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Religious buildings offer succour

Tim Heatley: northern transformer

Sumayya Vally talks to Dingle Price

**The RIBA Journal**

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# 1

## Buildings



### Picture postcard 07

Sou Fujimoto returns to the scene of his first house with Shiroiya Hotel in Maebashi

### Workplace 08

Konishi Gaffney Architects' visitor building for a Scottish sawmill complex

### House 12

Timothy Smith and Jonathan Taylor's neoclassical extension to a Georgian townhouse

### Crematorium 18

Haverstock Associates shows how smooth operations help mourners at Guildford Crematorium

### Housing 26

Henley Halebrown's Hackney housing fits in and stands out

### Place 32

Nine architects are designing Greenwich Design District 'blind' – a recipe for rich urban grain or chaos?

# 2

## Intelligence



### Q&A 41

Clive Betts MP discusses issues arising from proposed reforms to planning

### Opportunities 42

Religious buildings are extending to raise revenue, providing jobs for architects

### Robotics 48

Housebuilding robots are here. We put four international giants through their paces

### Retrofit 54

Deep retrofit using the Plan of Work at the new base for the Cambridge Institute of Sustainability Leadership

### Structures 59

Climate-friendly alternatives to conventional bricks

### Housing 60

African compound houses could be a useful communal model for all

### Legal 63

How to stop construction disputes before they start

**On the cover**  
Guildford Crematorium by Haverstock Associates, photographed by Simon Kennedy

# 3

## Culture



### Photograph 67

Redshank, Luke Hayes' photograph of elemental remoteness in Essex

### Leader 69

We're starting to buy again and we can enjoy buying green too

### Opinion 71

Will Wiles ponders the definition of an outdoor structure

### Profile 72

Capital & Centric's Tim Heatley isn't your usual developer but his bid to improve places seems to be working

### Serpentine pavilion 79

Serpentine Pavilion designer Sumayya Vally in conversation with Dingle Price

### Review 84

Squid Revolution's Learning by Doing work is restoring life to a Calabrian hill town

### President 87

Alan Jones reports on the conclusions of his Fact-Finding Mission for the future

### Obit 89

Peter Lord, who wanted to design everything from teaspoons to towns

### Parting shot 90

Coventry's circular Covered Retail Market helped the city rebuild

Who is representing under-represented racialised groups? Is it only elite people of colour that get to talk about race?

Indujah Srikanan puts socio-economic deprivation into the diversity debate: [ribaj.com/srikanantrulydiverse](https://ribaj.com/srikanantrulydiverse)



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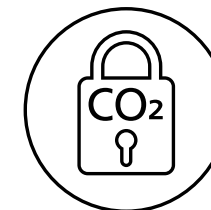
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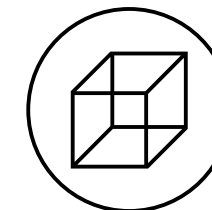
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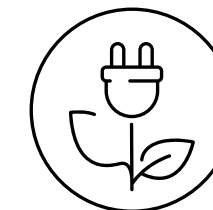
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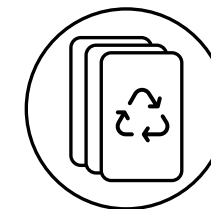
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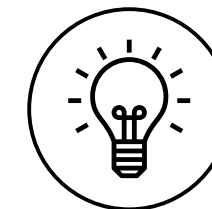
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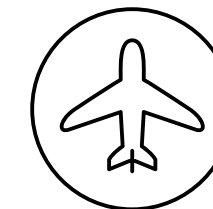
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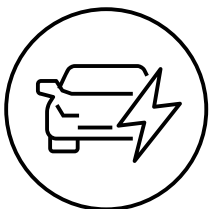
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Townhouse trimmings  
— house extension  
12

Nine architects, one place  
— Greenwich Design District  
32

07

# 1: Buildings

**SHIROIYA HOTEL,  
MAEBASHI, JAPAN**  
**SOU FUJIMOTO**  
Read the full story:  
[ribaj.com/shiroiyahotel](https://ribaj.com/shiroiyahotel)

Eleven years after completing his first house in Maebashi, Japan, Sou Fujimoto has made a more substantial creative imprint on the city with his 25-room Shiroiya Hotel. It spans two buildings – the Heritage Tower, a renovated 1970s structure that had housed a centuries-old ryokan; plus the new Green Tower, cut into a grassy hillside.

Tapping into the idea of a 'living room for the city' is the Heritage Tower atrium. Behind a facade emblazoned with boldly poetic Lawrence Weiner text, Fujimoto excavated a four-level space to create a 15m high structural shell with light filtered through skylights. The exposed concrete frame is tempered by a white spiral staircase, a tubular Leandro Erlich installation, leafy plants and scattered design pieces – including a wooden Naoto Fukasawa table for Maruni and Alvar Aalto's Cantilever

chairs for Artek. 'I always talk about the forest as a model for my architecture,' says Fujimoto. 'The forest means a place where everybody can feel their own place.'

Minimalist guestrooms (with concrete-inspired carpets) showcase the work of different artists; Jasper Morrison, Michele De Lucchi, Erlich and Fujimoto each designed a suite. Across a walkway is the sloping grassy Green Tower, with eight further guestrooms, a sauna and, at its apex, digital installations by Tatsuo Miyajima.

Shiroiya Hotel is one of a string of projects by owner Hitoshi Tanaka, CEO of eyewear company Jins, which is putting his hometown Maebashi on the creative map (a sweet shop by Jo Nagasaka of Schemata Architects is down the road). And Fujimoto is already working with Tanaka on a second revitalisation project. ● **Danielle Demetriou**



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The RIBA Journal July 2021

KATSUMASA TANAKA



# Site for saw eyes

Konishi Gaffney Architects has created a visitor building for a Scottish sawmill complex that is testament to the practice's strong roots in craftsmanship

Words: David Reat Photographs: Dapple Photography

Before the Covid pandemic, James Jones & Sons, the largest, single-site sawmill complex in the UK, was becoming overwhelmed by the volume of visitors. The idea for a new building was devised by its former marketing manager Jon Stevenson, who recognised the need to provide better facilities. Following a competition, Konishi Gaffney Architects was appointed to develop the design brief which comprised: reception; offices and meeting room for 10 staff; support spaces; and, most importantly, a large multi-purpose room capable of accommodating 30 people with a view over the entire processing site.

In the corner of the showcase facility, three miles north of Lockerbie in south-west Scotland, is the result – composed of two

staggered pieces umbilically attached to a previous structure, forming a trio of elements. The oblique approach reveals the new building's cloven diagram, a response to site constraints, allowing the lower section to protrude beyond the taller one and announce the entrance in a discreet but effective manner. This level of delicacy and restraint pervades throughout; the result of discussions between the architect and the client that the building, while being distinctive, should never be ostentatious. The footprint, on a north-east/south-west axis, logically presents pitched gables to the prevailing Galloway wind and, appositely, to the sawmill complex on the leeward side. The robust form and massing lets the structure sit among larger neighbours

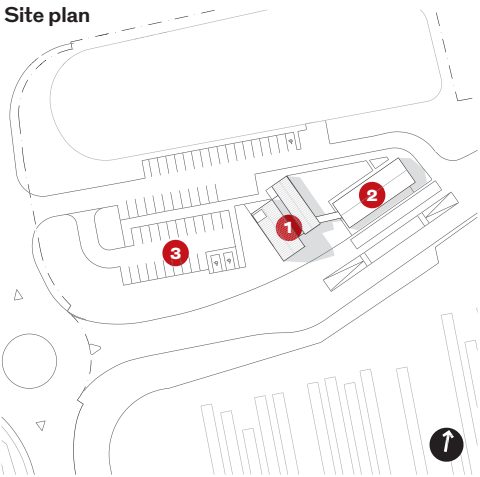
of industrial sheds and kilns without being overwhelmed. The company's attention to waste mitigation and environmental responsibility – such as using expelled heating water from the Steven's Croft power station nearby – is demonstrated throughout its construction. The new building makes extensive use of timber while using an air-source heat pump to provide renewable heating or cooling, depending on the time of year.

The envelope, constructed with thick walls clad in Scottish larch, exploits deep window reveals to mitigate inclement weather. The ground floor is a plinth of black-stained vertical timber strips, crowned by a continuous flashing detail established by the eaves line of the lower buildings' zinc roofs.

The first floor, by contrast, is clad horizontally and is more natural in colour – the result of preservation treatment to ensure balanced weathering. This distinction is most obvious on the south elevation, which discreetly incorporates exits and services within its binary composition; however, the upper-volume gables are where the story of the building is most explicit. The western picture window, monitoring the entrance, is complemented on its opposing side by a panoramic glazed screen, housed within a large corner aperture. This opening is constructed with concealed cantilevered steelwork and is the only concession to a built manifesto of the company's timber products. Kieran Gaffney, the lead architect, initially favoured a fillet geometry honed

Konishi Gaffney Architects' new visitor building, looking south.





from a previous idea, while the client wanted to divert the money elsewhere, in particular towards the roofing materials. A different corner form was subsequently devised and all agreed the £800,000 project did not suffer as a consequence.

On entering, the building’s organisation is clear. The reception desk, facing on to a monochromatic bank of full-height proprietary-glazed offices, guards a sequence of secondary spaces camouflaged behind a striated wall of colourful Douglas fir. In a clue of what is to come, the space is structured by the glass corner of the staff meeting room, from where the adjacent biomass plant can be viewed, establishing a visual dialogue.



**Above** The panoramic glazed screen/window, looks over the entire processing facility.

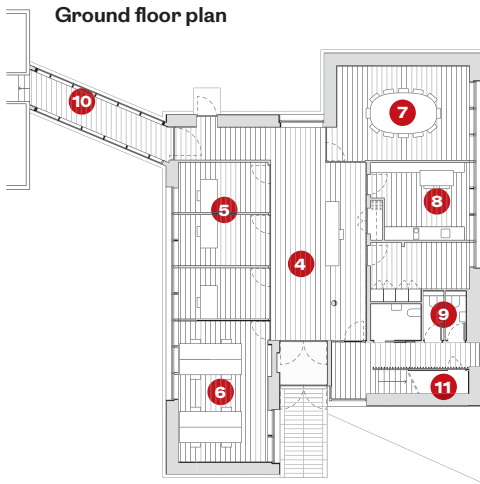
**1** New block  
**2** Refurbished existing  
**3** Car park  
**4** Entrance and reception  
**5** Manager’s office  
**6** Staff office  
**7** Main meeting room  
**8** Admin office  
**9** WCs  
**10** Glazed link to existing block  
**11** Stairs up to Upper Hall

Credits  
**Client**  
James Jones & Sons  
**Architect** Konishi Gaffney  
**Structural engineer**  
Entuitive  
**M&E** Irons Foulner  
**Project manager**  
Asher Associates  
**QS** McGowan Miller  
**Contractor**  
David Hardie Engineering  
**Timber supply**  
James Jones & Sons  
**Flooring/cladding**  
Russwood  
**Glazing** Gray & Dick,  
Velfac, Glazing Vision  
**Internal partitions**  
Scottish Window  
Solutions

The functional design, is not lost on manager Emma Loftus, who acknowledges that the centre has been considered as much for the staff using it as for the people visiting. The building continually unfolds spatially, belying its compact dimensions, in particular on ascent to the floor above. A top-lit staircase arrives at a lectern-like balcony from where you can see both the building entrance and the primary space. This room, ecclesiastical-in-character, is a perfectly proportioned two-square on plan, enclosed by white plastered walls, sandwiched between oak flooring and a cathedral ceiling composed with closely-centred rafters. The elegance of the structure’s timber fins recall the ribcage qualities of the architects’ Bowhouse food production hub in Fife, as their rhythm directs you to the

**Left** A stripped trunk feature column delineates the circulation to the upper floor.

**Right** The project’s primary space, which provides a spectacular view out over the whole plant.



climax of the building’s narrative: that view over the entire 14ha sawmill from its magnificent east window.

The centre, while won in competition, was not the first time the architect and client have worked together. Konishi Gaffney’s pavilion for the Edinburgh Expo (2016) established a working relationship that has now resulted in a successful addition to the client’s workplace, and to the architects’ expanding list of fine projects. It is testament to the practice’s strong roots in craftsmanship and its proven ability to communicate with its client that this is a chance for it to open up further, to more expansive work, and to explore what is around the next corner. ●



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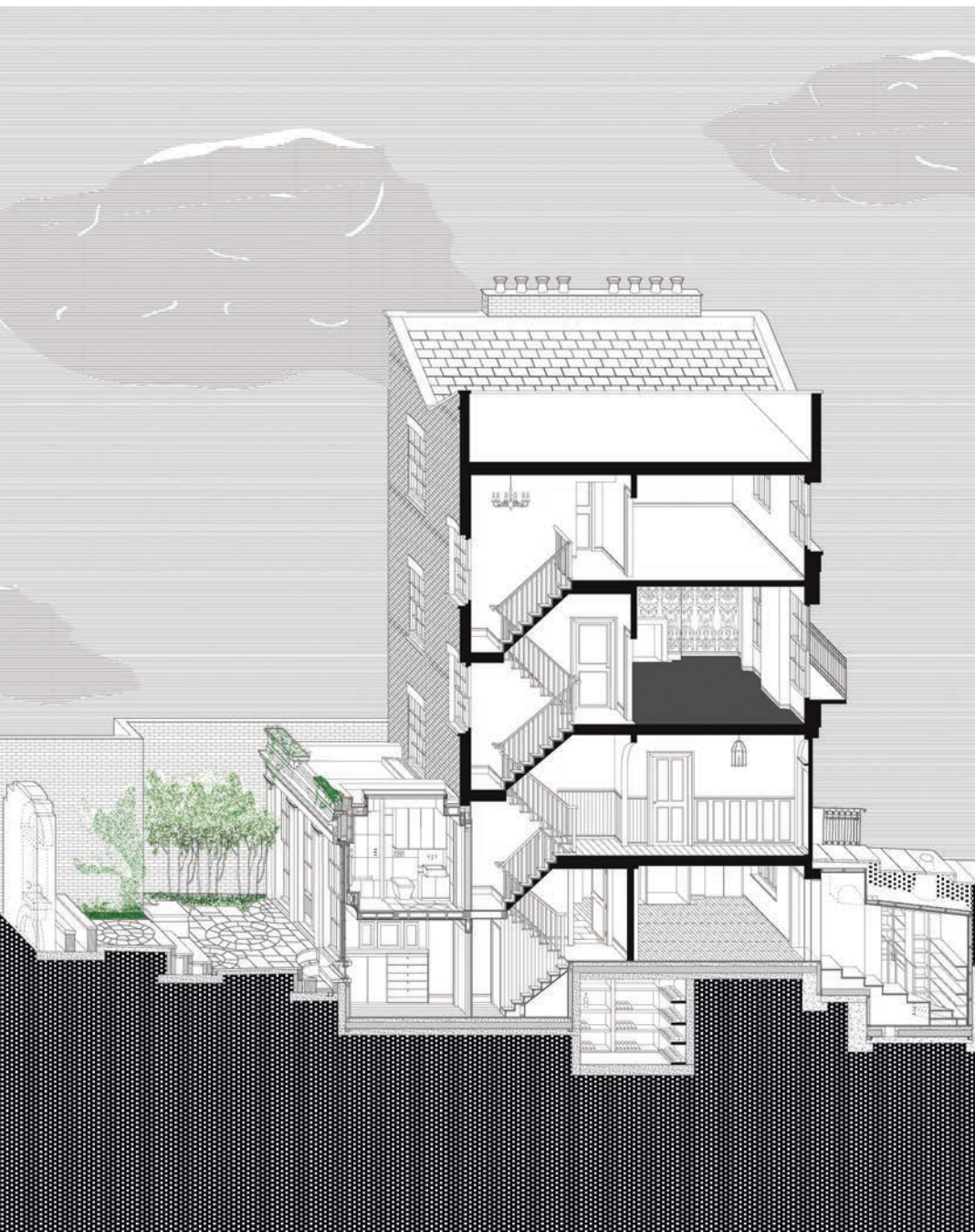


# Embracing the neoclassical

Timothy Smith and Jonathan Taylor's Georgian Townhouse extension accentuates the original architectural style

Words: Isabelle Priest Photographs: Anthony Coleman

**Below** Perspective section of original house and the new extensions, in a similar style to contemporary Georgian drawings.



'We are not one of those practices that wishes we were all living in the 18th century,' explains Jonathan Taylor as we sit in the courtyard garden of architectural firm Timothy Smith and Jonathan Taylor's recently completed Georgian Townhouse project in Hoxton, London. The building is a typical late-Georgian, four-storey, 5.5m-wide terraced house, built in 1835, with an elegant fanlight window above the front door, a balconied piano nobile and a recessed lower ground floor that is generously set back from the street.

Smith and Taylor have renovated a significant proportion of the existing interior, added a rear extension at the lower level, excavated a sliver of basement and redesigned the garden. The clients, David and Christopher, but particularly David, are neoclassical architecture enthusiasts; original prints line the staircase walls, and one aspect of the brief was to create a room to store David's collection of drawings, which is now located in what is affectionately called the 'map room'.

It doesn't appear the clients ever asked for the redesign to be in a neoclassical style, but we're here in the newly Portland stone-repaved garden looking back at the house, and the extension has taken a distinctly classical composition. Two full-height timber sash windows are set between an arcade of four stone capital columns either side of a central pair of French doors. The architraves use the same brick as the extension, which matches the original building, and there is a carefully detailed fine stone frieze and cornice above.

Placed on the top are two lead planters which form a symmetrical relationship with the window bays, and add grandeur and weightiness to the arrangement. The plants are beginning to romantically topple down over the edge. Inside, you peek a drooping tented ceiling with a miniaturised circular rooflight at its centre and horizontal lightwells that set the ceiling away from the walls in a manner reminiscent of the Breakfast Room at Sir John Soane's Museum.

The rear facade is based on the choragic monument of Thrasyllos in Athens

The rear facade itself, however, is based on the choragic monument of Thrasyllos, a memorial erected in 320-319 BCE on the artificial scarp of the south face of the Acropolis of Athens. The monument was a popular motif in Georgian architecture, forming part of the inspiration for the nearby Lloyd Baker Estate in Islington, built 1820-40.

The column capitals here are a direct copy, only cast not carved and the monument has two bays rather than three. The brick pediment and arches, stone lintel, basin and pool of the gently trickling fountain up the steps on the back wall of the garden behind us are loosely based on Edwin Lutyens' garden structures and war memorials of the 1920s and 30s – put together with confidence beside a muse more than 2,000 years older.



**Above** The garden room's drooping ceiling, inspired by the tent room at the Charlottenhof Palace in Potsdam.

**Below** Back extensions are ubiquitous in London but not many are in the neoclassical style.

This is what starts our conversation about neoclassicism. Rear extensions to Georgian town houses are ubiquitous in London but few these days follow the neoclassical style. 'It's a valid language among many,' says Taylor. 'Neoclassicism is a rich seam of architectural history and thought.'

Smith and Taylor met during undergraduate degree at Edinburgh College of Art, but they only started looking with confidence at classicism when they lost their jobs during the recession.

'We picked up a project on Rosemary Street, says Taylor. 'It was a 1990s house that had a weirdly art-deco interior, but we decided to really go with it and take it seriously. At the time, well-respected architects seemed to be tentatively exploring the



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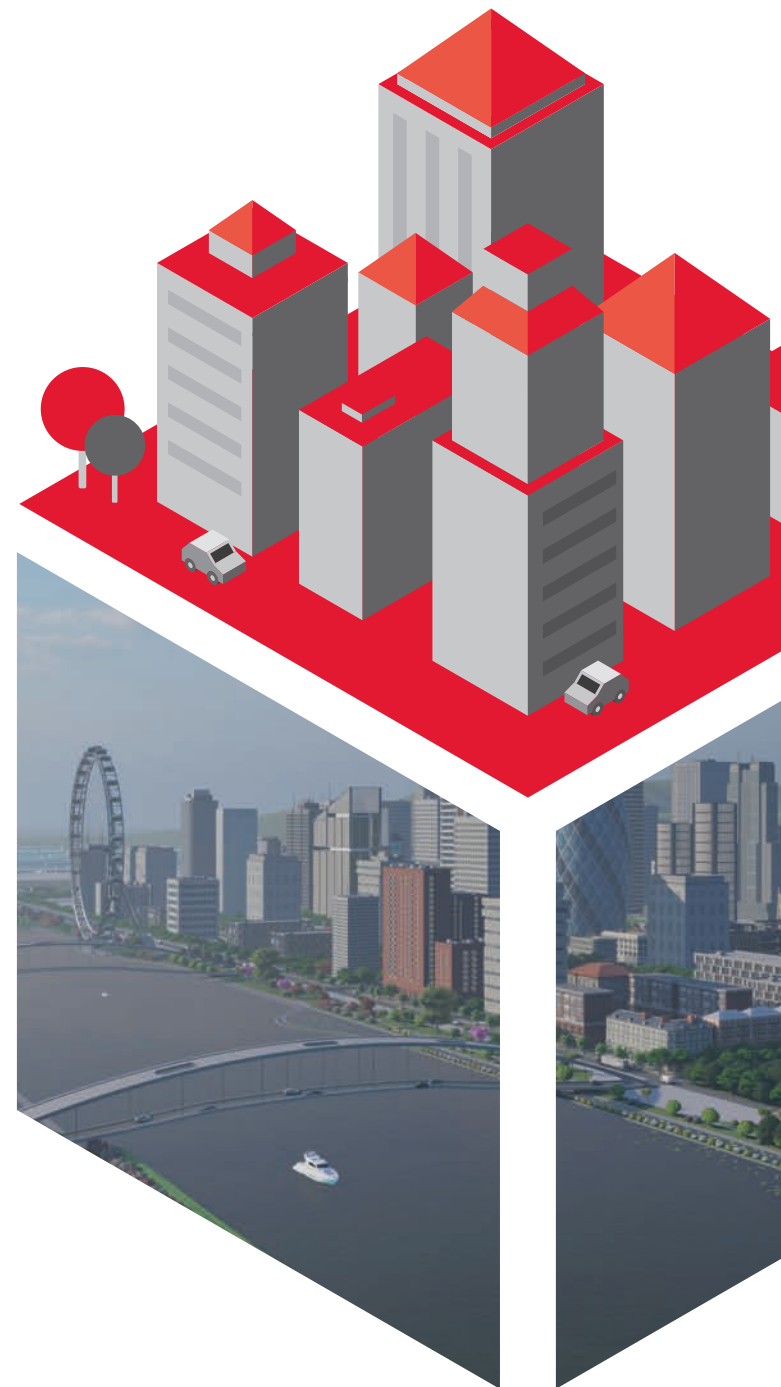
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## Buildings House



classical language. Florian Beigel's Paju Book City had elements of classicism in it that had caused a hoo-ha; Tony Fretton's Red House and Caruso St John's Cover Versions exhibition at the V&A cited classical precedents. It wasn't timidity holding them back, but these indications gave us the confidence to use it and we thought: why would we admire these buildings and use them as precedents for everything except architectural expression?'

The directors teach a master's course at Kingston about the classical orders and their application to design projects – the only course like it in the UK. Although Taylor says they are reasonably loose on interpretation, 'the more we looked into it, the more we thought there isn't a good philosophical argument not to use it – modernism is, after all, 100 years old and the spirit of the age will put its hand on a building whether you like it or not.'

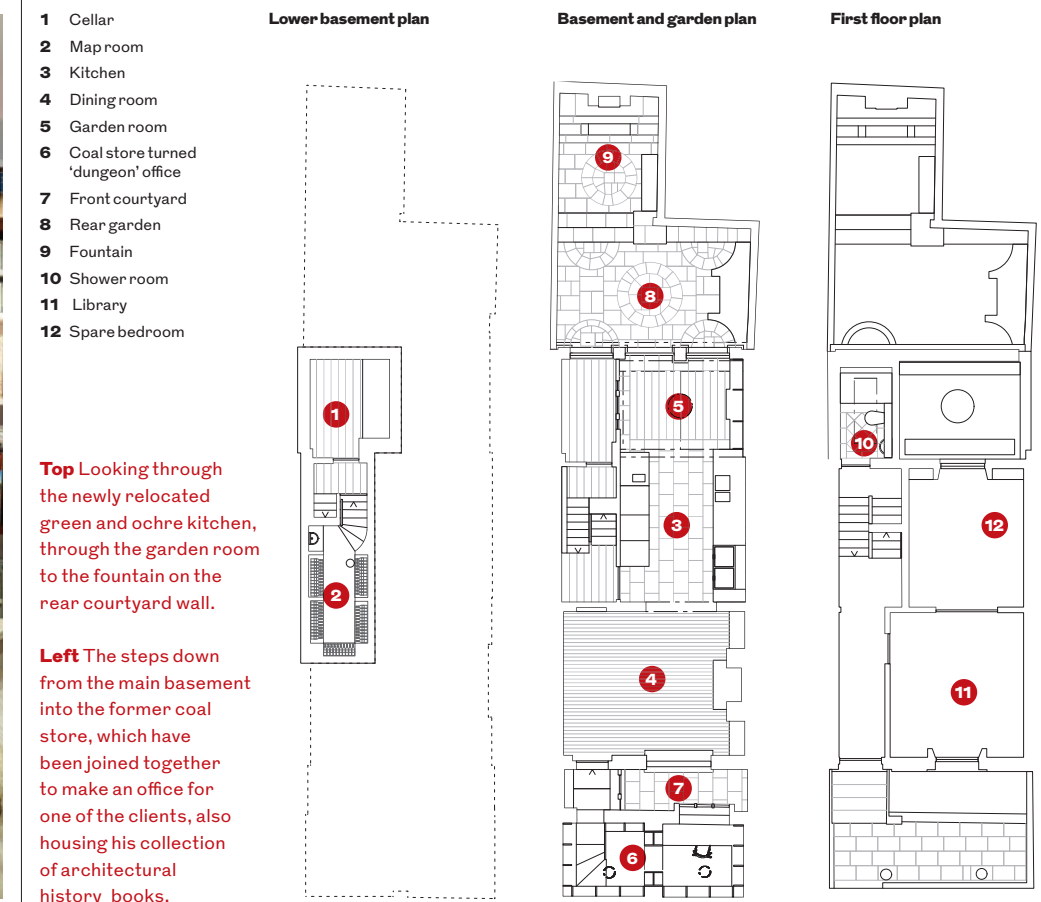
'I'd forgotten all this when we were looking for bathroom fittings,' laughs Christopher.

The practice's involvement in the project came about because the building was beginning to experience some difficulties. The clients had brought the house in 1981,

attracted by vestiges of original details they wanted to reinstate. They did their first restoration in 1989, which brought back the ornate friezes, and were told the damp-proof course they put in the basement would last 25 years. Sure enough, by 2015 they started to have problems again. The brief given to Smith and Taylor was to sort out the damp and existing half-depth rear extension, since something needed to be done and it would be nice to do it properly.

David also wanted an office to retire from full-time work to. As part of the initial work, Taylor proposed two alternative locations for a workspace: one in the former coal stores at the front of the plot and the other under an existing shower room at first upper landing level. The clients chose to do both and the project took off from there as the 'last refurbishment', making the house as fit as possible for what the clients call 'their impending old age'.

'The use of houses has switched round,' explains Taylor. 'Now people live at the back and bottom of these Georgian town houses so the rear needs a bit more formality – although this is a touch grander than we originally aimed for.'





Programmatically, the project was resolved quickly as the site is spatially tight and there are naturally a limited number of options for a grade II listed conservation area building. Hackney council would not permit a loft conversion in the butterfly roof, and full basement excavations were discouraged, although the architects managed to convince the local authority to permit a concrete vaulted roof wine cellar and cold store as a late addition.

The kitchen has moved from the former rear addition to the middle of the plan, beside the retained dining room, and the extension has been pushed further into the garden to create a new orangery-like garden room which connects to a courtyard that is a metre lower in the main section. The new map room slots beneath the shower room at half basement level, cleverly and discreetly splitting the right-hand sash window of the rear elevation into upper and lower rooms so that the lower floor lies 1.5m below ground level. A new semicircular dug-out external lightwell bay in the paving arrangement brings daylight into the space and adjusts the formality of the classical rear frontage.

Elsewhere, the master bedroom has been repainted in the salmon and green fashion of the writing room at the Charlottenhof Palace in Potsdam, woodwork repainted in the drawing room, wallpaper redone in the upper rear bedroom and staircase. The ceiling in the hallway has been repainted with its midnight blue and stars, but the basement changes are where the magic happens. The coal store is

now an office, opened out between the two original vaults to make a generous space and with a stair down to it past the front courtyard from the dining room. It's lined with shelving for books and CDs and painted a very light shade of pink but is nicknamed the 'dungeon' even though it's incredibly charming as a space and intensely practical too.

The same goes for the new map room, tucked beneath the revamped shower room (redone with green terrazzo tiles and Aston Matthews unfinished brass fittings). Here the walls are painted deep red and an antique 1840 architect's desk is the space's main object. You are half a level down and a glass panel in the wall connects you to the floor level of the garden room – look up and you see the round rooflight. Everything is fitted and kitted out to suit the clients to the last detail; a cupboard and drawers designed to fit Pevsner books three rows deep are bedded into the wall under the garden room. The excavated bay in front of the window gives that bit of extra height to the view of the fountain at the back of the garden.

And this is how this project is: compact and clever. It maximises floor area and uses by neatly and cleverly overlapping spaces. They are too dense to be original in what would have been essentially a speculatively built house, but they are charming enough to feel authentic in spirit and tone, and have that Soanian eccentric conversion element to them too. There certainly isn't any looming question that the style might not be appropriate. ●

Credits  
**Clients**  
Christopher and David  
**Architect** Timothy Smith  
and Jonathan Taylor  
**Structural engineer**  
Michael Barclay  
Partnership  
**SAP consultant**  
Peninsula Energy  
Compliance  
**Contractor**  
Studio Montague  
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#### IN NUMBERS

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Total GIFA

**Above right** Natty storage tucked under the garden room in the map room to store David's collection of drawings and Pevsner books.

**Right** The inner city garden, excavated and transformed by the Lutyens-inspired fountain on the back wall.

**Left** On trend but classic new terrazzo shower room with unpolished Aston Matthews brass fittings.



TAYLOR MAXWELL

# Colindale Offices

**Colindale Offices, the main focus of the Grahame Park regeneration project, was expertly designed by London based architects Hawkins Brown, for client Barnet Council as their new headquarters.**

Prior to the Colindale Offices project, **Hawkins Brown, Galliford Try** and **Rosedale Brickwork** had worked with Taylor Maxwell to select and specify the brickwork on another project; Ivydale Primary School in London, which was a great success and went on to win multiple awards. Therefore, it was decided that the same bricks would be used for Colindale Offices to create a similar, striking affect. Combined with string courses of stone that wrap the building perimeter at every second storey, the facing brick selected has a brown body, with white and black accents and grey-blue shades. The thoughtful palette of brick and stone materials used has provided the sense of individuality that the architects wanted to achieve, without conflicting with nearby architecture.

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# Silent running

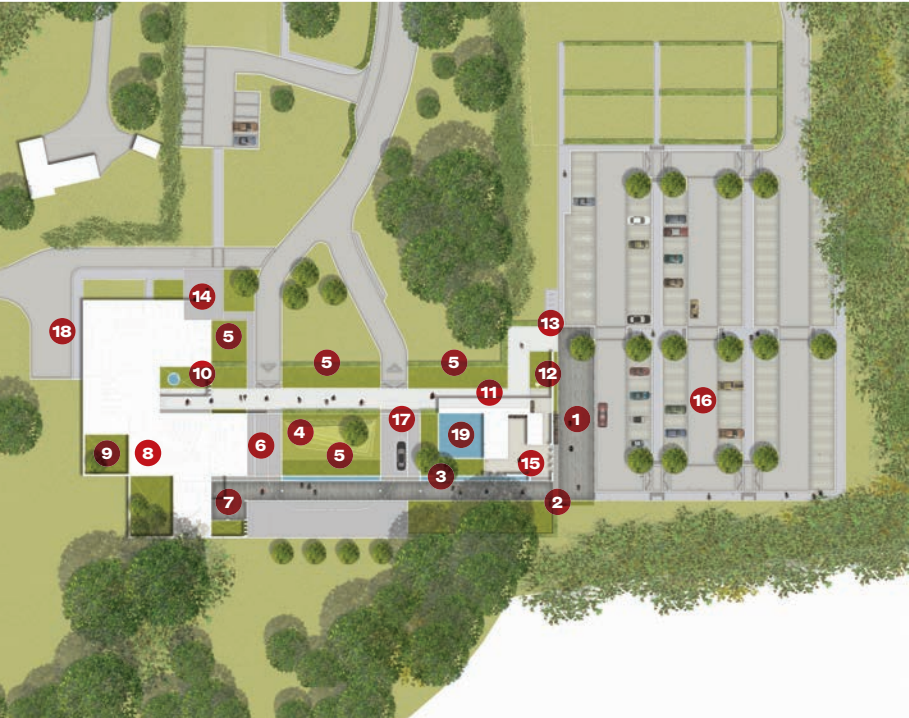
A smooth process is key to setting the right tone for the bereaved in the complex workings of a crematorium. Haverstock Associates displays the art at Guildford

Words: Jan-Carlos Kucharek Photographs: Simon Kennedy

There’s a harsh truth in statistics – as shown with devastating clarity by the annual figures from the UK’s Cremation Society, which make for a grim yet compelling read. A 2017-2019 average of 609,000 deaths per year jumped in 2020 to 692,000, with the number of cremations rising by 70,000 to 543,000. A sole asterisk next to that figure directs the eye to another statistic – the ‘direct cremation’; 54,000 services which, under strict Covid rules, were conducted without any family members present; laying a meniscus of absence on the volume of loss.

And if such seemingly hard-nosed practicalities lie at the heart of Haverstock Associates’ design for Guildford Borough Council’s new crematorium, the firm is not the first to recognise their importance. Statistical arguments to challenge sentiment and ritual were central to the arguments of Sir Henry Thompson, physician to Queen Victoria’s and author of the 1874 paper ‘The Treatment of the Body after Death’, that cremation was ‘a necessary sanitary precaution against propagation of disease among a population daily growing larger in relation to the area it occupied’. But historical resistance, including the Bishop of Rochester’s prohibition of crematoria

- 1 Waiting and assembly area
- 2 Entrance of congregation route
- 3 Water rill feature
- 4 Sculpted lawn (1.2m high)
- 5 Ornamental planting
- 6 Porte cochere
- 7 Entrance courtyard
- 8 Chapel
- 9 Walled courtyard
- 10 Chapel exit courtyard
- 11 Floral tribute area
- 12 Art/ Sculpture
- 13 Exit of congregation route
- 14 Administrative entrance
- 15 Remembrance court entrance
- 16 Main car park
- 17 Cortege pick-up area
- 18 Service area
- 19 Reflective pool



Final arrival: Looking from the formal walkway to the porte cochere and the chapel lobby to the right.

on consecrated land and an Act to site them and their chimneys away from dense population centres, has shaped the nature of the typology: a novel funerary rite consigned to the modern suburbs. And with no bells or smoke or dropped clod, the agnostic, somewhat mechanistic process of cremations left an absence too at the heart of the service. This was addressed at Asplund’s Chapel of the Holy Cross (1940) at the Woodland Cemetery in Stockholm’s suburb of Skogskyrkogarden. Here, at the architect’s own cremation, says historian Dr Harriet Atkinson, was the only time the chapel’s huge screen wall was fully opened to unite the catafalque with the raw nature outside.

IN NUMBERS

748m<sup>2</sup>  
gia

£10m  
project value

£3,383  
average cost of  
cremation (Guildford):

1  
cremulator

This beautiful and profound precedent must remain bound into the thinking of Haverstock, but for the architect it had to be as much about crematory logistics as about rite – which should be no surprise given its popularity. In the UK, 78% of people choose cremation over burial, and there are now 307 crematoriums in the country, with a half dozen or so coming online annually. Guildford is Haverstock’s sixth design to be realised since its Telford crematorium in 1998. Sitting mid-way in the UK’s crematorium popularity table and performing nearly 1500 cremations a year, its current timed service ‘slot’ means it’s working to about 50% capacity.

Haverstock partner Tom Gibb brings real insight,



born of experience, to the type. While mourning and memorial are core considerations in the design, he adds that business concerns – more so in the private than public sector – mean architects must be as cognisant of ‘process’ as they are of ‘procession’. Crucially, that means being keenly aware of the time slots for receiving the cortege, committing the body and letting mourners flow out via the floral tribute hall, and using this process to help create the organigram of spaces and movements across the site.

Over time, that approach has made for interesting revelations. First is the importance of the landscape around as a key element of any crematorium’s business case; chapels of remembrance and memorial gardens provide for revenue generation, be that a name entry in a book of condolences, a wall plaque or tree planted in someone’s memory. Secondly, the tighter the site, the more critical adherence to an allotted time slot becomes to avoid mourner ‘bottlenecks’. Current optimum service length – as it is here at Guildford – is 45 minutes, up from 30 minutes 15 years ago. Back then, Gibb notes, crematoriums were also generally more internalised environments; perhaps the idea of landscape as a potential revenue stream meant facilities eventually peeled out to address them. All to the good: Gibb’s only reservation here seems to be that the building isn’t more robustly tied into its landscape; sold, like Asplund, on the idea that the better embedded the crematorium is in

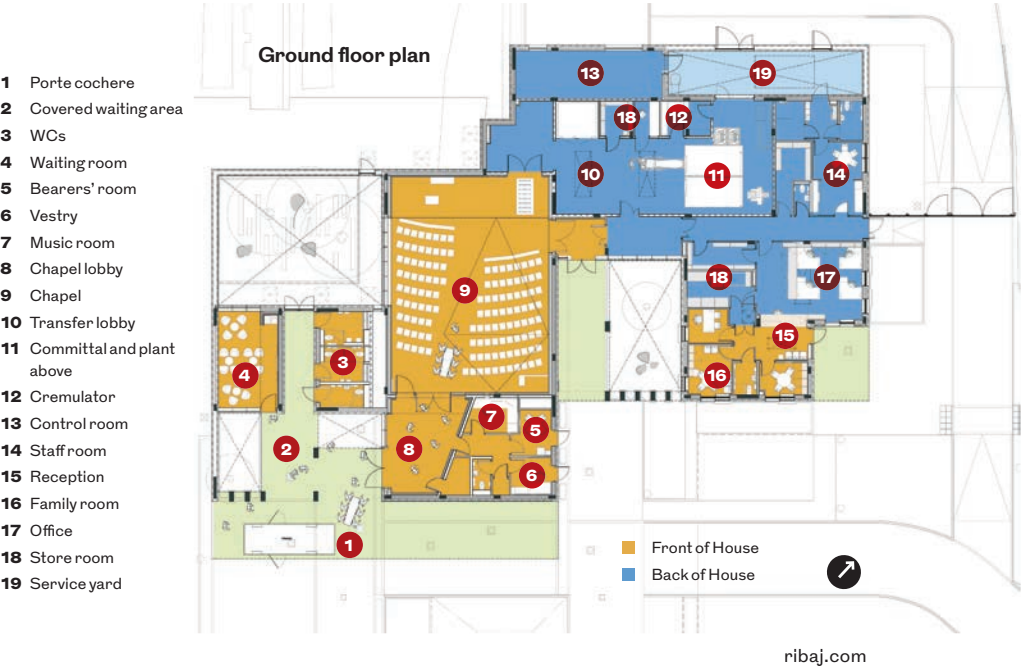


**Above** The main chapel with walled courtyard on the left and catafalque on the right. East clerestory light accentuates the roof structure.

**Left** Looking towards the chapel lobby from the porte cochere.

its surroundings, the better a place it will be.

According to Gibb, Guildford is the result of learning gleaned from the firm’s past municipal designs, like the £2 million, 15-year-old Chilterns and 2019 Birtton crematoriums for Buckinghamshire, and the new £6 million Lea Fields north of Lincoln. Guildford was also aided by a client that wanted a design that demonstrated real civic quality, and so was prepared to expand on the site of the old crematorium that Haverstock’s replaced. And history played a part: Section 5 of the Cremation Act 1902 precluded their being sited within 50 yards of a highway or on consecrated ground, and ‘no nearer to any dwelling-house than 200 yards’. Optimising those factors on this site led to the generous plan, positioning the car park at a respectable distance from the chapel

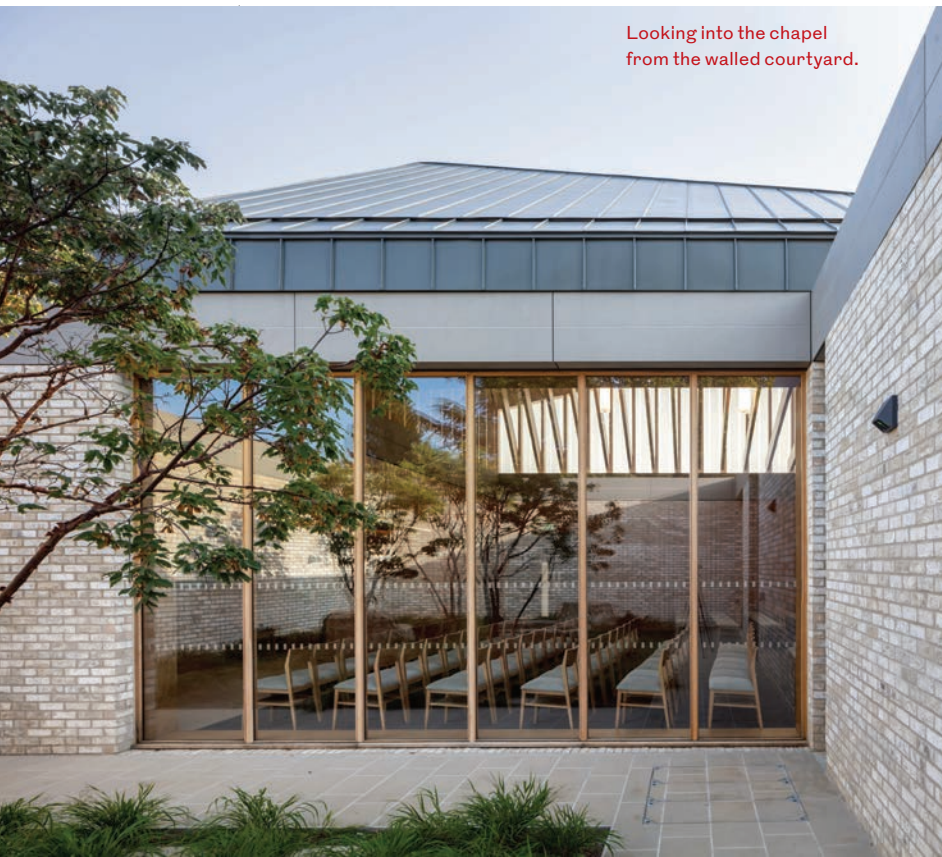


and allowing for a generous, long mourner processional route, guided by a stone rill of flowing water, toward the main hall and, rill-less, back via the floral tribute hall adjacent to the chapel of remembrance. As part of Gibb’s wish to ‘embed’ the building, a mound of grass between the routes creates a sense of notional separation; ‘holding the space’, he thinks. Both arrival and exit paths are traversed by the vehicular route for the hearse, allowing it to loop round under the porte cochere and drive off past the admin offices. A smaller, separate car park here allows the daily business of the facility, such as bookings and ashes retrieval, to continue without impinging on services.

The language of the crematorium is understated but surprisingly indulgent for a municipal building, with a low-lying concrete frame expressed either as a trabeated structure or covered in a rich, biscuity Engels Baksteen brick. This is punctuated with either full height glazing or large oak doors, and side panels or oak brises soleil. Not wanting to compete with the sylvan landscape, the architect set the line long and low. It rises only at two key points: above the main chapel and above the cremators themselves. Here, a Rhino-modelled oak structure punches above the datum, clad in a crisply detailed, zinc standing seam roof. Gibb states that a third roof structure was planned for the cremator transfer lobby as families often want to witness the final committal. This was finally realised as rooflights giving views to the sky; but he says the trend has meant specification in this back of house area now needs to be as good as in the main spaces.

With the processional path’s stone pavers running through the entrance lobby to the lofty chapel, mourners arrive at the catafalque set on the diagonal rather than straight on. A landscaped courtyard to the west provides succour for the eyes, but the far corner, lit by east clerestory glazing, is the focus of attention. Governed by the geometry of gathering, it funnels smaller groups to give them more critical mass and ensures that all pass by the catafalque as they leave the chapel, past a small courtyard and out to the exit route. The floral tribute hall has been incorporated as a covered exterior element of the remembrance chapel back at the south side of the site, aside the pool that Gibb regards as the ‘pinwheel’ around which the site of the service and centre of memorial pivot. Beyond the time and distance equation of the route planning, the contemplation pools evince the project’s innate generosity, offering mourners the space to pause.

Guildford’s two gas-fired cremators will each,



Looking into the chapel from the walled courtyard.



The route out of the chapel is punctuated by a landscaped courtyard to the left of mourners as they leave.



depending on body mass and water composition, spend less than two hours to take a body through the four stages of dehydration, decomposition, inversion and fusion. This last one, when human bone melds and coalesces, needs temperatures of up to 1300°C, so it is no surprise to hear that 75% of crematoriums use heat exchangers to put that heat to good use. Here, bulky heat exchange tanks and kit sit beneath the cremator’s zinc roof. Gibb says that loved ones might balk at the idea of body ‘heat’; but I draw strange comfort from the fact. That time when you ‘feel they are still here with you’? As it turns out, they are.

Gibb says that the industry is looking at electric cremators but these must be held at working temperature to optimise energy use, with a large power supply and back-up batteries. I ask if the sun’s energy could be used but he thinks that would require a solar array rather than just a roof. ‘Could you theoretically evaporate a body using a Felix Trombe mirrored solar collector, like the ones in France?’ I ask him. ‘Possibly.

The challenge is merging technical considerations with concepts of grief and memory



The covered floral tribute area, beside the chapel of remembrance, allows for contemplation before exiting back out to the car park.

**Client** Guildford Borough Council  
**Architect** Haverstock  
**Landscape architect** Plincke  
**Structural engineer** Elliott Wood  
**M&E consultant** RNB Partnership  
**Quantity surveyor** Press & Starkey  
**CDM co-ordinator** Goddard Consulting

Left From the chapel of remembrance a window looks out across the pool out towards the chapel complex.

That’s an interesting idea...’ he says after a moment. But why not? It took the court case of Dr William Price, an eccentric Welsh druid arrested in 1883 for trying to cremate the body of his own baby son, to ascertain than the act itself wasn’t unlawful, a ruling that paved the way for cremation in the UK. Why not let the object of his worship do the actual job?

But Gibb is more concerned with fact than fiction and the demands of the next design for Hemel Hempstead, where the firm plans to take advantage of the broad landscape and use bunds or gabion walls to sink the building into it: the crematorium as long barrow. For him, however, the challenge remains merging the technical considerations with the more philosophical concepts of grief and memory. ‘We’ve done enough of the fine-tuning,’ he concludes. ‘For us it’s about taking that spiritual aspect to a higher level.’ ●



Sections through chapel space



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# Tomorrow’s bathrooms

Like condensation on the mirror, speakers at this webinar on bathroom design demystify trends, evolving demands and how to bring joy to the smallest room

Words: Michèle Woodger



From the outdoor latrine to the en suite with touchless technology, the bathroom has come a long way. With complex plumbing, electrics, heating and ventilation to keep it hygienic and safe – making specifying incredibly complex – the bathroom punches above its weight in the demands it caters to, which are both functional and elemental. Can one small room be all things to all people?

RIBAJ managing editor Isabelle Priest kicks off proceedings with a brisk walk through bathroom history. The the last five years have seen rapid design evolution, raising questions over which needs should be prioritised, and what is a passing trend or a more substantial change in thinking? Like condensation on the mirror, this is for the speakers to demystify.

Adam Nathaniel Furman brings characteristic exuberance to his presentation on colour. Diving in with a quote from Memphis pioneer Ettore Sottsass – ‘you don’t save your soul by painting everything white’, he laments that although children use colour with abandon, for adults colour is the antithesis of serious. The future is bright for bathrooms, Furman believes, with a move away from the ‘sinister, dour, monochrome’, towards a more expressive, personal use of colour, which communicates non-linguistically but viscerally. ‘It’s easy to make things functional’, he says, ‘but not to make them joyful’. Tomorrow’s bathroom is a space of less conformity and more freedom.

Roberto Palomba, chief design officer of the Atelier Collection for Ideal Standard, also views the bathroom as a new frontier of self-expression. When he began his practice, 26 years ago, he recalls, the bathroom was ‘the lost room’ of the house, built around plumbing with limited options for tiles, fixtures and fittings. A few ‘masters’ had broken the mould however, such as Gio Ponti, who in the 1950s also produced sanitaryware for Ideal Standard.

Moving away from the ‘trend cycle’ which vacillates periodically from white

This webinar is from a series of presentation interviews and a panel discussion on the topic of bathroom design, hosted by RIBA Journal and Ideal Standard [ribaj.com/idealstandardwebinar](http://ribaj.com/idealstandardwebinar)

### SPEAKERS

Isabelle Priest, managing editor, RIBA Journal  
Adam Nathaniel Furman, artist, designer and author  
Roberto Palomba, chief design officer, The Atelier Collection for Ideal Standard  
Nicolo Stassano, founder, Studio Stassano  
Russell Whitehead and Jordan Cluroe, co-Founders, 2LG Studio  
Andrew Stembridge, executive director, Iconic Luxury Hotels Group

Left, top and bottom The bathroom and kitchen at Adam Nathaniel Furman’s Nagatacho apartment project in Tokyo show how colour and texture can be combined.

Below Ludovica and Roberto Palomba founded Palomba Serafini in Milan in 1994.

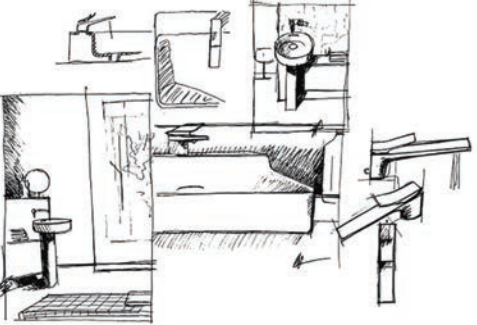


to colourful and back, Palomba feels that we are now in the ‘everything goes’ era: vintage classical or Bauhaus-inspired super minimalist. The Atelier collection encompasses a wide range of coloured and textured sanitaryware and fixtures. ‘Our aim is to democratise bathroom design,’ Palomba says of his collection: ‘I don’t want to impose, I want to inspire’.

The pandemic has acted as a catalyst for an already changing relationship with bathrooms; when our constantly occupied homes must accommodate work, socialising and rest, the bathroom becomes, in Palomba’s words, a ‘body sanctuary’.

Hotelier Andrew Stembridge agrees with this. In recent years, ‘what guests want has changed’, he observes. ‘Leading such busy lives, when people go to a hotel they expect a luxury bathroom’. Today’s hotel bathrooms are multifunctional, with design requirements running along similar principles to the bedrooms themselves: intelligent lighting, natural daylight, high-spec furnishings, brassware and sanitaryware, and in some cases televisions, all prerequisites. ‘A bathroom refurb will typically live through two bedroom fitouts’, he explains, so longevity is key, with durable, good-quality materials and interior design that isn’t going to look outmoded or tired. Neutrality balanced with character.

Longevity is also sustainable. As Stembridge points out, the pandemic has rather derailed the sustainability agenda in hotel facilities management, with single-use plastics (free shampoo bottles) returning on hygiene grounds. Yet environmentally friendly facilities are increasingly on guests’ lists of demands, which hoteliers-as-clients pass on to their architects as design challenges: effective means of drying towels to prevent daily washing, energy efficient heating, reduced water consumption etc.



The Iconic Hotel Group manages a series of luxury treehouses at Chewton Glen. Here, in the seclusion of the New Forest, ample foliage permits non-frosted bathroom glazing, presenting guests with scenic views. Hotel stays must be ‘memorable and instagrammable’, with social media now pivotal to hotels’ marketing strategies.

Focusing on the adaptation of period bathrooms to today’s needs, Nicolo Stassano discusses his work on private period residences. These were often not built with a bathroom, and creating visual continuity involves drawing out period features such as datums, marbles, plasterwork, architraves and joinery and celebrating them alongside the bathroom’s modern functional needs.

Colour re-enters the frame with Studio 2LG’s discussion; for co-founders Russell Whitehead and Jordan Cluroe, their queer identities and former acting careers inform their ‘joyfully minimalist’ style. ‘Colour can crash through boundaries’, they say, ‘allowing us to express our voice’. Pushing clients out of their comfort zone can ‘give them the confidence and permission to go there’. The bathroom is a place for emotion too; a ‘morning person’ may require an energising vibrant bathroom, unlike one who prefers to unwind with an evening bath.

Left Sketches for the new Ideal Standard Atelier collection, designed by Roberto Palomba.

Below The Atelier collection offers eight new ceramic colours; sage, powder, slate grey, concrete, kashmir, mint, nude and pomegranate.



Left The new Ideal Standard Conca bathtub, part of the Atelier collection.

Below The Ipalys range, designed by Robin Levien for Ideal Standard, in sage, nude and powder.



And what of accessibility? Is the increase in luxury bathroom design leaving clients with mobility needs behind? A private residence, Stassano points out, can accommodate individual needs such as wider doors, ergonomic brassware, benches in showers and no-threshold floors, with cost the only limiting factor.

More challenging, perhaps, is creating a sumptuous environment in an accessible hotel bathroom, which must cater to a wider range of needs. Yet interesting developments have occurred here too. ‘Twenty years ago’, Stembridge says, ‘guests would check out of rooms with an accessible bathroom’: with their white plastic grab rails, they were utilitarian and depressing (indeed many such bathrooms still are). A conscious effort to upgrade the accessible bathrooms has resulted in in-demand rooms: they are spacious, with considered details such as removable grab rails, height-adjustable vanities, conveniently installed hooks, seats which can be rotated at different angles and so on. The details may be subtle, ‘but when everything is in the right place, and with the facility to introduce more or fewer accessible features, the experience can be equally comfortable for all guests’.

So, wrapping up like a hotel guest in a fluffy towel, the webinar concludes that the bathroom of the future enjoys augmented status in the house, caters for a wider range of needs, keeps sustainability and accessibility in sight and is entitled to enjoy the ‘wow factor’ of bold colour if so desired.●





# 21st century tradition

Henley Halebrown’s two new residential buildings create continuity in Hackney’s evolving constructional context

Words: Chris Foges Photographs: Nick Kane

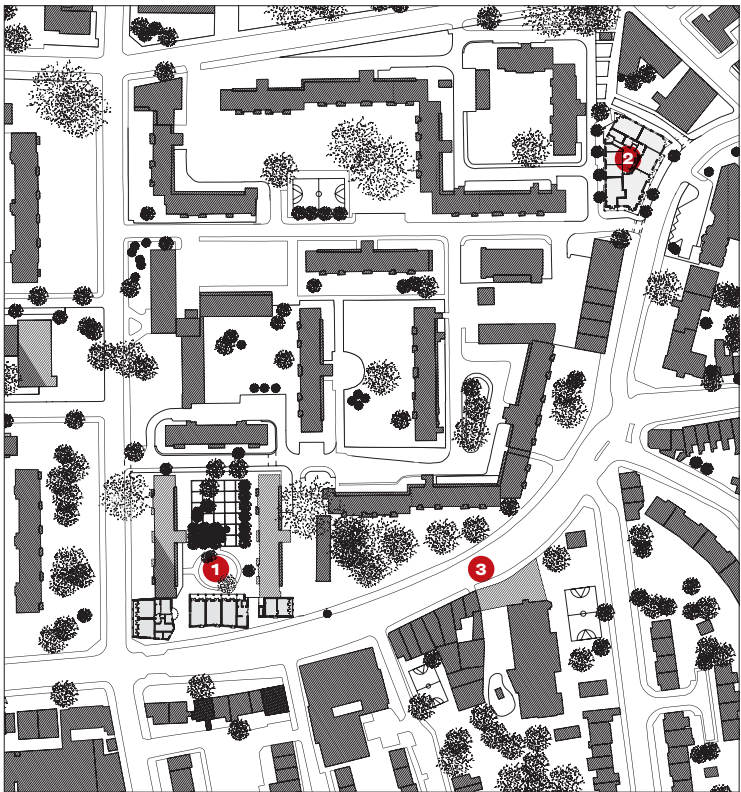
Separated by a short walk along Well Street, two enjoyably idiosyncratic apartment buildings designed by Henley Halebrown for Hackney Council make a pair of non-identical twins. They assume quite different forms, but share a muscular material character: crisp volumes of red brick are overlaid with a heavy carapace of decks and balconies in reddish precast concrete. This combination of frames and walls responds to the particularities of place. Both buildings sit on the southern fringe of the post-war Frampton Park Estate, whose loose grid of slim brick blocks frames a generous green landscape but makes a weak edge to Well Street, in contrast to the 19th century houses across the road. ‘Part of the ambition of the project was to reconcile those conditions’, says architect Simon Henley. ‘The buildings’ outward appearance marries two constructional traditions: what happened in the 20th century, and what went before’.



Wilmott Court viewed from the south.



Taylor Court and Chatto Court in a westward view along Well Street.



IN NUMBERS	
2,171m <sup>2</sup>	GIA, Taylor Court & Chatto Court
2,567m <sup>2</sup>	GIA, Wilmott Court
13kgCO <sub>2</sub> /m <sup>2</sup>	Annual carbon emissions, Taylor Court & Chatto Court
15.8kgCO <sub>2</sub> /m <sup>2</sup>	Annual carbon emissions, Wilmott Court

- Estate plan
- 1 Taylor Court and Chatto Court
  - 2 Wilmott Court
  - 3 Well Street

0 20m

The first building, providing 20 homes for social rent and shared ownership, is on a narrow strip of land aligning Well Street, which previously contained a pub. Behind was an open court bounded on three sides by existing blocks. To reflect the rhythm of the Victorian semis opposite, Henley Halebrown arranged the new homes as a row of three individual buildings, known as Taylor Court and Chatto Court. Passages between them preserve routes and views from Well Street into the newly enclosed courtyard.

Henley Halebrown refers to these five-storey buildings as ‘villas’, and has made successful efforts to suggest a domestic scale. Bulk is broken down by creasing the facades, producing a faceted building line and animating oblique views. Manipulation of the building forms also enlarges the public realm to the front, and makes an inviting space out of the passage to the courtyard.

Two-storey maisonettes on the ground and first floors put doors on the street, which are tied together by a pink ribbon of fluted concrete. Above, there are lateral apartments



on the second floor, and more duplexes on levels three and four. It's a neat arrangement that provides a range of flat sizes and efficient circulation. Common stairs only need to rise to the fourth floor, and where possible the circulation is taken outside, using access decks that mingle with private balconies overlooking the well-used courtyard.

Open-air bridges between two buildings allow them to share a single core, and created the opportunity for one of the project's most distinctive features – a half-arch spanning two villas that appears to support the lower bridge (although its structural redundancy is made clear by exposing the concrete soffit). The bridge also shelters an entrance below, and the form of the arch is completed by the curved plaster lining of the lobby.

The bridge-arch illustrates Henley's view that within the economic constraints of housing design, external circulation offers a significant opportunity to add architectural value. 'When you reduce the enclosed volume and increase the amount of outside space, money moves around in a way that is often to our advantage', he says. 'It is spent not on building corridors that have no qualities, but on facades that do'.

The use of external circulation to make a deep perimeter for buildings – an inhabited wall – has been a recurrent feature of the architect's work for more than 20 years, and Henley is evangelistic about the potential of such 'liminal space'. Decks animate the facade, and foster social interactions and com-

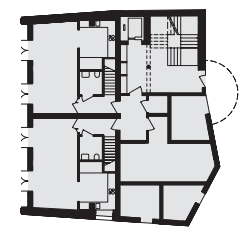


**Above** Sheltered entrance at Taylor Court and Chatto Court.

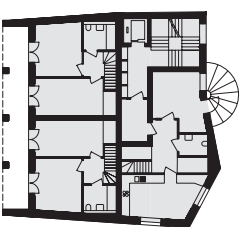
**Right** Plans of Taylor Court and Chatto Court.

**Below** Rear elevation of Taylor Court and Chatto Court.

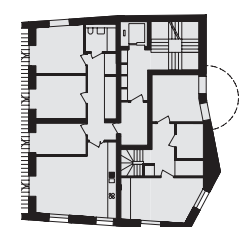
Ground floor plan



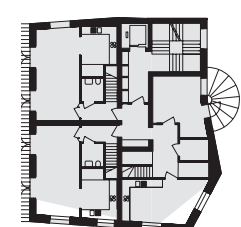
First floor plan



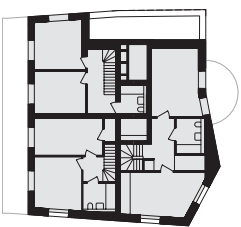
Second floor plan



Third floor plan

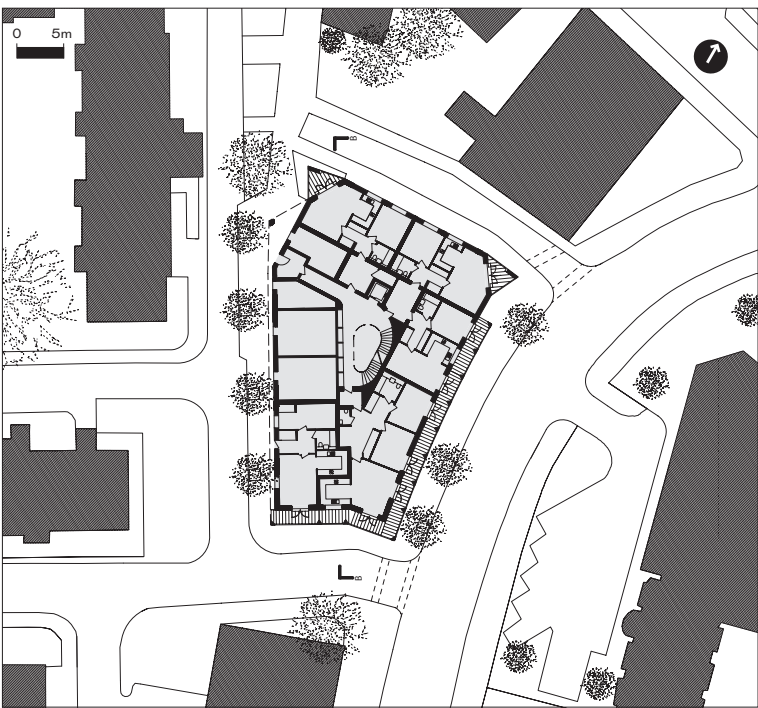
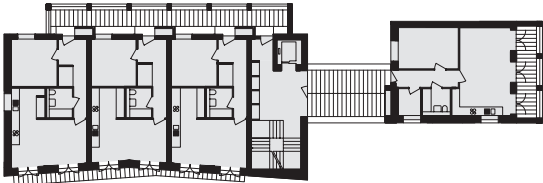
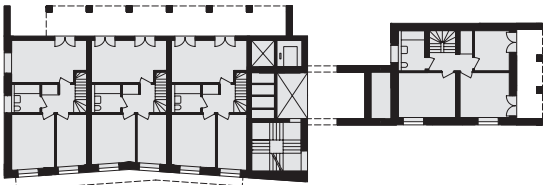
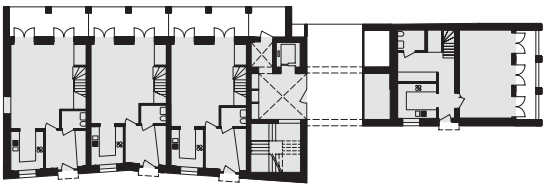


Fourth floor plan



munity feeling, he suggests. They also orient residents outward, towards the city and nature. At Taylor Court and Chatto Court, the precast frames that form both access decks and balconies relate to specific green spaces on the building's north, east and west sides. The intimate scale and material weight of the loggias feels protective and dignified.

At Henley Halebrown's second building on the estate, Wilmott Court, the exoskeleton of pink precast concrete provides



**Credits**  
**Client**  
London Borough of Hackney  
**Architect** Henley Halebrown  
**Structural and services engineers**  
Stantec, WBD Group, Peter Deer & Associates  
**Cost consultant**  
Pellings  
**Landscape architects**  
Townshend Landscape Architects, FarrerHuxley

**Right** Doors to maisonettes line a third-floor terrace.

**Left** Plan of Wilmott Court.

balconies rather than circulation. Here, the architect has replaced a small block of six flats on a large island site with a 'palazzo' that occupies the whole plot, and provides 25 flats for shared ownership and private sale. The wedge-shaped building is encircled by bands of concrete that vary in depth. On the west side, facing a quiet back street, the frame appears as a projecting string course supporting Juliet balconies; on the north, it sits flush with the brickwork; and on the south and east elevations, facing the busier Well Street, it widens to form loggias.

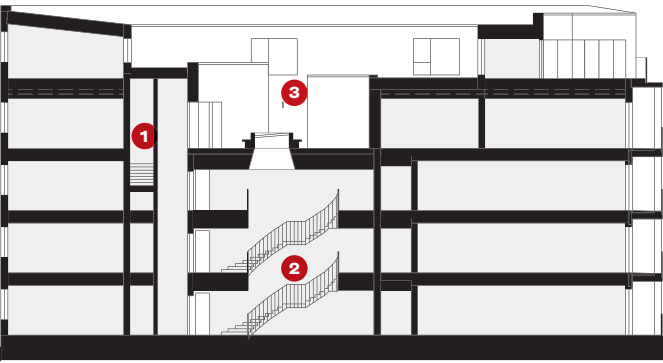
The plan is arranged around a central hall – a pear-shaped triple-height space with a grand stair curving upward around its edge, and a large circular rooflight overhead. Flats on the first three floors are accessed via lobbies off the landings, and are mostly dual aspect. From the second floor, a smaller

staircase rises to an outdoor courtyard located above the hall. This secluded, metal-lined terrace makes a shared entrance for eight two-storey maisonettes.

Splitting the circulation between the hall and terrace allows each space to be smaller than one might expect given the building's size, and contributes to the sense that each home is unique. That is reinforced by subtle changes in the facade design across the elevations and from floor to floor: as the building rises and the need for privacy is reduced, for example, the depth of the flat steel balustrades decreases.

In the detailing of facades, the architect has consciously attempted to recover a constructional legibility that Henley suggests has been lost over the last half-century, as the handmade and substantial walls of vernacular architecture gave way to multi-layered

North-south section through Wilmott Court



- 1 Hall
- 2 Stairs to terrace
- 3 Terrace



**Above and below** Terrace and central hall at Wilmott Court.







Left Brick walls bear on precast balconies at Wilmott Court.

Right Triangular loggia columns at Wilmott Court avoid shaded inner faces.

see how the bits came together, with precast stairs keying into in-situ concrete landings. Slight variations on a theme are provided by concrete columns and bespoke concrete floor tiles. The stairwell is warmed by toplight, and by accents of oak that include handrails and chunky door and window frames.

As with the careful expression of the loadbearing brick in the facades, it might be fanciful to imagine that many visitors will ‘read’ the assembly of stair components in a literal sense, but constructional principles have imbued the buildings with a feeling of solidity and a richness of detail that are clearly evident. In a sector where the intersection of standards and regulation with budget and market expectations drives an ever greater uniformity of fabric and space, Henley Halebrown’s Hackney projects show how to make housing that is crafted, particular and ennobling.●



building envelopes, which divorced appearance from performance. At Taylor, Chatto and Wilmott Courts, the technical and perceptible parts of the wall are divided between two separate structures. The ‘warm’ inner layers are supported by the building’s hidden in-situ cast concrete frame, while the brickwork bears on the ‘cold’ external precast frames.

The precast frames are nicely expressive and varied too. At Wilmott Court, columns are triangular to avoid a shadowed inner facade. At Chatto Court they become more slender as the building rises. Open frames contrast with walls enclosing cellular interior spaces, whose monolithic character is enhanced by punched windows with minimal sills, and by laying small Belgian bricks in a ‘wild’ bond, with non-aligned perpend, and tinting the mortar to match the masonry. ‘The facades and liminal space immediately adjacent to them establish a dialectic between two types of space and two forms of construction’, says Henley.

Many themes developed in the facades are carried over into the design of common parts inside the buildings. At Taylor Court, the concrete walls are clearly handmade, and one can



Stairs at Taylor and Chatto Courts.

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Is a collection of inventive architects enough to create a convincing new area on the emerging Greenwich Peninsula?

Words: Pamela Buxton  
Photographs: Gareth Gardner

# Eclectic avenue



**Left** The new Design District of creative workspaces is situated close to the O2. The Design District Canteen by SelgasCano is to the right, with a building by 6a Architects in the centre.

On paper, the ambitious, soon-to-complete Design District at North Greenwich sounds like a win-win symbiotic relationship. Tenants stand to benefit from the buzz of being part of an 1800-strong creative community, and the chance to rent enticingly priced new studios designed by some of the best architects of the day. Developer Knight Dragon, on the other hand, stands to gain an energetic focal point to shape the identity, and increase the appeal, of its 61ha Greenwich Peninsula development in south east London.

The ambition has been for a relatively low-rise development of 16 new buildings that together encourage chance meetings and human interaction – a sort of creative souk. But how possible is it to create such a Design District from scratch without the benefit of a natural evolution over time, especially one in a still emerging neighbourhood characterised by high-rise residential towers? And what design approach is best to give this instant new design community the best chance of taking root and flourishing?

After a Covid-precipitated delay, the district is due to complete this summer and launch in September. As a south-east Londoner, I'm particularly keen to find out how it is shaping up, and when I visited with photographer Gareth Gardner on a blustery day in May, the first few of the buildings were already completing. Others were still behind scaffolding, but there were enough tantalising glimpses of the buildings emerging within to get an insight into how it might soon turn out.

It's worth rewinding to consider the history of the site, which is bounded on three sides by the Thames, and faces the Isle of Dogs in all its Docklands redevelopment glory. Originally marshland, it was drained in the 16th century by Dutch engineers and turned into farmland. Then came the late 19th century industrialisation, which included the largest gas works in Europe, and the construction of the Blackwall Tunnel. A century later, government-

**Below** Design District director Helen Arvanitakis and Knight Dragon head of design Matt Dearlove on site at the Design District.





led decontamination of the area was followed by regeneration, including the Ralph Erskine-masterplanned Greenwich Millennium Village on a neighbouring site further down the peninsula – and of course at its tip, the Millennium Dome (now the O2). The setting for the latter is now rather crowded by the close proximity of buildings including Foreign Office Architects’ Ravensbourne University, built in 2010. In 2012, the Boris Johnson-backed Emirates Air Line cable car folly joined the increasingly eclectic mix of structures on the Peninsula, followed by high-rise residential and The Tide linear park. The Design District is the latest in this long history of reinvention.

Knight Dragon has been involved since 2013, commissioning a new masterplan of the Peninsula by Allies and Morrison. Among other things, this supplied an opportunity to bring in more residential, and change the employment focus away from the originally planned (but subsequently outmoded) back-of-house server support for Canary Wharf towards creative businesses. This would also address the poor retention of creative industries in the borough. All this led to the Design District concept, which was masterplanned by architect HNNA (formerly Assemblage). The 1ha site is in a prime position at the top of the Millennium Park, and is kept to a maximum parameter height of 25m to protect views of the O2.

It’s certainly easy to find, helped by both the large Design District sign atop one of the buildings and its location close to North Greenwich station at the opposite side of Peninsula Square to the O2. There, beyond the Marks Barfield-designed NOW Gallery, is the Design District, where eight architects – HNNA, SelgasCano, 6a, Mole Architects, Adam Khan Architects, David Kohn Architects, Architecture 00, and Barozzi Veiga – are each designing two buildings from different groups. Flowing around the buildings will be public realm by Schulze + Grassov.

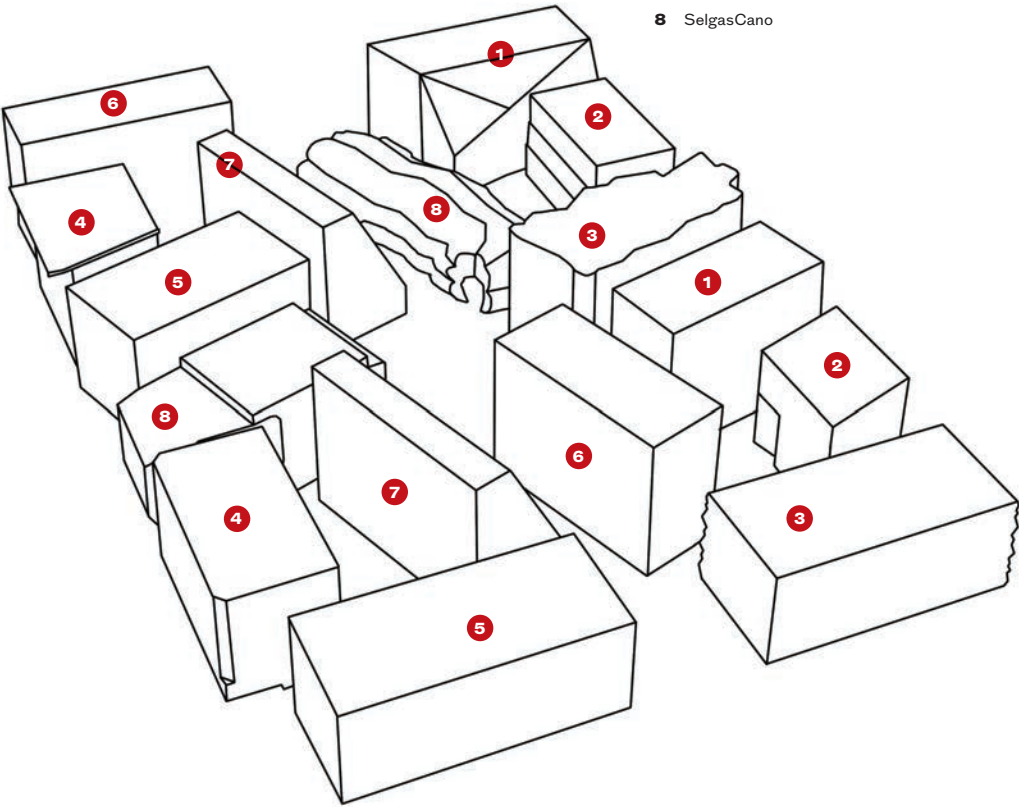
Aiming for a complex piece of city, HNNA avoided the simplicity of just one or a few large buildings and instead identified 16 small sites. These are densely arranged in groups of four around a central square, and with each quartet arranged around its own courtyard. There were no tight design codes – to the contrary and rather remarkably, the designers weren’t told what others were doing, even on adjacent sites, until they had completed the schematic design. Knight Dragon head of design Matt Dearlove says he hopes this will ‘create the moments of serendipity and surprise that you might get over time’. He is comfortable that some buildings might get a ‘Marmite’ reaction.

Rather than responding to context, the architects had complete freedom, beyond the requirement for natural ventilation and a single core, and the idea that the ground floor could be messy and productive perhaps with workshops and heavy machinery, with

**Right** Sixteen new buildings for developer Knight Dragon are taking shape ahead of the September launch.



Eight architects are each designing two buildings from different groups



- 1 Architecture 00
- 2 Mole Architects
- 3 HNNA
- 4 David Kohn Architects
- 5 Adam Khan Architects
- 6 Barozzi Veiga
- 7 6a Architects
- 8 SelgasCano

flexible studio space provided on the upper floors. These are overtly low cost buildings in order to keep rents low enough for creative industry tenants. The hope, according to Dearlove, is for a ground floor that is ‘buzzy, noisy, creative and productive’. Along with Design District director Helen Arvanitakis, he is rather looking forward to when the buildings will be nicely scuffed-up and patinated, rather than pristine.

While the strategy of designing blind seems high risk, avoiding the bland and generic was a priority, and in that respect it has certainly succeeded. Walking down the pedestrianised thoroughfares that thread through the site, the resulting variety of facades is already evident – polished aluminium, Corten, brick, concrete, mesh, ETFE, terrazzo. There is a lot going on, to say the least. It could be seen as a cacophonous architectural zoo or a delightful and engaging medley, depending on your tastes. I’m giving it the benefit of the doubt, and putting it nearer to the latter end of the scale.

Entering from Peninsula Square, the eye is immediately drawn to the appealing bulbous form of SelgasCano’s Design District Canteen, with its stretched ETFE skin and steel structure painted a similar yellow to the pylons of the O2. Classified as an external space, and served by commercial kitchens in an adjacent building, this largely opens up at the lower levels to create a well-ventilated food hall that I’m told will be full of foliage.

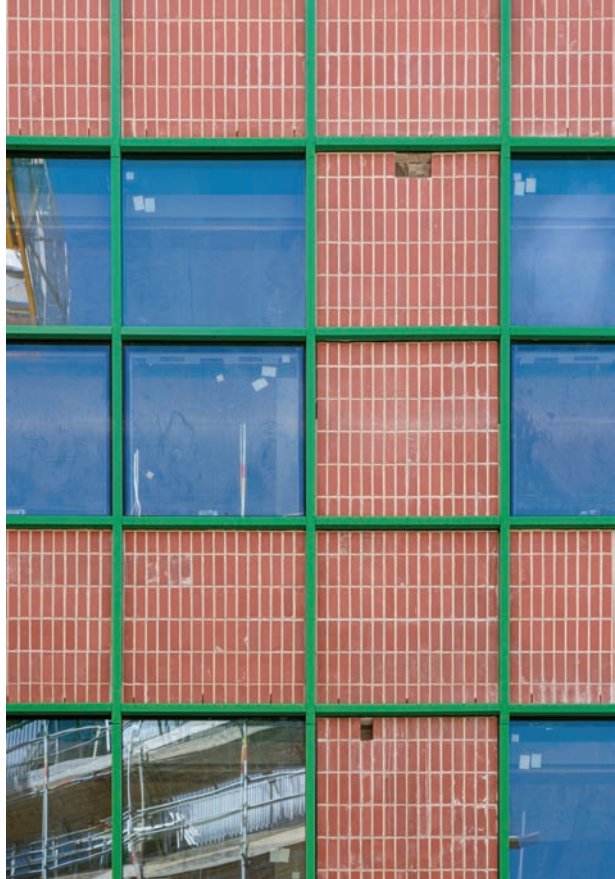
Even with much still under wraps, the distinctiveness of the buildings is clear and already there is much to engage. A row of fat, round, brick-

Is it a cacophonous architectural zoo or delightful and engaging medley?

**Below** The Design District features a total of 16 buildings by eight architects. In the foreground, SelgasCano’s Design District Canteen is flanked by buildings by Architecture 00 (left) and Barozzi Veiga (right).







**Left** Detail of one of the two buildings at the Design District designed by David Kohn Architects. Both share green grids and heavy red masonry bases.

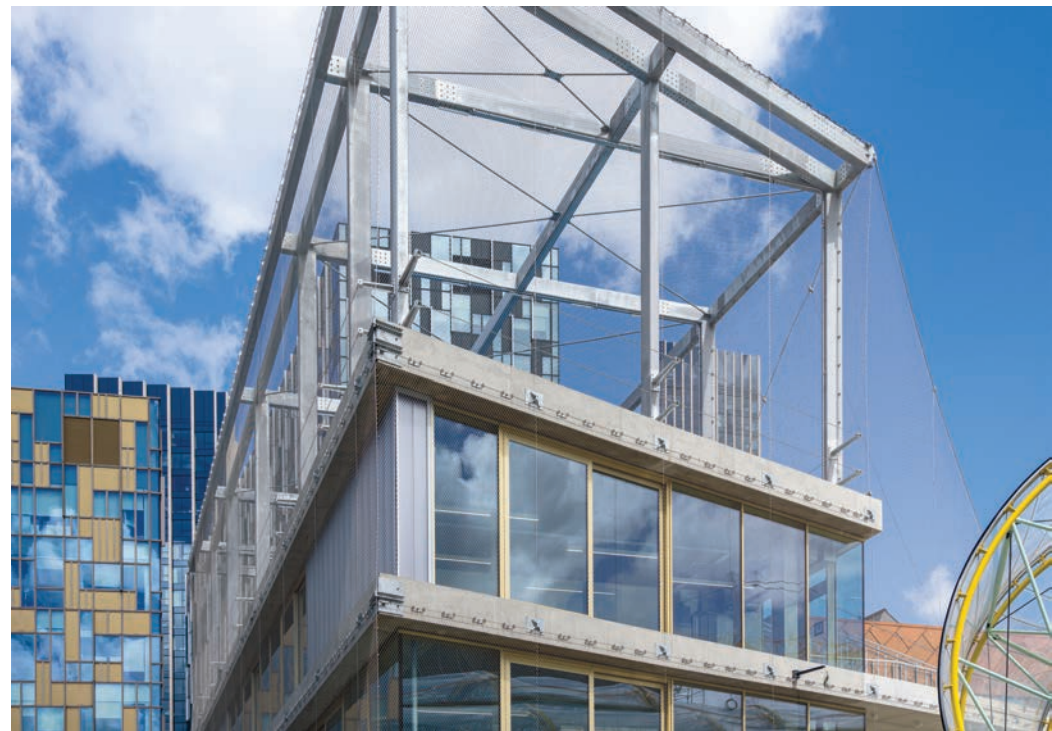
**Right** Mole Architects' weathering steel-clad building.



and courtyards give a porous quality reminiscent of more historic districts of London. With this fine grain of low level buildings and inward-orientation, it presents a sharp contrast to the many high rises lining the riverside of the Peninsula site, and it will be interesting to see whether – and how - the new district may be stitched into the wider context over time.

Much depends on the ability of the public realm to give visual cohesion and a sense of place to this appealing concoction of buildings. This is where Denmark-based urban designer Schulze + Grassov came in, not just designing the public realm itself but writing the brief for how individual buildings should address public areas in terms of their facade design. This includes consideration of the ground floor programming and how views in can be encouraged to give a sense of the creative spirit of the place, as well as greening the facade, and integration of public lighting

**Below** Architecture 00's C1 building incorporates a rooftop basketball court.



clad columns inspired, says Dearlove, by Liverpool port buildings, catches the eye – these form the robust base of one of DKA's buildings, both of which combine heavy masonry plinths with a bright green framed grid of screen-printed glass – a reference to the glass blocks of the Maison de Verre in Paris. Corner niches offer spaces for yet-to-be commissioned art. Like the DKA buildings, 6a's two buildings have been designed with obvious affinities to each other. Although still under construction when I visited, it was possible to get a good idea of the huge, diamond-patterned sloping façades, and these studios promise to be two of the more memorable of an already memorable bunch. Inside each, the top floor studio space soars to 7.5m high.

In contrast, Mole's buildings couldn't be more different to each other in façade treatment. One, a ziggurat form close to the food hall, is clad in Corten weathering steel. Down the other end of the site, Dearlove points out the still mainly swathed iridescent painted facade on Mole's other building, a reference to the varied flame colours of the gas that once burned on the site.

While just tantalising glimpses of Adam Khan's monolithic, in-situ concrete were possible, the steel mesh-encased basket ball court/events space on the top of Architecture 00's gateway building is clearly visible – an additional public function enabled by putting the circulation on the outside of the building.

'All the studios have amazing views down through the district,' comments Matt Dearlove, as we walk through the building site. The many distinctive buildings and clear views of the O2 will help navigation throughout the District, although in truth, its small scale means you are never far from its edge, or in any real danger of getting lost. The network of alleyways



**Above** HNNA's C3, one of two buildings housing the Bureau members' club for creatives.

into the building to avoid the clutter of lighting masts.

Speaking from his Copenhagen studio, Oliver Schulze is clear about his practice's role. Rather than attempting to be heard as a ninth voice in the already diverse team of architects, he prefers it to be 'the glue that connects these disparate voices'. To do so, he wants to reinvent the London working yard as courtyards that can be used for messy work, and as pleasant spaces to enjoy.

He's providing the infrastructure for this in the form of large concrete pads that he hopes will soon bear traces of activity. Otherwise, the public realm is characterised by the use of monochrome granite with varied surface textures – smoother in the areas for walking, and coarser closer to the buildings. Generous granite seating is incorporated in ledges, around tree pits, and as individual seating, offset by planting tailored to different seasons.

'There will be plenty of opportunities to come here and linger,' he says.

With construction work continuing apace, effort is still required to imagine Schulze's vision of working courtyards populated by trees, fountains and public benches, cycle parking, and full of busy activity. But he's so optimistic that the Design District will live up to expectations that he's exploring it as a location for the practice's proposed new office in London.

Ultimately, the proof will be in the take-up of space. It is of course a tricky time to be letting space in the wake of Covid-19 and the changes to ways of working that this has entailed. Knight Dragon has sensibly

Rather than a ninth voice in a disparate team, Oliver Schulze wants his practice's role to be 'the glue that connects these disparate voices'

adjusted its leasing to accommodate flexibility – for example those who may want space only for a few days a week. Two buildings are given over to co-working in the form of the Bureau, with interiors designed by Roz Barr Architects. There is also an enticing £5/ft² rent offer for the first 12 months, and available space ranges from a desk in a serviced office to an entire building. Rents then average out at around £25/ft², with bigger businesses asked to pay more. Despite the district's name in large letters, the developer has spread the net to all creative industries – designers and architects may be rubbing shoulders in the lunch queue with dancers, 3D printing specialists, health and wellbeing professionals, lighting, PR, music and many others involved in the support industries around creative businesses.

The district is already 60% let – the adjacent Ravensbourne University has taken the polished aluminium-clad building at the corner closest to the underground station for its new Institute for Creativity and Technology. Designed by Barozzi Veiga, it is one of the first buildings on the site to complete, and is the Barcelona practice's first in the UK. Other confirmed tenants include independent music brand Brace Yourself and LGBTQ+ art space QUEERCIRCLE.

'The Design District is hitting a need right now that we see very strongly in all parts of London... Not enough people design specifically for the creative industries,' says Helen Arvanitakis, director of Design District, adding that a lot of people working in the creative industries already live in the relatively more affordable south east London.

I'm looking forward to coming back when the Design District is complete and up and running, to see how it's faring. It potentially has a lot going for it in terms of identity, scale, variety and critical mass of creativity. And it's not too much of a leap of faith to imagine it – occupied and animated as the buzzy creative oasis Knight Dragon is hoping for – helping to fire further regeneration of the surrounding area. The more pertinent question is whether the undoubted merits of this ready made district will be enough to overcome any lingering misgivings about the peninsula location, which still, even after several decades of regeneration efforts, feels a little like pioneer territory. ●



# Bricks set melodious tone

Creamy-buff brickwork encasing Birmingham’s Conservatoire reflects the harmonies working within

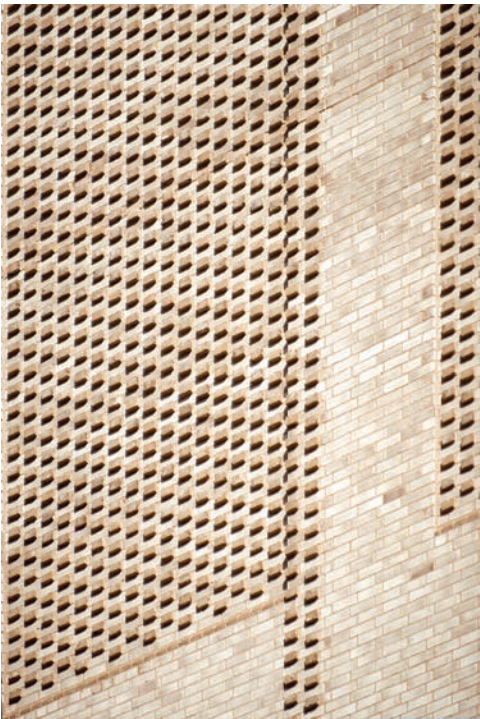
The Royal Birmingham Conservatoire’s new home has been built on a compact urban site adjacent to a dual carriageway on Birmingham City University’s campus.

This is both an open public performance venue and more private educational institution. It has five performance spaces, stacked one above another over three levels on the site’s small triangular footprint by architect Feilden Clegg Bradley Studios (FCBS). To minimise sound transfer between performance spaces, each is structurally separate with a heavy massed floor and wall construction supported on a steel frame to form series of isolated boxes within the Conservatoire’s brick envelope.

Colin Cobb, an associate at FCBS, describes the building’s envelope as a ‘carved solid’, which he says provides a ‘protective castle’ around the noise sensitive interior.

Tough, elegant brick facades protect the venue acoustically. ‘We wanted the building to express a sense of history and timelessness; cladding it in beefy masonry seemed one way of delivering that,’ Cobb explains. That beefy masonry also helps keep out road noise. ‘Making this a brick building, ensured the acoustic solution was in sync with the aesthetic solution,’ he adds.

The building’s monolithic brick walls are cranked and faceted to hug the site’s boundary. Brick planes are articulated with vertical lines of protruding brick



**Above** The top of the building incorporates a series projecting brick headers arranged in a square formation.

**Below** The building’s brick envelope provides a protective castle around the sound-sensitive interior.



ends, a feature described by Cobb as ‘zips’. These neatly conceal the facade’s vertical movement joints. Between them, windows are set in deep 225mm reveals. Most are on the road side to allow daylight into practice studios; the modest scale of the fenestration and the walls’ heavyweight construction help to acoustically control low frequency sound transmission.

The brick facade is hung from the building’s concrete frame. ‘The brickwork is supported every two storeys on steel shelf-angle brackets with [horizontal] movement joints that are no more than 10mm wide,’ says Cobb. Brickwork in quarter stretcher bond changes direction at the ‘zip’ detail.

At the top of the building a large parapet wall screens the rooftop plant space. Like the zip detail, it incorporates projecting brick headers, this time in a square formation, to ‘give a balance to the elevation,’ says Cobb.

When it came to selecting the brick, Cobb says no colour was predominant in the area so it came down to finding what would work with the building’s scale. The brick selected was Michelmersh’s Floren Polaris, a grey-white brick on a brown body. To ensure perfect homogeneity at the edges of the brick planes, rather than use specials for the non-90° corners, Cobb explains that standard bricks were ‘cut and stuck’ – a technique that involves cutting bricks and bonding the elements together with epoxy resin to form a brick with desired face-angle.

Mortar colour was selected to blend with the brick. Cobbs reports that the local sand is ‘particularly orange’, so an admixture was used to transform the mortar to a colour closer to that of the brick. ‘Tonally the mortar is relatively similar to give a more homogenous surface,’ he says.

The base of the building is defined with a darker brick plinth which Cobb says ‘allows the top be a singular volume that appears to float and does not touch the ground’. Entrances and larger window openings are set into the plinth, while glazed doors lead from the road-side entrance into a timber-lined three-level foyer which also gives access to the building’s lower campus-side entrance. A storey-height change in level is accommodated by a generous timber stair.

The conservatoire’s world-class facilities, enhanced by FCBS’s choice of brick and impeccable facade detailing, give the city an important new cultural hub. ●

J HOPKINS (3)



# Later living in the pink

Context and texture were key ingredients in this four-block scheme in Hampstead

Belle Vue is a contemporary 59-home community for later-living in Hampstead, north London. Designed by Morris+Company for developer Pegasus Life, the development occupies a compact, complex site bordering a 12-storey hospital to the north and smaller-scale buildings to the south and west.

A group of four blocks make up the scheme, each square in plan and ranging from four to 10 storeys in response to their position on the plot. The blocks are staggered to create a sequence of courtyards, gardens and terraces. Internally, homes are arranged within the blocks to provide dual aspect views across the neighbourhood to the city beyond.

While the hospital dominates the area, Morris+Company’s design has been developed to respond to the warm, red brick common in the Victorian houses that dominate the conservation areas surrounding the site.

‘From the beginning we wanted the

building to be a sympathetic neighbour,’ explains Morris+Company director Miranda MacLaren. ‘While it was not in a conservation area, Belle Vue is surrounded by all of the [London Borough of] Camden’s main conservation areas,’ she adds.

Belle Vue’s pinky-red tumbled-brick facades are Morris+Company’s contemporary take on the red brick in the surrounding conservation areas – in particular the brick-arches which frame the windows.

‘We wanted to frame the windows on this scheme through light and shadow rather than through decoration,’ explains MacLaren. Above each window is a slanted lintel to increase its relative proportion; this is intended to make the windows appear to be ‘a much grander part of the facade’, says MacLaren.

In addition to the slanting lintel, taller windows on the blocks’ upper floors have been given additional emphasis with a slanted side panel. ‘We felt these windows

**Left** Belle Vue’s pinky-red tumbled-brick facades are Morris+Company’s contemporary take on the red brick in the surrounding conservation areas.

The texture of the brick reinforces the play of light and shadow on the facade

needed to have more of a carved, decorative massing so we also chamfered the window side,’ MacLaren explains.

In contrast to the chamfered window openings, inset corner balconies have tight, punched openings which emphasise the facade’s mass in helping conceal each resident’s private external space.

Michelmersh’s Floren Avorio was the brick chosen by Morris+Company for the scheme. ‘It has an engineered quality and a pinky tone with splashes of lighter white, which give it a lived in, textural quality,’ MacLaren explains. ‘We didn’t want it to look shiny-fresh, we wanted the texture of the brick to reinforce the play of light and shadow on the facade,’ she adds. Two bespoke blends of the Avorio brick have been used, one with 60% special pigmented slurry and one with 90%. The subtle contrast of the lighter-coloured bricks further emphasises the light falling on the vertical chamfer on the large window openings.

Light and shadow is a feature at the base of the facades too. Here, individual bricks have been splayed outwards at a 10° angle to create a fish-scale bond. MacLaren explains: ‘We chose to texture the wall rather than use a different coloured brick to land the building’.

All the bricks, including the textured sections of fish scale bond, were laid by hand. The only exceptions to this are the sloping lintels and chamfered window edges, which are formed using mechanically-fixed brick slip panels. The brickwork was completed by Galostar to an exceptionally high standard to dovetail the traditionally laid bricks with the brick-slip elements. ●



LANGLEY SQUARE, DARTFORD, KENT

Russ Drage Architects' design for this 400-apartment development in Dartford exploits its waterfront setting. Historically, the site housed the Phoenix Paper Mill, which was powered by water from the Mill Pond and River Darent, that flows through the site. More recently, the mill was replaced by the Wellcome pharmaceutical factory.

The architect has referenced the location's industrial heritage with a series of seven-storey blocks that pay homage to the warehouses, wharf and industrial architecture that formerly stood there. This is reinforced by the use of brick on the facades, which feature a contrasting blend of Michelmersh's Floren Castor and Albion bricks. The combination helps to break up the uniformity of the facades and add texture to this Weston Homes' development.

New riverside walks and landscaping increase the development's public accessibility, while the introduction of waterside cafés and restaurants and a new public square make for a lively area.



J. HOPKINS (2)

SUSTAINABLE BRICKS

Michelmersh's Floren Brickworks in Antwerp, Belgium, uses the latest production techniques combined with a range of ecological measures to minimise its environmental impact. Since the factory opened its doors 125 years ago, all Floren bricks have been made using high-quality Campine Quaternary clays from Floren's own adjacent pits. As part of Floren's commitment to sustainability, spent clay pits are turned into nature reserves and fishing lakes. In addition, a 20m wide band of vegetation has been planted around the perimeter of Floren's production plant to further boost the wildlife habitat. Sustainability improvements to the production process include enhanced thermal insulation of both the kiln and dryers, and enhancements to the dryer controls to optimise the brick-drying process and shorten drying time while using less energy. In addition, 2500m² of solar panels have been installed on the factory roof, which can supply all its electricity consumption on a summer's day. And when the sun's not shining, rainwater falling on the roof is also harvested for use in the production of the bricks, meaning no potable water is used at Floren.

IVYDALE PRIMARY SCHOOL, SOUTHWARK, LONDON

The use of Michelmersh's Floren Castor brick, which gives a rich earthy base facade tone, ensures Hawkins\Brown's contemporary design for the new four-form Ivydale primary school block sits comfortably alongside the existing Victorian school building. The facade's bold, brick pattern of abstract, triangular green triangles was inspired by a Julia Woolf illustration, 'The Fox in the Forest'. Four shades of green-glazed bricks are used to form the triangles. These are laid in English Cross Bond to achieve the sharp diagonals. Inside, the classrooms are arranged either side of a double-height atrium and central hall to provide the school with flexible, adaptable spaces. The orientation, form and layout of the building are integral to its natural ventilation strategy and a lean and green approach to the school's design.



BOLLO LANE, SOUTH ACTON, LONDON

Bollo Lane is a modern building in the heart of West London, featuring 84 pocket homes, 28 private sale apartments and flexible office space. Developer Pocket Living has a philosophy of providing well-designed, affordable one-bedroom homes pitched at being at least 20% below the surrounding market rate to help first time buyers get onto the London property ladder. PRP Architects' scheme for the building is based on the developer's strict design codes. All homes have floor-to-ceiling windows and some feature terraces or balconies; residents also have access to two landscaped roof terraces.

To keep costs low and quality high, the scheme makes extensive use of volumetric construction. The modules are clad in Michelmersh's Floren Castor brick to give the scheme a robust, contemporary appearance. ●



Above left Langley Square features a contrasting blend of Floren Castor and Albion bricks.

Above Bollo Lane comprises 84 pocket homes, 28 private sale apartments and flexible office space.

Left At Ivydale Primary, the rich earthy tones of Floren Castor bricks set off the abstract pattern of green triangles which were inspired by a Julia Woolf illustration.

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# 2: Intelligence



Places, planning  
& community



Legal, regulatory &  
statutory compliance

## Clive Betts MP



A new report by parliament's Housing, Communities & Local Government Committee reviews the government's proposed reform of the planning system. The committee chair discusses the issues

**What's the background to your report, The Future of the Planning System in England?**

**Has the government underestimated how complex planning has to be?**

**The White Paper mentions a 'fast track for beauty'. What views about that were expressed to the committee?**

**The White Paper focusses almost wholly on housing. What's your view of current proposals?**

**You've also suggested a review of the Green Belt**

**A Planning Bill was announced in the Queen's Speech in May. When might that be?**

The government's proposed reforms, published in a White Paper in August, move away from an emphasis on individual planning applications to a system based on 'growth', 'renewal' and 'protected' zones set out in Local Plans. We need to see the legislation, but we have many questions about how the zone system will work. Local accountability is a real concern. It is right to emphasise Local Plans, and to try to engage the public in planning at that stage. But there could be a huge backlash if there's no further public involvement at application stage.

Probably. They will struggle to write what's in the White Paper in legislative terms. A simplified approach might work in growth areas, but how do you do it with renewal areas, which are all so different? And the aim is to rewrite all Local Plans within 30 months. With planning departments so stretched that's not realistic.

When taking evidence we were told a dozen times that 'beauty is in the eye of the beholder'. There are many questions: how can you marry automatic approval to build on certain sites with any real say for councils or communities? A design that's appropriate in one place won't be appropriate in another, and it's those nuances that the planning system is meant to address.

The committee supports the ambition of 300,000 new homes per year, but in recent years Local Authorities have issued far more permissions than have been built. We've suggested measures – and penalties – to ensure that build-out happens. Since our inquiry started the government has changed the housing needs calculation, warding off some MPs' concerns by reallocating housing from rural areas in the south into major cities. I'm not sure those homes can be built without using the green belt, so the government still faces real challenges.

We don't challenge the principle, but there are some areas where land could be added or taken out. With a review you could get some sensible compromises.

The presumption is 'this parliamentary session', which could go on till the middle of next year. The rumour is that the bill has been pushed back due to difficulties in drafting the legislation. That's why we think scrutiny of a draft bill by our committee would be appropriate. ●

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Most of the nearly 100 letters are at pains to point out that while they do welcome homeless provision, they have concerns around massing, height, overlooking, and existing conservation area guidelines

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Places, planning  
& communityDesign, construction  
& technology

# Transformations that reach out to the community

Architects are winning work helping religious buildings tackle financial difficulties by building new revenue-raising extensions

Isabelle Priest

Spend enough time ambling around London and you will notice a number of developments of churches and other religious buildings. Two years ago, Dow Jones completed the extension and transformation of St Mary Magdalene's, Paddington, which was commended in our MacEwen Awards last year, and the practice is now working on a visioning document for St Mary's with Christ Church, Wanstead, and St Edward the Confessor in Mottingham, south-east London, as well as a scheme for Bevis Marks Synagogue in Aldgate – not forgetting how it intermingled its acclaimed 2017 Garden Museum into the long-deconsecrated church and churchyard of St Mary-at-Lambeth.

But whereas the 1970s and 80s saw many London churches and chapels completely converted into private housing, never to be entered by the public again, today's projects are far more various. John Pawson's recent St John at Hackney renews the interior for a growing congregation, while others may retain a worship element but reinvigorate the building with enhanced non-denominational public functions.

For Shoreditch-based Matthew Lloyd Architects, this type of work took off 20 years ago with its St Paul's, Old Ford, project in Bow for a radical vicar. The practice transformed the Victorian church into a mixed-use building that included an art gallery, project room, gym, therapy rooms, small community hall, crèche, café and office, partly by inserting a timber 'boat' into the nave to create additional space – something founding partner Mat-

thew Lloyd thinks would be unlikely to be repeated as the addition juxtaposes so strongly with the historic fabric. The practice has since developed an expertise in this type of work. One of its most memorable schemes is St Mary of Eton/The Mission Hackney Wick project from 2015, an 'enabling' scheme encircling the existing church with 27 new residential units which picked up the decorative detailing of the original building in their brickwork. The project 'rescued' the church, built for a congregation of 1,500 that had dwindled to 70, in a challenging area of London – also reinstating its stolen roof.

Erect Architecture, meanwhile, was appointed to revamp an existing series of rooms at St Mary's Stoke Newington after refurbishing St Peter de Beauvoir crypt and a feasibility study for a church in Kingston. With the rare exception, these projects are the result of places of worship being in crisis, particularly in poorer areas. Religious buildings of all denominations are selling off property to keep financing themselves – cathedrals aren't so affected as they receive central government funding. Architects are winning work helping them find different revenue paths and business plans by renewing existing spaces and extending on to their plots – often using lettable community spaces and housing as a driving force. Many diversify by adding spaces such as cafés, community halls and night shelter facilities but some also get completely rebuilt to accommodate nurseries and sports halls.

Matthew Lloyd's Frampton Park on Mare Street in Hackney replaces a sprawling post-war building with a church hall and 47 homes completed with Telford Homes. The practice took a similar approach at Shoreditch Tabernacle Baptist Church on Hackney Road three years ago as part of a larger scheme with FCBS, Mildmay Mission Hospital and Genesis Housing Association.

'It's done in an emergency, but churches should be consolidating their financial posi-

WILL PRYCE



tions into property not selling off the family silver,' says Lloyd, who has worked on countless feasibility studies for religious buildings and found many techniques to bring in revenue, such as capital payments from developers or attracting fee/rent-paying users.

There are challenges to overcome with these kind of projects. Nearly every one, explains Lloyd, involves a funding process. You win a competition and the first question at the first meeting will be: 'How do we pay for it?' Getting permission is not straightforward either. Legislation means that re-configurations of existing church interiors must go through the diocese, which can be conservative and traditional. If any aspect of the site is changed externally then that will need local authority planning permission, and many of the buildings require the input of heritage bodies and raise the interest of conservation charities.

Erect Architecture director Susanne Tutsch thinks this is partly why many projects are extensions and don't address the worship space itself as that would be a much more complex process. These spaces also come with their own associations and can be 'quite authoritarian spaces inside', she says, which the religious organisations want to move away from.

And Lloyd is keen to downplay what a church will receive by carrying out major works. With housing, all they will get is each unit's land value, he points out, while affordable housing quotas make proposals less appealing to developers, but the best redevelopments make the most of surrounding footfalls and aim to have something going on at all hours to give the church a future.



ANTHONY COLEMAN

**Above** Dow Jones's St Mary Magdalene's, Paddington. The extension has a café, education room, offices and access to a new performance space in the undercroft. **Left** Matthew Lloyd's Shoreditch Tabernacle Baptist Church rebuilt worship space with 35 apartments.



MATTHEW LLOYD ARCHITECTS (3)



**Top** The new forecourt besides the multi-purpose extension at Christ Church, Highbury. **Left and above** Highbury Quadrant Congregational Church – a rebuilt worship space from the front; a large apartment block from behind.

## Christ Church, Highbury, and Highbury Quadrant Congregational Church, Islington, London

Christ Church, Highbury, and Highbury Quadrant Congregational Church are two projects by Matthew Lloyd Architects in progress in Islington but with very different design requirements.

Christ Church is close to Highbury Fields. Its interior was split in the late 1980s to create additional uses including a nursery, but the church had still run out of space, having previously sold off its church hall. The brief was to create a church centre with café to replace an existing temporary kiosk; as well as offices and a multifunctional hall for use by a night shelter, Sunday school, fitness classes and music rehearsals.

The project was proposed for a plot to the south of the church's forecourt on the rear half of the neighbouring vicarage's garden against the boundary with the park. It faced little opposition from locals or the Highbury

Fields Association; the challenge was Islington council, which it persuaded to back the scheme on technical grounds, arguing, for example, that it would improve ramp accessibility for the church and that the diocese wanted to turn the current church office into a flat. The £1.1 million scheme creates 180m<sup>2</sup> of additional space in a semicircular plan that follows the hedge of the garden. It is being constructed using a linear brick that matches the buff colour of the church with a powder-coated aluminium parapet and window reveals, as well as a green roof to merge with the park.

Highbury Quadrant Congregational Church, on the other hand, is a nearby development proposed by IDM Properties. The scheme, which is in planning, replaces the existing church now serving a congregation of 20-30 people with a worship space, hall, and meeting rooms while adding accommodation for the church and 39 mixed-tenure homes in a seven-storey block to the rear.





**This image** St Mary's Centre from the front; grey brick at ground level relates to the original church but is also designed to put people at ease, while the white brick above is more robust.  
**Below** The entrance hall where niches fit around the original church walls.

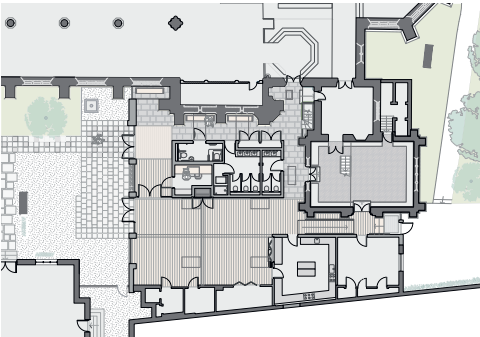
DAVIDGRANDORGE (2)

**St Mary's Church,  
Stoke Newington, London**

Erect Architecture's project for St Mary's Church replaces an existing series of spaces built in 1996 to the south and rear of the main 1858 George Gilbert Scott-designed church around two vestries. That development added office space and created a walled cloister gated to the church garden and car park, but it was under performing and had begun to develop water ingress issues.

The brief was to create extra capacity that would generate revenue through hiring it out to other organisations. The church wanted the building to be light and welcoming, a place where people of all socio-economic backgrounds would feel at home. It also had to accommodate a food bank, winter night shelter, migrant centre service and a liberal Jewish group as well as other community functions including dance classes and toddler groups.

To reduce costs, Erect Architecture chose to reuse the footprint of the existing buildings, filling in the courtyard area and retaining existing structure by keeping the steel beams of the roof and supporting them



**Above** Ground floor plan showing large multifunctional hall, which can be split in two, as well as how it relates to the new core and kitchen.

with a new transfer beam to create an open space underneath. It also kept the existing elevation line to reuse the foundations of the previous cloister wall.

From the front, the design consequently appears as a butterfly roof, dipping down asymmetrically above the entrance doors to maximise the view of the vestry tracery window, designed by Scott's son John Oldrid. Inside, the architect has fitted the building around the external corbels and buttresses, creating niches that are useful for private conversations during migrant centre meetings. The glazed roof creates views between.

The cloister courtyard, on the other hand, is 'filled in' by a timber panelled 'piece of furniture' containing the office, WCs and storage. To the opposite is a large multifunctional space that can be divided by a sliding wall that pulls out from behind the administration office. This enables night-shelter sleeping spaces to be separated for men and women. 'On the front elevation, windows sit on the inside face to continue the theme of inhabiting the fabric of the building like the niches between the buttresses inside,' explains Tutsch.

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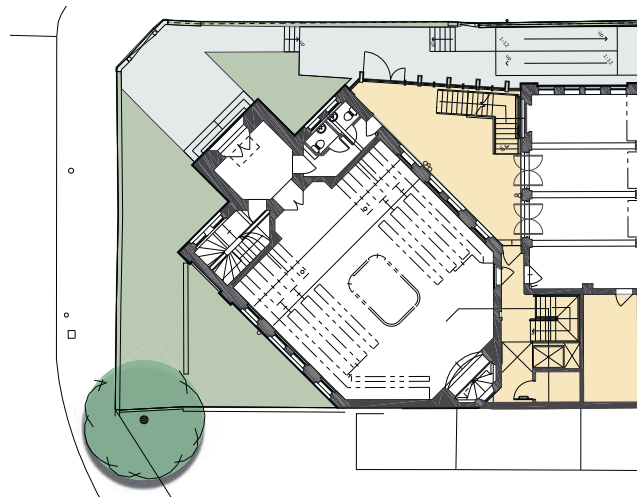
STUART HOLLIS (2)



**Above** The new extension occupies a triangular slot linking the existing main synagogue and classroom.

**Left** The foyer; Stephen George had to find a lift that would circulate continuously on the Sabbath when Jewish people should not use buttons and operate machinery.

**Below** Ground floor plan showing infill in yellow.



### Leicester Synagogue Highfield Street, Leicester

Current transformations do not only encompass churches. Stephen George Architects' recent Leicester project is an extension and redesign to an existing grade II listed synagogue south-east of the city centre.

The building project's title for the original 1897 Arthur Wakerley building and separate classroom building was 'Sharing Jewish Heritage in Leicester'. It is a Heritage Lottery Funded scheme which had a brief of welcoming more visitors, raising awareness, and expanding the scope of the organisation to community function and interfaith activity by creating a new entrance foyer, kitchen and access to the classroom and upper committee room, which would become more multifunctional. The project also needed to resolve damage to existing structures caused by tree root damage.

The available site area, however, was tight – restricted by hard boundaries. This meant the scheme only had two areas to work with: a triangular plot between the synagogue and classroom, and a yard to the rear. The concept was to exploit these gaps by adding a two-storey structure with a cranked roof that sits around and protects the original buildings' detailing. By being mainly glass, the design tries not to detract from the synagogue's architecture. Historic England stipulated the architect incorporate more brick into the facade, which it did by introducing deep-reveal brick piers as a cladding to the steel frame so that the addition only appears largely transparent when seen straight on. Rather than replicating the colour of the existing buildings, the new brick picks up the colour of the synagogue stonework.

Ultimately the £1.2 million project was extended to include a light refurbishment and redecoration of the synagogue itself. 'We learned a lot about the Jewish faith,' explains project architect Kanti Chhapi. 'We developed a roof scheme so that it could collect water to use for the mikvah and could be controlled by the rabbi on the roof by a wooden plug, which is part of the ritual.'

The new brick picks up the colour of the synagogue stonework

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# Robot Wars

You don't need to go to the silver screen for monster drama – housing's building revolution has it all

Stephen Cousins

Monster movie Godzilla vs Kong is tipped to revive cinemas emptied by lockdown. But over in house building, we have our own, equally tense, real-life face-off between massive construction robots, which could give the global industry a shot in the arm at a time of unprecedented demand.

Construction's notorious reputation for inefficiency and waste was brought into stark focus by the pandemic, as a long-term and persistent undersupply of housing, in England and other nations, faced new challenges around materials deliveries, social distancing and labour shortages.

Rather than modify onsite processes, or turn to offsite manufacture to help speed delivery, a growing contingent of builders, developers and tech start-ups are seeing innovative large scale construction robots as the best way to push out more units to a consistent quality and for lower cost.

Recent months have seen major technical and commercial advances around two distinct robotic approaches to building entire

**Below** Vulcan printed the lower storey walls for the 3 Strands development in Texas.



structures for homes on site: machines that handle traditional bricks, blocks and mortar, and 3D printers that extrude specialised concrete in layers.

Brick and block-laying robots work much faster than their human counterparts, and – because they use materials familiar to developers, certification bodies and home insurers – supporters claim they provide a more practical solution that's faster to implement.

Meanwhile, additive manufacturing robots print high-strength walls and floors without formwork in just days and generate shapes that are impossible or too expensive to manufacture otherwise. Structures can be optimised to use only the specific volume of material required, minimising waste.

This is a controversial area of innovation. Widespread deployment of autonomous machines would lead to huge job losses. There are questions about the safety and technical performance of autonomously-built structures, and their integration with other building systems and services is still to be resolved.

Nevertheless, for the sake of argument, and as a welcome distraction from our Covid-confined lives, let's pit four construction titans against each other to see which will win this technological battle. Seconds out, round one...FIGHT!



**BOD2 BY COBOD**

**LOCATION:** Denmark

**SPEED:** Three weeks to print envelope for a 2-storey house

**DEGREE OF AUTONOMY:** 3D printed walls are combined with regular prefabricated floor slabs

**DESIGN FLEXIBILITY:** Curved walls made without formwork

**WASTE:** Around 60% less material than a traditional build

**STRUCTURAL PERFORMANCE:** Walls are three times stronger than conventional brickwork

**TIME TO MARKET:** Prefab components available now, commercial printing on site 'a few years away'

BOD2 is like a giant version of a classic office 3D printer designed to produce the entire envelope for a home, including the foundations, in one monolithic chunk. An extrusion head mounted on a gantry and connected to a hose moves in three different directions, with a print range of 10m by 10m by 10m, squirting out concrete in consecutive layers.

The envelope for a prototype two-storey 90m<sup>2</sup> home, built at the construction innovation centre Kamp C in Denmark in 2020, took just three weeks to produce. It took about eight minutes to extrude each single layer of concrete for the whole house circumference.

Metal fibres mixed into the concrete prevent shrinkage, reducing the need for wire-mesh reinforcement and eliminating formwork. Spaces for services were not included in the prototype but integration with BIM software makes designing in hollow spaces for services a straightforward addition, says Marijke Aerts, project manager at Kamp C.

**Above** Curved walls produced by BOD2 are three times stronger than conventional brickwork, says the developer.

**Below** FBR's Hadrian X robot is mounted on a truck that manoeuvres around a site to build a home.



**HADRIAN X BY FBR**

**LOCATION:** Australia

**SPEED:** Average laying speed 174 blocks, or 800 standard brick equivalents per hour (human bricklayers typically lay up to 500 bricks per day)

**DEGREE OF AUTONOMY:** Humans are required to load pallets of blocks and install brick ties, a human operator monitors the build and deals with issues such as quality control.

**DESIGN FLEXIBILITY:** Handles a number of different block types; telescopic arm can build flat or curved walls

**WASTE:** Block optimisation software models the build and ensures offcuts are stored in the machine for use later in the build rather than thrown away.

**STRUCTURAL PERFORMANCE:** 'Comfortably exceeds' requirements in targeted markets following extensive testing with academic and scientific institutions

**TIME TO MARKET:** Display home on the market shortly, commercial centre already occupied.

Looking like something from a Transformers movie, the Hadrian X is truck mounted with a 98-foot robotic arm, through which customised blocks are fed ready for placement. The claw at the end of the arm is guided by motion sensors and can auto-correct its position 1,000 times a second. A nozzle squirts out specialised adhesive.

'Deployment of our robot is a matter of driving to site, calibrating our equipment to the slab and executing the build from the datafile,' says Kiel Chivers, manager of corporate services at FBR. 'It also means the structure we build is highly accurate, allowing for the parallel manufacture of components like roof trusses, window frames and door frames, and even the installation of prefabricated kitchens.'

The structure for the display home in Perth was completed in just three shifts, laying up to 200 bricks an hour. A two-storey home, completed in October, added steel-reinforced concrete columns and a concrete floor slab for the first floor.

FBR was formed after the original company, Fastbrick Australia, disbanded, and now plans to target American and European house building markets.

'We just announced another pilot programme with a major European block manufacturer, Xella, to complement our continuing strong relationship with Wienerberger, the world's largest clay block manufacturer,' says Chivers. 'We are continuing testing programmes with North American builders, as well as with interested parties in the Arabian Gulf.'





**AUTOMATIC BRICK LAYING ROBOT (ABLR), BY CONSTRUCTION AUTOMATION**  
**LOCATION:** UK  
**SPEED:** Three-bed house with 9,000 bricks and 3500 blocks completed in 2 weeks (predicted)  
**DEGREE OF AUTONOMY:** Requires two people to load materials and install features such as tie bars, lintels and insulation  
**DESIGN FLEXIBILITY:** Builds traditional homes using traditional materials  
**WASTE:** Less than a traditional build due to better management control of materials  
**STRUCTURAL PERFORMANCE:** Equivalent to a regular brick and block house  
**TIME TO MARKET:** First homes available to purchase by the end of 2021.

The first robot of its type to build around corners, the ABLR was developed to construct an entire house without stopping, using regular bricks, blocks and mortar.

The machine is mounted on a 9m-high vertical lift frame that runs along a track around the perimeter of the building. A software control system reads architects’ plans and determines where every individual brick and block should be placed.

Two humans are required to complete each house: a labourer loads cassettes with bricks and mortar, a skilled tradesman ‘rides lift’ on the tower, monitoring progress on a tablet and installing tie bars, damp courses and lintels, and doing pointing. This eliminates the need for access scaffolding.

Construction of a prototype 3-bed house

in Everingham, Yorkshire, got close to completion last year but had to be abandoned due to technical issues. These have now been resolved, reports co-founder David Longbottom: ‘We have developed a new track, which is lighter and can take more tolerance in ground movement and we’ve improved the sensors on the machine. Electric motors drive all four wheels now so if there’s debris on the track it can cope with it.’

According to Longbottom, the use of familiar house building materials is expected to speed time to market by avoiding issues connected with certification, insurance and mortgage valuations.

‘You’ve got something that is tried and tested, thermally efficient, and highly suited to the UK environment,’ he says. ‘That’s the beauty – a valuer will be looking at something comparable to a house down the road built by a bricklayer, but this will be more accurate. We guarantee quality and we make it consistent.’

**Above** The latest version of Construction Automation’s machine features better sensors and a more robust track.

**Right** Vulcan takes 24 hours to print 400-500ft² of wall, spread across several days.

**VULCAN BY ICON**  
**LOCATION:** USA  
**SPEED:** 24 hours of print time per 400-500 sq ft, spread across several days  
**DEGREE OF AUTONOMY:** Three to four people are required on the job site during printing, the machine is transported in a custom trailer with no assembly required  
**DESIGN FLEXIBILITY:** Multiple geometries, currently limited to a single storey  
**WASTE:** Almost zero for the 3D printing aspect  
**STRUCTURAL PERFORMANCE:** ‘Lavacrete’ extruded concrete is inherently strong and has a PSI of 6,000 compared to 1,500 for a concrete block  
**TIME TO MARKET:** Homes already available for sale in the US

ICON has built two dozen 3D-printed homes across the US and Mexico and last month the start-up delivered North America’s first ever neighbourhood of 3D printed homes for sale, in Austin, Texas.

The tablet-operated robot runs on a gantry system and can print single-story buildings of up to 2000ft². Printing widths are adjustable to accommodate different slab sizes. Improvements in automation, mechatronics and software mean that all operations can be controlled by anyone with basic training.

The 1000-2000ft² homes in Austin, built for developer 3Strands, are energy efficient and feature large covered front porches and front yards, covered parking and open concept floor plans. Each is designed to withstand fire, flood, wind and other natural disasters better than conventionally built homes.

Alex Le Roux, co-founder and chief technical officer at ICON says: ‘The gantry-style architecture of our printer has the fastest, most reliable, and easiest to control approach to 3D printing one and two storey buildings. Our proprietary, advanced material Lavacrete has passed every structural test we have put it through so far. This means our homes will be safe for people to live in and resilient to the varieties of conditions where we may deploy this technology.’ ●



# Unlocking living space with rooflights

Conservation Rooflight proves perfect solution to increasing living space of Henley-on-Thames bungalow



Rooflights are a staple of bungalow conversions, but what do you do when your bungalow is in the heart of the Henley-on-Thames Conservation Area? There’s only one product suitable for the project ...

Driving into Henley-on-Thames, it is easy to understand why the sleepy town is such a sought-after location to live in. An area of outstanding natural beauty often considered one of the most beautiful towns in England and recently voted as one of the best places to live in the English countryside, it’s the definition of idyllic. However, homeowners’ abilities to develop and renovate their properties in the area are limited because of additional regulations to protect the landscape.

This was the challenge homeowner Joy Williamson had to overcome when she embarked on renovating her bungalow. She wanted to add a second floor to the

**Above** Adding rooflights meant extra rooms could be added to the eaves of the property.

**Below** The Conservation Rooflight allows the plasterboard to be taken right up to the glass.

‘Clean lines, great quality, and a perfect fit with the aesthetics of our home’



property to increase its living space. Unable to increase the building’s height, the plan instead turned to adding the required additional rooms to the eaves of the property – maximising the space while minimising the need for planning permission and intense structural work.

Getting the design right to allow the necessary amount of light into the additional rooms was key, especially as one of the bedrooms and both bathrooms being created would have no access to vertical windows. Instead of opting for bulky dormer windows, rooflights were chosen to maintain the overall aesthetics from the outside while inviting in the all-important light on the inside.

Chosen for the project were 16 of the Conservation Rooflight from the Rooflight Company. It was the design that really ticked the boxes for Joy.

‘I looked at other options on the market, but the simple design of the Conservation Rooflight made them the perfect choice,’ she says. ‘Clean lines, great quality, and a perfect fit with the aesthetics of our home.’

The Conservation Rooflight benefits from meeting all the requirements of an article 4 direction, so it’s a natural fit for projects in areas of outstanding natural beauty. It further benefits from a sleek design that blends into the roof tile on the exterior and allows the plasterboard to be taken right up to the glass on the interior, giving the appearance of a single pane of glass installed with putty. No frames in sight.

Rooflights had the added benefit of no longer requiring blinds for the bathrooms, due to their very nature of looking upwards.

The overall result was three bedrooms and two bathrooms added into the roof of the property. Each space was perfectly balanced with a wave of natural light, while the bungalow’s exterior remained in keeping with its surroundings and the stunning backdrop of Henley-on-Thames. ●

To find out more about the Conservation Rooflight and the Rooflight Company’s full product portfolio, please visit <https://www.therooflightcompany.co.uk/>.





# Light and flexibility make more of the view

Large bespoke glazing panels from Schüco harnessed light and views to give a downsizing conversion a sense of unlimited space

## Sympathetic retrofit for contemporary living

‘We love our new extension, it has totally transformed the house – in fact, it is the house. We wanted the extension to have an edge to it – it had to go with the feel of the old building but not pretend to be a part of it. This is where Schüco came in, we couldn’t have carried out our ideas without them.

‘Schüco allowed us to have a mix of materials that was totally in sympathy with

The Schüco metal work and glass is in perfect harmony with the structure.



the original building; the Schüco metal work and glass is in perfect harmony with the structure.’

So says homeowner Enid Thomas, who worked with Jeremy Young of Featherstone Young to realise a vision of contemporary living.

Huw and Enid Thomas were no strangers to ambitious projects, having converted a set of disused barns in north Wales into a family home in the 1990s. Looking to downsize, they decided to

convert a derelict engine shed next door into a smaller home.

The pair commissioned award-winning architect Featherstone Young to design an extension to the building to create more living space and make the most of the breathtaking views.

‘The back of the house has a fantastic southern outlook over a bowl of hills and the idea was to open up the building as much as possible to enable the clients to live with that lovely backdrop,’ says Young.

BROTHERTON-LOOK (3)

## Maximising light, creating spaces

The design comprised two main elements. First, the roofs slope inwards – the opposite way to normal – to accommodate large walls of glazing. These bring in lots of light, with overhangs to stop the south west facing extension overheating.

Second, the extension is open plan and could have been one big room, but splitting the space over two different levels gives an informal sense of separation. The raised upper level connects to the dining room while the lower section houses the living room on the same level as the garden.

Both spaces have generous Schüco ASS 70.HI sliding doors opening to the outdoors with large single panes of triangular glass above them, constructed using Schüco FWS 50. The other windows in the back of the property are Schüco AWS 70 SC.

Young suggested building a stone wall as a bookend on one side of the extension to provide privacy. The property’s land was littered with stone from fallen walls and the clients were keen to recycle materials and minimise waste.

Huw explains, ‘Enid built the stone wall at the end of our extension herself. She incorporated arrow slits to echo the original building and these are glazed with Schüco units built into the wall. The wall is 2m high and topped with a glazed panel up to the roof to let in the light. The Schüco frames fit perfectly into the stone wall.’



**Above** The space is on two levels, giving an informal sense of separation.

**Below** Both spaces have generous Schüco ASS 70.HI sliding doors opening to the outdoors.



## Why Schüco?

Young explains why he chose to work with Schüco for the design: ‘We work on projects of all scales including considerably bigger schemes than this.

‘Schüco is always our first port of call for facades and windows on commercial projects so it was a natural choice for this design with entire walls of glazing.’

One of the things that makes the company stand out is its technical support service, which is always on hand to advise.

‘Working with CS Glaziers, a local fabricator more accustomed to working with standard products than with the large bespoke glazing units of this project, the technical support provided by Schüco was particularly beneficial.’

## More than a view

Demand for this type of extension project has increased dramatically since the first lockdown of 2020. When Schüco researched homeowners in July the main motivation for considering a home renovation project was, by a considerable margin, the desire to improve the quality of living. Homeowners are looking for more light and better access rather than more space.

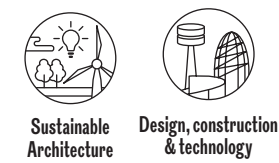
In this project, the architect achieved the design intent using a mix of systems familiar from both commercial and residential projects combined into bespoke solutions. The result certainly maximises the glorious views enjoyed by the property but it achieves much more than a view – creating an entirely new way of living in the space. ●

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# SCHÜCO





# Walk through a sustainable retrofit via the Plan of Work

What are the triumphs and challenges of deep retrofit – the process of making a building sustainable in conversion and use? To find out, we follow a flagship project, for the Cambridge Institute for Sustainability Leadership’s new base, through the RIBA Plan of Work. First: Stages 0 and 1

Eleanor Young

When the Cambridge Institute for Sustainability Leadership made a 1930s telephone exchange its new home, it knew it had to bring the building into line with its values – and provide sustainable leadership in its design and delivery. We track the process and consider the fundamental questions of sustainability that must be interrogated at each point through the RIBA Plan of Work to create a powerful sustainable building exemplar. Here we examine POW Stages 0 and 1 of this ambitious, £12.8 million retrofit.

Stage 0: Strategic definition

Stage 0 in the RIBA Plan of Work is all about sorting out the business case that will drive a project, and starting to think about the brief. In sustainability terms, setting the aspirations for the scheme is all-important.

Cambridge University’s growing Institute for Sustainability Leadership (CISL), and its then founder director Polly Courtice, spent five years scouring the university’s property portfolio to find a new home. Even then, the site they picked was not the most obvious choice for a forward thinking institute that, over 30 years, has married practical sustainability action with business as it works alongside organisations such as Asda and Chanel, and the Prince of Wales.

There was no options appraisal to review different sites or a newbuild. CISL settled on a recently-vacated 1930s telephone ex-

change in Regent Street, despite its small windows and rather tired interior. ‘A property was so hard to come by in Cambridge,’ says Courtice. ‘We had battled for every building available.’ It persuaded the university to let the institute take it on, rather than put it out to commercial rent; but getting it to agree to CISL undertaking a deep retrofit was more difficult. The proposal had to be taken through the university’s planning resources committee, backed by a five year business plan and a promise to fund-raise for the retrofit.

Given the institute’s twin concerns of sustainability and leadership, it saw the retrofit an opportunity to demonstrate its values (the university itself later committed to reducing its carbon emissions in 2019 when it signed up to the Science Based Targets). The retrofit is now under construction and Courtice is aware there is still a distance to go, adding: ‘We have to prove how feasible it is.’ At stake is the achievability of a deep retrofit, something the university’s ageing estate needs as much as the UK’s existing building stock does. The institute needed offices, some with hot desking, and a place bring people together

‘We have to prove how feasible deep retrofit is’ – Polly Courtice



– exhibitions, entertaining and a café.

The project was joined by John French, who had been lead academic client on the hugely innovative and sustainable Enterprise Centre at the University of East Anglia. He wrote a brief for a world class retrofit, turning values into targets with standards alongside. The Enterprise Centre had drawn on French’s work on bio-based materials; from external thatch cladding to interior finishes, it used local materials and showcased innovative products. All those aspirations were also applied to CISL’s exchange retrofit.

The slew of project ambitions set out by French included Passivhaus’ EnerPHit and BREEAM Outstanding. The brief stipulated that the building should be an example of the circular economy – in particular re-using or recycling office kits – and of bio-based materials. These materials expand the net wider than timber to include bio-based paint, wool insulation, cork finishes and more. ‘We need to move away from petrochemicals and plastic,’ says French. ‘And bio-based materials give you a good feeling.’ In addition they act as carbon sinks. French set a ‘stretch target’ for 70% (beyond what would normally be considered achievable) of refurbishment materials

SOLK PHOTOGRAPHY LTD

to be bio-based. The embodied carbon target was 300kgCO<sub>2</sub>e over a 100 year life.

But that is not all. The brief required 50 innovations to be included and showcased in the building, which could be software, materials, or occupier related. And Soft Landings and post occupancy evaluation (RIBA Plan of Works Stage 7) would run for a year from practical completion to ensure the building was performing as it should and could be fine-tuned in use.

Cost was to be typical of a retrofit like this, if not quite the lick-of-paint bargain that the university had first envisaged. The client set a challenging target cost of £2500/m<sup>2</sup>.

Next the consultants team had to be appointed. French is a great believer in team continuity to build on lessons learnt and relationships, and brought in Architype and BDP – which had worked together on the Enterprise Centre – through the Cambridge University’s framework, which BDP was on. This team would work on the building through Stage 3 to tender and help appoint the contractor before moving to become client-side architect.

And finally, a name. The building was to be called Entopia.

Above The brick facade and sash windows of the 1930s telephone exchange on Regents Street in Cambridge, ahead of its retrofit.

Stage 1: Preparation and briefing

At Stage 1 of the RIBA Plan of Work the architects start to get involved and work out what the brief actually means in practice.

Now, team Architype joins the job, best known for committing to Passivhaus early on, with schools in Wolverhampton and the RIBA Award winning UEA Enterprise Centre (yes that again). The key people are director Ben Humphries and associate Wendy Bishop, a Passivhaus designer. They started with the viability of the brief, first testing its sustainability and then modelling and reviewing key areas. Could the project realistically deliver the high sustainability and certification targets it had been set?

Right from the start Architype was up front about pricing the feasibility higher than normal to ensure that the many emerging issues would be explored – ‘to be competitive further along the line,’ says Humphries reassuringly. There was a lot to investigate.

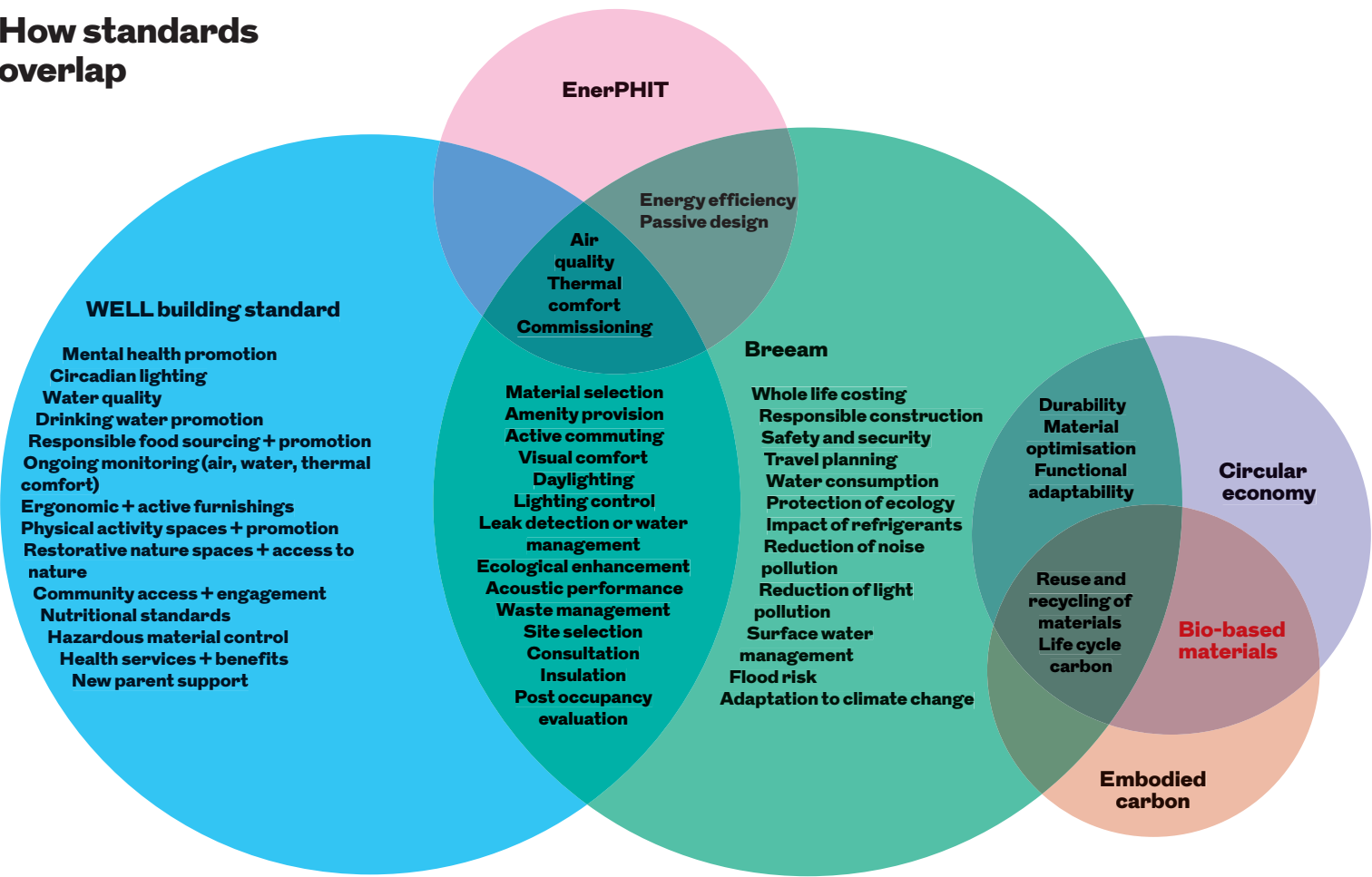
On top of the standards already set, the practice proposed working with an extra one: the WELL Building Standard. It saw a good alignment with the other aspirations. A Venn diagram of all the standard and values was drawn up and confirmed a large degree of overlap (see overleaf). The team also looked at LEED and RICS’ SKA rating – but they didn’t make it into the mix.

So what did the high level analysis – some on Architype’s modelling tool Eccolab – of metrics and targets throw up? First was the important role that internal insulation would play. Also replacing the single glazed windows (despite some secondary layers) for thermal performance and air tightness was essential – and would play a part in improving low light levels too. Replacing poor performing windows meant a lot of glass. ‘You couldn’t get away from that,’ says Bishop. ‘You can’t get bio-based glass.’

Added to all that was the fact that as an existing building it couldn’t benefit from a carbon-sequestering timber structure, which knocked the targets on both bio-based materials and embodied carbon. A target of 70% of bio-based materials had been reduced to 50% by the end of Stage 1, when options and costings were reviewed. The Enterprise Centre at UEA had 400kgCO<sub>2</sub>e, partly due to the timber structure helping bring down the embodied carbon. And norms for calculation have moved on even since that was completed, with the RIBA’s 2030 Climate Challenge,



How standards overlap



LETI splitting out sequestered carbon and SKA including the reporting of end of life carbon.

So the insulation and wall build up was under the microscope, with extra Wufi modelling to assess moisture migration. Was the solution Warmcel newspaper cellulose fibre between timber studs with a membrane – as often used on Passivhaus projects? Or perhaps wood fibre insulation? Whatever it was would have to be lightweight and help with moisture movement in the existing brickwork. This question remained live through the project despite early conversations – as the team was unable to open up the building to see the old wall build up until very late.

On materials, the team started to talk about using and doing less. Could those existing fixed glass partitions be reused in situ or upgraded? This didn't bottom out until the end of Stage 2, when it was found that keeping them didn't save much, partly because they didn't fit the required configuration of spaces and partly due to detailing insulation in the walls alongside. It was easy to decide to

The team started to talk about using and doing less. Could those existing fixed glass partitions be reused in situ or upgraded?

keep the building core containing lift, staircase and WCs, with its existing 60-minute enclosure and block walls. Would that spiral escape stair suffice? This answer was yes (despite the potential to design something more interesting, architectural and accessible).

For the circular economy the team undertook a review of building's materials for suitability for reuse (on site or by others), recycling potential or manufacturer take back schemes, and precedents for creative reuse of materials.

Even for those who want to be the leader in a field, precedents play an important part. By the end of Stage 1 the team had not only firmed up the brief but set up tours to buildings that might demonstrate different aspects of the project to clients, including a private members club, a WeWork building and Europe's first WELL building, Cundall's London office, designed by Studio Ben Allen. So going into Stage 3 there were plenty of ideas about how to make a great sustainable office, as well as the windows to work out ahead of submitting for planning – always a tricky issue in a conservation area. ●

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# Cornish hotel secures its waves above the beach

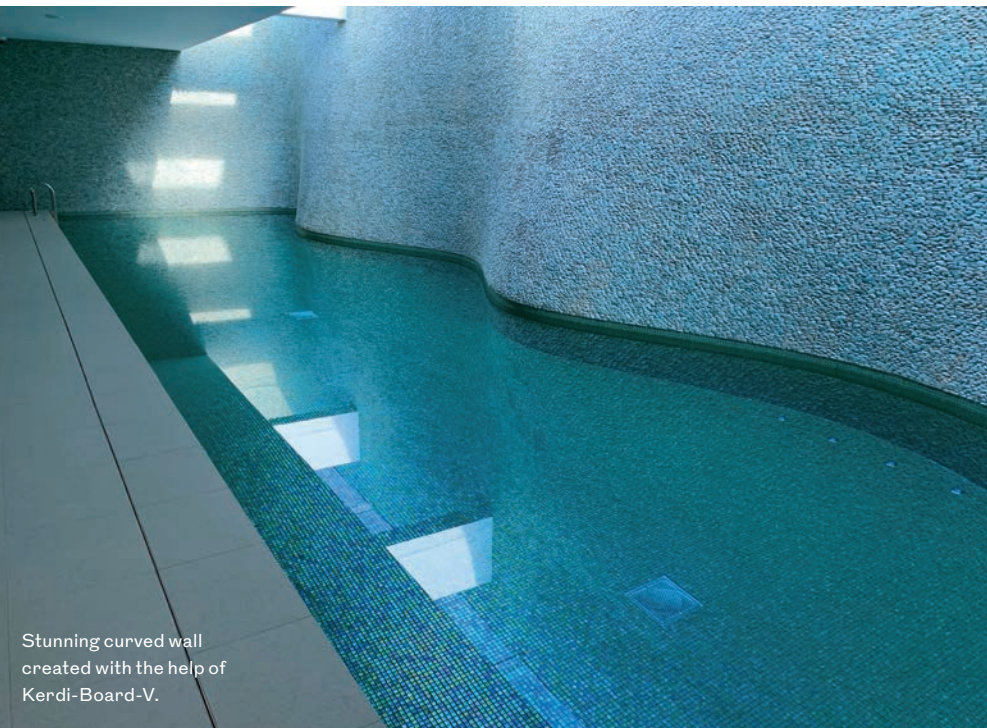
Schlüter-Systems helped Newquay’s Headland Hotel take swimming to the next level with an impressive spa

Overlooking the stunning views of Fistral Beach, the Headland Hotel sits on a clifftop above Newquay in Cornwall, offering guests a beautiful backdrop to their luxurious hotel experience. The hotel, which is known for its part in the 1990 film The Witches, recently undertook a large-scale upgrade which involved a brand-new spa and swimming area.

Tile and stone protection expert Schlüter-Systems supported Lilly Lewarne Architects in the design and specification of the Aqua Club, a stunning swimming and wellness centre. Along with providing waterproof elements to the whole area, the firm also assisted in the creation of innovative bespoke features to give a truly five-star experience.

The impressive project involved multiple

**Below** Walkway between pool areas waterproofed with Schlüter-Ditra-25.



Stunning curved wall created with the help of Kerdi-Board-V.

indoor facilities including a hydronic pool and a children’s pool, alongside a stunning outdoor area which offered even more spa amenities. Creating these elements required the use of durable products underneath the tile and stone finishes, to ensure a long-lasting installation that offered both style and substance.

One eye-catching element which enhanced the look of the spa was a serpentine wall clad with River Stone. Due to the versatility required, one of the key products used was the popular tile backerboard Schlüter-Kerdi-Board in the variation Kerdi-Board-V, created specifically for curved areas. Not only did this provide a stable yet sculpted surface to tile over, it also made the installation process far easier as the waterproofing step was already taken care of. When used with sealing components Schlüter-Kerdi-Keba and Schlüter-Kerdi-Coll, a fully waterproof system can be achieved effortlessly.

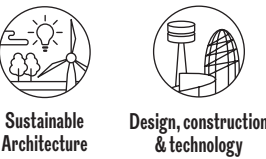
By the very the nature of the project, reliable waterproofing of the pool and spa areas was of high priority. The uncoupling mat Schlüter-Ditra-25 handled this with ease thanks to the waterproof properties it provides. The barrier created by the membrane protects moisture-sensitive substrates from water exposure, a crucial requirement when it comes to a swimming

pool. The use of Schlüter-Ditra-25 also served to deliver crack-bridging and vapour management to the floor and wall areas, as well as in the male and female changing rooms.

With the peace of mind that comes with using tried and trusted products such as Ditra-25, there is no doubt that the waterproofing properties will keep the spa and pool areas in great condition for years to come. This, paired with the creative freedom offered with Kerdi-Board, meant that the design elements could be finished with style.

The creation of the Aqua Club involved Schlüter’s products and expertise from start to finish and the facilities have made a great addition to an already impressive hotel. ●

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# We can put a block on brick

Despite its embodied carbon, masonry is still the default construction method. What are the alternatives?

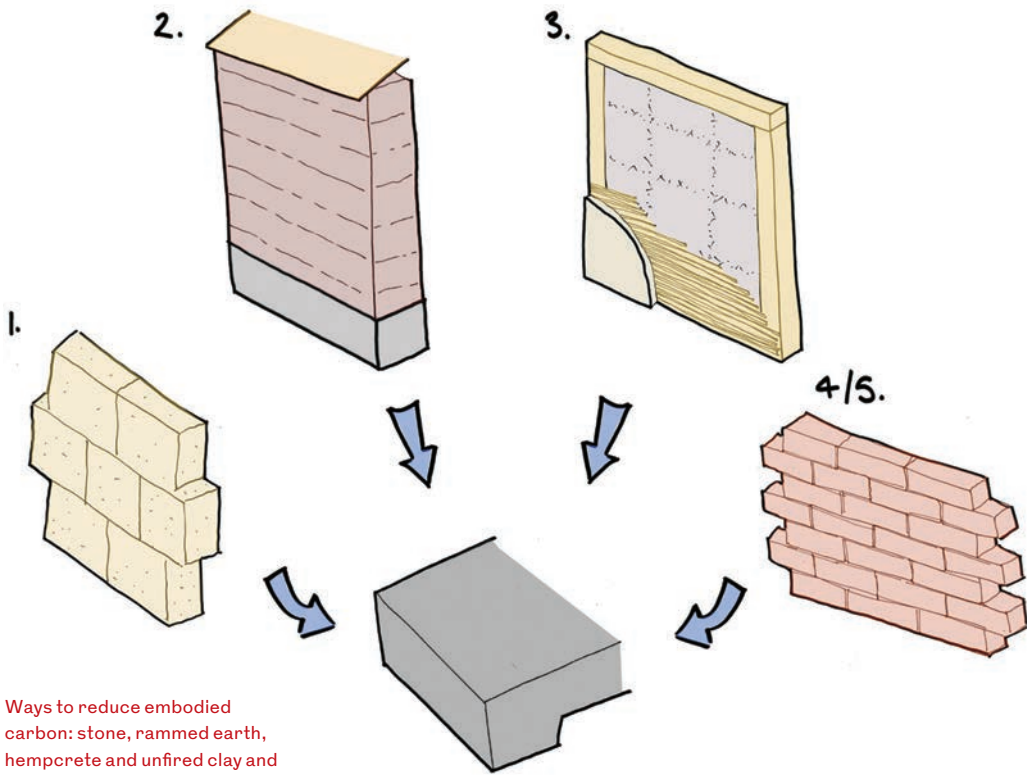
Rosie Mounsey and Steve Webb

The UK’s appetite for bricks is growing. With Great British Brick Shortage reports in recent years, increasing annual production and import, and now news that the country’s largest manufacturer will invest across its two sites to ramp up manufacture even further, it seems we can’t specify enough of them.

While bricks have existed in various forms since Roman times, common use dates back to 350 years ago, when after the Great Fire of London timber framing in the City was banned and replaced with masonry in the London Building Act of 1667. Similar Acts rolled out in cities across the country eventually evolved into the Building Regulations which still define our practice today. From the mid-1900s, cavity wall construction became more commonplace, originally to avoid penetrating water but still used now to incorporate insulation. Dividing the structure into two thinner walls weakens the masonry, but by the end of the century this had become compulsory in new masonry construction.

So now we have fewer fires and warmer homes. But is there any logic to the way we are building now, and can we do better?

A three-storey masonry-built house would typically have 50% more embodied carbon than an equivalent timber framed, larch-clad house. And the same house using masonry just as cladding still has 30% more than the timber option.



Ways to reduce embodied carbon: stone, rammed earth, hempcrete and unfired clay and reclaimed masonry bricks.

Modern brick construction has developed from a straightforward brick, mortar, brick approach to a complex system involving numerous accessories: wall ties (to tie back together the wall we have split into two), bed joint reinforcement (to strengthen the inherently weak bending capacity of the thin wall), movement joint ties with fillers and sealants (to allow for the expansion of the brickwork and contrasting shrinkage of the concrete blocks hidden behind), steel angles or boxes (to accommodate long flat openings), steel windposts (again, to strengthen the divided wall), head restraints, column ties... it is difficult to see the modern logic in this heavy, layered construction.

Yet it remains the prevalent form of construction, with 2.4 billion bricks, producing 2.6 billion kgCO<sub>2</sub>e, used in the UK each year. This huge amount of energy is of national importance. In our efforts to decarbonise, how can we continue to produce something that, if abolished, would have the decarbonising effect of two medium nuclear power stations? Or 25% of all offshore wind farms?

But what are the alternatives? If we, and planning authorities, are ready to step outside our comfort zones, where could we go?

- 1) Stone presents an easy, abundantly available alternative requiring no firing or processing – a limestone wall saves two thirds of the embodied carbon of a brick wall of equivalent thickness and is two to three times stronger.
- 2) Rammed earth construction can have an

embodied carbon as low as 5-10kgCO<sub>2</sub>e/m<sup>2</sup> if locally sourced and naturally dried. The required ‘hat and boots’ detailing, while less common, is simple to achieve.

3) A 200mm thick hempcrete wall placed in situ into a timber frame with a putty lime render will sequester rather than emit 35kg-CO<sub>2</sub>e/m<sup>2</sup>, thanks to its quick growing stems. It is also an excellent insulator.

4) Modern unfired clay bricks can be produced to accurate tolerances using commercial pressing or extrusion and have only 14% of the embodied energy of fired bricks. They will typically only achieve around a quarter of the compressive strength of a stock bricks, but this offers a better strength to carbon ratio and improved air quality internally.

5) Reclaimed masonry bricks. An estimated 2.5 billion bricks arise as demolition waste each year (almost equal to the number we use new each year!), but only 5% are reclaimed for reuse, with the rest crushed for fill. Challenges involve the removal of hard cement mortars and assurance on quality, but many more than 5% should be suitable for reuse.

We have a choice to make: would we rather build new timber homes? Or mock Georgian ones next door to the new nuclear power station required to create them? ●

Steve Webb and Rosie Mounsey are at Webb Yates Engineers  
Read more of Steve Webb on reducing embodied carbon in structures including house extensions, towers and design approach. And on using stone at [ribaj.com/climate-emergency](https://ribaj.com/climate-emergency)





Places, planning  
& community



Design, construction  
& technology

# Could Africa’s compound house help today’s needs?

Africa’s model for multi-generational shared living offers so much more than just shelter

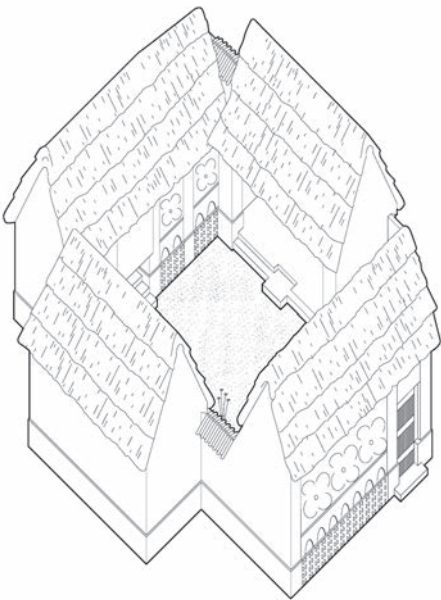
Words & images: Bushra Mohamed

‘Finhankra’ in Adrinka, a language derived from pattern and imagery by the Ghanaian ethnic Akan people, is the symbol for safety and translates as ‘compound’ or ‘house’. With my research partner Nana Biamah-Ofosu, I have been studying this historic model of multi-generational housing in Africa to understand its architectural and cultural significance, as well as its potential as a contemporary housing type that could answer many of today’s most pressing societal needs.

‘If provision of shelter is the passive function of the house, then its positive purpose is the creation of an environment best suited to the way of life of a people’, writes architect Amos Rapoport, who has written extensively on how culture, human behaviour, and environment affects the house form.

A compound house comprises a series of rooms opening to a central open space, or a cluster of buildings or rooms, typically forming a defensive enclosure. They are primarily associated with a shared purpose, such as the houses of an extended family. Some versions create a distinct central courtyard, while others are more amorphous. The compound is often enclosed by verandas – both these and the open compound are communal spaces, used for access and activities such as customary, religious or festive ceremonies, cooking, laundry, playing and the safe keeping of animals at night. Typically, the open compound acts as the specific space in which inter-household relations and collective societal values are developed and nurtured.

Collectively these houses form a settlement’s urban fabric, varying in density. Historically, the rooms were used for shelter and



Below Ejisu Besease Shrine House - Compound, 2019.



Above Ejisu Besease Shrine House Axonometric.

sleeping, but also often included granaries to store food, wells for water, and enclosures for cattle and livestock. In some early settlements, compounds would grow as required by the village or town, with four to six per settlement and a total population of 100-300 people. This type has evolved to respond to the even denser needs of contemporary African cities such as Accra, Lagos and Nairobi.

These kinds of compound houses are ubiquitous across the continent. The diverse histories and cultures during the pre-colonial and colonial periods, as well as current urban realities, make it ineffective to generalise for the whole continent, but the type does form a sort of continent-wide vernacular architecture and historic examples can be found in parts of Ghana, Nigeria, Niger, Tunisia, Cameroon and Zimbabwe. As a type, the African compound house is similar to Chinese Siheyuan houses, traditional Mexican pueblo houses and courtyard houses found in India.

Growing up in Kenya, I experienced compound houses viscerally. The first compound house I lived in was in Nyali – a borough of Mombasa – with my immediate family and members of our extended family. The house had a fluid connection to the outdoors, and I oscillated between indoors and out: I’d play in the compound, help my grandmother pick jasmine flowers, watch my aunts make ugali, use a tinaar to make mofa breads, roast meat, fry chapati, steam the biryani, pound spices or wash the dishes. I always felt connected to the other people in the house through this central space. Even when I wasn’t outside, I could see my mother, father, uncles or guests come through the gate into this central space. On Fridays (al-juma’ah in Arabic, meaning congregation), other members of our extended family, around 30 people in total, would gather there for lunch and afternoon prayers.

My grandmother had a single-storey compound house in Eastleigh, a denser and poorer area of Nairobi. There was a bricolage mix of permanent and temporary shops around its front perimeter. Even though these shops felt completely separate to the house within the gate, they were part of the same plot – the shop owners rented their spaces from my grandmother. My grandmother’s house sat about 10m beyond the compound’s front gate, seemingly in the centre of the plot with its plain stoic elevation. This was the main entrance to the house, but it was not the one we used. We entered through the door-

way at the rear, via a thoroughfare at the side of the house that led to the open compound.

Surrounding this compound were more residential units with covered and apportioned verandas. My uncles lived in two of these houses, while the remaining units (around six) were let out to other small families or individuals. The central open compound was used all year round for hanging laundry and washing dishes. Here also were the communal toilets and bathrooms. A few of the units had toilets and bathrooms within the individual private domain, but the rest of the tenants used the communal ones.

Such early experiences led me to research other compound houses and their communities, particularly in Ghana – more than 6000km from where I lived in Mombasa.

One such compound house is the Ejisu Besease Shrine House in Kumasi, Central Ghana, now the country’s second most populous city after Accra. The house is the home of an Asante deity and one of 10 shrine houses that make up the Ashanti Traditional Buildings listed by Unesco as a World Heritage Site in 1980. Formed of four rectangular rooms around a central courtyard, it is typical of the compound houses found in the pre-colonial Asante kingdom. These shrine houses hosted powerful deities that protected the kingdom, mediated communication between the people and higher gods and, like many buildings of value, the structures were the result of the Asantes’ desire to achieve harmony on earth with their creator. Hence, the compound and veranda in these houses are adorned with

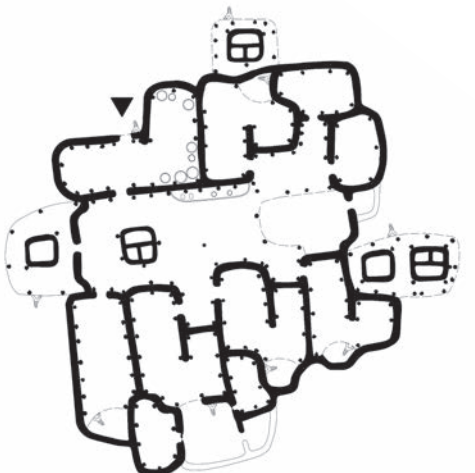


Adrinka symbols and other ornamentation and are used for religious ceremonies.

The theme of cultural ritual is also present in the compound houses of northern Ghana. Here the Lobi people, who span Ghana, Burkina Faso and Côte d’Ivoire, traditionally build houses using layers of laterite soil mixed with water. The exterior is decorated with patterns using a mixture of the soil and crushed locust beans. The Lobi people build during the dry season from November to March, with construction works beginning after the Earth’s custodian, ‘Tindana’, has performed the appropriate rituals on the chosen site by weeding and sweeping the space marked out by the compound owner for the building. The swept site is then watered thoroughly and after the men have completed the walls and roof (a collective effort by the clans), women plaster the inside and outside, lay and

Left Compound and veranda, Jamestown, Accra, 2019.

Above Plasterwork around the entrance (left) and ground floor plan (right) at an example of a Lobi house, west Africa.



beat the floor and apply decorative finishes to the walls. Some tribes, such as the Dogombas and Gonjas, do not plaster their buildings, decorations are applied only to opening thresholds such as doors and windows.

While there are distinctions across the compound house type, defined by location, cultural and societal norms and traditions, there are elements that are common and recurring attributes. These, in particular the central compound space and the veranda, create a layered range of public, semi-public, semi-private and private space. This exposure to both public and private life within the home fosters a sense of civility. It is both private domain and civic space, and shows the house as an institution. It represents the origin of the collective settlement type, yet few attempts have been made to develop this compound typology for a contemporary context.

However, I believe its potential as a housing type that encourages community, shared social and cultural values is very relevant today. In order to understand the value of the type, you must also understand the value of communal living. Mounting pressures from land prices in urban centres, a growing need for more supportive structures of care for the elderly and children, the resurgence of self-sufficiency in regard to home-cooking/ growing food and now increased working from home – as well as isolation during the pandemic – all point to the need for an awareness of housing types that contribute more than just shelter or economic gratification – something social and communal.●

Bushra Mohamed is an architect at David Kohn Architects and RIBA Rising Star 2020. Entries for Rising Stars 2021 are now open at [ribaj.com/risingstars](http://ribaj.com/risingstars)

Exposure to both public and private life within the home fosters a sense of civility



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## Intelligence Legal disputes



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## Invest to make nothing happen: how to avoid disputes

How can we reduce the number of disputes that plague construction? Assessing where problems may lie is key to taking essential preventative action

**Paul Cacchioli**

How do you mitigate the risks of dispute on major construction projects? Despite the host of mature contracts and 'practitioner interventions' from risk, project management and commercial management professionals and the like, avoiding dispute is no mean feat.

Knowing the risks and their likely causes in advance is valuable, as it allows you to ask the right questions during the design and procurement and plan interventions during construction.

### Identify the risks

So what are those major issues and how do you ensure your project is not caught out by them? The HKA CRUX Insight 2020 report showed that across a global sample of building projects with a capital value of £200bn, the risk of dispute crystallises at almost 38% of planned project value, equating to a premium of £16.2bn. The report confirms that

**Below** Network Rail is pioneering a way to avoid costly construction disputes on major projects. Pictured here is RIBA Award winning London Bridge Station by Grimshaw.





the most common causes of disputes in global buildings projects are change in scope, late issued design information, and incorrect design.

These causal factors are not perhaps surprising, given that design has grown increasingly fragmented since the 1990s, with the introduction of many diverse subcontractor packages during design development. While these activities are usually confined to early stages in the project cycle, giving a longer period in which to recover the lost time, a serious error affecting multiple interfaces can have severe time and cost implications, and be difficult to put right.

But assessing project risk with absolute certainty can be tricky, not least because it is only during the construction phase that practical issues can be fully appreciated as they emerge. Design risk events will also affect procurement: for instance, details are all too often left to fabricators and manufacturers. Sometimes this is out of necessity, for example, because fabricators are familiar with the constraints of the fabrication process, whereas a general design consultant might not be. Consequently, it is not always possible to robustly define interfaces at the ideal time.

The packaging of works and services is one of the most critical parts of the procurement process and creates the most effective interfaces with and between suppliers, allowing a client to manage the risks it is best placed to manage. Packaging also drives the organisational delivery model and structure.

There are many other risks in the transition between digital technology and physical construction. Insufficient allowance for the necessary design iterations between the detailed and scope design can store up problems for the future.

Decision makers need to consider whether they are being given the right indicators and management information in timely way

#### Work together

Collaborative working has been gaining ground, both in contract agreements and in practice, with a focus on teams working together in a spirit of co-operation to design and build a project, identifying divergences in terms of planned time, cost and specified technical matters as they arise, then dealing with them using appropriate behaviours via available contract mechanisms. This means designing out problems before manufacturing and construction start, then monitoring and controlling any identified residual risks.

There is a downside to this: monitoring can become a retrospective exercise, looking back and taking a 'lessons learned' approach, while other new risks remain unidentified.

Maintenance of risk registers solely by those intimately involved with the project can result in significant upcoming issues being overlooked, because those monitoring the risks are simply too involved in the detail. It is also not unknown for a significant risk to be worked around on a daily basis, as its severity increases, while being played down by those who should be sounding the alarm to the decision makers with the authority to sanction possible solutions. This is a recipe for future disputes and goes against a significant learning point in the recent National Audit Office cross-government report 'Lessons Learned from Major Programmes', which points out that decision makers need to consider whether they are being given the right indicators and management information in timely way.

Setting up and running regular multi-disciplinary design reviews is essential to enable interface co-ordination, particularly given the increasing and often diverse factors that influence the phases of a project. The latest of these, sustainability, has become a growing focus area, adding a fifth influencing factor to the traditional ones of time, cost, quality and safety.

#### Prevention is better than cure

Events on projects that drive delays and additional costs are inevitable. To address this, continued identification and prevention are essential.

One business, Network Rail, is pioneering preventative reviews. This aligns with the effective collaborative relationships it has developed with its supply chain over the last 10 years and is reflected by its 'disputes

Blakey likens DAP members '...to being on fire-watch, looking for smouldering embers of dispute in the dry grass'

premium' which is less than a quarter of its global comparators.

The technique is gathering momentum and is being employed across a number of its key projects; HKA was recently awarded the framework to deliver Dispute Avoidance Panels (DAPs). The DAP process starts with a review of a programme by an independent panel comprising subject matter experts across commercial, legal, planning, and – uniquely – behavioural disciplines who understand major infrastructure delivery and the genesis of disputes.

In collaboration with the project teams, DAP members identify potential issues of concern and provide the project leadership with practical ways to avoid or mitigate the implications. Blakey likens panel members '...to being on fire-watch, looking for smouldering embers of dispute in the dry grass'.

Network Rail has developed a process to avoid disputes, but the process has the its flexibility to select the expertise and make-up of panel members to reflect the project and phase of development. For a project in the early stages of design, say, it would make sense to include an architect on the panel.

#### Small price for nothing

The risks of adopting this type of technique are small; namely paying for a review where either no risks are to be found (possible but unlikely) or where no 'dispute risks' materialise (more likely) which in turn presents the challenge of demonstrating the benefit where 'nothing actually happened'.

However, the potential savings in averting major schedule delays, additional cost and the inevitable breakdown in working relationships are real, as illustrated by the huge cost of disputes. ●

Paul Cacchioli is a director at HKA

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# 3: Culture



The coastal hamlet of Lee-over-Sands in Essex is, thinks Luke Hayes, one of those extremes on England's spectrum of remoteness. Sited where the estuarial River Colne gapes at the North Sea's vastness, its motley rag-tag of houses is approached only via the long single-track Beach Road. Running along the seaward side of its earthen sea wall, it only adds to the sense of isolation. Those piers on which the houses sit might be headstones; near here, one January night in 1953, a storm saw the sea move two

miles inland and 37 perished in the surge. If they are graves, Lisa Shell's 'Redshank' is a sepulchre, raised above the plimsoll line of tragedy. Hayes was beguiled by its red-legged strangeness set against the barren flat of the landscape, and hopes to return one night to capture it again – from offshore, at full moon, when the spring tide rises and stirs the sea from its bed. And there, like a Norse longboat, it will float, still anchored; a sentinel to the drowned. ●

Jan-Carlos Kucharek

**Luke Hayes**  
**Redshank, 2017**  
Canon 5DSR with a  
24mm TSL





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**D - Neo**

*'Designers are experts at judging whether materials are being used sparingly or with profligacy'*



## Don't let consumption be all-consuming

The public's purchasing plummeted during lockdown, but architects must keep seeking just the right product. Judicious procurement is vital

The hammock is possibly my favourite place in the world. Yet I still wasted half an hour of delight lying in one on a sunny Sunday, searching for some other comfort – googling deckchairs, loungers, steamer chairs and hanging egg chairs in an escalating consumption spiral of price, complexity and storage requirements. I put my phone down when the price reached £795 and lay back in my twenty quid hammock between trees to stare at the sky.

Consumer spending went down during the lockdowns. Clothing sales dropped by 20% in 2020 and other non-essentials followed suit. Missing was the commitment of that trip to the shops, that search for precise colour of bathroom tile (that will still look that colour away from the screen in the dim light of the bathroom), the picking up and putting down with a little shake or a test of the weight. These things make it easy to make decision and buy something on a whim.

Apart from the brief closure of builders' merchants last year, architects rarely have that luxury. Buying is an integral part of designing – that and knowing how to reach decisions about what to buy. Architects are paid to understand the pros and cons of surface finishes, specifying windows with the most appropriate coating, ensuring products have the right BBA certificates. Architects at the top of their game will know, or find out, if that quarry has sufficient supply of their chosen stone. And the lead time on that favourite brick. Markets, market leaders and whether a cheaper substitution will make or break design all have to be weighed up.

For some architects it becomes an art. Eric Parry Architects dedicates itself to exhaustive explorations of materials; its process, dedication and ideas are laid bare in the latest RIBA J Meets podcast. But it can be frustrating when you are hit with inconvenient

realities of physics. Parry director Lee Higson enthusiastically chose graphene as his dream material for building, with its lightness and super strength giving incredible design freedom. I think we would all like a piece of that. Hear more at [ribaj.com/ribajmeets](http://ribaj.com/ribajmeets)

In the meantime we can make miracles by choosing everyday products that are better for the environment. Sometimes designing sustainably sounds like a miserable diet of forbidden products and materials. It is more fun to see it as an opportunity to explore new things – such as on Entopia, a retrofit for the Cambridge Institute for Sustainability Leadership (page 54), where the emphasis has been on using emerging products and supporting those who are innovating for a green economy. There are greener versions of regular products too, sometimes led by the manufacturing plant going solar or re-using its waste, sometimes in the make-up of one model over another. Designers are experts at judging whether materials are being used sparingly or with profligacy.

Construction is a consumption game, but being good consumers makes for a win for the climate, as well as your client. ●

*Lean luxury in hammock form.*



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She realised how the 'sense of deprivation and alienation' that she'd seen in Homs were commonplace in many modern cities around the world

**Pamela Buxton** reviews Marwa al-Sabouni's new book: [ribaj.com/vulnerability-and-home](http://ribaj.com/vulnerability-and-home)



# Light roof

With the housing crisis high on all agendas, a competition to design a house daylit only from above is timely and topical



As our cities densify, and straightforward sites become ever more scarce, attention turns to backland plots and enclosed courtyards that – with a good dose of persistence and architectural ingenuity – might just accommodate a house. Access is often tricky, as is the negotiation of numerous party walls, but the greatest challenge of such landlocked sites is the availability of daylight, fresh air and views. Hemmed in on all sides, often overlooked and overshadowed, they receive light only from above, which must be brought down through the building by skilful manipulation of the roof and the section.

In recent years, the architects of some exceptional projects have turned such constraints into opportunities to make powerful and exceptional interiors shaped by light. Limited access to daylight underlines its value, driving the arrangement of spaces and the character of the interior. Shadow patterns and views of the sky make features of the movement of the sun and changes in the weather.

The RIBA J Light Roof competition, in partnership with Keylite Roof Windows, asks entrants to imagine a generous family home for a compact site that is enclosed on

all sides, so that the only access to daylight is from the sky directly above. Take an existing or imagined site – a backland plot, a courtyard at the centre of a larger building, or the ground beneath a private garden – and create spaces with a quantity and quality of daylight suited to all parts of domestic life: sleeping, working, cooking and eating, relaxing and entertaining. The task is not merely to ensure adequate illumination, but to add character and interest to diverse interior spaces through direct, borrowed, filtered or reflected toplight. ●

**Above** In this project, Keylite roof windows give views of the changing sky that animate the interior.



## BRIEF

The house should be arranged over more than one storey. Atria and internal lightwells may be used, but should not account for more than 20% of the site area.

Consideration should be given to how views of the sky and changing weather might enrich the experience of living in the house.

Designs should use the configuration of plans and sections, and the type and location of openings in the roof, to create daylight conditions that vary throughout the building and over time. The means might include, but are not limited to:

- Atria, windows onto lightwells and internal courtyards lanterns and oculi
- Skylights and operable roof windows
- Reflective light tubes, mirrors and light shelves
- Blinds and shading devices

## CRITERIA

Judges will look for imaginative but workable schemes which take limited access to daylight as an opportunity to explore the potential of toplight, borrowed daylight and sky views in a domestic setting. The winning proposal will:

- Be spatially innovative
- Relate the form and architectural character of the building to the sources of available light
- Turn the limitations of the site into an architectural advantage

## SUBMISSIONS

Entries must include the following:

- An entry form, including a text of no more than 400 words, describing the approach to daylighting
- Drawings laid out on no more than two A3 sheets, supplied as pdfs. These are to include:
- Floor plans, including north point
- A key section
- 3D axonometric or perspective images that convey the nature of the proposition
- lighting and ventilation, and the quality of the spaces envisioned
- Any supplementary images you may consider helpful to explain the proposition

**DEADLINE: 14.00 hours, Tuesday 14 September**

## PRIZE

Winning and commended entries will be published on [ribaj.com](http://ribaj.com) and in the print edition of the RIBA Journal. There is a cash prize of £2000 for the winning entry, and £500 each for three commended entries.

**Download the entry form at: [ribaj.com/lightroof](http://ribaj.com/lightroof)**



# Inside out

Restrictions on indoor hospitality have raised questions over what constitutes an outdoor structure, says Will Wiles

The coronavirus pandemic has prompted a worldwide architectural experiment that has yielded some interesting results. There have been long periods when only outdoor drinking and dining have been permitted. But outdoors lacks many of the amenities of the indoors. That’s why we invented indoors. And now hostelrys around the world – particularly those in countries with fickle climates – have been obliged to reinvent the outdoors, to try to graft on to it some of the amenable features of indoors. So dawned a golden age for the tent, the shack, the lean-to, the pod, the bothy, the gazebo, the sitooterie and the backyard buckydome.

For some, this experiment has proved costly. In April, a pub landlord in Wiltshire was told his purpose-built ‘chalet’, built to shelter his punters, did not comply with government guidelines and could not be used. The structure, which cost £50,000 to build, included a bar, a pizza oven and a television, with a painted Alpine sign over the door for an authentic après-ski atmosphere. This sounds a bit more elaborate than a simple back-yard shelter, and that’s where things get really experimental. When does an outdoor structure cease to be an outdoor structure and instead create a new indoors? The answer matters a great deal, both for struggling hospitality businesses and for public health. Covid-19 is an airborne disease; it is much less transmissible in the open. Proper ventilation is vital in combating it. An architectural parlour game thus took on life-or-death significance.

So the virus started to generate architecture, combining indoors and out. Or rather, it didn’t; the rules did. The Wiltshire landlord wasn’t responding to the virus directly; he was responding to the rules, while also pushing to maximise the comfort of his customers. As it was, he seems to have pushed too far. Though he maintained that the chalet complied, the council disagreed, stating that the measure of an outdoor structure was that at least 50 per cent of its walls had to be open when it was in use. So there we have it: an official definition of what’s ‘indoors’ and what’s ‘outdoors’. Really, this is a definition of where a building begins, one to set alongside Laugier’s ‘primitive hut’ in every architectural syllabus.

Or rather, another definition, among very many. Rules shape buildings but rules also create buildings.

In his wonderful book *A Burglar’s Guide to the City* (2016), architecture writer Geoff Manaugh uses criminality to get into the very essence of architecture. The crime of burglary necessitates a building – no building, no burglary. So the case law around burglary spends a lot of time considering what constitutes a building and comes up with curious answers: eg a hole dug into a hillside, as decided in a 1937 case. ‘Because of burglary law,’ Manaugh writes, ‘architecture is suddenly everywhere. We are surrounded by invisible buildings.’

And now the outdoors is everywhere, even indoors. To comply with the official guidance, and to reassure customers, premises will put everything into testing the boundary between the two. But the shift to ventilation as key to virus mitigation looks like a positive development. Many of the early bits of speculative architecture thrown up by the pandemic worked on maximising isolation. For instance, there were proposals for hygienic hotels that involved zero human contact from check-in to check-out. It gestured to a world of cells, bubbles and barriers, and it wasn’t a very happy prospect.

This governed some of the outdoor structures as well, like those geodesic tents outside some of the classier restaurants, isolating tables from one another. We can now see that this wasn’t necessarily the best approach and some of the barriers can start coming down. It indicates that architectural solutions can be more evanescent in nature, melting away boundaries between domains, striving towards openness and free circulation. Or at least doing away with ugly partitions in the pub garden. ●

Will Wiles is a writer. Read him here and on [ribaj.com](http://ribaj.com)

**Below** A dining pod for Covid times in Manhattan.



## RUNNING THE RULE

Rules shape architecture – and cities, too. Everyone thinks of the 1916 ordinance in New York that established the distinctive stepped look of its pre-war skyscrapers. This forms the basis of another fascinating book, Alex Lehnerer’s *Grand Urban Rules* (2009), which asks whether cities can have great rules to go alongside great plans and great buildings – an effort to redefine regulation in terms of opportunity rather than hindrance.





**Main image** Self-made Mancunian: Tim Heatley stands beneath Kampus' 1960s 'Bungalow' building looking over to Canal St – one of the only unmodernised buildings left in his radical reimagining of the former MMU campus as mixed-use residential. **Opposite** The £250 million Kampus development occupies a highly desirable site beside the Rochdale Canal in the centre of Manchester's 'Gay Village' nightlife district.

Tim Heatley, co-founder of Manchester developer Capital & Centric, is ambitious, savvy and successful. But as he draws together quality projects and investors, his aims go far beyond simply making money

Words: Jan-Carlos Kucharek Portrait: Jason Lock

# Property magnet

If Tim Heatley is feeling smug that he's now building his £250 million Kampus development on the city centre site of the university that failed him for his law degree two decades ago, he's not giving anything away. But then Heatley, 41, heads Capital & Centric, the Manchester development firm he co-founded in 2007 with business partner Adam Higgins, and that sports the kind of statistics that speak quite happily in his stead. Half a dozen major schemes now in construction in the city centre and around are worth in the order of £300 million. Of the 12 other commercial and residential projects listed on Capital & Centric's achingly on-point website, six are fully up and running with another half dozen in planning. We're sitting in the slick offices of the 500-apartment, build-to-rent Kampus mixed-use development near Piccadilly station. Overlooking the bars of Manchester's famous Canal St, he might be forgiven for feeling quietly self-satisfied.

But don't think Heatley is a shrinking violet. Anyone who saw BBC2's 'Manctopia', which aired late last year, will recognise him as one of the people that its producers followed over 20 months as they investigated the implications of the property boom in the Northern Powerhouse's capital. From the mayor of Salford to Manchester's homeless, Heatley was one of a curious, compelling menagerie shedding light on the unfettered property speculation affecting the lives of the city's residents. In it, he seemed either to be in a hard hat and high viz, trudging round his £35 million, Grade II-listed, roofless, rain-soaked, delayed Crusader Mill residential scheme, or musing while driving to face off squatters of the derelict buildings he bought up to create his Piccadilly East quarter. Heatley makes for good TV – driven and straight-talking, whether that's to mayor Andy Burnham (who must be on speed-dial) as head of his 'A Bed Every

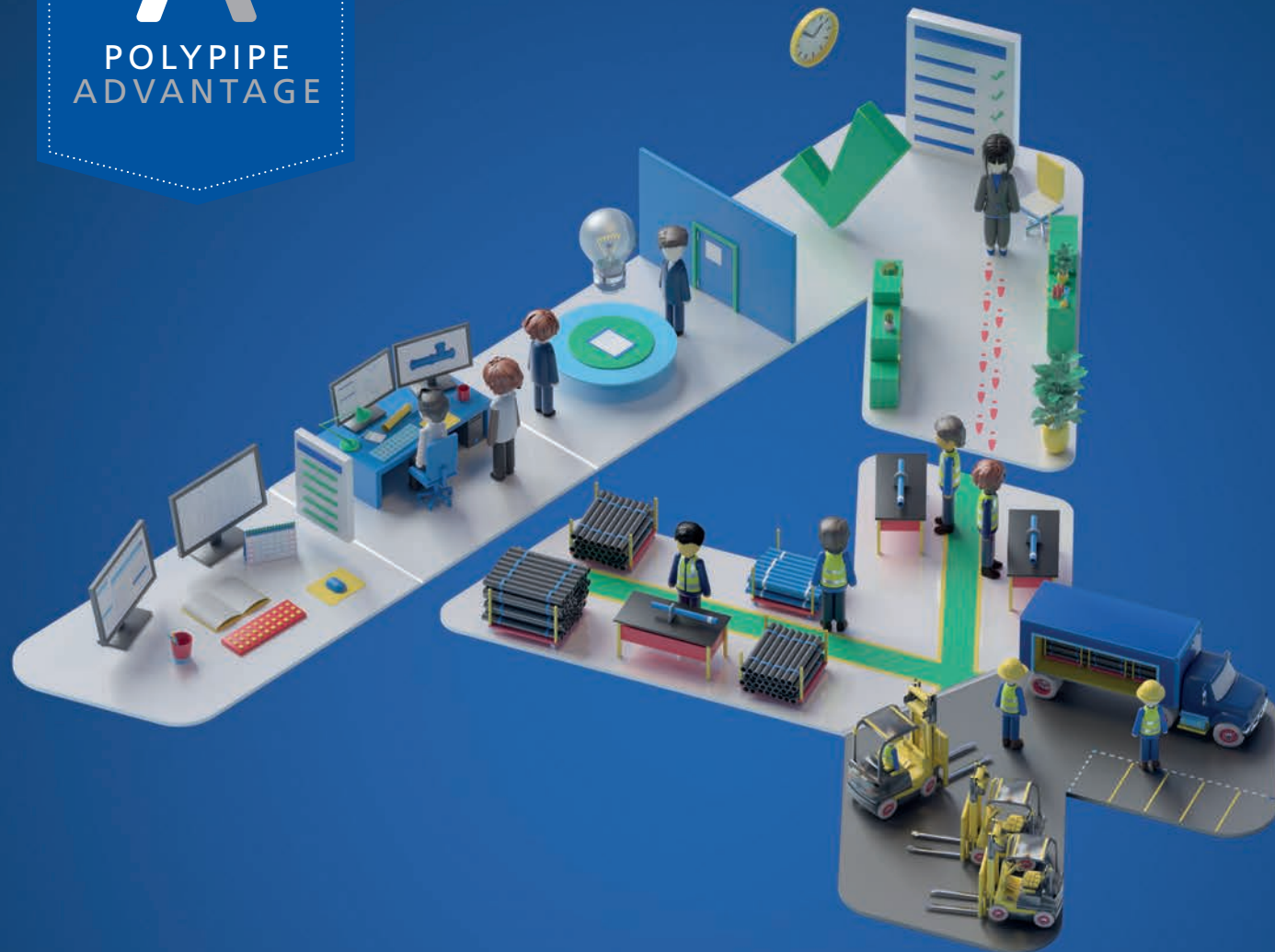
Night' homeless initiative, or at a Salford's Buile Hill Park planning meeting, where (spoiler alert) disgruntled residents scuppered his proposal for 60 affordable homes to be built in the council-owned park around its derelict Greek Revival mansion.

But he doesn't seem at all bothered about being portrayed as the bad guy. 'Manctopia homed in on notions of jeopardy and conflict in order to make interesting TV. While I watched it over lockdown with my Mrs behind a cushion at times, I was happy with it generally,' he says, aware of the Faustian pact he signed up to. 'I agreed at the outset with the BBC that nothing would be off-limits and we tried to be open and honest, which I reckon gave us more air-time in the end. Any aggro I got since was from people who hadn't watched the whole thing through,' he adds.

Sitting in front of me, sharply casual in black tailored trousers and buttoned-up polo, he has an easy, affable nature – and presence. Viewers will be aware of his 'wheeler dealer' student days, where he bought discarded art student work, framed and upsold it







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## Culture Profile

online before doing the same with cars, selling them for hundreds more than he bought them for 'while my mates were still working for minimum wage in the Trafford Centre.' Then he tried it with a run-down, £65,000 house in Salford, spending £15,000 to do it up and selling it for twice what he paid. So far, so developer; but what viewers won't know about is his own inner-city Salford upbringing and 'lefty' care-worker parents, home-fostering vulnerable, mental health children alongside him and his two sisters. When his father lost his job in the 1980s and Heatley found himself in the free dinner queue at school, a penny dropped. 'I remember standing there looking at other kids living in way worse situations than mine and thinking how lucky I was. Those memories don't leave you; the awareness of that level of disadvantage.'

While this might not quite have turned him into Mother Teresa, it certainly affected the way he does business all those years later at Capital & Centric. 'I think it helped inform the core social agenda of our business – to have in place some form of positive social legacy,' he explains. 'Our aim was to be as inclusive as possible, to somehow help with local job creation and try to create exemplary architecture, accessible to all.'

But with developers like Bruntwood, Peel L&P and Argent clamouring for their slice of the city pie, what made the BBC pick Heatley? He thinks it was the owner occupier aspect of his housing projects: 'We don't sell on to buy-to-let investors and I feel that piqued their interest, as it was different to the norm.' Even today, a sign on the wall of the firm's still incomplete Crusader Mill development reads 'Do not buy this apartment if you're an investor' – a provocative campaign that saw local residents rush to his nascent Piccadilly East quarter to buy the 123 shedkm-designed flats off plan. Heatley admits that the government's Help To Buy scheme contributed to the long queue. The 'keep it local' policy worked wonders, though there were awkward meetings later, with owner occupiers anxious when the project got delayed. This turned out to be good TV, not least for showcasing Heatley's skills at taking flack and charming buyers.

And charming people well is crucial when your business model, in the main, involves convincing others to part with their money. Heatley points out that Capital & Centric holds no debt as 'banks just didn't understand us. They obsess on rent and yield and what something is worth on paper and we're, like, "forget that". We want to work with organisations who are keen on long-term city regeneration and care about what's created. They're the ones that lend us money.' Delays at Crusader Mill could have spelled the end of the project, but the funding partner here is the Greater Manchester Combined Authority – which, he adds, is keen as mustard on the saving of a historic building, the resident buy-in and use



**Above** The 19th century warehouse refurb Crusader and newbuild Phoenix developments, both by shedkm, form the centrepiece of Capital & Centric's new 'Piccadilly East' quarter.

of a local contractor. Again, at the bold Jenga Hotel that Capital & Centric is building on Adair St, the £2 million site acquisition and £22 million build cost was financed by the Greater Manchester Pension Fund. Fattal Group, which owns Leonardo Hotels, has paid more than £35 million for the development. Funds for the firm's less glamorous Bunker and Tempest workspace in Liverpool came from the City Council and European Regional Development Fund. The same with its 25,000m<sup>2</sup> re-envisioning of Liverpool's old Littlewoods building into an academic creative arts faculty with workspaces. Dubbed Littlewoods Studios, the near derelict building is a tie-up between the City Council and John Moore's University – local organisations local organisations deeply invested in its success. Heatley sees this as the future of education.

And what of the architecture? Heatley smiles wryly when I call Capital & Centric 'Urban Splash 2.0' but concedes Tom Bloxham's pioneering model highlighted that good design could make a critical difference to a project's viability; perhaps more then, when Manchester margins were harder won. Heatley is clearly an advocate of good design and the real benefits it brings to both his bottom line and the lives of those who buy-into or rent their properties. For example, he says the sharp brick detailing of architect SixTwo's Foundry building, one of its early owner occupier workspaces, almost doubled the off-plan unit values when it was finally built. 'Behavioural psychology interests me with architecture,' he says. 'We get a premium of 10% over standard rents and sales values compared to generic developments – that's based purely on how it is designed.'

It's an outlook that has informed his roll-call of architects. SixTwo for starters. And shedkm, which has become the go-to firm for Capital & Centric – not least at Kampus, where with Chapman Taylor, it took on the massive Mecanoo-designed masterplan. But, next to its finished Phoenix apartments at Piccadilly East, the architect is also busy completing the Crusader scheme. Nearby, the sizeable, trendy city centre Ducie St Warehouse was refurbished by hospitality architect Archer Humphries; while the Leonardo Hotel is by local Stephenson Studio. Heatley says it took three iterations for the practice to loosen

**Below** Stephenson Studio's £35 million Jenga Hotel on Adair Street is the kind of architecture that keeps the developer on local front pages.







up enough to give Capital & Centric the ‘WTF factor’ it was looking for. Clearly, the business is as keen to nurture homegrown architectural talent as it is to see projects locally funded, but ultimately he says it’s about long-term relationships. Small firms will go the extra mile whereas big ones, though they can really drive projects, can also be less flexible. ‘It can be like Tinder with them. They’ll say “Let’s meet up. I want to get married – and here’s the bill for the reception”,’ he adds. ‘We prefer an informal lunch and a chat, then maybe we can have dinner some time...’ It’s the same when pushing the design envelope. ‘We look for firms that can make things look great without costing a fortune. Ambitious, pragmatic architects who stand up to builders and fight their corner; ones with a sparkle in their eye, making clever use of space or materials.’

But the firm is also aware that the kind of raw, industrial aesthetic commanding its £1500/month rentals comes at a price. ‘It can end up being a bit Dolly Parton – costing a lot to look cheap,’ Heatley quips.

While Capital & Centric might have benefited from Manchester councils’ seemingly negligible demands for affordable or social rent homes in its developments, it’s gone on record to state that its business model of higher quality newbuild and costly warehouse refurbishment cannot work on that basis. Instead, it pays undisclosed cash sums into the councils’ general Affordability Funds. It’s a shame. With Heatley’s driven, ‘can-do’ attitude it would be interesting to see what he could turn up given the leverage. For now, we have to be content with his Jon Matthews Architects-designed prefabricated Embassy Village, done with Peel L&P – a stepping stone for the city’s homeless, being built under the rail arches west of Deansgate.

But that it doesn’t mean Capital & Centric isn’t thinking about housing in other, lateral ways. Most recently, it’s been looking outside central Manchester to see if it can, albeit selfishly, activate housing markets in nearby depressed, post-industrial satellite towns as a spur to wider regeneration of urban centres. And again, it’s about purchaser psychology, Heatley explains. ‘Manchester is now competing on an international stage. It has a great business ecosystem, is aspirationally green, has good healthcare and is LGBT friendly, and is attracting talent from places like Copenhagen and Berlin. We may stigmatise the

**Above** Littlewoods Studios in Liverpool, currently in planning, is a tie-up of the city council with John Moore’s University, to create a new academic and creative hub.

## Culture Profile

towns of Bolton, Rochdale and Stockport but new, international workers don’t.’ So the firm is working with the big guns to build cases for higher density living near these towns’ transport hubs for an easy commute. Homes of 1-5 beds, with play streets, café culture, running tracks, electric car charging – curating new communities within the existing. Hence Farnworth Market in Bolton (200 homes) and Weir Mill, Stockport (253 homes) with BDP. And shedkm’s Neighbourhood Rochdale with some of the council’s £400 million regeneration pot – 235 homes built on a former retail park. At around £50 million each, Heatley knows such schemes are a risk. ‘What sold here last week is our benchmark value; and we know for sure that on Day 1, the value of any home we build will be less than what it cost us to put it there. So we have to eke out a margin over a 15 year period and to do that we need patient equity; not a bank but local pension funds and socially aware venture capital.’

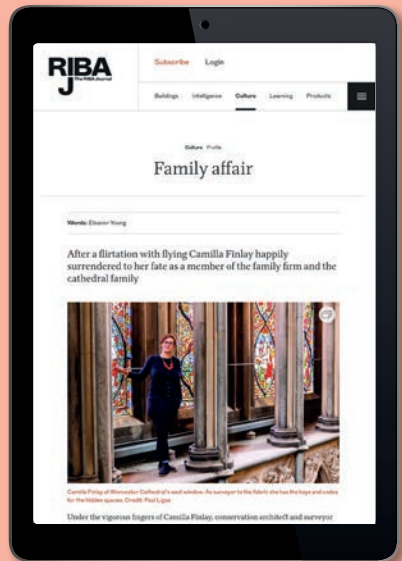
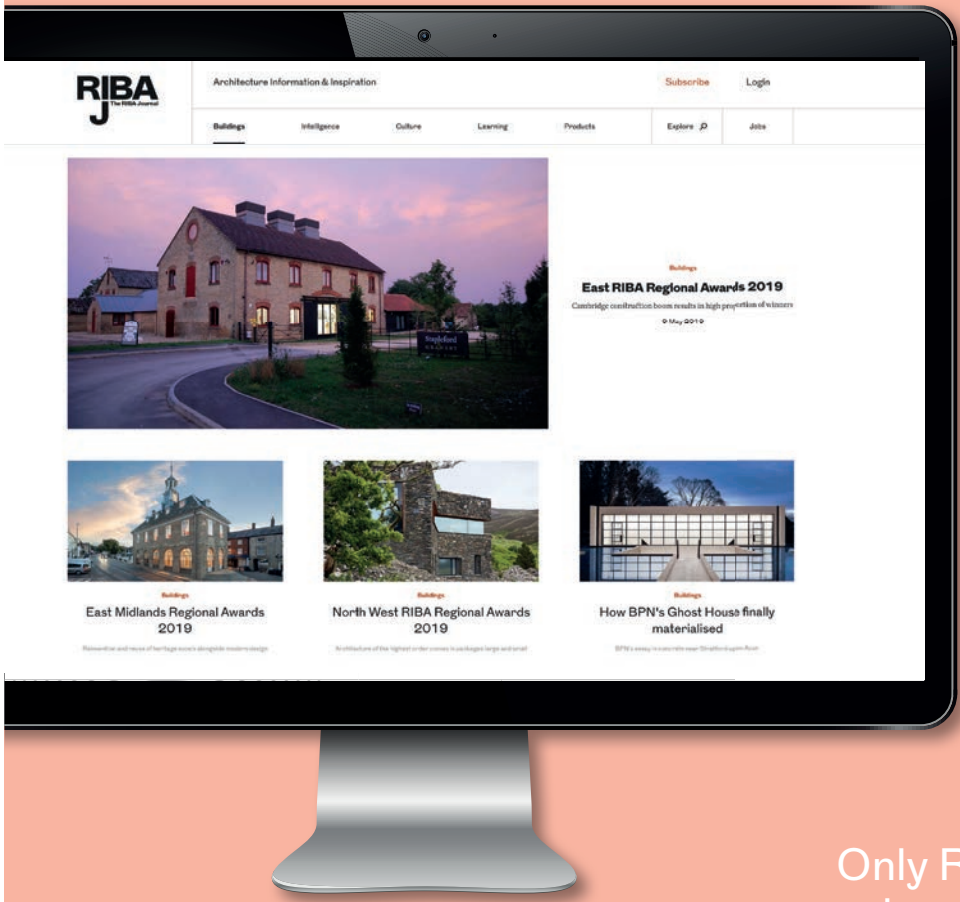
But you feel these are the challenges Heatley gets up for in the morning. Quoting a TV line back at me, he boasts that the firm spends £2 million a week on its developments. Every new resident that moves in gets 15 minutes of fame on the firm’s hyperactive social media accounts, because ‘if you’re doing a job, you have to tell people about it too.’ And Heatley’s young enough to be acutely aware of the online community’s value ‘even if it isn’t real estate per se. Showing funders and backers that we have the ability to influence and create communities around ideas – when you own the real estate that community exists in – has immense value.’

By contrast, Heatley is off our screens for now; but that’s only because he’s changing the face of the city he loves, moving-in his new canalside community – whose 10 floors of flats sit atop the lower-level social spaces he carved out of his old MMU campus. And he plans it to be SOCIAL. ‘There’s a separate entrance if you don’t fancy the hustle and bustle – but getting to your apartment through a café – how cool is that?’ ●



**Right** Capital & Centric’s £27 million proposal for Farnworth market in Bolton. A key part of the local council’s town centre masterplan, the BDP design would see the site transformed into a mixed-use community with 200 homes, with a public square, market, gallery and other community uses.

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IWAN BAAH

## Cultural conversation: what inspired the Serpentine Pavilion

Sumayya Vally speaks to Dingle Price about her pavilion as a study of migration, communities and the creation of places of belonging, and its legacy for London

The 20th annual Serpentine Gallery Pavilion, designed by Sumayya Vally of South African practice Counterspace, explores themes of migration, translation and communion. She talks about the process and the programme with Dingle Price, whose practice Price Gore collaborated with artist Yinka Ilori to make the Colour Palace pavilion for the 2019 London Festival of Architecture.

**Dingle Price:** You mostly work in Johannesburg, and have a deep connection to it. Did you change your way of working for a project on a different continent?  
**Sumayya Vally:** Research projects in Johannesburg have given me a way to read place that is about digging beneath what we take for granted as architecture. I approached London in that way, too, wanting to read something under its surface, and also to reflect London to London.

**Above** Architectural features of spaces that are significant to London's migrant communities have been 'abstracted, spliced and superimposed' to create the form of the pavilion.

When we were asked to make a pavilion I became interested in histories of migration, and started to look at places that had particular relevance. In the Bishopsgate Library archives I found posters for events taking place in particular neighbourhoods – the Four Aces club in Dalston, for example. I was also interested in everyday spaces of belonging and resistance – churches, shops or hair salons – spaces that sustain communities and cultural traditions.

The form of the pavilion is an abstraction and amalgamation of lots of different gathering spaces, and creates a continuous gathering structure with lots of little places set at different heights where people can meet and converse.

**DP:** Did the pavilion evolve in a precise way from surveys of those places, or is it less literal than that?  
**SV:** I did have drawings and photos to work off, but it was not a literal recreation. I was also interested in how spaces like the Mangrove restaurant in Notting Hill became important cultural institutions because they created atmospheres that allowed people to feel safe enough to organise and be creative.

Importantly, the pavilion is made up of five parts. As well as the structure at Kensington Gardens, there are four more structures located in cultural venues around the city. They are seeds for collaboration between the Serpentine and those other locations.

The programme includes publishing and a radio station which launches in September. I've worked with artists on sound commissions to be played in the pavilion. The intention is to bring in the voices of some of the people from across London who inspired the project.





**DP:** Your pavilion exists beyond the physical structure in Kensington Gardens, but what do you think is the role of a temporary summer pavilion that is visited by large numbers of people, and disseminated globally through the media?

**SV:** For me pavilions are places to put ideas into the world and are platforms for the expression of imagination. I also come from a practice context in which politics is largely seen as separate from the realm of imagination, and where there are so many pressing needs, some might see pavilions as frivolous. I think the deeper social project of working in the imagination is really important, and to some degree all our challenges in housing or service delivery need more imaginative solutions that allow us to express the identity of places.

I hope that people will enjoy the form of this building, but also that some of the research around the project becomes known, and the pavilion becomes an opportunity to reflect on some of the stories that brought it into being.

**DP:** How has the year's delay imposed by Covid affected the project? Events such as the Black Lives Matter protests make some of the things you are talking about seem more urgent.

**SV:** The design and intent were there before Covid, and



**Above** Small informal seating areas surround a central events space.

**Right** Sumayya Vally, 31, is founder and principal of Johannesburg-based Counterspace.

**Below left** Fragment of the Serpentine Pavilion at The Tabernacle, Notting Hill.



IWAN BAAH (2)

*'I also come from a practice context in which politics is largely seen as separate from the realm of imagination'*



JUSTICE MUKHELI

before the rupture that we had around BLM, but I hope those experiences will make us listen more deeply to some of what the pavilion is trying to say.

We also used the year to think about some of the other aspects of the project. For example, I was aware that many of the community spaces I was interested in rely on the generosity of organisers, and proposed an initiative called Support Structures for Support Structures, a fellowship that supports artists working at the intersection of art and social justice. The Serpentine has taken on the project and is supporting up to 10 artists annually for at least three years.

The pavilion commission is usually very high-paced which is exhilarating; for me, the actual build has been breathless, but the extra time to spend on the other aspects has also been a gift, and allowed collaborations between institutions and other initiatives that should outlast the building. ●

The Serpentine Pavilion is at the Serpentine Galleries, London, until 17 October 2021  
Read a longer version of this interview on [ribaj.com/sumayyaserpentine](http://ribaj.com/sumayyaserpentine)

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# Using an architectural education outside architecture

The latest Architecture Anew talk discussed how the skills learnt in architectural training can be applied to other fields, writes Pamela Buxton

Architects Beyond Architecture, the fourth in the RIBA + Vitra Architecture Anew season of talks, highlighted architects who work outside the mainstream of the profession – whether by stretching the boundaries of what could be considered architectural practice or by applying skills learnt in their training to other fields. The event focused particularly on architects pursuing humanitarian and socially motivated projects, from exploring migrant housing conditions to investigations into human rights violations.

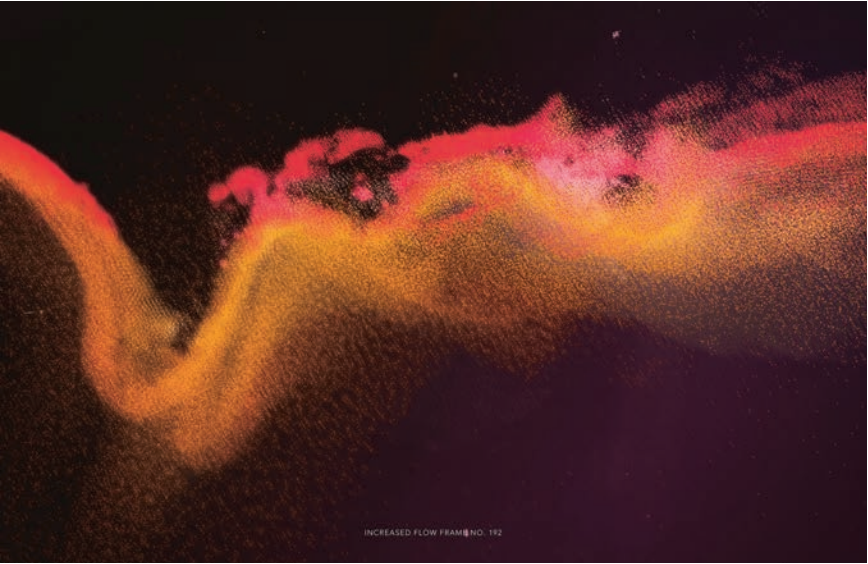
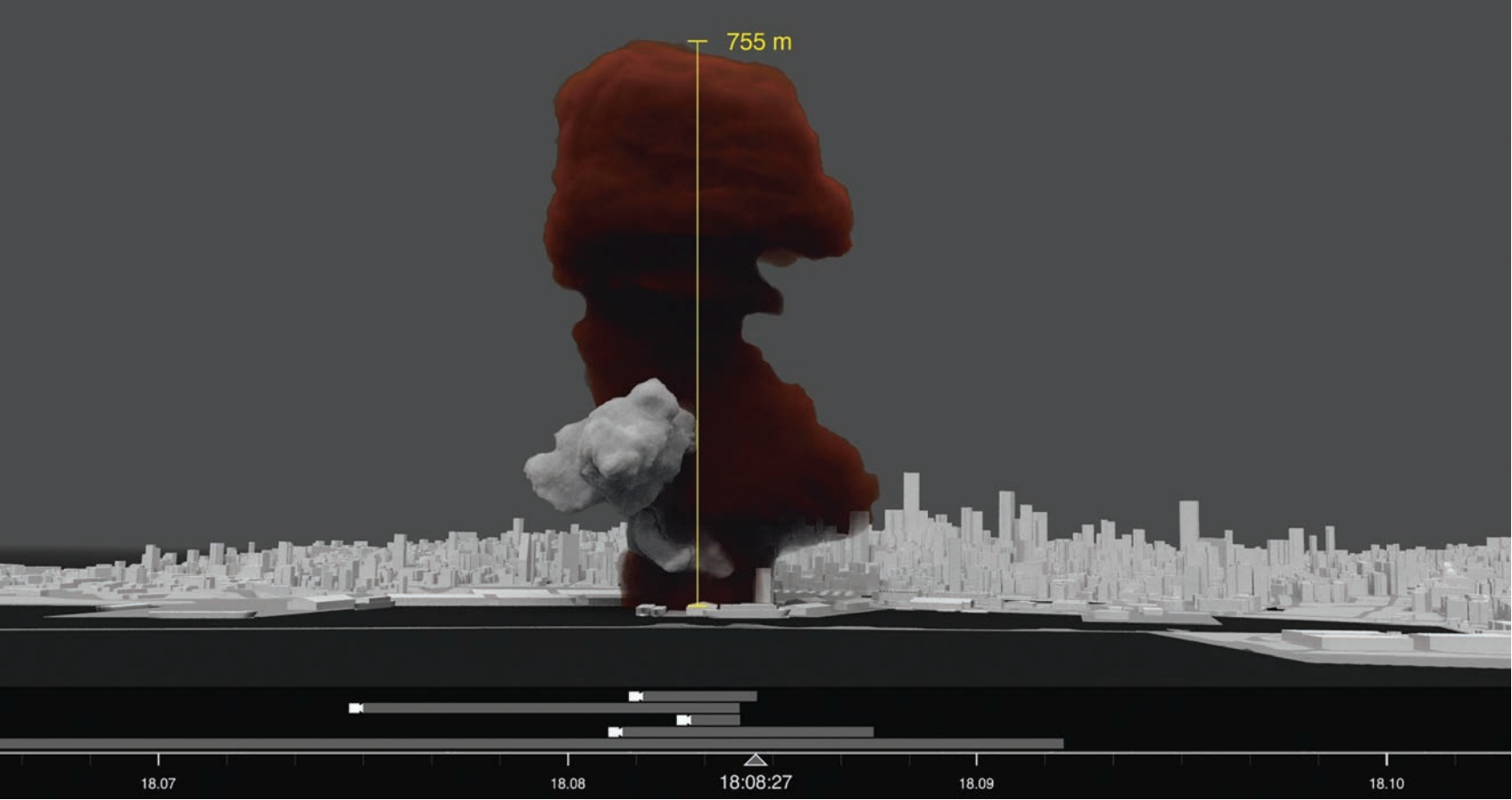
‘The majority of architectural graduates don’t become architects... they take that skill set and migrate,’ says Harriet Harriss, architect and dean of the Pratt School of Architecture in New York, who co-chaired the event with editor and educator Roberta Marcaccio. ‘Statistically and economically, they are more powerful outside architecture.’

Harriss and Marcaccio are the ideal chairs for a discussion on this subject having – along with Rory Hyde – co-edited the book *Architects after Architecture*, which considers alternative pathways for practice.

They hope the book and talk will help ‘liberate’ architecture from its attachment to building by giving visibility to those whose work is often marginalised outside mainstream architectural practice. They also want to articulate the possibilities for architecture to have a more ethical agenda, particularly at a time when the construction industry is, says Harriss, ‘complicit’ in the climate crisis and global warming.

‘Just designing buildings is a cul-de-sac,’ says Marcaccio. ‘There’s so much more architects can do.’

So what transferrable skills does an architectural education deliver? In their book, the co-editors talk about ‘the unique combination of pragmatism and



**Top** Still from Forensic Architecture's investigation of the 2020 Beirut Port Explosion, showing the source and height of the ammonium nitrate plume. **Above** Turbidity simulation image from the Monsoon Assemblages research project, simulating the flow of water over a sediment-rich river bed.

emotion, of technical problem-solving and imaginary vision’ that architecture requires.

At the talk, architectural researcher and designer Kishan San discussed his work at the campaigning research agency Forensic Architecture, which investigates human rights violations. He showcased Forensic Architecture’s investigation into the Beirut Port warehouse explosion as a demonstration of how architects can intervene in humanitarian contexts and apply their skills to more social ends. The research combined architectural techniques with relevant media such as satellite imagery to form a better understanding of the circumstances of the explosion, such as the way that vats of ammonium nitrate were stored in the warehouse prior to the disaster.

SARAH BASS



“Without an address there was no way to get back on my feet. It’s a Catch-22.”

Mike, 45 - Homeless since 2018



‘We were able to construct a 3D model, place media within it and deconstruct the space,’ says San. ‘We could then analyse it against existing storage regulations, which we spatialised.’

‘One of the skills of an architect is in coordinating an event – the process of bringing a building to site. We’re able to bring together people from different specialisms, such as data science, film-making and animation, as part of the creative process. We can also apply this to an investigation of human rights violations.’

Research architect Lindsay Bremner, a professor at the University of Westminster, is applying her architectural skills to a different field in her project *Monsoon Assemblages*, which she presented at the talk. This five-year study combined urban and oceanic research and ethnography to understand how monsoons affect the land. It also made use of architectural drawing and mapping skills, using architectural methods not for problem solving but to produce knowledge.

‘Incidences of monsoonal distress are increasing as cities grow,’ she says. ‘I was interested in what is turning monsoons into a problem rather than a life force.’ Bremner found that profit-driven urban development paid scant attention to how people need monsoons for their water, and to the way water flows in the cities.

Mark E Breeze, an architect, documentary filmmaker and founding chair of the University of Cambridge Sustainable Shelter Group, regards films as very much part of his architectural process.

At the talk, he discussed his film *Shelter Without Shelter*, which seeks to communicate the nuances and challenges of providing shelter for refugees at several locations in Europe and the Middle East.

While Breeze is working at the intersection of

**Above** Hildrey Studio's ProxyAddress initiative provides homeless people with a secure and free address to use to enable them to access services regardless of their location. **Right** Still from architect and filmmaker Mark E Breeze's documentary film *Shelter Without Shelter*.



© MARK BREEZE

architecture and film, RIBA Rising Star Chris Hildrey sees himself as still working within architecture. However his projects encompass projects that wouldn’t typically be considered architectural, from music videos to his best-known project, the ProxyAddress address system for homeless people.

He advocates for architects to use their ‘rare and valuable set of skills’ such as the ability to combine scientific rigour with artistic requirements, in contexts beyond the creation of buildings.

‘When you go through this long education, you’re trained in many skills,’ he says, ‘and the one thing you don’t do is get a building built. But when you qualify, that’s the one thing you’re expected to do.’

Co-chair Marcaccio speculates that the impact of the pandemic may precipitate an increase in those with architectural training looking beyond the mainstream, with more thinking laterally about different ways of practising. ●

Architects Beyond Architecture was part of the Architecture Anew talk series, a RIBA + Vitra Partnership. The next event, *Rewilding: Nature Cannot Wait*, is on 13 July.



# Return to la dolce vita

Has the pandemic presented a solution to small town decline and urban over-crowding? Marina Engel reports on an Italian scheme to revive its rural borghi, which has lessons for planners everywhere

One of the most compelling ideas among endless proposals for post-pandemic lifestyle changes is the return of city dwellers to small towns. An Italian project to revive declining rural settlements, or borghi, also aims to make them ‘15-minute municipalities’ – where residents can meet most of their needs within a short walk or cycle ride of their home. Usually defined as nuclei of populations of under 5000, Italy’s 5,800 borghi are some of its most enchanting historic centres. But nearly half are all but abandoned, their populations lost to cities. The architect Stefano Boeri recently asserted that such towns will save the pandemic-stricken cities, and judging from the property market, voracious big city residents agree.

Boeri proposes not relocation to the dormitory suburb, but connecting the borghi to the nearest cities through digital infrastructure and efficient public transport – developing smart working, restoring decaying buildings to suit modern lifestyles, investing in services and providing stimuli to boost circular economies alongside tax incentives to encourage people to move. Renovated at human scale as dynamic urban centres benefiting from natural surroundings, these small towns would ease the pressure on cities which, in turn, would metamorphose into archipelagos

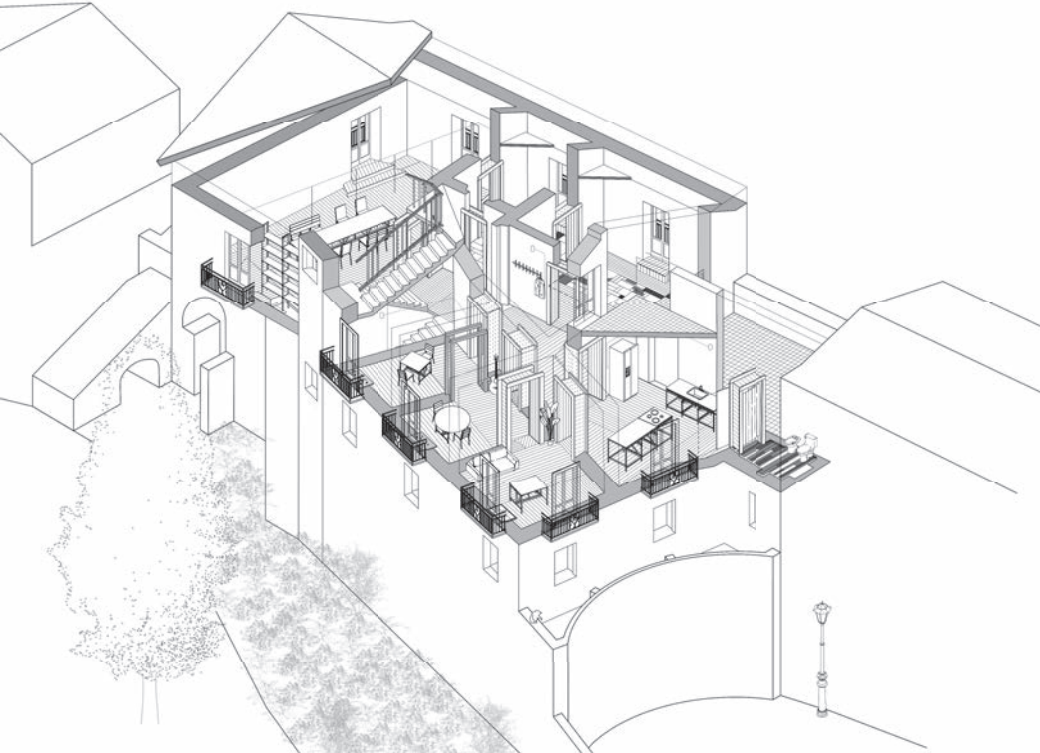
**Below** Casa di Belmondo restored by the Rivoluzione delle Seppie. Project by Orizzontale.

of borghi. Italian prime minister Mario Draghi is allocating funds to regenerate the borghi. Hopefully, other governments, including ours, will follow suit.

Well before the pandemic however, an experiment in urban renovation had begun in the handsome borgo of Belmonte Calabro in Calabria, southern Italy. Two young architecture collectives, Le Seppie (The Squids) and Orizzontale, joined together as the Rivoluzione delle Seppie (Squid Revolution). Their mission is to advance a new form of teaching, ‘Learning by Doing’ while regenerating some abandoned Calabrian towns. Le Seppie is the invention of Rita Elvira Adamo, their Calabrian co-founder and a student (now a PhD candidate) at London Metropolitan University.

By 2016, just 200 older inhabitants remained in the hill town’s historic hamlet and the rest – nearly 2000 – had moved seaward. Its youth had gone to the cities. Meanwhile, a few semi-deserted Calabrian borghi such as Riace had been revitalised by the integration of desperate young African and Asian migrants arriving in Italy from across the Mediterranean. Inspired, Adamo investigated an interaction between British architecture students, residents and African migrants from the refugee centre nearby. She selected a location for a summer residency at one of the town’s former convents and – with fellow students from Le Seppie – convinced her London Met tutors to launch a ‘South Learning’ summer school to focus on Belmonte as a case study of a small European town struggling against depopulation and urban degeneration.

In these unusual times, the idea of transporting young students in London to cohabit with elderly residents in a remote village in southern Italy is certainly revolutionary. The collective’s name alludes to blind vampire squid, which can only learn by feeling or ‘doing,’ emblematic of the collective’s method in both teaching and practice. In ‘Learning by Doing’ London Met students immerse themselves in a hands-on urban renovation site, proposing ideas to reanimate disused buildings and reactivate streets and piazzas as they meet local artisans to master craftsmanship skills. Students, inhabitants and immigrants share know-how through talks, installations, street parades and concerts. Even language lessons and cooking recipes are exchanged over card games at the bar and at long convivial dinners. Belmonte’s town council and



**Above** Drawing of the Casa di Belmondo by Joe Douglas.

London Met signed a memorandum of understanding to collaborate on the borgo’s renovation and the summer residency has become a tri-annual event.

Learning by Doing is ingrained in La Rivoluzione delle Seppie’s practice, most notably in Orizzontale’s do-it yourself construction laboratory. In a single design and build process that relies on incremental changes and participatory decision making, local artisans, students, immigrants and volunteers from a plethora of disciplines join together to make elegant wooden furniture – sometimes mobile – and help restore disused houses. Blending the idealism of the sixties with the pragmatism of a generation facing darker times, the Rivoluzione delle Seppie is now converting the municipality’s Ex- Casa delle Monache (Former Domicile for Nuns) into a permanent centre, a ‘factory of ideas, research and experimentation’ called the Casa di Belmondo (House of the Beautiful World). Thanks to a crowd funding campaign and funding from Calabria’s regional government, the laboratory has been able to requalify nine rooms on the first floor of the Casa. Minimal architectural intervention enables each person to modify the spaces according to their requirements. Mondrianesque coloured floor



**Left** Rivoluzione delle Seppie Workshop with immigrants.

*‘Local artisans, students, immigrants and volunteers make elegant wooden furniture and help restore disused houses’*

paving, seemingly woven into wooden panelling with left overs of local travertine, merge with finely crafted wooden doorways, as pastel green walls – the original hue – blend into exposed concrete and brick ceilings. Doors have been removed to shape a 300m² communal space with spectacular views on all sides of the sea and surrounding hills. A travertine floor bathroom and a kitchen have also been completed and running water, electricity and wifi has been installed.

The beginnings of a home have been devised for a temporary community that can integrate at regular intervals with the permanent one. Or, as a London Met student Joe Douglas explained: ‘Somewhere that is both temporary and permanent and doesn’t define too much the difference between the two.’ He now heads the construction site. Nigerians Harry Igbineweka, a tailor, and Precious Ehigie, an electrician, have settled ‘at home’ favouring Belmonte over Germany; others return regularly ‘so people will not feel they’ve been left alone.’ What was a group of 15 visitors in 2016 can today multiply to over 100, an inter-disciplinary mix of students, volunteers, professionals and academics from all over Italy and beyond. Local infrastructure is developing, the long-awaited cash dispenser has been inaugurated and there are plans for public transport to connect the hamlet to the coast. A former habitat for 100 aging residents is now home to a multi-cultural, trans-generational community in constant flux.

Ironically, the Covid-19 pandemic has accelerated progress. Faced with online teaching and social isolation, students were only too happy to swap the grey skies of London for Belmonte’s hills and seaside. Adamo and some Seppie relocated with them to set up a campus and co-working centre at the Casa di Belmondo, while students continued to follow lessons in London remotely. Currently, arrangements are being made to continue three-month residencies.

The Rivoluzione delle Seppie intends ‘to search for more abandoned shells to occupy’ in Belmonte and nearby. Along with a local centre for immigrants, it is regenerating the historical centre of Mendicino. Hopefully, locals there will agree with Gerardo, a janitor at Belmonte’s tiny primary school: ‘an original and exciting reality is born, a new identity linked to history, culture, tradition, and the environment.’ ●

Marina Engel is a writer and curator based in Rome



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## Mission possible: Recast the profession

Alan Jones on his Fact-Finding Mission, which produced a strong message of the need to research, reconnect and constantly remake architects' case

'The case for the profession needs to be constantly remade – to the public in all its diversity, as much as to policymakers and professionals – if it is to avoid being sidelined from having the impact that it craves on society's most important challenges, and being relegated instead to little more than a discussion of aesthetics, hemmed in by commercial priorities'.

This extract is from one almost 50 contributions gratefully received by the President's Fact-Finding Mission. Led by eight champions seeking a helicopter view of the trajectory of architects and architecture towards our 200th anniversary in 2034, it has been described by one member of RIBA Council as 'a massive piece of work'. Its eight themes focussed on value, education, diversity, research, climate emergency, delivery, strategy and practice, and as the work developed it became increasingly clear that, like proverbial plate of spaghetti, there was interrelated connectedness of issues across themes too.

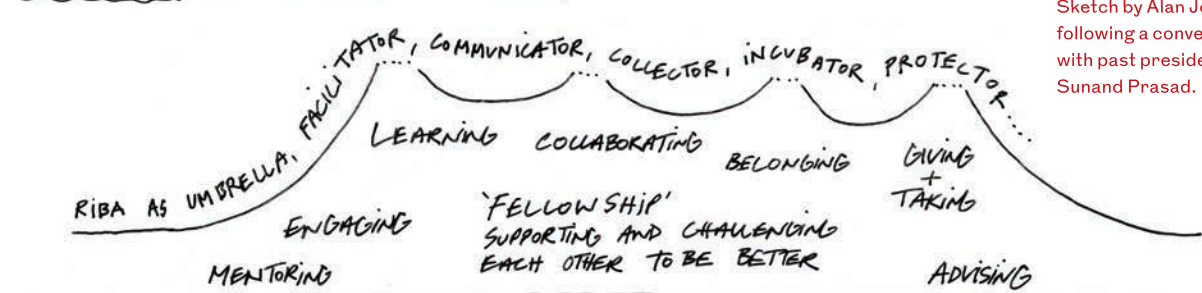
It is not, and cannot be, business as usual. The essential (re)orientation of the profession towards society and the outcomes and benefits from a well-considered and delivered built environment is a message that comes across many themes. We need a better balance of what architecture does with what architecture is. Listening to educators and future architects articulate that same position at a recent Scottish Archifringe event was further endorsement of this approach. The Cabinet Office green paper on procurement also connects projects with policy; technical innovation; performance and outcomes; economic, social and environmental benefits and whole-life value. For architects and future architects, this new connected ethical-technical ground will

also mean a need to acquire and demonstrate higher knowledge, understanding and collaboration skills to 'walk the walk' in practice, business and the industry.

In response, the Fact-Finding Mission report highlights how our activity on public interest, advocacy and value relies on gathering evidence to explain relevance – and how architecture and what architects do connects, supports and delivers on this. Our advocacy to government departments will emphasise the evidence supporting the promise and possibilities, and through education, practice and delivery architects can unlock realisation. The report highlights how the RIBA's research will be essential to form the necessary evidence, echoing contributors' advice that the RIBA must become a go-to institute and knowledge hub. A close partnership with research-active universities and other bodies will be key to ensuring that the RIBA does not do all the research itself. Pushing RIBA Award submissions one year after a project's completion shows the world we are sincere in changing and leading on the performance of the built environment, as well as its beauty. Continuity and rolling reviews are essential to gaining momentum on the report during the handover between changing members of Council, Board and Executive. A sincere thanks to all involved and to our president elect Simon Allford, who has said: 'I fully support the themes and ideas identified in Alan Jones's Fact-Finding Mission: The High Road to 2034. It is an important document that identifies the long-term strategic issues that we must address to ensure the RIBA supports future architects and the architecture of the future.'

[president@riba.org](mailto:president@riba.org) @AlanJonesPRIBA

THE BIG TENT (AKA THE HOUSE OF ARCHITECTURE)



The RIBA as an umbrella. Sketch by Alan Jones following a conversation with past president Sunand Prasad.

### PRESIDENT'S MISSION: PEOPLE AND THEMES

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### Obituary

Multi-talented and driven partner in Austin-Smith:Lord, who set out his path in life with a schoolboy desire to be ‘a designer – anything from a town to a teaspoon’



## Peter John Lord 1929 – 2021

Peter Lord, who has died aged 91, was a multi-talented architect, designer and artist best known for leading Austin-Smith:Lord with huge drive, energy and enthusiasm. He established interior architecture and workplace strategy as a new and much-needed design discipline within the practice and was influential in many of its major projects. He was made a fellow of the RIBA in 1962, was a fellow of the Royal Society of Arts and the British Institute of Management, president of the Society of Industrial Artists and Designers – now the Chartered Society of Designers – and general secretary of the International Council of the Societies of Industrial Design, now the World Design Organisation.

Peter’s path was established early. When a school French teacher asked what this bright boy’s ambition might be, Peter responded: ‘a designer – anything from a town to a teaspoon’. His art teacher, Aileen Moore, encouraged Peter to become an architect and guided him to apply for the Leverhulme Scholarship, which he won aged just 17, and took him to the Architectural Association from 1946 to 1951.

After qualifying he joined the Royal Engineers. Emerging as a lieutenant, he was recommended by the AA to JM Austin-Smith & Partner, joining in 1953 and rising rapidly to become a partner alongside Geoffrey Salmon three years later, when the practice was renamed Austin-Smith:Salmon:Lord. After the retirement of the practice founders Mike and Inette Austin-Smith in 1981, he became the senior partner in Austin-Smith:Lord.

During his first years in practice Peter focused on the retail sector, producing interior designs and new corporate identities for major chains. He later turned to large-scale, low-cost housing, and undertook major projects in Hampshire, Wiltshire and Cornwall, and for St Pancras and Haringey in London. These large

projects developed a practice specialism in town planning and traffic management, and in 1965 the firm was commissioned to replan the old industrial town of Warrington – a multi-disciplinary effort involving teams of planners, architects, landscape architects, highways engineers, land surveyors, sociologists and economists, and exemplifying Peter’s philosophy that ‘design must be a consistent thread running through the fabric of the total environment’.

Another project at this time, which was to become even more significant for Peter’s future and that of the practice, was Heffers Bookshop in Cambridge. The brief called for a new fully air-conditioned shop on Trinity Street to house a vast stock of books, but only 5,000ft<sup>2</sup> was available at ground-floor level. The shop sat above a large, undefined basement area, and Peter advised his client to purchase as much of the below-ground area as possible, opened up the ground-floor slab and introduced a new mezzanine level above. Thus the sales area was increased, and the opening up encouraged movement through the space.

IBM Real Estate toured the project and hired the practice to design offices and demonstration suites throughout the UK. Major projects followed for Hille International, Collins Publishers, Touche Ross and many others. The British Museum also commissioned the practice, which designed a new conservation building, a new restaurant, and the Archaic Greece Gallery and Coins and Medals department.

Peter’s enormous reserves of enthusiasm and energy also found outlets beyond architecture, before and after his retirement in 1995. His recreational passions included horology, hockey, fine art and a love of bird watching that led him to live at Cley-next-the-Sea in Norfolk. He is survived by his wife Shirley, who he married in 1956, and daughter Kathryn. ●

Ralph Courtenay, former partner at Austin-Smith:Lord

### IN MEMORIAM

**Joyce Valerie Taylor**  
ELECTED 1948,  
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**Deryk Kitney**  
ELECTED 1955, KENT

**John Philip Groom**  
ELECTED 1974, HAMPSHIRE

**William George Atkins**  
ELECTED 1985, NAIROBI

To inform the RIBA of the death of a member, please email [membership.services@riba.org](mailto:membership.services@riba.org) with details of next of kin





Covered Retail Market  
Coventry, 1950s

Coventry is this year’s UK City of Culture and much interest is being shown in its post-war architectural heritage, as well as the controversial proposals to demolish some of its key buildings. However, some have acquired listed status over the years, such as the Covered Retail Market, designed – like most of the city centre 1950s development – by the Coventry City Architects Department under Arthur Ling. Various designs were considered, but ultimately a circular layout was chosen as it allowed easier circulation and a greater number of entrance points. The building

also included a car park on its flat roof, reflecting Coventry’s innovative plan for car segregation. Now Grade II-listed, the market is described by Historic England as ‘one of the earliest remaining examples of a post-war market building that has survived mostly intact. It played an important role in the socio-economic history of Coventry in providing the city with a lifeline and meeting place in the years after the bombing of the city in 1940, when most of its commercial buildings had been destroyed.’ ●  
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