 1 | Beacon Hall | 12 | Restored Harrison & Harrison organ |
| 2 | Lantern Hall atrium and bar | 13 | New roof and duct loft |
| 3 | Lantern Hall | 14 | Movable stalls seating |
| 4 | Restaurant | 15 | New tiers |
| 5 | WCs | 16 | Refurbished dressing rooms |
| 6 | Plant room | 17 | New get-in lift and scene dock |
| 7 | Cellar venue | 18 | Entrance to new studios and cellar venue |
| 8 | Seating store | 19 | New restaurant |
| 9 | Bridgehouse – phase 1 | 20 | To stage door |
| 10 | Piazza | | |
| 11 | New balconies | | |

building shell proved less robust than thought, Elizabethan wells were discovered and the cost of steel went up and up, turning the refurbishment from a two to a five year build with costs to match. Director Louise Mitchell had ambitions for it to be 'the best sound for all types of performance', but also for audiences to feel comfortable. It should be 'proper but not posh', she says.

So the grade II-listed Beacon Hall, with its single deep balcony, was taken apart from the inside out. The patchwork of walls remade after the various fires were rebuilt; flimsy finishes which messed with the resonance were ditched along with the convex ceiling. Instead, Levitt Bernstein and project architect and associate director Mark Lewis looked at its fundamental dimensions, using Boston Symphony Hall and Vienna Musikverein as models. Dark brick walls give a backdrop, built with pilasters and arches which hint at the external structure and window openings long gone. Characterful yellow columns rest on the invisible arches below and split wide open at articulated nodes, bracing the lighting rig which in turn is hung from the trusses of the new roof. With the solid brick and oak, and by running shallow tiers of seating around three sides, Levitt Bernstein has created a better-performing acoustic space, which has the intensity of focus and the buzz that is the hallmark of a good performance venue. 'We wanted to get the audience as close as possible to the music,' says Lewis. The warmth and relationship with the stage have improved dramatically compared to the previous hall.





The triangular walnut ply baffles that front the tiers are twisted and angled to spread the sound. They seem unremarkable close up but catch the light to give a sense of dynamic tiers and, with the lively seats, bestow human scale on the large hall. There is a story that they were inspired by the geometries of the Bristol Byzantine style.

Beacon Hall is intended to work for both live music – the opening weekend included a concert by the Paraorchestra – and for amplified work. I visited the night after Annie Mac had played a set to a very different crowd with the audience standing, and dancing where the orchestra had been seated. Tuning the hall for this or its huge original organ (which is being restored, all 5372 pipes), or choral singers in the choir seats around the back of the stage, is done with inflatable bags above the canopy.

Alongside Beacon Hall, in the 1870s extension, is the Lantern Hall. This is far smaller – think grand civic room – and has been radically simplified with the stage end switched around and 80% of the water damaged plaster ceiling remade. Layers of glass insulate the hall from road noise outside. Here too Rana Begum’s work lifts the whole room; huge colourful hangings, made in Bristol, moderate the hard surfaces. Bleacher seats are rolled out for folk music and film while the stage of nine platform lifts can be lowered out of sight into a void for conferences.

The spaces between the halls suffer more from compromise. The 1870s grand stair had already been removed and gaudy colours applied to the stone. Now the stripped back limestone and circular lights

Above Lantern Hall with bleacher seats rolled out ready for a performance.

Right The columns and arches of the hall’s one time entrance now host a restaurant.

IN NUMBERS

£130m
total project cost

£91m
construction cost

8,362m²
gross internal floor area

£10,883
cost per m²

NEC III
form of contract

Very Good
BREEAM target

The warmth and relationship with the stage have improved dramatically

give a sense of grace and openness that flows into the new restaurant. But a lumpen staircase and an extrovert ceramic art installation paired with a terrazzo style skirting board undercut this simple character and feel out of place and scale. And the sound lobbies for the Lantern Hall have a similarly uncomfortable way of pushing into the space, their curved timber forms feeling unresolved in this potentially elegant space. These may seem minor gripes but they hint at the painful gestation of this project. Early structural issues uncovered on site put the project on the back foot, requiring urgent inspections, more surveying and ultimately additional input from local firm Alec French Architects. The pressures are demonstrated by a contract variation three years in moving to contractor design with Alec French, with Levitt Bernstein as client agent.



As with Manchester’s Aviva Studios, this culture building has come at great cost to its home city, both financially and politically. The question now, on both, is whether that will affect the goodwill of local audiences and whether they can bring in the revenue to keep them afloat in an increasingly difficult funding environment. This has a better space, a new club-style venue and recording studios in the cellar stores, but fewer seats in Beacon Hall. It should attract more artists and promoters, with better acoustics and a back stage where they can bring in sets and performers can move more freely. And it is embedded in the city’s culture: Bristol Beacon actively programmed its Bridgehouse and other spaces while the halls were being remade, its activities reach out to all Bristol’s communities and the trust has a role teaching music to the children of the city. The turnout of 20,000 at its opening weekend and bumper ticket sales in December offer some hope that the capital expenditure by the council and others can be justified in the long term. ●

Below Decorative tiles by Giles Round draw inspiration from the Bristol Byzantine style.

Right The lantern atrium has had layers of paint stripped back, leaving the stone visible.



Damp walls and Elizabethan wells notwithstanding, the storage cellars are now a club-like venue.

Architect sets an example for adaptive reuse with its own office refit

Sustainable architecture firm Lake|Flato recognised the potential of adaptive reuse, putting its words into action when it transformed its own 100-year-old office building into a new, contemporary headquarters



Read the full story here and find out more at Autodesk Customer Stories

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Below Lake|Flato transformed a garage roof into a courtyard structure. 311 Third Transformation, San Antonio, Texas, Lake|Flato. Image Courtesy Robert G. Gomez



Above Lake|Flato's headquarters in San Antonio, Texas, repurposed from a 100-year-old building using sustainable technology. 311 Third Transformation, San Antonio, Texas, Lake|Flato. Image Courtesy Robert G. Gomez

In 1984, architects David Lake and Ted Flato established their architecture firm on the south side of the second floor of a historic building in downtown San Antonio, Texas. Built in 1920, the three-storey structure at 311 Third St originally housed a Hupmobile dealership that sold electric cars. Subsequent tenants included a gospel radio station, a law firm, an investment bank, and an interior design company.

Lake|Flato expanded to the north side of the second floor in 1990, took over the third floor in 2003 and assumed full ownership of the building, and subsumed the first floor in 2005. A decade later, the company was still growing and by 2019 it had taken over the entire building – and had more than 100 employees. It was clear the firm had outgrown its space. Less clear was what it should do about it.

The answer finally appeared in 2020, when an opportunity arose to complete a wholesale renovation of the 22,545ft² building without disturbing or displacing employees.

The company could have razed the structure and built anew, but instead, Lake|Flato recognised the potential of adaptive reuse. By repurposing the existing building, it could create a more functional office space and also a showpiece that embodied the merits of sustainable design.

‘We’re constantly telling clients

By repurposing the building, Lake|Flato created a more functional office space and a showpiece for sustainable design

SETTING AN EXAMPLE
Architecture firm Lake|Flato creates environments that enrich communities and nurture life.

When it had an opportunity to rethink its corporate headquarters in 2020, the Texas-based firm decided to lead by example. Instead of building a new office, it repurposed its old one.

Using digital technology as its wayfinder, the practice turned a 100-year-old former car dealership into a future-focused hybrid workplace that showcases environmental sustainability and creative, collaborative design.

that they should be paying attention to their carbon emissions,’ says design performance manager Kate Sector, who points out that the built environment – encompassing building operations, as well as the embodied carbon in materials such as cement, iron, steel, and aluminium – is responsible for about 42% of annual global carbon dioxide emissions. ‘A lot of folks want a brand-new building, and we could have had that,’ she explains. ‘But you can also find ways to celebrate historic buildings and make them into something really beautiful and unique. It felt really important for us to be able to demonstrate that to our clients.’

Because the goal was to create its dream office and to turn sustainable fantasies into tangible realities, Lake|Flato named its project ‘Living the Dream.’ But although the conviction was simple, its execution was anything but. To pull it off, the firm needed digital tools powerful enough to make the dream come true.

Read the full article to learn how Lake|Flato used technology to turn its office into a healthy, happy, inclusive workplace for employees – and a beacon of sustainability. ●

This is an edited excerpt from an article that first appeared on Autodesk Customer Stories.

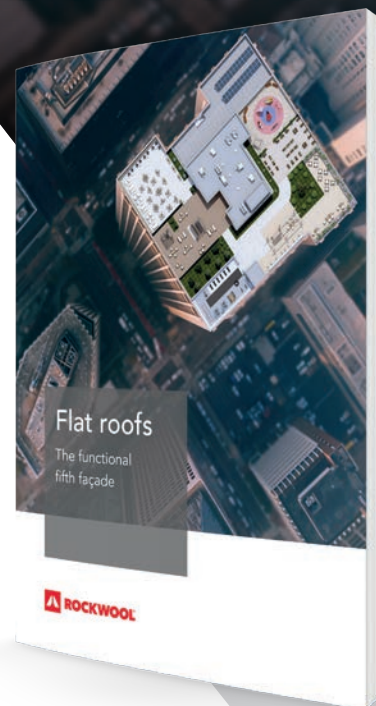
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Fair exchange
— making buildings
34

Community cost
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48

2: Intelligence

FERNANDO SORDO
MADALENO DE HARO
PARTNER, SORDO
MADALENO

Sordo Madaleno was founded 85 years ago in Mexico by my grandfather, so we are now a third-generation architecture practice. We have a well-established position at home with over 200 staff and a development arm called SOMA, but I wanted to start a new architecture studio overseas, so we can grow while expanding our culture and play a bigger role internationally. London was an easy choice.

There are geographic benefits – we can better serve our projects in Europe, Africa, the Middle East and Asia from here – but more than that, I've always seen London as a global capital of architecture. Competition is strong but that makes you better, and with its international mix we can learn a lot. For clients, our presence here is significant; it's like a kind of certificate.

Setting up in the UK has been harder than expected. The admin was more time-consuming than I imagined. For example, we had to obtain a sponsor's license to employ overseas staff – 10 of whom are Mexican. We are now at 25 and looking to grow, but it was important that our core team should come from Mexico. We've had success working in a particular way and we want to preserve our DNA.

Internationally Mexican architecture has a lot to offer. We have an approach that combines modernity with the richness of traditions going back to pre-Hispanic history. Here we're of course adapting to a different professional context. Mexicans work long days going into the early evening but with an extended break in the middle; I'd have lunch with my wife every day. Recruiting in London we found that architects are quite strict about their hours. That's been a challenge, but we can integrate the good parts of both cultures.

Other architects have been welcoming, but they have warned that this can be a difficult place to practise in some ways. We will see. For now we plan to grow and build recognition with projects beyond the UK, but to build here would be a dream come true. ●

'We're adapting to a different professional context... but we can integrate the good parts of both cultures'



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

Right London-based Fernando Sordo Madaleno de Haro leads the architecture team at Sordo Madaleno, whose current projects include hotels in Spain and upstate New York.



XIMENA DEL VALLE

Updated Brighton Dome flaunts its heritage

Strengthening the 18th century, timber-framed Corn Exchange and connecting it to an upgraded 1930s Studio Theatre were key to opening the arts centre to modern audiences

Words: Andrew Pearson Photographs: Richard Chivers



Conservation & heritage



Design, construction & technology

Joshua Hobson of Feilden Clegg Bradley Studios and Paul Diller, building services engineer at Max Fordham, reveal how they updated the listed buildings.

When did FCBS start work on the project?

FCBSTudios' involvement stretches way back to 2013 when we were involved with developing a future vision for the Royal Pavilion Estate in Brighton. The Corn Exchange and Studio Theatre form phase 1 of a broader masterplan.

When was the Corn Exchange built?

The grade I-listed Corn Exchange is a pioneering timber structure built between 1803 and 1808. It was one of the first Regency buildings in Brighton, erected as a column-free riding house for the Prince Regent, adjacent to the stable block – now home to the Dome's Concert Hall. It measures 54m by 18m by 10m and as far as we know is still the widest single span timber framed building in the country. The smaller grade II Studio Theatre is in the adjoining former supper room, which was built in the 1930s.

What was your brief for this phase?

Our brief was to increase the physical and visual connections between venues to improve accessibility and commercial

viability. We had to stabilise the building fabric, in particular the timber-framed structure of the Corn Exchange, which was suffering from significant decay and movement. We also had to strengthen the roof structure to allow theatre and production equipment to be suspended from it – enabling an existing floor-mounted truss to be removed to improve flexibility and the commercial offer. And there was an ambition to reduce operational energy use.

How did you approach redevelopment of the Corn Exchange

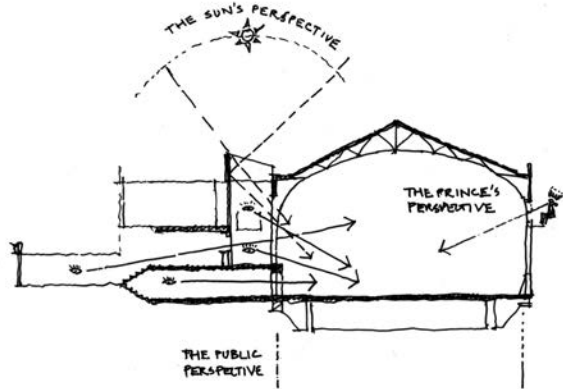
We wanted to reveal and celebrate its structure. Most of the timber frame had been hidden behind linings – horizontal painted timber boards or a plaster ceiling that was added later which masked the roof structure. Five large arched windows along the west-elevation had been blocked off and mirrored over the years. Our reference was a John Nash painting of the interior showing the building at its inception when the whole roof structure was legible and the windows allowed natural light in.

Describe the timber structure

This is effectively a timber arched beam structure, running east-west, that supports a duo-pitched slate-covered

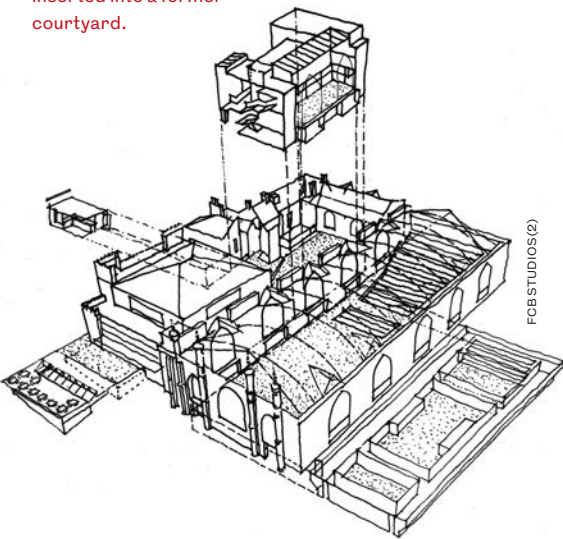


The Prince Regent's 1808 Riding House is still the widest span single span timber framed building in the country. It is now the Dome Concert Hall.



Below Corn Exchange looking north, Studio Theatre to the left. The new foyer and gallery link building (top left) is inserted into a former courtyard.

Above FCBSTudios aim was to create new, visual connections between disparate spaces, facilitated by its new link building.



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roof above. The principal arched beams are three equally sized sections that are formed using curved timbers in small lengths bolted together to form a shallow arch. There are six bays, each comprising three principal beams positioned between the window openings.

Originally the walls were thought to be solid masonry, but structural engineer Arup found that the timber roof structure was supported on a trussed timber frame in masonry cladding. On the western side of the Corn Exchange, the wall was not stiff enough to resist the thrust from the arched beams and was bowing outwards.

How did you establish the structural interventions needed?

Initially, we conducted site surveys, investigations and computer modelling analysis to determine the condition of the building.

The loft space above the arched, plaster ceiling was accessible, but there were still plenty of unknowns before works began. A lot of the decaying timber was found once we'd engaged the contractor and the plaster ceiling and wall linings had been removed.

A scaffold was erected internally so the contractor could peel back layers of the building fabric and get close to the roof structure. To repair the timber

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structure, damaged sections had to be cut out and new sections spliced in. Some of the historic ironwork connections and splice plates also had to be repaired. In addition, because the plaster ceiling had been laid over the arched roof structure, the exposed timbers had been painted. So once the plaster had been removed we had to strip the paint from the timbers.

The structure had to be strengthened too, to enable it to support motorised theatre trusses and to prevent the walls from leaning any further. Steel ties have been introduced to triangulate the arched trusses in five bays. The ends of each tie connect to new steelwork which is stitched discreetly between three principal rafters.

Cameras installed at each end of the hall monitored the roof's deflection during work on it and when it was being loaded with theatre equipment to ensure that deflections were within expected tolerances.

What work was undertaken to the windows on the west side?

The five arched windows have been opened up, strengthening the visual connection between venues: the two southern windows now look up towards the Studio Theatre, the central two look into the new top-lit gallery and foyer spaces, and the northern window looks into the existing Corn Exchange foyer.

The windows were dismantled and taken off site to be repaired and reglazed with transparent glass. Another line of glazing has been introduced to provide additional fire and acoustic separation between venues. The void between the glazed layers now houses a motorised

Cameras monitored the roof's deflection during work on it

Top right Stair connection the lower and upper lobbies of the new foyer, serving as access for both theatres.

Right South side of the Corn Exchange, with the 'working' side of the Studio Theatre to the west of it.



blackout blind to visually separate the spaces during productions.

Has the thermal performance of the roof been improved?

The Corn Exchange had to be re-roofed. Removing existing slates gave us the opportunity to insulate a previously uninsulated roof. An extra 200mm of insulation above the existing sarking boards forms a warm roof. The additional build-up also creates a service transfer zone, so that we could route new building and theatre services up behind the wall linings, through the sarking boards and into the insulation zone, from where they can drop directly onto the above-stage theatre truss, which helps keep the interior free of building services.



The RIBA Journal March 2024



Above New first floor foyer looking south to the Studio Theatre access stairs.

Right Formerly blocked-off west windows have been revealed. Secondary glazing allows for fire and acoustic protection, and blackout blinds.

Below The studio Theatre has had a new balcony level built in and new MVHR installed.



How is the hall ventilated?
Max Fordham's Paul Diller: Originally the Corn Exchange was ventilated by opening the doors at each end. The refurbished Corn Exchange has a capacity of 505 people seated or 1291 standing, which requires a large volume of air to be distributed into the performance space using mechanical ventilation. The hall has a dedicated air handling unit with heating and cooling coils in addition to exhaust air heat recovery and a mixing box to recirculate the air in the winter, if there is enough oxygen in the space.

There was a courtyard to the west of the Corn Exchange where FCBStudios' new foyer and gallery link building now stitches the venues together. That created a new flat-roofed area, which was out of the line-of-sight from the adjacent Pavilion Gardens, where we could house the plant.

A new single-storey basement constructed beneath the Corn Exchange auditorium houses two ventilation plenums which run the length of the auditorium. We blow conditioned air into these plenums, which are connected to a series of displacement vents set into the low-level cabinetry lining the



walls of the auditorium above. The conditioned air displaces stale air in the hall, which rises and is extracted through openings in the pitched roof and ducted back to the air handling unit.

Concealed below the new north-end balcony is a 325-seat retractable bleacher. When this is in use, we blow air into the plenum beneath the seating to increase the influx volume of conditioned air.

When occupancy is low in winter, to prevent the need to run the air handling unit to heat the space, we've concealed fin-tube heaters, which act like mini radiators, within the cabinetry.

What has been done to the Studio Theatre?
The Studio Theatre was conceived as a supper room in the 1930s. It was later repurposed as a black-box theatre. Alongside the Corn Exchange, it has been reworked and improved with the addition of a balcony in the auditorium, stairs and a goods lift to improve accessibility, and a new mechanical ventilation system with heat recovery.

Together, the interventions to the Corn Exchange and Studio Theatre result in more comfortable, accessible and environmentally efficient venues that also reveal their history. ●

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How to boost your site's biodiversity net gain

With new larger developments now required to improve biodiversity by at least 10%, ecologists and landscape architects offer tips on the best design strategies to get more nature on site

Words: Stephen Cousins



BURO HAPPOLD



Sustainable
architecture



Places, planning
& community

Above Mayfield Park in Manchester improved biodiversity by 90% and features 2.6ha of parkland, with 142 trees and 120,000 shrubs and plants.

We live at a time when the world's species are disappearing at an alarming rate and rapid biodiversity loss, caused by human-induced climate change, pollution and habitat destruction, is damaging pollination and food production. Abundant plants and animals in the UK have declined by an average 19% since the 1970s, according to the latest State of Nature report by conservation groups, and almost 1,500 native species are now threatened with extinction.

New Biodiversity Net Gain (BNG)

planning legislation, which came into force last month, responds to this crisis by requiring new developments to demonstrate a minimum 10% uplift to biodiversity, compared to what existed before, through the creation and enhancement of diverse habitats.

The law only applies to England – Wales and Scotland are adopting slightly different approaches – and so far covers only larger building sites; those smaller than 0.5ha have a little longer to comply – until April 2024.

To calculate BNG, the government has produced the 'statutory biodiversity metric' formula, which measures any rise in biodiversity 'units' and the extent to which plans will improve a site's ecological value.

If developers cannot create sufficient net gain on a site, they may either apply it to other land they own, or buy biodiversity units from a land manager. Statutory biodiversity credits can be bought, as a 'last resort', from the government, who will use it to invest in habitat creation elsewhere in England.

The 10% minimum is just the start, and an increasing number of councils and planning authorities are looking to go further. Research by property consultancy Carter Jonas found that three councils – Guildford, Brighton & Hove and Worthing – have adopted a policy of over 10%, and 17 have similar plans emerging in local plan reviews.

Architects and landscape architects will often take the lead in ensuring that biodiversity requirements are delivered and the following advice should help give nature its rightful place in design.

Scope out the site

It is critical to understand the biodiversity baseline of the site environment and the adjacent context. An ecologist or biodiversity specialist should carry out surveys and measure the biodiversity value of the existing habitat to identify the constraints and opportunities.

Engage with consultants early

'A key issue we come across is being brought into teams too late, when it's



GROUPWORK / MCGREGOR COXALL

Above View set in the biodiverse Redcliffe Way Courtyard with play and places to rest set among biodiverse planting. Redcliffe Way housing scheme in Bristol was designed by McGregor Coxall, in collaboration with architect Groupwork, to achieve a biodiversity net gain of 58% on the site and to retain all of the trees.

difficult to affect change,' explains Úna Breathnach-Hifearnáin, associate at landscape architecture and environment design practice McGregor Coxall. 'If buildings have already been positioned, and spaces are already overshadowed so not suitable for planting or growing, many opportunities are lost.'

Leave things as they are

The main purpose of the net gain metric is to incentivise the retention of as much biodiversity value on site as possible. Habitats are graded based on criteria including distinctiveness and quantity, and retaining more of the most distinctive habitats will make it easier to achieve a net gain. For example, a woodland scores more highly than a playing field because it is more diverse

and supports more species. 'If you remove woodland, you have to replace it with woodland, or something of higher value, which is really difficult,' says Pernille Olsen, associate ecologist at Buro Happold. 'The best thing is to leave the woodland alone; if you have a large master plan, integrate it into the design.'

Brownfield is more straightforward

Urban sites typically incorporate extensive paved or hard-surfaced areas, reducing the likelihood of valuable habitats being lost and making it more straightforward to achieve a 10% uplift on what is already there. 'If you start with a site that's already a car park, and there's very little greenery or maybe a couple of trees a bit of scrub, it's going to be much easier to achieve net gain than on a site with woodland and water courses,' points out Olsen. However, there are exceptions: open mosaic habitats characterised by areas of scrub and rocky ground might appear derelict, but are in fact very biodiverse. The Thames Gateway area of London is one such example, thriving with different species of insects and invertebrates.



On greenfield sites where nature can't be retained entirely, architects should prioritise building on habitats with a lower biodiversity value, such as arable land and agricultural pasture, not agricultural areas with high food production value, or on areas of scrub and woodland.

Don't just focus on vegetation
Biodiversity often is equated with adding greenery, and while it is important to get the vegetation right, so is getting the right habitats for wildlife. 'Early engagement and assessment by an ecologist will determine which species need to be accommodated and the strategies required to support their habitats,' says Michelle Sánchez Brajkovic, sustainability lead at architect RSHP.

Consider nature's multi-functional benefits
It's important to understand the parallel economic and social benefits that can help justify the investment in biodiversity on a site. Nature can attenuate flooding, green walls and

Above Fabrik is helping to deliver the Whitehill & Bordon regeneration project in Hampshire with a focus on green spaces that weave the new town together, and new development that is sensitive to extensive woodland and trees.

roofs can improve insulation to cut a building's energy use, gardens and planting can increase footfall and business patronage, and street trees can improve air quality and cool urban spaces. 'Consider features that can empower the community, an orchard, or community growing areas can bring really positive benefits, creating sensory spaces to relax in and an opportunity to get closer to nature,' advises Breathnach-Hifearnáin.

Think long term
Habitats introduced under BNG regulations must be maintained for a minimum of 30 years, which puts an onus on designing robust landscaping, plant species or green systems integrated into buildings. 'Climbing green walls, with soil at the bottom and plants that climb up either cables or mesh, are lower maintenance than some green walls

with individual plants in little modules and an irrigation network at the back,' says Olsen. 'With green roofs it's about the species you select, how you prepare the substrate, the roof type and the slope, and considering how they will get water. They are low maintenance, but not no maintenance.'

Picking species to suit site conditions is also key. Phase one of the Mayfield city centre regeneration project in Manchester achieved an impressive 90% uplift to biodiversity and includes tree species selected to be tolerant of drought and extreme weather brought on by climate change.

Avoid offsetting
'The on-site approach is preferred because it is more controlled and you can see the direct impacts of mitigation,' says Tara Garraty, biodiversity specialist at Tunley Environmental. She adds that offsetting rules need more clarity, with Defra and Natural England still to launch a platform to help developers or landowners find viable, certified biodiversity credit sellers.

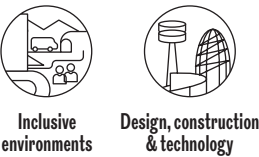
Look beyond BNG requirements
BNG metrics only consider a specific set of enhancements for habitats and does not consider species, the interconnectivity of habitats or 'Beta' diversity related to the number of habitats in the same area.

Habitats don't have red line boundaries, so projects should aim to tie into broader strategies to improve biodiversity across neighbourhoods, towns and cities, creating interconnected ecological networks that allow flora and fauna to travel and spread. BNG doesn't take into account the need for bird or bat boxes, or the use of uninterrupted raised curbs and fences that prevent the movement of hedgehogs and other small creatures causing them to get run over on the roads. 'This is an imperfect metric but progression to and through 10% net gain needs to be a key facet of progressive design and the creation of high-quality places,' says Simon Greig, operating board director at landscape architect Fabrik. ●

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Liverpool school 100 years on

Professor Ola Uduku, head of Liverpool University's school of architecture, talks about its centenary of RIBA validation and its role in the International Slavery Museum



Liverpool was the first school to be validated by the RIBA. What's the plan for the centenary?
We are celebrating with a lecture by Royal Gold Medallist Lesley Lokko, which gives the whole moment more presence – all part of the life of a venerable school.

And we are celebrating our alumni, inviting them to join us in the first 'homecoming event'. Our alumni are amazing, not just the most famous like James Stirling, Maxwell Fry, Colin Rowe and Bob Maxwell. We are still discovering many female alumni like Beatrice (Betty) Woodhouse, who was just one of two women in her cohort when she studied here from 1931 to 1935.

We also have strong international links including the Polish School, which moved to Liverpool during World War II, and those trained in the 1930s such as the Egyptian Mahmoud Riad, South African William Holford and Chen Zhanxiang from China.



O'DONNELL+TUOMEY

The school has both a city and global focus. How do you achieve that?
The Liverpool city region and surrounds area provide an incredibly rich architectural context with which to engage.

We continue to set studio projects in these diverse settings and are now very involved in community-focused work. We have projects in Huyton, Birkenhead and Toxteth in the city. Our professor of practice, Ilze Wolff, who also practises in Cape Town, South Africa, is developing a studio working in the Granby Toxteth area.

Internationally there is research on mercantile history, as seen with Professor Jackson's work on the Unilever archive. We also have faculty engaged in sanitation and housing projects in Bangladesh. The ARCHIAM research centre focuses on architecture, history and archaeology, researching in the Middle East and North African region. I am just about to start a project exploring post war tropical hospital design.

We want our students to be exposed to the wisdom of the Granby Toxteth community

Above The competition model for the new architecture building at the University of Liverpool, designed by O'Donnell+Tuomey

Lokko's lecture is not your only link with Royal Gold Medallists. You have a new home under construction designed by O'Donnell+Tuomey.
We have got a crane on site and have 18 months of build to go. The students were involved with the jury on the architectural competition and have been visiting site. And the doors have been blown off the Architecture Building for the two to be linked.

You are working on the International Slavery Museum with FCB Studios. What will that involve?
Our aim is for the school to develop an embedded spatial practice in Granby Toxteth and in that way co-produce activities and public cultural projects at the museum. We want our students to be exposed to the wisdom of the Granby Toxteth community, and see this co-creation production process lasting well beyond the museum project. We hope this will develop into a series of ethical design-build projects, like Rural Studio in Alabama, over the next few years. ●
With 235 programmes running across the world, the RIBA validation scheme has grown significantly over the last century. The centenary lecture takes place on 20 March 2024, with tickets available from <https://bit.ly/3I4GfTf>

Employment benefits: what’s on offer?

What do you look for when searching for a new job? There’s more to it than just the salary, says Adrian Malleson



When thinking about a career or role, there are four significant elements to consider: the kind of work you do, the time you spend doing it, the money you are paid and the additional benefits. There can be trade-offs between these things.

Hopefully, the choice to become an architect has been the right one. But even within the profession, there are many kinds of work and many ways to practice: from being a specialist in a large practice working on seminal international projects, to working in a mid-size regional practice helping to form a regional identity through building design, or being an autonomous practitioner working alone or in partnership in a local community. There’s more than money in the choice of career route, and different lifestyles come with each.

Following the money is relatively straightforward. If maximising earnings is the main interest, then the larger the practice, the higher the average earnings. Also, practice in London – London has on average the highest UK salaries.

Working hours can vary significantly, with a weekly average of 37 in chartered practice. Larger practices tend to work slightly longer, and smaller practices less.

It’s not just the base salary and hours, however. There are other benefits, some easily quantifiable, others less so. For employers these can help attract and retain the right staff and show they are valued, promoting loyalty. Of course,



Above Getting away from work in your time off or using holiday buy-back can be one of the benefits of practice.

practices need to remain viable. Losing or failing to attract the right staff can threaten practice viability, but so too can offering unaffordable benefits.

Below is a look at some employee benefits (and requirements), and whether and how UK practices provide them. First though, the real living wage.

The real living wage

The real living wage is an hourly wage set at a rate that means staff can meet their everyday needs. RIBA chartered practices are required to pay it as a minimum to all staff, including freelance staff and students. Set by the Living Wage Foundation, it is £13.15 per hour in London and £12.00 elsewhere in the UK. These rates were announced in October, and employers have until 1 May

2024 to implement them.

Last year’s RIBA Benchmarking Survey suggests almost all practices pay all staff the real living wage, but there are still pockets of concern. Although 97% of chartered practices declare they pay all staff the real living wage, 3% do not. Architectural assistants, apprentices, and office management/support and administrative staff are most at risk of not receiving the real living wage.

Leave

In the UK, employees are legally entitled to 28 days of paid leave per year, including bank holidays (seven days in 2024).

Excluding bank holidays, chartered practices offer, on average, 24 days leave, (so 31 including Bank Holidays), exceeding the legal minimum. This varies by practice size. One and two-person practices, typically sole traders and partnerships, tend to take the least

leave by far, but once a practice has three or more staff, the average level of leave holds steady at around 24 days.

Pensions

Pension contributions are a very tax-efficient way of putting money aside for retirement and are an integral part of any employment package.

Employers are required to contribute to a staff pension scheme unless staff have opted out. The minimum employer contribution has been 3% since 2019, to be matched by a 5% staff contribution. The average RIBA chartered practice pension contribution for employees is 4%, a little above the statutory amount. This percentage seems consistent among the range of practice sizes, apart from sole practitioners (who contribute significantly more to their pension).

The non-commercial Money Helper service provides a helpful calculator to help you see if you’re on track with your pension.

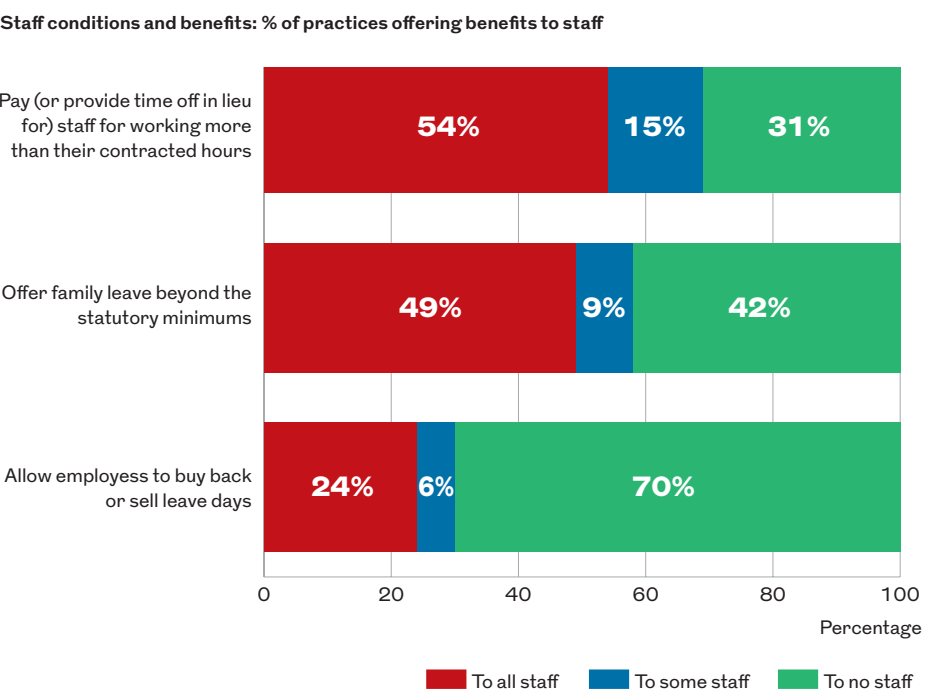
Working more than contracted hours

Most RIBA chartered practices offer pay or time off in lieu (TOIL), for staff who work beyond their contracted hours, with 54% offering it to all staff, and 15% to some. Nevertheless, almost a third, 31%, do not compensate staff for working beyond their contracted hours.

The proportion of practices offering recompense to all staff for working additional hours declines as practices become larger.

At the very least, practices need to take care that hours worked without pay or time off in lieu do not drag a staff

Employers have until
1 May to implement a
living wage for architects
of £13.15 per hour in
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elsewhere in the UK



member’s hourly wage below the real living wage (to ensure chartered practice requirements are met). Legally, average pay for the total hours worked must not fall below the national minimum wage. Employers also need to take care that employees’ mental or physical health is not put at risk from working long hours.

Family leave

Under UK law, employees have some rights to time off to deal with regular and sometimes unpredictable demands of being a part of a family. For example, mothers have the right to maternity leave, regardless of how many hours worked or their pay level. Fathers, partners of mothers and adopters of children may also be entitled to one or two weeks’ paternity leave. Couples may be eligible for shared parental leave and pay, in which they may be able to share up to 50 weeks of leave and 37 weeks of pay between them. Employees have the right to time off to deal with an emergency that involves a dependent. Eligible staff have the right to take unpaid time off to look after a child’s welfare.

Many practices choose to go beyond such legal requirements, with almost half (49%) offering family leave beyond

the legal minimum to all staff, and a further 9% to some staff. Generally, very small practices are less likely to offer additional family-friendly benefits, and very large are more likely. Additional family leave is offered to all staff by 69% of very large practices (100+ employees) while a further 12% give it to some staff.

Leave buyback

Leave buyback is a policy that allows employees to sell or buy back their leave. A quarter of practices allow all staff to do this. As an organisation policy it can work well for both employers and employees. Employees can manage their preferred work-life balance better, and employers can reduce absenteeism and attract and retain staff. Minimum and maximum leave limits typically need to be in place to ensure that organisations can manage workloads with the staff available and that staff always take enough time off. There may be tax implications too.

The RIBA will continue to monitor staff benefits through the RIBA Benchmarking survey, and report on findings. ●

Adrian Malleson is RIBA head of economic research

Fees and resources under the new regime

The building regulations amendments demand honest, confident discussion with clients on fees and resources. Here one practice explains how and why it is revising its fees

Words: Dieter Bentley-Gockmann



Business, clients
& services

The construction industry faces a rise in costs of £385.5 million over the next 15 years as a result of changes to the building control regime in England for higher risk buildings (HRBs). This is the conclusion of an economic impact statement published by the government as part of its consultation response to the amendments to the building regulations, enacted under the Building Safety Act 2022.

This assessment reflects a belief that, over recent years, clients have been procuring buildings too quickly and too cheaply, which has resulted in more poor quality and unsafe buildings throughout the UK. The amendments to the procedural requirements of the building regulations 2010 introduced in October 2023 are intended to drive cross-industry behaviour changes that reverse this approach.

Under the new building regulations Part 2A ‘Dutyholders and competence requirements’, which apply to all projects designed and built in England subject to Building Control approval, clients (or their principal contractor if it is a domestic client) have a statutory duty to ensure that the designers and contractors they employ have sufficient time and resources to ensure that their work complies with all the relevant requirements of the building regulations, or the applicable requirements in the case of HRB work (see panel).

Designers are prohibited, under the

amended building regulations, from undertaking any design work unless they are satisfied that their client understands their client duties. This includes a duty to ensure the project team has sufficient time and resources to discharge their own duties under the regulations, which in turn means designers must be competent and ensure that they have the resources to comply with the regulations. This requires designers to have the behavioural competence and confidence to engage in honest discussions with their clients regarding fees and resources. This is particularly pertinent for clients that have a track record of under-resourcing projects, which could jeopardise or undermine compliance with the relevant requirements of the building regulations.

Where are the impacts?

How much more time and resource will be needed to deliver architectural services under the new regime will depend on the scope and detail of a designer’s existing service agreements. If a designer is already providing full design and construction stage services – including lead designer services but not principal designer services – for a project that does not include HRB work, it is unlikely that the procedural

For designers working on projects involving HRB work, the impact could be significant

changes will have a significant impact on services and fees. For projects that do not include HRB work, including those for domestic clients, the new building control procedures are similar to the existing regime in terms of approval, application, content and programme. The government’s economic impact assessment has concluded that there will be no financial impact on the industry relating to these changes.

Likewise, designers offering limited design or professional services that do not include services in connection with building control approval applications, construction stage services or lead designer services, should see little, if any, impact on fees and resources.

However, for designers working on projects involving HRB work, and/or intending to provide building regulations principal designer services for the same, the impact on fees and resources could be significant. How significant would depend on the nature and complexity of the project, the procurement route and the client and project team’s awareness, understanding and experience of the new regime. There will be a significant impact on project programmes and design and construction team resources owing to additional information management requirements. These include the gateway building control approval application documentation and golden thread information obligations, combined with the programme implications of ‘hard stops’ to construction related to gateway applications and approval of major controlled changes.

Some but not all these impacts can



Left DSDHA and EPR worked on Abell and Cleland House in Westminster, London, which houses apartments over 12 storeys for Berkeley Homes.

LUCAMISEROCHIL

be assessed and quantified at the outset of a project – for example, details of the project brief and/or designer and principal designer services that depend on aspects of the project that cannot be determined before the contractor supply chain is engaged, or before the start of construction. This is particularly true for projects involving HRB work to existing buildings, where it may not be possible to complete the design work required to demonstrate compliance with the applicable requirements of the building regulations at Gateway 2 before construction starts on site.

Working with the client

At EPR Architects we are discussing the implications of the changes on our project resources and fees with all our clients, in particular those involving HRB work and/or where the client wishes us to undertake the building regulations principal designer duties. To do this we are identifying designers that we consider competent to provide the relevant services, and preparing

resource plans based on the additional time we would expect them to spend discharging their duties. This includes an exercise to assess the new or additional services that we can quantify in terms of time and resources, which are suitable for agreeing on a lump sum fee basis, and those that will depend on client instruction and/or project variables – which we are unable to quantify with any precision, and which therefore lend themselves to a variable fee rate. Examples of the former include an assessment of the additional reporting

DEFINITIONS OF REQUIREMENTS

Relevant requirements means the extent relevant to the design work in question, the requirements of building regulations 4, 6, 7, 8, 22, 23, 25B, 26, 26A, 28, 36, 41(2)(a), 42(2)(a), 44A, 44ZA, 44ZC and 44D to 44I, and the functional requirements A to S listed in Schedule 1 of the building regulations 2010. Applicable requirements means the relevant requirements of the building regulations 2010 and the requirements of The Building (Higher-Risk Buildings Procedures) (England) Regulations 2023 that are applicable to the project.

We are identifying designers that we consider competent to provide the relevant services

and design team co-ordination meetings we expect to provide. An example of the latter includes the time required to liaise with a principal contractor regarding design changes relating to applications for major controlled changes.

To ensure consistency and transparency, we are breaking down our fee proposals to separately identify the resources allocated to our designer and principal designer services. This also allows us to track and evidence our allocation of resources for the respective roles throughout each project. Not only will this give us data for future planning, it will also provide documentary evidence in case it is required in the event of sanctions being imposed by the relevant Building Control authority.

To contribute to building industry consensus, we are sharing details of EPR Architects’ schedules and approach to resource planning with clients and colleagues to illustrate what impact we think the changes and their potential programme implications will have, particularly for those aspects of our services where we cannot precisely determine the implications for our fee. We expect to refine this process over time as, along with the rest of the profession and industry, we gain more experience of delivering projects under the new regime. We aim to convert a greater proportion of our fee proposals into lump sum fees in the future, to provide our clients with greater certainty and confidence that they are discharging their duty to sufficiently resource the project, but this will take time as we all get to grips with the new building regulation procedures. ●

Dieter Bentley-Gockmann is director, legal and technical services, at EPR Architects and author of the RIBA Health and Safety Guide and RIBA Principal Designer’s Guide

What architects can do to help reach net zero

Embodied carbon and how best to use limited resources took centre stage at the RIBA's most recent Smart Practice conference



The overarching theme of the RIBA's 2023 Smart Practice conference – creating sustainable outcomes through craft and materials – was split into sub-themes: ‘Specifying for the future’ on day one and, on day two, ‘Working towards net zero’. The focus was embodied carbon and a more intelligent use of limited resources.

Contributions ranged from big-picture, planet-wide reviews of architects’ power to influence change, to an intense, hyper-focused examination of the poetic qualities of rammed earth in Bushey Cemetery (by Andrew Waugh of Waugh Thistleton Architects).

Compère Jess Hrivnak, RIBA’s practice technical adviser (sustainability), kicked off both days with overviews of net zero – of architects’ future role and where we are on agreeing a definition. She suggested architects can limit upfront carbon costs via specifications. She said the London Plan and industry-led Part Z proposal (in which building regulations would ensure mandatory assessments and reporting of whole life carbon) would support that ambition.

She encouraged everyone to send in-use data from their projects to the Built Environment Carbon Database to inform policy-making going forward.

Next day, Hrivnak brought us up to speed on progress with the UK’s Net Zero Carbon Building Standard, another

industry-led collaborative initiative under the Better Building Partnership umbrella. To combat greenwash, the free, voluntary standard will harmonise definitions of net zero by setting science-based limits for carbon emissions and performance targets for buildings in use.

Breaking our addictions

The talks that followed began with a look at our ‘addiction’ to fossil fuels, raw material consumption and waste, by Duncan Baker-Brown, architect and author of The Re-use Atlas. In the face of catastrophic warming, mass extinctions and a growing human population, the effectiveness of architects’ actions will depend on ‘rewiring the global economy.’ When international construction builds the equivalent of Greater London every six weeks (pointed out Simon Sturgis of Targeting Zero) it’s clear that this dramatic prognosis is no exaggeration – not least because it was made by ex-governor of the Bank of England Mark Carney who is not known for hyperbole.

Several presenters rehearsed the industry’s disproportionate contribution to the threat to sustainability: each year it extracts 65 billion tonnes of raw materials; its share of landfill waste is 35%; its contribution to carbon emissions was estimated at 40%–50% or more.

Architects’ natural desire to improve

these figures should temper ambition with reality. Phil Obayda of Skidmore Owings & Merrill (SOM) revealed that our decisions hold sway over a mere 2.5% of the construction industry’s total emissions. Cutting those emissions would be worthwhile but is unlikely to solve the sustainability crisis. For that, Obayda argued, architects should add more targets to their list of desirable outcomes. These fall into three categories: material alchemy, future of the old, and beyond boundaries.

Given that society needs more buildings, net zero cannot be met by using biomass materials alone. But nor can we keep increasing our use of concrete and steel. Instead, we need novel renewable materials. To that end, SOM is partnering with Prometheus to develop a bio-block that eliminates cement – the key carbon-emitting element in most CMU blocks.

We should also be designing buildings for longevity and multiple uses. Judging by the last 27 years, the purpose of many of the single-use buildings we build in our cities today will need to change in the 27 years to 2050 – the deadline to reach net zero. For this, architects will need to rethink how they design buildings’ least adaptable parts – the structure.

His final fix is effectively to sweat assets, not just for financial gain but to share resources for community benefit – rather as trees do in a forest. This means

buildings (such as SOM’s Urban Sequoia concept) that are net carbon negative because they generate onsite renewables and sequester carbon using biomaterials.

Definitions and strategies

For anyone wondering what biomaterials are, James Rixon of Architects’ Climate Action Network (ACAN) provided a useful definition. They have good breathability, hygroscopicity and evaporation, and:

- are abundant and renewable
- can be extracted with minimal ecological damage under regenerative land stewardship
- require minimal processing (ie, have low embodied carbon)
- are healthy and non-toxic
- can be sourced responsibly
- can easily be reused and recycled or returned to the earth.

Aurore Baulier and Stephanie Crombie, also from ACAN, discussed the numerous sources of good information supporting the use of biomaterials – details that are also on the ACAN website.

Presenter after presenter outlined strategies for sustainability. Baker-Brown emphasised the importance of designing for disassembly, which requires you to draw and quantify differently – and avoid glue. He also highlighted the state of play in urban mining, which he dubbed ‘reprocessing the anthropocene’, citing the experimental Waste House project that reused duvets for insulation and

crushed oyster shells for tiles.

Justin Taylor of Autodesk added some detail to the urban mining concept, reviewing what it would take to establish Buildings-as-Material-Banks (BaMBs) in reference to the EU-funded BuildChain platform. As well as designing for disassembly, a workable system needs a centralised database of what material is where, its grade and characteristics, and so on. The liabilities and responsibilities for maintaining and managing the data must be established as a key to its success.

Kirstin Assheton and Christian Dumbleby of Architype dispelled a few myths about Passivhaus’s suitability for larger scale projects, citing their Harris Academy Sutton and Currie Community High School projects. Tips for success included simplifying construction for buildability, testing for airtightness on mock-ups early, and, if using a steel frame, getting analytical about every last detail.

Simon Sturgis warned, though, that Passivhaus is not always the answer. On refurbishments, he found that fabric-first retrofits had a better carbon performance, even over the whole life of the building.

Azim Jasat of Autodesk highlighted the role of industrialised construction, whose pay-offs include less waste and better tracking of environmental sustainability. Autodesk is developing ‘manufacturing informed design’, a system best suited to design and build contracts by general contractors with in-house

fabrication capabilities or a well connected supply chain. Productisation is the key, bridging the gap between design and manufacturing with product templates that can be customised automatically for each project. Behind it is a digital platform connecting Autodesk’s building design and product design portfolio.

Wendy Bishop of Architype talked about its celebrated Entopia Building for the Cambridge Institute for Sustainability Leadership, describing how a target to achieve 70% biomaterials by mass turned out to be impossible. But it did much better by volume, using a plaster product called Diathonite – a cork/lime mix– for the walls’ insulating layer and SonaSpray – recycled paper – to treat hard surfaces for an acoustically acceptable finish.

Anthony Staples of RCKa emphasised the human element in all these strategies, explaining his practice’s ethos of engagement as the key to good sustainable outcomes, as exemplified in their Nourish Hub building in Shepherd’s Bush.

Critical messages

Several messages were loud and clear.

First, making the right choices is massively interdisciplinary – expertise in supply chains, product testing, certification, buildability, building science and engagement is critical.

Second, the application of the cutting-edge strategies described here is still far from mainstream – a problem for net zero.

Third, liability lurks just beneath all this innovation, inhibiting its adoption.

Loudest of all was the question from the audience: how can architects effect change when the decisions, including on budget and timing, are out of their hands?

The answer that came back was to appeal to clients’ ethical sensitivities. Force them to opt out of green solutions and sell them on their long-term benefits.

Meanwhile, the RIBA and its fellow collaborators will keep lobbying to mandate change through regulation. ●

Ways to influence the future of sustainability and go beyond the red line: SOM’s Urban Sequoia concept is designed to be net carbon negative through onsite renewables and carbon sequestration through biomaterials.



Rammed earth on Bushey Cemetery, designed by Waugh Thistleton Architects.

LEWIS KHAN

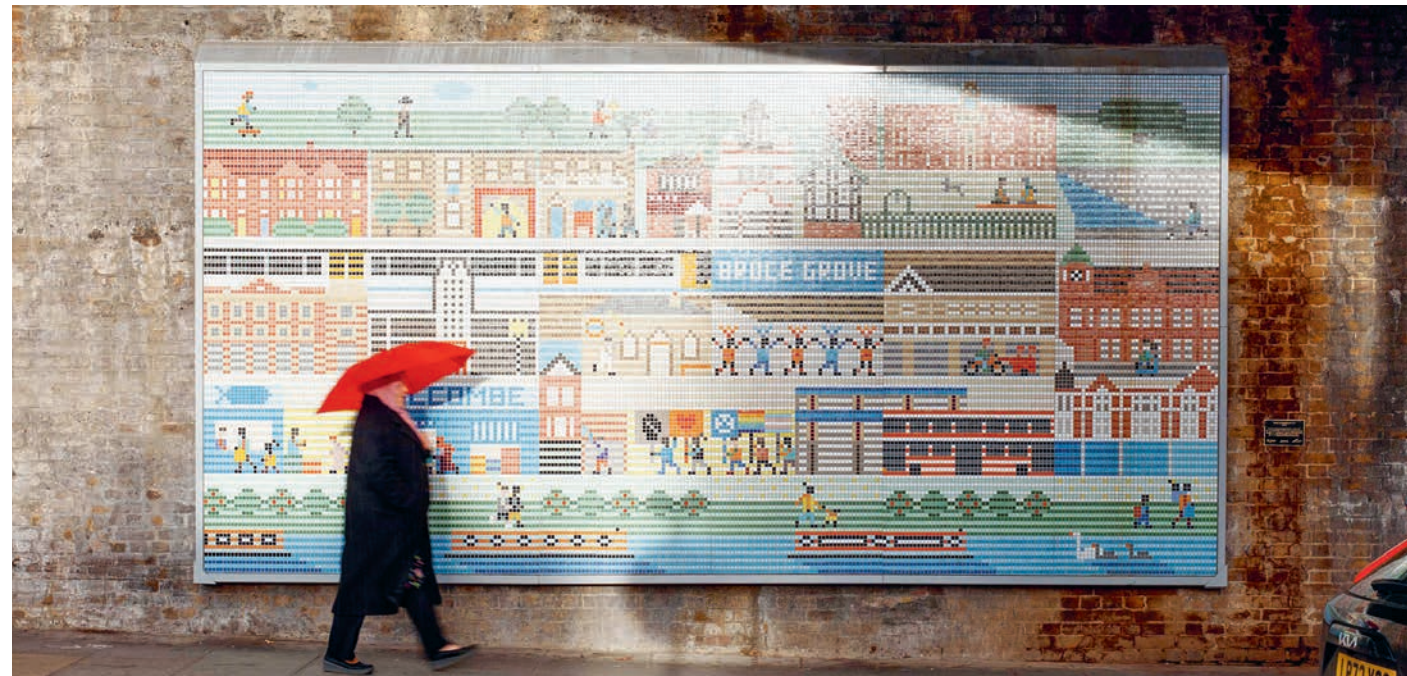
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How can architects bring social value to projects?

Two practices explain how they think about, and create, a positive impact for their clients and communities, and how to make it viable

Words: Eleanor Young



LUKE O'DONOVAN



Business, clients
& services

'A minimum weighting of 10% of the total score for social value should be applied in the procurement.' So reads the 2020 government procurement policy note which emphasises the importance it places on the inclusion of social value in bids – creating a positive impact beyond profit. The figure of at least 10% is considered to be enough for social value scores to be meaningful against other factors, such as cost. In local authority and social housing projects social value is regularly part of the procurement,

using tools such as National Themes, Outcomes and Measures (TOMs) to compute good deeds as a cash value. Charity HACT's social value tools are well known in social housing. And in big business, corporate social responsibility is something that clients may seek help from their architects to deliver.

Nice to do?

Of course social value covers a lot of nice-to-do things: volunteering for charities, taking architecture into schools and universities, offering work placements and donating architectural expertise to much needed social infrastructure schemes overseas. Some of these also help the team to grow in practice. Some bond that team, others may even offer opportunities for projects. But ultimately, in a tough financial climate

Above Office S&M worked with the community and artist Anna Nicolo on the mural for Pride in Bruce Grove.

they are a cost to the practice. So how do you focus your social value activities?

Quantify your practice activities

This is one of the factors Chithra Marsh of Manchester-based Buttress is working through. In recent years the practice has formulated its own purpose statement: 'Architecture for an equitable tomorrow.' The property industry's UKREiiF recognised it in 2022 as the social value company of the year. Marsh co-ordinates on social value initiatives, champions equality and diversity and, as seems natural, leads on a stream of community work that has included several high street projects. With a

growing practice (it now has a team of 83) Marsh understands the important role of visits to schools, for example, for younger team members. The practice has a positive culture, with the default answer to requests being 'yes'.

However, the balance between profit and social value is a thin line to tread. 'You can't bump up your fees to cover social value, you have to build it into your business structure,' Marsh says. She attempted to quantify it in a spreadsheet. But it was the move to become registered as a B Corp and the rigour that entails that led it to work towards Planet Mark certification, which measures and verifies data on environmental and social value. Planet Mark put the firm's activities through the National TOMs framework to assess and quantify their value. On the firm's turnover of £6.6 million, its social value equates to half a million pounds. This is also helpful when conveying its cash value to clients. 'In our hearts we know money is not a true display of good social value,' says Marsh. However, it has made Buttress ask questions about what it is doing, like how to focus on schools in areas where the community will benefit most.

Embed social value in project methodology

In a way, creating a menu of social value for a project bid can be simpler, although it is unlikely that you'll know the community beforehand, points out Marsh. And the matrices on delivering social value can seem set up for large contractors to promise something they wouldn't usually deliver.

Small practice Office S&M prefers to write its social value work into the methodology – part of the process rather than a simple 'outcome'. Its website refers to 'deep listening' to articulate this to potential clients: 'Building Social Value by creating participatory co-design and co-production that empowers and invests in a place.'

Bid by bid

Office S&M is one of three architectural practices working on Shape Newham, making imaginative public spaces on 18

Right A student with her project work, completed during a week's work experience at the Buttress studio.



BUTRESS

sites. As part of the bid the practice made a commitment to bring community members into the studio. It tried to make these opportunities as engaging as possible. 'Yes, you can have someone in the studio playing with SketchUp but we really wanted to involve them with the project,' says co-founder Hugh McEwen. So one young person helped finish a slogan on a talking bin and do a poster design, while two others collected post-occupancy survey evaluations.

Through co-design

In Haringey's Bruce Grove, public realm projects were developed through co-design with Office S&M. Interactive workshops with 13-18 year olds allow them to be involved and get excited about the project. They worked with 'graffiti paint and shapes'. Notes on the stories and drawings mapped who said what, so those involved could pinpoint their own impact on the project. There was also collaborative mosaic-making (with extra pieces to take away and do at home). The co-design and co-making of this project helped build skills – and community wealth. Pride in Bruce Grove was

You can't bump up your fees to cover social value, you have to build it into your business structure'

shortlisted for the social value category of the Thornton Education Trust's 2023 Inspire Future Generations Awards.

Through spreading the word

Spreading the word on how you go about building social value can act as a nudge to others, be positive marketing and in some cases an additional stream of work. Many larger practices' news pages are populated with the good deeds they are doing, but communicating it in a way that gets the detail across is harder. Office S&M was lucky enough to be commissioned by the Creative Land Trust (funded by the Greater London Authority's High Streets for All programme) to create a workbook on the process of activating high streets by identifying spaces and bringing them together with potential users. It looks at opportunities, partnerships and ways of funding them. The practice created an open source document, The Local Social Workbook, focused on Stratford but applicable to high streets through the UK, to guide future work.

Whether your social value focuses on giving skills to individuals, building a community and a sense of ownership through co-design or sharing expertise more widely, it is a chance to make a real impact, ideally sanctioned and encouraged by your own clients. But the greatest social value of all is likely to come from your completed building. ●

For more on social value see the RIBA Social Value Toolkit for Architecture (2020) and the UKGBC's A Guide for Delivering Social Value on Built Environment Projects (2022)

Tools to fire the journey to net zero carbon

Whole life carbon assessment is a key tool in the drive towards net zero. Simon Sturgis explains its principal themes: what it does, how it works and the best way to use it



Carbon reduction is becoming central to architectural practice with whole life carbon assessments (WLCA) increasingly driving design decisions. Many local authorities are now asking for WLCA as part of a planning submission. For example, in the greater London area it is mandatory for schemes above a certain size (see Policies SI2, and SI7). Broadly speaking, in London, applications that are referable to the mayor are residential developments of more than 150 units, buildings over 30m in height, and commercial buildings over 2,500m². Many other local authorities including Manchester, Bristol and Dundee are making similar requirements.

We know that global construction – reckoned to be the equivalent of building an entire greater London every six weeks – has enormous negative impacts on both climate and resources. By the end of this century, even if governments meet national carbon reduction pledges, temperatures are expected to increase by as much as 3°- 3.5°. The UK is legally committed to achieving net zero by 2050, with interim targets for 2030 and 2035, as shown in diagram 1. This is a key requirement for limiting temperature increases.

As we move to a more resource efficient and ‘zero carbon’ world this has become a major determining factor

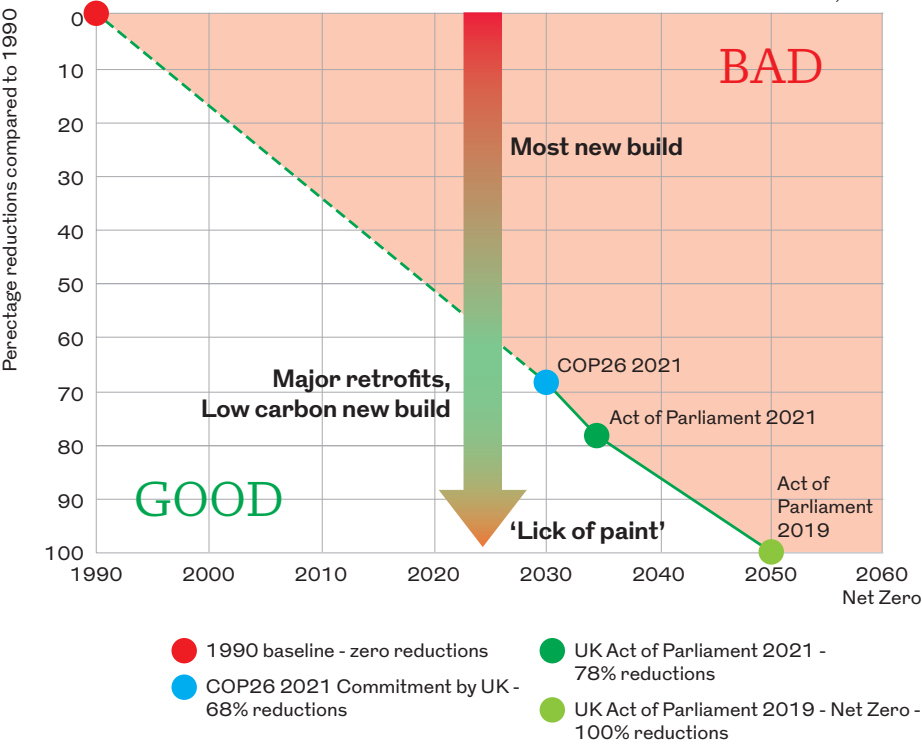
affecting all architectural design. Much of today’s architecture is still informed by the modernism of the 1920s, but that offers no answers to the climate crisis and resource depletion. Understanding whole life carbon and the relationship between embodied and operational carbon will help architects maximise the opportunities for innovation as we embark on huge changes in the way we design, construct and use buildings.

Diagram 1 shows the significant difference between the business as usual ‘most newbuild’ and we should

be delivering – ‘low carbon new build’. This year we should be over half way down the arrow, with building projects completed today 55-60% lower in overall emissions than their 1990 equivalents. This can be difficult to achieve with newbuild as the supply chain is still evolving, although there is now significant data showing that reducing carbon also reduces cost.

The numbers
In September 2023 the RICS published a second edition of its 2017 Standard ‘Whole life carbon assessment for the

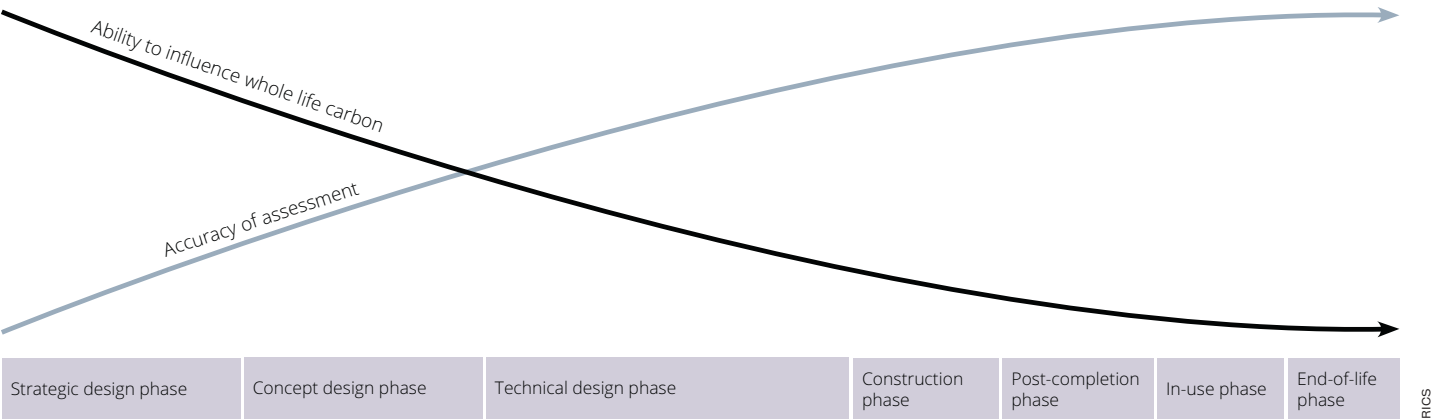
Diagram 1: United Kingdom – commitments to net zero



Source: Simon Sturgis - Targeting Zero
Graph arrow based on multiple assessment and with reference to LETI/RIBA/GLA Benchmarks

SIMONSTURGIS

Diagram 2: As the project progresses, the ability to influence whole life carbon decreases but the accuracy of assessment increases



built environment’. This update of the RICS standard provides a methodology for assessing carbon emissions for all project types, ie the ‘numbers’. It is the source methodology that underpins BREEAM, LETI and the UKGBC which all provide guidance and advice on what we should be doing to achieve reductions, and the forthcoming Net Zero Carbon Building Standard (NZCBS). A RICS WLCA will provide the data you need for appropriate BREEAM credits (for example Mat 01). The RICS standard is aligned with the revised version of the European Standard EN 15978 and is designed to be both UK and internationally applicable.

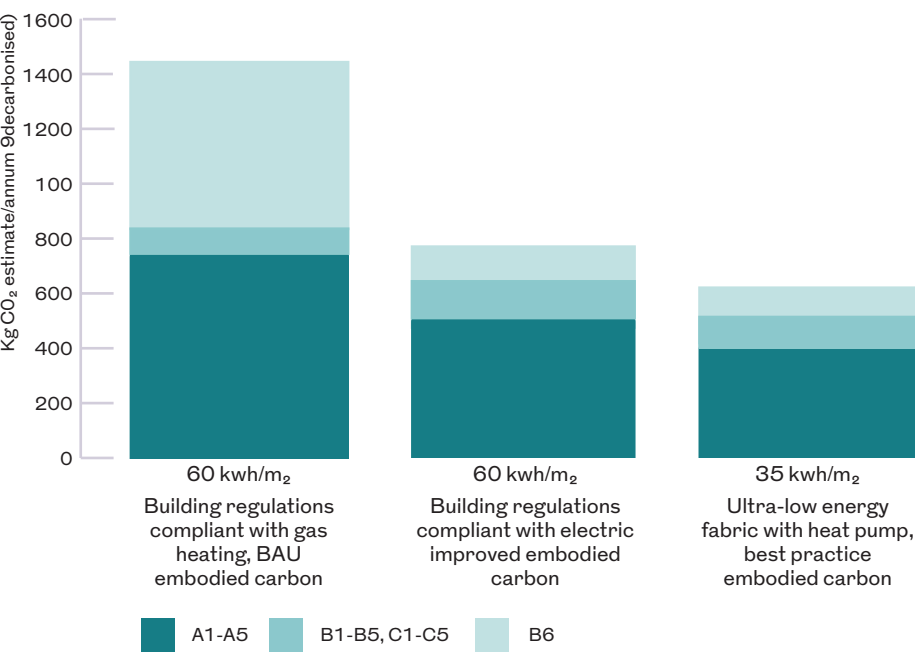
In practice, most assessors will not refer directly to the RICS Standard, but will use one of the software tools available (for example Feilden Clegg Bradley Studios’ free FCBS Carbon, or pay for tools such as OneClickLCA, VERT or eTool). Make sure the tool you chose is RICS 2023 compliant to ensure best consistency and comparability on any platform. Assessment consistency will also help integration with BIM as the data used will be more dependable.

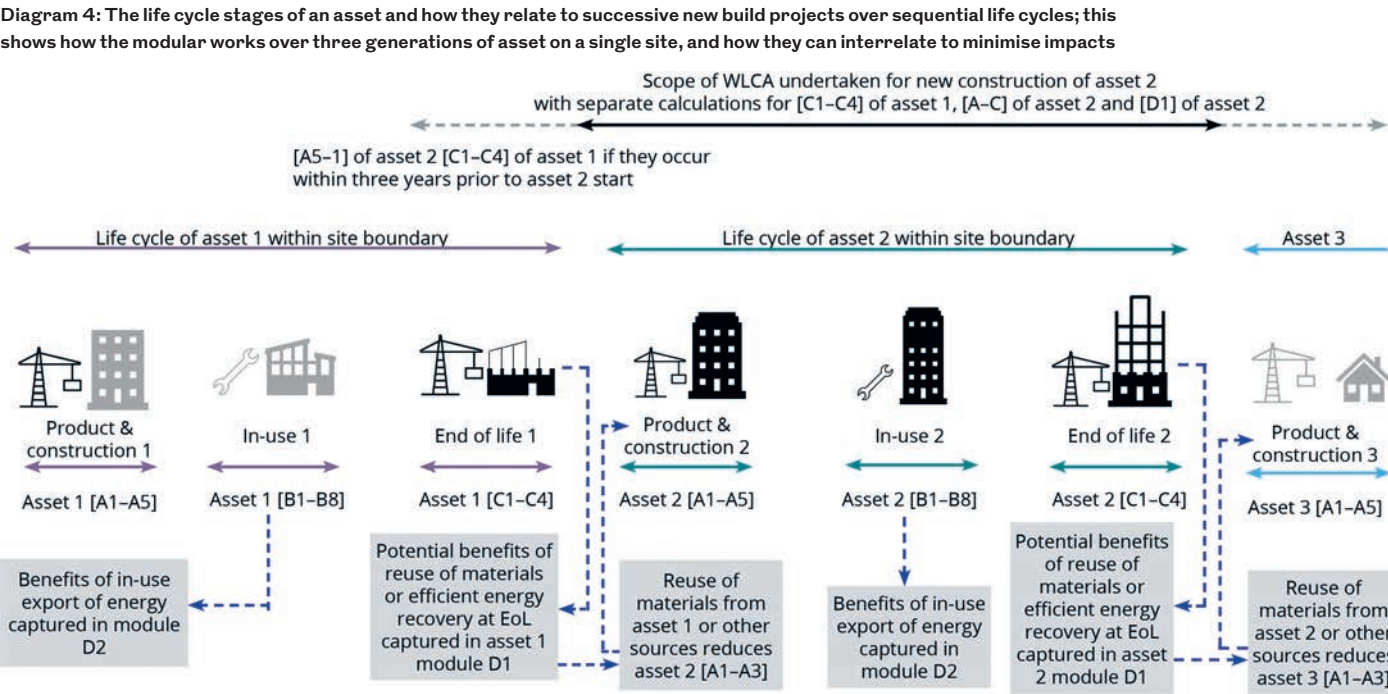
Extended application
There had been limits to the typologies which the RICS standard could evaluate as the 2017 1st edition applied to new construction only, with an emphasis on offices. This edition enables a whole life carbon assessment to be undertaken on offices, housing, infrastructure (local and national), and for fitout, retrofit and

refurbishment. A mixed-use scheme assessment can therefore now include all building types as well as all local infrastructure.
The standard also gives guidance on what to do at different project stages, for example how to make early strategic carbon decisions against more detailed assessments as the project progresses. Diagram 2 shows how the ability to influence carbon reductions is greatest at the earliest stages when key strategic design decisions are being made.
The ability to translate energy use (kWh) into carbon emissions (kgCO₂e)

is a crucial new section as it means that not only can we now look holistically at the combined operational and embodied carbon performance of a built asset, but we can also understand the carbon cost/benefit impacts of, say, insulation. This helps identify the operational benefits of various insulation options with different embodied carbon costs. The ability to do this is a key new feature of the RICS guidance, and enables us to factor in grid decarbonisation. Diagram 3 shows how a combination of low carbon actions, both operational and embodied, can combine to make significant reductions possible.

Diagram 3: Comparison of three options for a residential building, showing the reductions in whole life carbon that may be possible with different reduction strategies





Aligning systems

Cost is a key issue on every project, and the new RICS WLCA standard aligns cost and carbon using the same reporting structure. This in essence means that cost plans will be able to feed directly into WLCA. Cost plans also typically include a contingency, and the new guidance describes how to include a carbon contingency. This is made up of three elements: the RIBA project stage, the reliability of carbon data, and the reliability of quantities data.

A key part of any WLCA are the emissions during the use phase – after practical completion. This encourages construction professionals to take a far greater interest in the resilience and durability of their designs over their expected design life and back that up with figures for their clients. The RICS WLCA standard uses 60 years as the life cycle assessment period. It

is important to note that this does not mean buildings should only last 60 years – far from it, generally the longer the better. The 60 year period is to enable a reasonable projection into the future and comparability between assessments. The longer buildings last and the less maintenance they need, the better their lifetime resource efficiency, and the lower the lifecycle emissions. We have got used to the idea that buildings can have a short life of only a few decades. The Pantheon in Rome has a concrete dome that has lasted nearly 2000 years, and with no reinforcing steel.

Today's newbuild, tomorrow's retrofit

Another feature of more holistic long-term thinking is how materials and elements of construction evolve through successive life cycle stages of an asset (see Diagram 4). As shown in Diagram 1 earlier, a comprehensive retrofit or refurbishment is typically the lowest carbon option where a building already exists. This is not always possible, but generally the efficient reuse of material, whether an entire building or retained construction elements, has direct carbon benefits. Any demolition at the outset of a project should be included in the WLCA.

In conclusion, a WLCA gives us

the information we need to design better, more resource efficient, long life, low maintenance and low carbon buildings. This will help the built environment industry to move to a net zero, circular economy. It enables us to better understand how our buildings will perform over their expected lives, and how they will be dismantled and disposed of. Remember, today's newbuild is tomorrow's retrofit; a WLCA can help us understand how our buildings will perform in the future. This is not only helping to reduce future emissions but, through more resilient design, helps to future proof asset value.

In the next two articles I will explore the practical implementation of WLCA, and what achieving net zero means for the evolution of architecture. ●

Simon Sturgis is lead author of the RICS Whole life carbon assessment for the built environment, 2nd edition, 2023

The Pantheon in Rome has a concrete dome that has lasted nearly 2000 years, and with no reinforcing steel

The RICS WLCA standard aligns cost and carbon using the same reporting structure

3: Culture



Simon Phipps
Reactor A,
Trawsfynydd Nuclear
Power Station, 2023
Canon EOS 5DS R with
Canon TS-E 24mm lens

Simon Phipps is more forgiving of teenage years spent in Milton Keynes now than when he was living them himself – when the shopping centres and estates he'd rather have loitered around in were still going up. His architect parents moved there from London to work for the New Town's Development Corporation (MKDC) until 1992.

But both its stark modernism, rising out of the Buckinghamshire fields, and his parents' vocation, instilled an awareness of forms in time and space. After art college in Newport, Wales, he went on to graduate from the RCA in Sculpture, with works inspired by Britain's modern infrastructure: power stations, bridges, sea walls, bunkers. Initially, he photographed them for inspiration, but it soon became an end in itself. In thrall to the black and white images of John Donat, Sam Lambert and Martin Charles, Phipps felt compelled to bring his own play of volumes together in light. Over the years, he'd

capture brutalist buildings in northern England and London; but most recently, after reading of the alarming disappearance of mid-century buildings in Wales, he returned to record them before they were lost for good.

Taken offline in 1991, Trawsfynydd nuclear power station in Snowdonia National Park was designed by Sir Basil Spence and opened in 1968. Nestled in an undulating landscape designed by Sylvia Crowe against the drama of the foothills behind, the plant's two, keep-like concrete reactor halls retain a brooding magnificence. Coming to photograph it, Phipps was shown around by an engineer from Magnox, responsible for decommissioning, who said that while it'll be decades before the site is remediated, in just three years, the halls will have been reduced to half their height. He seemed rueful noted Phipps, as if he couldn't imagine the landscape without it. ●
Jan-Carlos Kucharek

Brutal Wales/ Cymru
Friwtlaidd, by Simon
Phipps. April 2024,
September Publishing,
£30. Available at
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Culture
Leader

'Our cultural relationship with the outdoors has changed as more people have shifted to professional jobs'



The point of view

The bigger the window the better the outlook... Eleanor Young looks at how our attitudes to prospect and refuge are changing

I slip outside the kitchen, sitting on the back yard bench looking to the views beyond as I nurse my tea. In this borrowed house the view is through the top of a stable door to the swelling mass of the muddy tide. I have sat in this way in many places – from the bright light of Spanish mountains (a memorable holiday) to the warmth of the sun falling on tangles of Welsh brambles (student life as much as the library ever was). Landscape thinker Jay Appleton explained this place of comfort with his 'prospect and refuge' theory; a safe place for the hunted with views out for the hunter.

Driving through soft hills, the commanding position along the ridge line is taken up by houses determined to make the most of their site. Architects reworking cottages inevitably bring in more light and more views compared to historic, hunkered down forms, those bungalows lining the road out of town spread into the garden and open themselves up to whatever is beyond. Even Victorian terrace houses are extended on this basis: 'I am the master of all I survey; my entire back garden.'

Is it the modernist belief in light and air? Surely not, most homeowners haven't read Le Corbusier. Is it that there is more leisure time to sit and stare out of large windows? It doesn't seem so. Is it that glass technology is better and cheaper? Perhaps, though they seem pricey enough. Is it central heating that has enabled this opening up? Is it because our indoor lives leave us with a hunger for the sunshine?

It is certain that our cultural relationship with the outdoors has changed as large parts of the workforce have shifted to 'professional' jobs. In 2021 they made up a quarter of UK workers, and probably a higher percentage of the better off, who could afford to employ

architects to improve their homes. Technology, from TV to the internet and phones, allows us to be amused inside for longer, the run or an afternoon gardening are set against the box set or Facetiming friends (we are with the well off classes here). There are excuses. Nearly half our days include some rain. And those favourite shoes let in water (why do they sell them in the UK?).

While prospect and refuge was never only a landscape theory, it has been truly domesticated in this age. Of course our refuge is our home. And the prospect? If that can be seen through wide-screen windows and compete better with our other screens, then so be it. ●

Below A home with view, as extended and opened up by Mitchell Eley Gould.



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'Cuteness allows us to be fully ourselves, without judgement or boundaries. Put simply, it gives us permission to be happy'

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STEPHANIE WUNDERLICH PHOTO: GATE DONNEGOLD

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The RIBA Journal March 2024



Dirty protest

The ghostly imprints of passengers leaning on Elizabeth Line station walls are intriguing, intimate – and disturbing, says Will Wiles

Back when the paint was still drying on the Jubilee Line Extension of the London Underground, the scheme was widely celebrated for its quality of design and finish – a break from the network's long-running, meaner way of doing things. That was summed by an unnamed old hand: 'It doesn't matter how much it costs, as long as it looks cheap.'

Cheap was never a word that could be applied to the Elizabeth Line. Far beyond any particular design detail, the first impression of its new, eye-wateringly expensive subterranean stations in central London was their generosity. Such long platforms, such wide concourses, so much air, so much headroom. It was a welcome change from the troglodyte experience elsewhere on the network. Almost utopian, in fact.

As with most utopias, it had an antiseptic quality that was a little at odds with the human element. But now that quality is under siege by something rather unexpected: ghosts. Shadowy forms have manifested on the walls behind benches all along the line. The lightweight curved panels of glass-fibre reinforced concrete that clad the interior spaces of Elizabeth Line stations might be miracles of modern materials engineering, but they have proved unfortunately susceptible to a particular kind of dirt. Passengers sit on the benches and lean against the wall, they leave a little grime and human grease from their clothes and hair which has grown to deposit a spectral head and shoulders above every seat.

Stuff gets dirty with time, of course, there's no avoiding it. But these ghosts have proved quite a talking point, prompting revulsion, amusement and official embarrassment. TFL is scrambling to find a solution. Plastic backing may be applied behind the benches to protect the panels. I'm torn. The ghosts are a little gross, but there's a renegade pleasure in grubby humanity stealthily exerting itself in such a monumental, pristine space. Why are the ghosts so disturbing – is it simply because they are unclean, or something more?

In her remarkable 1966 book *Purity and Danger*, anthropologist Mary Douglas looked at 'dirt' without the sanitary considerations that have grown up around it since the development



of germ theory – that is, in purely symbolic terms. Dirt and corruption are disorder, which provokes strong responses because it is not simply negative: 'Granted that disorder spoils pattern; it also provides the materials of pattern. Order implies restriction; from all possible materials, a limited selection has been made and from all possible relations a limited set has been used. So disorder by implication is unlimited, no pattern has been realised in it, but its potential for patterning is indefinite. This is why, though we seek to create order, we do not simply condemn disorder. We recognise that it is destructive to existing patterns; also that it has potentiality. It symbolises both danger and power.'

What's provocative about the ghosts isn't that they're a stain, it's that they're obviously a human stain. Their provenance is the faint squalor of every human body, which we are generally at pains to suppress. Faceless and silent, the ghosts sit in judgement of us, the public, and our fallibility. They introduce a new pattern into the this heavily controlled space, wounding it on a deeper symbolic level than the simply janitorial. Could we embrace them instead? My first memories of the Tube were the products of its collective daily use by thousands of people: that strange bodily smell that wafted from the tunnels, the metal edges of steps worn to a golden shine by millions of feet, like something from a medieval cathedral. It is a strangely intimate communion with other Londoners, including those of the deeper past: real ghosts. These traces say you are not the first and will not be the last. ●

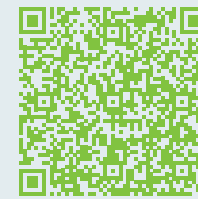
Left Spectral residues haunt the platforms of the Elizabeth Line.

LIVING IN THE SHADOWS

TFL's trial fix with sticky-back plastic is, I suspect, whistling into the wind. The ghosts were just the advance guard. A more pervasive haunting is slowly revealing itself: a continuous faint band all along the platform wall, from about waist to shoulder height. This tide mark may be less noticeably human, and so of course easier to ignore. But plastic covering might end up looking just as tatty in time – a dado rail might be the only lasting solution, or we could just live with it.



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Modernism unchained

Western modernism came to colonial West Africa and India, but with independence they made it their own. Pamela Buxton follows the story

For many reasons, it’s a pertinent moment for the V&A to tackle tropical modernism, the subject of a new exhibition opening on 2 March. Architecture’s intersection with colonialism and independence in West Africa and India in the mid-20th century would make for rich material at any time, but all the more so at a point when many institutions, says curator Christopher Turner, are seeking ‘to decolonise themselves, reckoning with their imperial past and its racial assumptions’.

Tropical modernism’s built heritage is increasingly under threat, especially in India, where several key pre- and post-independence modernist buildings face uncertain fates. Time was also running out to record, first hand, the experiences of surviving architects from those times, as the exhibition has done. And at a point of climate crisis, might tropical modernism be

Above Shop assistant from Sick-Hagemeyer store posing in front of the United Trading Company headquarters, Accra 1971.

Below Film still of Mfantsipim School, Cape Coast, by Fry, Drew & Partners.



© JAMES BARNOR, COURTESY OF GALERIE CLÉMENTINE DE LA FÉRONNIÈRE

a useful reference point for those seeking more sustainable design approaches?

Tropical Modernism: Architecture and Independence tells the story of the spread of the style in West Africa and India in the context of the anti-colonial struggle of the time. The exhibition considers its role, first in the service of colonial regimes, and later as a form of expression for newly independent countries post-decolonisation. Along the way, it explores how it was shaped first by Europeans such as British architects Maxwell Fry and Jane Drew, who had worked in the former Gold Coast (now Ghana) since 1945, adapting modernist principles to the tropical climate but with little attempt to engage with indigenous architectures. The exhibition then looks at how the style was appropriated by West African and Indian architects, and evolved into more regional manifestations.

How did tropical modernism offer expression both to colonial and post-colonial regimes? According to Turner, it survived the transition because it was seen as ‘international and neutral, especially when compared to earlier colonial architecture’, and was free of religious or ethnic baggage. As a result, key protagonists such as prime ministers Jawaharlal Nehru in India and Kwame Nkrumah in Ghana adopted it as a key tool of nation building.

‘They saw it as progressive, scientific and optimistic, a style appropriate to their particular brands of socialism,’ said Turner.

Nkrumah invited Ghanaian architect Victor Adegbite to return from the US to help build a new future for the country after independence in 1957. His projects included Black Star Square, a parade

ground in Accra on the former colonial playing fields, commissioned to celebrate independence. A new law ensured all major construction projects were led by Ghanaian architects.

Nkrumah established the first architecture school in sub-Saharan Africa – the Kwame Nkrumah University of Science and Technology – to train a new generation of African architects. The exhibition includes an aluminium Buckminster Fuller dome built by students at the university during a short teaching visit by the American inventor in 1964. Turner was delighted to discover the dome during research for the show, languishing long forgotten in a roof space at the university. A film – directed by Turner, Nana Biamah-Ofusu and RIBAJ Rising Star Bushra Mohamed – explores the built legacy of tropical modernism from this time. It includes both archive footage and interviews with surviving participants, such as 95-year old John Owusu-Addo, who had trained and worked in London before returning to Ghana to build and teach.

Throughout, the exhibition strives to name and recognise the achievements of West African and Indian architects, in contrast with contemporary archives, which were more likely to refer to them as unnamed assistants.

Turner says: ‘We aimed to centre and celebrate architects that worked with and alongside them in West Africa, and later in India, who all deserve to be better known. After independence,

Right Illustration from The Architectural Review, 1953.

Below Aditya Prakash, photo album of architectural projects, people and landscapes, circa 1960s-2000s.

Tropical Modernism: Architecture and Independence
2 March – 22 September 2024,
Porter Gallery, V&A,
South Kensington,
London



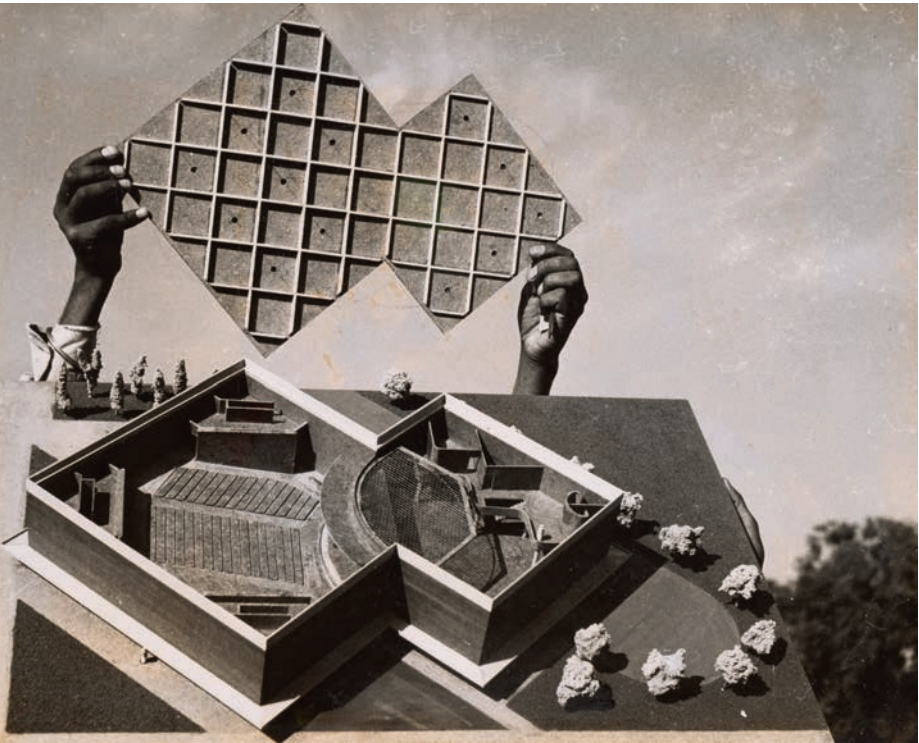
COURTESY RIBA COLLECTIONS. © GORDON CULLEN ESTATE.

these architects sought to create alternative modernisms that better reflected their traditions, and we wanted the exhibition to trace that story.’

In India, the exhibition looks at how Nehru initiated Chandigarh, the country’s first sizeable modernist project, hiring Drew and Fry who brought in Le Corbusier. European architects were not allowed to bring their offices with them to India – Nehru wanted Chandigarh to be a ‘living school’ for Indian architects to train on the job, says Turner. There is acknowledgement of the Indian architects who worked within the Chandigarh team full time – Corb visited twice a year – and Turner was pleased to be able to interview Jeet Malhotra and Shivdatt Sharma, who worked at Chandigarh from its inception as junior architects.

Nehru was also keen for local architects to develop an Indian modernism as part of a new national identity, says Turner. The exhibition looks at the work of architects such as Aditya Prakash, Balkrishna Doshi and Raj Rewal in this context.

Tropical modernism was primarily a climate-responsive architecture that, using deep verandas and solar shading, worked with the climate rather than against it. Its fate was sealed, says Turner, with the ubiquitous use of air-conditioning from the 1970s. But in researching the exhibition, he detected a renewed interest in this history among contemporary architects in South Asia and West Africa. The exhibition will show how there are ‘lessons to be learned’, he says, from tropical modernism’s scientifically-informed passive principles, as architects seeking a more sustainable architecture for these regions look back to look forward. ●



Ila Bêka and Louise Lemoine make films about architecture – not of fawning promotion but warm, frank investigations of the human experience

Words: Chris Foges Portrait: Federico Ciamei

The real deal

Most films about architecture look something like this: we begin with an aerial view – a God-like perspective showing a building as conceived, but never experienced. Cut to a talking head of the architect for the official explanation of the big idea. Once inside we might rise weightlessly through an atrium, or follow the smooth glide of a gimbal-mounted camera through suites of tidy rooms like a fly-through of a digital model.

Such flattery is anathema to Ila Bêka and Louise Lemoine. In more than 30 offbeat documentaries the couple has turned an almost anthropological gaze on life within celebrated buildings, and more recently on their creators, with a characteristic blend of humour, polite nosiness and critical acuity.

‘We want to show the truth of a moment in a place, and not to make it artificial by either treatment or technique,’ explains Lemoine – an art historian by background – speaking via Zoom from their Venice studio. ‘We don’t even use a tripod; we are not aiming for virtuosity, but empathy for people and full immersion in everything happening around us.’

Their richly digressive films are concerned more with feeling and the physical experience of space than information about plans or structure.



‘You can find all you want on the Internet,’ says Bêka, who trained as an architect. They poke around behind the scenes, and delight in clashes between the order of design and the forces of disruption: dirt, defects and inhabitants who don’t recognise the implied rules. Cameo roles go to unruly children, street vendors and interloping animals, from bugs to buffalo.

In the duo’s early work, that was consciously provocative. ‘It was a polemical reaction to that period of star-making in architecture,’ says Bêka, ‘and the use of icons and imagery as a promotional tool’. Their 2008 debut, *Koolhaas Houselife*, follows housekeeper Guadalupe Acedo on her endless rounds of the OMA-designed *Maison à Bordeaux*. To a bouncy soundtrack we watch her battle leaks and wrestle a Hoover up a narrow spiral stair, offering a witty addendum to ‘elite’ accounts in the architectural press. Amid general acclaim there was furious objection. ‘People asked “how can you allow a housekeeper to talk about architecture?”’, Bêka recalls with satisfaction. ‘It was like we were destroying a myth.’

Undeterred, the pair pushed on with a series of similarly irreverent self-financed films on buildings by boldface names. Gehry’s *Vertigo*, for example, spotlights abseiling maintenance



Above Book and DVD sales funded the couple’s early independent films.

Left and right The Sense of Tuning observes Bijoy Jain in his atmospheric home-studio and delves into his favourite places in Mumbai.



PICTURECREDITEDGE

workers at the Bilbao Guggenheim as they struggle, broom in hand, across the billowing curves of the interior. Without simplistic judgement, it illuminates the tensions between artistic ambition and quotidian reality.

Although such scrutiny can be uncomfortable, the pair now has a cultural cachet comparable to some of their subjects. Last year’s Royal Academy show on Herzog & de Meuron had as its centrepiece Bêka & Lemoine’s sideways look at life in a paraplegic rehab clinic. Their latest film, an enjoyably haphazard account of a day with Studio Mumbai founder Bijoy Jain, accompanies a major exhibition at the Fondation Cartier in Paris.

Museum partnerships have offered new cinematic possibilities. The most ambitious is Homo Urbanus, a 10-part series totalling nine hours capturing the flavour of street life around the world. Shot close up with wide-angle lenses and projected on large screens when installed, they present the citizens and streetscapes of Doha and Bogata at life size, and allow simultaneous comparison. ‘You can almost project yourself into the cities,’ says Lemoine, ‘and experience the contrasts between them.’

While those impressionistic surveys have little narrative structure and no central characters, another series has seen a fruitful shift into portraiture, initially in the 2017 release Moriyama-San. It is a beguiling, dreamlike depiction of a reclusive bibliophile and his Ryue Nishizawa-designed Tokyo house comprising 10 distinct structures. We see an urban microcosm perfectly attuned to his eccentric habits, inviting viewers to wonder how their own desires are served or conditioned by architecture. ‘That was an important moment when we understood that our work was changing,’ says Bêka, ‘and we



Above Poster for a film on Herzog & de Meuron’s Rehab.

Below Guadeloupe Acedo at Maison à Bordeaux, built for Lemoine’s father who was paralysed in a car crash.



Below Mr Moriyama at home in Tokyo, and Boonserm Premthada in the film Big Ears Listen With Feet.

started looking for subjects who could help people develop their own sensibility towards space.’

Three follow-up documentaries have focussed on architects who lead day-long tours of their home cities. It would be interesting, the couple thought, to see how ‘experts in space’ relate to the places they live in. With Pritzker Prize-winner Nishizawa they document a rainy dash through Tokyo in a cramped Alfa Romeo, stopping at sites of personal significance including family shrines. Thai architect Boonserm Premthada revisits the Bangkok slum where he grew up, getting excited as he recalls a childhood of boxing and gambling. Arriving at Bijoy Jain’s home for their first encounter, the duo invite themselves into his morning yoga session and within minutes are chatting away like old friends.

Much in the same way that Bêka & Lemoine’s early work got beneath the surface appearance of buildings, in these intimate encounters we see the mask of professionalism drop to reveal warmth, wisdom, shyness and self-doubt. How do they do it? An improvisational approach to shooting helps, they suggest, as do three-way conversations – less oppositional than conventional interviews – and their willingness to put their own errors and human ‘fragility’ on screen.

‘It’s not easy’, says Lemoine, ‘and we’ve met architects again in more public settings, when the magic of the moment is over, and it’s back to the mediated staging of themselves’. More’s the pity, because as Bêka & Lemoine’s curious and sensitive films beautifully demonstrate, there’s much more to architects and to architecture than a carefully composed facade. ●



Road to a stronger profession

Muyiwa Oki has published his Biennial Plan, looking at ways to give the next generation a reason to care about architecture

In the architecture world, our challenges are as diverse as the buildings and places we design. From navigating complex regulations to addressing pressing societal issues as different as the Grenfell Tower tragedy and the climate crisis, architects are tasked with a daunting array of responsibilities. Yet among these challenges lies an opportunity to expand our impact and redefine the role of architecture in society.

Architects continue to face these challenges with characteristic grace, optimism, and creativity. And while education and practice continue to evolve to meet the demands of modernity, there is still more to be done to foster the innovative spirit at the core of our profession. Central to this effort is ensuring fair compensation for architects, particularly those at the beginning of their careers, who may be overworked and underpaid despite their immense talent and skills.

As the RIBA president, I want to assure all our members that they are not alone. Our ambitions extend beyond individual success. Rather than competing for a share of a shrinking pie, I believe it is imperative that architects come together to expand opportunities for all. This means working together to articulate and communicate the substantial value that architects bring to society by creating high-quality, safe and sustainable places.

This month, I am proud to unveil my Biennial



STEPHANIEWUNDERLICH PHOTO: JIM STEPHENSON

Plan, which outlines five key focus areas to position the RIBA as a catalyst for change – the infrastructure that gives the next generation a reason to care about architecture. In the context of this discussion, two of these areas feel particularly relevant.

The first is supporting practices to be a force for good. This is about ensuring architects are happy and healthy in their jobs. Our people are our greatest asset. I want to ensure that every one of us is valued for our contribution and that we are creating the conditions for people to be productive, innovative, and collaborative. Critical to this will be a survey of working conditions in practices to establish a baseline from which action can be taken.

The second is about reimaging the role of future architects. I want to ensure that the profession is ready to face the future – that we can embrace a broader definition of architecture, grasp new opportunities, utilise new technologies and scale up our activity in the areas that matter most, including climate action and digital innovation. This will include the RIBA’s Horizons 2034 project, an authoritative analysis of issues affecting the profession over the next 10 years. These issues include challenges from the environmental to the technological.

Immediate action is crucial to create a future where architecture contributes even more significantly to our communities. Success, in my view, involves an engaged, diverse cohort of confident RIBA members, a profession where everyone feels a sense of belonging, and a public perception of architects as key and integral problem-solving contributors. The RIBA must project a confident, assertive, engaging outlook for the future of our profession. Let’s get to work.

You can download my Biennial Plan from [architecture.com](https://www.architecture.com), or scan the QR code. ●

Left We have to communicate the substantial value architects bring to society by creating high-quality, safe, and sustainable places such as Studio Weave’s RIBA National Award-winning Lea Bridge Library.



REGIONAL AWARDS SHORTLISTS REVEALED

Were you shortlisted for a RIBA Regional Award? Following meetings with local jurors up and down the country, we revealed the buildings that have been shortlisted for our Regional Awards last month. This year’s cohort of projects included a converted fire station, London’s oldest brewery, a Jacobean castle, the renovation of a covered reservoir into a family home, a 17th century grain warehouse and a cotton mill. Keep an eye out for winner announcements through May and in the June issue of the RIBA Journal.

Eye Line 2024: call for entries

Pen, pencil, computer or even AI –whatever your medium, our drawing competition is open for submissions

How do you represent the world you would like to see? Eye Line 2024, RIBA’s annual, international competition showcasing the best drawing and rendering skills, is open for entries. As ever, we ask for images in two categories – student and practitioner – that brilliantly convey architecture, in any medium or combination of media. We are seeking the best and most exciting submissions from those at the sharp end of representation.

Images of all kinds, from hand-drawn concept sketch to technically proficient and layered renders are eligible: ‘drawing’ includes any method by which the power of an architectural idea is communicated, whether depictions of existing buildings or works of the imagination. Last year saw our first AI entries.

There are two categories:

- Student category: images made by those in architectural education or who are submitting images made before final qualification.
- Practitioner category: images made by those fully qualified and working in practice, whether for real-life projects or exploring ideas or experiences.

Winning entries will be published in print and online. Our colleagues at RIBA’s Drawings and Archives Collection will inspect winners for potential inclusion in their archive.

Last year’s student winner was the Bartlett School’s Chia-Yi Chou, whose work was a meditation on carbon sequestration potential of forests if subjected to fractal geometry, increasing surface area. Her folding 2D drawings beguiled the Eye Line judges with their Archigram/steam punk references. Practitioner winner was Dustin Wheat, Professor of Architecture at University of Texas at Arlington, whose collage of pages from his sketchbook built a fluid, sublime picture of the architect’s internalised thought processes and influences.

Each year we are gratified by the originality, wit and talent presented to Eye Line: an international, free-to-enter award. Practitioners and students – show us your best drawings and join a prestigious cohort of past winners! ●



EYE LINE RULES

We seek the best 2D representations of a building design or concept through visual means. They may be hand or digitally drawn, incorporating collage or any combination or overlay of methods. Video and straight photography excluded.

→Enter in either the student or practitioner category. The RIBA Journal reserves the right to reallocate to a different category if deemed necessary.

→Maximum of three images per entry, which can be from different projects or all from the same project.

→Joint entries on which more than one person has worked are permissible.

→All entries must be uploaded via the link below. We cannot accept physical works. Images must be at 300dpi, file size maximum 25Mb.

→The work must have been produced within the three years up to the closing date of 14.00 BST on Friday 10 May 2024 and must not previously have been entered for Eye Line.

→Submissions using AI must be clearly labelled

Enter at: ribaj.com/eyeline/enter

INFORMATION REQUIRED

→Title of work(s) if applicable, and medium.

→Name of the author(s) of the work.

→Name of organisation where author works or studies.

→Email, postal address and phone number.

→Dimensions of the original work as presented, in mm.

→Date it was completed.

KEY DATES

Deadline:
Friday 10 May 2024, 14:00 BST

Judging: End May 2024

Winners and commendations announced:

July/August 2024 issue

of RIBA J and online

Correspondence: eyeline.ribaj@riba.org



Eye Line 2023
Student winner:
Chia-Yi Chou, The
Unfolded Forest-2.
Digital render and
paper collage.
594x841mm.
Bartlett School of
Architecture, UCL.

‘Wise, energetic’ former BDP chairman heavily involved in the expansion and diversification of the practice during a career lasting over 30 years



Bill Jack 1933 – 2023

Bill Jack, who has died aged 89, was a central figure in the history of BDP. Over a long career with the practice he successfully pushed it in new commercial and creative directions, and was elected chair from 1989, serving until his retirement in the mid-1990s.

Bill grew up in Inverugie, Aberdeenshire, and studied architecture at Robert Gordon University. It was there that he met BDP founder George Grenfell Baines, chauffeuring him around as an RIBA external examiner in 1957.

Studying far from the London centre of British architecture, as he later recalled, he became more interested in Scandinavian architecture, ‘which seemed much closer and more appropriate to north-east Scotland’. After graduating he worked at Basil Spence’s Edinburgh office, but a fellowship to do an MA at Cornell gave him a chance to see American practice first-hand, and in firms such as SOM he found an exciting contrast to the UK’s more ‘old-fashioned and gentlemanly approach’.

Returning to the UK in 1962 he was offered a job by Grenfell Baines at the newly formed BDP. Inspired by the Bauhaus, Grenfell Baines was convinced that only a new type of firm could rise to the challenge of infrastructure modernisation, with architects, engineers and quantity surveyors working together under one roof.

Bill started his BDP career in Preston but quickly moved to London to work with David Rock, later a president of the RIBA. Bill believed passionately in the collective ideal, but was never afraid to challenge its perceived shortcomings, notably the design freedom resulting from Grenfell Baines’ highly developed sense of democracy. His own early work included Aldershot Military Town, a large residential scheme in Wimbledon, and BDP’s long-term London home on Gresse Street. In 1966 he became a partner.

Alongside Keith Scott he set about growing private sector commissions, with efforts bolstered by a small central intelligence and marketing unit; former RIBA J editor Hugh Pearman was at one time a member. New work included shopping centres and overseas projects such as the Banco Espirito Santo E Comercial de Lisboa, won in 1969. Completed in 1980, the design is confidently modern yet delicate, well suited to the historic city centre. In the following years, a time of uncertainty in British architecture, he was critical of both the ‘stylistic dead-end of post-modernism’ and historicism advocated by the then Prince of Wales.

In the early 1990s, when Bill was instrumental in delivering projects such as the Channel Tunnel Terminal, I was dispatched as a young architect to see him about a job he was chasing, and discovering an enthusiasm for good design which everyone respected. Colleagues recall his ‘swagger’ and energy as well as his wisdom.

A skilled recruiter, his hires included the four future co-founders of AHMM, and he knew that success relies on high-performing teams. He was an open-minded collaborator – the best known being the redevelopment of the Royal Opera House in Covent Garden with Jeremy Dixon and Ed Jones. Bill put together a strong team with the required design and technical experience to win the 1998 competition and deliver the project.

As a general partner, Bill helped set up a studio in Glasgow and established an interior design unit in London. He promoted merging with the civil and structural engineer Lowe and Rodin to enhance BDP’s capabilities, and developed a landscape architecture unit, ably led by his late wife, Janet. Through such initiatives he played a crucial role in shaping the culture and professional mix at BDP, and in paving the way for today’s global firm. He is survived by his daughter, Amy. ●

IN MEMORIAM

John Naylor
ELECTED 1952, CARDIFF

Brian Anthony Loffthouse
ELECTED 1982, LONDON

Bryan Keith Thomas
ELECTED 1950, COLCHESTER

Bryan Danton Adams
ELECTED 1962, SURREY

Lawrence Mawson
ELECTED 1967, SURREY

Gordon Philip Sainsbury
ELECTED 1971, BELMONT, USA

James Latham Hurlstone Heesom
ELECTED 1972, LINCOLNSHIRE

John Graham Picking
ELECTED 1985, LONDON

Eric Dalgleish Davidson
ELECTED 1954, EDINBURGH

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



The Galleria Umberto 1 shopping arcade
Naples, Italy, 1880s

In the 19th century, glazed shopping arcades were built in many of Europe’s largest cities. One of the oldest is the Burlington Arcade in London of 1818, although some covered passages in Paris are earlier predecessors. Arguably the most famous of the later larger arcades, covered by vaulted glass and cast-iron roofs, is the Galleria Vittorio Emanuele II in Milan, built between 1865 and 1877 and now a major landmark of the city.

Less well known and slightly later, a similar project started taking shape in another Italian city, Naples, as part of the Urban Renewal Plan,

developed after the 1884 cholera epidemic. Located opposite the renowned San Carlo opera house, the Galleria Umberto I was designed to house shops, cafés and businesses, as well as apartments on one of its upper floors, and to provide a covered public space for the city. The arcade soon became a meeting place for local musicians and composers, and the heart of cabaret entertainment in Naples. It is now part of the Unesco listing of the Historic Centre of Naples as a World Heritage Site. ●

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