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Primary by FCBS

HOUSING

PICTURE POSTCARD

Studio Weave's Je Ahn returns to South Korea to build a family home

OFFICE 06

Sheppard Robson

responds to innovation firm TTP's open-ended brief with an open-ended

JUSTICE SYSTEM

Hope Street is Snug Architects' optimistic alternative to conventional women's prisons

MACEWEN AWARD

Peter Barber Architects

creates a calm, welcoming

residential street, safe

from heavy traffic

Are you ready to show our judges what your nominated project is made of?

Only 21 women sit alongside 306 men... however, they are, arguably, some of the most interesting and important figures of the period

What Simon Knox discovered on his hols: ribaj.com/simonknoxpostcard

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Tony Ray-Jones' shot

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DEPARTMENT 4

PROFILE

Legacy is the critical issue for developer Tyler Goodwin, CEO of Seaforth Land

Rotherhithe Primary school in Southwark, London, by FCBS, photographed by Hufton and Crow

Architecture that shapes communities, the technical structure behind that, and its inspirations and ambitions: ribaj.com

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1: Buildings

SEOSAENG HOUSE. SOUTH KOREA

Family value

- justice system

STUDIO WEAVE Read the full story: ribaj.com/korean-house Look carefully at the red-pink concrete soffit at the front of Seosaeng House and there is a recessed steel railing that stretches the length of the elevation. It could look like an expansion joint, but it is, in fact, a bar on which to hang dried foodstuffs traditional to South Korean cooking, such as persimmons. The rail sits in front of the living room, next to the outdoor kitchen and around the corner from the utility. The outdoor kitchen has power, water, a fullwidth drain and a jet-down floor for barbecuing and fermenting. In the basement beneath, homemade goods produced on the deck can be stored at a constant temperature for even longer, alongside water and oil tanks for monsoon season blackouts.

Much of the design of the house comes down to this: connecting the building to its climate and reconnecting its architect, London-based Studio Weave founder Je Ahn, with his South Korean

roots. This includes knowing the granular detail of the area's traditions – people's relationships with indoor and outdoor, public and private, architecture and inhabitation.

Ahn essentially left South Korea when he was 14. Soesaeng House is his first project in the country where he was born and spent his early childhood. It is a home for his brother who lives in Hong Kong, but who wants to return in the coming years. For his brother, it is also a preparatory step to re-establish himself, socially and psychologically. The house is designed as a multi-generational home too - for Ahn, his parents and wider family. In that sense, it replicates the traditional Korean house, with communal spaces, as well as those for separation.

'The project has been both personally rewarding and anguishing - to work in a different context, but somehow not,' says Ahn. • Isabelle Priest



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07

As a company innovating at the extremes of known science, TTP's flexible, open-ended brief was only to be expected. Sheppard Robson obliged with its Birchwood HQ

Words: Jan-Carlos Kucharek

There's something of Stanley Kubrick in the way The Technology Partnership's ominous black-logo monolith rises from the perennial grasses of its deeply rural Cambridgeshire site. For a moment it's like you're in a time warp – beyond it, from the bucolic, a sudden vision of high-tech glass and concrete; in The Dawn of Man' scene in the film 2001, where the thrown bone turns into the space station.

The image fits this futuristic business. For 35 years, says TTP managing director Dr Sam Hyde, this has been a specific kind of technology consultancy. Post-doctorate scientists and engineers work as 'opportunity realisers to bring technology-driven solutions to market' – ones that, you can be sure, will affect your life at some point. Hyde himself is a laser physicist and TTP is one of a half dozen or so firms in the world able to research and develop at speed commercial innovations

in life and bio sciences (it was looking at PCR diagnostics before Covid was even a word), renewable technologies like photovoltaics, hydrogen fuel cells or carbon capture, and deep tech: everything from broadband systems to satellite comms. With a £60m turnover in 2022, TTP aims to be a market disruptor and despite its proximity to Cambridge, is as likely to be teaming up with MIT or Silicon Valley.

But even TTP can't solve everything. For 20 years it worked out of an adjacent, developer-built, horseshoe-shaped block with labs at ground, offices above and two dead ends, and the firm soon realised that any tech innovations were despite rather than because of its environment. In a sharp, pressed blue shirt, Hyde describes the 'flat' structure of a 'very clever but low ego' organisation that brings together experts in various scientific fields to

strike those flint-like sparks of genius.
In order to realise the perfect place to fire neural networks, in a 'creative, hierarchyfree space', it turned to Sheppard Robson.
Practice partner David Ardill, getting

a grip on the demanding brief, must have felt like he'd been set a differentiation problem to solve. Having started as 20 people, TTP had once been 1000 but was now 450. At any time there might be up to 200 tech projects running, all with changing team sizes and differing office and lab space requirements. Hyde describes a context where one project will meet a client's brief and end; others that merit further research may double in size and bloom into another idea; some might just die off, others be so successful they create a spin-off that sets up elsewhere and siphons staff away. 'We had to design a space where the only constant





whose throwaway simplicity belies a Newtonian knowledge of and response to the brief. The design went through seven iterations before arriving at a 7260m², single-storey, staggered grid of concrete that can expand and contract like a lung.

It's probably a coincidence that the HQ's plan looks like a circuit board, but principles of connectivity, data inputs and outputs would not be irrelevant in the thinking that generated it. With its 15m by 15m module, Sheppard Robson had zeroed-in on a size that would allow optimum interchangeability of office to maker space, to dry and wet labs - a space that can morph according to project demand. Meanwhile, bioscience labs, requiring isolation, sit alongside heavy duty engineering space in the 2150m² Tech Barn to the north. Eating, exercise, changing, socialising and company-wide

Left The social hub, containing restaurant, gym and changing spaces, is also big enough for all-staff meetings.

Below Multiple

their desk.

side decentralise

entrances on the south

access and allow staff

Right Hiding the parking area was an active part of the landscape strategy.

Architect Sheppard

Interior designer ID:SR

Client TTP

Landscape architect Spacehub / CSA Planning consultant Structural engineer AKTII M&E consultant AECOM/CPWp Project manager OS Gleeds Principal designer ORSA

to choose the journey to Main contractor SDC

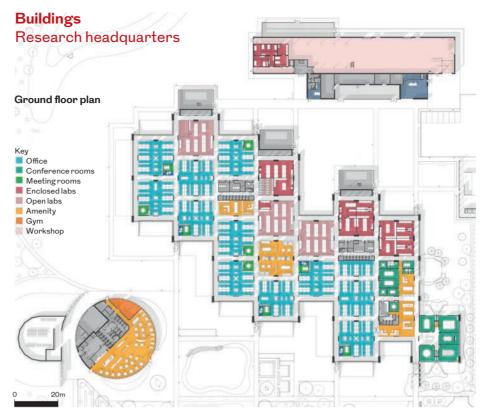




meetings take place in the 890m² glazed circular hub block, a short walk through the grass and plants.

Ardill coined the term 'The Hive' for Birchwood's tartan grid plan, describing how teams should be able to 'slip seamlessly from one module to another as projects expand or contract'. But with each module surrounded by a wide circulation zone it was also about connecting modules with others in the building. Users choose routes through it, raising possibilities for observation and engagement in other projects. It even happens on the edges where the 2.1m zone separates the glazing line from modules, to create accessible and egalitarian desk space. Ardill notes that while this runs counter to any net to gross ratios – per person space allocation here is twice that of BCO guidance because the interactions are more important to TTP.

Facilitating those 'slippages' meant creating as open a plan as possible to avoid silos that might develop if each module was defined by corner columns. Instead there's a twist on a simple post and beam design, with each module slab



Design development

Modules perform office, lab or support functions

Articulation reflects offset emphasising north-

Modules redistributed

to create office/lab zones

Module skewed to allow

more daylight into north

Below Circulation zones are delicately defined in the openness, with perimeter beam soffits dropped from 4.5m to 4.2m and interstitial rooflights.

Below The Tech Barn. One half industrial-sized unit for large projects, the other half two storeys of secure labs for more sensitive bioscience work.

resting on integrated perimeter beams. These beams are supported by narrow blade walls at their mid-span, which also helps define the circulation zones between them. This elegantly opens the space in one key structural move. But each blade wall terminates east-west circulation zone views, forcing users to decide whether to go right or left, north or south. This creates what Ardill calls 'purposeful confusion' and partly shuts views down again. By leveraging binary choices that result in varying location or innovation outcomes, the plan has the built-in potential of a flow diagram; see what I mean about the circuit board?

While ostensibly this is a large, open shed, that complexity of spatial thinking insinuates itself upon you gradually in use. There are obvious moves like putting office areas to the south, separated from glass-walled wet and dry labs by openplan 'maker spaces' into which scientists will osmotically pass during the day. Less obvious are removable 'plug-in' meeting pods which can be moved and set up elsewhere - lights, aircon and all - or the beautifully cast twin downstand beams defining circulation zones in a subtle way, or the high levels of service co-ordination with no visible conduit.

Much of the servicing is invisible – for example, the strategy of feeding plant for dry/wet lab areas directly from above via slab penetrations (that can be opened





The RIBA Journal October 2023 ribaj.com The RIBA Journal October 2023 or closed as needed). Light and data servicing runs up to the ceiling from the 650mm floor void behind yellow service covers on the north/south blade walls (also hiding roof drainage). The same void feeds displacement air into the space, with circulation zones used to draw exhaust to the air handling plant on the north side, obviating any need for ducting. And while a special, largeformat raised floor looks and feels solid, invisible until needed are the cappedoff drainage points in the concrete slab beneath, which can convert office modules into a wet labs – all co-ordinated as part of the D&B contract.

This building is future-proofed; designed for 100 years, it can expand into the landscape to accommodate more modules, or, if necessary, shrink; each staggered block already contains its own rear plant and south entrance, the latter decentralising access and offering staff a daily choice of how to get to their desk. It's not hard to imagine a situation where the whole could be partitioned northsouth and let out. I'm no management consultant but any company that can pragmatically plan for its own decline might be in a better position to avert it.

Of course, there's a price to be paid this future-proofed flexibility and there



£50m turnkey cost

10.300m²

£4854 cost/m²

8.5ha

21 months construction period



Above Office, maker space, open and closed labs and social space - connected by orthogonal circulation routes between.

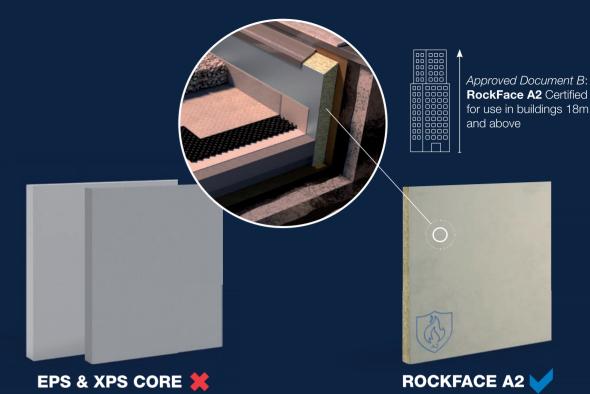
Below The reception area – a perfect place to take in the build quality while you wait.



come to swift conclusions about how this space might feel but assumptions are the bane of scientific research. Simplistic? Monotonous? Profligate? Arguably all of these, but experienced in the flesh, the underlying complexity feels palpable; compounded by the low hum of servers, thought and industry in a volume that intriguingly refrains from ever fully revealing itself, even where you think it might. 'The place has really hooked into the cultural cues of the company, creating the unexpected interactions that are critical,' says a satisfied Hyde, adding 'It's been supernatural for us'. And that's quite a word, coming from a scientist.



is a lot of (albeit GGBS) concrete on display admits being philosophically drawn to the says the decision to go with it came down



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The RIBA Journal October 2023 ribaj.com Hope Street by Snug Architects is an optimistic alternative to conventional women's prisons that improves their prospects and makes sense for all society

Words: Isabelle Priest Photographs: Fotohaus

'There is a wealth of evidence showing that children of imprisoned mothers have far worse outcomes. You are 85% more likely to end up in the justice system as an adult if your mother goes to prison when you are a child - if you are a boy, it's 92%,' explains Jane Smith, community director for Hope Street. 'One reason for that is that if dad goes to prison, often the children's lives don't change much. They stay in the family home, go to school, mum and siblings are still there. But if mum goes into prison, that's often the catalyst for the break up of the family; loss of the family home, children going into care, siblings are separated...Once you are in the care system, it's difficult to come out, even if mum's only been in prison for 10 weeks. She is deemed to

have made herself intentionally homeless by going into prison, so she goes to the bottom of the housing list, made worse because she hasn't got her kids with her.'

This, and to break the cycle of reoffending, are the reasons behind Snug Architects' latest project, Hope Street in Southampton. The two-part building has been commissioned by One Small Thing, a charity founded by Lady Edwina Grosvenor whose mission is to 'redesign the justice system for women and their children'. In England and Wales in 2022, of the 79,442 people in prison, only 3,216 were women. Women's convictions are generally less severe, with shorter sentences - for example, in 2019, 30% were for TV licence evasion. At the heart of the building is the issue that women

caregivers. The new centre is conceived as an alternative to prison detention for women serving custodial sentences when they would be better remaining in the community to avoid these disastrous social consequences, which have enormous financial costs for local authorities and taxpayers too.

Hope Street is located on The Avenue, a wide and pleasant boulevard lined with mature trees on the northern route out of Southampton city centre. It's a conservation area of mostly spacious detached and semi-detached Victorian villas, some still residential, others big enough to have been converted to offices and other uses. The project, however, is built on the site of a former First Church







are still far more likely to be the primary

of Christ Scientist building - itself built on a bomb site from World War II and an anomaly on the street. The location allows the women to be both part of society and slightly removed. It's green, well-connected to transport and has the appropriate balance between civic and private - nor is it far from Southampton's courts at the bottom of the avenue.

Section A-A

1 Front garden with

Main entrance

Bridge breakout space

to One Small Thing office

Apartment deck access

Apartment kitchen, dining and living space

7 Single bedroom

Snug Architects' approach has been to re-establish the continuum of the Victorian boulevard. The front part that faces the street contains the reception and administration programme, while the residential component, housing up to 24 women and children, sits to the rear of the plot in a building separated by a landscaped garden, creating a hygiene between work and living. The garden, between the front and rear buildings,

Opposite top View from behind, with the residential building and oriel bedroom windows in the foreground.

Opposite bottom The front elevation restores the villa format along The Avenue



Below The landscaped

garden between the

place for respite and

two buildings – a

also resolves the problem of a sewer that Above The apartment building is deck access bisects the site, while the single road with an open stairwell frontage allows natural surveillance. for maximum visibility.

IN NUMBERS

820m²

gia, front administrative

building

538m²

gia, rear residentia

1358m²

total gia

Design-wise, the front administration building restores the building line of the neighbouring houses, setting it back from the road with a low front boundary wall that encloses planted areas and a hard standing for parking made to look like a residential driveway. The frontage is designed as three individual houses or villas, connected by glazed links. They each share the same characteristics and palette of materials - repeating fenestration patterns, zinc pitched roofs, oak timber cladding on the ground floor and the pale London stock bricks of the adjacent Victorian villas.

'We wanted it to have a domestic articulation,' explains Snug Architects'



The RIBA Journal October 2023 ribaj.com ribaj.com The RIBA Journal October 2023

While the frontage looks like welldesigned conventional townhouses, the project is anything but conventional, for a quietly radical programme. The building's objective is completely new, which has meant starting from first principles. Snug Architects became involved in the project in 2019 as the local practice in addition to Michaelis Boyd Associates and after Heatherwick Studio had already set up a design guide. The scheme required substantial collaboration between all parties in the justice system and is in here because it was something that Southampton as a municipality was open to and got behind. It needed to be a home for the The brief also called for sanctuary and trauma course for the women, and to

The street-facing building is the women residents and public can move in it. There are two entrances. The double doors to the north (left) are the main thoroughfare and reception. To the left in the first terraced house is a café that has not yet opened but

Above The Hope Suite, where the programmes take place. It is the only space where the CLT structure is left fully

exposed, adding to its

tranquil nature.

Below Aerial view of the landscaped garden, showing the zinc roofs and skylights.



The brickwork continues inside



between the 'houses' and the finishes are residential in nature - brushed bronze ironmongery, for example; in equivalent





Far left The bridge, a place to break out, over the reception below, leading to Hope Street's office for One Small Thing.

Left One Small Thing's office. Each 'house' has its own pyramid vaulted roof and skylight.

Bottom The café for the public and visitors alike, to be run by the residents of Hope Street.

1 Main entrance

2 Reception

3 Residents entrance

4 Community activity

5 Arrival welcome lounge

6 Community café

7 Café kitchen

8 Residents' communa

9 Residents' lounge

10 Snug

11 Consultant room

12 Accessible bedroom

13 Bedroom with en suite

14 Hope Lounge 15 Hope Room

16 Seminar room

17 Staffkitchen

18 Staffroofterrace

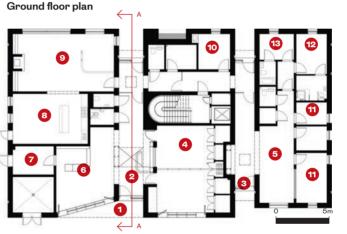
19 Hot-desking office

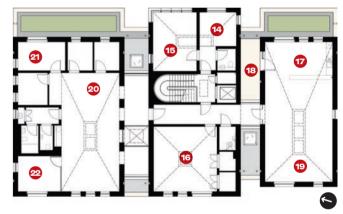
20 One Small Thing office

21 Office

22 Meeting room

First floor plan





municipal buildings it would often be brushed stainless steel. Pendant lighting is prioritised over spotlights, and there are engineered real oak floors. Back at the other end of the building, behind the café, is a communal kitchen and sitting room for the women to use themselves as well as welcome visitors. It has a fireplace and stove to create a more homely feel. And you won't find pastel colours or too many curves, as during initial consultation workshops these were clichés that the women participants identified as being particularly undesirable, redolent as they are of other institutions they may have encountered.

Upstairs is mainly dedicated to office and administration spaces. The most northerly building has the offices for One Small Thing, in the middle building is a large meeting room that can be used to host seminars as the

organisation becomes a centre for excellence for change to the justice system and in the right hand building is a staff kitchen and hot-desking space for the partner agencies to work in too. The only exception is to the rear, which accommodates the Hope Room - a suite of rooms that partially project from the rear elevation and the only spaces to leave the CLT structure exposed. Completely timber-lined, with very dampened acoustics, they are designed as a 'world away' for the counselling and healing trauma courses for the women residents and reserved solely for that purpose. The spaces have pyramid vaulted ceilings that culminate in a rooflight, contributing to their serenity.

The rear living accommodation has much of the same language and character of the front building, containing four apartments with their own kitchen,

Women that live at Hope Street will run the café, providing interaction, engagement and skills



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director Mike Worthington. 'No big signage, not symmetrical, but calm and approachable.'

instead finding architectural expression women placed there, and their children. community to accommodate the healing foster a community both within it and in

its local area. therefore largely a public building. Both

counselling and healing

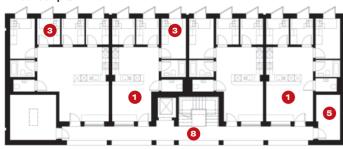
Buildings Justice system



Ground floor plan



- 2 Accessible bedroom
- 4 Binstore
- 6 Garden room
- 7 Accessible bathroom
- 8 Apartment deck access



Left View of the projecting Hope Suite from the garden, with a bench nook at the ground floor.

Right The open stairwell between floors of the residential building — robust but light-filled and pleasant.

Below The lounge reception and secondary front door where women arrive for the first time.

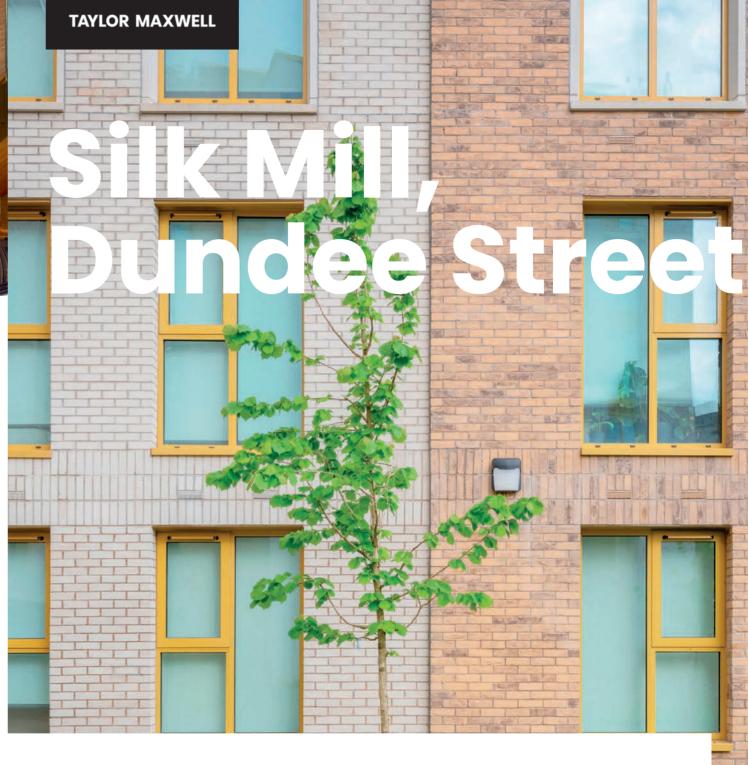
Architect Snug **Client** One Small Thing Employer's agent Main contractor Chisolm and Winch Landscape architect Harris Bugg Studio Interior designer Focus Design Structural and civil engineer Calcinotto Specialist CLT subcontractor Eurbar Approved building control Inspector MEP consultant Mesh





dining and living spaces and up to four bedrooms. Women will share with other women, or with their families. The apartments are simply designed, with small single bedrooms and finishes that are relatable yet comfortable. They are arranged over two floors with deck access and an outdoor covered staircase for maximum visibility.

The centre opened in June and by August there were only three residents, but they have already started to inhabit the spaces and make them their own, with pot plants outside their front doors and their own belongings. Both residents and staff are still learning how to operate the centre - it remains a new and evolving model. Time will tell whether it leads to better outcomes for women in the justice system, and the children potentially caught up in it too. What's certain is Snug Architects has designed a centre that restores the majesty of this part of the street and works contextually, while delving into the research and thought processes that mean the building creates the best possible opportunity for



The new Novel Student Accommodation, Silk Mill, was designed by GWP Architects to create additional housing for students at Edinburgh Napier University and the University of Edinburgh.

With a total of 225 bedrooms in a variety of cluster flats and studios, the scheme is situated west of the city centre in the Fountainbridge area, a walkable distance to both universities that also provides residents with easy access to shops, cafes, restaurants and bars.

Completed in December 2021, the £16m project was managed by Watkin Jones Group for client CA Ventures. Taylor Maxwell worked closely with the main contractors to supply the Carsington Cream brick, from our Solus range, as well as the smooth white facing bricks used across the facade.

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Photography by Richard Fraser.

Southwark levels up

Rotherhithe Primary gives pupils an early step up with space, light and presence in a coherent, flowing design by FCBS

Words: Hugh Pearman Photographs: Hufton and Crow

I don't think I've ever encountered a more enthusiastic or engaged client than Galiema Amien-Cloete, head teacher of the new Rotherhithe Primary. But then, she's been involved throughout the process of replacing her 'temporary' 1971 single-storey prefab school on the site, defining the brief and helping judge a five-way architectural competition. The resulting building is a genuine collaboration between her and her chosen architect Feilden Clegg Bradley Studios. 'I just spoke,' she says, 'and was amazed to see the ideas appear. They listened intently.'

The result is a rare thing: a large, high quality, well-landscaped bespoke school building in a poor area. It sits next to a 1960s council estate in

Right The plan opens up to Southwark Park opposite. Large council estates lie to north and south; the southern part of site is earmarked for housing.

Below A civic building of stature: the new school puts its tall main hall, with four superscale windows, right on the street. The entrance is to the left, a shallow ramped approach behind a low wall.







the post-industrial hinterland of London's former Surrey Docks, a part so far not engulfed by the rampant redevelopment a little further north. Designed and delivered on a traditional contract, it clearly goes beyond the minimum government standards.

For that the local authority, Southwark, must take great credit, although it also took a big slice of the previous school's land to build new council housing. By going higher in order to reduce its footprint, opening up a long informal axis from inner courtyard to the street and beyond, and providing views out all round, the new school compensates for the land loss and still manages to make its surroundings feel spacious.

Architect and client wanted to do five things in particular. First was to provide a welcoming learning environment and mix of indoor and outdoor spaces presenting a range of activities for people from a broad mix of cultural and personal backgrounds (42 languages are spoken by the pupils). Next was a desire to achieve clarity of function and circulation – the way everyone moves around makes an almost cinematic spectacle seen

Client London Borough of Southwark Regeneration Division Architect Feilden Clegg Bradley Studios Project manager **BREEAM** advisor and principal designer Faithful & Gould Landscape architect Structural, civil and services engineer Acoustic engineer Ramboll Acoustics Fire engineer The Fire Planning consultant and building control London Borough of Southwark

Credits

Below left Broad south wing terminates in an open stair with first-floor lookout and covered arcade.

Below right Outdoor teaching in action.

from outside (specifically M. Hulot's progress through the old house in Tati's 'Mon Oncle'). Aesthetically, the aim was to give the school the civic prominence it had previously lacked; to connect its landscape with that of the Victorian Southwark Park opposite; and to reflect the area's maritime/industrial heritage.

The Surrey Docks used to specialise in the import of timber from the Baltic. The Scandinavian connection in the area is strong. There is a memory of the stacks of timber in the layered finish to the chalky-cream brick facades, and (they say) the central courtyard is meant to echo the former basins and dry docks. That's not at all obvious but what is clear is the thoroughly Scandi-modern feel to the place, with great use of timber and natural light internally.

There is a toughness and simplicity to the orthogonal elevations which feels appropriate to its context. For this reason the main school hall is pressed into service as the commanding feature of the street frontage. It has a row of four simply enormous north-facing high-level windows with nicely modelled brick reveals top and bottom. From







inside, you see the tops of trees in the park – or when needed the windows can be blacked out remotely.

The layout is logical and pleasing. The main entrance is very secure, with three successive sliding glass doors, the sequence overlooked by reception, but you hardly notice them because your eye is drawn to the space beyond. This is a large informal meeting area with chairs and tables, for use either by the school or outside community events: the rest of the school beyond this point can be simply closed off.

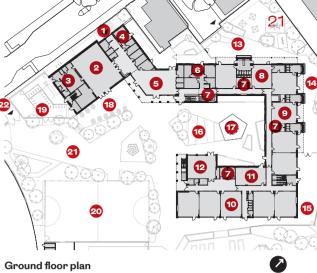
From there the school proceeds by size of pupil. Rooms for the littlest and special needs are closest to the front downstairs, moving round the ground floor in increasing stature (furniture and windows keep pace), then proceeding to the older pupils upstairs. Classrooms for the youngest each have their own set of toilets. And this being a sizeable school, it has a lofty secondary hall, opening up to the main courtyard.

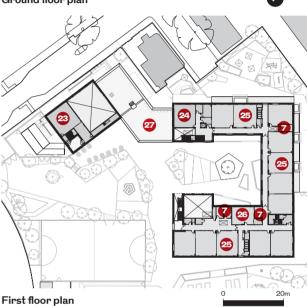
The circulation starts in Aalto fashion by running round the courtyard. The wider southern wing does have double-loaded corridors, but arranged so that you can see right through the rooms to the outside world. There is a lot of glass in this school, with everyone essentially on display, something that might well take some getting used to. Along the way there are breakout areas for small-group working. There is a stately covered external stair, featuring some blue-green tilework,

Main entrance

- 2 Main hall
- 3 Kitchen
- 4 Offices & meeting room
- 5 Welcome space
- 6 SEN area
- 7 Group breakout space
- 8 Nursery classrooms
- 9 Reception classrooms
 10 KS1 classrooms
- 11 Practical classrooms
- 12 Hall13 Nursery playground
- 14 Reception playground15 KS1 playground and
- 16 'Outdoor classroom'
- 17 Stage/performance area18 Outdoor dining
- 19 Bicycle & scooter store
- 20 Sports court
- 21 Main playground22 Playground entrance
- 23 Plant room
- 25 KS2 classrooms
- 26 Activity studio
- 27 Green roof

Below Multifunctional welcome space beyond the entrance can also be used for community events.







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More reasons to pick brick.

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Buildings School

descending from the end of the south wing to the play areas.

Amien-Cloete points out that many of the pupils come from flats with no open space of their own. So the school landscape is important, providing secure open space in a variety of forms from an open-air classroom arena in the main courtyard to play equipment and quiet sheltered places for those not wanting to play boisterous games. A fair number of mature trees have been retained around the edges and many more planted. There is a developing woodland-school area, and more private garden and patio areas with various ground-floor rooms opening into them, for staff and pupils.

In overall feel this school reminds me somewhat of the much smaller Storey's Field community centre and nursery school in North Cambridge by MUMA (RIBAJ May 2018) which has the same feel of care and craft about it, especially in its use of light textured brick and courtyard plan. The fact that a large multicultural state primary school in a tough part of south London can have something of a Cambridge air to it is an absolute victory, especially



IN NUMBERS

£15.5m full agreed cost

£3520m²

4393m² gifa cost

9390m² site area

12.177

kWH/year predicted on-site renewable energy generation

15

predicted potable water use, litres per person per day

60

actual annual gas usage (kWh/m²/yr)

37.5 actual annual electricity usage (kWh/m²/yr)

610 kgCO₂e/m² embodied

A1-A5
RICS modules

JCT traditional

contract

Very Good BREEAM target

Top Scandinavianinspired timber detailing.

Left South wing arcade and enclosed sitting area with tiled surround.

Right Throughout th building the quality of natural light is exceptional.





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Buildings School

as it started to be planned in 2011, the year after former education secretary Michael Gove axed the Building Schools for the Future programme. As FCBS partner Helen Roberts drily observes: 'This was achieved in spite of Michael Gove. It's about Southwark deciding to spend its money on its children.'

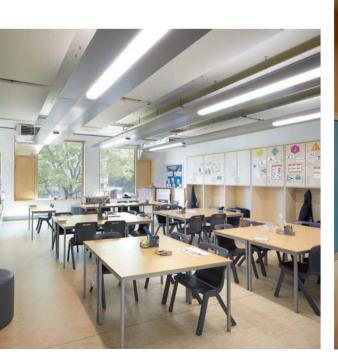
The construction – undertaken while the previous school still operated alongside, from which pupils transferred as demolition took place – is simple. Heavily insulated brick cladding – mostly hand-laid – sits over a concrete frame, with steel used in areas with wide spans such as the halls. There is rooftop photovoltaic power generation, plus automatic air-filtered ventilation with night-time heat purging. There are also manually-opened ventilation panels throughout behind louvres with flyscreens. The design targets BREEAM 'very good'.

The school has had one year in use and looks immaculate, its limited palette of materials – including, I was pleased to see, proper Marmoleum flooring – working well. Acoustics are good: I didn't pick up clatter or echo anywhere. It smells nice.

The children, says Amien-Cloete, were not daunted by their new school. Though there was a moment, right at the beginning, when she was asked by one child: 'Is this really for us?'

Below Typical first-floor classroom for older pupils.

Right Wall thickness is exploited at points to make window seats.





'This was achieved in spite of Michael Gove. It's Southwark deciding to spend on its children'

Brick Weinerberger
Timber acoustic linings
BCL Timber
Windows Ideal Combi
Glazed doors Schueco
Entrance floor tiles
Domus
Marmoleum floors
Forbo













Calm amid the storm



Peter Barber Architects does it again with Edgewood Mews, a peaceful, car-free characterful street right beside a main London traffic artery

Words: Chris Foges Photographs: Morley von Sternberg

Every so often Peter Barber will post snaps of a little brick-built London housing scheme on Twitter, and prompt a response probably unmatched by any contemporary architect. Amid the heart-eyed emojis there are critics, of course, but the general tenor is exultation that Peter Barber Architects' imaginative rehabilitation of familiar urban forms and forgotten building types demonstrates a viable alternative to cynical, identikit new-builds, despite budgets that are modest and the scrappiest, left-over sites.

The latest to go viral, garnering millions of views, is Edgewood Mews in Finchley. It is the largest scheme to date by the six-strong practice – 97 homes, of which half are 'affordable' – and its most challenging. Set hard against the North Circular road, it shelters a car-free street behind what looks like some ancient fortified citadel, replete with bullnosed turrets at the corners.

The narrow, long-vacant plot following the curve of the six-lane highway was offered up by the Mayor of London's Small Sites Small Builders programme, explain practice directors and project leaders Phil Hamilton and Alice Brownfield when we meet outside, shouting to be heard over the ceaseless roar of engines. The expectation was that its setting and tricky topography – storey-height falls from end-to-

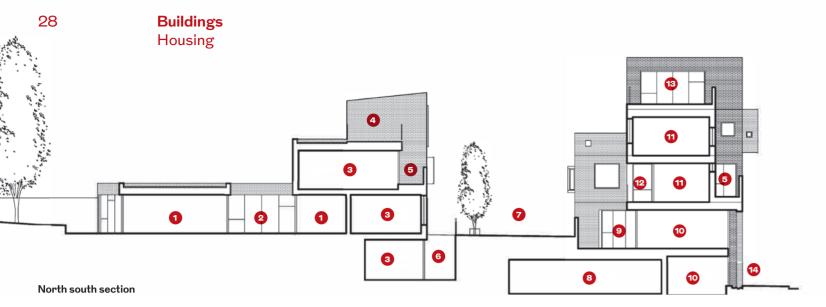


Opposite The scheme incorporates a shop at the western entrance to the

Above The site, near Henlys Corner, runs between Beechwood and Edge Hill Avenues.

Below Bathrooms project over the main road like the privies of a medieval castle.





end and front to back – would allow about 50 homes in sealed apartment blocks at the three widest points, where the boundary sawtooths against the gardens of neighbouring semis.

Instead, PBA envisaged a dense two-sided mews extending between leafy avenues at either end. Barber is a long-standing champion of streets as the best catalyst for social integration, and argues that as housing comprises the lion's share of the city, its designers have special responsibility for the public realm. 'This project began as a piece of urban design,' says Brownfield. Civic ambitions were buttressed by the instinct that a wall of building would provide the best defence against the harsh conditions.

The 200m-long, five-storey roadside bulwark is mostly one room deep, so almost all living spaces get ventilation from the mews. With the entrances there, it's a rear elevation that faces the North Circular. 'Nevertheless,' says Hamilton, 'it's important that buildings don't turn their back on the city'. Composed at heroic scale from elements that recur in PBA's work – double-height parabolic arches, projecting bays

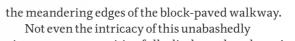
- 1 Single-storey flat
- 2 Internal courtyar
- 4 Roofterrace
- Rootterrac
- 6 Lightwell
- 7 Mews
- 8 Garage
- 9 Entrance courtyard
- 11 Middle flat
- 11 Middle flat
 12 Entrance balcony
- 13 Top flat roof terrace
- 14 North Circular road

Below Flats in four corner 'towers' are served by lifts.
Right Stacked maisonettes in the south block have entrances on the mews and a variety of private outdoor spaces.



Outside, where grime adheres to every surface, it seems impossible that this could be a comfortable place to live. But as you turn into the mews the air seems to clear and traffic noise drops immediately to the faintest hum. And architectural expression flips too, as muscular bombast gives way to a much softer, more intimate scene. Serried 'outriggers' make protective nooks in the southern terrace as it arcs out of sight round the bend, and leafy shrubs sprout from terraces above. Gabled dormers dance along the roofline and little oriel windows jetty over





picturesque composition fully discloses the scheme's underlying complexity. Under the mews a 76-car garage steps up along its length, and doubles as a retaining wall. There's no sense of it from the gentle incline of the walkway, which seems to follow the natural lie of the land.

Townhouses on the north side of the mews are fronted by railinged lightwells, like many across London. But upper storeys are manipulated to form a host of little balconies to living rooms on the middle floors, and roof terraces for bedrooms above. These clefts and concavities make the buildings seem porous, so that part of every private dwelling contributes to the theatre of the street.

This terrace is even less conventional than first appears. At the back is a mat of single-storey flats, wrapped around courtyards and hunkered down to the height of neighbours' fences.



First floor Lower ground floor Upper ground floor

Above The walkway narrows to a pinch-point of just 3.9m in the middle.

Below Buildings rise from a single storey, adjacent to neighbours' gardens, to five storeys against the main road (second and third floor plans not shown).

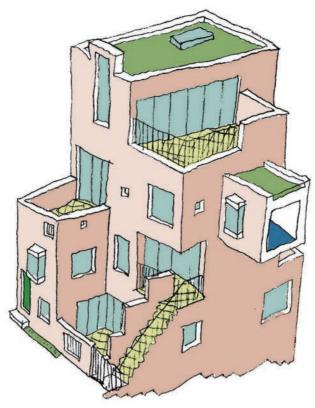
- 1 Townhouse bedroom
- 2 Townhouse reception
- 3 Townhouse living room
- 4 Single-storey flat living
- 5 Single-storey flat bed-
- 6 Middle flat entrance
- 7 Bottom flat entrance
- 8 Top flat entrance
- 9 Bottom flat living area
- 11 Bottom flat study
- 12 Middle flat living area
- 13 Middle flat bedroom
- 14 Stairs to middle flat
- bedroom

 15 Stairs to top flat
- 16 Mews
- 17 North Circular road

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Buildings Housing



IN NUMBERS

7,800m² gross internal area

102.12 kWp peak predicted onsite photovaltaic energy generation

Confidential construction cost

Left A maisonette bridges a stair that descends from the middle of the mews to the North Circular.

Below Townhouses on the north side of the mews.

Things get even more fiddly in the building across the mews, configured as row-houses with three maisonettes in each. At the bottom are homes for affordable rent. Their ground-floor living rooms, entered through small sunken courtyards, sit one storey above the North Circular. Open stairs connect them to kitchen-diners below, so those rooms don't rely on roadside windows for ventilation. Shared ownership apartments arranged over the first floor and part of the second are served by external stairs up to a sheltered balcony. Internal stairs ascend to market-sale flats with second-floor bedrooms and open-plan living areas on the third, opening onto roof terraces on both levels.

In essence, it's an elaborated version of Edwardian cottage flats. 'What seems like a relatively complex arrangement means that every home has its own front door on the street,' says Brownfield. Dispensing with shared stairwells and corridors means that residents meet in public space, where the architects believe that neighbourly interaction is more likely. The arrangement also ensures that the different tenures are visibly mixed

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Project: Noah's Ark
Architect: Squire & Partners
Photo credit: Bridgman & Bridgman LLP



along the street. Another ambition was for children to play in the mews, which residents say they do.

There are drawbacks and trade-offs, but it's clear they have been carefully considered. Few homes on the south side have a level threshold, for instance, which might have been achieved by a more 'modernist' terracing of the ground, at the expense of connection to the neighbourhood. 'Accessibility is really important', says Brownfield, 'but to get this number of homes and create a route through which is for everyone there needs to be some compromise'.

One criticism sometimes made of PBA's schemes is that the high wall-to-floor ratio is a carbon-heavy architectural indulgence. Again, the architects have a considered answer. The articulation of the buildings allows close proximity and therefore high density at low rise. Without lifts and lobbies, the built area is reduced by a fifth, with subsequent savings on lighting and heating. 'Debate on sustainability is often about reducing carbon per square metre,' says Hamilton. 'But what if we can achieve the project aims with less area?'

The real question is whether the primacy given to big-picture urban ideals is to the detriment of homes. It is not, although layouts are certainly unusual, even eccentric. In a duplex flat in one of the corner towers, for example, an en-suite bathroom has full-height windows onto a balcony overlooking the mews. Privacy is preserved, but it does feel exposed. Most instances are not critical faults, but the sort of quirks many people enjoy in older homes.

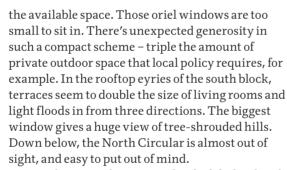
There are also places that feel squeezed, as though the architect has tried to do too much with



Right Recessed windows with acoustic glass, floor heights and the location of stairs help to buffer bottom flats from the road.

Bottom left Blind windows in flank walls add texture to the south

Bottom right Dormers add character to topfloor kitchens in the south block.



Residents I spoke to were clearly delighted with the place. So is the client. Construction, handled by its own team, was more straightforward than many D&B contractors fear when looking at PBA's plans, and the homes were snapped up quickly. All of which suggests those Twitter admirers are right. To borrow a common response: more of this, please.



Architect Peter Barber Client Kuropatwa lousing association Structural enginee lanning consultant M&E consultant Daylight consultant



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Competition MacEwen Award





Left Jubilee Pool in Penzance, by Scott Whitby Studio, was winner of last year's MacEwen Award.

2024 JUDGES Je Ahn, founding director,

Studio Weave Stacey Barry, architect,

(chair)

Alex Scott-Whitby. founding director, Scott Whitby Studio

Kathy MacEwen, planner and daughter of Anni and Malcolm MacEwen Isabelle Priest, managing editor, RIBA Journal

MacEwen 2024 opens

Our 2024 competition to celebrate architecture for the common good has launched. Do you know a project that would be a worthy winner?

Have you completed a project that has been particularly inclusive? Perhaps one that provides something extra for the community? Or one that is super sustainable and good for the planet? Any kind of project that tackles one of the pressing social, economic or environmental issues of our time? If you have, the MacEwen Award 2024 is open for entries! RIBA Journal is on the lookout for the latest projects which have gone above and beyond in architecture for the common good.

The RIBAJ MacEwen Award was launched in 2016 to discover and celebrate architecture with a greater purpose that perhaps took that bit more effort but that has reaped more varied rewards.

Each year the award has grown and developed. We've always been flexible as to what 'common good' can mean - entrants show us as the context of architecture changes. But at its core, the award is about architecture that is responsible and acts in the wider interest. In 2023, the winner was Scott Whitby Studio's Jubilee Pool, which saved a historic lido in Penzance. The practice was involved in raising awareness, funding and sparking community involvement, as well as designing a new café, community space, restoring the historic building and The MacEwen Award is using geothermal energy to make it possible to swim in a section of the sea pool all year round.

However, entries could enliven a street, create a wonderful sense of place or tackle world issues - yet should do so with dignity and joy. The award brings together the biggest projects and the tiniest, well-known practices with up and coming, national schemes and local.

As with all the awards we run at RIBAJ, it is free to enter and aims to reach previously underrepresented parts of the profession.

DEADLINE: 2PM, WEDNESDAY 1 NOVEMBER 2023 FOR MORE INFORMATION AND TO ENTER VISIT: RIBAJ.COM/BUILDINGS/ENTER-NOW-MACEWEN-AWARD

THE MACEWEN AWARD

named after Anni and Malcolm MacEwen, the first an urban planner who pioneered a conservationbased approach to regeneration in both town and country, he a campaigning journalist and former editor of this magazine. We are delighted to be supported by BDP, a hugely successful multidiscipline practice that has always been guided by a strong social ethos.

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Thirty years of matching architectural style and modern performance

For three decades The Rooflight Co has been the premium rooflight manufacturer for properties of architectural significance

ROOFLIGHT CO.

Below RIAS Award-Winning Cuddymoss, Ayrshire designed by Ann Nisbet Studio. Photographer: David Barbour



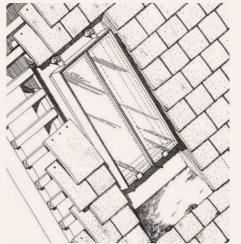
Since 1993, The Rooflight Co has led the way in rooflight design innovation and has forged an enviable reputation for fine detailing, low profile frames and authentic features.

Founded by architect Peter King, the company has its roots in using creativity, an eye for planning and artistic interpretation to respond to environmental necessity. The story begins in the late 1980s, when King was practising in London's Hampstead Garden suburb. Many of his clients lived in period properties and wanted to extend into their attics; the challenge was bringing light and ventilation into the space. Modern roof windows and dormers were out of the question due to the local Trust's strict planning guidelines, leaving the only option, a cast iron single-glazed rooflight based on the Victorian design, which was prone to rusting and leaking.

Using many of the same principles used in architecture, such as a focus on detail and appreciation of scaleable aesthetics, King set about designing a rooflight that incorporated the fine detailing and authentic features of the Victorian model yet met modern performance standards.

His iconic original design featured a steel frame, double-glazing, draught stripping and a thermal lining, and came in a range of sizes taken from original Victorian patterns. Thus came The Conservation Rooflight. Planners, conservation officers and fellow architects loved its low-profile, glazing bar and slim sections. More than three decades later, The Original Conservation Rooflight design has evolved to deliver the ever more stringent performance requirements while retaining the authenticity of the original. It is still the de facto choice for planners and architects to preserve the heritage of historic buildings while ensuring they are fit to perform for generations to come. The Original Conservation Rooflight graces some of the country's most prestigious buildings including palaces and National Trust properties as well as residential homes.

The firm's portfolio has pitched and flat roof collections for contemporary and



Above Original Conservation Rooflight design sketch by Peter King, RIAS.

Below The Original Conservation Rooflight fits seamlessly into any design, creating a flawless flush finish.



Below West Buckland Barns by BBH Chartered Architects.



conservation settings, and includes the highly acclaimed Neo Rooflight, which combines high modern performance standards with a frameless, minimalistic solution to introduce natural toplighting into a space. For projects requiring specific solutions, the company's experienced service creates be spoke designs that are often featured in award winning projects.

Thirty years is a cause for reflection for any organisation and The Rooflight Co has used the occasion as a catalyst to rediscover its origins and celebrate its achievements as the foremost rooflight designer founded by an architect, for

That ethos is felt most keenly in its architectural approach to pushing boundaries in rooflight design.

Influenced by nature and natural light, its methodologies include biophilic design, the concept of increasing our connectivity with the natural environment through space and place conditions.

A new visual language reflects the company's heritage and provenance for superior quality – from the refined company name, The Rooflight Co, to branding that pays homage to the Victorian rooflights that inspired founder Peter King.

As the business looks forward to the future, there is a clear focus on innovation and developing its passion for people, planet and place. Not only does it remain obsessively diligent in design and commitment to ensuring every small element of detail is fully considered, it continues to develop its commitment to long-term sustainability through employee-ownership, Planet Mark certification and most recently BCorp status.

In a time when culture feels fast and still somewhat disposable it is refreshing to find a business so committed to 'doing things the right way'. We look forward to seeing what the next 30 years has in store for The Rooflight Co.

For information on our product collections, please contact: hello@therooflightco.com www.therooflightco.com

2: Intelligence

DESIGNING A NEW STUDIO

JOE MORRIS. **MORRIS & COMPANY** Designing a new studio is a chance to take stock. After 10 years in our office, the lease had expired and rent was rising. At the same time, we were thinking about the ambitions of our 65-strong practice, and changes in post-pandemic working habits. Many workshop sessions established a shared sense of what's important, given a limited budget.

One key ambition was to have a ground-floor 'shopfront'. Making the day-to-day work of architecture visible helps to remove some of the mystique, and communicating in that way fits our social agenda. We found the right place in Hackney: 9000ft² over a basement, ground and first floors. Twice the space for the same rent. From the pavement people look into our 'town hall', with meeting rooms and space for events, exhibitions and design reviews.

upstairs is unallocated, though they can be booked. We don't feel it's important to seat project teams together, and people learn more from overhearing what others are up to.

Circularity was central to the fit-out. We reconstructed our existing storage dividers, and adapted glazed partitions found in the space to make meeting rooms. Old furniture was rehashed as wall linings. It's an honest patchwork of stuff that has had a previous life. It would have been cheaper and easier to start from scratch, but reuse was an enriching process that sends a message to clients and helps to foster a culture. New installations like the stairs are demountable, and we've stored materials that were removed.

During the fit-out we were offered a $3000 ft^2$ restaurants and we thought it would be good to have one here; it feeds the team and is closely allied to the include other practices and an architectural charity. 'A key ambition was to have a groundfloor "shopfront". Making the day-today work of architecture visible helps to remove some of the mystique'

All our IT moved to the cloud and every desk

f&b unit in the building. My wife Elly runs vegan themes of circularity and openness. Similarly, we lease desk space to several small businesses, which Mingling with them changes the dynamic of the office in ways that are subtle but significant. We have improved facilities ranging from showers to space for model-making, but more than amenities or aesthetic preferences the design of the studio reflects the ethos of the practice. •



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

Below A shop window puts architecture - and circular thinking - on display.



What the latest changes to the **Building Safety Act mean for you**

Learn more about the updates to building regulations, new dutyholder roles and their duties, and what you need to do now

Words: RIBA practice team







The publication of secondary legislation in the Building Safety Act this August ushered in arguably the most important regulatory change in the industry since the 1980s.

A huge step in the right direction, it puts in place more stringent project oversight, with clearer accountability for the safety of higher-risk buildings (HRBs) and non-HRBs throughout design, construction and occupation.

New duties are proposed for those who procure, plan, design, manage and undertake building work. These apply to all work to which the Building Regulations 2010 apply, not just HRBs. For those familiar with Construction (Design & Management) Regulations 2015 (CDM), this is a significant shift in duties. It should ensure a stronger focus on compliance with regulations for design and building work, with additional obligations for HRBs.

New dutyholders

The new dutyholders being introduced under the 'Building Regulations etc. (Amendment) (England) Regulations 2023' will be the client (including domestic clients), principal designer and principal contractor, as well as imposing duties on designers (including the sole or lead designer) and contractors (including sole contractor).

These roles have been modelled

on those in CDM, which are already embedded in the construction industry and have driven cultural and behavioural change in relation to health and safety compliance. It is therefore feasible, subject to competence, that the dutyholders may be appointed for duties under CDM and building regulations. Much like the initial reaction to CDM, many in the architects' profession feared the new roles and responsibilities - particularly that of the principal designer - but soon understood that as lead designers they were usually well placed to discharge the duties and consequently could add a further service to their portfolio.

Dutyholders must be competent (ie, have the necessary skills, knowledge, experience and behaviour) for their duties to carry out the design and building work within the scope of their services and the project brief. To accept these duties, you will need to have competence specific to the project

Under the new definitions, the client is the person responsible for commissioning building work requirements, which must extend to cover any scope changes, and you are required to undertake work only within the limits of your competence. The client, meanwhile, must take all reasonable steps to satisfy themselves that the dutyholders are competent, and the dutyholders must refuse to accept an appointment for works they are not competent to deliver.

Dutyholders are required to cooperate, co-ordinate their work, communicate and provide information to other dutyholders.

Under the new definitions, the client is the person responsible for commissioning the building work. They have overall control of the project, so it is appropriate that they are ultimately responsible for 'golden thread' information introduced for HRBs in 'Building (Higher-Risk Buildings Procedures) (England) Regulations 2023'.

However, on domestic projects the client is unlikely to have sufficient competence to carry out the duties, so most of them will be placed on those undertaking the design and building work. If a domestic client fails to make the appointments, the designer in control of the design phase of the project (most likely an architect) is the principal designer, as under CDM.

For any building work, if the client for the project changes at any time after



Left Golden thread electronic project information is required on higher risk buildings.

a building control approval application is made or a building notice is given, the new client must give notice to the relevant authority.

As with CDM, designers must not start work unless they are satisfied the client is aware of its duties for the building work to which the design relates under all relevant requirements.

Principal designers

The regime addresses further duties of designers (any person including a client, contractor or other person who in the course of a business carries out design work, or arranges for or instructs any person under their control to do so) and contractors (any person including a client, but not a domestic client, who carries out, manages or controls any building work).

A principal designer must be appointed in writing before construction begins, or before submitting an application for building control approval for a higher-risk building. For domestic clients, the client duties will be carried out by the contractor (where there is only one contractor for the project), the principal contractor or the principal designer (where the principal designer agrees to fulfil those duties with the client, agreed in writing).

Where there is more than one contractor, or it is reasonably foreseeable that more than one contractor will be working on a project, the client must appoint in writing (a) a designer with control over the design work as the principal designer, and (b) a contractor with control over the building work as the principal contractor – both for the purposes of these Regulations.

Organisations may also act as the principal designer subject to necessary organisational capability, ie possessing a robust management system and team with relevant competence.

Where the client fails to appoint or replace a principal designer, it must fulfil the duties of the principal designer under these Regulations until it appoints another person to that role.

With all that being said, it is also possible to have two appointments, where one person (or organisation) is unable to fulfil the competence requirements to perform the duties.

Where a principal designer is no longer competent or their appointment

The new regime calls for a building control approval application before building works begin

ceases before the project is complete, the client must appoint a new principal designer. Where you are taking over from another principal designer, you will require due diligence to ensure duties to that point have been discharged in accordance with requirements, to satisfy yourself (or your organisation) that the building design and building works (as applies at appointment) are compliant.

The principal designer (or sole or lead designer) along with the principal contractor (or sole contractor) are also referred to as the principal dutyholders.

Building control

The Building Regulations etc. (Amendment) (England) Regulations 2023 introduces new requirements that will apply to all building work under the new regime.

Instead of depositing 'full plans', the new regime calls for a building control approval application before building works begin. For HRBs additional information will be required with the submission. For a complex building a staged application may be appropriate. A complex building is one constructed on the same foundation plinth or podium as any other building or structure, or a building that has more than one storey below ground level or one whose proposed use is primarily public with a capacity for 100 or more visitors. It is

The RIBA Journal October 2023 ribaj.com ribaj.com The RIBA Journal October 2023 **Intelligence**Building safety

not about the complexity of packages of work for the delivery. Where the application is made by someone on behalf of the client, a statement signed by the client confirming that it agrees to the application, and that the information contained in it is correct, is required.

Control for higher-risk buildings

The regulations contain provisions for building control procedures that apply to the construction of a new HRB, building work to an existing HRB or a non-HRB, a material change of use such that it becomes an HRB, and building work to an HRB or proposed HRB, such as it becomes a non-HRB. In England higher-risk building means one that is at least 18m in height or has at least seven storeys and contains at least two residential units.

Transitional provisions for HRBs, have two criteria: first, valid consent before 1 October, or you will need to make a submission to the Building Safety Regulator (BSR); and secondly a need to meet the criteria for sufficient progression (permanent foundations, not draining works) by 6 April 2024, or your application will transfer to the BSR (this will also be the case if your approved inspector hasn't transferred to the register for building control inspectors).

For HRBs, if the above criteria are met, projects will not need to go through Gateway 2 or 3. However, there will still be legal occupational requirements, including registration and golden thread. The BSR will confirm timings based on risk levels and information provided at registration for the safety case.

To strengthen regulatory oversight a series of gateways have been introduced for HRBs before work begins (referred to as Gateway 2 application), during construction and on completion ahead of occupation (Gateway 3 application). For Gateway 2, the applicant must submit a building control approval application to the BSR. Work cannot begin without this approval. There is a 12-week determination period, from receipt. Once approved, the BSR will agree a bespoke inspection schedule with the applicant. The BSR must be



can Regulation

notified at these stages for inspection to take place and then building work can start (subject to imposed requirements). Under Gateway 3 you will need to submit a completion certificate application to the BSR, without which your building cannot be occupied. An eight-week determination period from receipt should be factored into programmes.

Approvals for all building works may be issued with imposed requirements; these are the equivalent to conditions previously referenced. Works may only proceed with approval (subject to the imposed requirements). Also note the change of definition of commencement – for new buildings and works in existing buildings which will support transitional provisions to 6 April 2024 and also the new lapse provisions (to mitigate new delivery not meeting the latest regulatory standards).

Change control and inspections

Following approval for HRBs, if you are changing any works that are deemed to be a major change, you will need to submit a change control application, which must be consented ahead of any associated works affected before commencing. For notifiable changes a change control notification is submitted and if the BSR has not responded within

It is not an 'end of the project' activity, but an ongoing, 'live', electronic record

Above All projects to which the Building Regulations 2010 apply will have new duty holders.

10 days the change may be carried out once the period had elapsed.

With a few exemptions, the principal designer must ensure an appropriate frequency of inspections of HRB design work for safety occurrences throughout the construction phase, which would suit aligning with the Building Safety Regulator's inspection schedule at Gateway 2.

Golden thread

The golden thread has been implemented to support effective and efficient sharing of project information at the right time and with the right people, in an easily accessible, reliable and up-to-date format for HRBs.

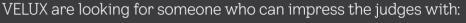
It is not an 'end of the project' activity, but an ongoing, 'live', electronic record of the building information throughout its lifecycle, including upto-date safety information regarding the building design, build and management. This information will be stored and transferred electronically (the digital requirements are not prescriptive in terms of software, file types etc but they must be accessible) and recipients must acknowledge receipt.

Although the regulations may look complex, it's worth remembering that this hugely important and significant new regime has been created to ensure that the built environment upholds the highest standards when it comes to safety and usability, both now and for generations to come.

Read the full article on architecture.com



Showcase your skills in our Conservation Project Competition



Impeccable aesthetics

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Successful VELUX Heritage conservation roof window integration

The competition is open to all architects in the UK. You have between **September 1st and December 1st 2023**, to register for the chance to **WIN £7,500** and a **trip for two to Copenhagen** hosted by VELUX valued up to **£2,500**. The winner will receive media coverage in RIBA Journal, Architects' Journal and the VELUX website.







Read more about it here

*Terms and Conditions apply

The RIBA Journal October 2023

ribaj.c

1 SIPS panels

2 Galvanised steel structure

Team binds skills to create seaside's Urchin Café

The Urchin Café was conceived and built as a sculpture for use as a café by Matthew Sanderson. It sits alongside a 19th century gothic mansion, home to the Plas-Glyn-y-Weddw arts centre, close to Wales' Llanbedrog beach. The sculptor teamed up with Mark Wray Architects and structural engineer Fold to realise the scheme

Words: Andrew Pearson Photographs: Gareth Jenkins



Matthew Sanderson sculptor Austen Cook Fold Engineering Seb Walker Mark Wray Architects

How did this project come about?

Matthew Sanderson: A chance meeting with gallery director Gwyn Jones led to me being given a brief to replace the gallery's failing 1980s conservatory cafe.

I based my design on a sea urchin to contrast with the Gothic mansion, because I knew the CADW [listed building agency] and planners wouldn't accept anything pastiche. Urchins are found on nearby Llanbedrog beach, so I took the shell and adapted it into an 11m wide, self-supporting structure. Sea urchins normally possess spines, but this structure is covered with 80,000 stainless steel barnacles, as randomly configured as the living colony that inspired them.

Austen is my go-to engineer. On day two I phoned and told him: 'I want to do this'. I sent him my felt-tip sketches and he said 'Ok, that's a really strong shape'.

Why involve an architect?

Austen Cook: Once Matt had had a favourable response to his idea, he came back with a more formal approach, saying he was going to build this café and asking me to help. I quite quickly realised that he was thinking he would



deliver the whole building, but I knew we'd need an architect to help with the technical details. We share a building with Mark Wray, so Mark and Seb joined the team and we worked on it together.

What does an architect bring to this project?

Seb Walker: We came on board to develop Matt's concept. We were dealing with a listed building so one of the challenges was to get the scheme approved and through planning. Originally the urchin was attached to the listed building but we separated it with a link to create a space between the two. Moving the urchin created a



circulation route and transition between the new building and the historic fabric, and provides level access across the whole ground floor. To the rear of the dining area is a new kitchen and servery contained in a simple larch-clad volume.

The three of us started talking properly once planning and listed building consent had been granted and funding was in place to start the technical design phase. What was exciting was that architect, artist, engineer and steel fabricator and erector were all working together – because Matt is not just an artist, he is also a bona fide steelwork specialist.

How did you develop the design for the steel structure?

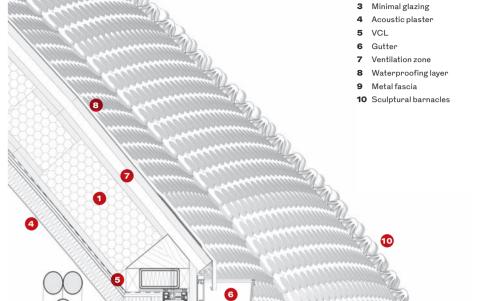
AC: Every bit of steel in this building is bespoke. The structure is a series of steel elements, tapering and curving along their length, sending us back to first principles to work out what was possible. SW: The building is split into 12 segments, with a larger one over the cuspate door that goes into the main building. We took its five-pointed gothic arch and referenced that in the structure as it goes around the building's perimeter. It was one of the details that gave a nod to the gothic architecture of the original building.

AC: The gothic arch acts as the tie around the edge of the dome. It springs from quite low down and has a tall rise, so in discussion with Matt we changed the line of the top chord to get a flatter profile at the ends to make the structure stiffer. We also made the top chord a paired 'shotgun' profile to help resist buckling.

SW: We modelled the structure in 3D and exported it into 2D planes, then sent it to the engineer to turn into fabrication drawings for laser cutting to produce the kit of parts for Matt to weld together.

What was the impact of having the steel fabricator in the design team?

AC: Matt fabricates everything from plate and tube. He's an instinctive engineer; we suggest a structural solution, he adjusts it to make it more sculptural and then it goes back and





Opposite above The radical form came out of the knowledge that planners would not accept pastiche proposals for the café.

Opposite below Each stainless steel barnacle to the building's skin has been hand-welded on.

Above Once the SIPs roof was assembled and waterproofed, barnacle panels were affixed to create the structure's seamless surface.

Right Detail of Matthew Sanderson's steel tube structure.



forth until we arrive at the solution. If Matt wants to make the structure in his workshop we're limited to using fairly small diameter tubes. For example, each column is four slender pieces rather than a single, chunkier column.

The roof beams taper from the columns towards the central oculus following a Fibonacci curve. There is a continuing negotiation with Matt around the shape of structure to make it look right in the space. It is a very fluid process where we try lots of ideas and make lots of suggestions until we find one that works structurally and architecturally. It's a process of negotiation in making it beautiful well as doing the job structurally.

Where is the thermal envelope?

SW: We wanted to expose the steel internally so we designed a warm roof, which is assembled from trapezium-shaped SIPs that combine to form the secondary structure and thermal envelope. SIPs form a faceted surface between the curved radial beams; there is a ventilated zone and a waterproofing layer on top of the SIPs, with Matt's curved barnacle layer above.

We wouldn't normally speak directly to the steelwork fabricator and erector, but working as a team we were able to refine lots of little details including how to prevent the glazing intruding on the beautiful steel detailing. We didn't want curved glass because it would make people feel as if they were in a bowl – and it's expensive. So we faceted the glass and hid the silicon joint behind the columns so you don't read it, just the curved barnacle layer behind.

Externally, we backlit the barnacle layer on the roofline: the barnacles on the roof merge with those in front of the glazing so it looks like one continuous sculptural form when the lights are on.

How is the barnacle skin formed?

SW: So Matt could set out the curvature of the external barnacle layer, I used the 3D model to produce a surface curved in three directions, like an upturned boat, for each segment. I gave Matt sections cut though this surface so he could build



Left Lighting is discreet to maintain focus on the sculptor's central diatom sculpture below the oculus.

Below Fixing each stainless steel barnacle to create the skin required five individual welds.



There is a continuing negotiation with Matt around the shape of structure to make it look right in the space

a carcass on which to weld the barnacles. MS: Each barnacle is formed from 316 grade stainless steel using a press, they are then all hand welded in my workshop. Each has a minimum of five welds to secure it to the colony. We could have created the café in standing seam zinc but instead we've created something that makes people look at it; a landmark piece of functional art.

How are occupants kept comfortable?

SW: The barnacles filter natural light to minimise solar gain. We wanted to use natural ventilation as much as possible so the oculus opens to let stale air out

while fresh air can enter through two opening side windows. A mechanical ventilation system keeps the space comfortable in summer.

Internally, the domed ceiling meant acoustics was a concern so we specified a 40mm-thick acoustic plaster finish. It looks like quilt insulation but is harder and can curve in both plan and section.

To light the space, we've recessed LED strips within the plaster either side of the radiating beams. We didn't want spotlights cluttering the curved roof because we've got Matt's diatom sculpture hanging beneath the oculus.

What's a diatom?

MS: The diatom is the central focus of the whole building. I wanted to create a chandelier but didn't want a Louis XIV statement of wealth so I picked the microscopic zooplankton, 'Litharachnium Tentorium', specifically because it is one of the many creatures that are almost invisibly responsible for carbon capture on Earth. Artistically, the funnel-shaped chandelier is made of the same steel as the building but it's doing a very different thing, which shows that steel can also be pretty and delicate.

Now the café is open, what did you learn from this unorthodox approach?

MS: This project has reinforced my relationship with the structural engineer and extended my respect for architects and what they do. It has made me want to work with architects like Mark and Seb more closely in the future.

Getting the grade: Refurbishing a historic landmark

The transformation of a grade II-listed former radio station into a secondary school was a dramatic and delicate job. Waterproof insulation from Soprema was key to its success

Taking educational refurbishment to a new level, a unique and innovative Soprema insulation specification provided a durable solution to bring a historic landmark to life.

Soprema, quality manufacturer of sustainable waterproofing and insulation solutions, helped restore a grade II-listed former radio station building in Rugby, and transform it into a distinctive and state-of-the-art secondary school. Houlton School is a new educational campus, which includes a main teaching block with a grand entrance and dining hall, capable of accommodating more than 1,000 students.

Developer Urban & Civic (U&C), led by architect van Heyningen and Haward (vHH), worked closely with Morgan Sindall Construction – appointed under a PCSA from RIBA stage 2 – and its specialist supply chain to address the project's complexity.

As a specialist manufacturer,
Soprema was included during the design
phase, which helped to mitigate risks and
engage in value engineering exercises.
The design of Houlton School prioritised
a fabric-first approach, focusing on the
building envelope's quality and energy
efficiency. The integration of Passivhaus

software and thermal modelling enabled

software and thermal modelling enabled optimised insulation and improved performance.

The architect specified Soprema's PAVADRY insulation solution – a natural and ecological innovative thermal insulation board based on wood fibre, bonded with hardboard and a lime-plaster parge coat. The integrated air barrier provided by the moisture-open parge coat, together with the hygroscopic properties of the wood fibre and careful repair of the historic brickwork, ensured a controlled moisture transport which prevents the formation of damaging moisture. This characteristic makes PAVADRY the ideal insulation board to prevent the trapping of moisture within the historic fabric and was crucially important for the project to protect the original features of the building, and future-proof the structure for years to come.

Houlton School is an inspiring example of an elegant and creative retrofit, proving that almost any kind of repurposing is possible with a historic structure.

Techsupport@soprema.co.uk
Tel: 0330 058 0668

Left Houlton School facade. Image courtesy of James Brittain and

Above Pavatex Pavadry product being installed. Image courtesy of vHH.





The RIBA Journal October 2023

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How new architecture technologies help design the buildings of tomorrow, today

Technology has long reshaped the possibilities of architecture. Now, new digital design tools are transforming how buildings are imagined and built

This is an excerpt from an article that originally appeared on Autodesk's Redshift, a site dedicated to inspiring construction. manufacturing, engineering and design leaders. Read the full article here



Opposite Designers can use virtual reality to simulate walkthroughs in the real world.

Below Digital twins provide dynamic, realtime information about building performance.







Fashioned like a gleaming silver eye looking ever forward, Dubai's Museum of the Future – a torus-shaped structure that houses an evolving collection of design studios and tech hubs - is a technological marvel. The curved, streamlined facade is adorned with 3D calligraphic windows; teams of architects and engineers achieved its irregular form using immersive visualisation and digital modelling. In short, technology made this deeply ambitious, complex project possible.

The museum is a fitting symbol for a city investing in innovation and in the broader evolution of architecture and technology. New digital tools and manufacturing advances have empowered architects and designers, stretching the boundaries of physics and imagination while providing the required complex calculations and visualisations. The evolving architecture technologies being incorporated into practices will alter workflows and expand the potential of engineering and construction.

How have architecture technologies changed practices?

Architectural history cycles through technological breakthroughs and explosions of creativity, with new tools and building techniques leading to a flowering of new forms. Mathematical and architectural advancement can be seen throughout history, in classical

columns, vaults, and aqueducts - as well as in the elaborate designs of mosques and temples. Gothic innovations such as flying buttresses remade blocky cathedrals and helped places of faith soar to new heights.

As engineering and calculations advanced, so did material science and the ambition of builders. Multi-storey steel and brick buildings in Chicago made way for today's towering high-rises. Poured concrete, and the calculations it required, rapidly evolved – the heavy, rigid material become buoyant, even poetic. This can be seen in the London Zoo's penguin exhibit designed by engineering legend Ove Arup and in the showy concrete petals, sexy curves, and cascarones of structural engineer Felix Candela. The structural ideas that underpinned skyscrapers evolved using increasingly sophisticated computers and digital modelling tools, from the tube systems of Fazlur Khan, who made the Sears Tower a reality, to the superthin structures on New York City's Billionaire's Row.

Technologies that are changing architecture

Architectural expression and evolution have always been wedded to changes in technology. This current moment offers myriad new directions for the discipline, thanks to new developments in manufacturing technology, computing power, digital visuals and robotics.

Building information modelling

One of the foundation programs behind the digital revolution in architecture. building information modelling (BIM) lets architects capture real-world locations and landscapes and create 3D digital plans, enabling better collaboration with engineers and co-workers. Tools such as Autodesk BIM 360 and Autodesk Build also allow architects to place their plans through numerous simulations and test real-world scenarios.

Big data and digital twins

Taking BIM one step further, architects, engineers and building operators use digital twins to create a dynamic digital replica of an existing structure via big data rendering and real-time incorporation of sensor data. This carbon copy unlocks untold scenario tests, including measuring the impact of design changes and renovations and optimising energy use and HVAC systems. The vast volume of data that's collected and analysed by these models can inform future building designs, aiding smart city initiatives that can improve the efficiency and sustainability of entire neighbourhoods.

Artificial intelligence

What if any design question could be answered by a computer? What's the most sustainable, material-light way to design this roof? What's the best apartment interior layout, based on thousands of previous designs? What's the right price or bid for construction materials?

That's the current reality for architects and engineers, thanks to advances in artificial intelligence (AI) and machine learning, which can take oversize data sets and, with the right prompt, find efficient design solutions. These powerful logic models can take the seed of an idea and create a garden of possibilities, from planned developments maximised for green space and energy efficiency to construction sites where material orders, deviations from blueprints and safety issues are automated and overseen by AI. AI can also help evaluate potential build sites, saving developers weeks or months of research.

Cutting the carbon cost of concrete

What are producers doing to decarbonise concrete and can alternative concrete mixes and new binders dent global emissions enough to make a difference? Stephen Cousins reports





Below Norcem Brevik's cement carbon capture facility is due to open in 2024.



Concrete is the second most abundantly used material in the world after water. We use roughly 11.7 million tonnes of it a year in the UK, equivalent to the weight of more than 100 aircraft carriers.

The material's low cost, high strength and ease of production have made it a symbol and literal foundation for modern life, but that privileged status has come at a high environmental cost.

Research by think tank Chatham House gives the concrete and cement sector responsibility for 8% of global carbon dioxide emissions, more than any individual country outside China and the US, and more than the aviation industry, which generates about 2.5%.

Beyond the atmospheric impacts, diminishing supplies of usable sand have seen unregulated sand mining rise in the developing world, wreaking devastation on rivers and coastlines.

Architects and engineers could cut reliance on concrete by selecting lower carbon materials, like engineered



Left The world's first and storage facility, under construction at Norcem Brevik in Norway.

Right CarbonCure technologies enable concrete producers to add captured carbon dioxide to the production process. converting it into to a mineral and reducing the carbon footprint.



timber, or optimising structural designs to require less material.

However, concrete's ubiquity looks set to sustain its dominance for some time to come, increasing pressure to either decarbonise its production, or switch to lower carbon concrete mixes or alternative binders.

Cutting the carbon of regular concrete is difficult. Ordinary Portland Cement (OPC), the key binder, is fired in giant rotating kilns heated to 1,400-1,500°C, typically using fossil fuels like coal or natural gas. Efforts to electrify kilns have failed to get close to these temperatures and widespread hydrogen power remains a distant prospect.

Over 50% of emissions come from the chemical process of calcination, as the raw materials limestone and clay are transformed, under heat, into cement, releasing CO₂ as a byproduct.

'Even putting the heat to one side, just the process of making this reactive binder releases CO₂ - you can never get away from that,' explains David Watson, technical director at structural engineering consultancy AKT II. 'There's not massive scope for reducing overall emissions in OPC, maybe 10% to 15% from where we are today, but it's going to hit a floor pretty quickly.'

UK concrete makers do have a strategy to become net carbon negative by 2050, and efforts to deal with these process emissions focus heavily on the use of carbon capture, use or storage (CCUS), which they say would remove 61% of emissions.

The technology involves sucking CO₂ from factory flues to store or use for other purposes, although it remains unproven at a commercial scale. The government

is pumping £1 billion of investment into CCUS R&D through four industrial clusters. One of these is the HyNet North West consortium, involving Hanson Cement, which aims to pipe CO₂ to permanent storage in depleted gas reservoirs in Liverpool Bay. A further £20 billion package of longer term government funding is also lined up.

Is there enough time for CCUS implementation before 2050? An MPA spokesperson said: 'It is important that this early momentum is maintained if the UK is to remain at the forefront of CCUS deployment and achieve its 2050 targets.' He added: 'Support from the government will be required to ensure competitiveness is maintained during the transition to net zero cement production. This includes support towards project development costs to undertake required feasibility and engineering design work and then both capital and operational cost increases.'

Looking beyond improvements to production, another key vector for decarbonising concrete is replacing Portland cement clinker with supplementary cementitious materials, for instance industry waste byproducts like ground granulated blast furnace slag (GGBS), from iron and steel making, or pulverised fly ash (PFA) from coal.

GGBS is the 'go-to' method to cut embodied carbon as it can be swapped for cement at rates of 70-75% without affecting quality or strength - although the latest cross-industry research casts doubt on its cumulative climate benefits.

The draft paper, developed by experts from IStructE, the Institution of Civil Engineers, Climate Group and MPA The Concrete Centre, which was

due to officially launch in September, found that worldwide GGBS resources are almost fully utilised with no significant unused stockpiles.

Replacing clinker with GGBS at one location is therefore highly likely to reduce its use elsewhere, balancing each other out overall and making no further impact on current global emissions.

Will Arnold, head of climate action at IStructE, says: 'Every tonne of GGBS is already used in the concrete industry and there's no massive increase predicted anytime soon ... so don't go asking for more of it in the hope that it will reduce global emissions. It won't.'

With waste substitutes unable to have a big enough impact on emissions at scale, attention must shift towards the use of alternative binders to OPC that are less polluting, yet deliver on aspects of performance and scalability.

Hopes are high for future binders based on calcined clay, also known as metakaolin, created by heating kaolinite to between 650°C and 750°C and added to cement in place of clinker. Kaolinite exists in abundant natural deposits worldwide and in waste by-products.

A custom cement blend known as LC3, developed by Karen Scrivener, a materials chemist and head of the construction materials laboratory at Switzerland's Ecole Polytechnique Fédérale de Lausanne, combines calcined clay with unburnt limestone to create a product with up to 40% less embodied carbon than regular OPC. Critically, performance is comparable to regular cement and production can exploit the same machinery, generating interest from cement companies. LC3 is already produced in several plants in the world, but Scrivener wants a global roll out to make a big impact on emissions.

Arnold comments: 'We can expect to see this on UK projects within a year or two. The Mineral Products Association is running trials to get it codified.'

Looking further ahead, 70% to 75% reductions may be possible if calcined clays are combined with alkali activators – also known as geopolymers – to replace OPC in concrete, although 'alkali activators have reasonably high embodied carbon and have challenges in how they're handled and managed,' says Watson. 'Work needs to be done by the industry to gear towards them.'

Alkali-activated concretes already in production, such as Earth Friendly Concrete, rely on industrial waste rather than calcined clay, but are paving the way for this scaled up approach, he adds.

Other less conventional approaches to cement also show promise. The firms Seratech and CarbonCure use versions of carbon capture to suck CO_2 from industry and process it to create low carbon concrete. Seratech captures emissions to produce silica as a cement replacement material. OPC is still part of the mix, but the carbon capture associated with producing the silica results in a zero carbon concrete.

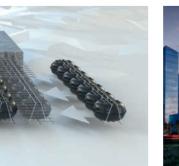
'Seratech is interesting. We're looking at probably 5-10 years for that to be used at scale, but we should be considering it now as we wind up,' says Watson.

Decarbonising concrete mixes and binders will pull down emissions, but architects and engineers have a key upfront role in minimising demand for concrete in the first place, as the concrete shell project by engineers at Bath and Cambridge University shows. When concrete is the only viable option on a



Above A prototype
'thin shell' vaulted floor
slab, developed by an
interdisciplinary team
from the Universities
of Bath, Cambridge
and Dundee, generates
60% less embodied
carbon than the
equivalent flat slab.

Below left The Cobiax system is used to build flat slabs of reinforced concrete with voids formed using bubbleshaped plastic. Below right The Cobiax SL voided floor slab product was used to cut embodied carbon on Microsoft's Munich headquarters.



project, the focus must be on reusing the existing structure and optimising its massing and use of components.

'Ideally, you would have a building that's not really tall, which wastes material to help it stand up, and not too short – a single storey building requires lots of concrete in the ground slab and the roof, but you get just one floor out of it,' says Hawkins, who adds that the optimal building stands between four and eight storeys, features regular short spans between columns to reduce the amount of concrete needed in floors, and has no basement, which typically needs a lot more material than superstructure. Products like Cobiax, or Bubble Deck, incorporate voids in slabs to cut the concrete requirement.

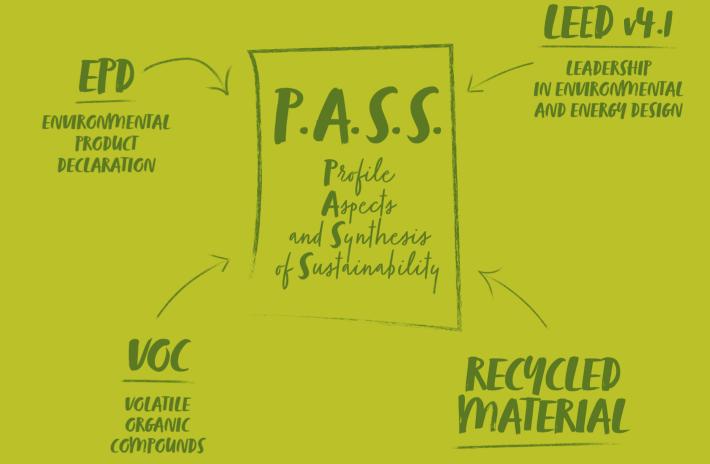
Other initiatives aiming to tackle the concrete problem include a revised British Standard, due at the end of this year, that will enable projects to mix up to three separate waste materials into cement to reduce the amount of clinker, up on the current two.

Arnold says projects should consider setting a maximum limit on the amount of clinker included in a concrete mix, not just the traditional minimum limit. 'People regularly put in 10 or 20% more in than they need because they want to err on the side of caution,' he says. 'Setting a maximum of just 5% above would make a big difference and only involve slightly tighter quality control.'

Figures from the United Nations
Environment Programme show that
concrete production is set to increase
by 25% by 2050, fuelled largely by the
rapid expansion of developing countries.
A range of ambitious decarbonisation
efforts will be needed if the world is to
avert the bleakest of climate scenarios.



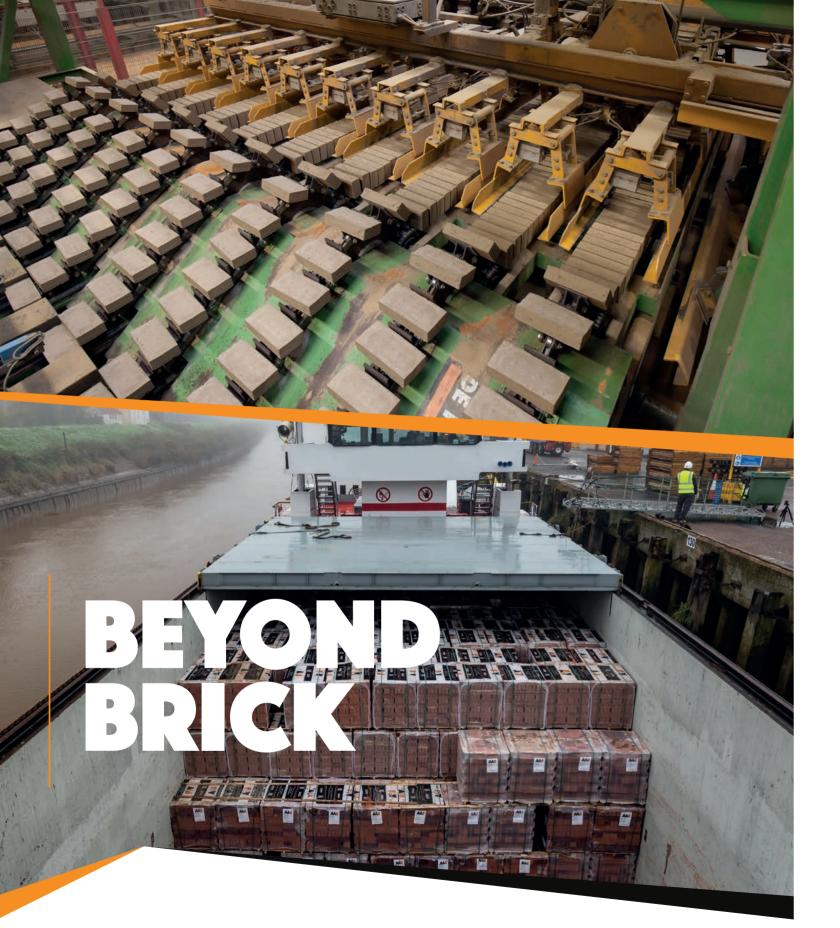
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Small firms can measure carbon too

Cost needn't deter smaller practices from calculating the carbon of their designs. Ben Hair explains Knox Bhavan's approach



Smaller practices often don't have the resources of larger practices to devote to understanding their projects' embodied carbon. Carbon tools have pushed the conversation forward, but can be difficult to apply to smaller buildings. And there's a fear of what carbon calculations might reveal; architects can worry that they're hiding carbon-heavy skeletons in their portfolio closets.

But understanding carbon can be a positive process. We began developing KBe by auditing our built projects. We learnt where things could be better, but also found affirmation of our instincts as architects. Designing with local self-finishing materials and striving for efficient, elegant structures led to buildings that weren't that high in embodied carbon.

Carbon literacy can be a barrier too. It takes time to get your head around carbon and really understand what sustainability means. Our definitions evolve constantly. Just 18 months ago I thought we were aiming for net zero buildings. Now I'd say there's no such thing as a carbon neutral building though we should keep working towards it.

Three-pronged approach

The method we have developed comprises three steps: measure, communicate, reduce. Measure is where the data comes in, split into two inputs: quantities and carbon factors. We

measure the quantity of material from schedules of works, tender packages or BIM models. The integration with 3D modelling can make the whole process more seamless to work out how much steel, timber, concrete are in the design.

Carbon factors are more complex, and we use a combination of the ICE database and product-specific EPDs to get started. For harder to measure items, lights and cabling for example, we'll do an estimate based on LETI guidance.

Combining the quantities with the carbon factors gives us the embodied carbon of a building at a given stage. To communicate that, we've developed the KBe carbon dial, which is a snapshot of the carbon health of a building.

Orange segments show embodied carbon, dialling clockwise about the centre. Green dials counter-clockwise, representing the sequestered carbon. Yellow in the centre shows embodied carbon in existing structures that might be retained or demolished.

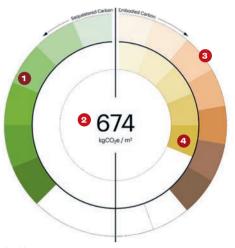
Routes to retrofit

The idea is to encourage balance in carbon positive and negative materials. By being clear about what is demolished and retained, we hope to beat the drum for retrofit-first. We also translate carbon emissions into understandable metrics like equivalent London bus rides or flights to Sydney to encourage engagement and increase access to the conversation.

With the emissions of each building element communicated in the dial we can assess where carbon can be reduced or which design option performs best. The KBe dial shows us where to focus our time and energy; the floors might be performing badly for example, what can we do about it? The roof looks really light carbon-wise; let's find out why.

At RIBA stage 0-3 we can give quite broad figures, that reflect the early stage of design. This is a great point to set carbon benchmarks for the project. You'd do it for area schedules and cost plans,

Below The carbon dial from KBe tool gives a snapshot of the carbon health of a building.



- 1 Measure sequestered carbon
- 2 Measure CO₂/m² of floor area
- 3 Measure embodied carbon

4 Existing building appraisal

so why not set a budget for carbon? It's a great way to bring the client with you.

At technical design and tender documents we can tighten the analysis to measure how the designed building stacks up against the carbon benchmarks. You can even have a value engineering exercise to cut carbon, not cost.

Finally, a post-occupancy exercise measures embodied carbon as built and projects the building's whole life carbon (so far we've been more concerned with 'as built'). Most of our analysis to date has been of this nature as we've developed the process with our completed projects.

It gives us a new challenge and a new metric to measure the success of our buildings and to discuss these with clients. Everyone wants to be sustainable, but the numbers and dial allow us to show clients what one brick might mean compared to another and how choices have an impact far beyond the site boundary.

We hope to get more small practices involved in our research over the coming months. In collaboration, small practices can make a massive difference.

Ben Hair is sustainability lead at Knox Bhavan







Homes design gears up for new overheating regulations

Approved Document O is up and running. Mark Taylor looks at the pros and cons of routes to compliance and what it means for apartment and house designs





The transitional window for Requirement O of the Building Regulations closed in June and must now be complied with. We can face our inevitable future of annual heatwaves with the regulations to give occupants of new homes some protection against the worst of the emerging climate disruptions. So what are the methods of compliance, and the stumbling blocks to clear calculation - and what might the regulations spell for the future of apartment and house design?

The aim of requirement O was to include all aspects of passive overheating design, including limiting unwanted solar gains in summer and providing adequate means of removing excess indoor heat, while ensuring such means are safe. Location, orientation, cross ventilation, shading, glazing and ventilation areas are all under scrutiny. Provision of information to the owner completes the list of considerations.

As with all the regs' functional requirements, there is the usual

approved document containing means of meeting Requirement O. AD-O outlines two methods for achieving the performance targets: a simplified and a more thorough dynamic thermal modelling method embodied in CIBSE TM59. The dynamic method is more refined as the building is modelled and more inputs are required. There is also a third method, not included, that could be fruitful to work with.

Simplified method

Many a brow will have been furrowed by the complexities of the 'simplified' method. Its cocktail of criteria can be a headache for designers of houses (it is not deemed suitable for buildings of more than one residential unit with distributed hot water).

Textual and tabular hurdles start

Above Where will Part O take apartment design? Allies and Morrison's Keybridge project in Vauxhall, south London.

The RIBA Journal October 2023





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Intelligence Regulations

The total free area targets for buildings in high risk areas are lower than those in low risk areas

with assessment of floor areas and opening sizes. Minimum levels are set for free area, the geometric open area of a ventilation opening. There is also equivalent area, a measure of the aerodynamic performance of an opening. The equivalent areas of the actual openings should meet or exceed the geometric free area targets relevant to the total floor areas of the dwelling and also those of the bedrooms. There are three ways of checking equivalent area: the tables in the appendix, an online calculation tool or EN 13141-1.

One ostensibly puzzling oddity is that the total free area targets for buildings in high risk areas are lower than those in low risk areas. This seems to have partly given rise to the publication of a web page of frequently asked questions by the Department for Levelling Up, Housing & Communities. It is justified by buildings in high risk areas in inner London postcodes (and some Manchester postcodes) needing one of the following: external shutters with means of ventilation, limits on glass G value/light transmission, or overhangs with 50° altitude cut-off on due south-facing facades. The targets for bedrooms are mysteriously the inverse: those with free area in high risk areas being higher than those in low risk areas. There is no explanation for this apparent anomaly.

Dynamic method

Using the dynamic method should allow greater flexibility in design as the modelling considers a range of mitigation measures, building geometry, locational features and shading types. Specific limits are placed on modelling inputs covering occupancy and window/door opening and closing times.



Mechanical ventilation is considered as well as active cooling but the latter only as a last resort when preventative and passive measures cannot work.

Good Homes Alliance

There is another method of assessing overheating, although not mentioned in the Approved Document. The Good Homes Alliance has produced a simplified tool and a guidance book. This approach appears to sit somewhere between the AD-O simplified and dynamic methods and may prove useful, as the Approved Documents are not the only allowable way of meeting the requirements of the Building Regulations. Designers should check whether their building control body and warranty provider will accept its outcome as evidence of compliance before relying on it.

Above Hale Wharf near the River Lea.

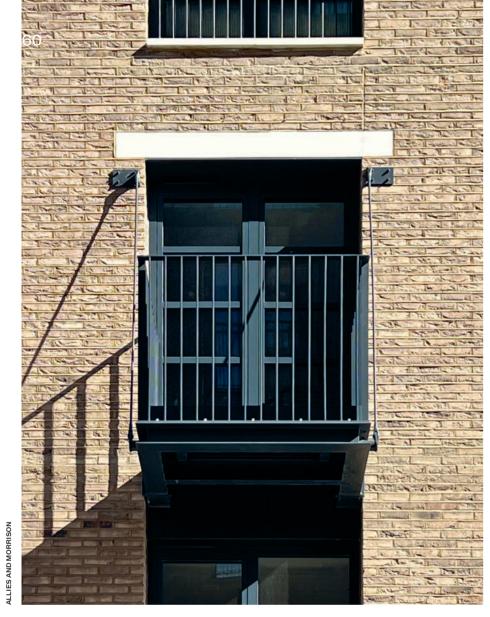
General provisions

Design hurdles arise from the mandate to ensure reasonable enjoyment of the building for its occupants. This part of the AD covers operability of openings, noise at night, pollution, security, protection from falling and entrapment.

One of the biggest challenges arises from the need to discount any openings accessible to the casual burglar from ventilation areas for security in the simplified method and treat them as closed at night in the dynamic method. This could include ground floor openings and those near flat roofs, which can be a significant proportion of the openings on a typical house.

The presentation of the AD is sometimes confusing and leaves some questions unanswered.

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Above Window at Allies and Morrison's Goodluck Hope, east London.

First, why are there no provisions for alterations and extensions to existing dwellings? Part O misses a significant opportunity to control over-glazing and inappropriate treatment of house extensions. Approved Document L similarly underachieves as the UK stock of existing dwellings volumetrically expands but is insufficiently constrained to reduce its carbon footprint in doing so.

Secondly, why are there no specific limits for roof lights? Sloped or near horizontal glazing can give rise to significantly higher summertime insolation at British latitudes than vertical glazing. This appears to be a glaring oversight, especially given such exhaustively detailed methodology covering equivalent ventilation area calculation.

Where will AD-O take design of apartments?

Single-aspect units can be avoided; dual and deck access can be encouraged; geometry and self-shading can be explored, orientation can be optimised; large areas of glazing (especially south and west facing) of high-level corner units can be moderated; windows may be better designed with more opening area; louvred panels may be introduced to help balance glazing with ventilation areas; ambient loop water heating

Sloped or near horizontal glazing can give rise to significantly higher summertime insolation

Intelligence Regulations

could limit overheating from common areas and adjacent risers; shading from balconies can be exploited; and glass can be specified for maximised light transmission with minimised G-value. If these don't achieve the targets, supplementary ducted ventilation can be introduced.

Blocks near busy roads, railway lines and industrial sites will need more specialised treatment, potentially with acoustic attenuation to opening vents. If comfort cooling has to be used, it should not be allowed to operate while windows are open and must still comply with Requirement L of the Building Regulations. It should be treated with caution and much discussion with the building control body and the warranty provider.

Where will AD-O take the design of houses?

Houses are in theory less likely to overheat than apartments, and use of the dynamic modelling method should ease the burden of change to the way the typical house is envisioned. However, the discounting of 'accessible' openings will take its toll on freedom of design, so creativity will be needed – possibly around the use of grilles, louvres or shutters to meet security provisions.

Much of the outcome depends on the approach of the designer: early engagement with the foibles of AD-O should produce a well-rounded, future proofed and occupant-optimised building of social worth. Insufficient or late engagement could result in a hotchpotch.

The use of the dynamic modelling method at early stage can be seen as a true aid to design, with results that encourage windows with maximised, secure and inclusive openings without imposing great restrictions on their area.

As the UK climate trajectory heads inexorably towards the Mediterranean, will our new housing stock begin to resemble the shuttered house on the cover of TM59? Only time will tell.

Mark Taylor is director of technical design at Allies and Morrison

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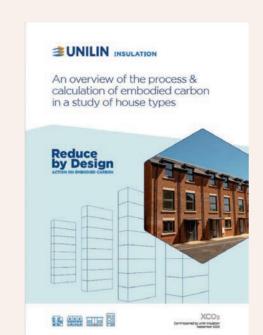
The RIBA Journal October 2023

Embodied calculation: A work in progress

Unilin Insulation's quest to improve carbon understanding has seen it launch an independent report that conducts life cycle assessments for four dwelling types, using typical material specifications to meet different embodied carbon targets









Detached house GIA 186.1m²



Mid-terraced house



Semi-detached house GIA 98.9m²



Apartment block GIA1724m²

Life cycle assessments (LCAs) are an emerging discipline. The parameters to which the assessments are calculated are quite fluid and these background changes have a measurable influence on the results.

However, as industry comes together to agree the parameters and set conventions for calculation and reporting (including the publication of EPDs – environmental product declarations for building materials) clarity and recognised norms will allow greater engagement and simplified methods of calculation.

Clarity on carbon

To help gain a better understanding of embodied carbon and to encourage engagement when accounting for it in construction projects, Unilin Insulation commissioned an independent report by XCO2 as a tool to assist and provide some clarity on how to meet the RIBA Climate Challenge 2030.

This is the second edition of a report published in early 2022. The revision has been prompted by several changes in the standards, guidance and conventions for LCA calculations. As part of this evolution, another update is likely to be required once the consultation on the RICS methodology paper has concluded later in the year. Embodied carbon accountability is a work in progress.

This edition includes indicative targets – set by the Future Homes Hub in its project 'Embodied and Whole Life Carbon', which aims to develop an industry-led proposal for reducing embodied and whole-life carbon in new homes.

XCO2 was commissioned by Unilin Insulation to carry out life cycle assessments (LCA) for four different dwelling types using typical material specifications to meet embodied carbon targets set by various organisations.

An LCA into the embodied carbon content of each dwelling was undertaken to assess where improvements were needed to meet embodied carbon targets.

Detailed investigation

On all house types, embodied carbon was calculated initially for a baseline specification consisting of materials that are commonly specified but tend to be carbon-intensive due to their use of generic or average manufacturer LCA data. The most contributing materials were then identified, and an improved specification was proposed using materials with improved verified EPDs including Unilin Insulation products, that help reduce the embodied carbon of the dwelling types.

Additionally, a building services options appraisal has been carried out

to further reduce carbon emissions associated with the MEP building elements. The detail below shows outcomes for a semi-detached house type.

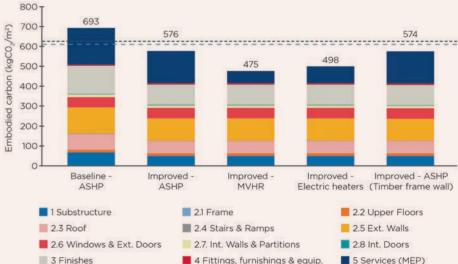
An as-built project has also been analysed. Project 80, a collaboration between Birmingham City University Centre for Future Homes and Midland Heart, built 12 homes that met the Future Homes Standard three years ahead of schedule and produced 80% fewer carbon emissions than the 2013 standard. A further LCA was undertaken to determine progress towards the FHH & RIBA Climate Challenge standards.

Unilin Insulation has plans for an accompanying CPD and online learning module to encourage understanding and engagement with the subject.

For more information about reducing embodied carbon on your building project, visit www.unilininsulation. co.uk/embodiedcarbon or contact the Unilin Insulation technical services team on 0371 222 1055.

Embodied carbon of Semi-detached house type options





MIDLAND HEAR

Practice resilience: how to survive and thrive

How do small firms ensure business resilience in challenging times? Three young practices describe their strategies, from researching new market trends to investing in management courses, forming mutually-beneficial alliances and embracing social media



Gbolade Design Studio Location: London Established: 2018 Typical headcount: 4-6

It's been a busy fifth anniversary year for Gbolade Design Studio, which has participated in the Venice Biennale and staged a London exhibition in addition to its project work, which includes a 100-unit housing scheme in Lewisham.

Directors Tara Gbolade and Lanre Gbolade are also writing a book for RIBA Publishing on business sustainability and the future of practice.

'It's been a very interesting first five years. There have been so many challenges I hadn't experienced in all my previous practice,' says Tara, referring to growing the practice through Covid, and coping with the sudden death of a key client and champion of the practice.

Along the way the directors have at times worked with a business coach and are currently taking part in a 12-week business course. The practice has a business plan, which it shares with the team as a 'living document'. It has



also introduced a decision-making framework to help it control time spent on bidding, a result of the 'experience of over-committing', explains Tara.

'We are more business-minded than when we started – understandably. There was the naiveté, unfettered by reality, that propels a start-up forward, and for us this translated to prioritising architectural design above all else. As we've evolved as a business, we are shifting to the more strategic aspects of business-running: refining our value proposition to prioritise efficiency in delivering high-quality design, while being growth-minded for our people, planet and profitability,' she says.

The practice has seven projects on the go at various stages, with a 3-6 month pipeline of work – the goal is for this to be a year. To navigate the peaks and troughs of traditional practice, its strategy has always been for a balance of private and



Top Lanre Gbolade and Tara Gbolade, co-founders of Gbolade Design Studio.

Above Gbolade Design Studio has collaborated with Patel Taylor on the Grahame Park estate regeneration in Barnet. London.

public sector work, and of policy and design work.

'What Covid has taught us is that the market can change so quickly. We have to be able to pivot quite rapidly so it's important to have experience in different sectors that influence us,' she says.

Through research, the practice ensures it is well-informed on societal factors affecting potential work, and is keen to use technology to improve efficiency and help it respond where appropriate.

For example, realising that domestic clients were increasingly interested in retrofits to reduce energy costs rather than just extensions, GDS ensures staff train in the ArchiCAD Energy Evaluation tool so they can model operational and embodied carbon at an early project stage with certainty. This also enables better collaboration with energy consultants.

'That's been an evolution for us,' she says, adding that practice is now moving further and looking at regenerative design.

'We need to adapt to be able to ensure that the practice moves on this journey so we can deliver better for our clients.'

As a start-up practice without industry connections, an early strategy was to learn from others they admired who were further along in their development. GDS has also been proactive in building its own networks and developing a strong public profile.

Lanre has served as a RIBA councillor and was awarded Offsite Pioneer of the Year 2022 for his work promoting design standardisation and offsite construction methods. Passivhaus-certified Tara is a Mayor of London Design Advocate and contributed to the LETI Climate Emergency Retrofit Guide, and was recently made a trustee of the UK Green Building Council. The practice's new business efforts are also served well by a natural openness and curiosity.

'We absolutely network. We enjoy meeting new people and getting under the skin of what they're doing. We're curious. We try to be teachable in every circumstance,' she says.



Left Martyn Clark, founder of Envelop.

Below Envelop's house extension in De Beauvoir Town, London, led to more work close by.

envelop. Location: London Established: 2019 Typical headcount: 1

It's testimony to the success of Martyn Clark's practice that he has been too busy, thanks to repeat clients and effective social media, to set up a website more than four years after establishing himself as a sole practitioner. Averaging around five projects on the go at any one time, he generally has a pipeline of three months' work, focusing on the residential sector. And while this timescale might at first sound a bit worrying, 'in reality you keep rolling and work keeps coming in'.

Nor does he have a formal business plan, preferring a more fluid approach. So how does he maintain this workflow? The answer is a combination of word of mouth recommendation in tandem with sensible strategies to boost new business and stability.

'I'm always soft networking,' he says. 'When you are an architect specialising in residential work everyone is a potential client.'

Personal recommendations, after building up a good client relationship, have paid dividends, with one-off projects leading to further work for clients' friends and family. 'From what was a small loft extension, I've got four or five larger projects,' he says.

Sometimes work clusters in one area – a house extension in De Beauvoir Town, north London, led to one in the area, then another 50m down the road, enabling him to build familiarity with



 $the \, conservation \, area \, planning \, context.$

More intentionally, he has embraced the power of award schemes such as New London Architecture's Don't Move, Improve! as well as Instagram. He finds the latter useful for attracting enquiries from younger potential clients.

'It's been a good thing – people contact you and you have an opportunity to talk to them. Then it's up to you.'

Clark, who worked with larger practices including Burrell Foley Fischer before setting up Envelop, has benefited from establishing an informal alliance with interior designer All & Nxthing. This has led to referrals and project collaborations and has been, he says, 'an interesting way for a small business to build a connection to a different world'.

He is open to collaborations with other architects. Having already acted as consultant to an inexperienced practice on a build, he is considering the possibility of pairing up with larger businesses on bigger jobs, or perhaps

Intelligence Business

assisting on one of their projects. Such collaborations would give the company a bit more stability, he says.

It's important, adds Clark, to make time to reflect on the direction of the practice. 'You get busy and that's great, but doesn't leave much scope to step back and look strategically. You have to be mindful of that and make time to reassess and think about what you should be doing.'

It's also important, especially for sole practitioners, to get out and about.

'Find excuses to get out there. Meet old contacts, new contacts, go to conferences. You can very quickly become isolated,' he says.

Asked what advice he'd give other sole practitioners starting out, he has no hesitation. 'Be confident. Go for it and have faith that the work will come. When it does, put your heart and soul into it and be confident that [more] work will flow from that.'

Gagarin Studio Location: Halifax Established: 2012 Typical headcount: 9

With 35-40 live projects on the go and a pipeline of work stretching on to 2027, Halifax practice Gagarin Studio is clearly doing something right. It's taken time – when they set up back in 2012, directors Gayle Appleyard and Steve Gittner had already spent 10 years working in London and then, after moving back to their native South Yorkshire, working for other practices in the region.

'We weren't newbies. We'd developed an ethos of what we wanted to be,' reveals Appleyard, adding that the directors were keen to avoid the ballooning and reducing they'd witnessed at practices in London. Instead, they took a really cautious approach to growth, putting the emphasis on stability.

'We make sure the work is enjoyable and that there's a good ethos in the office. We encourage young members of staff to grow,' says Gittner.

Ultimately, this means staff stay,





Right Gagarin Studio's competition-winning proposal for the Millom Iron Line recreational attraction in Cumbria.



and are in time able to take on more responsibility, freeing up the directors from job-running so that they can focus more on job-winning.

'Steve and I review the business a lot and as a team. We're not green in that way. We're focused on making sure the business is sustainable, 'says Appleyard, adding that it's important to have the confidence to put in the right fee for what they're undertaking, even if it means losing the bid.

'We're in it because we love it, but also because we're there to earn a living,' she says.

The practice has learnt to think strategically about what's important on the project, to be efficient about their effort, and to trust their instincts on whether to take a project on after early client meetings. Establishing a reputation across the region has also been key to Gagarin's resilience, along

'We're in it because we love it, but also because we're there to earn a living'

with diversifying the type and scope of work. The practice now has community, arts, housing and infrastructure projects in addition to the residential work that was its early mainstay, with meatier public sector work now supplementing smaller projects.

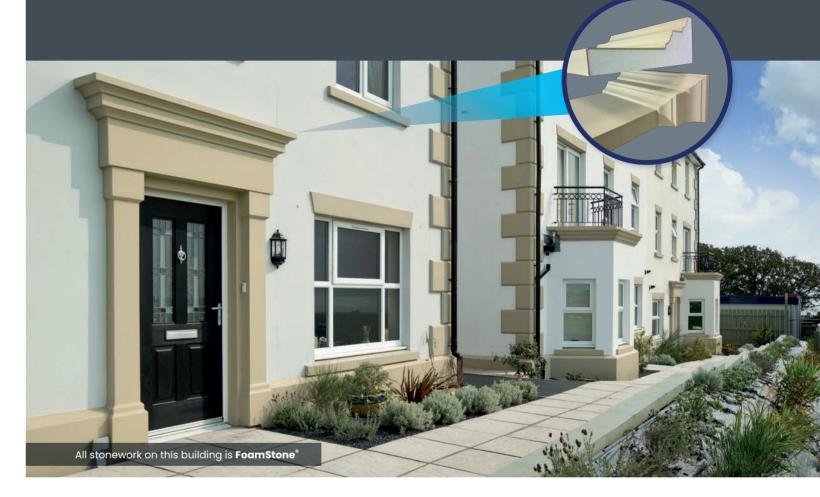
The practice achieved this diversity by employing a strategic approach to new business, and by partnering with other consultants. This led to a competition win for the Millom Iron Line recreational attraction in Cumbria.

'We don't [generally] do competitions. But we targeted that one as we knew it was a good fit. So we partnered with a really good team,' explains Appleyard, adding that the key is knowing when 'to go above and beyond to get your foot in the door' and when to bolster the team by joining with others. This paid off when it partnered with another consultant on a bridge design project. The practice is now on its fifth bridge commission.

Even after a decade of Gagarin, the directors feel they're just getting going. Looking ahead, they're hoping to use their architectural expertise to act as developers on their own ventures.

See more on business resilience at ribaj.com

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The going has got tough – how to take command

In a troubled financial climate, how can you strengthen your business? Our economics panel looks ahead to 2024 and picks out some key challenges - and active responses



What does 2024 hold for the business of architecture? At the RIBA Economics Panel webinar, ideas were discussed by Lai Wah Co, deputy agent of the Bank of England, Adrian Malleson, RIBA head of economics research and analysis, and a panel featuring Lianne Knotts, director, Medical Architecture, Robert Prewett, director, Prewett Bizley Architects, and Tom Foggin, director of RH Partnership Architects.

'We are in a strange environment where activity is sluggish and inflation high,' said Lai. Inflation may decrease to 5% by the end of 2023, but growth is weak, exacerbated by high wages and low productivity gains. Annual growth of just 0.5% is predicted for the next two years.

This background is certainly grim for our industry, agreed Malleson, basing his reflections on the Construction Products Association (CPA) and Glenigan forecasts alongside the RIBA's own latest Business Benchmarking and Future Trends reports. Both Glenigan (which works on the value of project starts) and the CPA (focusing on construction outputs) map 'a gradual slide into contraction in 2023, with a forecast for very modest growth in 2024' – insufficient to recoup this year's lost ground.



Naturally, the picture varies by sub-sector. Private housing is worst hit (Glenigan cites a 33% reduction in value), drastically affected by homeowners' reduced spending power. Small-scale private residential projects form 69% of small practice work; the Future Trends survey reports a pessimistic stance from this group despite a forecast increase of 7% in value for this sector in 2024.

Homes and offices

'Since the interest rate rise enquiries from private homeowners have fallen,' confirms Prewett. 'But we've heard from other types of client with longer term visions, such as private landlords and public bodies looking to develop strategies for their building stock.' An optimistic change in emphasis. Foggin has similar experience: 'Not a downturn in clients willing to commission work but a change in type... more sector-based clients with funding already in place.'

The commercial sector, particularly new offices in London, has cooled postpandemic (-11% forecast in 2023) too. But a shift towards office improvements, to attract home-workers back and to meet required energy standards, may prompt

LESSONS FOR PLANNING A BETTER BUSINESS

Diversify

If you have the capacity. explore what new sectors have to offer: if you operate in a niche, explore fringe offerings such as research. planning or other related areas. This affords more variety, spreads risk and improves your offering to clients.

Develop energy literacy

Not just within the realm of low carbon, but holistically. encompassing comfort and wellbeing; other professions are competing to position themselves as specialists within the sustainability consultancy space - take steps to get ahead.

Hold robust client conversations

Working with clients early to establish strategy and scrutinise viability helps derive best financial value from projects, crucial in these straitened times.

Cement your skillset

Pursuing qualifications and accreditations establishes your proficiency, which will in turn win the credibility of clients, versus those who make vague claims to expertise

Nurture your teams

Keeping a happy, wellinformed team that is satisfied with the types of work coming through the business is essential for a supportive, resilient working environment.

an increase next year of up to 19%.

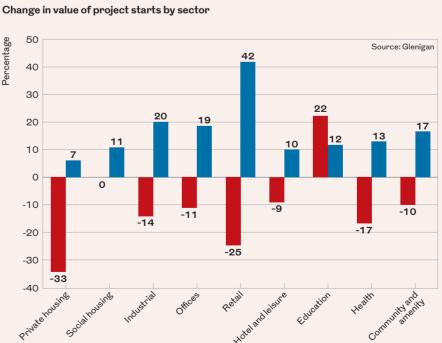
Retail is struggling long term due to online shopping but will improve in 2024 (perhaps to as high as +42%) thanks to out-of-town budget supermarkets. Moreover, around £5 billion, due from the government's Levelling Up fund to reinvigorate towns and cities in the north, offers a glimmer of hope.

Education and hospitals

Education and hospitals are constrained by government policy and the allocation of funding on 3-5 year plans, which have been severely eroded by inflation. Healthcare is forecast to reduce significantly (-17% in 2023) but it and education are predicted to reach +13% and he argues. However, other professions +12% respectively next year.

'The government's new hospitals programme is failing to deliver anything like what was promised,' says Knotts, 'and that has had a massive impact on our pipeline, with projects abruptly stopped and no indication of when they may pick up. We are seeing NHS clients having to divert budgets. We don't really anticipate change until the next general election.'

Conversely, her practice is seeing 'a new kind of work in refurbishment rather than newbuild', and this is true across many other sectors where, according to surveys from Glenigan,



the CPA and RIBA – work is picking up around retrofit, insulation, energy performance, solar panel installation, replacement of gas boilers with heat pumps and even area-wide networks. Prewett agrees: 'Government funding of £800 million is due to go into social housing retrofit' and there is 'increasing interest from certain homeowners and corporations who want to decarbonise'.

This could be an opportunity to build resilience: 'Traditionally architects have thought about building fabric and whole building systems, so they're well placed to pick up some of this new sort of work – especially if they can combine architectural skills with energy literacy,' are competing in the space (RICS has just published the Residential Retrofit Standard, for instance): 'Environmental engineers are increasingly sought by clients but others are vying for the retrofit market. Architects must position themselves with the right skillset and to think more widely about co-benefits. such as comfort and health, which are synonymous with low energy building.'

Foggin also emphasises the value of quality building and sustainability accreditation to win work. 'There is a quality assurance about a building that has been built to a certified standard,' he says. 'That really shines through when pitching for work.' Moreover, those who invest in the relevant qualifications can couch client conversations to 'bid for work in a more cohesive way instead of simply presenting oneself as a specialist'.

Diversification or specialisation

One point of divergence in the architectural market is based on practice size. While the Future Trends survey saw a dispirited response from small practices, this wasn't shared by medium to large practices whose diversified portfolios mitigate the private residential slump. 'There are always two competing considerations for architects,' explains Malleson. 'Do you try to cover as many sectors as you can, or do you choose one sector and strongly specialise?'

Diversity is more achievable for a larger practice, but specialising can bring success. Knotts has found it easier to divert staff from one project onto another since they all share the specialism. Within this niche the practice explores 'fringe' activities such as evidence-based research, devising NHS design guidelines and overseas work where it partners with other practices. Furthermore, 'what differentiates us is that we start our projects with a level of strategic planning', Knotts explains. 'That is even more important at the moment. We work with clients very early to work out where to get most value from their finances' - ensuring projects are viable from the outset.

The future is not all bleak. 'There is a lot of information sharing through regional RIBA branches,' says Foggin, who is also RIBA VP for membership. 'Many members are thriving and there are plenty of good news stories. Invest in the right people and keep those teams satisfied with the work being done; that leads to better retention,' he advises. The RIBA helps its members build resilience, including though Guerrilla Tactics (next date: 7 November), and the Business and Career Resilience Hub. Next year will be challenging, but survivable. As Malleson says: 'We need more and better buildings and that need isn't going to go away'. Sponsored by Milient

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3: Culture



Commissioned by the Municipality of Turin in 1928, five years after Giacomo Matté-Trucco's Lingotto factory for Fiat was completed, the city's International Fruit and Vegetable Market, opened in 1934, is proof that the modernist apple doesn't fall far from the tree. Designed by architect Umberto Cuzzi, and addressing Fiat over the railway tracks, two huge sheds, each formed of seven aisles of connected, reinforced concrete parabolic arches, face each other across a large central yard. Out of action for a period after Allied bombing, it otherwise remained in fruitful service to the city until 2002.

Stefania Miravalle explains, the market came into more contingent use. First, as a makeshift Olympics, followed by a short if glamorous stint as gallery space for Turin's Museum of Modern Art. But most interesting perhaps was its illegal occupation by over 1000 migrants from 2013, who turned it into a dormitory block on the grandest of scales. Sheltering there despite the abandoned building's propensity to leak, they were finally evicted in 2019, when Miravalle took this photo.

Vacant again in a post-Covid, cash-strapped world, the dreams for its regeneration remain; the most recent plan mooted was that it might take an academic turn as Turin's 'Institute for Artificial Intelligence'. Yet despite it all, the space somehow retains its inherent municipal grace; a paean to principles of 'long life, loose fit,' whose overarching dignity the migrants fully understood. Jan-Carlos Kucharek

Stefania Miravalle Sleeping Space, 2019 Nikon f810 with 24mm shift lens



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But since then, as Turin-born photographer athlete's hub during the city's 2006 Winter

ribaj.com The RIBA Journal October 2023

'RAAC revelations have compounded the mistrust of materials that anyone who followed the Grenfell inquiry must feel'

Illusion delusion

It's not just crises like RAAC or Grenfell that mean architects must keep on top of legal and regulatory issues. But delight and creativity are important too

The details of the Building Safety Act were released quietly in August, ahead of this month's deadline for compliance and one of the most significant pieces of construction legislation for a considerable time (see more detail on p40).

We knew to expect changes in the roles of dutyholders and that this could mean architects taking on more central roles on buildings as principal designers, where they might have otherwise been left to take the back seat. We also knew, although sometimes it was forgotten, that this would apply to all buildings, not just tall ones or those classified as higher risk.

At the same time, materials manufacturers are taking their turn to start cutting carbon. The shift from arguing about metrics to actually reducing embodied carbon in the making of our most heavily used materials is gradually feeding through to the market. We looked at developments in brick in the September issue, and this month we turn to concrete (page 50).

The RAAC crisis in schools has reminded us of the problems construction has with materials and building safety. Reinforced autoclaved aerated concrete that was thought to be safe-for-now if checked regularly has shown that it can collapse unexpectedly. The revelations have compounded the mistrust of materials that anyone who followed the Grenfell Tower fire inquiry must feel. The evidence showed that architects cannot take all marketing claims, technical literature or even tests at face value.

The most benign of ways to be bamboozled by a material is when one looks like something it is not. Critic Charles Jencks loved these games, as can be seen in the 'marble' that abounds in his one-time home, now gallery and museum Cosmic House. Paint effects mix happily with real stone. Co-founder of OMA and artist of the absurd, Madelon Vriesendorp, has now populated the house with her work. You would know her from the wobbly Empire State Buildings lying on the cover of Rem Koolhaas' book Delirious New York. In the house a line up of figures could pass for alabaster, but Vriesendorp laughingly punctures such pretension; they are the by-product of many comforting of cups of tea – Fiskars' scissors

Few could make us laugh with unhinged fun and the stirrings of unease like Vriesendorp does. But that sort of play, creativity and character is what architects need to hold onto, even as they absorb the implications of pages of legislation, battle with reducing carbon, and specify materials with a healthy degree of scepticism.

Cosmic Housework, an exhibition by Madelon Vriesendorp, Cosmic House, Holland Park, London to 31 May 2024 ONLY ON RIBAJ.COM Chris adds the

extra firepower I
need to help put
forward the most
compelling case
to the regulating
authorities
Hugh Petter of ADAM
Architecture opens

his contacts book:

ribaj.com/hughpetter

Below Swan Lake: Vriesendorp's milk carton swans take over the jacuzzi at Cosmic House.

sculpting plastic milk bottles.



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Living our best life

Muyiwa Oki sets out his ambitions as president, starting with a challenge to redefine our role as architects

In the month since I began my term as RIBA president, the built environment has been at the very forefront of public debate.

Troubling headlines reflect the anxiety that is created when the buildings we all depend on fail us. The RIBA has long voiced serious concerns about the condition of our public infrastructure. All eyes are now on the government to address the immediate safety risks to children and teachers and uncover the full scale of this concrete problem, as it's clear this doesn't stop at schools.

But, beyond the critical issue of reinforced autoclave aerated concrete (RAAC), these developments lead to the wider question of what we can and should reasonably expect from our buildings. Can we honestly say that we have a built environment that fits the needs of a contemporary, diverse and ambitious society? If not, how do we ensure that we do?

As you might imagine, my first month as RIBA president has been incredibly busy. I have been meeting stakeholders and partners across the industry and engaging with the considerable media interest my inauguration generated. These conversations have encouraged me and helped bring my priorities for my presidency into focus.

The defining question, for me at least, is whether we can re-imagine our role as architects. I don't wish to devalue the incredible things already happening across the profession, but I believe we have potential to go further and faster.

I think it's unacceptable that most of the homes built in the UK today aren't designed by an architect. I want to get architects on board - actively involved in addressing the country's most pressing issues. I want us to have a seat at the table. I want our ambitions to match the scale of the challenges that we face.

For me, this means broadening the definition of what architects do and where we do it. I want

Right Stephenson Hamilton Risley Studio's AVRO reuses old mill buildings. This RIBA Regional Award-winning project is an example of what happens when architects

to demonstrate that our skills and knowledge are being used in the places they're needed most. Our work shouldn't just happen in the practice studio. We must be well represented in the public and private sectors, in local government - and keep growing our presence in national policy decisions.

If we are to achieve this, I believe we must shift our thinking and answer some big questions. How do we safely put innovation front and centre? How do we ensure that sustainability is embedded in everything we do? What does our commitment to fairness and inclusion look like in practice? And how do we create the conditions that will attract the brightest and the best? Like all big changes, this must begin with a frank, and probably challenging, conversation.

In the coming weeks, I will present the RIBA governing Council and Board with my biennial plan. Once adopted, it will provide a framework for action. Within it are items that challenge the status quo. Some elements align with the RIBA's longer-term roadmap and others build on the excellent work of my predecessor, Simon Allford, who has left RIBA with firm foundations to further build on.

I want to take this opportunity to say thank you for all the incredible warmth and support I have received so far. I look forward to working with you all and I hope that you feel as confident as I do that architects can play a central role in delivering the prosperous future we all deserve.

CHINA SERVICE

The RIBA exhibition China explores a diverse array of to contemporary challenges. From urban renewal to rural revival. kaleidoscope of cultural dimensions.

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bring their creativity to the project.





Tyler Goodwin is a developer with a social conscience, who prefers refit and upcycling to demolish and rebuild. And he's nurturing the future generation too

Words: Hugh Pearman Portrait: Agnese Sanvito

Value added

Arriving at the Farringdon office of Seaforth Land takes me back to that time in the 1980s when young firms of architects were setting up shop there as the printers and watchmakers moved out. The same kind of Crittall-windowed light industrial walk-up building. The same steep, narrow stairs passing other companies on the way up; I note that John McAslan's London office is here, so it's established-names territory these days.

On the top floor, Tyler Goodwin's eyrie, the 80s feel continues. There's a dartboard, and a pingpong table doubling today as a temporary desk for paid interns. There's space in here for around a dozen people. The office is lined with salvaged, untreated Victorian floorboards. You could see this as a wealthy man indulging in poverty chic, but this is more an expression of values: his company upcycles buildings, extending their lives, adding or enhancing character.

As Goodwin - fifties, casually dressed in blue open-neck shirt - arrives in the meeting room, I'm taken by the change of scale of our surroundings since we last met in early summer. That was at Richard Seifert/George Marsh's 1968 Space House off London's Kingsway with its tremendous facetted modular precast concrete drum, from the same team (client, architect, engineer) and aesthetic mindset as the earlier Centre Point. Sizewise (there's a large linked rectangular block as well) it's the most significant retrofit project yet for Seaforth Land, the company Canadian-born Goodwin established in 2015 as the latest phase of an international career in finance and real estate: Vancouver, Jakarta, Los Angeles, New York, Hong Kong, now London. He's achieved his goal of running his own company rather than working in senior positions for others such as former employers JP Morgan and Deutsche Bank.

Below Renovation of grade-II-listed Space House is well under way, to designs by Squire & Partners. Works include two new office floors and a basement events

At Space House he cut an unusual figure, booming out details of the project in the street over the noise of traffic and construction. Here, it was obvious, was an enthusiast for buildings, especially the act of building, the difficult, physical, rewarding stuff. He is restoring and extending the grade II-listed Space House. This has included dismantling the cornice level of the building, adding a floor of new precast elements designed by Squire & Partners in consultation with original structural engineer Pell Frischmann, and putting back the cornice and setback drum on top, with previous ad-hoc rooftop plant clutter removed. So the complex is now that bit taller, it will contain 3,700m² of net extra space,



j.com The RIBA Journal October 2023

Culture Profile



Left Renovation of the 70,000ft² Wingate, on Soho's Shaftesbury Avenue, targetted a Breeam Excellent rating.

Right Groupwork clad a 1970s office building in Bleeding Heart Yard with a 'memory veil' of perforated metal which takes its shape from Victorian shops previously on the site.



RICHAR

but I'm betting most people will hardly notice.

Seaforth's earlier projects were relatively conventional light-touch refurbs. Several onceboutique development firms started out doing that kind of thing, not least Derwent London in the 1980s, a name which crops up several times during our conversation and which Goodwin much admires. He has a 1980s corner building in Spitalfields to show, spruced and opened up, its unfashionably PoMo brickwork painted over in mid-grey, which is a very early-Derwent sort of property. But unlike such developers, Seaforth is not publicly listed, and does not raise its own finance: it acts as the operating partner alongside investors. As it found its feet and found those investment partners, the level of ambition and scale of projects rose.

A prime example – a building that Goodwin waxes almost evangelical over – is The Wingate (previously Wingate House) on Shaftesbury Avenue, Soho, an accomplished 1958 curtainwall building by Sir John Burnet, Tait and Partners with a high-level Museum of Modern Art-influenced canopy. Finely detailed, this looks bang up to date today in its renovated, faithfully reglazed state – still with the famous Curzon



Left ODOS
Architects' renovation
of Spitalfields House
gave presence to a
once-anonymous office
building.

Right Swiss bank Julius Baer was attracted to 8 Bleeding Heart Yard by its character and strong ESG credentials, despite its distance from the heartlands of finance. Soho cinema and a casino in it, and seven floors of offices above. Goodwin remarks: 'Most people saw this as a knock-down'. The usual arguments about mean floor-to-ceiling heights were given. Partly saved by celebs such as Stephen Fry and Benedict Cumberbatch getting behind a campaign to save the Curzon from demolition, it seemed to Goodwin a prime refurb opportunity, something he did (in a joint venture partnership) with tenants such as Bank of China and the Curzon still in occupation. Stripped back internally, it has become a vogueish kind of place, commanding good rents.

If Space House is ambitious, it has what might be regarded as a conventional commercially-savvy firm of architects, Squires, at the helm. Things got rather more outré at Seaforth's just-completed 8 Bleeding Heart Yard in Hatton Garden. There, a nondescript 1970s office building has been encased in a perforated bronze-aluminium rigid veil that mimics the mouldings of an earlier Victorian commercial building on the site. Rooftop extensions are in cross-laminated timber and the whole place is massively insulated and BREEAM-accredited 'very good'. The architect is the always adventurous and sustainability-minded Amin Taha of Groupwork



MOTHY SOA

ribaj.com The RIBA Journal October 2023

Goodwin sees all this as proof that the rising generation is not interested in working in featureless new glass-box workspaces. They're into conversions in the same way they are into vintage clothes, he says, it's the same attitude. Would he do a newbuild himself? 'I don't feel good about building commodity offices,' he says, but mentions that there was one decommissioned police station that he once had plans to demolish and rebuild/extend, salvaging its materials. That was a Thomas Heatherwick project that didn't happen. It's re-use that drives him, and he's now got enough projects under his belt to prove his contention that upcycled existing buildings can be 'core', in real estate jargon, as much as new ones.

He chose London for his start-up because, he says, with New York it's still one of the world's two leading 'global gateways', and because his method of financial-partnering is unusual here. And London has the stock. 'We're tracking 170 assets, all available to buy: we're 30 minutes from any of them.' Two – one a life sciences building, the other a potential conversion of an office block into



Left The 10,300ft² column-free floorplates at Space House span 9.5m to the facade. New chilled beams are being installed in exposed radial ceiling coffers.

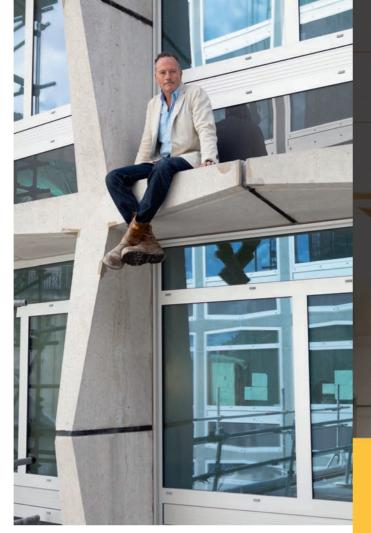


serviced apartments – are looking likely.

The name Seaforth? It comes from the Canadian Seaforth Highlanders, a regiment with whom Goodwin did a military cadetship in his youth. 'The name's about integrity, esprit de corps.'

This son of an Irish immigrant to Canada is keen on something else: social mobility. 'This industry is 88% old white guys. So we decided to engage with local sixth-formers to increase engagement, especially with youngsters of colour. Every quarter, 15 to 20 kids come in, and we give a teach-in. Those who want work experience here, we pay the London Living Wage.' Beyond that, there's the 'Seaforth Scholar Programme' which essentially gives a one-off grant to young individuals wanting to take things further, with an eye on entering the industry. His is only a small firm, says Goodwin, but this approach is 'eminently scaleable' across the development industry.

So here's a finance guy who cares about improving existing buildings sustainably, and walks the walk when it comes to getting that done, with an eye to the future. 'It's a legacy business, not a lifestyle business. In 20 years' time it's important for people to be able to look back and see that you meant what you said at the outset.'



RIBA Academy:
Autumn
and Winter
highlights

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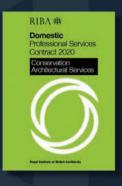


















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Culture Review

What buildings are actually for

AR's 1969 Manplan editorial series, focussing on people's use of architecture, was radical and illuminating, and remains highly relevant, writes Pamela Buxton

With its radical approach to architectural photography and campaigning zeal, the Manplan series by the Architecture Review in 1969-70 retains its potency more than half a century on.

Here, the buildings aren't often the heroes. Instead, the reportage style of photography captures how people experience space – children careering around the concrete playgrounds of their estates, a lonely-looking woman peering out of an old people's hostel window, or a peakcapped man walking his dog in a desolate urban landscape. And sometimes it's just about the people, whether out of work in the dole queue or en masse at an anti-apartheid demonstration.

It was 'undoubtedly hard-hitting, radical and original' according to RIBA Photographs curator Valeria Carullo, lead curator of Wide-Angle View, a new RIBA exhibition on this highly experimental endeavour, which caused controversy thanks to its uncompromising content and powerful presentation.

The eight Manplan issues (the original intention was to run 20) were a response to societal issues of the day, says Carullo, when 60s idealism was giving way to disillusion, a sense of failure, and of the need for change.

In many ways, this ambitious and extremely critical reflection on the impact of architecture and planning was in the spirit of other AR campaigning issues such as Ian Nairn's Outrage. Writing in 2014, academic and post-war architecture historian Stephen Parnell described the Manplan series as 'something of a tantrum' by the magazine's proprietor/editor Hubert de Cronin Hastings, who was dismayed at the failure of post-war modernism to make a better world.

Rather than plan purely for efficiency, explains Carullo, Manplan advocated for a more holistic approach to design and planning driven by human needs, and for architects to play their part in understanding and delivering this.

Kicking off with the bleak introductory



Tony Ray-Jones' photographs of low-rise linear housing at Tavy Bridge,
Thamesmead (above), and at Pepys Estate,
Deptford (below), both by Greater London
Council Department of Architecture & Civic Design.

Wide-Angle View: Architecture as Social Space in the Manplan Series 1969-70 13 September – 24 February, RIBA Architecture Gallery 66 Portland Place, London W1B 1AD Wide Angle View: Architecture as social space in the Manplan series 1969-70 Ed. Valeria Carullo, RIBA Publishing, PB,



opener Frustration, further issues tackled key sector themes such as housing, education, religion and health and welfare, which included examples of successful buildings. The aim was for later editions to cover issues such as waste, energy, and the impact of industry on the environment.

'They wanted to do something quite radical to expand the readership and attract a younger readership,' says Carullo. This editorial purpose coincided with a commercial need to boost circulation – and advertising revenue.

The presentation of the Manplan content was a complete departure from conventional architectural publishing, thanks primarily to the commissioning of street photographers such as Tony Ray-Jones, Patrick Ward and Ian Berry, who were pretty much given free rein. Ray-Jones' evocative photos of housing estates in Thamesmead, Deptford and Greenwich in southeast London are particularly memorable.

'There was this major shift from focusing on architecture to focusing on people inhabiting architecture and urban spaces,' says Carullo.

The photography was combined with a bold, punchy graphic style. This was especially the case in the first issue, described by Norman Foster – who guest edited Manplan 3 – as a 'critical questioning of the consumer society as it had emerged in the 1960s'. In Frustration, photos were presented in black and white using a matt black ink, sometimes amid large expanses of black, and with only short, caption-like text. Subsequent issues were to become less sombre and more text-heavy.

Loved by some, hated by others, the Manplan series was not a commercial success. Hastings was the only editor to win the RIBA Gold Medal.

What's striking, says Carullo, is that so many of the themes raised in Manplan – inadequate housing, the post-industrial city, loneliness and poverty – remain pertinent today. 'They could be talking about now,' she says.

ribaj.com The RIBA Journal October 2023

Co-founder of Landolt & Brown, perfectionist, problem solver and strong believer in the role of good architecture



Jan Landolt 1965 – 2023

Jan Landolt, who has died unexpectedly at the age of 57, was a gifted and thoughtful designer whose work reflected his exceptional attention to detail and his deep-seated belief in the civic role of good architecture.

Born in 1965, Jan attended the Oratory School from the age of seven, where we first met and formed a lifelong friendship. He was an outstanding rugby player and a regular in the school team, one of the fastest on the 100m track and a strong tennis player. He had academic strengths in maths, physics and economics, but also excelled in art. Architecture was an obvious way to combine his natural talents.

He studied architecture at Canterbury School of Art, spending his year out in Powell and Moya's office. Jacko Moya's modernist approach and commitment to well-crafted buildings had a significant impact on Jan's own view of what constituted good architecture.

After graduating in the recession of the early 1990s, Jan left for Hong Kong where he was taken on as an assistant at Foster Associates, working first as part of the Chek Lap Kok airport team and then on the KCRC interchange. The Foster team in Hong Kong became a tight-knit group that remain close friends, with Jan at the centre. In 1997 he returned with his young family to the UK but continued his career at Foster's in Battersea, working on Citi Bank and HSBC in Canary Wharf. From the early 2000s he often travelled to New York and was made a partner in 2002.

After his 15 year spell at Foster's, Jan and I launched our own practice, Landolt + Brown in 2006. From the start, our combined experience in infrastructure design – mine gained at John McAslan & Partners – made that the backbone of the practice's work. Jan's natural aptitude for complex problem-solving and his experience at

Foster's meant he excelled in large, multi-faceted projects. He approached his work with wisdom and foresight and fought tirelessly to protect design quality; since its formation the practice has won numerous design awards from the RIBA and others. Jan led several of the practice's largest commissions including Bank Bloomberg Underground Station and three stations on the eastern arm of the Elizabeth Line.

Jan was a deep thinker and a man of great humanity and kindness, caring deeply for his staff and the professionals he worked with. He was a perfectionist when it came to design quality and an exceptional draftsman, producing elegant hand drawings of many of the practice's projects.

Jan always thought three steps ahead of those around him; colleagues were often baffled by his obsession with resolving a particular design issue which others though were 'for the next stage'. I remember with great fondness his meeting chair shooting backwards as he clapped his hands, saying 'There, I told you so,' and giggling to himself for a minute or two after. Everyone laughed along. He was always right, and those who worked with him learnt to trust his judgement and enjoy his wry sense of humour.

At home in south London, Jan was an excellent cook, proud allotment keeper and skilful printmaker. More recently he became particularly interested in neoclassical architectural etchings, visiting Sir John Soane's Museum archive to study original Piranesi prints and setting up his own etching studio.

He is survived by his wife Petra, a design event organiser and landscape designer, daughters Ania and Jana and son Kai. All three are talented designers, clearly influenced by Jan's passion for good design.

Adam Brown is co-founder of Landolt & Brown

IN MEMORIAM

Roy Rex Dixon

ELECTED 1957, WORTHING

Robert Phipps Hart

James Lidster

FLECTED 1965, GUILDEORD

Peter James Allan

ELECTED 1967, WOKING

Michael Antony Fearne ELECTED 1968, SHEFFIELD

D Colin James

Raymond Pye

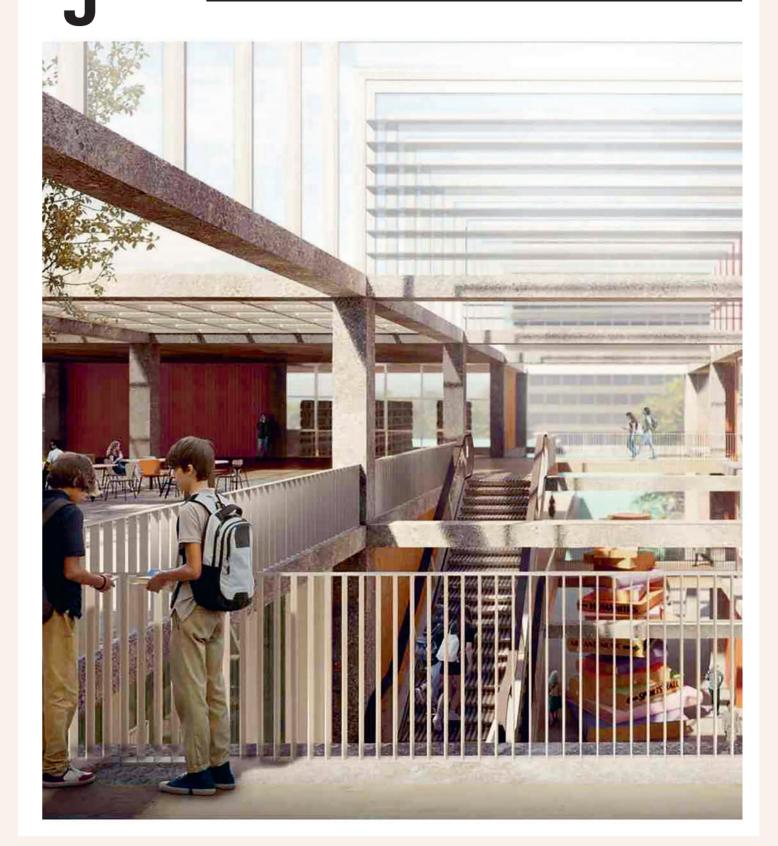
Brian Donald Ardron

ELECTED 1972, TUNBRIDGE WELLS

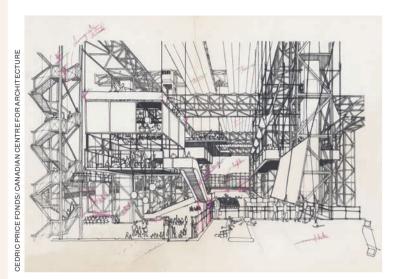
To inform the RIBA of the death of a member, please email membership, services@riba.org with details of next of kin



RIBA Department 4 Education



Entries so varied in thinking



Above Cedric Price. Fun Palace: interior perspective 1960-64. Pink and green pencil on reprographic copy 26.67 x 40.4cm.

After sitting in on the judging of the 2022 West Fraser SterlingOSB Zero/RIBAT competition (now in its ninth year) and finding it so interesting, I jumped at the offer to be part of the 2023 judging panel. The entries this year were so varied in thinking, and really made us question what it was we were looking for.

At West Fraser, we are constantly striving to find out more about how we can assist architects in their work. With carbon neutrality being a target in all sectors by 2030, we hope that our carbon-negative UK-manufactured panel products can contribute to these efforts.

Judging alongside industry professionals gave me a better understanding of the challenges that architects may come across between their designs and real-world application. I am also stronger now in my technical knowledge and questioning, so am looking forward to working with our team and looking at how we can inspire architects.

I'd like to thank all of the judges for their time and input and for their reserves of knowledge of the processes that go into building a structure. But mostly, I'd like to thank not just our winners but all the practices and individuals that offered both their time and imagination to enter this year's competition. Claire Ironside, Marketing Executive, West Fraser Europe

Produced by the RIBA Journal in association with West Fraser

Supplement editor Jan-Carlos Kucharek Writer Michèle Woodger Design Richard Krzyzak Sub editor Simon Aldous Cover image Edwin Jones Academy – Paul Cashin Architects & Keith **Evans Architects**

Retail conversions underpinned by an essence of fun

When Cedric Price and theatre director Joan Littlewood conceived of their 'Fun Palace' in 1960, a scheme that was never realised, they envisaged a 'university of the streets' where the flexible framework of the building could accommodate the changing programmatic needs of its users. It could be a place, they said, where people would 'choose what you want to do – or watch someone else doing it. Learn how to handle tools, paint, machinery, or just listen to your favourite tune ... or just lie back and stare

Something of this essence of fun and learning is found in all of the winning. commended and longlisted entries to RIBAJ and West Fraser's Department 4 Education ideas competition, which called on entrants to redevelop a department store, redundant or not, into a mid-sized secondary school.

From Darling Associates' commended entry The Hive, with its hexagonal insertions enlivening the atrium, to Pick Everard's ReStore-ED (vaguely reminiscent of the Grange Hill title sequence) which flips the pedagogical model on its head to encourage students to 'shop' for the lessons that interest them, each of the entries attempted to make sense of and reconfigure what is meant by the school experience what judge Chithra Marsh described as 'challenging the construct of education'.

As Pick Everard said in its entry description, its aim was to 'restore the purpose of school as an inclusive, fun, safe place for learning, while also benefiting the community and generating revenue'.

The competition itself attempted to engage with two challenges facing today's society: a need for more secondary schools to accommodate a

growing population at a time of limited money and resources; and the demise of the department store – once a feature of our town centres but now a victim of the diminution of our high streets and the shift to online retailing/shopping. Grand, historic, buildings, some listed, are now vacant, dilapidating and wasting precious space and resource. Is there anything we can learn from these historic store buildings to re-evaluate our understanding of schools?

The brief asked respondents to choose any UK department store and reconceptualise it as a secondary school for around 750 pupils. Using SterlingOSB Zero as a key component in the materials palette, the designs had to consider the challenges of introducing the complex programming of a school (laboratories, classrooms, sports facilities, dining areas) into a former dedicated retail space with a deep plan. While creative thinking was encouraged (this is a schools competition!) it was equally important that the material properties of SterlingOSB Zero

The entries were diverse and interesting, with many choosing to focus on the civic aspects that the school and department store typologies share

should be respected and not misapplied (such as untreated as external cladding or bent implausibly).

The entries were diverse and interesting, with many focusing on the civic aspects that the school and department store typologies share, as well as the contextual backgrounds to the transformations. Allan Joyce Architects' longlisted New School Street conducted substantial research into the historic urban context of Nottingham, to ingrate 'jitties' (alleyways) into the heart of the school. BDP's commended Learning Oasis in the City, meanwhile, used its designs to enter into dialogue with the historic landmark of Exeter Cathedral.

The winning entry, Edwin Jones Academy, by Paul Cashin Architects & Keith Evans Architects, succeeded in achieving all of this by connecting the new school with surrounding pedestrian retail streets, parks and a historic route in Southampton. It also restored a historic building and introduced vernacular details which reference Southampton's docks - a level of detail and consideration that stood out.

The judges praised the winners for their thorough considerations. 'Architecturally it is bold, it is resolved, it is compelling and I like the urban consideration,' said judge Holly Lewis. 'It feels like the real thing.'

As ever, the best examples, those that were commended or longlisted, were those that successfully challenged and questioned what is understood by the school typology, marrying their designs with a celebration of SterlingOSB Zero for a sustainable, affordable, flexible and future-proofed school of the future in a retail space of the past.



co-founding partner. We Made That



marketing executive, West Fraser Europe



Stephen Proctor. founding director. Proctor & Matthews Architects



Chithra Marsh director, Buttress Architects



Jan-Carlos Kucharek. deputy editor, RIBA Journal (chair)

The RIBA Journal October 2023 The RIBA Journal October 2023

Main image Judges felt the building not only made sense internally but engaged

First place (£2,500 prize) Edwin Jones Academy

Paul Cashin Architects & Keith Evans Architects - Paul Cashin, Keith Evans, Amy Blencoe, Alan Clarke

Praised by judge Holly Lewis for its 'radical retrofit', Edwin Jones Department Store in Southampton is transformed into a secondary school with community learning spaces.

Remodelling entails 'additions and subtractions', the architects comment, and these structural interventions into the exposed concrete frame make extensive use of SterlingOSB Zero as part of a simple and robust materials palette – manufactured offsite as modular cassettes. Corrugated external cladding refers to Southampton's shipping container port.

The school's public face is created by opening the existing building frame around the edges, connecting to the civic realm. The ground floor accommodates shops to East Street while, to the north, community sports spaces connect to playing fields in Hoglands Park via a reopened route through the site.

Pedestrianising the intermediary Houndwell Place further connects the school to the sports pitches, with the welcoming colonnaded entrance accessed from Queensway. 'The design links areas in a very simple way,' praised judge Stephen Proctor. 'It properly engages with the context of the town.'

The school itself is arranged with a two-storey teaching wing to the north and south, with the halls, library and external spaces on levels inbetween, separated by two full-height atriums. The building environment has a mixture of enclosed and open spaces with circulation covered but open to the elements for daylighting and natural ventilation. 'If you look into it, it comes alive,' said Proctor.

External terraces on various levels feature a wildflower garden, while the upper roofs have orchard planting alongside solar panels for a netzero operation.

'I like the thought that went into it,' said judge San-Carlos Kucharek. 'It feels real — a space that could work, with a palpable sense of identity.' Lewis added: 'They have been bold with messing with the existing building. I like the urban consideration, the modular elements and using SterlingOSB Zero for something that is repeated across the building is also sensible. It has an architectural ambition.'



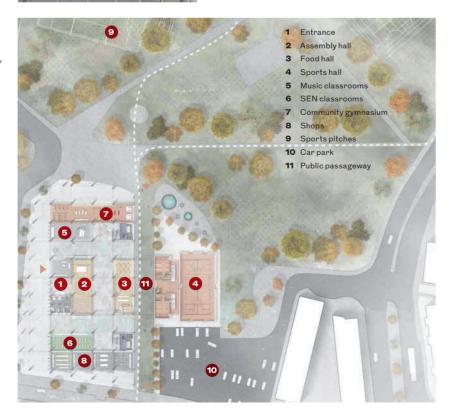


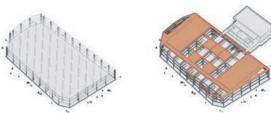
Left The existing Debenhams (formerly Edwin Jones) department store.

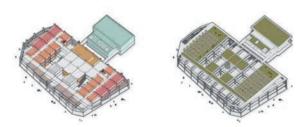
Below The proposed school is embedded in its context.

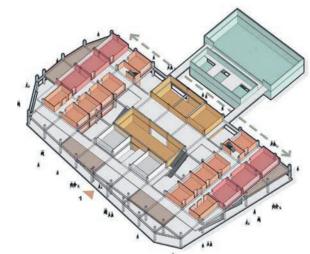
Right Structural grid, new openings and

programme, and green roof.









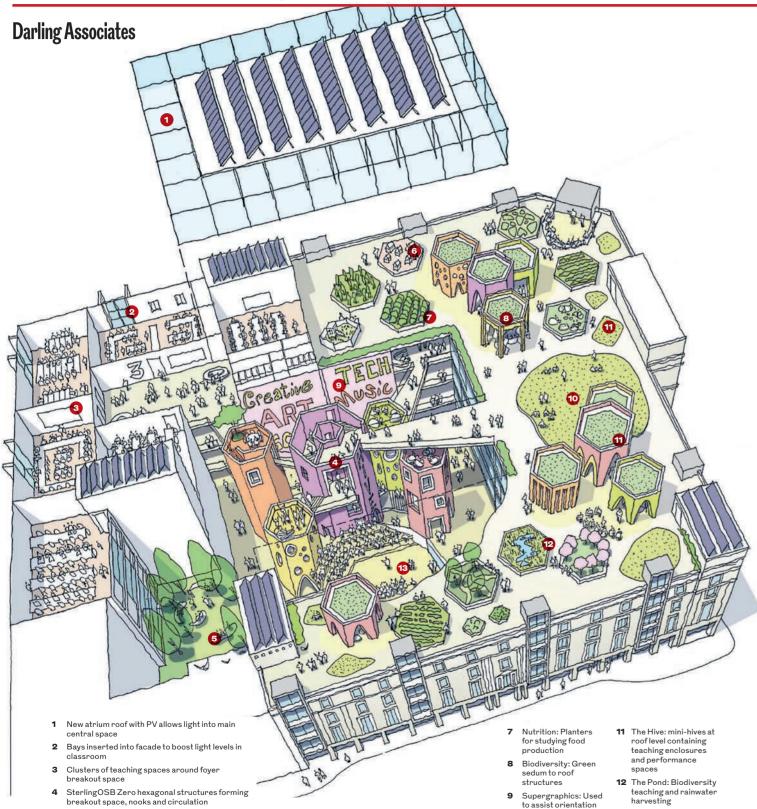




5 Green courtyard from existing lightwell

6 Wildlife: Bird boxes integrated into new

Commended (£500 prize) The Hive



A former Debenhams in Bath becomes The Hive, a school where students 'experience an interactive and varying exploration of what the school has to offer', according to its architects.

The scheme removes six central structural bays from the shop, creating a four-storey void into which the focal Hive structure is built. This collection of hexagonal SterlingOSB Zero constructions offers breakout spaces, quiet nooks and work showcase areas as well as the main circulation between the floors. SterlingOSB Zero panels are finished in bright colours and graphics to denote different uses and identities. 'I felt the fun in it,' praised judge Chithra Marsh. 'I felt that these incidental spaces would be great for kids, where they could change the environment every day.'

At ground level is an auditorium space for assemblies, performances and a refectory. Around the Hive, on a typical floor, are three zones of themed teaching spaces (such as music, science and art) with four or five classrooms centred around a breakout foyer.

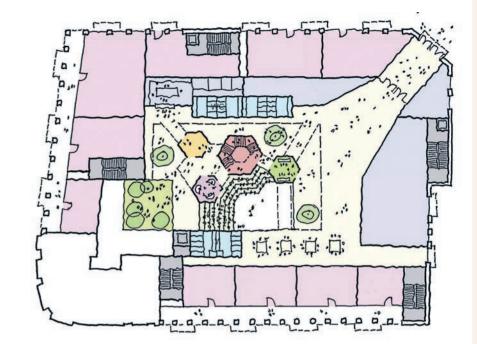
A part-glazed roof sits over the central void with bridges connecting to the surrounding roof level. There, further SterlingOSB Zero structures and raised beds, vegetable gardens and micro orchards provide direct experience for students to understand how food is grown.

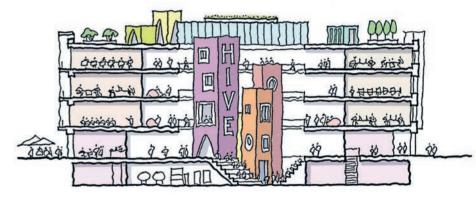
'I liked the idea that this is a little feasibility study,' said judge Stephen Proctor. 'It is thought through and drawn with confidence ... I like that it is a little city within the school.'

Top right The ground floor of The Hive is surrounded by commercial space (in pink) while a lightwell allows the courtyard to be used as a breakout space.

Middle right Section showing the organisational nature of the SterlingOSB Zero timber hexagonal element in the centre of the building.

Bottom right Bird's eye view of the former Debenhams department store in Bath.







OSB panels are finished in bright colours and graphics to denote different uses and identities

harvesting

13 Auditorium assembly space can be used as informal refectory

and area identity

10 The Lawn relaxation space for students

Commended (£500 prize) ReStor-ED

Pick Everard - Kieran Dyer, Jill Murray, Adam Ayub, Jonny Edwards

Re-StorED

'Why is school not fun? Is it really fit for purpose in modern society?' ask the designers of ReStor-ED, a proposal that explores (via an engaging cartoon) a new pedagogical model.

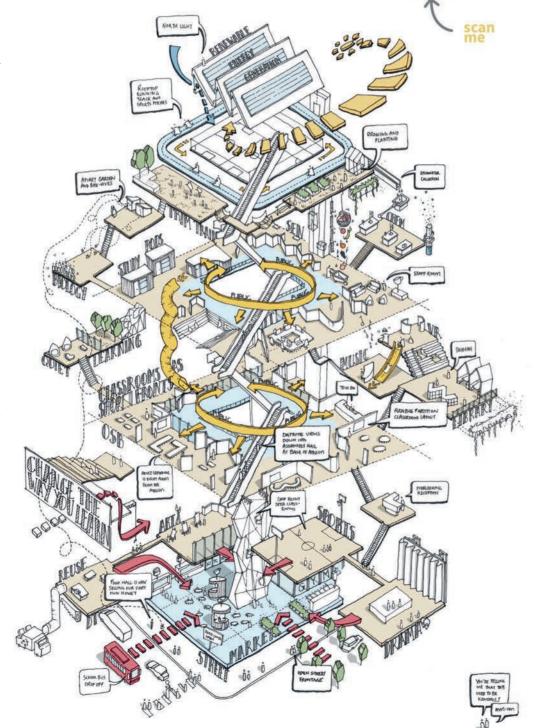
Using Manchester House of Fraser as the host site for a SterlingOSB Zero kit-of-parts design, the concept extracts principles of the retail environment and applies them to an education setting. Departmental shop windows advertise curriculum areas to encourage students to invest their time in a subject, 'shopping' for a future.

This attempt to shake up the system appealed to the judges. 'It gets across a bigger idea about [the typologies of] a department store and a school, how one informs the other and reimagining the school model,' said Holly Lewis.

The possibilities of shared school-community facilities include recycling, socialising, entertainment, sports, commerce, digital resources and lifelong learning. An active street frontage establishes the school as civic focal point while in the building's corners, green spaces promoting biodiversity offer tranquil gardens for special educational needs students.

'They have tried hard to show what the concept is,' praised judge Chithra Marsh. 'They have thought it through, right down to the furniture' An OSB climbing wall adds an element of fun.

Right Pick Everard's 3D visualisation in cartoon form effectively communicated to the judges the proposal's innate sense of fun.



Commended (£500 prize) Learning Oasis in the City

BDP - Teresa Tirado, Theclalin Cheung, Amy Whitehead, Gwyneth Chan

'How can we improve and enliven a city in an environment which is mostly built?' was the challenge set by the designers of Learning Oasis in the City, which looks closely at Exeter's urban condition.

Taking a retail unit in the Guildhall Shopping Centre, their strategy was to develop a framework that could apply in other settings to create schools with civic purpose. 'It is a design that takes on a lot,' said judge Chithra Marsh.

Through the removal of several challenging features, the design creates a

street through the school – a 'heart space' – which also brings light to the deep plan, with modular SterlingOSB Zero learning pods, set into the existing structure.

Strategies involve child-friendly and accessible designs, biophilic walls and an emphasis on bringing the community in by providing access to the sports and dance facilities. These measures, say the designers, reinvent the school as a non-exclusive ecosystem and encourage city-centre porosity (physical and psychological).

'The community access becomes a beacon for the school and the city,'

'I can imagine Exeter Cathedral, looking down on this magic carpet of modular pods,' said judge Stephen Proctor. 'I like the little perspectives under the big section – it is charming – and the way it looks up to the cathedral; there is an urban connection.'

'They have viewed the building as a city element, from the macro to the micro,' added judge Jan-Carlos Kucharek.













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Longlisted

New School Street Allan Joyce Architects - Maria Lucia D'Alessio, Olena Tsymbaliuk, Oliver Cradock, Francesco Sechi

The closure of Debenhams on Nottingham's Old Market Square leaves a prominent 19th century Grade II listed building vacant. The proposal integrates Nottingham's urban context and the building's retail history into the school.

The Debenhams is deconstructed with jitties (alleyways) introduced to return it to a collection of multiple structures, streets and courtyards, forming learning spaces. Building facades made from SterlingOSB Zero face these new 'streets'. The spatial arrangement is of stacked facilities, and the new streetscape is a circulation hub with stairs, ramps and slides bridging overhead while providing inherent compartmentalisation for school departments. It is enclosed with glazed structures, allowing natural light into the deep plan and directly relating to the city.

Judge Holly Lewis said: 'I really liked it; feeling like part of a high street, schoolchildren walking around, reading it as a different kind of school with infrastructure to make it function in that way.'



Above Picking up on Nottingham's 'jitties', a local urban typology redefines the learning environment at Debenhams in Old Market Square

House of Education – Studio Sutton

This proposal takes on the contested art-deco 318 Oxford Street, until last year a House of Fraser, boldly reimagining it as a school and sixth-form college with shared public facilities. It's key conceptual move which reminded judge Claire Ironside of Reiach and Hall's Glasgow College – is to divide the building diagonally in section using a grand SterlingOSB Zero stair, defining two separately accessed zones.

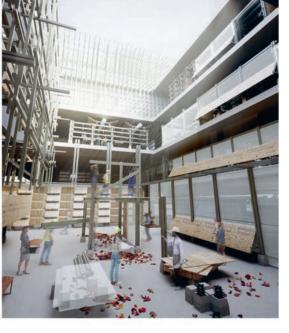
Below the stair and towards Oxford Street are an auditorium, library and gym, shared between school, college and public. These are separated from the school, accessed from the guieter entrance. A playful roof extension provides recreational spaces and gardens.

In the atrium, retained concrete beams and columns provide a legible historic framework, into which SterlingOSB Zero elements are inserted. This provides a warm contrast in colour and texture as well as a robust and durable finish.

'I think it does look busy like a city would,' said judge Chithra Marsh. 'I like the varied activity on the roof too; they have used every part of the building.'



Above London 318 Oxford Streinvented as a school with interiors as imagined by Studio Sutton.



ove Hamilton looks to Segal and Kuma as inspiration for his kit-of-parts timber learning centre'.

Building Futures – Niall Hamilton

With inspiration as diverse as Walter Segal, Kengo Kuma, and Lucien Kroll's University of Louvain, Building Futures proposes a kit of parts system to revive a Plymouth department store as school.

A SterlingOSB Zero grid allows OSB panels to be added or removed in myriad permutations for different learning spaces. All offcuts are reused - as desk furniture, material for DT classes and so on.

Hamilton explains: 'Students would be taught via the very process of designing the spaces that they study in; instilling in them values of materiality, light and atmosphere that architects always aim to convey.' The kit of parts system encourages experimentation and bespoke arrangements for each, depending on need. 'This represents the idea of "dialogism" from Mikhail Bakhtin with the user and the architectural space,' the architect adds.

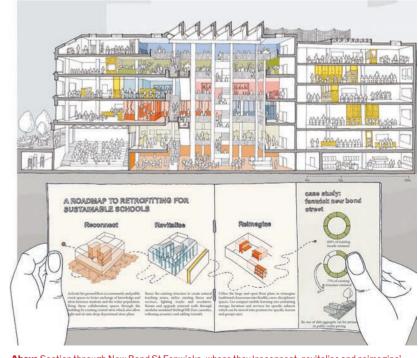
'I like the single mindedness of its dedication to flexibility and to OSB,' commented judge Jan-Carlos Kucharek.

Regrowing Schools - Rachel Foreman, Ru Quan Phuah

'Current solutions to the shortage of secondary school places are short-sighted, often resorting to constructing new schools on greenfield sites,' argue the designers. They use Fenwick on New Bond Street as a test case for a threefold strategy for universal application: reconnect, revitalise and reimagine.

Reconnecting involves tapping into the existing accessibility to the store to attract public footfall, activating the ground floor as community space. Revitalising entails converting the Grade II listed building, retaining the traditional facade, columns and slabs, insulating walls with SterlingOSB Zero faced cassettes, and providing openable rooflights above each atrium for natural ventilation and light into the deep plan.

The destruction of traditional classrooms bound by walls would empower teachers and students to reimagine learning spaces via flexible, moveable and compact SterlingOSB Zero mobile learning sets. Judge Holly Lewis praised the 'explicit roadmap for change; a way we can approach these buildings elsewhere that was made clear'.



Above Section through New Bond St Fenwicks, where they 'reconnect, revitalise and reimagine'.

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Culture Parting shot



Trafalgar Road housing estate London, 1968

The Trafalgar Road estate was designed by Glasgow-born James Gowan for the Greater London Council shortly after the split with his former architectural partner James Stirling. Consisting of four-storey terraced maisonettes arranged around a courtyard, it drew a degree of inspiration from the work of the Amsterdam school. The Architectural Review indeed described it as 'an astonishingly Dudokian quadrangle of severe, precise and formalist red brick' in its special issue on housing of September 1970, part of the pioneering Manplan series. Here Gowan's housing complex is unequivocally considered an outstanding example of what can be achieved with a limited budget: 'Throughout

there is a sense of responsible architecture - money spent on essentials, not frills'. To compensate for the starkness of the scheme, caused by cuts in the original budget, Gowan produced a personalisation kit for householders, who would be able through a tenants' co-operative to sponsor various clip-on elements such as balcony covers, porches, screens, trellises and conservatories, as well as colour and pattern. This beautiful image of the estate was captured by the influential British photographer Tony Ray-Jones (1941-1972). • Valeria Carullo

'Wide-Angle View: architecture as social space in the Manplan series' is at the RIBA Architecture Gallery until February 2024. See review, page 83

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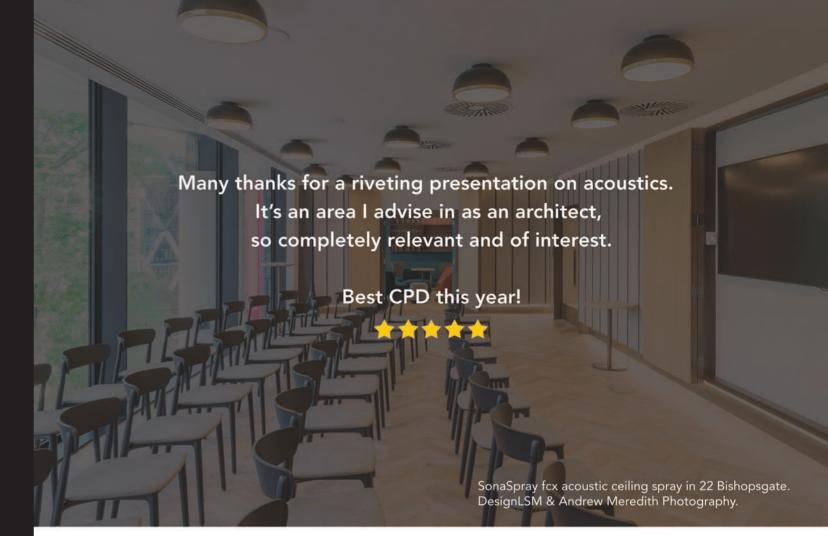
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RIBA Journal ribaj.com Published by RIBA 1834 Ltd Registered office: 66 Portland Place, London W1B 1AD

Reprographics by PH Media Printed by Warners



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