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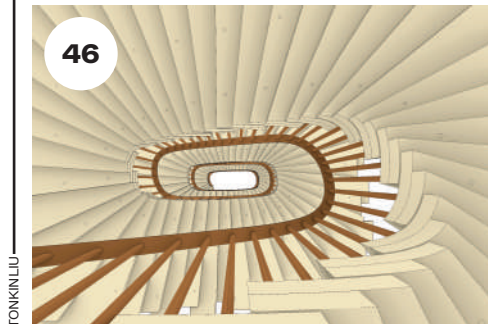
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The cowshed at Shatwell by Clancy Moore, photographed by Sue Barr

Cultural intelligence is the capability to work and relate effectively with people who are different from you

Marsha Ramroop explains how broadening your horizons can make you better in business: ribaj.com/inclusion-cq2



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

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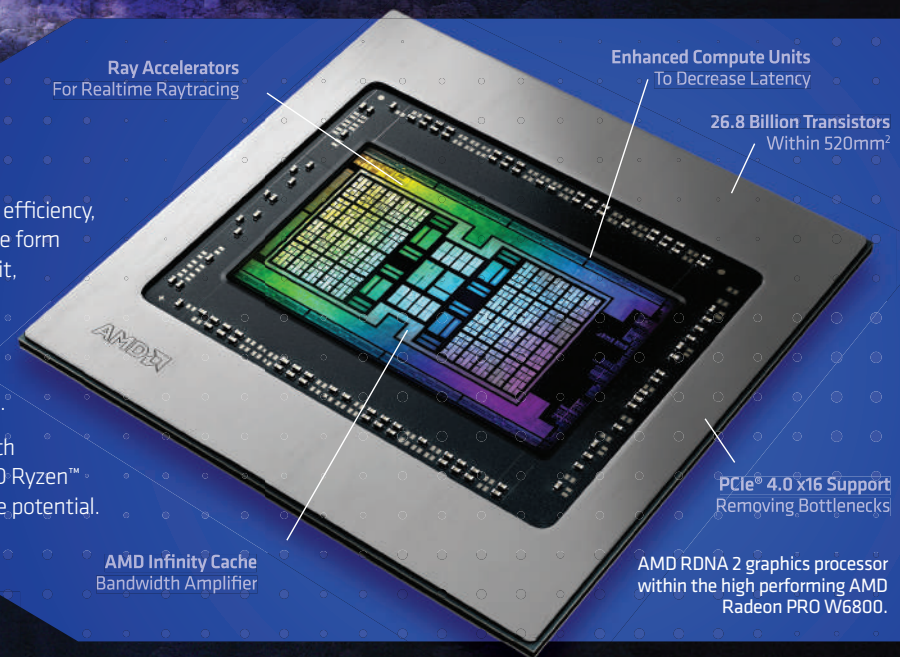
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07

1: Buildings

M+ MUSEUM,
HONG KONG
HERZOG & DE MEURON
Read the full story:
ribaj.com/m-plus

Inaugurated last November, Swiss architect Herzog & de Meuron's M+ Museum in Hong Kong is 'Asia's first global museum of contemporary visual culture' and aims to put the territory on the cultural map. Eight years since the firm's competition win, it was built with local architect TFP Farrells and engineer Arup – its inverted 'T' section acting as an anchor for the new West Kowloon Cultural District. This Foster + Partners masterplan on reclaimed land includes a 23ha public park which will connect to Kowloon via an avenue of cultural facilities, of which only the Xiqu Centre at the east end exists.

Contained on a plinth of striking horizontality in counterpoint to the city around it, M+'s 65,000m² has 17,000m² of dedicated exhibition spaces spread over 33 flexible gallery spaces, with an open ground level allowing access from all four sides. The new M+ isn't just an art gallery; it houses three cinemas, a mediatheque, learning hub, research centre, shop, bars and restaurants, and

is notable for its 'Found Space', the volume between the building and the MTR tunnels beneath. A roof garden atop the plinth gives world-class views over the water to Hong Kong Island, while above, a slim, wide 14-storey tower addresses the harbour. Clad in fins of green-glazed terracotta, their tips set with high-tech LEDs, they turn the whole building into a giant media screen, adding to the cityscape's unique dazzle.

The sums being spent to realise the M+ project leave no doubt that it is a totem to define China's new cultural role. Time will tell if it will be read as an empty gesture in the face of ongoing regulation of artistic and political freedoms, for if anything, M+ pulls these issues into sharper focus. But it also reminds a cynical west, increasingly governed by the group think of social media, of how art's individual expression can still be a powerful means of protest. Whether M+ becomes a worthy vessel for such potential is ultimately up to Xi Jinping. ● Jan-Carlos Kucharek



KEVIN MAK COURTESY OF HERZOG AND DE MEURON

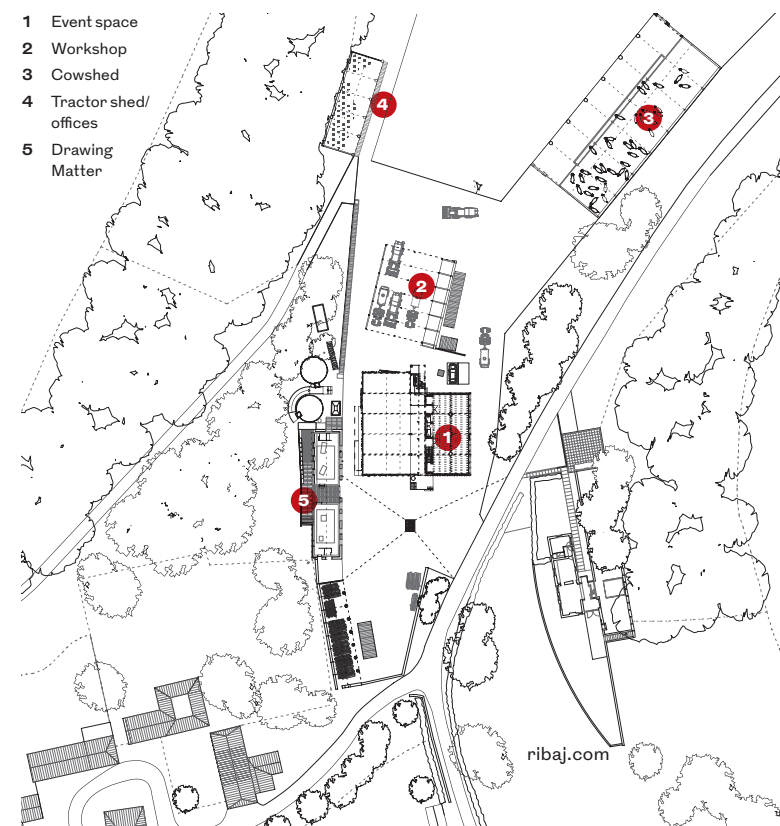
The service spine presents a facade to the larger event space.



Less is more

Clancy Moore has finished work on its repurposed barn at Shatwell Farm, leaving plenty of scope for ad-hoc additions by those who use it

Words: Chris Foges Photographs: Sue Barr



Most visitors to Clancy Moore's new building in a barn at Shatwell Farm ask if it is finished. The answer is yes, and no. The architect's work is done, leaving a rough-hewn ensemble of spaces, structure and services to be adapted by participants in various educational and cultural activities that take place in the Somerset farmyard. 'The intention was to make something finished enough to be enabling,' says practice partner Andrew Clancy, 'but not so finished as to shut down potential'.

The farm defies easy classification, but is used by writer and collector Niall Hobhouse as a sort of test-bed for speculation on architecture and rural development. Alongside a dairy herd in a colonnaded cowshed by Stephen Taylor there are new and old buildings housing carpenters, stoneworkers and a gallery, and monuments by Peter Smithson and Alvaro Siza. Also present is Drawing Matter, a drawings collection with attached events including a summer school for teenagers. Other goings-on among the silos and silage pits include dinners, public talks and opera.

Clancy Moore's project is conceived as a piece of infrastructure which should be capable of supporting all these, from the largest to the smallest, alongside a store for Drawing Matter.

Seeking to make a building that has a strong character but remains open to interpretation, the practice referred to Florian Beigel's Half Moon Theatre in London and Lina Bo Bardi's Teatro Oficina in São Paulo –



robust spaces for performance that resemble urban streets, set within existing buildings. Other aims were to celebrate the elegant portal frame of the barn itself – a 1970s Atcost prefab – and to do only as much as necessary, with as little construction as possible.

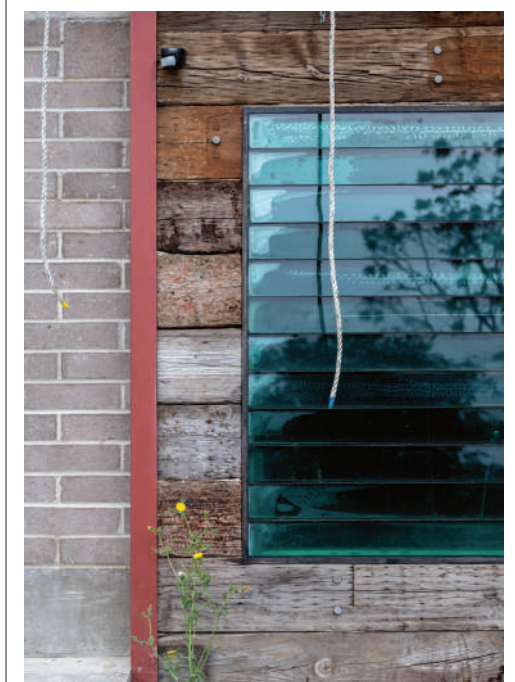
Internal partitions were cleared to expose the line of precast columns down the middle. On one side, the building is left vacant to accommodate large audiences. On the other, the ground-floor store and a multi-use space above are set behind a two-storey spine of toilets, kitchens and stairs, constructed from concrete blocks. Punctuated by deep openings and subtly refined by varied colours and bonds in the blockwork, it presents a semi-formal facade to the empty side. Fixed to it is a galvanized steel structure that forms an arcade leading from the entrance to the back of the building, where there is a rudimentary outdoor kitchen with an open fire-place. With a balcony above served by stairs at both ends, it's full of theatrical possibilities.

The large space upstairs might serve as a dressing room, classroom or gallery. Its open

Above New cladding is cut away to reveal existing columns and the service spine. Gross floor area on the project is 800m²; construction cost is £111/m².

Below Salvaged railway sleepers and panes of glass are recomposed in the facade.

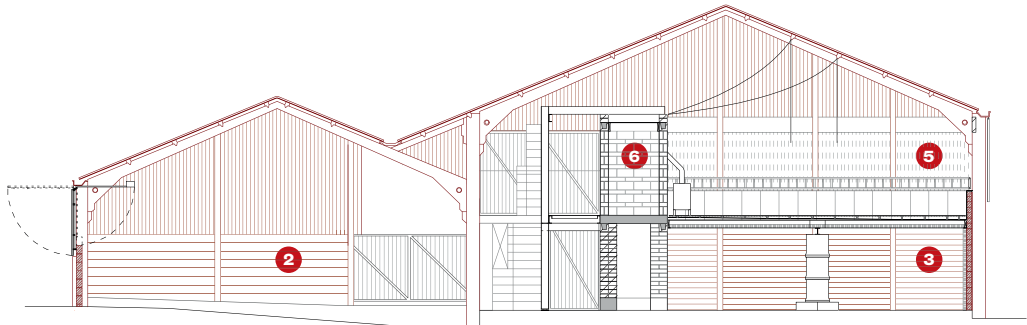
Credits
Client Niall Hobhouse, Shatwell Farm
Architect Clancy Moore
Construction supervision Lucas Wilson



It is finished enough to be enabling, but not so finished as to shut down potential



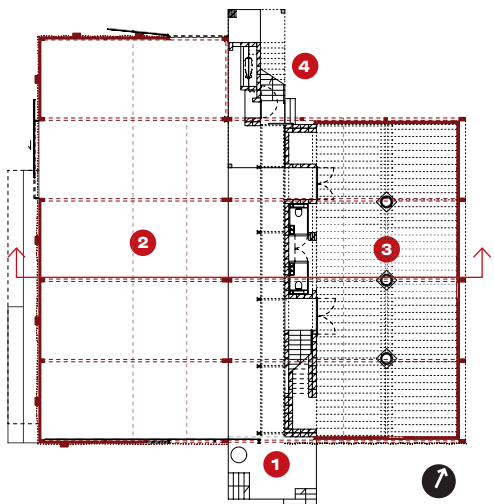
West-east section



sides are hung with translucent plastic drapes usually found in mechanics’ workshops, which billow in the breeze. One can imagine summer school students having a great time camping up there, with a wide-angle view of the valley below. When I visited, traces of their involvement with the building were all around: straw bales were stacked to make an amphitheatre on the upper floor, and a screen of woven hazel hung from the steelwork, casting long shadows down the arcade.

As an environment for temporary events, whose inhabitants can create the spaces they want, the project picks up on the enduring influence of the late Cedric Price at Shatwell. His sketches of the farmyard – as adaptable sheds and stores – were the last he made, and still inform Hobhouse’s view of it as a perpetual work in progress. ‘The first rule is that there is no intention that it should ever be finished, and no masterplan’, he says.

Ground floor plan



- 1 Entrance
- 2 Large event space
- 3 Archive
- 4 Outdoor kitchen
- 5 Flexible event space
- 6 Service spine



A single-ply membrane floor waterproofs the open-sided upper room.



Materially, too, the building is of its place. Industrial products that constitute the modern agricultural vernacular are supplemented by items salvaged from the yard. Precision and canny improvisation in their use make characterful spaces. Railway sleepers and glass panes found in the barn make walls below a new corrugated metal skin; and chunky columns within the archive are formed from stacked sections of drainage pipe. ‘There was a genuine engagement with ideas of bricolage and the ad-hoc, in the proper sense of being specific to this condition’, says architect Colm Moore. ‘Things that architects often talk about, but I’m not sure they actually do’.

There’s a lot packed into this lean and economical structure, but much went unrealised because it crossed the line of ‘just enough’. What happens next is for others to decide. ●

ANDREW CLANCY (2)



Summer school students at work in the upper room.



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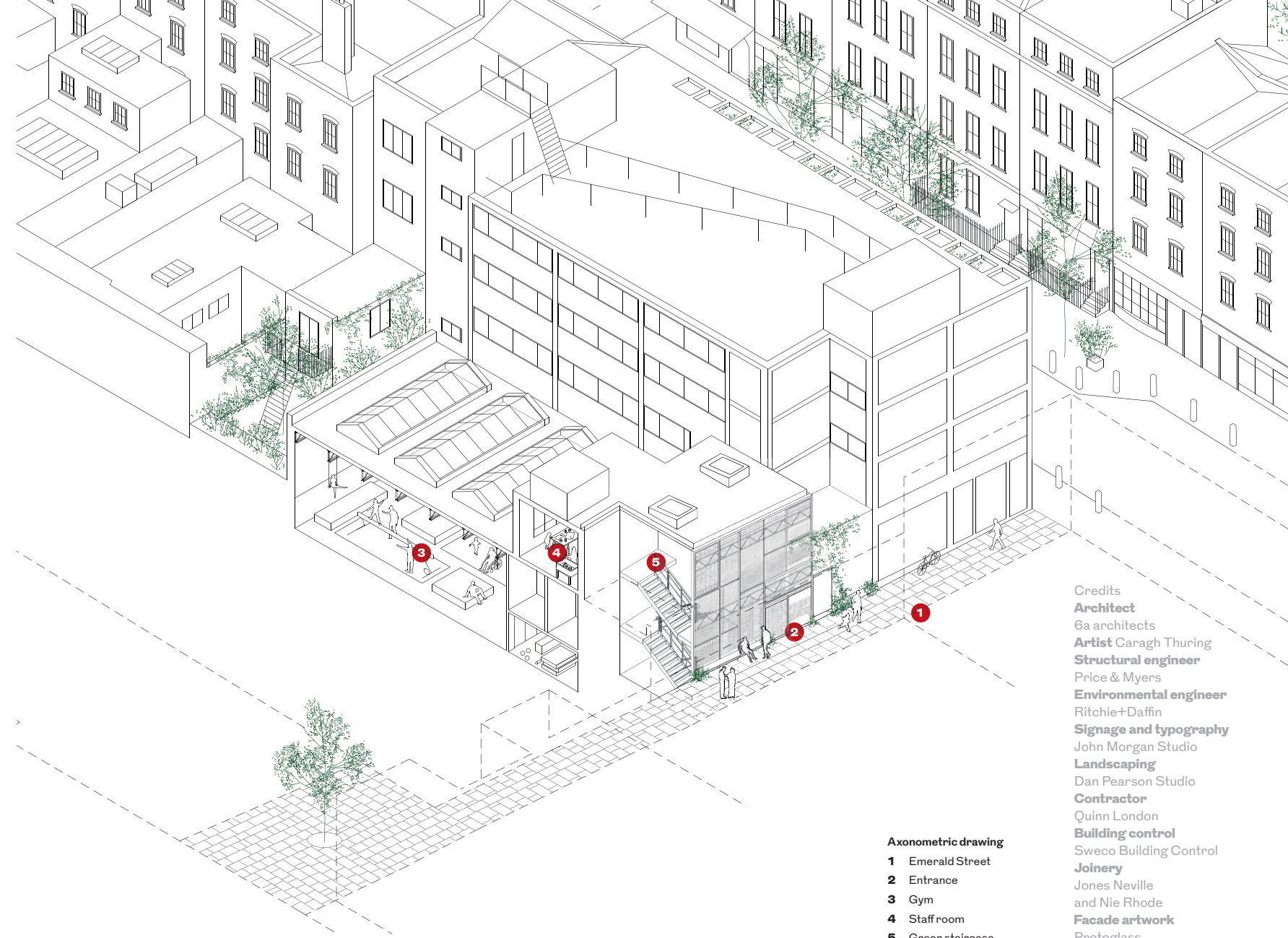
Back on form

Benevolence stretching back to the 15th century lies behind 6a's rebuilding of a community gym in a quiet London alley

Words: Isabelle Priest Photographs: 6a architects

This image New entrance on Emerald Street, a barely noticeable alleyway off Lamb's Conduit Street in Holborn.

Opposite Caragh Thuring's etched artwork on the glass facade picks up the styles of brick coursing in the area, filled with words relevant to Holborn House's past and present. Originally the facade was to be tiled, but was amended later to save money.



This history of Holborn is intrinsically tied up with a merchant tailor called Sir William Harpur. Born to humble beginnings around 1496 in Bedford, he made his fortune and became Lord Mayor of London in 1561. In 1566 Sir William and his wife Dame Alice created an endowment comprising a schoolhouse (now the Old Town Hall) and other property in Bedford, and more than 13 acres of farmland and water meadow he had bought just outside the City of London, in what is now Holborn. The endowment was used to support the dowries of 'poor maidens' and education in Bedford, including Bedford School and other subsequent boys' and girls' schools. The endowment's value greatly increased when the London estate was developed for housing in the late 17th century, with the profits able to maintain the success of the school and keep fees low.

In 1920, the headmaster of Bedford

School decided it would be fitting to give something back to the inner city and established the Bedford House Holborn Boys Club, an increasingly common initiative around London at the time. It was set up to provide working class children with the same facilities and activities of public schools; fencing, drama, chess, gymnastics, trips abroad and its own magazine.

By the time 6a architects came to the project this association with Bedford School had long been lost. Its original building was bombed during the Second World War and ambitiously rebuilt in 1957 as part of a terrace on Lamb's Conduit Street called Raker House, with shops on the ground floor, offices and a caretaker's office. In the 1980s the Trust had sold it into private ownership, and all that was left was one of the two original community centre floors and a vertiginous staircase down to a dark and leaky basement

gym – run by the Holborn Community Association which was set up at the time of the sale to save the whole building from demolition.

Nine years ago, the organisation received some funding and decided to commission a local parent, 6a’s Stephanie MacDonald, to do a feasibility study into the option of buying the building next door. Although the HCA was gazumped by the landlord, it swapped the third floor community centre for a 60-year lease on the gym site, along with permission to rebuild it. After coming here for years of soft play and activities with her son, it was only on a site visit for the feasibility that MacDonald unearthed the archive that revealed how the organisation and building came to be. The organisation, however, was struggling with funding, accessibility and maintenance. ‘At the time the 1957 building was constructed, it was considered the council would fund social services like this,’ she explains. The gym was top-lit by an



Above View of the reception from the entrance, the new trusses of the gym roof now visible beyond.

Below Occupying the original footprint, the gym is not a standard size, although Sports England recognised its importance and helped fund it.

IN NUMBERS

398m²
GIA

£1.93m
construction cost

£4850
cost per m²

unreliable glass block roof and was accessed by a labyrinthine series of spaces from Emerald Street, a shadowy pedestrian alleyway.

A new brief was to give the building a sense of place for children in the neighbourhood and make it visible, suitable for hire, easier to run, accessible and welcoming.

6a’s approach has essentially been to rebuild as much as possible, while retaining the 1960s concrete structure – basement floor slabs, ground floor concrete structure, posts and lateral brick walls, to mitigate additional embodied carbon from complete demolition. The gym still occupies its original footprint to the rear of Raker House, but the front single-storey contemporaneous red brick entrance on Emerald Street has been demolished to make way for a new, two-storey glass facade that squeezes in a reception, changing rooms and buggy parking as well as additional staff and community rooms that can be let out to generate income.



Retained concrete structure meets new staircase and blockwork walls.

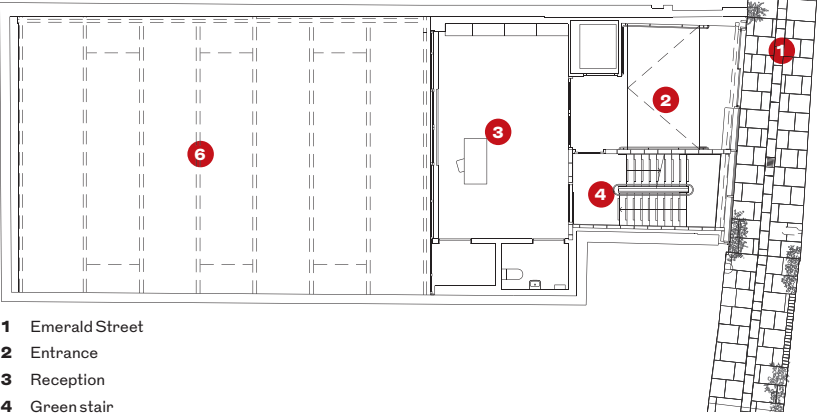
As building access to the site was very restricted, new elements had to be lightweight and in manageable parts for assembly on site. Consequently, the new structures are made from steel trusses with blockwork and timber walls; everything is left exposed, from concrete floor slabs to timber joists and electrical cabling run in galvanized conduits. The gym glass block roof has been replaced by three glazed lanterns that admit better daylight.

Transparency is a key theme throughout. The glass facade means passers-by can see in, but an automatic sliding door encourages people to slip inside almost without noticing. Once in the building, the ground floor reception opens before you with more sliding glass doors and a Juliet balcony beyond, that overlook the refurbished gym below. This means a single member of staff can man the entrance and other community functions, as well as keep an extra eye on those activities too, which helps with funding pressures. A

bright green grille adds a pop of colour to a palette of whites, greys, nudes and other greens advised on by Little Greene.

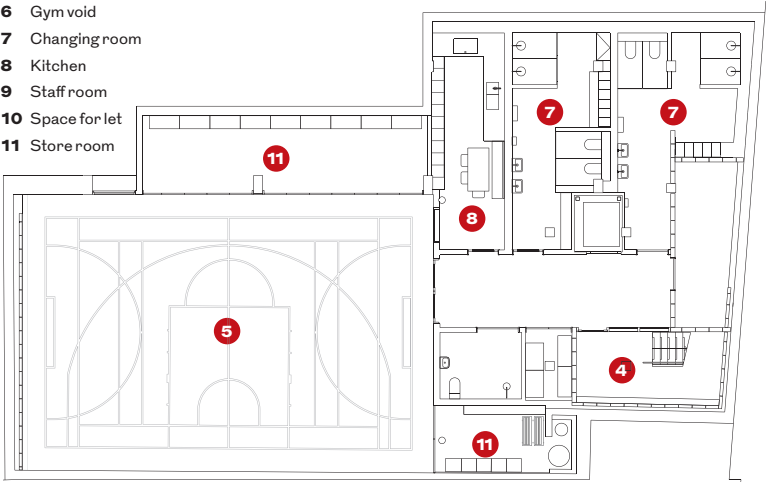
A metal stair, again in green, to the front left of the building gives access to the basement where there are changing rooms, a kitchen, storage and double doors to the gym itself. This has been entirely refurbished, with air quality monitors that show when to operate a mechanical heating and cooling system. The acoustic floor is supplied by Junckers, and additional sound insulation comes from a woven linen/cotton mix fabric enveloping the upper half of the gym walls – printed with a version of the artwork by Caragh Thuring that is etched on the glass of the front elevation. The project is small, but neatly resolved, calming and uplifting, and in an ideal world would encourage the development of similar facilities and organisations like the boys’ and girls’ clubs that proliferated a century ago. ●

Ground floor plan

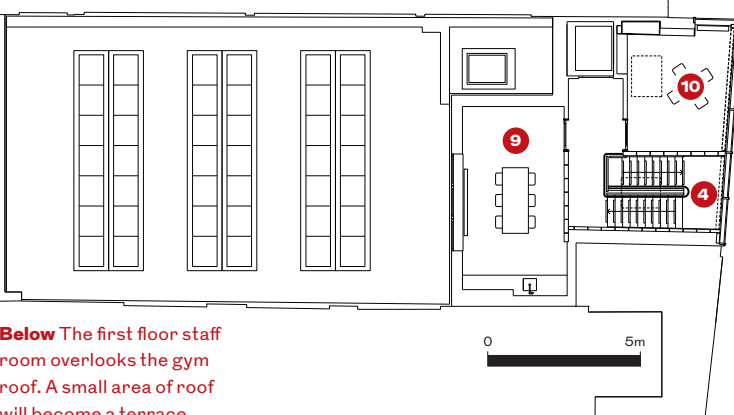


- 1 Emerald Street
- 2 Entrance
- 3 Reception
- 4 Green stair
- 5 Gym
- 6 Gym void
- 7 Changing room
- 8 Kitchen
- 9 Staff room
- 10 Space for let
- 11 Store room

Basement floor plan



First floor plan



Below The first floor staff room overlooks the gym roof. A small area of roof will become a terrace.



Change of quay

Four local women turned to Invisible Studio's Piers Taylor to realise community growth over commercial gain with East Quay, a seaside extravaganza in Somerset that just keeps on growing

Words: Eleanor Young
Photographs: Jim Stephenson



This image and left
From the coast path alongside the steam train (left), East Quay is signalled by its candy stripe columns, and gradually revealed as you enter a 'street' at first floor level.



Watchet is small town, sandwiched between the Quantock Hills and the muddy, dramatically tidal North Somerset coast. It has two Co-ops, a Spar and six pubs. There are take-aways and gift shops for tourists in search of bracing sea air, fossils and angling.

And now it is has the extraordinary East Quay Watchet. Its salmon pink cliff of concrete rises to embrace the town's esplanade, a candy-stripe Punch and Judy puppet theatre and five improbable beach hut accommodation pods popping out on top (two on stilts). The form is extraordinary enough, but most extraordinary of all is the warmth of life emanating from East Quay. Café, gallery, workshops, an all-singing all-dancing education room, new streets and courts... on a blustery grey day this place seems to contain a whole world of activity and possibility. It would be correct to call East Quay Watchet a community building but that is a massive simplification. Perhaps we could settle for a community enterprise building with art gallery and eeries for rent, Airbnb-style.

The client is the Onions, more formally, the Onion Collective, originally four Watchet women, moaning in the local over a cider, says one of them, Georgia Grant. They asked themselves what could be done for their

Above The plinth has a kinship with the harbour walls; Piers Taylor sees the blocks and accommodation pods as growing out of it like a new bit of town at the end of the Esplanade.

Below Accommodation pod, with its windows jettied out to capture the space and view.



Watchet community, starting with a series of conversations with their town neighbours about what the town needed for a stronger future. The Onions (named for the adding of layers and flavour) came up with a plan for this spot and then secured the site and the money for the £7.3 million building, and are now running it calculating social impact as carefully as the finances. They have thought through the ethical offer in the shop and figured out how to use the Kickstart scheme to help Watchet youngsters grow in confidence through working at East Quay, embed tenants, and fill in for everyone else, waiting at tables if needed.

What started it off, other than the cider, was the development site at the end of the Esplanade, alongside the harbour and marina. Urban Splash had the option on it, there was a competition won by Riches Hawley Mikhail and plans for 83 flats, information centre and restaurant before planning and re-evaluation intervened. When the council decided to do something different with the site in 2014 the Onion Collective was ready to step in, already having secured a grant for consultation and a feasibility study. The idea was for a joyful, playful cultural space more embedded in the needs of the town. They

started looking around for architects, starting with googling young, interesting practices and inviting them to come and visit. Piers Taylor's Invisible Studio stood out for its energy and materiality and because the Onions needed an advocate and champion who could convince the council. Invisible Studio is happily based in Somerset too, though over two hours away. But it wasn't a simple brief and design. It emerged and morphed with a series of sketch schemes as ideas were taken to the wider community at regular intervals.

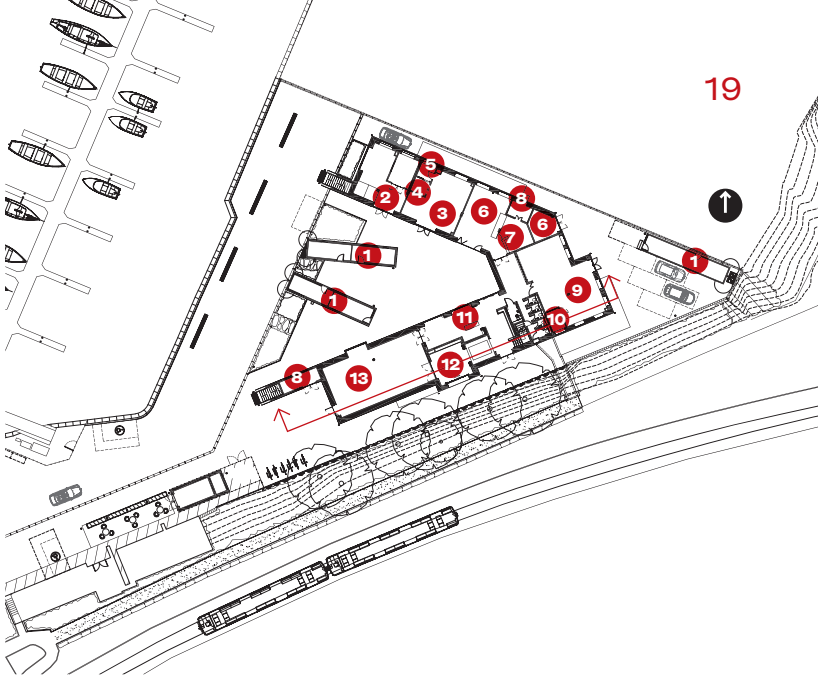
It is worth another quick diversion here. Those answers about the future of a strong Watchet became urgent as the town's paper mill and main employer closed in 2015, and with the loss of some of the promises of the Urban Splash scheme. Tourists – many of them arriving on the steam train from Minehead or Bishops Lydeard – needed to be captured, so a fast track £340,000 project was launched – with both the Onion Collective and Taylor and architect Louise Crossman – to do up Watchet Visitor Centre and Boat Museum in its Brunel shed, and extended to create an information centre that doubles as a town council chamber.

Back at East Quay two fundamental ideas were emerging: it needed to be able to develop as funds were secured and it should be part of the town. The final form put the investment in the grainy solidity of the concrete plinth and allowed the other timber-framed elements to grow out of it at a slower rate. The brio of the formal gesture has echoes of FAT's houses lightly and laughingly perched atop a block of flats in Middlesbrough. But for Taylor the move is more akin to the timber excrescences on warehouses, or the jettied-out house that he points to in a hidden corner of the town. And the scale of the upper floor pods ties East Quay to the town's assemblage of buildings from which this scheme emerges. There are little twists in the volumes, with windows cut in – avoiding demanding too much from the view, creating protection, not simply exposing them to the sea. For hundreds of years this has been how we have needed to build so it feels a more natural form

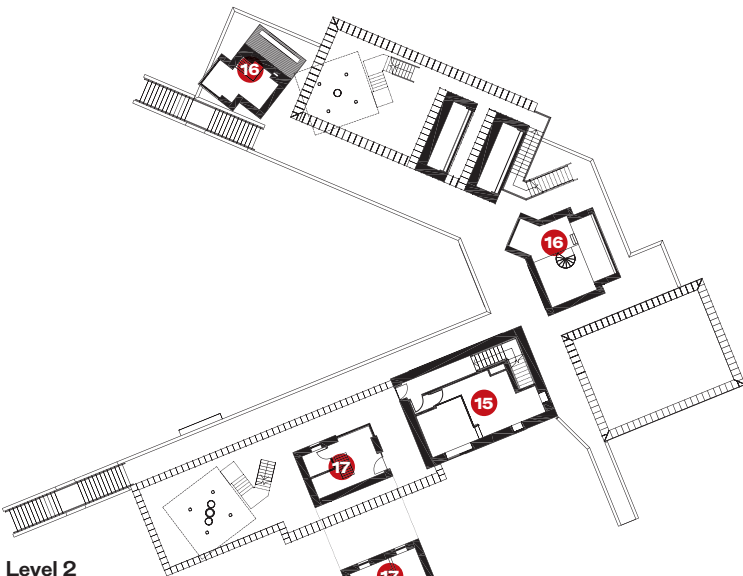
The idea was for a joyful, cultural space embedded in the needs of the town



The courtyard is contained and protected by the bright blue containers. Ground floor entry is in the corner where the building's two arms meet.

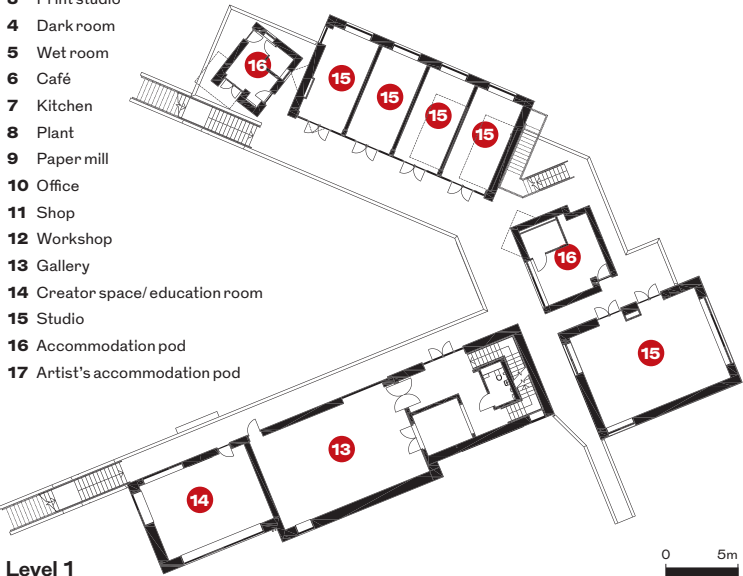


Site plan



Level 2

- 1 Container
- 2 Geology studio
- 3 Print studio
- 4 Dark room
- 5 Wet room
- 6 Café
- 7 Kitchen
- 8 Plant
- 9 Paper mill
- 10 Office
- 11 Shop
- 12 Workshop
- 13 Gallery
- 14 Creator space/ education room
- 15 Studio
- 16 Accommodation pod
- 17 Artist's accommodation pod

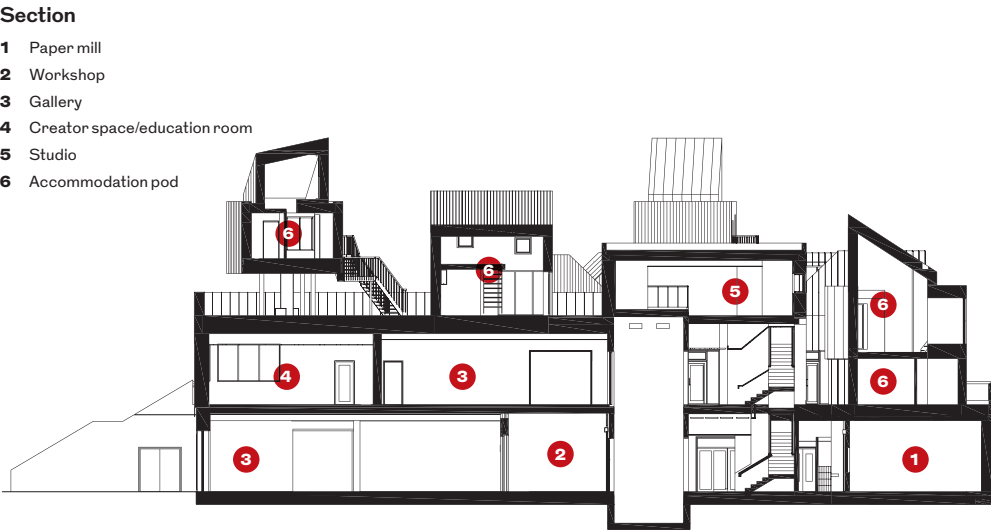


Level 1

than the glazed expanses of Grand Designs homes. And, endearingly, this composition of lookouts has just a hint of alert meerkats.

The V-plan of East Quay engenders a sense of protection and town-ness along the first floor ‘street’. Entering through the narrow alleyway from the coast path alongside the steam railway, you are stopped by the candy stripes and enticed through the volumes of the building into this street and the big view of Bridgewater Bay. Past that are more intimate views, with sunny, south facing maker studios showing off work. With stairs linking to the town at either end I imagine school groups racing up from the Esplanade to the Creator Space education room, gallery-goers proceeding to the harbour, or holiday visitors meandering from the stairs back to their pods. On an off-season Tuesday, with construction work continuing on the upper levels, there is still plenty to look at leaning over the railings: visitors, print and paper makers from the studios down stairs, and two incongruous bright blue shipping containers in the courtyard.

The containers are emblematic of this building. They were the pioneer settlement before the construction got going, with artists using them as studios and gathering to eat and for talks in the broken concrete slab courtyard between them. Owing to the Onions’ attachment to both containers and concrete, they survived the desire for the new building and stayed, the containers sitting in a landscape studded with remnants of the rough concrete in crazy paving form, softened by gravel and plants. It is a bit farmyard, bit back garden. It is this sort of thinking, by the Onions and Taylor, that means that the incongruities that crept in from Stage 4 as the design was taken



IN NUMBERS

£7.1m
total project cost

£5.58m
construction cost

1040m²
area

£5625m²
GIFA cost per m²

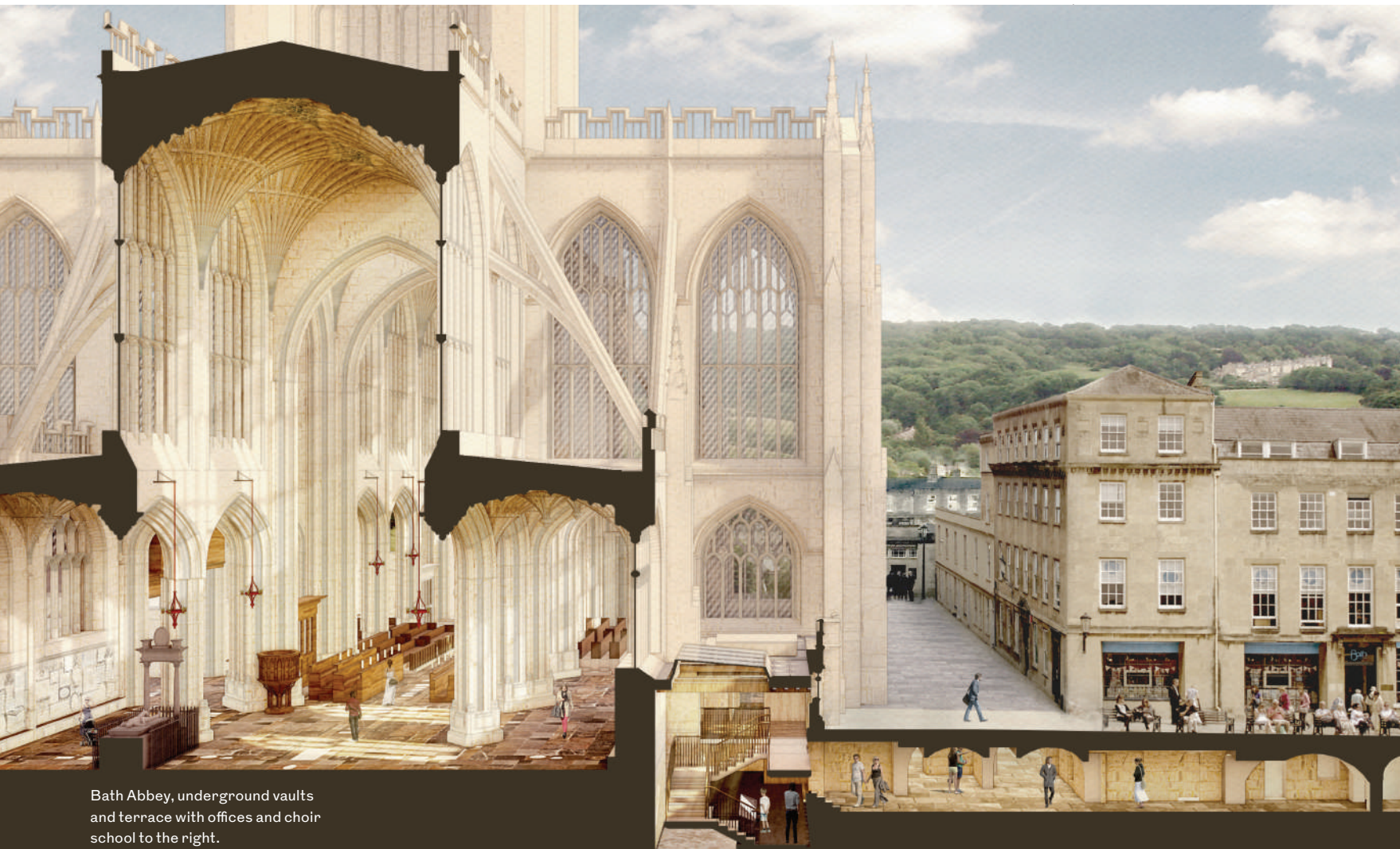
Far left Making art paper by hand in the ground floor paper mill.
Left One of the artists' studios.
Right The café spilling into the courtyard.
Below The Creator Space demands a different sort of physical engagement with its platforms and fabric covered balls.



on by Warrington-based Ellis Williams, are more easily overlooked. It means that the de-tailing is neither here nor there (though doors and ironmongery are harder to ignore).

For Taylor, who has long been designing smaller education buildings alongside an eclectic mix of houses and inventive rural structures (oh, and that TV career) it is a great disappointment that he didn't get to see this major project through construction. The Onions felt they needed someone who had done galleries, a practice that could do work worth £150,000 at risk while grants were secured – a larger practice. Taylor's relationship with the Onions survived though – they now teach for his studio on design and making at Reading University giving a perspective on community building. And what is missing in detail design in much of the building is being brought to life in a spectacularly fun way by PEARCE+Fægen, a group of two young architects and an artist who moved down to Watchet to do the interiors. They teamed up with an educational physiologist to invent the Creator Space, which lined in ply with a landscape of stacked platforms working as climbing frame, hiding place, storage and seating. Or you can sit on inflated fabric coloured balls that you take down from the walls. The lights do almost everything in colour. PEARCE+Fægen also took on the interiors of four beach hut pods. The group has inserted mezzanines and a hanging stair, a lounge space in a suspended net, it uses colour to create a sunset bathroom and made an etched illustration to draw out the story of Watchet over high walls. These are not holiday homes so much as sherbet explosions of experience. Just like this building is much more than a gallery, studio space or café. Looking at this place you feel Margate missed out when it got Chipperfield's Turner. ●

Credits	Suppliers
Architect Invisible Studio, Ellis Williams	External doors Assa Abloy
Client Union Collective	Concrete works DWall
Structural engineer Momentum Engineering	Lighting Erco
M&E consultant Troup Bywaters & Anders	External metal stairs Earp Engineering
Quantity surveyor Mea Clark	Metal cladding GreenCoat
Main contractor Midas Group	External concrete Hopkins Concrete
Landscape architect Lt Studio	Insulation Rockwool
Pod internal design and fitout PEARCE+Fægen	Window, external door and curtain walling systems Schüco
	Handrails Stoneman Engineering



Bath Abbey, underground vaults and terrace with offices and choir school to the right.

Invisible mending

Feilden Clegg Bradley Studios has been busy in Bath, though you might not know it. Which is just what they wanted

Words: Eleanor Young

Every city rests on the buried infrastructure of modern life – cables, metros, pipes and drains. Beneath the city of Bath there are also hot springs – the foundation of the city since the Romans arrived and built the warm Roman Baths which can still be visited today. In Georgian times the waters became a health and social draw. The now famous Georgian crescents were joined by assembly rooms, and investment in the spa infrastructure included a boilerhouse – to heat the natural spring water further from its standard 45 degrees – and a laundry. As the boilerhouse soot from the Somerset coalfield started to blacken the local limestone, so those who had lived out their hedonistic last in this social city were commemorated in Bath Abbey, just steps away. All 7000 of them, here is a rollcall of the society and the colonial exploitation and Atlantic slave trade that funded the development of Georgian Bath.

Step forward to the 20th century and to Bath-founded, Stirling Prize-winning practice Feilden Clegg Bradley Studios. Over just a few years it won two projects to breathe new life into the Roman Baths and the Abbey. Both were large projects (worth £5 million and £10 million), minutes apart and largely invisible, much in the vaults under the city and serving the masterpieces of heritage that keep Bath's tourist trade flourishing. The Baths and Abbey are also, rather wonderfully, connected by the thermal waters: FCBS' Abbey Footprint project captures the heat from the millions of litres of water that bubble up each week – and were previously piped away through the Roman Great Drain to swirl in the cold waters of the River Avon – using heat exchangers to gently warm the Abbey floor.



Abbey chancel, with refurbished floor and lights.

FCBS (2)



Archway early concept section

Section of the Archway Project. Learning and visitor centre is below the boilerhouse chimney (right); Roman Baths and Georgian Pump Room in front of the Abbey.

Roman Baths Archway Project

But let’s start with the boilerhouse and laundry – now a new education centre, the Archway Project. I have experienced the Roman Baths, tagging along on a school trip, uncomfortable in a complex queue in a frenetic Georgian entrance hall, trying on togas and building mosaics with 30 children in a room smaller than the average classroom. The new entrance and learning centre will relieve a lot of pressure on the Roman Baths, and on the teachers and children who visit. It will also give a chance for longer running projects for those with mental health issues or disability, or for family engagement. It is connected to a new heritage centre for the whole city, with the same local authority client, Bath and North East Somerset Council.

More than that, the Archway Project will become part of the experience for them, made exciting by moves by the architect, unique access to archaeological remains, and a tunnelled route leading directly to the Roman Baths. Scrape and reveal techniques draw attention to the mix of buildings (boilerhouse, laundry with chapel, and stables), with old surfaces and remnants of large scale pipe work and new steel balustrades left naked. It is an architecture of texture and solidity with delicate interventions in the central circulation; this opens up to a double height space before squeezing students down the narrowest of stairs and passageways to reach a vault littered with Roman-worked stone, gradually unveiled by a dynamic lighting scheme.

On the upper floors a lighter set of rooms reveal themselves, full of timber and unexpected delights. Cut into the exposed roof structure, a huge rooflight opens up views of the ornate boilerhouse chimney that is almost invisible from the surrounding streets. Deep window seats are cut into a wall, offering up glimpses of greenery and the Abbey between the buildings.



ARCHWAY PROJECT
IN NUMBERS

£5m
total contract cost

£3984
GIFA cost per m²

1255m²
GIA

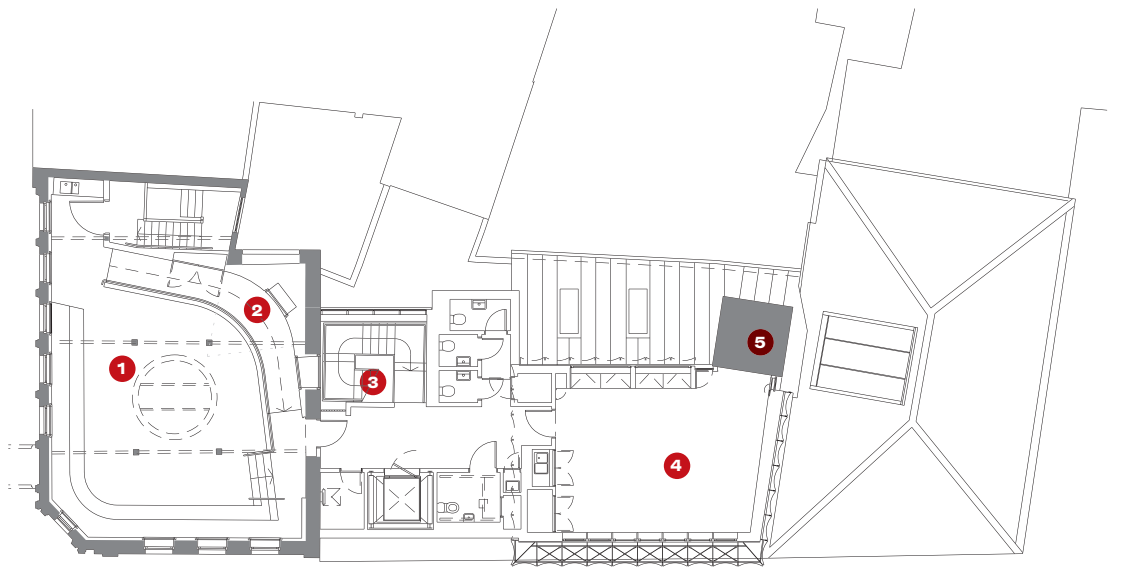
traditional
form of contract

Right A pit in the limecrete floor, alongside the buried Roman stones, where children can do their own uncovering of ‘archaeology’.

Below Down a side street, the boilerhouse doorway becomes the entrance to the learning centre.



Second floor plan



- 1 Learning room
- 2 Ramp
- 3 Circulation in old boilerhouse
- 4 Lunch room
- 5 Boilerhouse chimney



Scrape and reveal shows up complex textures in the entrance hall. From here visitors descend via a narrow stair and tunnel or ascend to the learning rooms above.

Archway Project credits
Architect Feilden Clegg Bradley Studios
Client Bath and North East Somerset Council
Structural and civil engineer Integral Engineering Design
Archaeology Cotswold Archaeology
Main contractor Beard Construction
CDM advisor Chase Consulting
Exhibition designer Houghton Kneale Design
Lighting designer Lux Lucis Ltd
Building services engineer Method Consulting
Fire engineer The Fire Surgery
QS Edmond Shipway



This learning room is configured comfortably around the four original cast iron columns, encircled by the ramp and over-sized steps.

Scrape and reveal techniques draw attention to the mix of buildings

Project architect Matt Somerville worked out the angle of the view on the model and is still delighted at what it captures in real life. Another room is built up in giant steps around the cast iron columns of an old chapel, playing on its curves with a circular rooflight, a ring of lighting and a generous curving ramp running round one side of the room. These moves deal with problems like complex existing fabric, level changes and bringing in daylight, but are done with the gift of generosity and confidence. Equally, acoustic requirements by Building Bulletin 93 for the two education spaces have been dealt with using a combined solution of timber-framed secondary glazing and wall linings and decoration that includes vents, acoustic absorption and storage. Vitrines create dividers and pose as windows, enlivening walls. These are spaces of character and joy born out of complexity and calculation.



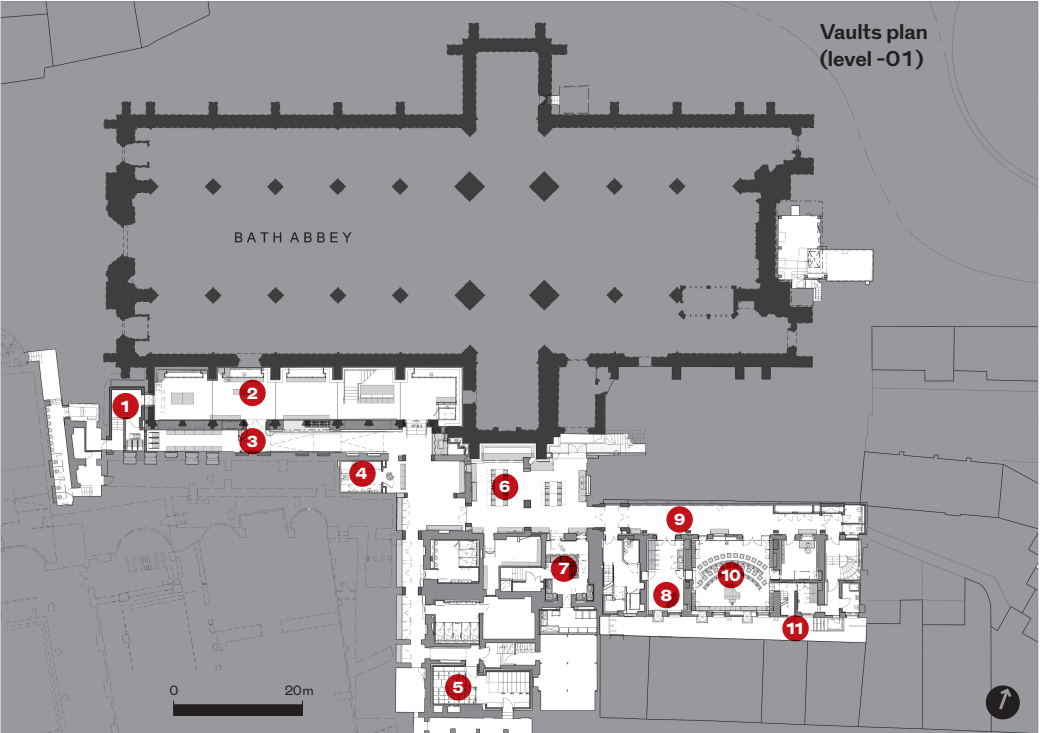
Deep window reveals and inhabitable window seats reveals in the lunch room.

JAMES NEWTON (2)



- 1 Escape link
- 2 Discovery centre
- 3 Interpretation ramp
- 4 Changing places WC
- 5 Archive
- 6 Learning space
- 7 Kitchen
- 8 Choir vestry
- 9 Choir school lobby
- 10 Choir practice room
- 11 Yard

Above Joining the Abbey to its vaults and exhibition space.
Below right Timber-lined, acoustically tuned choir practice room.



Bath Abbey, Footprint Project
The Abbey had many of the same challenges and a good few extra besides. The Footprint Project started with the Abbey’s collapsing floor, a repair job. And loos – during the busiest times worshippers had to head to the local All Bar One to relieve themselves.
The 1620s Abbey – now Bath’s parish church – sits on the foundations of a larger Norman cathedral. In the floor were thousands of burials until was declared full in 1840, they are commemorated with 891 memorial or ledger stones there, or on the walls. In the 1860s, when George Gilbert Scott came along with a Victorian restoration, the stones were lifted to install heating vents and many of the skeletons underneath crushed before pews were installed throughout the nave. By 2010 the floor had become uneven, the stones subsiding over its rotted skeleton foundations and suffering in the damp trapped between the underlayer and the platforms on which the pews sat. Cracks had appeared in many memorials.
The Abbey wanted not just repair but to make itself fit as a modern day place of worship and Christian engagement, and a part of civic society as the largest covered space in the city centre. As well as making the Abbey itself more accessible and flexible, the Footprint Project expanded to include dealing with the back of house. The offices were a warren of tiny rooms in the neighbouring Georgian terrace, the shop in the 1920s extension was overcrowded and the choir had to rehearse in a tight space alongside it. Now the terraces have been reworked and the circulation improved: the narrow staircase has been widened, and the complex of offices that it leads to has been opened up by driving a hole linking an enfilade of workspaces. It is all very practical and slightly worthy.
But then, you open another small door and suddenly the floor falls away to reveal space below and above you. This volume of scooped-out terraced house has been turned into an oak-panelled choir room with a



HUFTON + CROW (2)

narrow balcony around the edge. There’s a grand piano, moveable stalls – designed by FCBS – music stands, shelves and cupboards of music. In here 60 singers can practice.

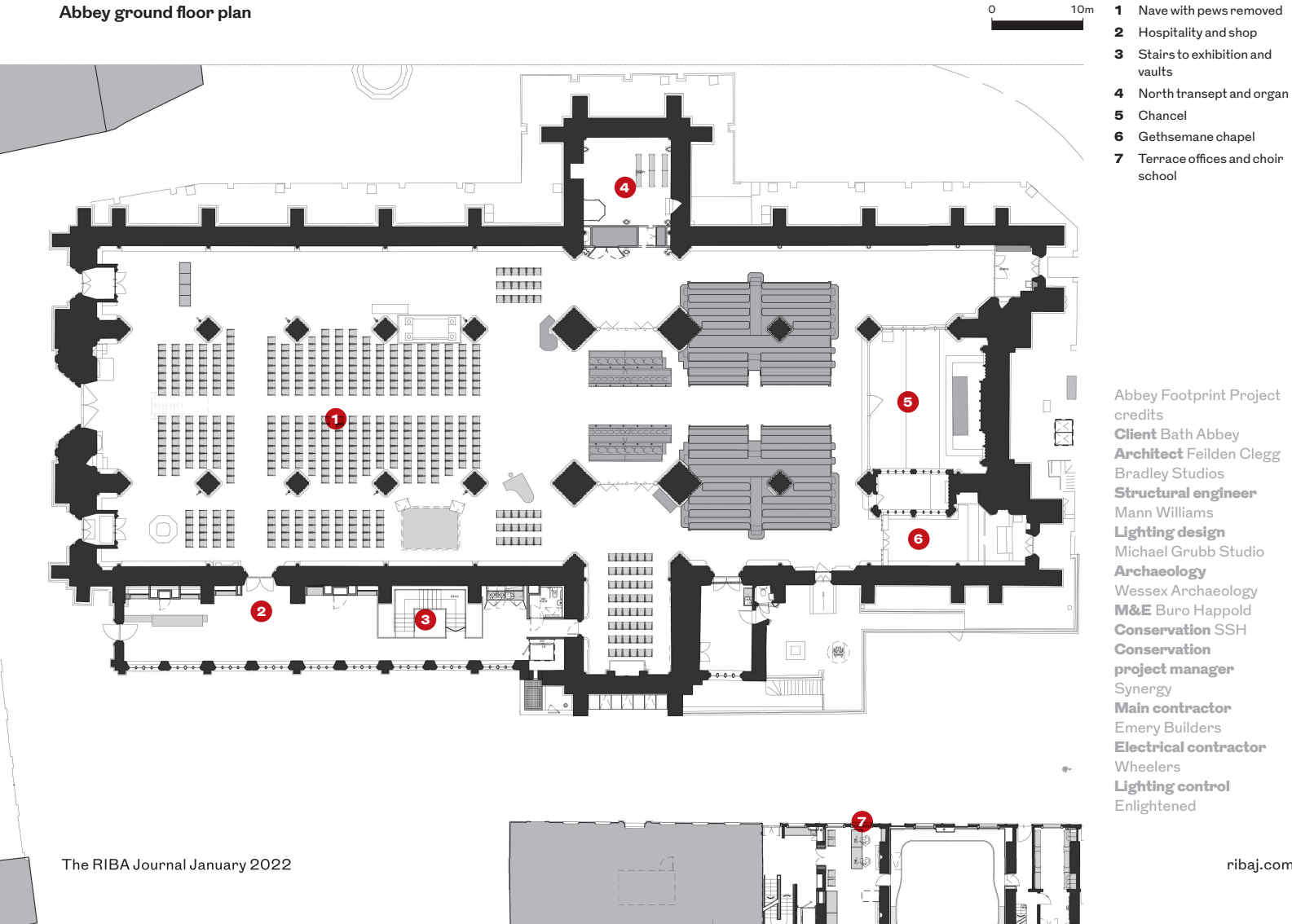
The choir school opens into the basement of the terrace. And rather than the choir donning coats and umbrellas over their robes to progress through the street to the Abbey, they now have a top-lit corridor under the pavement. As the terrace vaults run into the Abbey vaults the space opens up, interspersed with buttresses. A supporting concrete structure mirrors the arches of the vaults with timber insertions around door frames paying the same homage. Flags of a tough Pennant sandstone floor in varying scales echo the memorials of the Abbey floor. The new loos are already invaluable as visitor numbers pick up. The space will work for events and education, though it has to double as circulation for both air and visitors – as does the discovery centre awaiting fitout on the ramp between the vaults and Abbey. Passing through this leaves a sense of having missed the point of the architecture somewhat, but it will no doubt be remedied when in use.

If you are looking for new architecture, the Abbey itself has something of the same problem. It is invisible



The vaults give the Abbey gathering or learning spaces.

Abbey ground floor plan



without a guide. The most contentious move was in fact the removal of Gilbert Scott’s Victorian pews in the nave. This proposal led to a battle with the Victorian Society, a bruising and costly process, that the Abbey deliberately decided to make transparent with three days of the Church ‘court’ proceedings held in public – and making the project documentation open to all. FCBS’ and the Abbey’s argument that the pews were damaging the floor, inhibiting the mission and were, after all, only mass-produced factory pews, took a long time to win. There were in fact 30 separate approval processes, including some variations, for this project which is a scheduled ancient monument and grade I-listed with grade II listing in parts.

And then the hard work began with the stone floor. It was fully mapped and each of the thousands of stones, memorial or not, was taken up and inspected for repair – maybe bonding, maybe backing, maybe for replacement. A trial pit showed that the Victorian work had disturbed 1m deep below the floor so the Footprint Project worked within that layer, laying a new concrete floor slab to protect the remains, then pipes heated by the thermal waters and then the repaired stones. The 150mm fall in the floor level had to be addressed and

ABBEY FOOTPRINT
PROJECT
IN NUMBERS

£10.05m
total contract cost

1710m²
abbey ground floor

1621m²
vaults, chambers and terrace

3331m²
total area

3017
cost per m²

Below The Abbey floor has 3000 stones, many with memorials on them.

it all had to be phased in order to keep the Abbey open throughout. The repaired stones relaid, in almost the same positions but not precisely. ‘It was a 3000 piece, 3D puzzle,’ says project director and FCBS partner Geoff Rich. ‘And you couldn’t even see all the pieces.’

There are more invisible moments in the Abbey: discoveries of a medieval polychrome floor, Roman coins, mosaics, and 46 Saxon skeletons. There’s a steel transfer structure to hold up the 50-tonne organ, a tea and coffee kitchen behind cupboard doors, power and data. More visibly, the Victorian lighting was relamped with LEDs, another move that will reduce the operational energy of the building. LED uplighters by the windows mean that the side aisles no longer descend into gloom.

Invisible benefit

Both these projects enabled historic buildings to stand in a better light than they ever could before. They use the best of the Roman Baths and Abbey, reaching out, under the pavements and into the drains, into their own foundations to make this city work better. Tourists may never see the difference but the experience of Bath will be better for it. ●



The benefits of collaboration on display at Westmark Tower

AluK helped save months from the build schedule of a 29-storey, curved-in-plan tower by working closely with the architect, developer and other consultants throughout

The 110m, 29-storey curved-on-plan Westmark Tower is the tallest residential tower completed in central London during 2021. Part of Berkeley Homes Central London's prestigious West End Gate development in Marylebone, it features more than 14,000m² of unitised curtain wall, designed and supplied by aluminium fenestration specialists AluK and installed by envelope contractor Martifer.

What makes this project really stand out is the collaborative approach that was demonstrated by AluK and the other consultants involved from the outset. With Berkeley at the centre of the process, the technical and commercial elements of the facade were successfully de-risked at pre-tender stage because AluK was able to work directly with lead architect Squire & Partners, delivery architect Design Delivery Unit (DDU), facade consultant Cladtech Associates and structural engineer WSP – on a RIBA 4 system design for the unitised envelope.

Jon Sheaf, AluK's national major projects manager, explained: 'AluK's specialist expertise meant that we could create a unitised facade for the post tensioned concrete frame which easily satisfied the design intent, while making sensible savings on metal and accessory costs. As well as accelerating the design of the structural frame, this approach saved Berkeley many months compared to the



normal procurement route and meant that the tender returns for the fabrication and installation of the facade were accurate, comparable and saved the tenderers the normal costs associated with a bid. Effectively, this de-risked the process for Berkeley as the commercial and design iteration took place pre-bid and was not left to interpretation.'

The challenge for AluK was to work with DDU to deliver a design that was true to the architect's original intent, while addressing the technical issues of a curved-on-plan facade from the second to 29th floor. All the united cells needed to be dead-loaded back to a post tensioned concrete frame with a three dimensional floor bracket, while catering for the varying facets of the facade.

Tim Gledstone, partner at Squire & Partners, commented: 'Design challenges were overcome quickly and thoroughly with the AluK team. Optimum possibilities were understood and clearly communicated, generating a safe,

Above Westmark Tower features more than 14,000m² of unitised curtain wall, designed and supplied by AluK.

Right What made the project really stand out was the collaborative approach adopted by AluK and the other consultants.

Far right There are more than 2200 unitised cells in the tower, with a vision cell, panel cell and a recessed balcony cell for each floor.

efficient and elegant design solution.'

The final unitised solution features more than 2200 unitised cells of three principal configurations. Each floor comprises: a vision cell, typically housing AluK's concealed vent and full height glass panes; a panel cell, specifically designed to house specialist internal framework to carry articulated GRC (glass reinforced concrete) feature piers and spandrels; and a recessed balcony cell with an integrated floating glass balustrade.

With 36 different angles to overcome in a faceted design ranging from 0° to 15°, AluK developed a series of common aluminium



extrusions to close the joints and reduce the number of profiles required. The horizontal stack joint uses an aluminium profile to carry the gasket and avoid crimping as the cells are stacked around the building structure. Also significantly, every cell connection provides four lines of system seal to ensure the facade meets the stringent Cladtech performance specification and the CWCT Sequence B test.

AluK's system, extruded from 6063 T6 alloy, extracted benefits from both a mitred corner and a square cut system by creating a hybrid to suit both the client's aesthetic desire for a mitred joint to the corners and

Martifer's manufacturing requirements of a square cut for economy.

AluK also extruded tailored aluminium bracketry from a structural 6082 T6 alloy which was capable of supporting the system weight and allowing for three dimensional adjustment for precise installation.

From the onset of the project, the Berkeley director team set out a time and design model of early engagement, specialist designers and fabricators – all within a clear programme. This included a series of productive workshops sharing client expectations and considerations. AluK not only facilitated these meetings but bought

into the collaborative ethos and contributed to a highly successful project for Berkeley.

The facade design meets the thermal efficiency requirements of the building at 0.95W/m²K, as a weighted average. Using a 43dB Rw(+Ctr) acoustic glass, it also meets sound reduction targets.

Squire & Partners' Gledstone added: 'Working together early in the design process allowed the design intent to be generated out of the crafted AluK products and industry latest processes. We could celebrate the best of the systems and push their potential to the optimum limits. The AluK design team were exceptional; dynamic and supportive throughout.' ●

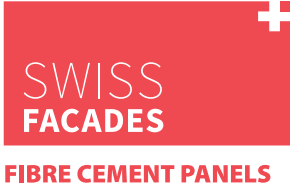


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More info at: <https://uk.aluk.com/en-gb/home/specifier-or-via> info.uk@aluk.com and on: 01291 639739.

To view the project in more detail: (QR code)





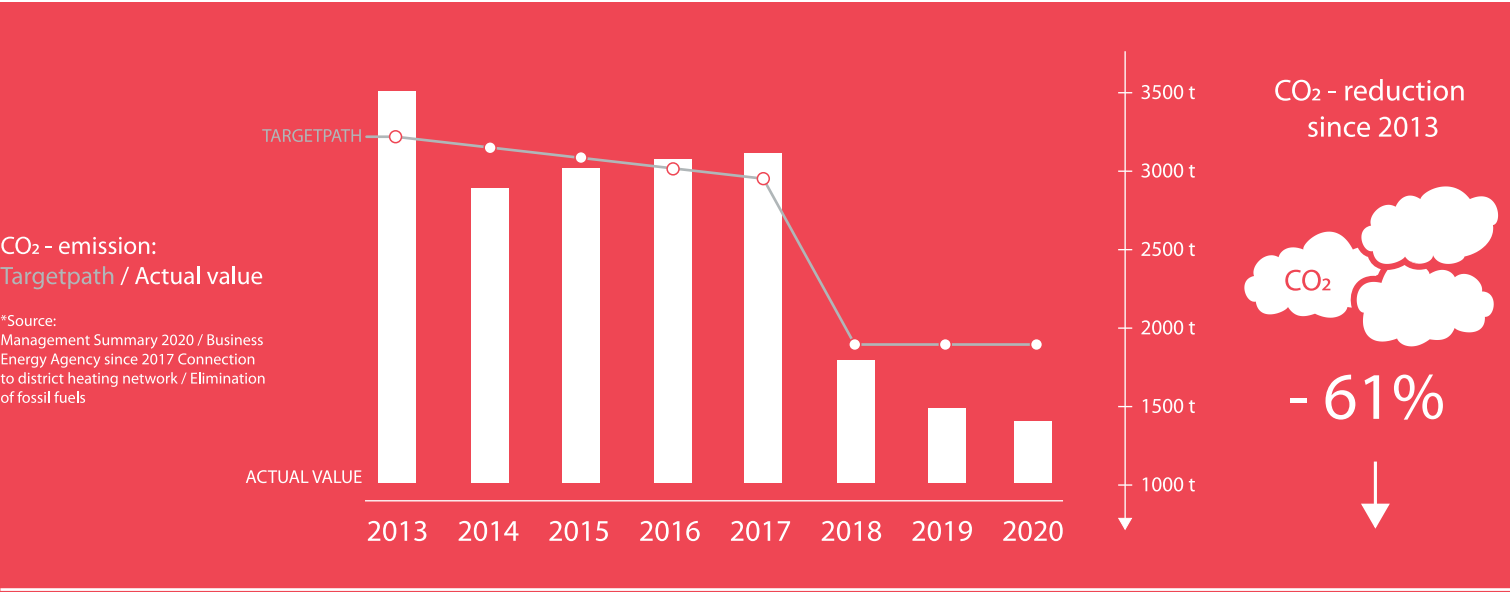
Discover the cladding that is kinder to the environment

Swisspearl fibre cement panels are used worldwide and are recognised for their high quality and unrivalled design and finishes. The product is not new to the UK market and has been in circulation since the 1990s, and since 2010 has been promoted through their distributor Swiss Facades.

A major goal of the manufacturers of Swisspearl is to reach total elimination of fossil fuels.

Today, the Niederurnen site is fuelled directly from the main waste incineration plant in Switzerland.

Swisspearl work with government bodies to set these targets and are reviewed annually to keep on track; since 2013, CO₂ emissions have been reduced by 61% and energy efficiency has been increased by 21%.



Some of the ways this was achieved include:

- Producing electricity using solar panels, which is fed into the factory's internal power grid and reduces external power consumption
- 90% raw material transported by rail to reduce emissions
- Switching to electric powered vehicles for transporting materials around the factory
- Factory lighting, motors and compressors are kept updated to ensure optimum efficiency
- 84% of raw material sourced locally from Switzerland
- Almost 100% excess waste-water from the factory is biologically purified and returned to public water by waste-water treatment organisations



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2: Intelligence



Holly Lewis



Holly Lewis, co-founding partner at We Made That, explains the route to becoming a B Corporation

You've recently been certified as a B Corporation. What does that entail?

B Corps are businesses that meet the highest standards of social and environmental responsibility, transparency and accountability. You provide information on every aspect of the business, with evidence, and have to score over 80 out of 250. The average applicant gets around 50; we got 85.3. Assessment was quite an endeavour; it took a lot of time and drills down deep, not just asking if you're doing staff wellbeing surveys, but what proportion are satisfied.

Why did you want to get certified?

We've always tried to be a good business, and say so, but that's meaningless unless it's externally verified. There are benefits beyond getting a warm glow inside. We now have a structured set of goals for improvement. It's good for recruitment – candidates have raised it as a distinguishing feature. And clients are assured that they are working with the right people. As ESG (environmental, social and governance) issues rise up the agenda, it can be useful to demonstrate the values of their suppliers.

Did you have to make any changes to qualify?

It prompted us to do things we might not have considered, such as reporting financial results quarterly to our office of around 20 people and giving written career advice. Our articles of association now commit to balancing profit and purpose. Making the changes was straightforward because we have autonomous control within the business – no board approval required. We need a policy to support breastfeeding mothers? Done.

How well does the assessment reflect the nature of architectural practice?

No equivalent scheme considers the whole of what we do; the impact of our projects and how we run the practice. The fit isn't exact, but it does a very good job. There's a set of general questions and others that are specific to the 'built environment stream'. We do a mix of research, masterplanning and buildings, so got fewer points for sustainability measures than others might. Yet good scores for our impact on low-income neighbourhoods don't count in our stream. That was frustrating, but we were pleased with our result.

Do you think many practices could achieve certification?

Many have told us they are starting the process. There are some pass/fail criteria, so if you've got some tricky tax set-up you'd fall at the first hurdle. After that, most could aim for it. The bar is set high, but running through the assessment to see whether you're within touching distance of 80 is useful and thought-provoking.

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



Insolvency: could you spot it?

The chancellor’s welcome measures to keep businesses afloat during the pandemic could harbour a problem – zombie companies that are about to fail. What can you do to spot and avert disaster?

Paul Cacchioli

According to the latest data from the Construction Products Association, construction output in May surpassed pre-pandemic levels, with activity in 2021 and 2022 forecast to rise 13.7% and 6.3% respectively. While employers and contractors will be buoyed by the forecast recovery, they will need to tackle the dual constraints of the growing skills and materials shortages if they are to meet this rising demand.

Materials shortages have been widely reported by market commentators in recent months, with five particular causes identified. Most obviously, Brexit has produced a reluctance to trade with the UK due to perceived issues with regulation, processing of imported goods and materials, customs etc, while factory closures and then new working practices, both triggered by Covid, are reducing output at home and abroad. Additionally, a shortage of shipping containers



ISTOCK

was exacerbated by the blockage of the Suez Canal, and global shortages of supply of core materials such as timber, steel and cement are beginning to bite. Alongside these problems, large infrastructure projects such as HS2 are monopolising available supply.

As for the workforce, an already growing shortage in skilled labour has recently been accentuated by a fall in EU-born workers in the UK market, as many leave the UK in the wake of Brexit.

As fiscal and legal support is gradually phased out, there is a risk some companies may struggle and insolvencies will begin to materialise

Afloat in choppy waters

Given these market conditions, is the construction sector entering a perfect storm? It certainly has many challenges to navigate if it is to prosper.

Construction has benefited from government support for business throughout the pandemic, in the form of financial incentives and fiscal measures such as the furlough scheme, government-backed loans and tax deferrals. As reported by the British Business Bank, the construction sector was one of the biggest recipients of funds, having received the highest proportion of total Coronavirus business interruption loans and bounce back loans, with £2.5 billion and £7 billion of loans offered respectively.

In addition to these supporting incentives, in June 2020 the government introduced the Corporate Insolvency and Governance Act 2020 (CIGA), to protect businesses in financial distress as a result of the pandemic. Covid’s continued impact

saw the protective provisions extended to September this year.

The key provisions of relevance within this statute can be summarised as permanent and temporary reforms.

Permanent reforms

These consist of three strands. First is the restructuring plan, which gives a company in financial distress the opportunity to agree a restructuring arrangement with its creditors.

Secondly, a moratorium is available, a ‘freeze’ which is intended to provide companies with a formal process to explore and develop a viable restructuring plan. Importantly, this also offers the company in question legal and enforcement protection. It is worth noting that, while the company remains under its own management during the moratorium (initially 20 business days but extendable by agreement or as ordered by a court), an insolvency practitioner is appointed to help protect creditors and provide some supervision.

Finally, the statute seeks to limit the ability of a supplier to terminate the contract in the event that a company becomes insolvent.

Temporary reforms

These address statutory demands and winding-up petitions, removing the threat of the latter as a means of debt collection, and aiming to protect a distressed company as it seeks to explore other trading options.

Moreover, the government has also attempted through the Construction Playbook to reinforce the principle of prompt payment to all suppliers, and in turn their supply chain, to safeguard the delivery of public sector projects and programmes.

In support of this fundamental provision, public sector employers such as Network Rail have led the way by implementing other methods of relief for at risk businesses within their supply chains on a case-by-case basis. Such measures include immediate payment terms, advanced payments, increased frequency of payments, relaxation of relevant contractual terms and the payment of reasonably incurred additional costs arising as a direct result of Covid-19.

Recent commentary suggests that these fiscal, legal, and commercial measures have had a positive impact, citing a dramatic reduction in the insolvencies from 3,228 in 2019, to 2,042 in 2020.

It is important that businesses remain alert and monitor their supply chain to protect themselves from any failures within it

The walking dead?

While such support and protection provided by the government and enacted by public sector employers should be applauded, there is a danger such measures have only delayed the inevitable. Are some of these businesses unlikely to recover from the pandemic – and have they become zombie companies?

If this is the case, as we start to take tentative steps forward removing Covid-19 restrictions, and as fiscal and legal support is gradually phased out, there is a risk that such companies may struggle and that insolvencies will begin to materialise.

Protective measures

Consequently, it is important that businesses remain alert and monitor their supply chain to protect themselves from any failures within it. In terms of protective measures, it seems that employers and contractors alike are seeking appropriate guarantees, warranties and bonds throughout their supply chains. A greater level of financial due diligence and scrutiny is also being imposed throughout the market to validate the financial wellbeing of suppliers.

Monitor for financial distress

Notwithstanding these protective measures, constant monitoring is vital. However, early signs of financial distress can be seen in a number of ways, for example: a high turnover of staff, general decrease in on-site labour, works slowing down or not achieving project timescales or milestones, poor quality workmanship and/or an increase in defects, and the removal of plant, equipment and/or materials from site.

Also, as a consequence of financial hardship, certain actions by a company to improve cash flow may be a cause for concern. These may include: requests from the contractor for changes to the payment mecha-

nism, inflated applications for payment and/or unsubstantiated claims, complaints from sub-contractors regarding payment, a lack of response to correspondence, and late filing of statutory accounts and annual returns.

Safeguard: do’s and don’ts

Any company seeing these warning signs, and a rise in the risk of insolvency, must act quickly to protect itself. It can adopt some simple ‘do’s and don’ts’ to help safeguard its position and avoid various pitfalls.

For example, without taking legal advice, the ‘don’ts’ include:

- Terminating, novating, or assigning contracts
- Appointing a new contractor to carry out relevant work
- Paying sub-contractors directly
- Making advance payments or paying for off-site materials.

Notwithstanding the risks attached to the potential insolvency of a supply chain member, a company could take pre-emptive steps to prepare itself. These include:

- Ensuring it has a complete set of contract documents (including warranties and guarantees) as these documents are often not conveniently stored or are incomplete
- Establishing a full list of the contractor’s management team
- Identifying sub-contractors that are critical to the timely completion of the works, and checking whether collateral warranties are in place
- Clarifying its rights and obligations in the event of an insolvency, such as seeing if it has step-in rights
- Scheduling and, if possible, safeguarding any plant, equipment, and materials that it has paid for
- Getting the paperwork in place. Instigate full monitoring of progress and determine the scope and value of remaining work – mark up drawings, take photos, etc
- Preparing a contingency plan in the event of the contractor’s insolvency (identify other suitable suppliers, critical supply chain members and materials, etc).

It remains unclear as to how the construction sector will respond to the challenges of the current climate as government support is eased but it is imperative that firms remain vigilant. ●

Paul Cacchioli is a chartered quantity surveyor and director of HKA Global



Business, clients
& services

Profits hold up despite falling revenues

The RIBA annual benchmarking report shows reasons to be (cautiously) optimistic, with a resilient and fast-adapting profession emerging from lockdowns relatively intact

Adrian Malleon and Aziz Mirza

This year’s RIBA Business Benchmarking report is the first definitive overview of the effects of the Covid-19 pandemic on chartered practices. In 2020, the overall UK economy shrank by around 10% and the construction industry by 14%. Ways of living and working changed overnight. Thankfully, 2021 has seen recovery and restrictions ease.

The 2021 report covers the first full year of the pandemic, including the effects of lockdowns and the early part of the 2021 bounce back. In many ways, it is a punishing read about a punishing 12 months. Falls in the architecture market were inevitable. But there is one bright light in the murk; throughout the pandemic, practices have, on average, preserved their profitability.

Since 2018 the benchmarking report has monitored the business of architecture through core benchmarks such as revenue, expenditure, profitability and types of work. This year many of those have turned negative. Practice revenue is down by 15%, practice staff numbers have fallen by 10%, and income from international work declined by 14%.

However, practices have consistently demonstrated an ability to adapt to market changes. The pandemic has required that to be rapidly accelerated, with changes to business strategy needed in weeks or days rather than the more usual months or years. This

ability to rapidly and successfully respond to new client requirements and markets, and a need for new ways of working has paid off. Overall, practices have preserved profitability and completed the same number of projects in 2021 as 2020.

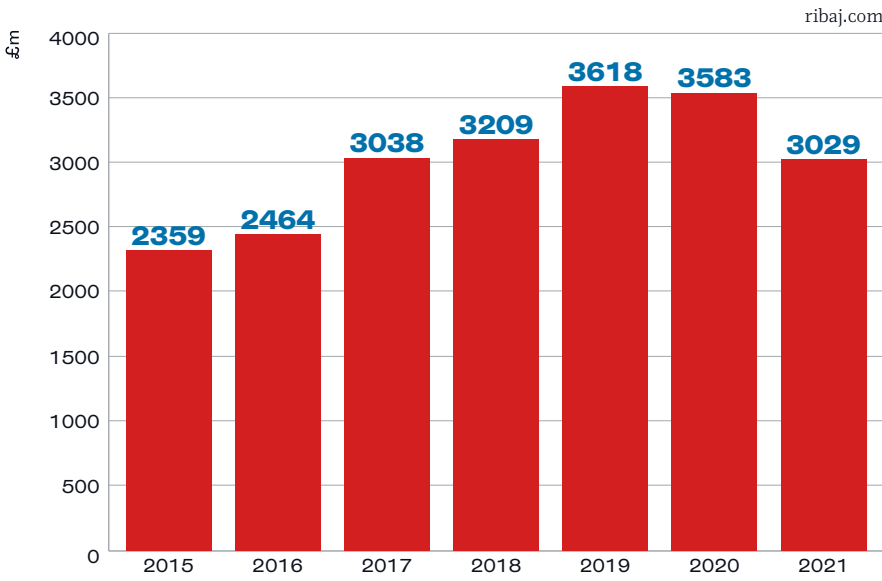
Revenue and profits

The total revenue generated by all RIBA practices has fallen by 15%, from £3.6 billion

in 2020 to £3.0 billion in 2021. This follows a dip of 1% in the previous year.

Almost all practice sizes have seen revenue fall – for some, it is for the first time since this survey began. Some of the biggest falls in revenue have been among larger practices. Those with 50-100 employees have seen revenue fall by 20%, with an 8% decline for those with 100+ staff. Practices with 50 or more staff account for more than half of all practice

Total chartered practice revenue



Source: 2021 RIBA Benchmarking report



Left House within a House, designed by Alma-nac. Revenue from house extensions, conversions and alterations increased this year. Architects performed a critical service as the public reacted to the limitations of their homes during the months of lockdown.

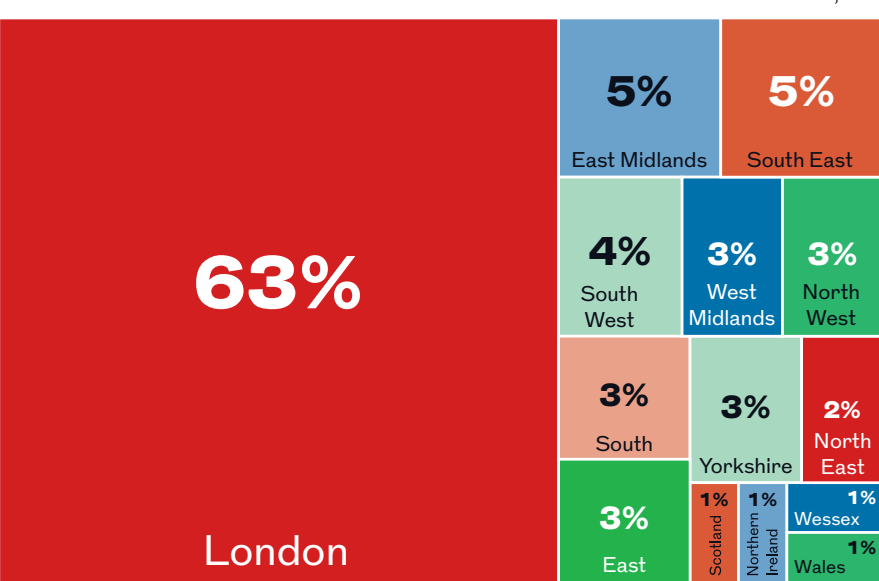
JACK HOBHOUSE

revenue, so these falls are significant.

But against falling revenues, chartered practices have impressively maintained profits at last year’s level, largely through cost reduction, continuing a trend we first saw in 2020’s survey. In part, expenditure fell as a result of altered ways of working; travel, for example, is down by half. But at 62%, payroll is by far the largest element of practice expenditure, and is the most significant area

While practice revenue has fallen, chartered practices have impressively maintained profits at last year’s level

Revenue share by RIBA region



Source: 2021 RIBA Benchmarking report

in which firms have cut spending, partly because of the furlough scheme. Falling payroll costs accounted for most of the reduction in average practice expenditure.

Not all costs are down, however. Practices are spending 15% more on ‘software associated exclusively with architectural practice’ and an unprecedented 55% more on professional indemnity insurance than last year.

Work types

Overall practice revenue was down as the general economy, construction industry and architects’ market all contracted in response to the pandemic. But revenue by sector varied in line with the buildings people needed, as they made their way through the pandemic. Demand fell in sectors that support people gathering, with reductions of over 30% in revenue from work on offices, culture and entertainment, sports and leisure. However, as working at home became the norm for many, clients looked at adapting their houses. Revenue from house extensions, conversions and alterations increased this year. Architects performed a critical service as the public reacted to the limitations of their homes during the months of lockdown.

Regions and international

The UK architectural market is concentrated in London, with the capital having the highest average revenue per practice, and 63% of

Right Around one in six pounds of Chartered Practice revenue comes from overseas projects. Some of this work is celebrated in the RIBA International Prize, which this year shortlisted the Lille Langebro bridge in Copenhagen, by Wilkinson Eyre.

chartered practice revenue. But this year’s report shows that London practices are being particularly hard hit during the pandemic, with a 20% fall in revenue, and a diminished share of the UK market. Not that the rest of the UK has gone unscathed though. Most regions reported a fall in revenue, although for some it increased, partly due to a rise in domestic work. Those who fared better are the South, West Midlands, East, Yorkshire, North East and Northern Ireland.

International work continues to be a vital source of revenue, with practices generating more than £500 million from overseas work last year. Around one in six pounds of their revenue comes from work overseas. Led by the capital, the UK has a positive trade balance in architectural services; +£449 million at the last count. However, after two years of record highs, international revenue has declined by 14% compared to last year – similar to overall practice revenue. Practices with 100+ staff have seen the largest falls, with their share of overseas work down from 85% to 71% this year.

The Middle East remains the largest



RASMUS HUORTSHØJ

source of international work and along with the EU, Asia and North America accounts for around 90% of all overseas revenue. While practices with 100+ staff generate nearly all the international revenue from the Middle

East, Asia and America, smaller practices do work overseas, mainly in the EU and other parts of Europe.

The future

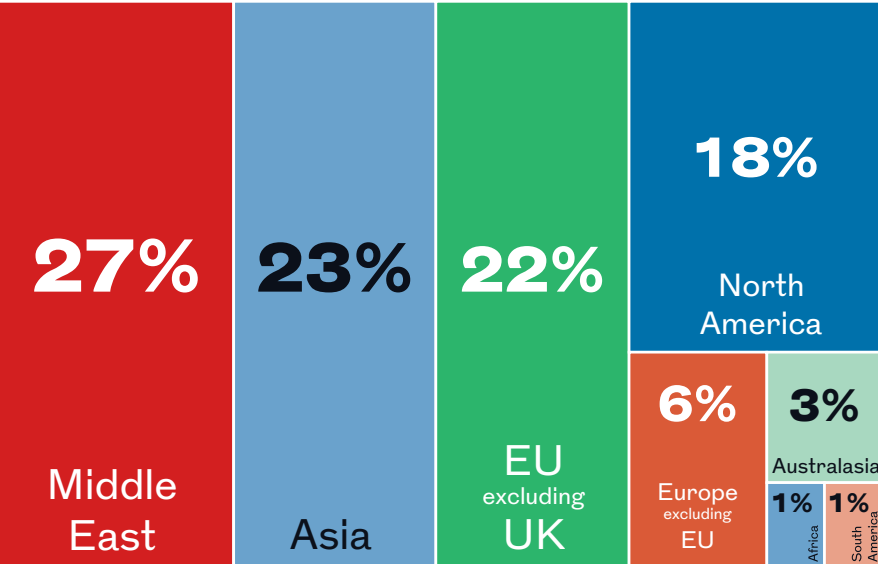
As we look forward, the RIBA Future Trends survey suggests there are reasons for guarded optimism. Although the twin pressures of Covid and Brexit continue to weigh down on the supply side of construction, demand is holding up. Private housing led the recovery in architects’ work and that is now broadening with the commercial sector picking up in the second half of 2021. The fear of widespread redundancies has faded. At the peak of the pandemic effects, 20% of practice staff were on furlough. Now 18% of practices are reporting difficulty recruiting staff.

We hope the worst of the Covid storm is over, and practices can look forward to greater stability in 2022. ●

The full 2021 report and interactive ‘Benchmarking Tool’ is exclusively available to RIBA chartered practices at www.ribabenchmark.com, for detailed commentary, granular data and the facility to compare your practice with similar ones. Our sincere thanks to those who completed the survey on behalf of their practice.

International revenue by region

ribaj.com



Source: 2021 RIBA Benchmarking report

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Design... in the making



Panel system protects and allows speedy recovery from fire

Envirograf’s EnviroEcoWall is a load-bearing panel that not only prevents the spread of fire but is quickly and easily cleared and replaced after any outbreak

EnviroEcoWall is Envirograf’s unique pre-engineered, insulated, load bearing panel system designed to form a fireproof building envelope. It replaces traditional construction methods by combining structure, insulation, air and vapour barriers in one prefabricated component.

The panels

At the very core of each EnviroEcoWall panel is our non-combustible insulation slab – a durable and stable high-density material that provides excellent fire protection and, thanks to tightly-woven fibres that help to reduce the transfer of heat and sound, great acoustic properties and outstanding thermal performance.

The design of EnviroEcoWall’s timber framing negates the need for additional fillets or splines; the panels slot together seamlessly and are secured with our high-performance adhesive and mechanical fixings.

Fire resistance

EnviroEcoWall panels are completely fire resistant, tested to over three hours with a load of 3,900kg.

Heat & sound

The panels have been extensively tested to evaluate their performance in insulating against the transmission of heat and sound. Air leakage associated with traditional construction and timber frame is virtually eliminated when using EnviroEcoWall panels thanks to their large format and the consequent small number of joints in the structure. As a result the house requires few, if any, mechanical heating or cooling measures.

Flood protection

Our EcoHouse is constructed on a purpose-built steel sub-frame that helps to protect the superstructure and building contents from damage caused by flooding. The sub-frame is wrapped with fire resistant material for additional protection and, should prevailing weather conditions become more severe, the height of the sub-frame can be increased to permanently expand ground clearance of the entire building, even after construction.

Cost effective

Using our EnviroEcoWall panel system is more cost effective than traditional building methods. While some of the materials may initially be more expensive, the speed of construction combined with the drastic reduction of on-site waste make it more cost effective overall. In addition, the finished build offers the added benefit of improved thermal efficiency, and therefore saves money on heating bills in the long-term.



Above A fully furnished test house was constructed and fires set on both floors. Architects, engineers, surveyors and the NHBC were among those observing the house during the fire.

Easy refurbishment after fire

Should a fire occur in one room, our development testing showed that the fire-resistant properties of the EnviroEcoWall panel system are able to contain the outbreak, stopping its spread to other rooms and eventually forcing the blaze to extinguish itself. Thanks to this successful fire limitation capability, and the absence of water damage that would normally be caused by firefighting measures, repair and renovation is quick, easy and, of course, much more economical.

Once the burnt furnishings are cleared, electrical fittings and the top plasterboard coverings can be removed and quickly replaced. Our intumescent protection means that new sections of cable can simply be pulled through and connected to new fittings. Any damage to glazing is rectified before final decoration and speedy re-occupation after what would typically be a much more devastating series of events – and not even the smell of burning remains.

External cladding

There is a huge variety of finishes available as any type of cladding can be used for the external finish.

Quality and efficiency

EnviroEcoWall panels are fabricated using timber from sustainable sources. They use less timber than standard timber framing and are an economical and eco-friendly forms of construction.

Strict quality control during our off-site fabrication process ensures dimensional accuracy, helps reduce build time and minimises waste on site. A weatherproof building shell can be complete just a few days after the groundworks are ready to receive the panels. ●



Top A structural engineer finds the fire wall cold to the touch.
Above One of the burnt rooms rapidly and fully restored and ready for occupation. Removal and replacement of burnt plasterboard and replacement of electric fittings took about 2 hours and 40 minutes.
Right Inside one of the rooms before the test was started.



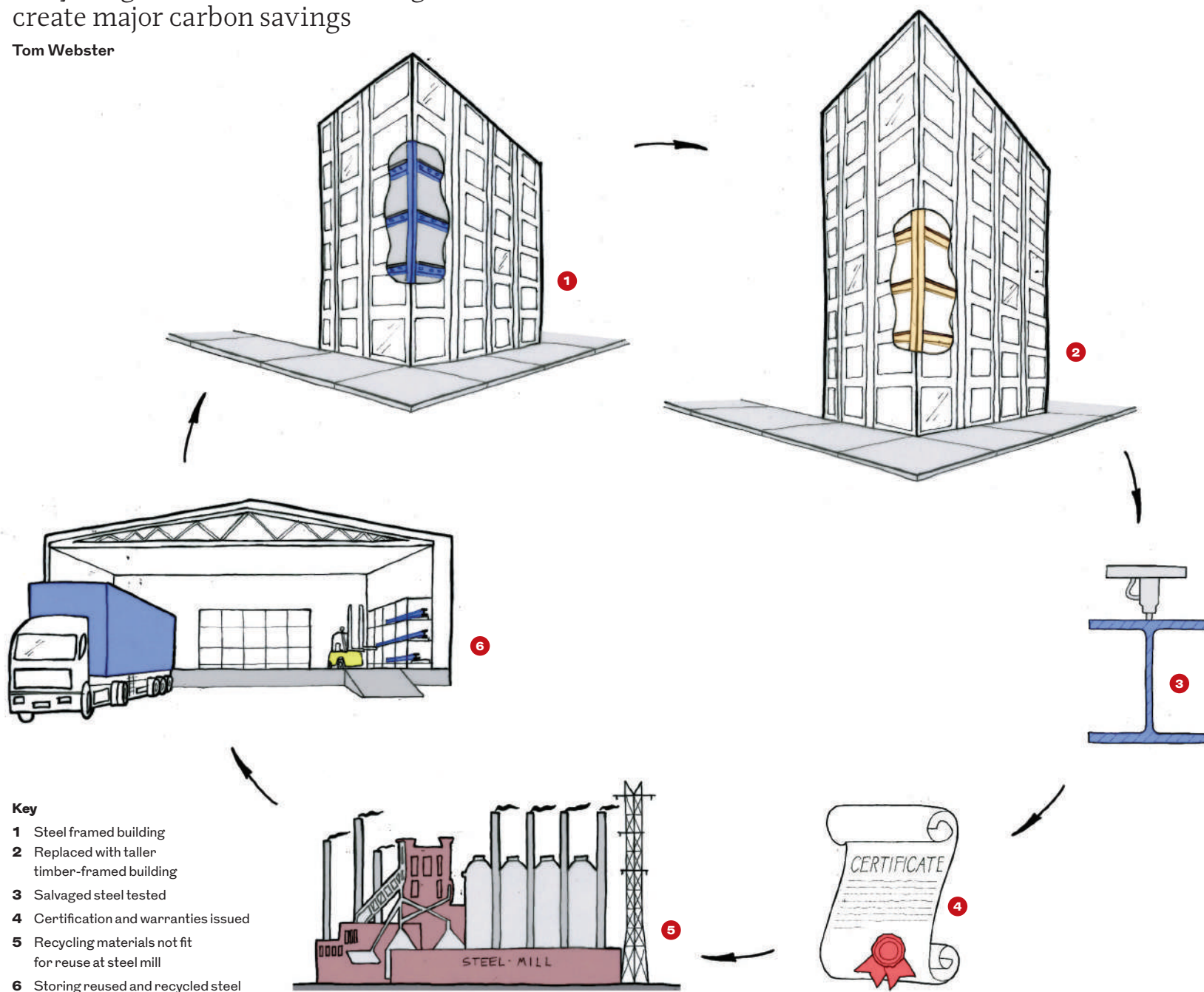
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Sustainable
ArchitectureDesign, construction
& technology

How to bring steel into a green circular economy

Recycling – or better still, reusing – steel structures could create major carbon savings

Tom Webster



The urban mining of buildings is a true celebration of circular economy and has the potential to go a long way to reduce the embodied carbon of the built environment. While at a smaller scale, raised access floors and ductwork being upcycled and reused are increasingly common, does it make sense for this approach to be applied to the structure of a building? Of course, the answer is Yes.

A standard office building, which is founded on piles and has a superstructure of a steel frame with composite slab, is likely to create around 1200 tonnes of CO₂e during the construction of the superstructure alone. The original embodied carbon of this structure has been spent and has done its damage. If it cannot be refurbished we could mine this building to place the constituent materials back into the supply chain.

Steel is a woeful performer in terms of embodied carbon, but it is a great circular economy material, being recyclable without harm to its structural performance. This may come as a shock to some though – recycling virgin steel produces around just 50% of the original CO₂e.

If we take this principle further things start to get really interesting. If we recycle steel elements within a building and replace it with a new timber frame building, we could potentially sequester enough carbon from the atmosphere to start creating an embodied carbon deficit.

A steel frame with composite slab is between 30-40% heavier than an equivalent timber frame. By leaving the original foundations in the ground and reusing them for a new timber building, it could be 30-40% taller. If we replaced an existing six storey steel frame building with an eight storey timber frame one, the embodied carbon in the frame would be: 540 tonnes CO₂e to recycle the steel and 450 tonnes CO₂e to build new timber building – but sequestered carbon in the timber amounts to -1500t CO₂e.

So working through the numbers you can remove 500t CO₂e from the atmosphere and provide a bigger building, while placing materials back into the supply chain for use elsewhere. And other types of urban mining could be more appealing to those less comfortable with use of timber in buildings.

There are a few projects under way in London where the superstructure is all or part formed using reclaimed structural steel from other sites owned by the client. This, as a

concept, is a very pure version of the circular economy and urban mining.

In this form the embodied carbon is kept to a minimum and the additional embodied carbon would be associated with storing, cleaning, re-fabricating and painting the steelwork.

If the steelwork is reused rather than recycled, that embodied carbon figure potentially falls from 540t CO₂e to 150t CO₂e – presenting us with a staggering potential net 900 tonnes of CO₂e benefit.

Scaling up urban mining for the circular economy to make it feasible across the industry needs to be part of the design process at the start of the project, and needs the support of manufactures. There are three critical moves.

First, when a building is demolished all its components need to be scheduled and stored for re-use. This requires space and time.

Secondly, assurance and warranties would be required to ensure the buildings can be designed appropriately and insured so that all or some of these components can be tested and their properties verified/certificated. And finally, a database listing where the components for reuse can be found and bought would be needed.

It requires some joined up thinking, a little investment to get things off the ground and some willing clients to apply these principles to their schemes. One such client is the massive Grosvenor Group, which has been actively exploring the circular economy in the UK and there is a promising model in RotorDC, a Brussels-based group that deconstructs, processes and trades salvaged construction materials. Perhaps it is a precursor to a giant construction-based eBay for the built environment.●

Tom Webster is a director at Webb Yates Engineers

SILVER LININGS

See other materials that revealed some surprising results when put under the sustainability microscope in this occasional series by Webb Yates:

Concrete ribaj.com/concrete-mitigation

Brick ribaj.com/block-on-brick

Stone ribaj.com/sustainable-stone

Personal responsibility ribaj.com/think-in-range-rovers

If the steelwork is reused rather than recycled, that embodied carbon figure potentially falls to 150t CO₂e – presenting a staggering potential net 900 tonnes of CO₂e benefit

Steel is a woeful performer in terms of embodied carbon, but it is a great circular economy material, being recyclable without harm to its structural performance

Health, safety
& wellbeingLegal, regulatory &
statutory compliance

Profession returns to centre stage

The Building Safety Bill will give architects challenging responsibilities – and a welcome return of authority

Adrian Dobson

It is four and a half years since the Grenfell Tower fire in which 72 people died – the largest loss of life in a peacetime building fire since the Exeter Theatre Royal fire of 1887. The subsequent cladding crisis, which has left many tenants and leaseholders with huge uncertainty over the fire safety of their buildings and led to mortgage blight, indicates a widespread industry problem with fire safety. Already the Grenfell Tower Inquiry has raised issues of concern, including lack of independent oversight of product testing and construction, ambiguous and lax building regulations guidance and ineffective building control enforcement. Inevitably doubts have also arisen about the competence of construction industry professionals. Those who lost loved ones want to understand who was responsible and why this terrible event occurred. As the pool of potentially affected buildings has expanded, the true cost of necessary remedial work has wide ranging implications, including unsellable properties, flat owners facing bankruptcy and the professional indemnity insurance crisis.

Wide-reaching reform

The government commissioned Judith Hackitt's independent review of building regulations and fire safety and is committed to undertaking the reforms put forward in her Building a Safer Future report. The Building

Safety Bill, now progressing through Parliament, is the enabling legislation for a reformed regulations system in England – the most radical shake-up of building control since the 1984 Building Act. Draft regulations which will form the secondary implementing legislation have also been published including the Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations and the Building (Appointment of Persons, Industry Competence and Dutyholders) Regulations.

There will be a new Building Safety Regulator (BSR) within the Health & Safety Executive with responsibility for overseeing the safety and performance of all buildings, the delivery of a specific more stringent regime for higher-risk buildings, and promoting the competence and organisational capability of professionals, tradespeople and building control professionals working on all buildings. The BSR will oversee and monitor all building control authorities (local authority and approved inspector) and itself become the building control authority for higher risk buildings, monitoring enhanced gateway processes and information requirements. It will take responsibility for the Approved Documents.

Accountable persons

The bill will create new duty holders in relation to building regulations compliance for all construction projects: designers, principal designer, contractors and principal contractor. For occupied higher risk buildings, an identified accountable person will appoint a building safety manager.

All architects will have duties as designers on all projects. As the bill is currently drafted, this includes ensuring that, if built, their designs would comply with all relevant requirements; providing sufficient information about design, construction and maintenance; and considering other design work and reporting any concerns to the principal

For higher risk buildings
the principal designer and
principal contractor will
be required to co-sign a
'compliance declaration'

designer. Architects acting as principal designer will need to plan, manage and monitor the design work, ensuring that, if built, it will comply with building regulations. They will need to ensure that they and the designers in the team co-ordinate their work with the client, principal contractor and other designers. For higher risk buildings the principal designer and principal contractor will be required to co-sign a 'compliance declaration', which for the designer states that they 'took all reasonable steps to fulfil their duties as a principal designer under the Dutyholder Regulations'.

The RIBA has given comprehensive evidence to the Building Safety Bill committee. It has raised concerns including the need for the appointment of the principal designer to be required at Gateway 1 (planning) on higher risk buildings, and for the wording of the duties to replace absolute obligations ('ensure' etc) with 'so far as reasonably practicable' obligations, to avoid creating uninsurable liabilities. Clarity is also needed on the monitoring of construction for design compliance, especially in the design and build contractual context.

Architects for the public interest

The Building Safety Bill undoubtedly creates challenges for the profession over managing liabilities and achieving compliance, but, after several decades of diminishing power and authority, it also gives the architect a once in a generation opportunity to fully take on the serious public interest responsibility inherent in producing a built environment that prioritises the health, safety and welfare of building users and to move back from the margins to the centre of the stage. Although the legislation states that the principal designer role for building regulations might be carried out separately from that of the principle designer role for CDM regulations, it is clearly advantageous for a single design organisation to undertake this as an integrated role. The British Standards Institute is developing BSI PAS 8671, which sets out the competence requirements for principal designers (individual principal designers and designated individuals working under organisational principal designers) and the RIBA will develop a certification scheme for architects. The new arrangements will come into place during 2023.

The regulatory tide is rising, and time for preparations is short. ●

More on the bill: <https://www.gov.uk/government/collections/building-safety-bill>

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Virtuous spiral

A new RIBA online series Making Buildings, will feature first-hand accounts of architects' details, explaining the decisions that informed their thinking. Opening the series, Tonkin Liu director Mike Tonkin explains what drove the firm's design for the spiral stair in its Stephen Lawrence Prize-winning Water Tower in Norfolk

Below The timber stair tower not only supports itself but brings lateral stability to the steel tank structure adjacent.

Right Inspired by traditional French staircases, the CLT stair design is strikingly simple and modern.



What ideas drove your initial design thinking for the staircase?

The decision to run the stair tower alongside the building was driven by all the water tank's supporting structure at the top as well as the need to put all the accommodation in the volume below it. Floor to ceiling heights were tall in the original structure so a pure spiral stair would have been challenging for users, while a dogleg stair, with a landing at both ends, would have made the runs too steep.

We were initially inspired by traditional Georgian stairs – I grew up in Bath – and the way they run straight and then fan around

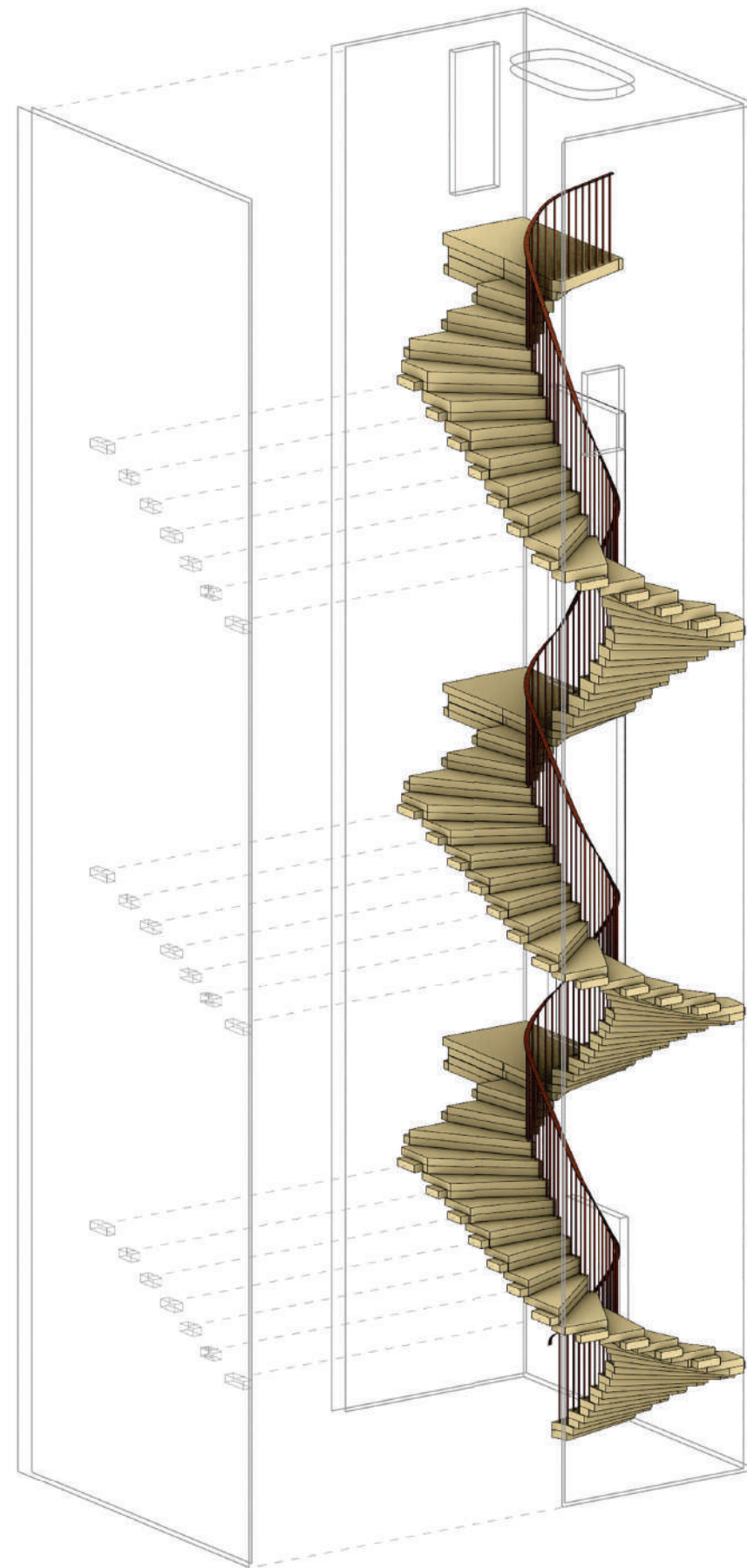
at their ends; but more so by their French equivalents, which fan all the way along the run. Their form might have originated from right-handed knights defending Norman keeps but it seemed to apply very well here.

How does it meet building regs guidance?

Building regs say you're supposed to have a landing every 16 stairs, but given that we were dealing with an existing condition, we explained to the building control officer that the stairs were going to be unconventional. The fans on the turn are quite big, which allows you to stand in the widest part while someone passes. There is also a regs



TARA WILKHU



Left The staircase's continuous fan allowed the stair design to deal with the existing floor-to-floor flights. Grd-2nd FL= 80mm stair tread + 80mm wedge tread. 2nd-3rd FL= 120mm stair tread + 90mm wedge tread.

Right The prefabricated stair and wall elements were brought to site and assembled by two carpenters, who constructed it, tread by tread, in five days.

requirement for a minimum of 50mm width at the tightest part of the turn but we exceeded that throughout. A lot of the design criteria fell between the regs for a spiral staircase and a straight stair. In the end, building control was okay with its hybrid nature.

So how is the stair engineered?

Along the lines of the way Robert Adam and Wren did their cantilevered stairs: supported at three points and delivering load down the outer unsupported edge – it's how a compression spiral works.

The stair tower is four storeys high, yet our engineer Mervyn Rodrigues managed to get their structural thickness down to 80mm. The reason why they're so thin is that the compression spiral is transferring most of the load down through the outer edge and so the strip foundations for the timber walls at ground level step in to take account of this.

The design is extremely simple. Small cut-outs for the treads were cut from the timber wall before they came to site. Each tread consists of two 80mm pieces of CLT and two layers of 4mm plywood making up the total tread rise. Every second piece of CLT slides into and engages with the wall, a shoulder on each one to ensure perfect alignment. The interstitial piece of CLT slides in and is mechanically bolted through to the next wall-engaged piece. With only every other CLT piece interfacing, we didn't compromise too much of the wall's structural integrity.

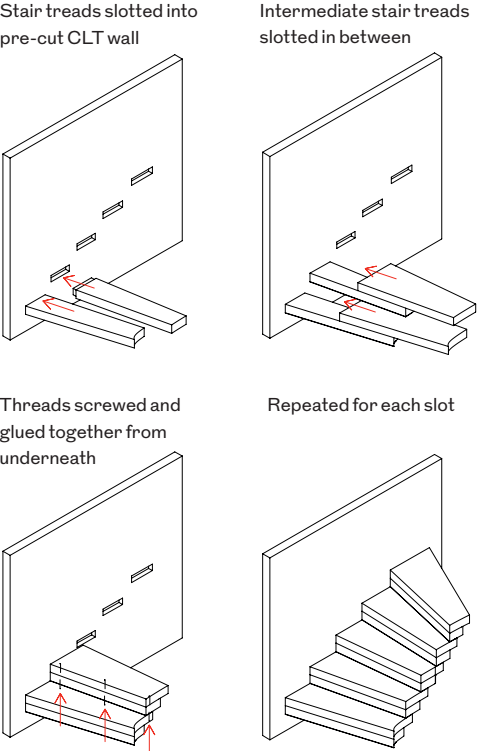
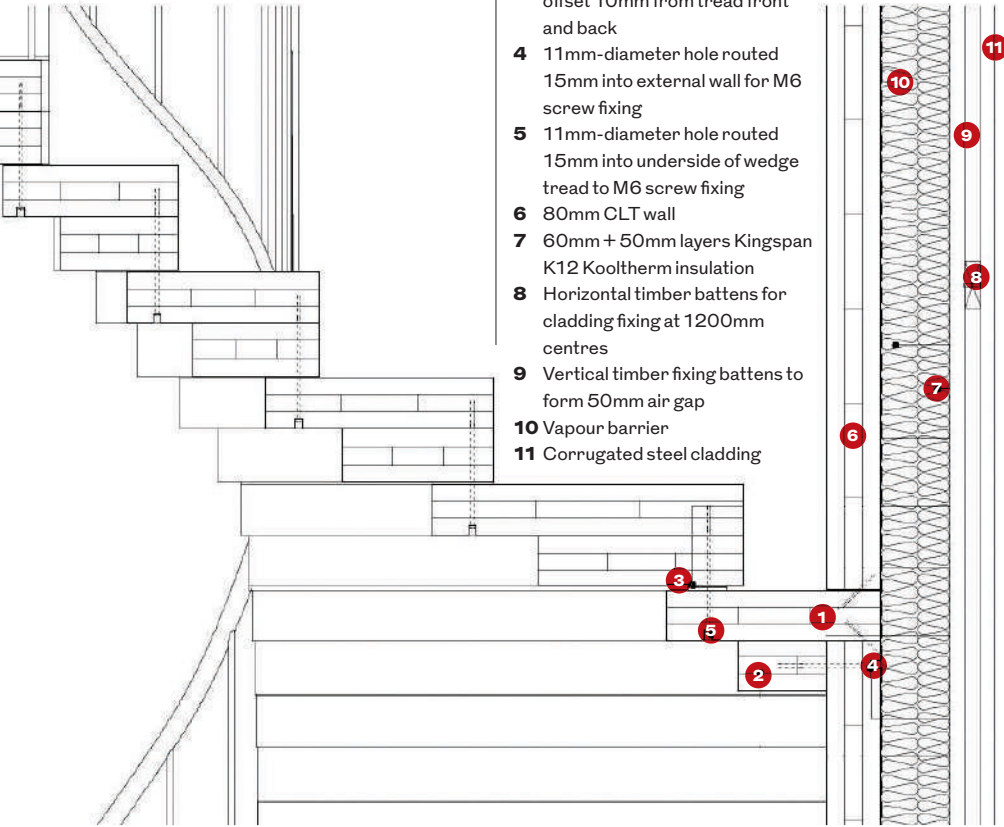


TONKIN LIU



Above The sculpted soffit celebrates the fact that each tread is comprised of two mechanically connected CLT pieces.

Above right The connection methodology of the staircase to the timber walls.



With each tread made up of two pieces, I suppose we thought to express that on its soffit where it steps. But it's part of a tradition. Robert Adam created very sculpted undersides to his stairs that gave them real elegance. When you look up the well from below, it looks a bit like an optical illusion.

How was it built?

Like pretty much everything else on this building: locally. The glulam timber walls and treads were prefabricated by Binderholz and brought to site but it was assembled by two carpenters from the village who built the whole thing in five days, working from the bottom up. The client acted as the main contractor to make savings on the project and initially he felt we were being too sculptural with our design. But a steel stair would have been £15,000 per flight and a stone one £12,000. This timber one got built for under £7,000 including labour. It looks expensive but the irony is that it's not.

What about Part B regs?

Regs have changed since Grenfell, and building control is understandably more risk averse. The fire officer looked at everything. Being the sole means of escape, this had to be a protected stair. There are mains-fed sprinklers on the 'bridge' to the water tower and in all the rooms, adding £40,000 to the project.

What's the story with the balustrade?

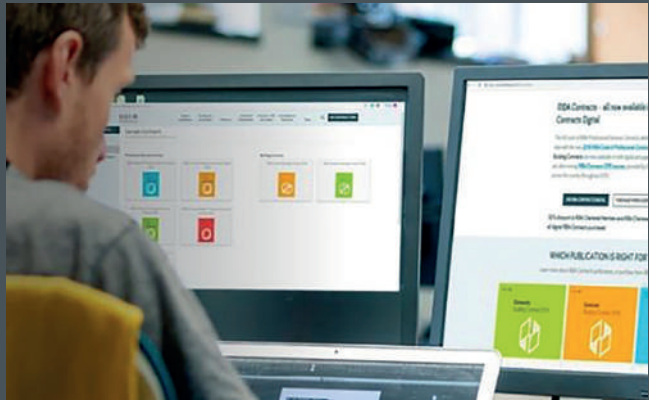
Well, we got it for nothing! All the balusters are made from the many rusty tension rods that were removed from the tank structure, cut to length, rubbed down and just grit filled into drilled holes in the treads. On the turns, we could have used one baluster to meet regs but it looked odd, so we decided to have two balusters per tread regardless. The effect is a visual tightening and expansion, which is satisfyingly rhythmic and sculptural.

What do you like most about the design?

I suppose it's the effect the spiral design has on the integrity of the whole system: equalising forces and helping keep everything stiff. How many buildings with 80mm walls are four storeys tall? If you took the stair out, the walls would have to be twice as thick. The stair tower also takes lateral loads, helping hold the original tank structure in place. In effect, wood is stabilising steel, which we think is a lovely inversion. ●

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3: Culture



Half-Australian and half-Norwegian by birth, Max Creasy knows a thing or two about temperature extremes; in fact, his present home of Berlin, with its flaming Tiergarten summers and bleak, bone-chilling Tempelhof winters, would seem to suit the photographer well. But with a blood line stretched between both poles, perhaps it's understandable that Creasy would find himself attracted to other parts of the globe.

A snowboarder, Creasy's taste for fresh crisp snows has brought him a few times to Japan's north island, Hokkaido. Unlike the nearby port city of Sapporo, the remote city of Asahikawa sits further inland and so experiences more 'continental' winters than the coastal capital. 120 years ago, the city registered the lowest temperature ever recorded in Japan; and regularly, only those sacred thermometers placed atop Mount Fuji read colder. So it's here, with its 7.6m annual snowfall, that the ski resorts maintain an icy grip on the hill slopes around the city.

But all is not as it seems in Asahikawa. For all of the wintering tourists forming a seasonal siege in ski-hotels around the city, Hokkaido remains 100 times less densely populated than Tokyo. Creasy, choosing to stay in its emptier centre, walked its streets with his camera, enjoying a silence more characteristic of the surrounding peaks. On just such wanders, it was, he tells me, the most banal architecture that most caught his eye. But this striking Battenburg cake, which he had been told was a veterinary surgery, in fact turned out to be a desolate apartment block – a confection of confusion.

And the city's subterfuge was auditory as well as visual. Elsewhere, distracted nightly by raucous music and noise he'd heard emanating from a restaurant en route to his hotel, Creasy was finally tempted to venture in. Inside was deserted, the sound of fake customers on a PA there to drown out the stillness. He ate – comfortably – and alone; an Asahikawa more 'apparition' than après-ski... ●
Jan-Carlos Kucharek

'How did Tonkin Liu squeeze that stair into its Watertower House?'



Design in the making

This year the RIBA Journal is bringing you even more exciting and informative features. Eleanor Young offers a flavour

When we asked you last year what you most valued from the RIBA Journal – both here in the print magazine and online at ribaj.com – we saw the profession's growth mindset writ large. Architects want to learn, you want to know more. As well as seeing more great buildings and reading about people and practices, the survey showed you want to know how those people draw, how they put things together, how they design and specify. And you wanted to better understand sustainability, the big picture and how to make sustainable buildings.

The continuing popularity of Michael Pawlyn's guide to regenerative design on ribaj.com and the pieces on using the Plan of Works by its author, Dale Sinclair, show that you don't just cast your vote for this sort of useful information to be included, you are actively seeking it out (to see the most popular 2021 stories visit ribaj.com/topofthepops).

We've come a long way from having to borrow a friend's Jackie magazine to learn how to apply that bright blue eye shadow we spent our pocket money on. Nowadays we can see how to do that and watch how to change a bike brake pad on YouTube, or google the best way to unclog a drain. But the best insights always come with a spark of excitement: a way of

doing a regular task so much better, the answer to a question that was only half formed in your mind, a connection from someone you admire that opens a new understanding.

This year we want to bring that to the fore in our wide coverage of architecture. We are calling it Design in the making. You will see the new elements primarily on ribaj.com – more useful, practical articles that are exciting to read, unveiling things you can learn from people you look up to and from talents you have not yet discovered. We preview one of the new pieces on p46 this issue. Many of you will have seen Tonkin Liu's Watertower House on Grand Designs' TV coverage of the RIBA's House of the Year, but will have wondered how that CLT stair was put together, and squeezed into that space. And how did Tonkin Liu go about convincing building inspectors, and was the £40,000 on sprinklers worth it?

We are also tapping into the expertise of other design consultants, getting under the lid of the advice that can make collaborations so fruitful. We are bringing you more competitions – look out in mid January for an exciting launch on this – and opportunities that can be so easy to miss in the midst of delivering projects. And we are asking you for

more contributions on what you have learnt from projects and processes. It is not about dreary lectures in dull rooms (thank you

LinkedIn Learning) or rushing through ticking off CPD points at the last minute while eating lunch at your desk. We want to entertain you. It is about making better design. It is Design in the making on ribaj.com. Go visit. ●

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'We raided history, the modern and the vernacular and mixed them up to get an architecture with more emotion and drama to it'

Piers Gough talks to Pamela Buxton about CZWG's approach to post-modernism and his 60 years as an architect: ribaj.com/piersgough

Left Redscape model by McCloy+ Muchemwa. Photograph by Sophie Percival.



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“

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David Tigg, Director at
Tigg + Coll Architects

”

Image: House for Theo and Oskar by Tigg + Coll Architects. © Andy Matthews.

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PORTRAIT: STEPHANIE WUNDERLICH



Sensory deprivation

Far away from any windows, the bowels of the building are a disorientating, claustrophobic labyrinth, says Will Wiles

‘Why don’t history students look out of the window in the morning?’ ran a joke I heard when I was at university. ‘Because then they wouldn’t have anything to do in the afternoon.’ (I heard it applied to several subjects, generally in the humanities – I have inserted my own to be polite.) A quarter of a century later, the University of California Santa Barbara intends to ruin those afternoon plans by building a mostly windowless mega-dorm. This neoclassical Borg cube, brainchild of university donor Charlie Munger, would house 4,500 students, more than 90 per cent of them in cells lacking any natural light.

In these divided times, it’s good to see people come together. And they did in condemnation of this proposal. The Munger dorm is ‘a grotesque, sick joke’, said the veteran architecture critic Paul Goldberger. ‘Prisons and lower ship decks use exactly this model – think of the UCSB-Munger solution as bringing steerage class and San Quentin to campus,’ UCLA architecture professor and City Lab director Dana Cuff wrote in Dezeen. Architect Dennis McFadden resigned from a university committee in protest. It’s hard to find supporters for the idea, but Munger himself remains pugnacious in his insistence that this turbo-tenement is not just acceptable, but (for want of a better word) enlightened. He is so determined to demonstrate its benefits that he has told the university to take it or leave it – they can build it this way, or not at all.

I’ve been thinking about the windowless Munger dorm in recent weeks while engaged in the unglamorous business of trying to eliminate a rat from our kitchen. Our flat is on the corner of a modern block completed in 2013 and the kitchen is in its innermost corner. Wherever our rodent invader came from, it wasn’t the outside – careful investigation discovered a hole chewed through a wall behind one of the kitchen cabinets. What lay behind that wall? asked the exterminator. I had to admit I didn’t know. A stairwell, I thought, serving the flats above ours; but there are access hatches in the walls, suggesting that it might conceal a service shaft of some kind.

It was subtly disturbing that a mystery could lie so close at hand. Surely, even in a sprawling modern block, one should have some idea what lay only

centimetres from where I stood washing up? Instead, I had guesswork. And a name for the zone I believed to be there: the bowels of the building.

Once the expression ‘the bowels of the building’ took up residence in my head, it refused to leave. It has outlasted the rat, which has had a deadly encounter with the exterminator’s murder muesli. I thought again of the Munger dorm and Cuff’s comparison with steerage class. Buildings have bowels and so do ships. But what makes for the bowel of something that is not an animal? It refers to the innermost region but evokes more than that. The intestinal connection evokes a crowded region of pipes and ducts and services – it reminds one of the nightmarish plumbing in Terry Gilliam’s 1985 dystopian film Brazil, all shuddering tubes and pulsing bladders. It can be as uncomfortable glimpsing this stuff as it is seeing the equipment in the intensive care ward; a reminder of the effort needed to sustain life.

The bowels are a labyrinth. Besides natural light, windows provide a reference point with the outside world. Even if you can’t see much, they show you where the edge of the building is. They show you that the building has an edge, a reassurance that we don’t realise we need until we are without it – an idea I explored in my 2014 novel The Way Inn, about a motorway hotel that may or may not be infinitely large. Apart from claustrophobia – a very real concern in a building that is unlikely to be safe in a fire – the horror of the Munger dorm is disorientation, a loss of connection to the wider world. That is a form of sensory deprivation and can’t be solved by the most sophisticated artificial lighting. ●

Will Wiles is a writer. Read him here and on ribaj.com



FAT CHANCE

Central to Munger’s design of the dorm of doom is the desire to keep students out of their rooms so they make use of its vast, deep-plan communal areas. The idea is that this will stimulate their productivity and creativity – an iteration of the recurring ‘chance encounters foster collaboration’ idea that now routinely affects corporate and educational design, imposing hot-desking, wider stairwells and so on. I touched on this in a column here some years ago and questioned if there was any evidence it worked.

Piranesi’s carceri d’invenzione – imaginary prisons – depict labyrinthine subterranean structures, whose claustrophobic intensity is not allayed by their seemingly endless extent.



Forever architecture

Adapt with optimism, these are exacting times but also exciting times, says Simon Allford

Late in November, 500 people attended my ‘100 Days In’ address at 66 Portland Place, where I outlined the challenges that lie ahead for our profession and for architecture. And of our ambition to turn the RIBA into a House of Architecture – a place of serious fun!

Fifty years previously, Alex Gordon, in his presidential address, coined the phrase ‘Long life, loose fit, low energy’. His world was very different – he spoke of public works and public practice; of fixed fees and the self-governing profession. But much was the same – he spoke of total design, of value not cost; of the need for good clients and our responsibilities to society. He also spoke of the irrelevance of petty internal squabbles!

Even in those heady days of fixed fees, he chose the title Architecture for Love or Money – a brave choice as, too often in architecture, money is too commercial and too tight to mention. Of course architecture drives us all but money fuels that drive. Indeed, I would go as far as saying that while good cashflow can enable creativity, bad cashflow is sure to destroy it. That is why I look forward to a future where the word ‘commercial’ is no longer derogatory!

I studied in and support the classic degree and diploma courses but am also keen on the new disruptor schools, such as the London School of Architecture, where I am a trustee. I learned much from teaching at Harvard’s Graduate School of Design and its ‘conversion course’ and am delighted that apprenticeships offer a fourth way in. At last there is a landscape of choice, where artificial barriers between institute, practice and academe are disappearing.

In the ‘new normal’ – post Grenfell, post Covid – we must focus on the immense planetary challenge. Darwin wrote ‘the species that survives is the one that is best able to adapt ... to the changing environment in which it finds itself’. Today 38 per cent of the world’s CO₂ emissions are the responsibility of the built environment so architecture and infrastructure must adapt – and fast. We must collaborate with the wider world of clients, consultants, contractors, manufacturers, regulators, the public and government to make sure that all projects demonstrate the standards that must be achieved. This is a global challenge and we are a

global institute, well positioned to help lead so that the UK’s ‘new green economy’ can drive the design project that Buckminster Fuller described in 1969 as the ‘Operating Manual for Spaceship Earth’.

What does this mean in practice? We have tough targets. 2030 is just eight years away. But as I am an architect so am I an optimist. By sharing knowledge – ‘deep collaboration’ was the COP term – we can make the rapid progress required. Alex Gordon was right when he declaimed that the future ‘means more climbing on other people’s shoulders and less ad-hoc originality’. Innovation has never been about style nor shades of derring-do. It is about addressing the great problems we face; problems that demand great thinking from us all. These are exacting times but they are also exciting times.

So now – be it new-build or reinvention – we are designing for longer life, looser fit, and lower carbon. We are designing forever architecture.

Two millennia ago, Vitruvius wrote of commodity, firmness and delight. Delight cannot be questioned. Architecture must lift the spirit of all who pass by and enter. For only then can we be sure that future generations will not only be able to adapt but will want to adapt the architecture they inherit. No one retains a building that is not loved.

Vitruvian logic remains intact. Architecture’s eternal function is the provision of generous structure, of elegant enclosure, of tolerance on many levels all to accommodate the theatre of everyday life. So architecture must become permanent infrastructure, to be renewed and reused by future generations – a forever architecture where nothing need be added and nothing can be taken away. ●



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Good for everyone

Collaboration was an appropriate theme for the RIBA Guerrilla Tactics gathering after more than a year of pandemic and lockdowns, and threw up some novel and inspiring opportunities and ideas



If the practice you are leading were a music band, what kind of music would you be playing, and who would you be playing with? The questions might sound like a take on the common marketing agency ploy that asks you to define your brand as a car. But they were actually used to demonstrate how to get the best from collaboration, which was the theme of this year's Guerrilla Tactics, RIBA's annual creative business conference for small and medium sized practices.

Stop, Collaborate and Listen was the

exhortation in the title of the conference, sponsored by NBS. Established, upcoming, diverse, mainstream and left-field voices talked frankly about how they have been collaborating and sharing, whether working with larger or smaller practices, clients, local stakeholders and communities, other creatives or academia. Over the course of three days they shared their own experiences, words of warning and personal advice, while an accompanying CPD programme covered everything from

professional indemnity insurance to the NBS Chorus specification writing platform.

It was Paul Karakusevic of Karakusevic Carson Architects who initially adopted the musical analogy, describing young practices' business trajectory as often being like that faced by musicians, where 'you have to play in the pubs until you get picked out by an A&R guy'. When he was starting out in practice two decades ago, he said, 'No one offered us a collaboration, no one gave us a leg up'. Now he is able to make the case for change and practise what he preaches. 'Many of the schemes in the office will have two, three or four collaborators working with us,' he said.

Later on, Pedro Gil of Studio Gil picked up the musical theme, highlighting the importance of identifying the right team members to collaborate with. 'If you're a folk guitarist, then don't join a heavy metal band. That's never going to work', he said. 'Listen to your instincts and try to suss out instinctively who you can work with. Gil had some cautionary advice for smaller practices flattered by approaches from larger ones, saying of the latter, 'They may want you for the bid literally, but may not understand themselves how they want you to fit in.' As a result, he recommended asking them: Do we get a building out of this?

Different thinking

A number of architects had seen wide-ranging collaborative opportunities on larger projects emerge by growing specific expertise. ZCD Architects and its co-founder Dinah Bornat have become synonymous with child-friendly cities, a specialism adopted because, she said, 'I was quite passionate about it'. Meanwhile, New Practice's work includes giving large practices local insights into the city, as in Glasgow where it has been collaborating with Gensler New York on a project for Barclays. 'We took them to meet the city in a walk,' said creative director Becca Thomas.

Small practices' local knowledge and lived experience make them natural collaborators for community projects. Gurmeet Sian of Office Sian Architecture + Design won a competition to create charity Phoenix Garden Trust's new community building in London's Covent Garden, despite being a sole practitioner. 'My approach to the interviews pre-commission was to be

THOMAS BROADHEAD



Left The Outdoor Classroom, an imaginary landscape for learning and playing at Highgate Primary School.

Below Phoenix Garden Community Building, Soho.

RICHARD CHIVERS



the architect, with a lot of architecture speak. Little did I know, the client was very knowledgeable about the whole process. They wanted to know about me,' he said. Working closely with the charity and stakeholders, he created a building that is now a RIBA London award winner.

For Collective Works, the financial burden of coming second in a design competition led to a rethink. 'Our solution has been to stay away from competitions and spend that creative energy on passion projects and collaborative processes that we really enjoy,' said partner Siri Zanelli. When a north London school commissioned the practice to design an outdoor classroom, but had no money to build it, Zanelli tapped into local contacts who raised funds for materials and the practice worked with the school caretaker to build it. 'It has made a difference to the children and to us,' she says, citing a string of ensuing projects, including a first public job with Haringey Council.

Public sector clients are an important potential source of work and several speakers highlighted growing opportunities for diverse practices. Peter George, programme director for the Enfield Council-

led Meridian Water scheme, explained how it is promoting diversity while delivering 10,000 homes plus amenities. For its most recent procurement, for an 850-home contract, it appointed a large practice but insisted it should work with at least one practice led by people of BAME descent, one by women at partner level and one local company. 'We've actually ended up with five led by BAME minorities and three practices led by females. We have put in a contractual commitment that some of the work has to be allocated to some of these smaller practices,' said George. Future procurements are being designed to include smaller packages of work that smaller practices can bid for.

Shona Snow, regional procurement strategy manager at public sector consortium LHC Procurement, outlined work to promote diversity and new design talent in public sector client frameworks, including Southwark Council's architect design services framework. This included such innovations as face-to-face interviews to help new talent gain recognition.

The result was that 124 architects were appointed to the framework, many of them micro-SMEs and including seven BAME-led practices, 19 led by women, and four BAME women-led practices. Already, an early contract through the framework has been awarded to a practice with two employees. 'We tapped into talent we wouldn't have seen otherwise. Many are really community-focused, grassroots practices with lived experience of council estates, really diverse and innovative,' said Snow. This kind of collaboration is good not only for architects, but for the people they are designing for. ●

MORE WORDS OF WISDOM FROM THE SPEAKERS

'Even if you're a small business, if you have a big idea, go for it and ask others to collaborate.'

Sarah Broadstock, Studio Bark

'We collaborated first with many smaller practices before we did with larger practices. It was very much an opportunity to challenge ourselves and what we held to be true and develop a new way of looking at schemes. It also gave us an opportunity to build relationships with people we liked.'

Tara Gbolade, Gbolade Design Studio

'If people tell you something is great, but... then listen to the but.'

Dinah Bornat, ZCD Architects

'To build engagement at any level and to start the collaboration process, trust is needed, and to build trust, sometimes we need to be less architect, and a bit more human.'

Gurmeet Sian, Office Sian Architecture + Design

'Foster strong relationships with the councils where you're living and working.'

Peter George, Meridian Water

'Attend pre-tender events wherever possible, even if you're not intending to bid. It's a chance to develop a relationship with your local authority – and a chance to ask questions.'

Shona Snow, LHC Procurement

SPECIFICATION IN THE SPOTLIGHT

NBS was pleased to be part of the RIBA Guerrilla Tactics event to help inform and educate attendees about the importance of digital specification and how it helps create a safer and more sustainable built environment. During the session, NBS showcased NBS Chorus, the leading specification platform, and NBS Source, the innovative manufacturer product platform, and demonstrated how they help users collaborate better, manage risk, and work more efficiently. Find out more at www.thenbs.com



www.thenbs.com/nbs-chorus

Takeshi Hayatsu's designs are about the people who'll use them and the context they're in – consciously putting the 'place' into 'placemaking'

Words: Jan-Carlos Kucharek Portrait: David Vintiner

Urban activist

Takeshi Hayatsu's office, in Assemble's Sugarhouse Studios maker's space in Bermondsey, seems shockingly small and intimate. You are ushered in to face tall shelves of models before a forced right: it is narrow, two shallow rows of desks facing the long walls, a window at the end. Sat at a work desk by the door during our chat, Hayatsu's softly-spoken voice is accompanied by the murmur of his five staff; at times I feel as if I'm interviewing them all. Hayatsu doesn't seem bothered by this intimacy; perhaps it's an innate Japanese ability to retain clear psychological distance despite physical proximity.

But there's agency in near-ness too. Apart from the big timber temple-like model looming from the far corner, none of the models that he reaches for are much more than an arm's length away. The shelves are testament to the architect's love of models – perhaps a nod to the 2D/3D 'okoshi-ezu' representations of Edo-era teahouses or perhaps his fascination with how things go together. It is an indulgence 6a architects couldn't sustain when he was a director there, says Hayatsu: 'I loved modelling and fabrication, even at early stages, but that was something I couldn't do there – my overheads were too high!'

For now, everything on those shelves is modestly scaled, which might be his comfort zone, but Hayatsu has the skills and ambition for bigger, he says. 'An ideal size for me would be Churchill College (completed while at 6a) at nearly £10 million. It's a lovely scale to work at while being different mode of operation, but the office would need to be 12 people, and growing by one person every year, perhaps in 2028...' He clearly considers his skills base seriously, grafting new employees organically onto his company tree; growing it carefully over time, like bonsai.

And the craft of making is what makes him tick. The 51-year-old tells me he originally wanted to study fine arts at Tokyo's Musashino University but

'chose architecture as an easier examination route.' But he took to the subject naturally and, already an anglophile, found himself drawn to 'Archigram, inflatables and High Tech'. When it came to his masters from 1993-95, a university colleague, then studying at the AA, suggested he come too. Keen to see the world, Hayatsu agreed, although despite his Archigram fascinations, it was Peter Salter's unit he gravitated to. 'He had a profound influence on me,' he says. 'At the time, the AA was very much concept-based and few units were teaching building design. Peter's was one of them. I didn't know anything about

Below Grids, timber, 'paper' screens, boulders anchoring the pavilion to its site... Hayatsu Architects' Modernist Glade at Milton Keynes, references the roots of both city and architect.



Takeshi Hayatsu in front of the model shelves at his Sugarhouse Studios office in Bermondsey, London.

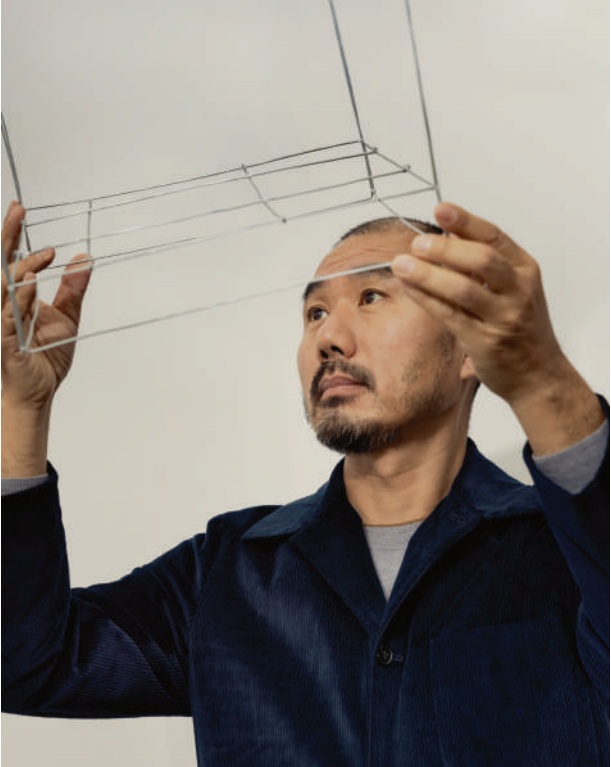
materials when I got there – it was a revelation to learn how they behave in certain climates or might interface with geologies; Peter was doing all of that. His teaching was an eye opener.’ Struggling with the language, failing and then re-submitting his diploma, it’s clear Hayatsu was a survivor even then.

Post-diploma, Hayatsu’s route to 6a began with working on overseas projects at David Chipperfield’s before moving in 2000 to Haworth Tompkins, completing his Part III on the Hayward Gallery extension and the London Library. Perhaps it was these refurbishment projects that sparked his interest in getting under the skin of buildings: ‘I think I was still being inspired by Peter Salter who was really into this kind of analysis’, he explains, adding that he did consider the conservation architect route at the time. ‘Steve [Haworth] and Graham [Tompkins] are modernists and concepts of old and new are distinct for them, but in the building conservation world I felt it wasn’t quite so clear cut.’ Hayatsu did look into a couple of conservation firms but lacked the specific skills they needed, so when he saw an advertisement for a lead architect for the grade I listed Raven Row Gallery in Spitalfields from young practice 6a architects – whose Tom Emerson had himself worked at Haworth Tompkins – the synergies seemed too aligned to ignore. In the 10 years he worked at 6a, he experienced Raven Row’s steep learning curve and South London Gallery’s original and Fire Station buildings. By the time he had completed its £10 million Churchill College student residence, 6a had gone from five to 45, and as a director he was ‘spending more time on Excel spreadsheets than making things’. But all this experience ultimately built up his own confidence and self-belief: ‘Tom and Stephanie produce amazing work and I couldn’t think of anywhere else I’d want to be, so that was when I decided to set up on my own.’

Finishing at 6a at the end of 2016, Hayatsu’s dive into the world of the sole practitioner ‘maker-architect’ was terrifying and exciting in equal measure. Luckily, with a small commission from the Barbican Art Gallery, he hit the ground running. Its 2017 show The Japanese House saw a teahouse designed by architect Terunobu Fujimori constructed at 1:1 scale by Hayatsu. ‘On 3 January, Fujimori-san had me driving down to a forest in West Sussex to select the cherry tree to build his teahouse legs with,’ Hayatsu recalls. He even wielded the chainsaw.

In the four years since, mid-scale interventions have been slowly coming to a firm that is clearly in it for the long haul. With a website tagline of ‘Construction, Conservation, Community,’ Hayatsu has a clear sense of direction for the office – and all three are linked to the philosophical materiality of the place where he’s intervening. The 2021 ‘Modernist

Right Model-making is a fundamental aspect of Takeshi Hayatsu's practice- and one he loves to be engaged with himself.



DAVID VINTNER (3)

Glade’ for Milton Keynes Development Corporation aims to actuate Station Square on its Midsummer Boulevard. Part of a controversial plan to address underused spaces of the city, the idea here was to see how the townspeople reacted to the filling-in of parts of its civic spaces. A collaboration with producer Aldo Rinaldi and artist Tue Greenfort, Hayatsu’s temporary pavilions pick up on the hippy Neolithic alignment of the 1967 new town, its ‘Forest City’ appellation and the city as a grid. Japanese boulder ‘keystones’ anchor the timber pavilion to its site, referencing Stonehenge and picking up on the Miesian porte cocheres that typify MK’s civic buildings, working them in with shoji screens that echo the city’s grid. ‘It’s not just pavilions,’ says Hayatsu, ‘there’s a scooter hub, seating areas, an outdoor cinema screen and a wild flower meadow out on the lawn space. MK is formed of glass, steel and concrete and we are reinterpreting it using stone, cotton and timber.’

Similar interpretation is at play in a more permanent way with the firm’s more recent Blue Market in Bermondsey, a collaboration with Assemble, after both were approached by Southwark Council and Blue Bermondsey Business Improvement District lead, local butcher Russell Dryden. Armed with £2 million from the Mayor of London’s Good Growth Fund, the architects have been regenerating the square – here since the 12th century – in an initiative by local shopkeepers and the community. Hayatsu’s involvement was in the central clock tower, a hybrid of arabesque pavilion and market cross, with a water fountain beneath – a model of civic form and service. The project in a way aligned with Hayatsu’s MArch teaching practice at Kingston, Material Anthropologies: ‘Any building work is a collaborative activity, whether high end or community, and part of my teaching research is about making things collectively that become of architectural scale,’ he

Below Model of Hayatsu's structural straw bale self-build housing for Sanford Housing co-op in south east London.



explains. To that end, he engaged P Williamson, a local manufacturer supplying tin containers to the likes of Fortnum & Mason, and the community to create 500 bespoke tin discs to clad the clocktower and shimmer in the sunlight. The structure itself is delicate but solidly built, as if it feels the weight of the site’s history. ‘It’s built of Green oak, so should last 150 years, and the tower’s “scales” reference the fishmonger who drove the project – though I wouldn’t tell him that,’ says Hayatsu. Is a clocktower anachronistic in an online world? He thinks not. ‘There’s still space in cities for making the passing of time visible,’ he says, confirming that it’s as much about the bigger picture as details, which the future connection of the marketplace to proposed housing and London Bridge beyond should compound.

So what of the future? Hayatsu is keeping it local with his latest project, the former Constitutional Club in Catford. The community component of a much bigger Lewisham residential regeneration project by Turner Works, this accretion of buildings from the Georgian era to the early 20th century panders to his conservation architect leanings. Winning it off the back of Raven Row and SLG experience, he’ll need to hold his nerve; the £2 million project was designed to Stage 4 without full access to the derelict property, so while his delicate interventions will eventually yield the place back to the locals, ‘the biggest challenge for us is mitigating the unknowns while controlling the cost – with clear deadlines due to GLA funding’.

Also in the pipeline is a residential refurbishment



JIM STEPHENSON



Above Model of the scalloped, domed ‘garden room’ for artist Peter Doig’s London home.

Left Hayatsu's tin-scaled clock tower, the centre piece of Bermondsey's Blue market – a £2 million, community-driven regeneration. **Below** Sketch proposal for the restoration of the Catford Constitutional Club in Lewisham, part of the bigger regeneration of the area by architect Turner Works.



HAYATSUARCHITECTS

of a Victorian semi-detached house for artist Peter Doig in north London. Bought from artists, it will be moulded to the new owners’ taste while ‘taking on board the inheritance of the artists who lived there’. It involves a curious catenary dome structure in its ‘magical’ overgrown garden, with scalloped incisions so the trees can come close to the building. And, looking like he’s recycled 6a’s Churchill College by wrapping it around a big fat Havana cigar, his circular housing for Sanford Housing Co-Operative in New Cross, with its deep level of community engagement, will probably be as slow a burner. Ironically built of shou sugi ban timber cladding 1m thick structural straw bale walls, I ask how he’ll get it past the client on an areas argument, but again, he’s looking at the bigger picture. ‘It’s not about thick walls for thick walls’ sake but for performance, reduced energy use and as much self-build as we can do.’

So, a Japanese architect, against the odds going it alone in the UK, and one who, through his teaching, has rediscovered his affection for the architecture of the country he left. This shows not least in his continuing work with the Lake District’s Grizedale Arts. Every year Hayatsu takes a group of students for a summer residency in the village of Kiwanosato in Yamaguchi to engage in its ‘Dream Plan’ – a way of reinvigorating this dying village of 120 elderly residents. The project is a two-way street; it’s not just about the things, like apiaries and wild flower meadows, that they build for the village to encourage new rural industries and tourism, but the skills the students learn from the residents themselves – a wonderful exercise in reciprocity for common benefit. For Hayatsu, it all relates back to how he sees his own practice. ‘Making is in some way universal,’ he says, quoting Grizedale director Adam Sutherland’s own words to him: ‘Everyone can make; and if you make it, then you own it – it becomes yours.’ ●

All our yesterdays: a wander through extinct ideas

Do you remember serving hatches and ashtrays, fountain pens and slide rules? Pamela Buxton delves into a new book celebrating ideas that have done their time

Extinct – A Compendium of Obsolete Objects, is the sort of publication that makes you feel old. It’s not those now-discarded but once bright ideas from the distant past that are the problem but rather those still in living memory – the paper airline ticket, Letraset, fountain pens, ashtrays and of course the SinclairC5 that have passed into obsolescence. Can it be that long before those of us who remember them do too?

That happy thought aside, this new book from Reaktion is a delight to peruse. Rather than mocking the failed, superseded or outmoded, it is more of a celebration of 85 extinct objects and the visions that drove them, as nominated by a range of historians, curators, architects, academics and artists.

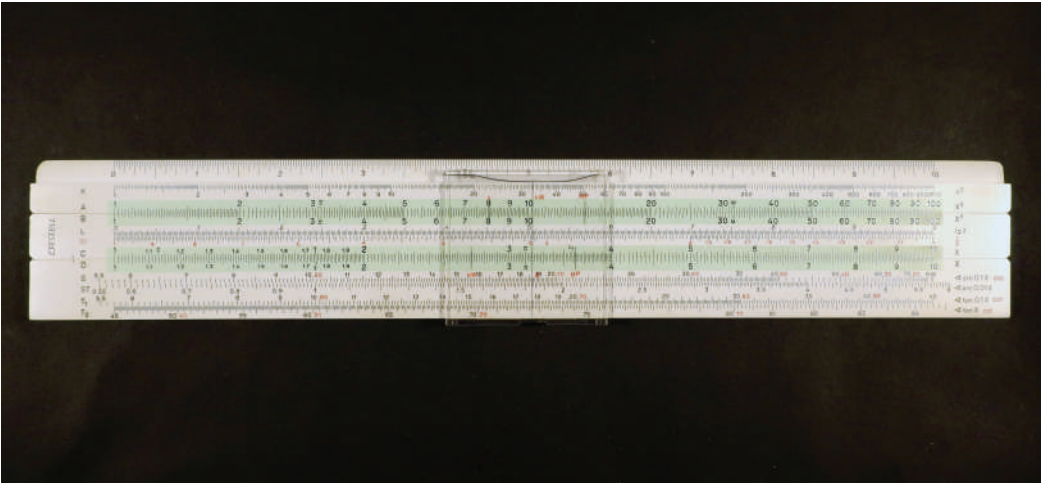
The four editors set the scene for these nominations with an introduction examining the nature of what constitutes extinct, along the way discussing ideas around natural selection, progress, technological innovation and consumerism. They are drawn to the cast-offs and dead ends, the short-lived and misguided – what they refer to as ‘the underside of progress: the conflicts, obsolescence, accidents, destruction and failures that are an integral part of modernisation’. Coming up with six categories of



Extinct: A Compendium of Obsolete Objects, edited by Barbara Penner, Adrian Forty, Olivia Horsfall Turner, Miranda Critchley. Reaktion Books. Order from www.ribabooks.com

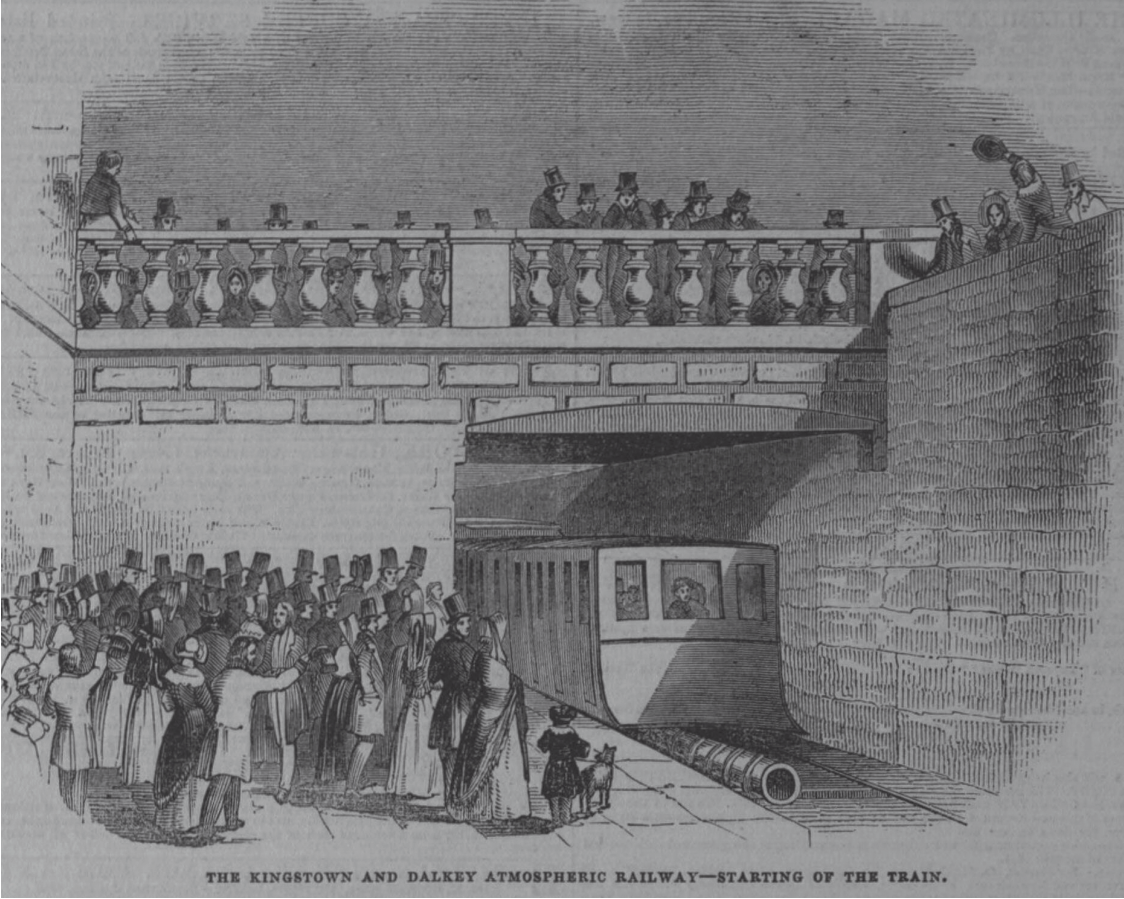


‘No Nonsense’ Fountain Pen (above)
Pippo Ciorra, architect, academic and senior curator at MAXXI, Rome Produced by Sheaffer from 1969 to 1991, the ‘No Nonsense’ Fountain Pen was, says Pippo Ciorra, a low-cost favourite of architects and architectural students in North America and Italy, in particular as a single tool for both writing and sketching. He says its modernist/deco look perfectly fitted the early post-modernist inclination of the time. Chiming with the movement’s emphasis on the supremacy of the drawing, the pen, says Ciorra, ‘was both a manifesto and a weapon, ready to be unsheathed at any moment’.



Slide Rule (below)
Adrian Forty, co-editor of Extinct and professor emeritus of architectural history at the Bartlett School of Architecture, UCL
Invented around 1630 by mathematician William Oughtred, the slide rule was to become the principal means of calculating most mathematical problems until its extinction in the 1970s. According to Forty, around 40 million were manufactured globally in its final century. Its nemesis was the pocket calculator, more accurate and with the extra appeal of being able to perform simple addition and subtraction.

Atmospheric Railway (right)
Niall McLaughlin, founder of Niall McLaughlin Architects
According to Niall McLaughlin, the idea back in the 1830s to create a railway driven by atmospheric propulsion that removed the need for a locomotive was a ‘beautiful solution’ that may simply have come at the wrong time. The first attempt, in Dalkey near Dublin, reached 30mph and was witnessed by Isambard Kingdom Brunel, who linked up with the patent holder on a version for public use in Devon in 1848. Beset by technical difficulties, it proved to be a short-lived, and the costliest failure of Brunel’s career.



extinction – failed, superseded, enforced, defunct, aestivated and visionary – they observe that few were ever entirely extinct but were merely dormant and awaiting reinvention in another form or place, or perhaps preserved by heritage organisations.

The featured objects are a wonderful selection. Some are absurd – the hoax Edison’s Anti-gravitation Under-clothing promised to enable the wearer to fly around the room while the Scaphander (man-boat) was a bodysuit proposed in earnest in the 18th century as an upright alternative to swimming. Some were deadly, such as arsenic wallpaper popular in Victorian times and asbestos-cement Rondavel housing built in South Africa in the second half of the twentieth century. Others are serious visions for infrastructure, such as the high pressure water mains which served London for nearly a century, a Pneumatic Postal System, and Cybersyn, an ambitious Chilean information system from 1970-3 to give centralised control by connecting all state companies and industries.

Many contributors have nominated superseded consumer items or technology. Former Design Museum director Deyan Sudjic chose the ‘beautiful and entirely contemporary-looking’ Polaroid SC-70 while Tony Fretton nominated the Rotring, Letratone and MiniCAD of the pre-digital architectural office. Shahed Saleem, design studio leader at the University of Westminster School of Architecture, nominated the Minitel, which was, he notes, ‘a French Internet before the Internet as we know it today’. Obsolete domestic items include the telephone table, the integrated radio/tv cabinet and the serving hatch. Extinct architectural objects featured include

the All-plastic House which reached its peak in the 1950s and early 60s, most famously with the Futuro house by Matti Suuronen and the House of the Future designed by architects at the Massachusetts Institute of Technology. There’s also Buckminster Fuller’s Dymaxion House, a factory-made kit-house which attracted thousands of orders – though only two were produced– and the Space Frame structural system. Gillian Darley’s account of the visionary North Bucks Monorail City proposed in the 1960s makes for fascinating reading.

It’s certainly food for thought – how many of the items we use daily today will one day have a similar fate? In Station Eleven, the prescient novel by Emily St John Mandel about a global pandemic, some of the survivors put together a Museum of Civilisation populated by redundant exhibits such as a credit card, a games console and a mobile phone, all rendered irreversibly obsolete. They’d surely all make it into a future version of Extinct – but what will replace them is far harder to predict. ●



Flashcube (right)
Harriet Harriss, dean of the Pratt School of Architecture, New York
Developed by Eastman Kodak in 1965, the Flashcube made interior photography possible for the masses, says Harriet Harriss, and was particularly positioned ‘as a feminine technology to capture home life.’ ‘In the Flashcubes’ dazzling light, families staged domestic tableaux in an effort to display their nuclear family credentials,’ she says. Production ceased in the 1970s following the development of the electronic flash. Harriss notes that while the prints it created will degrade within half a century, the cube itself and its casing will take up to 1000 years.

Architect who combined utility and elegance in post-war housing and school projects, working at Denys Lasdun’s office and in Ghana before setting up practice with her husband



Margaret Finch 1925 – 2021

Young women entering the architectural profession in the post-war years required great determination and skill to advance. Margaret Finch had these qualities, combined with elegance and charisma. She worked within an enlightened group of architects, engineers and designers, looking to rebuild a post-war society with a new vision.

Margaret grew up in north London, with a father who worked for a piano manufacturer in Camden. Winning a free place at North London Collegiate School opened the way to pursuing the career of her choice, and she went on to study architecture at the Regent Street Polytechnic during the war, one of only seven women in her year. Her future husband Richard – or Dickie – was a fellow student, although his studies were interrupted by his army call-up and three years of service in the Middle East.

Margaret’s first job was with the London North East Railway near King’s Cross, working on infrastructure projects. Despite her qualifications, she was paid less than her male colleagues. On taking issue with this she was told her pay was ‘sufficient for a young woman’. In 1948, after a period with Middlesex County Council working on schools, she joined the office of Denys Lasdun and Lindsay Drake, a partnership that had evolved from the break-up of Tecton, one of the most influential modern-movement practices in pre-war Britain.

The office in Sackville Street had remained Tecton’s office through the war years and was shared by the celebrated engineer Ove Arup. Margaret worked on the Hallfield Estate on Bishop’s Bridge Road in Paddington, an ambitious housing project that included schools and community facilities. In his 1964 book, Modern Buildings in London, Ian Nairn described Hallfield Primary School as ‘one of the most inventive school designs put up since the war’.

After the founders joined forces with Maxwell Fry and Jane Drew – as Fry Drew Drake and Lasdun – Margaret travelled to what is now Ghana as site architect supervising the construction of a new village at Tema on the outskirts of Accra. It combined modernism with courtyard dwellings that reflected the local culture and was part of prime minister Kwame Nkrumah’s plan to modernise the economy of the British Gold Coast colony with housing, schools and an industrial infrastructure. Margaret loved her time there.

In 1958, Dickie set up on his own when Middlesex County Council offered him a commission for a school, sharing office space with his former Festival of Britain colleagues Gordon and Ursula Bowyer. More work followed, giving Margaret and Dickie the confidence to follow the pattern of husband and wife partnerships established by Fry and Drew. Projects for local authorities included schools, housing and what were then called residential blocks for the ‘mentally disordered’. With a small group of assistants, they enjoyed a wide range of commissions that included private houses and work for the Henry Moore Foundation. The ability of the practice to combine utility and elegance was perfected through these years, and the work has been revisited by younger architects who value the honesty and clarity that it conveys.

The industrial designer Kenneth Grange, a friend and contemporary, recalls the importance of Dickie and Margaret in a generation of modernists: ‘They contributed massively, not least to their assistants and initiates, and created a catalogue of buildings and places that combined an intelligence with “class” – an old-fashioned but well-understood concept’. ●

John Robins

IN MEMORIAM

Diana Anita Boyd
ELECTED 1949, LONDON

Raymond Alan Young
ELECTED 1950, DEVON

Alec Morton Taylor
ELECTED 1953, DEVON

Thomas Coulthurst Hill
ELECTED 1954, DUMFRIES

Christopher Antony Gower Poole
ELECTED 1956, HEREFORDSHIRE

John David Nixon
ELECTED 1957, LEICESTER

Dennis John Trevor Brown
ELECTED 1958, HAMPSHIRE

Trevor Laurence Conquest Freeman
ELECTED 1960, HERTFORDSHIRE

William David Duncan Wallace
ELECTED 1960, EDINBURGH

John Kirkland Garside
ELECTED 1961, SHROPSHIRE

Horace Douglas Watkins
ELECTED 1961, WEST SUSSEX

James Cotter
ELECTED 1971, EPSOM

Donald John Manton
ELECTED 1972, LONDON

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Exchange

Value construction workers to maintain skills
I was saddened to see the cheap shot ‘Loadsamoney’ generation’ used to describe retiring construction workers (Material Concerns, riba.org 15 November 2021). It comes across as sneery and patronising.

We don’t value construction workers highly enough; they are the butt of jokes and assumptions such as ‘plumber’s smile’ and ‘builders’ tea’. No wonder there is a dearth of people lining up to fill their places.

Francesca Weal, Welwyn, Herts

Design District plan denies climate crisis
I recently visited the Design District, Greenwich, adjacent to the O2. My conclusion is that it is ‘climate denial architecture’. There is no doubt that the primary consideration in the design of all new tools of human existence must now be the climate crisis.

The design concept of the district is detached little gem buildings, which maximizes the external wall area. The Canteen café is outrageous – its external wall fabric is only a single skin of transparent plastic, the guys serving at the coffee bar by to the entrance were suffering from exposure on that late November day. Heating the Canteen will take excessive energy.

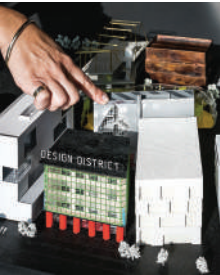
The individual gem architects are not the primary perpetrators of this Bad Event, it is the designer[s] of the overall concept. The individual architects could still have had their commissions, but the building would need to be radically different, a progressive concept as against a retrograde event.

Peter Foulsham, London

Building Safety Bill’s dash for action masks dangers
While feeling the horror of the Grenfell fire, architects may be wondering how a profession with limited influence on the building renovation appears to be the primary focus of regulations while other groups look likely to avoid proportionate repercussions.

The government’s late amendment to the draft Building Safety Act in response to the high-rise ‘cladding scandal’ retrospectively extends the liability period for legal action against ‘developers’ of projects involving ‘shoddy workmanship’, from 6 to 15 years.

The proposal – through changes to the Defective



Models for the Design District, Greenwich.

Premises, Limitations and Building Acts – will apply to residential premises of two or more flats and retrospectively to previously constructed as well as new buildings. It will allow third party legal action for breach of Building Regulations which, as the Grenfell Inquiry revealed, are open to misinterpretation. It will likely open the floodgates to test cases attempting to expand the already broad remit of the legislation. The collective impact will be a huge increase in residential construction legal liability.

Critically, while ‘developers’, can walk away thanks to the prevalence of SPVs (single project companies wound up on completion of that project), the changes will leave construction professionals and contractors to bear the increased risk.

Since Grenfell, most architectural firms have experienced large hikes in PII costs coupled with significant exclusions, making fire and cladding claims uninsurable (RIBA September, p70). The proposed changes will exacerbate this and risk a PII hiatus greater than the 1980s Tort liability crisis. Many practices may find PII unobtainable. Retired practitioners are likely to have insufficient run off cover and have personal assets exposed to claims. It could make small practice unviable, affecting employed architects as well as directors.

Professional bodies and the press seem to be sleepwalking into this crisis, unwilling to stick their heads above the parapet for fear of accusations of self-interest. This view is misguided. The impact of these changes could make the government’s much-needed building safety reforms unworkable. This would be hugely counter-productive and a betrayal of those who have lost their lives at Grenfell.

I would urge all reading this to take action and lobby their professional bodies and MPs while there is still opportunity to get this misdirected and destructive policy properly considered.

Steve Eastland, David Burley and members of the RIBA Exeter Branch
[Full letter: www.facebook.com/ribaexeter](https://www.facebook.com/ribaexeter)

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Finmar showroom
London, 1954

Although founded in 1934, wholesale firm Finmar’s heyday was post-war, when Britain’s general public became increasingly interested in Scandinavian design. The business was created by architecture critic Philip Morton Shand to import Alvar Aalto’s plywood furniture from Finland; but from 1949, with new director Paul Ernst Stemann at its helm, it shifted focus to Denmark and soon became one of the main importers of Scandinavian goods to the UK. By 1954 it was selling furniture to Liberty and Heals, and had commissioned James Cubitt and Partners to design

its first large showroom in London. The site was a tall and narrow former textile warehouse, arranged over several floors; the architect converted it with minimal changes to the existing structure, but at the same time introduced experimental ways to display the showroom’s content – the new fittings were described by Architectural Design as ‘elegant and concise’. The basement floor, seen in this photograph, featured an illuminated fishpond and was visually connected to the ground floor by a vertical display of chairs suspended from the wall. ● Valeria Carullo

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