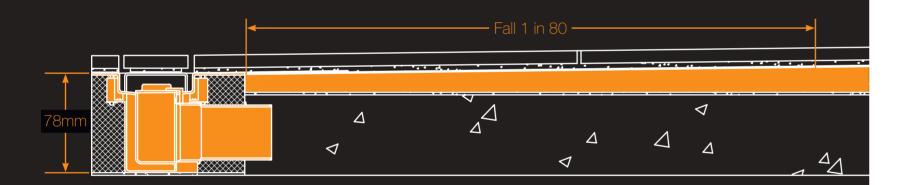
MacEwen Award 2021 Architecture for the common good: Hackney's recipe for everyday good food Green energy from a red filigree box Community action to creation in Liverpool Mix and match revives Belper streetscape **The RIBA Journal** February 2021 £15/€30/US\$35

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Buildings



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In a year that taught the need for change, MacEwen inspires

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Bunhill 2 Energy Centre by Cullinan Studio, photographed by Paul Raftery

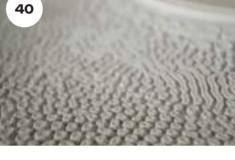
ABC audit



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1km-long Karl Marx-Hof housing estate, by Karl Ehn, was an early symbol of Red Vienna





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Food for action – MacEwen winner **12**

A year ago in this same slot fronting the MacEwen Award winners we introduced our 'annual issue that showcases a different kind of architecture' of social responsibility and common good. While the MacEwen Award had been set up six years earlier with all these attributes in mind, we still didn't imagine the resonance those words would take on even by the end of that month. Supermarket staff had not yet been designated key workers and the nation had never had a weekly collective clap for the NHS.

When we set up MacEwen we recognised increasing fundamental problems with architecture. There was a focus on buy-to-leave rabbit hutch apartments that many architecture employees could not afford to live in themselves. We heard of more and more commissions for luxurious private houses for clients whose expectations and budgets epitomised the structures of spiralling

Catford Mews, Lewisham, by Wren Architecture & Design reached the longlist.



ribaj.com

Eight of the best - MacEwen shortlist **30**

1: Buildings

inequality that they had benefited from. We felt the rise of the mega architectural practice that elbowed out of procurement processes any other type of smaller, less corporate set up, and that didn't necessarily present the best architectural outcome or process. The award was initiated to counter these and other shifts, to celebrate architecture that demonstrated common good, often with a community and social angle.

Today global events have torn up the status quo. The wealthy still preside, prosper and profit, but everyone has come to realise that the top is more connected to and dependent on the bottom than they thought; that life cannot recommence where it paused 12 months ago; that change is needed. Though that has not yet arrived, you should find inspiration in these pages as to what and how change for the common good should or might come to pass.

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Moxon's Quarry Studio in the Cairngorms: ribaj. com/moxonstudio

VitrA

Buildings MacEwen Award – judging



Giving most to the most

In a year marked by deprivation and sacrifice, MacEwen judges favoured the greatest good for the largest number Words: Jan-Carlos Kucharek

With the stuffing knocked out of us by the pandemic, the feisty, divisive deliberations of last year's MacEwen Award judging were counterpointed this year with palpable rapprochement. Or perhaps it was the absence of then judge Cecilie Sachs Olsen from Oslo Triennale, whose sustainability agenda led to a polarisation of viewpoints and helped push Liverpool's Park Palace Ponies, with the smallest of carbon hoofprints, past the post.

For this sixth year of RIBAJ's MacEwen Award for Architecture for the Common Good there was a sense that no-one was up for an argument. Park Palace's architects Sue Stringfellow and Sarah Harrison were present, albeit virtually. As indeed were the other judges: planner Kathy MacEwen, daughter of Malcolm and Anni MacEwen, former

A journey to a peaceful mind

Introducing Voyage designed for VitrA by Arik Levy.





RIBAJ editor and planner, in whose honour the award is named; director of Our Building Design and University of Westminster senior lecturer Tumpa Husna Yasmin Fellows; Beth Bourrelly, architect associate at BDP, the award sponsor; and outgoing RIBAJ editor Hugh Pearman - who, despite being a self-declared technophobe even after nearly a year of grappling with online meetings, chaired the judging with gusto and aplomb.

Covid-19 took its toll on entries it seems, with fewer submissions than usual, at 40. From this Pearman's initial sifting presented a longlist of 21 to the judges, who arrived at a shortlist of 12, and then, from these, three commendations and a winner. Not surprisingly for a year characterised by isolation, disruption and sacrifice, winnowing

favoured 'community endeavours', 'education initiatives' and 'revitalisation' - both urban and rural. Only two housing propositions made it through; strange, when you consider the amount of time that most have had to contemplate the limitations of their own homes. And only three 'support structure' projects; perhaps the physical access constraints placed on such care and medical facilities engendered unintentional psychological distancing in the selection process.

Either way, general frustration was expressed by the judging panel that some of the projects simply hadn't had the opportunity to be tested; that lockdown had stymied their ability to prove themselves in the field over the past year, a view that saw the seemingly worthy Treadgolds project in Portsmouth eclipsed by Assemble's Granby Winter Garden and its already-proven community benefit. But on the other side of the coin, the pandemic proved the robustness and inherent flexibility of some of the entries - Jan Kattein Architects' Tailoring Academy went into full mask manufacture, the Hackney School of Food delivered to the local community and Urban Symbiotics' wayfinding improvements at the Black Culture Archive resulted in a socially-distanced garden allowing Brixton's more vulnerable BAME community to gather safely. And while the pandemic might have driven Belfast Buildings Trust's Ormeau parklet, which reclaimed a busy road, the scheme points to alternative uses of public realm as propositional as anything in last summer's Rethink 2025 competition.

There was debate. Maybe the shoestring nature of last year's winner reset judges' cost algorithms, as larger budget projects fell by the wayside. Toynbee Hall and Stanton Williams' Zaved Centre seemed too rarefied; the Nook, out of clinical need, lacked the risk-taking that one might hope for in a care context - Harmonia Village likewise. And Genesis barge, lovely as it is, at £10,000/m² was cast adrift. Even the simple beauty of the St John's music pavilion and its clearly low budget seemed born of a middle England richness of networks. 'How connected would you need to be to facilitate this,' asked MacEwen. 'But is it arguably any different to how Assemble works' challenged Liverpool resident Sue Stringfellow.

In the end it was the sense of the 'greatest good for the largest number' that became the prevailing thread of the discussion. In an obvious way that saw the inclusion of Cullinan Studio's Bunhill 2 Energy Centre as an expositional icon of the strategy of innovative and more sustainable district heating. Less obviously, the Ada Belfield Centre dementia care home and town library in Belper combined two typologies to regenerate and energise a formerly derelict edge of town with a new public square that even the local youth were happily re-occupying in more positive ways than they had previously, to see three generations served in one go. Both bravely take a fresh, non-standard approach and both, to varying degrees, took risks, aligning them with former winners.

And as for Assemble's ongoing work at Granby4Streets, the delicate, slowly-realised and absolutely ground-up nature of the intervention had already won the collective the 2015 Turner Prize, so to see it commended here in its latest Winter Garden project for Granby Community Land Trust, perhaps comes as no surprise. The new space, hidden behind the facades of two houses in Cairns St, has further galvanised the community and runs popular workshops and events for a wider neighbourhood.

'We went from thinking: why ever here? to: why not everywhere else?' Hazel Tilley of Granby CLT told me when I visited; and in the end the judges agreed with her. Surman Weston's Hackney School of Food, our 2021 Mac-Ewen winner, has, in its way, responded to her charge, energising an inner-city community to empower themselves, specifically through learning about what food is, how you grow and prepare it and how healthy eating can enable better, longer lives. All done simply and joyously, with minimum fuss and maximum return. Assemble might have picked up the baton in Liverpool but now, more than ever, it's time for others elsewhere to run with it.





2021 LONGLIST (SHORTLISTED IN RED)

The Tailoring Academy, Haringey Jan Kattein Architects for London Borough of Haringey Hackney School of Food Surman Weston for Chefs in Schools and LEAP Federation of Schools Saltholme Pools Hide

Child Graddon Lewis for the Royal Society for the Preservation of Birds Passivhoos, Scotland

John Gilbert Architects with Stewart & Shields for arious HA clients

The Nook, Framingham Earl, Norwich Barefoot & Gilles for East Anglia's Children's Hospices **Rectory Lane Cemetery, Berkhamsted** Hugo Hardy Architect for Friends of St Peter's

Berkhamsted

Ada Belfield Centre and Belper Library, Derbyshire Glancy Nicholls Architects for Derbyshire County Council Granby Winter Garden

Assemble for Granby 4 Streets Community Land Trust Bunhill 2 Energy Centre

Cullinan Studio for Islington Council Treadgolds. Portsmouth Pritchard Architecture for John Pounds Community Trust Genesis, London

Denizen Works for the Diocese of London St John's Music Pavilion, Lacey Green, **Buckinghamshire**

Clementine Blakemore Architects for St John's School The Story Garden

Jan Kattein Architects for Global Generation The Harmonia Village, Dover Hazle McCormack Young LLP for East Kent Hospitals University NHS Foundation Trust

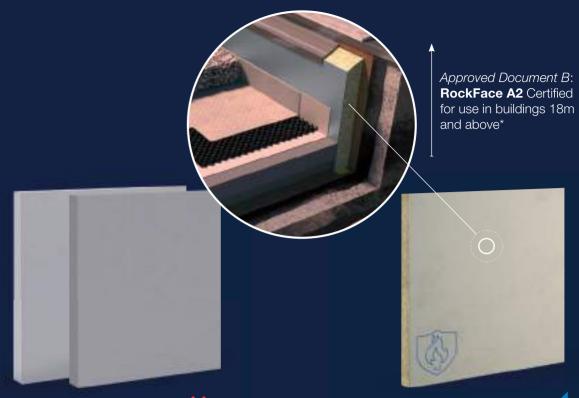
Catford Mews. Lewisham Wren Architecture & Design Ltd for The Really Local Group

Laureates Place, Saddleworth Deramore Hutchcroft for Laureates Place Self-Build Zaved Centre for Research into Rare Disease in Children, London

Stanton Williams for Great Ormond Street Hospital & UCL Institute of Child Health

The Ormeau Parklet, Belfast Belfast Buildings Trust for Belfast Buildings Trust Lambeth Early Action Partnership

Frect Architecture for National Children's Bureau Tovnbee Hall Richard Griffiths Architects for Toynbee Hall BCA Covid Garden and Wayfinding, Brixton Irban Symbiotics for the Black Culture Archive



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Food for good

Hackney School of Foo designed by Surman Weston. Children can grow and pick produce and then cook it in the teaching kitchen.



Surman Weston's converted house brings practical knowledge of growing and cooking food to the inner city Words: Pamela Buxton Photographs: Jim Stephenson

Hackney School of Food London

Surman Weston

'Their jaws just drop,' says Tom Walker, head of food production at the School of Food in Hackney, of the moment that children attending the new facility are told they're going to cook and eat the herbs and vegetables they've just picked.

Making this connection between growing and cooking is no small achievement in an area of London where few, if any, children have access to gardens and where the Free School Meals rate for primary pupils is 50% (nearly triple the national average).

Walker is in no doubt about the role of the building in the success of the project. A partnership between LEAP Federation and charity Chefs in Schools, its mission is to improve food education in schools at a time when child food poverty has become a national issue. Not that it's a flashy newbuild in any way. On the contrary, Surman Weston's design is an economical, carefully-considered retrofit of a redundant school caretaker's house that had lain empty for several years. But while it still resembles a house externally, the inside is transformed into an unexpected double-height space with a 'wow' factor that instantly engages the children when they arrive.

'When they come in, they are so excited,' says Walker. 'They walk into a house-shaped building and they're expecting a house. So then they're excited about the space, which really encourages them to get involved.'

Located on the Mandeville Primary School site, the Hackney School of Food provides a teaching kitchen with an adjoining productive garden. This has outdoor seating where children can eat the food they've cooked. A separate garage has been converted into an entrance/storage/toilet block. As well as serving the host school and the two other primaries in the Federation, the facility is also available to other schools in the borough and others including local community groups.











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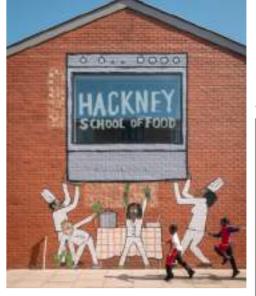
Buildings MacEwen Award – winner

Since being completed in lockdown last spring, the facilities have already been used by some 600 children and there are hopes to provide food-focused education to as many as 4000 a year when more normal times resume. Other activities such as cooking classes for parents and child are planned. In doing this, Hackney School of Food really is taking food education to those who need it the most, and it is this clear social agenda, along with the accomplished retrofit, that made the project a clear and worthy winner in this year's MacEwen Awards.

'I think the Chefs in Schools programme is great – it's a wider project with real aspiration,' says judge Kathy MacEwen.

Fellow judge Tumpa Husna Yasmin Fellows was also impressed with how the architect had used bold gestures to transform a humble house into Hackney School of Food.





Above The mural gives the community building a clear public presence.

Below The teaching kitchen can accommodate 30 children at adjustable height counters.



'The space looks beautiful, and turns domestic architecture into a community space. The outdoor growing space that's part of it is wonderful and inspiring,' she says, adding that with its agenda addressing child poverty and obesity, the project ticks a lot of boxes.

For Surman Weston, this is its most socially impactful job to date. The practice won a competition for the project in spring 2018 and worked closely with the clients to develop the brief, which initially focused on just the teaching kitchen but expanded to include providing an adjacent kitchen garden.

'This project was never about being precious. We were always trying to do the most we could for the money we had,' says Surman Weston director Percy Weston.

They practice has certainly managed to maximise the tight budget to the benefit not just of those using the facility but the surrounding streetscape. The caretaker house previously presented a rather austere facade to the pavement but is now, courtesy of a jaunty mural on its sidewall, an attractive marker for the Hackney School of Food. New timber-slat fencing also gives views in to provide glimpses of the garden and its activities to passers-by.

While the removal of the first floor has transformed the interior of the house to create a single, double-height space, its domestic past has not been entirely eradicated – look carefully and you can still see traces of where the floor once was, as well as room divisions, blocked up doors and windows, and even the bathroom tiling.

'We wanted to preserve some idea of the history of the house, but it's not a particularly lovely building, so we didn't want to be too precious,' says Weston, adding that the idea for the lofty space only came to them the day before the competition deadline.

It was an inspired late decision, creating a space not only with immediate impact, but with interesting features that the children enjoy pointing out and asking questions

They walk in expecting a house...then they're excited about the space, which gets them involved Right Listening under

and Chefs in Schools

Contractor Modernar

Structural engineer Structure Workshop

Services engineering

llustration Jean Jullien

Claire Ward-Thornton

Miria Harris (stage 1),

Lidia D'Agostino

& Associates Graphic design &

about, such as the exposed roof structure, complete with its bulging insulation.

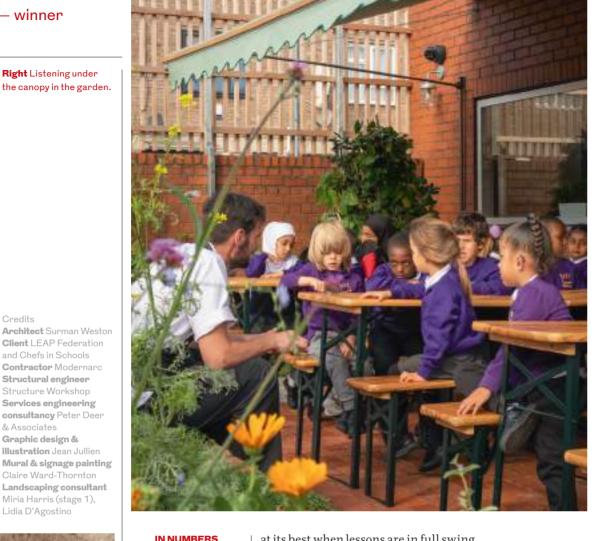
Surman Weston's biggest challenge was the limited budget - especially as big chunks of it were already spoken for to deal with essential asbestos removal, three-phase electric power and, importantly, heightadjustable cooking stations. These accommodate 30 children working in 10 teams of three situated around the perimeter of the room, plus a central island unit.

Other interventions include perimeter reinforcement beams, new windows, insulation and heating. While everything is exposed and robust, visual warmth is introduced through the use of composite timber fibre/cement boarding to form a 'tray' for the floor and lower walls. Festoons of lights give a playful counterpoint to the clinical professional kitchen equipment.

The house opens up to the new garden, with different heights of bricked planters to grow edible produce plus a fire pit and a pizza oven. This was initially proposed to be 5m high to act as a marker for the school, but was sadly value-engineered down - though it is still a very pleasing feature.

The Hackney School of Food is of course





IN NUMBERS

£309.000 cost including landscape, cooking equipment and services

57.5m² building area 237m² andscape and external works £3.843 cost/m² (buildings)

£337 cost/m² (landscape)

L**eft** Removal of the rst floor creates an pressive doubleight space.

at its best when lessons are in full swing. 'It's amazing. It really comes to life when the children are using every part of the site,' says Weston.

But even visiting on a wet and wintry late afternoon just before Christmas, it's hard not to be swept away by both the attractive garden and kitchen and the importance of the facility's mission, all fuelled by the infectious enthusiasm of the key personnel.

And this is just the start, with the project intended as a prototype for similar facilities to further spread the food education message. Meanwhile, Surman Weston has been working on a feasibility study for Phase 2 at the school, appropriating an adjacent, underused area of playground and music building for further gardens and a possible greenhouse.

Hackney School of Food is clearly a tremendous asset for the school, which has recently seen its rolls fall as parts of the surrounding area have gentrified, and also the wider borough. Hopefully it will provide a lasting legacy to its alumni, providing a greater understanding of where food comes from and how to eat and cook well, at a time when good health has never been so vital.





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PORCELANOSA PROJECTS

Sweet streetscape

Glancy Nicholls' regenerated Thornton's factory draws together care home, library and community amenities Words: Hugh Pearman Photographs: Glancy Nicholls Architects

> This image A library, a care home and a new public space. A veritable confection of uses on the old Thornton's

Opposite The library will prove to be a valuable community asset post-

actory site.

Buildings MacEwen Award – commended

Ada Belfield Centre and Belper Library Derbyshire

Glancy Nicholls Architects

'Sunday was always treacle toffee day'. 'One day of the week it smelled of sherbet'. They have fond memories of the Thornton's confectionery factory in Derwent Street, Belper. From 1947 to 2004 the delightful scents could spread intoxicatingly right across this Derbyshire milltown. Before that the complex had been a blouse and hosiery factory which at one point absorbed a neighbouring former music hall/cinema, the Empire, dating from 1911. Now it has changed use again to be a new public library: part of a part-new-build, part-refurbished little complex also including a dementia care home. This is the start of the revival of what had become a badly rundown bit of town. It's in the Derwent Valley Mills Unesco World Heritage Site: great care was needed with what was built here.

The MacEwen judges kept coming back to this project in the discussion and understandably: it is a rare piece of public patronage,





of good quality, alert to its context, on a long-derelict brownfield site. It is designed as a piece of townscape as much as a building, adding a small civic square, a place of refuge from the busy A6 road which runs northsouth through the town close by. And it is designed to be seen from a distance and from above. Viewed from up on the valley sides of the Derwent it sits well with the grain and colours of the town. Unesco need not worry. Nor did judge Kathy MacEwen, who declared 'A library with a care home is a fantastic ideaboth unusual and stimulating.'

This is a novel combination of uses to find. You enter the main entrance foyer, where the Derbyshire sandstone of the exterior continues through to the interior, and you can go one of three ways: straight ahead for the care home (off-limits to non-family visitors at present for obvious reasons), left to a public café on the square (ditto), right to the library, also now in lockdown. The 40-bed two-storey care home, then, for all its necessarily secure nature and enclosed courtyard design, is itself treated as being of civic importance. There is a feeling of respect here. Before its residents moved in, it functioned for a few months as an official small Nightingale Hospital, treating Covid-19 patients.

The abandoned factory – and Derwent Street generally - had deteriorated over recent years. A serious fire in 2013 put paid to a large section of the factory. Various plans were hatched for the area – on the western edge of the town where it gives way to the flood meadows of the River Derwent. Schemes for a superstore, for housing, came and went. Finally the public sector intervened, in the form of Derbyshire County Council. Architect Lathams drew up an indicative plan for a complex which would bring together three functions; the care home and library, plus a new NHS adult health centre. All these functions pre-existed in the town but were in old, increasingly unfit for purpose buildings: for instance the library was on several levels in a one-time doctor's house while the previous Ada Belfield dementia care home (named after a prominent post-war local politician and philanthropist) was in a time-expired 1960s



flank. Nothing much happens there, behind the facade it's just secondary spaces. So the old street is not fully re-activated, something that could continue to be a problem until a presently empty site opposite is redeveloped.

In fact the new building has empty sites all round it, and only some fringe small industrial buildings behind. The originally planned new health facility did not happen: Nicholls is pondering if houses might replace it, so providing an edge to the new square. But what is already built should unlock what has long been a problematic part of town.

The library itself is a good place to be: fully visible from the square outside and vice-versa via shop-window scale glazing at ground level, breaching the old Empire walls. A line of salvaged cast-iron columns from a foundry in nearby Milford marches down the centre of the main room. Although it is all laid out on ground level, it is a very lofty space rising right up to the underside of the pitched roof. A good public library always lifts the spirits, and for a relatively small town this is certainly a good one, and with its bookable rooms is a real community asset. It is also closer to the centre

So there are multiple reasons this project



and much more inviting than the old one.

scores highly in this year's MacEwen Award. An enlightened, committed public client with an established relationship with its architect: a decent budget for a building of quality, designed to last using local stone, responding to context and re-using existing building fabric: enshrining the notion that care for the elderly is not something to be shunted away out of sight; the community asset of a good library much improved; new small-scale civic space; a good use of brownfield land. There's one more thing they could have done though: re-instate the toffee and sherbet smells.



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building that would have cost many millions to upgrade to modern standards. There followed a design competition, won by Glancy Nicholls with a more compact scheme.

If the name sounds familiar in this context, that's because Birmingham-based Glancy Nicholls won the MacEwen Award in 2018 with another care home for DCC up beyond Matlock (RIBAJ, February 2018). Practice co-founder Patrick Nicholls says it all comes down to the dedication of his original client, Bill Robertson, who while at Birmingham instigated a drive to radically improve the quality of dementia care facilities - and then moved to Derbyshire where after retirement his work was continued by Liz Ewbank. Hence the quality of this project.

The stone public frontages to the library and southern flank of the care home give way to red brick, textured to the wings of the care home behind. The pattern of perforated bronze elements is taken from original local weaving loom punch-cards. The masonry picks up on the retained redbrick-with-stonedressings facade of the old factory running down Derwent Street as well as the old Empire block adjoining. These decent workaday buildings have an important value as part of the industrial and social history of the town.

Now the complex is re-oriented eastwards towards the town centre, this long retained north-facing facade has a problem: it still looks like frontage but has become a

- 1 Entrance
- 2 Library 3 Café/kitcher
- 4 Residential care

5 Communal area

6 New public square

7 Public internal courtvard 8 Private internal courtvard

9 Roofterrace

10 Gardens

11 Carpark

Credits Client Derbyshire County Architect, hard landscape and principal designer Glancy Nicholls **Civil and structural** engineer White Young Green Engineering and soft andscape Derbyshire Principal contractor Robertson Construction

IN NUMBERS

£11.2m

construction cost

3,216 m²

GIA care home

317m²

GIA library

396m²

GIA community facilities

£2.850

per m² overall

40

care home bedroom

Right With the care home and library, it's not just about re-use but regeneration of the locality

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Locals' determination has paid back in spades with Assemble's transformation of derelict houses in Toxteth into a thriving community winter garden Words: Jan-Carlos Kucharek Photographs: Assemble

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'The Winter Garden is a special project. It raises the bar' Judge Sue Stringfellow

Granby Winter Garden Toxteth, Liverpool Assemble

Spending two hours in the company of Hazel Tilley of the Granby4Streets CLT, you feel you wouldn't want to be picking a fight with her. One of the founders of the Granby Residents' Association that two decades later would formalise itself as a Community Land Trust, Tilley's sharp-tongued, straight-talking, earnest and charismatic manner makes her a force of nature. 'I'm a typical Liverpool matriarch, me: I tell you what you want to do and you fuckin' do it,' she says bluntly, pressing a mince pie on a Granby Workshop plate on me. 'But this place taught me not to do that,' she adds, her tone changing. 'I learned this is everybody's place, everyone's involved and everyone's opinion matters.'

You take Tilley at face value. She's lived in the city's centre since she left home at 15 and moved to the Granby area in 1988 when she bought her home here. Snap her in two and 'Toxteth' would run through her bones like rock. She experienced the riots here in 1981 and the racism, deprivation and poverty that brought them about. She tells of the city council's active disinvestment in the area in the years that followed - 'the council stripped the lead off the roofs of the empty houses here so it wouldn't be stolen' - and also of New Labour's regeneration Pathfinder projects that looked to level swathes of inner city Liverpool in a tabula rasa approach. And though this was resisted, those who chose to remain here were marred by the creeping sense of



despair and abandonment. Emotionally broken; when, at the end of the 80s, she was one of the six people left on the street, they decided to take matters into their own hands. Assemble's winning of the 2015 Turner Prize for its work at Granby4Streets has its genesis in this moment of collective action.

On a cold but bright December lunchtime Granby Winter Garden is resplendent, sunshine pouring through its fully glazed roof. Plants crawl up its bare-brick internal faces and in the space's residual warmth hangs the smell of moss and verdure. Of course, it isn't as full as it was when it first opened in 2019 – Covid concerns have put paid to that – but the door that's opened to me remains open for others to come in briefly and chat about local matters. Tilley admits that standing among pigeon guano, damp and dereliction, in two of the 10 houses originally sold by the council to the CLT for £1, along with an offer of £85,000 to do something with them, that



she'd shrugged her shoulders in defeat.

Assemble's light touch approach that had facilitated social enterprise Granby Workshop was also put to use in this context. The idea for the Winter Garden came, explains Assemble's Engi Meacock, out of initial studies the firm did for the trust in 2013, looking into how to adapt and repurpose a row of derelict buildings on nearby Ducie St. That concept, for pulling the building line back from facades and allowing residents to expand into them with conservatories or accommodation as they wanted, didn't progress, 'but the idea of a garden at the heart of the community remained,' he says, adding that facilities like this are critical to any sense of social sustainability. 'At its core was the idea that we could create something beautiful and careful and extraordinary and spend no more money than the kind of shit custom-built versions in pattern book regeneration projects.'

But it's not just about the hidden drama of the Winter Garden's double-height, hidden behind the facades of two innocuous adjacent houses on Granby Street, where on any given day the space will be given over to community workshops, coffee mornings and neighbourhood drop-ins. It's how the space has the potential to catalyse beyond its limits. There are the obvious things, like the artist-in-residence space on the first floor that will spend half its life as an airbnb in order to help generate the income to make the place self-sustaining. Or its Granby Workshop's furniture and hand-made tiles in the accessible loo downstairs, keeping the worker-owned entity going. Or the local carpenter who lovingly took in Assemble's wish to mark the movement of the buildings by constructing sash windows with slanting reveals. 'He's so busy now he can't even come back to finish the snagging!' Tilley exclaims. 'It's a Robin Hood type thing,' says Meacock later. You're providing local employment and using local resources; it's why we used Granby tiles inside and on the outside water cistern.' Returning the flow of money to the community and holding it there.

I'd almost tripped on a tonne bag of soil on my way in and Tilley tells me that in summer there were 10 of them out there. The pandemic hasn't stopped the CLT's community work; she and resident gardener Elizabeth just took it outside. They encourage local kids to get involved, potting plants with the draw of biscuits and juice in the same way that Assemble got them to help build the Turner Prize fireplaces in the street with smashed bricks and a concrete mixer. She says: 'People don't realise how little money there is here but before you know it, they've potted a plant for themselves and one for a neighbour.' Tilley bustles me through the Winter Garden and unlocks the back door to reveal the alley, its narrow length a wonderland of plants growing wild







out of others' fly-tipped rubbish, which last summer was lush, sheltered and scented. 'This is what the Winter Garden did for us. It raised our aspirations and made us all believe we could do something good,' she says.

It's clear that there's still a lot to do. There might be fairy lights hanging in Cairns St, but the blight of poverty is not far from the Winter Garden's threshold. But hope has supplanted despair. The 'Four Corners' project will see Assemble paid to design a community café on the Granby St corner, with two, two-bed flats funded by Homes England. Someone who bakes soda bread wants run a bakery from it, slowly introducing a commercial aspect to this fragile social ecosystem. But Tilley is in no rush to make decisions now that they might regret later; the success to date has taken 30 years. 'When you think that all people were planning on doing was find a cheap place to live and now they're proud to live here, saying they're from the street with the Winter Garden...' I perceive a crack of emotion in Tilley's voice. 'To me it's like a fairy tale, a dream that at one point I couldn't dare imagine. I just look at all this and I think Wow! Assemble are so full of Wow!' •

Left Maintaining the garden is a constant learning process for everyone, but the aim is for it to be there for the community for posterity. **Top** The Winter Garden forms only half of the project. Above, the artist in residence space will fund itself as an airbnb for half the year.

Power to the people

This pioneering local energy centre harnesses waste heat from the Tube to provide greener, cheaper power Words: Isabelle Priest Photographs: Paul Raftery

Bunhill 2 Energy Centre Islington, London

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Cullinan Studio with McGurk Architects

Bunhill 2 Energy Centre is an unusual MacEwen Award commendation because there isn't much to see or witness. From across the road, the building appears as a five storey, carmine red box that someone forgot to put windows in. Its architecture for the common good is essentially invisible. You can't go in, you won't see community in action while you are there. Maybe you'll see nobody at all.

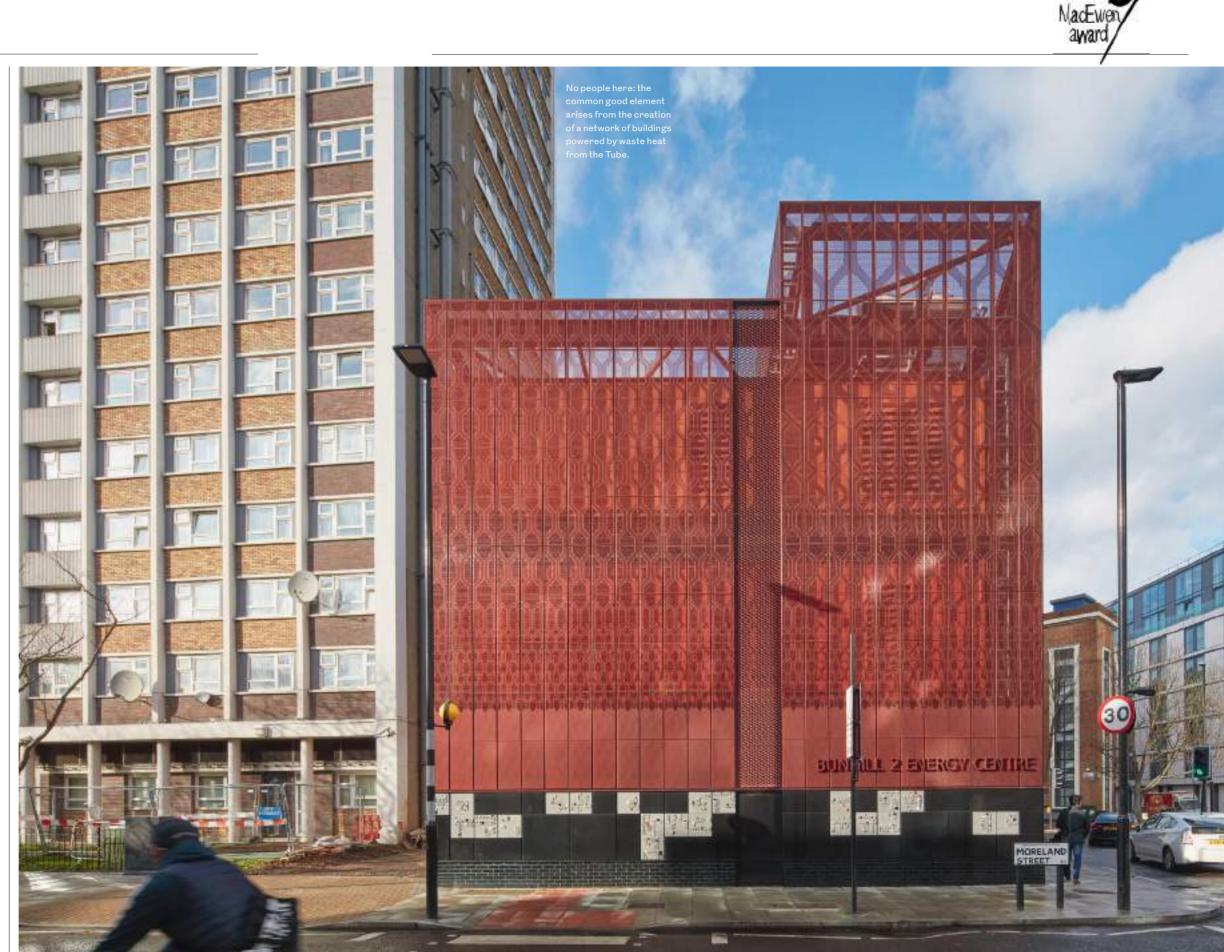
But look more closely and the building is effectively a delicate decorative Moorish metalwork envelope for a mass of pipework and technology. It is about connecting and servicing an undetectable local network of buildings and homes with heating. The common good element stems from the fact that the energy it provides is recycled unwanted heat from the Tube (remember that?), which makes it more sustainable and cheaper for a wide demographic of residents. In summer the energy centre operates in reverse by providing natural cooling to the Tube. Located on a peninsular corner plot, it is dwarfed by towers of 1960s council flats and by the even taller cluster of luxury residential skyscrapers that have crept out along City Road from the City of London towards Angel in recent years, massively expanding the energy demand in the area.

Bunhill 2 is the culmination of a pioneering and unique collaboration between Islington Borough Council and Transport for London. They were brought together by a third party, the Mayor of London's office, an aspect of the project which makes it particularly 'MacEwen' from the outset – and a factor that impressed judge Sue Stringfellow for its inherent difficulty in even putting together coherent funding applications. It is the first known scheme in the world to take waste heat from an underground rail network and use it to provide lower cost, greener heating and cooling by adding 550 homes and a primary school to the existing Bunhill district heating network, currently serving 800 homes and two leisure centres in Islington. This will reduce residents' energy bills, which have risen significantly over recent years, but also plays

IN NUMBERS

614.2m² total floor area £16.3m project cost

Left Site plan showing the energy centre's location facing City



How the was

from the Tube works.

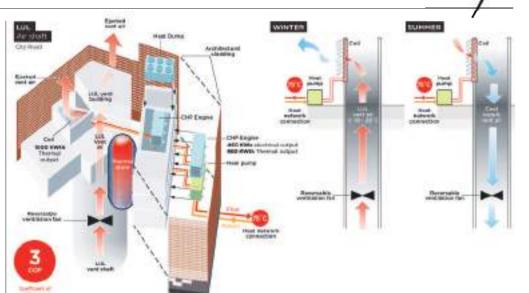
an important role in Islington council's zero carbon commitment by reducing annual CO₂ emissions by about 500 tonnes, as well as in the wider goals of improving air quality in the capital and making it more self-sufficient.

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The project began with a feasibility study by Ramboll to confirm that the heat pump concept was financially and technically viable. Ramboll then acted as client engineer developing its design. TfL upgraded its City Road mid-tunnel ventilation system to enable the capture and utilisation of waste heat. London South Bank University analysed the real-life performance of the scheme, evaluating its benefits and identifying how best it could be applied.

In this context, Islington council challenged the architect Cullinan Studio, whose office is nearby, to create a new energy centre that would inspire and intrigue, as well as transform a site that was an unsightly cluster of leftovers from City Road Tube station on the City and South London railway (it became the Northern Line) which closed in 1922. The resulting design explores how a new language of civic industrial architecture could begin to define this new typology of heat networks, just as Sir Giles Gilbert Scott celebrated the design of the utilitarian phone box in the 20th century.

The site is now a well-composed assembly of prefabricated structures that echo the existing building lines and strengthen the street edges by redefining the corner. The cladding system is made of recycled aluminium, cast aluminium from waste sources and low carbon mild steel coated in vitreous enamel. Cutout patterns to the upper storeys ebb and flow in response to the varying degrees of ventilation required for the equipment behind.



Credits Client Islington counci Concept architect **Delivery** architect McGurk Architects Funding Celsius Funding/coordination of London's involvement in the Celsius project The Mayor of London **Client engineer and** contract administrator Design and build contractor Colloide Cost manager Gleeds Heat pump system design, manufacture and installation GEA Testing and commissioning assurance Topic Plan CDM advisor and principal designer AECOM Real life performance Below Bunhill 2 Energy analysis London South

Centre as seen from Bank University Artist Toby Paterson



City Road.

Designed to be demountable in sections, it allows for the replacement of entire containerised plant assemblies. Artwork panels by Toby Paterson tessellate across the base, providing a contextual response to the local community. The materials are high quality, recyclable and robust, chosen for their association with the site's transport heritage and as appropriate for the tough urban context.

MacEwen judge Hugh Pearman says: The project is logically perfect, using waste heat from a train network for a district heating system. Cullinan Studio did design and community consultation. It's on a prominent location in Clerkenwell with a filigree facade. It makes a virtue out of mesh. It also looks like the follies in Parc de la Villette by Tschumi an interesting object in the cityscape.'

While some judges questioned its social impact, Kathy MacEwen felt its sustainability was the big social benefit in itself. Tumpa Fellows comments: 'This stood out for me. It is a great example of how you can make things aesthetically pleasing even when you're dealing with climate change and its social impacts. It's quirky, interesting and makes me want to know more.'

The project also demonstrates so much potential and could be infinitely replicated across London. The GLA estimates there is enough heat wasted in London to meet 38% of the city's heating demand. The expansion of district heating networks could achieve 63% of demand by 2050. The project is ground-breaking by providing a blueprint for decarbonising heat in London and around the world, and a deserving MacEwen commended winner.



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MacEwen shortlist

Eight more model projects impressed the MacEwen judges, including leisure and community spaces, furthering training and education, supporting families and promoting sustainable architecture It's great, and important, to have a model of this type that's affordable and replicable Judge Kathy MacEwen

Below Aerial view of Saltholme Pools bird hide with its panoramic views of the wetlands. Construction was limited to a narrow window to avoid bird breeding seasons.



The RIBA Journal February 2021

ribaj.com

Saltholme Pools Hide

Stockton-on-Tees, Middlesbrough Child Graddon Lewis

Twitchers now have 360° panoramic views of birdlife following a creative retrofit and extension of Saltholme Pools Hide in Stocktonon-Tees. Looking at the 'before' photos of a dilapidated, dark and unappealing space, it's clear that Child Graddon Lewis has achieved wonders with the modest budget.

Client Royal Society for the Protection of Birds was keen to transform the utilitarian and unwelcoming building into a community asset and a landmark location. The resulting design does this without upsetting either the local bird or twitcher populations.

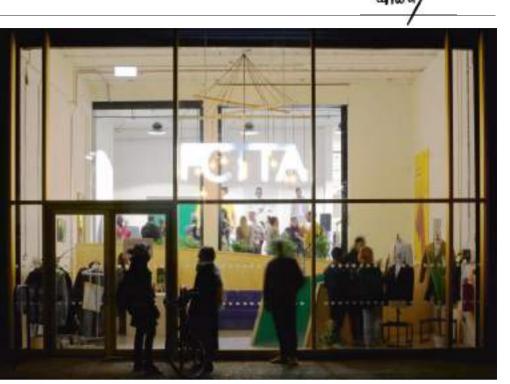
'It's a fairly light touch retrofit but we're pleased that we've been able to really improve what they had in terms of creating all round views and bringing in more light,' says Child Graddon Lewis associate Chris Gilligan.

Built in the 1990s, the hide has a steel frame, solid concrete base and breeze block walls. The main intervention was a new upper storey inserted into the centre of the near-circular building, accessed by a large spiral staircase rising from previously 'dead space'. This new upper gallery gives panoramic views across the water from windows placed at heights varied to suit both adults and children. A more highly glazed design was avoided as it would have created silhouettes of visitors that would deter the birdlife.

Downstairs, the practice upgraded the glazing and designed a more welcoming external entrance. The exposed glulam structure and birch panels of the extension create a visually warm interior, with the central domed roof light bringing illuminating the downstairs too. In contrast, the exterior is clad in dark-stained timber, chosen to age well and blend into the habitat.

The design team had a build window of just a few months to avoid bird breeding seasons. Since the retrofit, it has enjoyed a wider demographic of visitors including schools, families, young adults, tourists and organisations supporting less privileged members of local communities. This has enabled the RSPB to introduce education sessions and promote the site as an 'outdoor experience'.

Judges appreciated how the retrofit enhanced connections with nature. 'I think it's a quite special project sitting alone in nature,' said Kathy MacEwen.



The Tailoring Academy Tottenham, London Jan Kattein Architects

While Haringey in north London has a long history of clothing manufacture, for decades this has been in decline. The tradition is now being revived in Tottenham by The Tailoring Academy, part of a drive by social enterprise Fashion Enter to instigate more UK-based clothing production. As well as creating 50 jobs, the new training and manufacturing venture will provide 100 apprenticeships and 630 NVQs on site over the next three years.

Jan Kattein Architects worked with Haringey Council and Fashion Enter founder Jenny Holloway to realise her vision for the academy. Funded by the mayor of London, the new venture is located in a 1000m² warehouse next to the social enterprise's already established Fashion Academy.

The challenge was to create an inspirational facility that could safely accommodate training in a nurturing atmosphere alongside the manufacturing area, which produces clothing for major high street and online brands. It was also important for the academy to have a public face and welcoming entrance.

'We wanted to make sure it had a proper, publicly-visible presence so staff and students would feel proud coming to work,' says Jan Kattein. However, at £214,000 the budget was extremely tight for such a large area. 'We had A loading bay of the warehouse was transformed into an entrance atrium, giving a prominent public face to the Tailoring Academy in Tottenham.

to keep things really simple and think very hard about where to spend money,' he says.

As well as upgrading services, the architect inserted a folded timber and glass screen between factory and training areas across the whole warehouse so that students could safely experience the production process. Social, digital and toilet facilities are shared between staff and students. Timber screens, fabric canopies and accent colours are used to create a warm, learning environment.

A welcoming new entrance was created out of a loading bay, with views in through a 5m by 7m shopfront. Inside, the lofty atrium houses the reception and provides a showcase for displaying tailoring work. It is adorned with a chandelier, created by the architect out of hardwood battens, brass lamp holders and large bulbs.

During the first lockdown, the Tailoring Academy was temporarily repurposed by Fashion Enter to make scrubs for the NHS.

Judges were impressed with the re-purposing of the warehouse and its impact.

'It really targets apprenticeships; students have been affected [by Covid] more than anyone in a way, so anything that generates new training programmes, especially from poorer backgrounds, is key,' said Beth Bourrelly.

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Rectory Lane Cemetery Berkhamsted, Hertfordshire Rectory Lane Cemetery Team including

Rectory Lane Cemetery Team including Hugo Hardy Architect

This is a three-year, £1 million National Lottery Heritage-funded project to conserve and landscape a neglected 1.2ha cemetery by the volunteer Friends of St Peter's Berkhamsted.

A unifying design by the landscape architect created three zones, with accessible paths and parking and estate fencing. There's a performance canopy, Celebration of Life wall, repurposed Sexton's Hut, a willow-woven 'sofa' and Volunteer's Retreat in the wildlife area – built by volunteers. There were different bespoke seating designs by Alder Briscoe





Passivhoos

Multiple across Scotland

John Gilbert Architects & Stewart & Shields

Frustrated at the difficulties of realising Passivhaus homes for social rent in Scotland, Glasgow practice John Gilbert Architects and contractor Stewart & Shields set out to jointly develop an affordable design and build model.

The result is Passivhoos, a timber-framed system for Passivhaus homes. Five projects have been completed for community-based housing associations with 150 more units in the pipeline. As well as tackling fuel poverty, many are in rural areas, enabling young working families to stay in their communities.

'Eliminating fuel poverty is a key social aim of the project,' says Matt Bridgestock, a director at John Gilbert Architects. 'There are also significant health benefits of Passivhaus standards of construction as well as the sustainability benefits of reducing carbon.'

The largest Passivhaus scheme in Scotland so far has been eight units, which will be surpassed by two Passivhoos projects in 2021.

'There was a perception that Passivhaus a model of this type that's afforwas too expensive. We've shown that you can replicable,' said Kathy MacEwen.

and Andrew Ingham of Denizen Works.

The judges were impressed with the 'intelligent' and 'subtle' spatial interventions. 'It turns around a space that normally feels daunting,' said Beth Bourrelly of BDP.

Conservation and innovative design has underpinned the transformation of this dead space. Events have been developed including 'The Graveyard Shift' and 'Seeing the Light'. The space is now used by more than 60,000 members of the community.

It as a resource, a living place: a place of pilgrimage, for interring ashes or adding beautiful glass tiles to the Wall to commemorate loved ones. People can connect with nature to restore health and well-being, exercise dogs, do Pilates or enjoy views and wildlife.



Left The volunteer hut at Rectory Lane Cemetery was built by the volunteers. **Right** Interventions and events have made the cemetery more accessible. This is the sexton's hut on a Heritage Open Day. build it with the same money people are using to build the basic Building Regulations ones,' says Bridgestock.

The joint venture partners refined design and build processes. Stewart & Shields built full-scale prototypes of the houses in its factory, enabling the contractor to train site staff and 20 apprentices in Passivhaus techniques.

The team is now undertaking a three year research project (funded by Innovate UK) and has employed a dedicated design manager. Working closely with Strathclyde University architecture department, it aims to develop new processes and techniques to further improve performance and reduce costs. This includes research to improve air tightness between floors and reduce overall embodied energy. The Passivhoos team hopes the concept will enable a 'quiet step change' in the standard of social housing in Scotland. The aim is to scale up production to 50 units a year in two years time and 150 units in five years.

Judges felt the project proved Passivhaus was achievable for social housing.

'It's great – and important – to have a model of this type that's affordable and replicable,' said Kathy MacEwen.

The project weaves public participation, enjoyment and celebration with a restored sense of personal space, dignity and sanctuary.

One user wrote: 'You have created a very special place for our community ... each time I come here I've seen all sorts of people, from the youngest to the oldest and all in between, connecting with the beautiful surroundings as well as each other. A perfect combination of inspiration and reflection'.

MacEwen highlighted the importance of the cemetery as model public space: 'Local spaces have become really important in the last year. There are 30,000 struggling cemeteries and there's significance in seeing the potential of a cemetery, especially now we need to claw back all the public space we can.'



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Buildings MacEwen Award



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The Nook, East Anglia's Children's Hospices Framingham Earl, Norwich **Barefoot & Gilles**

East Anglia's Children's Hospices (EACH) is a charity providing end of life care, respite and palliative care. It enhances the lives of those with terminal conditions and supports their families through short periods of residence. Having worked on the charity's 2011 Treehouse in Ipswich, the architect was brought in to design The Nook. Barefoot & Gilles describes the design: 'An informal arrangement of pitched roofs and single-storey structures creates a reassuringly familiar style appropriate for its rural setting. Internally, the principle challenge was to maintain a friendly ambience and domestic scale while integrating unobtrusively complex service requirements.' Hugh Pearman described it endearingly as 'a jumble of barns aesthetic'.

A music therapy room, sensory room and day activity hall give children the mental stimulation necessary to enhance their life experience, with hydrotherapy and physiotherapy suites. The Nook is an administrative hub for care in the region and a centre for fund-raising and community events.

The £11 million CQC Outstanding-rated hospice was an ambitious undertaking for EACH which receives no government support. All funding was by public donation. The hospice has had a direct, beneficial effect for over 600 families since late 2019.





St John's School Music Pavilion (Phase 2) Lacey Green, Buckinghamshire

Clementine Blakemore Architects

Clementine Blakemore was still a student at the Royal College of Art when she initiated a self-build school music pavilion at St John's School in the village of Lacey Green.

An alternative model for the delivery of small-scale education buildings, the completed project is testimony to Blakemore's entrepreneurialism and the power of collaboration. Working closely with the school and local community to raise funds and local support, Blakemore collaborated with both the nearby architecture research and fabrication facility Grymsdyke Farm and with the Architectural Association, which donated the timber.

'The ethos of the project was about everyone chipping in in a small way and people helping out how they could. It is an expression of different people's expertise,' she says.

Inspired by local agricultural buildings, the double-pitched pavilion offers much-needed facilities for teaching music and storing instruments. An outdoor class-

Above Interior of St

John's School Music

outdoor classroom, then

insulated music pavilion

Pavilion – first an

Left Using the pitched oofs to the full in The look, a complex of uildings that make up he £11m hospice

room was created, converted into an enclosed music room in the $\pounds 40,000$ second phase.

The initial structure was an interlocking timber lattice, hand assembled by students at a two week AA Visiting School workshop and completed by Blakemore and the school caretaker. In the second phase, the back of the frame was clad in polycarbonate and wall cladding was extended to the ground. Insulation was added, and a new front facade with black-stained timber weatherboarding. Local designers Jack Chivers and Karina Thomas respectively made low-level storage and benches, and lambs wool panels to improve thermal and acoustic performance.

During construction, Blakemore took children and their parents to Grymsdyke Farm for a workshop inspired by the build.

She has set up her own practice and is keen to work on projects with a public impact and social agenda, particularly enjoying working with timber. 'It's been nice for this to be my first project as it's an expression of the values I want the practice to stand for,' she says.

Judges were impressed by Blakemore's 'remarkable achievement' of initiating and facilitating the project. 'Fundraising is so difficult on these kind of things and she has achieved this with its huge social impact. It's an alternative way of delivering a project and took a lot of energy,' said Tumpa Husna Yasmin Fellows.



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Treadgolds (Phase 2) Portsea, Portsmouth Pritchard Architecture

Our challenge was to create usable space without losing the atmosphere,' says architect Giles Pritchard of Treadgolds, a historic ironmongers in Portsmouth now repurposed as a community centre.

And what an atmosphere. Although Treadgolds shut up shop in 1988, its contents were left intact – piles of metalwork, nuts and bolts, machinery and tools within a sprawling workshop complex dating back to the 18th century. After a short period as a museum and many years out of use, the muchloved but deteriorating buildings was sorely in need of renovation, and a new purpose sympathetic to its heritage.

This has now been found – to the benefit of both the buildings and the surrounding community of Portsea, traditionally associated with dockyard workers and now among the most deprived areas in the country. Many locals still have fond memories of the ironmonger. Now, they can revisit it as a community centre and garden for the John Pounds Community Trust, which is dedicated to improving community health and wellbeing.

Local practice Pritchard Architecture has worked on the re-use for the last few years and been in close contact with community groups. Following the community garden first phase, the second phase provides flexible spaces for training, study, leisure and social purposes. It is hoped this will also help foster community pride in the neighbourhood.

The design approach has been respectful to the grade II-listed premises while securing the fabric of the building and providing appropriate space for its new uses. Interventions are clearly delineated, with still unrestored areas revealed behind glazed screens. A new floor over the retained original enables a robust large space for multiple community activities on the ground floor, with a training room created on the level above. Materials are robust and simple to suit both the industrial aesthetic and the tight budget.

'People are wowed by the buildings and the remains of the machinery. We were really keen to keep that atmosphere and not strip it back to something more sterile,' says Pritchard. 'It's been great to work with community groups to see the building come back to life in a new use.'

Funding permitting, proposed later phases will introduce creative workspaces and reactivate the old forge on the site, with a view to selling products in the old Treadgolds shop.

Below Ironmongery

business to community centre in Portsea; the entrance to the community garden is visible to the left.

Right Chapel boat, showing how the church can work with the community.





Genesis floating chapel Here East, Hackney, London Denizen Works

This floating church and community hub is designed to reach emerging communities along London's canal network. To supply a 'conspicuous presence', the kinetic roof rises to flood the interior with light, and emit a warm glow at night to attract passers-by. The concertina roof will also squeeze down to pass under low canal bridges.

The judges applauded the very idea of the boat. It will be moored at a different location every five years, supported by the local parish and creating events tailored to its specific needs – a form of consultation process presaging development of a permanent, land-based building. 'It's a very clever reimagining how the church works in the community. It's like a mobile library,' said judges Sarah Harrison and Sue Stringfellow of Harrison Stringfellow. Pearman pointed out that the canal life it serves 'is now a linear residential area'.

Stakeholder workshops showed that the space needed to be free of religious symbolism to be welcoming to all. Community function was key so it was designed to be adaptable to accommodate a diverse programme of events. Unusually for a boat, platform lifts and a Part-M accessible WC ensure inclusivity.

Genesis is small enough that those drawn in can be noticed. It offers a space along a towpath for people to heal, talk and support one another. The form itself is a tool for engagement, drawing people into conversation.

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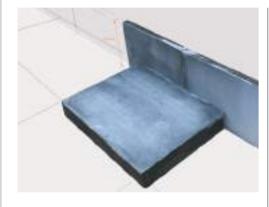
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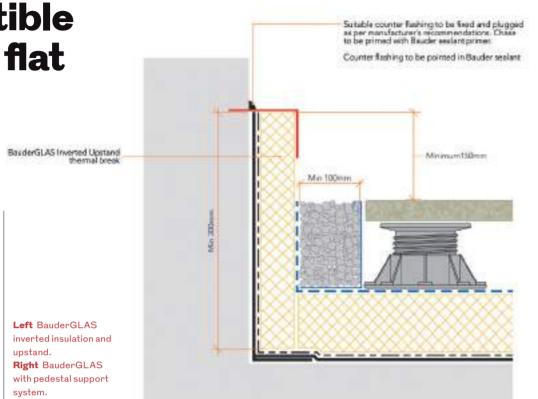


Flat roof materials manufacturer, Bauder, has launched a new insulation for warm and inverted flat roofs which offers the highest level of protection from fire on the market. BauderGLAS insulation is the ideal solution for projects that are exposed or incorporate hard landscaping and is most suited to balconies and terraces requiring noncombustibility and regular foot traffic.

Roof insulation fire performance

The fire performance of individual construction products, including insulation as a separate component, is covered by BS EN 13501-1. Insulation in a Bauder warm roof waterproofing system for TS 1187 test 4 - be it mineral wool, cellular glass, or PIR - is not directly exposed and is therefore protected through the performance of the cap sheet and its system classification of B_{ROOF} (t4). Therefore these insulants in-situ all conform to Building Regulations for External Fire on Roofs in the same way; none achieves a higher rating than the other.

The exception is for a balcony (if a 'specified attachment' on a 'relevant building'), which if insulated will need to be non-combustible and have a suitable compressive strength for this application. Balconies, whether warm or inverted, are



usually fully covered with hard landscaping and are therefore often deemed to meet Building Regulations without testing (classified without further testing as defined in European Commission Directive 2000/553/EC).

Generally, materials manufactured in whole or in part from plastics will achieve an 'E' rating, making non-combustible 'A' rated insulants, such as BauderGLAS, which is made from cellular glass, a more suitable material to include in a balcony specification because of its excellent fire performance. This non-combustibility meets the recent amendments to Approved Document B regarding 'specified attachments' on 'relevant buildings'.

BauderGLAS insulation

Non-combustible BauderGLAS Insulation is available in flatboard and tapered variants for warm roof situations, and as a special inverted grade with a pre-applied inorganic coating, all of which achieve a Euroclass A1 rating – the best result attainable. BauderGLAS Insulation has been specifically designed for use on roofs made of concrete, metal, plywood, OSB, or timber decks, and there are suitable grades that can be used in conjunction with all Bauder's

waterproofing systems to meet the required U-value.

BauderGLAS is suited to roofs, balconies, and terrace applications, with its high compressive strength able to withstand heavy foot traffic and ability to be used in areas requiring a non-combustible insulation option. Inverted roof systems are favoured in concrete structures; however, it is becoming increasingly challenging to specify a system that satisfies the non-combustibility requirements of Approved Document B. The Euroclass A1 rating achieved by BauderGLAS inverted insulation not only meets these obligations, but also satisfies where necessary both client and insurer requirements for new build and refurbishment projects.

Manufactured from more than 60% recycled glass, BauderGLAS insulation is totally inorganic, contains no flameresistant binders and has no VOC or other harmful substances.

To discuss your flat roof project, book a telephone or video call with your Bauder technical manager, call now: 0845 271 8800



Learning from research four award-winners 40



Design, constructio



Conservation

& heritage

Justin **Scully**



Fountains Abbey & Studley Royal Water Garden is about begin a $\pounds 2.5$ million natural flood mitigation project stretching all the way to Ripon. Justin Scully, general manager at Fountains Abbey, talks about a new landscape of dams and ponds

Is this the way forward for the National Trust?

The RIBA Journal February 2021

Stop the steel carbon-busting extensions 50

2: Intelligence

How bad has flooding been in the Skell valley to need a scheme on this scale?

What was the damage? How did you deal with it?

solutions like soil through planting and balancing ponds be

You are using local land and compensating farmers. How does that work?

How will these flood mitigation measures improve public access?

This was both a 12th and 18th century landscape and the river has been heavily engineered since the monastery was founded in 1132. We're seeing more flood events - in 2007 the abbey ended up 2m deep in water. The monastery was sited in the valley because of the productive use it made of the water source, so has been exposed to flooding since its founding. But with its foundations submerged three times in the last five years due to climate change, it constantly needs more repairs.

We haven't needed structural interventions yet but it's needed cost and time to let the land dry out and remove the sediment deposited all over the estate.

A lot of this is relatively new, but we've been learning from other projects. We looked at the 'Slowing the Flow' project in Pickering in North Yorkshire and the Hebden Bridge Flood Alleviation Scheme and their big trials of natural flood management. Simple interventions like natural wood dams have helped retain soil in situ and slow the river down. It's not just about a four-year lottery funded project (working with the Environment Agency) but long-term benefits of maintaining these soft interventions into the future.

It's about 30ha spaced out across the 20km stretch of river in the valley, involving 14 farmers. Compensation is more about long term maintenance; they will make capital improvements to their land on our behalf but it all ties into the future of land management post-Brexit and government farm subsidies. We're trialling how to work with farmers and pay for outcomes; if, say, we're asking for more trees. We want to incentivise them to maintain them beyond the life of the project as part of the new Environmental Land Management Scheme.

We can work with local businesses and landowners to encourage access to less famous local sites which could form a matrix of attractions for the 600,000 visitors that come to us - for example 19th century Eavestone lake or a sulphur spring that used to be piped to Ripon.

Other parts of the Trust are working nationally on natural flood management principles. What this offers is a great snapshot of approaches we're adopting across the trust's estate in a tight geographical area.

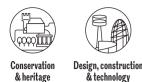
ONLY ON RIBAJ.COM While it's getting harder to miss the scale and urgency of the task ahead. this also presents a huge opportunity for architects at a time when many may be wondering what lies ahead for the profession

Brian Green looks at the need to design for an aging population: ribaj.com /designforaging



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

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Microbes are our friends

Research underpins practice – as celebrated by the RIBA President's Awards. Over the next seven pages the best research projects of 2020 look at globalisation, social value and climate change, starting with the Medal-winning study of the advantages of 'good' microbes and probiotic design

To design healthy buildings and resilient cities we need more microbes, not fewer

Richard Beckett

'We are left in the hands of the generations which, having heard of microbes...suddenly concluded that the whole art of healing could be summed up in the formula: Find the microbe and kill it,' said George Bernard Shaw.

As we consider the design of future cities, the Covid pandemic has brought microbes and health back to the forefront of scientific and political minds. It has also put the microscopic world back at the top of the public fear list. Yet before the pandemic, medical understanding of microbes and their relationship with health had been shifting, with important implications for the way we design future cities. Not all microbes are bad, many are benign and some essential for our health.

Contemporary medical knowledge of the microbiome offers an ecological model of the human; a multi species body comprising a multitude of human and non-human cells. Different from the modern perception of the human as a discrete body, the ecological model of the human is one that cannot be separated from the non-human microbial milieu around us, physically or philosophically.

Urbanisation, indoor lifestyles and ingrained antibiotic mentalities are reducing our exposure to diverse environmental microbes in our daily lives. Unlike before, where threats of infection and pandemic have been understood in relation to the presence or abundance of pathogenic microbes, the emergence of new, 21st century pathologies appear be linked not to the presence, but to the absence of microbes from our bodies and our environments. Evidence suggests that the separation of the human from the non-human has gone too far. It appears that in order to design healthy buildings and resilient cities we need more microbes, not fewer.

This research aimed to develop a novel approach towards healthy buildings in line with contemporary understanding of the microbiome and the essential role that exposure to microbial diversity plays in health. It questions how design can drive the [re]introduction of missing microbes in buildings and proposes a new direction for architecture that rejects the modern assumption that fewer microbes = healthier spaces. Instead it develops a more nuanced approach analogous to a kind of immune system for buildings: a living microbial layer which can limit the persistence and spread of harmful microbes but which also allows for the presence of good microbes in buildings.

Good bacteria interrogated

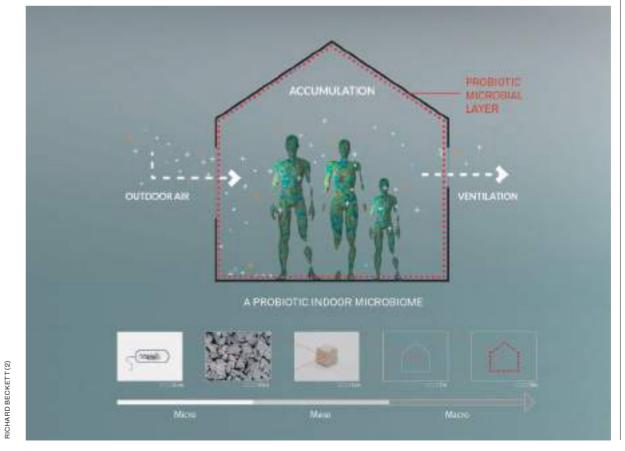
The research explores the three main vectors of microbes in buildings – air, water and surfaces – and questions how these can be manipulated through design to become both source and sink of beneficial microbes. It started with the development of novel, hybrid living materials that contain living colonies of good bacteria. It asked how such living materials could be designed and fabricated and how the living agency could be sustained over long periods without the need for ongoing maintenance or expensive systems. It tested their ability to inhibit the growth of pathogens on building surfaces and finally it questioned how such materials could be designed and integrated into buildings.

The work integrated a multi-disciplinary team of architects, microbiologists, infectious disease experts and environmental engineers within UCL from The Bartlett School of Architecture, The Eastman Dental Institute and Civil and Geomatic Engineering. It was undertaken at three interrelated scales beginning at the micro-scale of the material-microbe interface, the meso-scale of the material-human interface and at the macro-scale of the building.

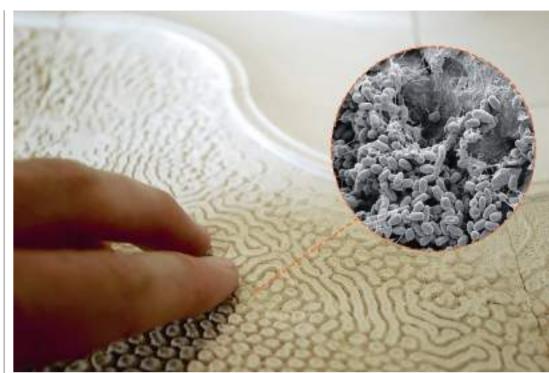
The first stage was funded by the AHRC project NOTBAD, which explored novel approaches towards limiting the spread of anti-microbial resistance (AMR) in the built environment. Novel ceramic and concrete materials inoculated with Bacillus subtilis bacterium were developed as new probiotic materials for use in buildings that are benign to humans but that can inhibit the growth of harmful microbes. A mix of design and microbiological methodologies were used to ensure biocompatibility between the material and the bacteria and long term survival in indoor environments. Finally the ability of the probiotic material to inhibit the growth of AMR superbug MRSA was demonstrated.

The meso-stage of the work involved the design and fabrication of probiotic surfaces that considered the relationship between material, microbes and human agency. Building on the condition of fomites; (surfaces that can become contaminated with infectious agents and transferred to humans), this approach instead looks to design surfaces containing beneficial bacteria which can then be transferred to occupants and other parts of the building. Surface features and geometries were fabricated and tested both in their ability to inhibit pathogens but also to act as a source of beneficial microbes to building users via touch and resuspension.

Probiotic surfaces were then made as a series of wall tiles installed in to an office space to measure their influence on the indoor microbiome. Driven by CFD simulations of natural and mechanical air movement, the tiles were geometrically modelled and sited in order to capture and shed beneficial microbes to other surfaces within the space. The indoor microbiome was monitored in







Above Detail of probiotic surface with bacteria to inhibit pathogens and provide beneficial microbes to building users. Below Probiotic design - a living immune system for buildings improving their microbiome through probiotic surfaces. a controlled study using a before, during and after installation approach using both plating and DNA sequencing techniques. Results demonstrated a measurable effect on the microbiome of the space following installation which is driving ongoing, longer term testing. The group is also undertaking new work to develop living surfaces with similar bacteria that are able to inhibit SARS type viruses to reduce the risk of surface transmission in the built environment.

There is a risk that the current pandemic exacerbates our preference to further separate ourselves from the microbial world which could result in unintended, longer term public health problems. This experimental work offers an initial framework for a living material and spatial based approach towards designing healthier buildings in relation to the indoor microbiome. I call this approach probiotic architecture. As we learn more about the indoor microbiome, and what exactly constitutes healthy microbes, architects will need to work with experts from non-traditional fields including microbiologists, virologists and environmental engineers towards creating healthy and resilient buildings.

Probiotic Design research was led by Richard Beckett of the Bartlett, UCL, in collaboration with Sean Nair, Carolina Ramiez-Figueroa and Lena Ciric. It was 2020 Medal winner of the RIBA President's Awards for Research

Socialist super constructors

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The Global South is the focus of this study through the lens of socialist nations on the architecture and urbanisation of newly decolonised countries

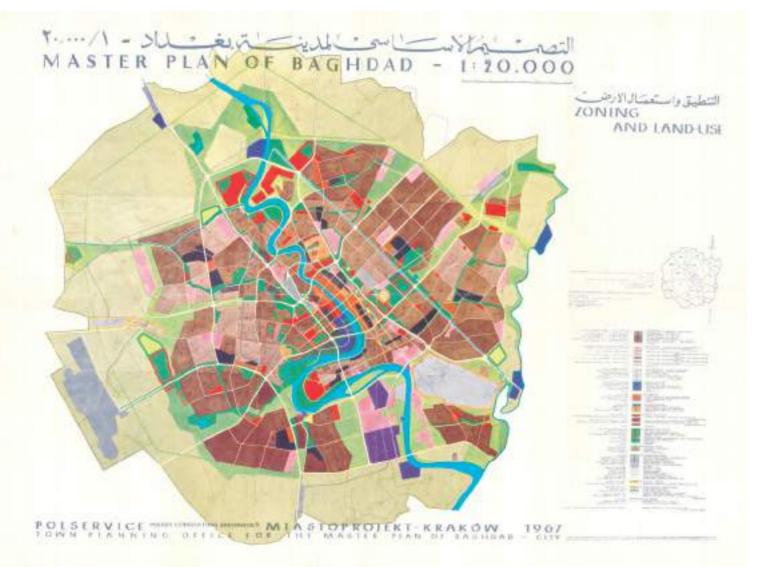
Łukasz Stanek

The book 'Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War' (Princeton University Press, 2020) rewrites the history of architecture's globalisation during the Cold War through the lens of socialist internationalism. It studies the collaboration between architects, planners, and construction companies from socialist Eastern Europe and their counterparts in the postcolonial Global South. Until recently, this topic has not been addressed by historians, who described architectural mobilities since World War II by focusing on late colonial and postcolonial networks, international institutions such as the United Nations, global firms such as Doxiadis Associates, and economic globalisation. Complementing these earlier studies, this book offers a differentiated genealogy of a world that is more urban and global than ever before.

Cold War in Ghana, Nigeria and the Gulf

This research reverses the usual perspective on architectural mobilities from their points of departure in the Global North and focuses instead on their points of deployment in the Global South. Accordingly, its overall aim is the study of architecture, planning, and construction in five cities in specific periods of their Cold War histories: Accra under Kwame Nkrumah (1957-66), Lagos during the 1970s, Baghdad between the coup of Qasim (1958) and the first Gulf War (1990), and Abu Dhabi and Kuwait City in the final decade of the Cold War. This research framework allows for a comparative study of the ways in which architecture and urbanisation in these cities were shaped by the collabora-





tion between professionals and authorities of from socialist and postcolonial countries.

This research was carried out between 2009 and 2019 in archives in Eastern Europe (Germany, Poland, Russia, Czechia, Hungary, Serbia, Croatia, Bulgaria, Romania), West Africa (Ghana, Nigeria) and the Middle East (Iraq, the UAE, Kuwait), as well as the UK and the US. They included state archives, archives of design institutes, construction companies, universities, and private archives. As well as architectural documentation, intergovernmental agreements and tender contracts, I studied newspapers from Accra, Lagos, Baghdad, Abu Dhabi and Kuwait City (1950s-80s) to understand public debates around architecture in these cities.

Close readings of case studies, and distant readings of whole data sets via social networks, analysis software and Geographic Information System (GIS) software, were enriched by fieldwork and interviews in Eastern Europe, West Africa and the Middle East.

This research demonstrated that collaboration between architects, planners and construction companies from state-socialist Eastern Europe and their local counterparts in the Global South shaped architecture and urbanisation processes in Accra, Lagos, Baghdad, Abu Dhabi and Kuwait City. This included the design and construction of hundreds of buildings and infrastructures, from the International Trade Fair in Accra (1967), the National Theatre in Lagos (1977) and the Municipality Building in Abu Dhabi (1985), to housing neighbourhoods and health, educational and cultural facilities. Authorities in these cities used Soviet prefabrication systems, Hungarian and Polish planning methods, Yugoslav and Bulgarian construction materials, and Romanian and East German standard designs.

This work was informed by changing political and economic motivations. In 1960s Ghana, Nkrumah tapped into Soviet and Eastern European resources to implement the socialist model of development. Countries, such as Algeria, Libya, Syria and Iraq drew on these resources without committing to the Soviet model. By the 1970s, even Western-oriented countries, such as Nigeria and the Gulf States, invited state-socialist companies to stimulate competition among foreign enterprises on their markets. Statesocialist firms began to promote mercantile aims over ideological objectives, and joined



Above Africa Hall (Women's Hall 6), Kumasi, Ghana, designed 1964-5 by architect KNUST: John Owusu-Addo/ Miro Marasović (chief university architect), Niksa Ciko (architect in charge).

Below Advertisement of Cekop (Foreign Trade Organization for Complete Industrial Plants, Poland), 1958. Archiwum Akt Nowych (Warsaw, Poland).



the increasingly global, Western-dominated, market of design and construction services.

Some Eastern European architects working in the Global South adapted the socialist development model to tropical conditions. Others saw themselves as part of a largely apolitical global culture of modern architecture, closely linked to 'tropical architecture' as practised by British architects Jane Drew and Maxwell Fry. Several architects from socialist countries appropriated longer traditions in Eastern Europe where, as in post-colonial countries, architecture had been mobilised in programmes of economic modernisation, nation-building and cultural emancipation.

Impact and significance

This research advances current debates of historians of architecture, planning, and construction; economic and cultural historians of the Cold War; and scholars in urban studies. It is relevant for practitioners and decision-makers in the Global South, where post-independence architecture is both celebrated as a symbol of decolonisation and threatened by rapid urbanisation. In particular, it is a resource for architectural educators aiming at more global and diverse curricula.

Architecture in Global Socialism: Eastern Europe, West Africa and the Middle East in the Cold War, by Łukasz Stanek of The University of Manchester is 2020 winner of RIBA President's Awards for Research: History & Theory

Routes to social good

How collaborative mapping of social value can help create cohesive, happy communities

Charlestonia: antikultura and inter sector between automotive and party INVESTIGATION OF READING TOROTO AN TERM DIRECT AL APPR

ARRE

Eli Hatleskog

Following the UK government's Social Value Act, 'Mapping Eco Social Assets' explores how practitioners working in the urban environment can, co-design of maps with communities to capture and share attributes of a place which typically remain undervalued or hidden. The research aimed to support negotiations across different points of view and contested interests. While it is generally agreed that broader involvement in planning and design processes can benefit society, specific approaches and methods often remain vague and do not link with the needs of local authorities. The research created and tested methods for inclusive architectural research which included not only local voices and interpretations, but also evolved in response to some of the real challenges and barriers faced by a local authority.

'Social value' is an ill-defined term often used to explore how limited resources can be put to best use, by examining the collective benefit, beyond cost savings, that allocation of public money can have. UK government organisations are supposed to make planning and spending decisions with regard to environmental, social and economic values, the triple bottom line of sustainability, that form the foundation of the Treasury Green Book. However, lack of consensus on how to measure social and environmental value means decisions typically focus on economic value. Without sufficient methods to discuss and promote alternate forms of value in the built environment, the current market driven approach will simply continue.

To explore local interpretations of social value, map-making methods were developed to collaboratively map Orts Road and Newtown, east of Reading. The activities supported broad discussions about values and assets which included different perspectives and interpretations. Without seeking to quantify values locally, the maps highlighted areas of interest and potential which could benefit from future development and/or investment. A novel asset-based spatial approach to social value was developed which evidenced social value at the neighbourhood scale in a format useful to decision-makers. The project demonstrated the agency of mapping methods that can generate co-produced urban knowledge, develop capacity and make arguments for value-responsive improvements and development.

Different kinds of social value and where they

were located in the study area by participants.

Following public map-making workshops, multi-layered digital maps were drawn and discussed with the local authority. This supported reflections on how social values interacted and combined across the neighbourhood and connected with the town, and showed that values are interdependent and perform spatially. Since social values resist metrics, they are difficult to communicate to decision-makers, so we explored how 'softer' forms of data could be represented and how architectural practice research can translate local situated knowledge and values into an accessible format which provides consistent evidence that can support holistic decision-making and entrepreneurial approaches to working in the city.

The project highlighted some of the challenges of linking neighbourhood perspectives with local government processes. Values across the public sphere are often contested, which was apparent through the research. Strategic and innovative mapping can make

III your per opportunities to learn more about common values and to create robust approaches to developing potential in the urban environment. This route has many potential applications, such as: accurate definition of electoral boundaries based on community self-perception, participation in the co-creation of local development plans, city models that account for social value, building procurement based on social value outcomes, and the use of social value in planning. Most importantly social value can be used to help make an evidence-based case for resisting developments that are destructive to communities.

To understand social value in a complex and rich environment, our starting point was quite simply to ask people what they valued most locally. Conversations were structured around the planning and making of eco-social value maps. The process emphasised positive, existing assets and promoted discussions about what was appreciated most locally. The project developed a set of methods for evidencing social value spatially that can be replicated at different scales and locations. It raised awareness of the social value of places and buildings, something that needs to be factored into policy and procurement going forward particularly in the aftermath of Covid-19. It also began to consider ways in which social return on investment financial proxies might be used to monetise social value spatially, which has not been done before. Importantly for the profession, it modelled a potential role for architecture and planning professionals in supporting consultation for local development plans.

Mapping Social Values by Eli Hatleskog and lora Samuel is 2020 winner in RIBA President's wards for Research: Cities & Community

Intelligence President's Awards for Research - climate change

Carbon cutting starts early It is imperative to steer

The race to meet emissions reductions targets by 2030 means construction must now focus on embodied carbon

Louisa Bowles

It is now globally accepted that human activity is the cause of rapid climate change. The postponed COP26 will now be held in 2021 in Glasgow, and all eyes will be on the UK during the negotiations to commit all countries to mass carbon reduction by 2030.

As the UK Green Building Council states, the built environment accounts for 40% of total annual emissions within the UK, giving the construction industry a clear responsibility to reduce emissions. However, it is imperative to steer industry professionals away from a narrative approach to carbon savings.

Architects have a pivotal position to collate data, control the project's Whole Life Carbon (WLC) throughout the design process and enable big carbon savings early on.

Whole life carbon analysis

There are primarily two ways in which the built environment generates carbon emissions: from energy used during operation (operational carbon) and from the materials used for building and maintenance (embodied carbon). While the industry is progressively interrogating projects' operational carbon, it is increasingly critical that we understand embodied carbon and WLC - and the combination of both - as we begin the transition to a regulated zero carbon economy.

Quantifying the full carbon emissions of a project over its lifetime has historically been a complex, specialist task. If calculations are done at all, it is late in the design process and they are rarely used to guide the early strategic decision-making which can significantly reduce emissions.

industry professionals away from a narrative approach to carbon savings

The evolution of H\B:ERT

In 2012, Hawkins\Brown and the UCL Institute for Environmental Design and Engineering (IEDE) co-funded a research project to improve the visualisation of architectural life cycle analysis. Dr Yair Schwartz completed a full Engineering Doctorate and, in addition, the basis for the Hawkins\Brown Emission Reduction Tool (H\B:ERT) was born. H\B:ERT v1, launched in 2018, measures embodied carbon through the materials tagged in a Revit model. It is available for all to use, free of charge, from our website.

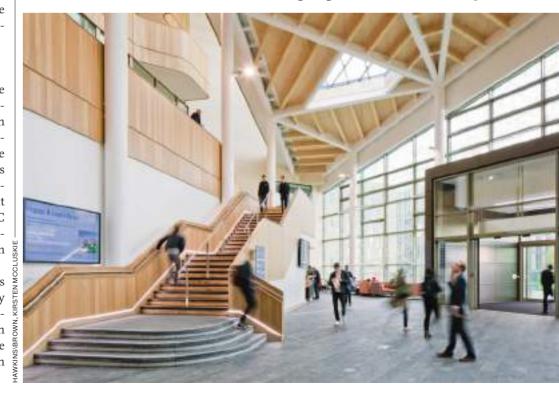
In a new iteration, H\B:ERT has become a WLC tool. Fully integrated into the Hawkins\Brown Revit infrastructure, it is

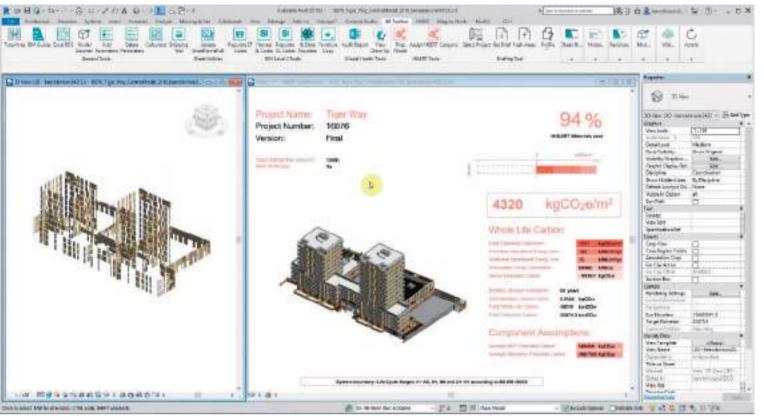
now an in-house tool. Data is transferred from Revit to a web portal offering infographics of the project's WLC, which we have found essential for collaborative decision making and options appraisal at the earliest design stages.

Significant findings

The benefit of WLC is that it allows the study of the inter-relationship between embodied and operational carbon over the lifetime of a building. Through analysing H\B:ERT's outputs, we have established five key actions for architects and design teams.

The case for retrofit: current RIBA 2030 Challenge targets are best achieved through targeting retrofit. Where this is not possible,





the best reduction mechanisms involve low to medium rise construction, efficient form factor, omitting basements and a primarily timber structure, exploiting carbon storage. The use of bio-based materials where possible will contribute to reductions and in some building types enable regenerative solutions.

Early stage rules of thumb: Design teams often work on projects from competition stage, making quick decisions based on an aesthetic vision. Detailed analyses won't be possible at this stage, but rules of thumb can help lock good choices into the design. The London Energy Transformation Initiative (LETI) Primer is a great resource for this.

Biggest carbon reductions at RIBA Stage 2: The greatest cuts can be made by testing comparative options for the structure and facade at this stage; then refining detail on other elements of the design as work progresses.

Balance operational and embodied carbon: A passive, fabric-first approach is the best way to reduce operational carbon, but this can increase embodied carbon, so optimisation for the particular design is crucial.

Iterative design process: The programme and consultant scopes must include the actions required, reflect an iterative design process and integrate carbon reductions into decision-making. **Above** Screenshot of H\B:ERT being used in Revit, showing the mixed-use project Tiger Way as an example.

Below The Plumstead Centre by Hawkins\ Brown demonstrates how a retrofit project can achieve social benefits, an economically viable offering and minimised impact on the environment while meeting the RIBA 2030 Challenge embodied carbon target.



Looking ahead

Reliable embodied carbon measurement depends on consistency. The Whole Life Carbon Network (WLCN) with RICS is doing great work in this area, but it will take time for the industry to upskill and there is no national funding for the required establishment of a national Environmental Performance Declaration (EPD) database. The integration of WLC measurement into the GLA London Plan is very welcome, providing a solid databank for better benchmarking.

Decarbonising the grid will contribute to lower carbon material and product manufacture, but will not solve the whole problem and may not be quick enough. As WLC overall comes down due to grid decarbonisation the circular economy will start to be prioritised, reducing the use of virgin material. This still comes with a carbon cost however.

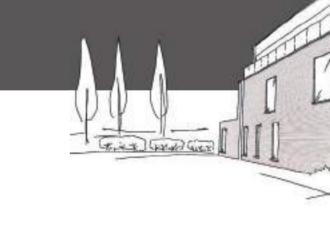
H\B:ERT was developed to help architects make WLC evidence-based design approaches at the earliest design stages. Architects must now take the lead for a Net Zero future. •

The Hawkins/Brown Emission Reduction Tool: Providing a data visualisation tool to enable architects to make informed decisions on their projects' carbon emissions by Louisa Bowles, head of sustainability at Hawkins\Brown, is 2020 category winner for RIBA President's Awards for Research: Climate Change



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Intelligence Materials

Design, construction

UK timber fit for CLT

Scottish housing unit proves viability of homegrown timber for CLT

Stephen Cousins

The first ever housing unit manufactured from homegrown UK timber will go on display at the COP26 conference on climate change later this year, raising the prospect of mainstream cross-laminated timber (CLT) production in Scotland.

The demonstrator project, led by the Construction Scotland Innovation Centre and funded by Innovate UK, will produce a modular two storey, two bedroom duplex, comprising CLT walls, nail laminated timber floors and a glulam portal frame. All elements of superstructure will be manufactured using the UK's only vacuum press, at CSIC's 3300m² innovation factory in Hamilton by end of December and the finished building will be showcased at the postponed COP26 in Glasgow in November 2021.

The consortium of partners on the project, which include Edinburgh Napier University, the Centre for Offsite Construction and Innovative Structures (COCIS), Scottish Forestry, the Confederation of Forest





Industries, and SNRG, an offshoot of energy company Centrica, aims to develop Britain's first engineered timber manufacturing plant in Scotland to reduce reliance on imported products. Government statistics show that, in 2018, the UK was the world's second largest net importer of forest products, including timber, behind only China.

Sam Hart, innovation manager at CSIC said: 'Research has proven that, with the right treatment and processing, our timber can be used for a wide variety of higher-value purposes beyond its relatively limited set of current applications... Greater use of our natural and renewable resources will deliver a range of environmental, cost, and economic benefits for Scotland and the wider UK. COP26 is a once in a generation opportunity to showcase what can be achieved."

The demonstrator builds on research by Edinburgh Napier and COCIS, proving the viability of home-grown timber to produce mass timber products and systems such as CLT, NLT, glulam, and dowel laminated timber. Local timber is typically strength graded at C16, less than the C24 wood exploited in manufacturing plants on the continent. However studies showed that with the right treatment C16, or C16+ - a newly developed strength grade - structural components suitable for a range of low rise

nities like those being

Left The COP26 **Right** The demonstrator lemonstrator is being prototype could lay the constructed at CSIC's groundwork for the pecialist facility using creation of climate-positive he only vacuum press of its kind in the UK. spearheaded by SNRG

building types can be manufactured. The COP26 demonstrator will feature full scale CLT panels measuring 12.5m by 3m.

Hart added: 'SNRG is involved in building courtyard-type developments, including three storey blocks of around 100 apartments, and engineering that's gone into the timber we are using for this project would need to address that type of building typology.'

CSIC also investigated the commercialisation of mass timber, including material costs, demand and usage and current market conditions. This led to the formation of the Mass Timber Alliance in 2019, a group of around 25 stakeholders from the forestry sector including sawmills, engineers, designers, and processors, set up to spearhead local production.

'We were able to evidence to sawmillers that the demand is there and that it's worth investing in kiln drying processes to produce CLT with the correct moisture content,' said Hart. 'That means increased costs, but if you can get greater value at the other end of the supply chain, it's definitely worth doing.' •





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How to slash CO₂ in home improvement projects

Domestic refurbs don't have to splash the embodied carbon

Steve Webb

We hear so many complaints about the number of steels or the size of the footings in domestic refurbishment projects, but how can you do this kind of work without racking up a big bill and a big carbon footprint?

Let's consider a typical Victorian terraced house (1). The owner wants a dormer, a closet wing extension (2) with a through lounge and to take out the chimney breast.

The usual, steel frame practice (3), starting from the top, is to span steels from party wall to party wall and under the chimney (4) and support a new floor between them, totally ignoring the load bearing spine wall and ceiling joists. The dormer is dealt with in the same way, full width steels (5) and probably a moment frame to the back. Further down in the building a through lounge opening is added with a steel lintel. The rear facade is removed at ground and replaced with a steel box frame (6) which also supports the upper closet wing. The back of the back extension is supported on a steel portal (7) also needing to take wind load. Finally, because the site is on clay, 1.5m x 0.6m wide trench footings are dug in around the perimeter spanned by a 200mm slab (8).

There is a timber alternative (9). Re-use the existing ceiling joists and carry the loft conversion load down the spine wall. The spine wall has carried the roof load and a loft full of junk for 100 years, so why not? The existing 100mm ceiling joists aren't strong enough so either double them up with bigger joists, or, for more head room, screw a ply deck to the existing joists, strengthening them with a stressed skin (10). Prop up the front rafters and add stiffness to the floor by making the framing for the eaves cupboard a ply web girder (11). Use the fold in the roof and a couple of 200 x 50s to carry the ridge ber cross beam - it doesn't carry all the load of the chimney because the bricks corbel out. Make the rear of the dormer a portal frame using timbers (13) with a steel elbow for wind restraint. The through lounge (14) can easily be achieved in timber as the wall above is light and the spans short. Make a timber portal frame for the rear facade (15). In a house like this it will need perhaps three 360 x 75 LVL beams, with a hidden flitch plate - designed to carry just the wind moments (not the dead load moments which would require too many screws) by screwing the plate after the wall load is transferred. The closet wing can be supported on more LVL beams (16) orienting them in this way means you won't need to needle and prop the wall, which will save time and cost. The timbers don't need additional fire protection due to charring resistance and so can be left exposed. Most Victorian houses have timber ground floors. Properly ventilated and drained they can last forever, so why bother with a heavy slab, just build a suspended timber floor (17). Finally, now your extension is as light as a feather, if you clad the boundary walls in tiles instead of bricks (for example) you can ditch all footings in favour of hand driven oak mini piles (18). A hand shear vane can be used to estimate soil load capacity and a geotechnical engineer can easily calculate the capacity. In normal London clay you might expect a 2m, 100 square pile to carry 2t (a lot relative to a small extension). The piles can be driven in by the builder (not a piling specialist) using a £300 petrol powered fence post driver by driving a pilot hole with a steel pole first and then pulling it out and driving in the oak one. A big saving on digging and concrete, and really fast!

(12). Hold the chimney breasts up on a tim-

Steve Webb is co-founder of Webb Yates Engineers FOR TIMBER 3T LESS STEEL = 7T LESS CO₂

BUILDING THE CASE

50T LESS CONCRETE = 7.5T LESS CO₂

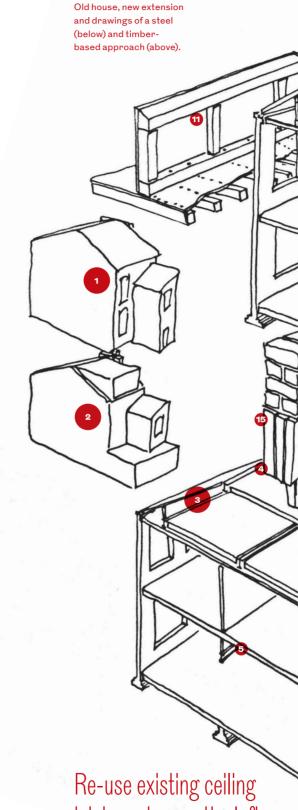
0.5T MORE TIMBER = 0.6T NET SEQUESTERED CO₂

TOTAL 15T LESS CO₂

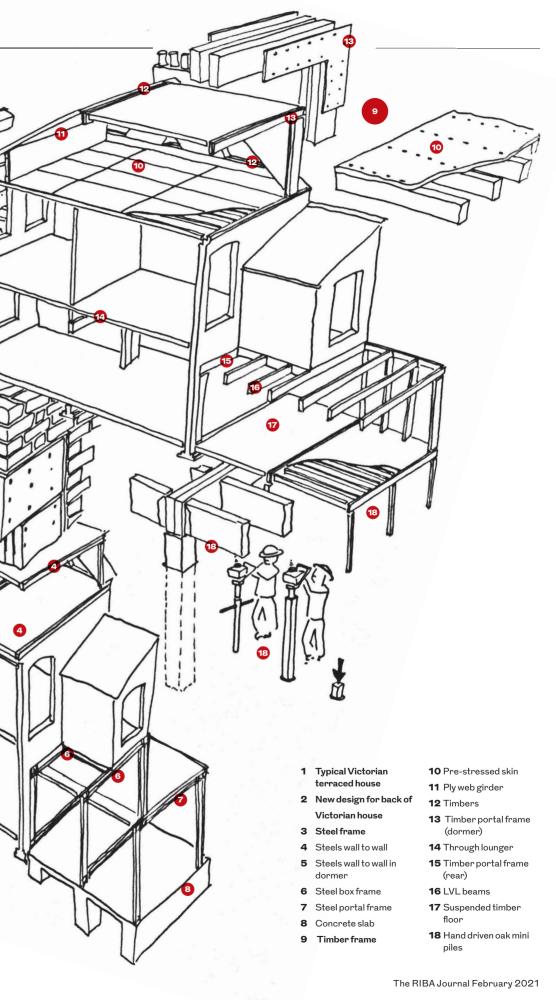
QUICKER, CHEAPER, AND GREENER

I'm convinced that many builders would prefer to build this way. It's cheaper, its quicker to build and it creates far less disturbance: no digging, no concrete deliveries, no cranes for steels, just the gentle tap, tap, tap of carpenters.

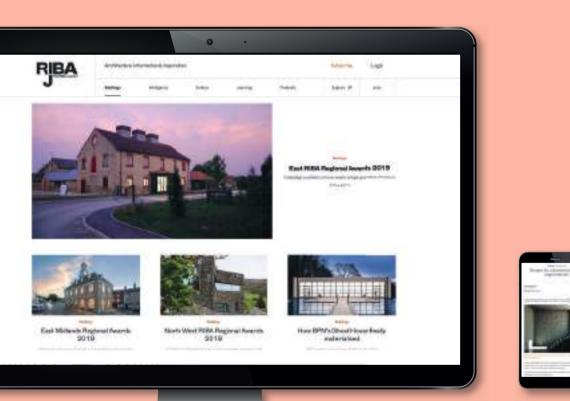
It's quite difficult to find the data on how much residential extension work is carried out in the UK each year. If I had to put a rough number to it I would say of the 40 houses in my ordinary north London street, five have converted their lofts in the last three years (4% annually). If there are say 12m houses in the UK and only 1% do an extension or a loft annually that's 120,000 lofts and extensions. If each of those reduced the job by 15t of CO₂ that would amount to 1.8m tonnes of CO₂ - 0.5% of the UK's total emissions.



Re-use existing ceiling joists and carry the loft conversion load down the spine wall



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Intelligence Digital directions



How to use your data

This is the first in a new series aimed at ensuring practices can take advantage of the digital revolution

Dale Sinclair

Data and making it flow will be central to the next paradigm shift in the way we design buildings, which will be much more transformative and disruptive than the transition from drawing board to CAD.

Data is counterintuitive for most architects: we are driven by shaping geometry and a building creates its greatest value by transforming communities and cities, inspiring us to perform better wherever we are. However, better data may significantly improve outcomes over the whole life of a building. For example, data from sensors and Internet of Things (IoT) technologies moves beyond classroom utilisation or room temperatures towards understanding how lighting, temperature, oxygen levels and humidity affect our performance throughout the day to allow optimisation of our environments.

The earliest BIM innovation came from connecting geometry to data when Frank Gehry used aerospace drafting technology to define the curves of his buildings for contractors. It was data for buildability. Architects seized on the possibilities, leveraging parametric modelling (where geometry is connected to visual scripting tools) to allow dynamic new forms to be quickly adjusted and adapted. This is now commonplace, for sports stadia in particular. However, these examples only underline data's subservience to geometry.

Models were devoid of other sorts of data but it is the wealth of it elsewhere in the de-

sign process, such as specification data or the space data informing engineering analysis, that unlocks design workflow innovation. Before we can harness the power of these datasets we need to start, as a profession, looking at how our building information models are structured, beyond the data-lite, traditional scaled drawing containers that are pushed out of them. Innovation starts with the simplest of topics: data classification. Understanding how to structure our data is absolutely crucial. By using Uniclass 2015 to classify spaces, systems and products we set our content up for the long term, making it machine readable for an increasing array of artificial intelligence initiatives.

Intuitive knowledge decreases in value as complex topics such as the circular economy or offsite manufacturing demand a reset. Data will redefine the profession by enabling the lead designer to make better decisions on projects, with less reliance on an individual's knowledge as we turn to industrywide research and feedback from completed projects. Industry can only hit ambitious carbon reduction targets if we share experiences.

Unlocking real-time collaboration

Multidisciplinary working reliant on rules of thumb generates a time lag between creating design solutions and receiving engineering feedback, requiring multiple iterations of the design. This is not only inefficient, it allows sub-optimal solutions to be given too much airtime. Imagine a transformed process with high quality data at our fingertips. For example, having real-time data on energy, carbon, cost and daylight will allow immediate honing of facade options.

Working with our engineering collaborators, we must use our creative skills to imagine the data journeys that would transform our designs, particularly in terms of sustainability. Design automation where connected data flows frictionless from one spreadsheet, or software package, to another, is not about standardisation nor commoditising what we do, but a design process based on facts and greater consistency from one project to the next. Think of stage 3 being automated inside stage 2. Engineering analysis considered in real-time as part of the optioneering process.

We must also move away from the focus on general arrangement drawings. The future will see libraries of construction and/or

Better data may significantly improve outcomes over the whole life of a building

manufacture ready spaces full of data assembled in profoundly different ways. For example, libraries of operating theatres, imaging suites and consulting rooms allowing us to engage with healthcare clients using photorealistic, VR information from the outset.

Algorithms are about following rules and logic. Overlaid on to each practice's 'data storytelling' they can be used to speed up the design process, avoiding decisions needing to be made repeatedly from one project to the next, checking our models against regulatory or sector requirements.

Software companies are already targeting the building information model, developing plug-ins that will provide a broad range of simulations faster. They can steer us more confidently towards a solution, for example by determining the right energy or fire strategy earlier in the design process.

Generative design is coming centre stage in 2021, as a way of crunching thousands of options against a set of variable design parameters. Although some are creating their own version of these tools, industry-wide ones are becoming available to all, allowing any practice to use human knowledge to set the parameters and their intuition to distil thousands of automated machine options into the most viable and relevant ones.

First steps

Artificial intelligence is a long way from being business as usual. But by starting now, practices can incrementally build their skills. This might mean making sure models are classified correctly or using free tools such as Prism. But it can also be imagining what would make your design process faster and more effective – perhaps data from completed projects or carbon information. Let's all begin today, to create an exciting future tomorrow.

Dale Sinclair is director of innovation at Aecom A longer version of this article is on ribaj.com Intelligence Hindsight



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'I'm the luckiest'

Chris Wilkinson on how drawing, painting and high tech have inspired and shaped his work

Pamela Buxton

Chris Wilkinson founded Chris Wilkinson Architects in 1983 after working for Norman Foster, Richard Rogers and Michael Hopkins. Now 75, he co-founded Wilkinson Eyre with Jim Eyre in 1987.

Knowing what you know now, did you make the right decision to be an architect?

Definitely. I wasn't a good pupil at school but I became interested in architecture and that interest grew into something much more. I studied art for a year before going to architecture school and that changed my whole attitude to life.

I really enjoy being an architect, the creative opportunities that come with each project and the satisfaction of seeing them turn into buildings. It can be frustrating. You have to chase the opportunities and make something out of them which is a challenge I enjoy.

Has it been a good time to be an architect?

I think I'm the luckiest person because I've worked through such exciting times. Working in modernism, which I did in Denys Lasdun's office after I left Regent Street Polytechnic, was very interesting. After that I took a break in Greece for three months on my own and when I was there it suddenly became clear to me that the work of Foster and Rogers was the future which I wanted to be part of. So I rushed home, applied to both and was lucky to be accepted at Foster's in 1971, when the practice was still very small and creative. Later I joined Michael Hopkins when he started his own office. After that I



worked at Richard Rogers' office for another five years. So I feel fortunate to have experienced the technological approach to architecture in these offices which was all very exciting and informative. They were great people to work for and I had the opportunity to be involved on a range of interesting buildings including Lloyd's of London.

I set up in practice when I was 38 because I felt it was now or never. It was a gamble -I had a mortgage, a family with two kids at expensive schools and no income but Richard and Michael sent projects my way which helped. My problem was working out what sort of architecture I could develop with a different approach to my peers. I was very interested in technology but also art so I tried to bring the two together and this has become my focus. All these years later, I'm still working because I enjoy it so much.

What was your breakthrough project?

Stratford Market Depot on the Jubilee Line Extension in 1991. When I started in

Above Chris Wilkinson: **Below** Practice studio 'My paintings give me a sense of freedom.'



practice on my own in 1983, someone said to me that the first 10 years or so would be the most difficult and they were about right. When we won the job, we were only seven or eight people and we hadn't completed any major buildings. With a stroke of luck, my first book Supersheds came out at just the right time and this helped to get us on the competition shortlist. It was a subject Jim and I were both interested in at the time and I'd had experience of designing big sheds earlier in my career when I was working for Norman Foster, Richard Rogers and Michael Hopkins. We won the competition which helped set up the practice and a series of exciting projects followed on.

What building are you most proud of?

Maggie's Centre in Oxford. I'd never designed any hospitals or medical buildings before and the brief was remarkable. Charles Jencks had made it clear that the aim was to create uplifting spaces that would help people at a time when they are at their lowest ebb. The project took a long time to happen because we were given a site in the middle of a car park which I didn't think was suitable. Fortunately, we found an alternative site nearby that was covered in trees and dropped away from the road by 4m. It turned out that the hospital only owned half the land so it took a long time to acquire the rest of the site. Eventually I was able to design a tree house high up and in amongst the trees which was near the oncology unit. It required a complex geometry to fit in between the trees but it was worth it because the windows, rooflights and floor lights bring the interior spaces close to nature.

What has given you the most satisfaction in your work as an architect?

What has become more and more important to me over the years is art and its connection with architecture. There are a lot of architects who consider themselves to be artists as well as architects and I'm one of them. I've been painting since the early 90s and my paintings give me a sense of freedom. Like all architects, I work from the brief and the site but when I go on site I do drawings and paintings as well. This often helps to develop a narrative which I find is an interesting way to approach a project and it often leads to unexpected possibilities. I'm also very excited by innovation and I've enjoyed experimenting with new technology.

What has been the biggest obstacle?

The mundane answer is keeping a steady workflow which is very difficult for architects. We have to compete for so many jobs and only a few will go through to completion. I have also found that building up a successful practice is quite difficult. You want to give your colleagues the opportunities to fulfil themselves and for everyone to enjoy the process but that's not easy to manage.

Is it easier, or harder, to get high quality buildings built now than when you started? It's easier. There is a much greater interest in architecture these days. People are more concerned with the quality of the environment they're living in and we all have to tune in to a more sustainable way of life.

Looking back on your work over the years who have been your biggest influences?

Norman Foster opened up a whole new ball game for me in my formative years. His work was fresh, new and exciting and it was the same working with Richard Rogers and Michael Hopkins.



The RIBA Journal February 2021

Is there anything you wish you'd done differently?

When we won the Stirling Prize in two consecutive years in 2001 and 2002 with Magna and Gateshead Millennium Bridge, it was great in many ways but it caused us a few problems. Some articles were written about us that were a bit personal so we decided to lie low for a while rather than making the most of every opportunity that came our way. Instead, we looked for work in China where we won a project for a 420m mixed-use tower in Guangzhou. This led to other work in China and Singapore which turned out to be a good move but, in some ways, I wish we had concentrated more on the home market.

Is there anything you'd still like to achieve in architecture?

Yes and it goes back to my interest in art. I'd love to build an art gallery and I've been working on one for Sir James and Lady Deirdre Dyson which they would like to be open to the public. We've had some difficulty with planning permission but I'm very hopeful that we will be able to go ahead with it.

Why do you think the profession ignored the need to design sustainably for so long?

It was not just architects but the whole world was slow to understand the importance of sustainable design. It's very clear now but for a long time the problems weren't fully understood even though we were already heading for disaster. We became aware of the issues when designing the low energy Davies Alpine House at Kew in 2006 with Atelier 10 and went on to design the semi-autonomous Crystal in the Royal Docks. The Cooled Conservatories at Gardens by the Bay in Singapore, again with Atelier 10, was all about climate change. Like the rest of the profession, we have learned a lot and we are becoming aware that the re-use of existing buildings



Above Wilkinson Eyre's Stirling Prize winning Gateshead Millennium Bridge over the Tyne.

Below The building Wilkinson is most proud of Maggie's Centre, Oxford, conceived as a treehouse raised above the landscape

is also now a high priority. Our King's Cross Gasholders and Battersea Power Station have reinforced the potential of this approach to us. Sustainable design and biodiversity are now of the upmost importance.

Do you think Covid-19 will have a lasting impact on architecture and the profession?

It has taught us a few lessons – that you don't have to all be in the office at the same time (although architects do need to meet at the design stages) and that you don't necessarily have to fly to meetings and site visits around the world.

I think there will be an impact on architecture because there will be a re-evaluation of lifestyle, not only because of Covid-19 but because of sustainability. People are becoming much more interested in being close to nature so we have to look at bringing nature and biodiversity into buildings. It's not just about architecture, cities will have to change too and there has to be an opportunity to relook at how we plan them.

What is your most treasured possession?

I'm not a great one for possessions but I do have a collection of architectural drawings that I'm very fond of including a small Le Corbusier painting and drawings by Carlo Scarpa and Jan Kaplicky. I particularly like the idea of the character of the architect coming out in the drawings. I also have a limited edition print of Daniel Libeskind's Jewish Museum in black charcoal on white paper, which exactly encapsulates the concept of the building. To be able to show all of the drawings together is an ambition of mine which I'd like to fulfil sometime in the future.

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Questions of competence

Competence, a key element of the Building Safety Bill, remains a complex question – exactly what it is, who should have responsibility for it, and how it is applied. The Hilti/RIBAJ panel discussion unearthed some of the issues



Competence is a word that has a deceptively simple definition – the ability to do something successfully or efficiently, according to the Oxford English Dictionary. Making it happen, however, is harder, as the UK construction industry demonstrates through its daily project struggles and its too-long list of failures.

The scale of transformation needed across the industry to enable it to deliver competence consistently has been set out in the wake of the Grenfell Tower fire. A whole chapter of Dame Judith Hackitt's 'The responsible person often doesn't even realise they are the responsible person' Gary Neal, head of fire, Skanska post-Grenfell report, Building a safer future, is devoted to the subject and the drive for it is a leitmotif of the government's draft Building Safety Bill, which takes forward Hackitt's recommendations. These include proposals for a new competence framework for those carrying out work on high-rise residential buildings that affects fire safety or other risks, with five dutyholders across the project team bearing legal responsibility for ensuring that a high-rise residential building is designed and built to be safe. Industry bodies have been charged with raising levels of competence among their members. The Architects Registration Board (ARB) is formulating its next steps while the RIBA has already woven competence through its new education and professional development framework, outlined in its report 'The way ahead'. The framework includes mandatory competences, which will form part of architects' initial training and ongoing professional development, being subject to retesting every five years under chartered membership. The first of those competences, health and life safety – including fire safety – will be introduced from 2022, with climate literacy, ethics and social purpose, and research literacy set to follow.

Not trained means not competent

'We've got a generation of people – all the way through industry and not only architects – who aren't being trained and who are therefore not competent,' Jane Duncan, chair of the RIBA expert advisory group on fire safety, told participants at the round table discussion, Rebooting Construction in the UK, hosted by RIBA and RIBA Journal in association with Hilti last November. Others confirmed Duncan's words. 'I've seen examples in Britain where there's a direction to firestop a building for two hours, full stop; and then the person on the job site, who is probably the lowest educated person there, decides to try and do something at the eleventh hour,' said Paul Langford, global head of fire protection at Hilti. 'The responsible person often doesn't even realise they are the responsible person. They don't understand what competence looks like,' said Gary Neal, head of fire at Skanska.

In defining competence, debate participants agreed there was a need for breadth of knowledge and experience. Lynsey Seal, principal firefighter with the London Fire Brigade, said, 'Competence is so much more than learning and education – it's experience and other skills, but very importantly it's recognising the limitations of what you should be getting involved in.' Will Freeman, design director of Wates Construction and non-executive board member of the ARB, added, 'As Grenfell has taught us, there are a lot of things that might be linked back to fire that people hadn't previously been aware of. And I think it's

'Architecture doesn't happen on a drawing board or a computer screen. It happens on a site' John Cole, RIBA expert advisory group

important there's a more rounded education that explains that the decision you're making here might have a knock-on effect further down the line.'

Professor John Cole, member of the RIBA expert advisory group, summed up the challenge facing architects. 'Architecture doesn't happen on a drawing board or a computer screen. It happens on a site and yet architects – and other members of the design team – are increasingly not there so they're not learning, they're not getting the feedback and they're not improving the design as things move on. This is particularly true of young architects.'

The predicament of younger staff concerned Neil Farrance, partner at Formation Architects, who said some of his firm's part III architects had, 'had no training whatsoever in the concept of fire safety.' He asked: 'The question for me is: at what point in the life of an aspiring young architect is it appropriate to start that process of instruction and teaching?'

Farrance also drew attention to the fact that the draft Building Safety Bill contains 170 mentions of the word competence, but does not feature the word reputation once. 'Reputation and technical competence are often muddled and potentially conflicting,' he said. 'We are seeing an increasing divergence between design reputation and technical competence and I don't think it can be assumed one will automatically flow from the other.'

But this does not mean architects need to gain the expert knowledge of a fire engineer. 'I think wider awareness and skills need to go more broadly into lead designers, architects and construction professionals,' argued Al Beevers, head of health and safety at developer Argent. 'Architects need a base understanding of fire safety to assist in the design of the building – and where the complexity of the building increases, they seek professional support,' said Andrew Gausden, project manager with East Sussex Fire and Rescue Services.

Confusion over roles

The challenges of embedding competence in UK construction are further complicated by the government's proposal in the Building Safety Bill for dutyholders, which raises guestions about the nature of the role of the principal designer. The bill draws on the 2015 CDM regulations, which place responsibility with the principal designer before work starts on site, and pass it to the principal contractor once construction starts. That, in itself, is unsatisfactory, said Gillian Birkby, consultant in the real estate department at law firm Fladgate: 'First, it ignores the fact that design carries on way into the construction process itself. Secondly, the principal designer – if you read the regulations very carefully - is about health and safety for the construction workers.'

Now the same thinking is being applied to the upcoming legislation, she said. 'Government made it worse by referring to the principal designer in the Building Safety Bill and saying that everyone who is a duty holder under CDM is a duty holder under the Building Safety Bill. In no way is this the person who is in any way leading, coordinating, or pulling together the design.'

Paul Bussey, technical design lead at AHMM and member of the RIBA's regulations and standards group, however, had a different take, arguing, 'The principal designer role is much more wide ranging and is in control of the pre-construction phase. That's where we've got to educate the government to realise it's broader than the Health & Safety at Work Act requirements for issues that relate to the construction workers.' Such exchanges illustrate how much work has still to be done in defining the industry's route to competence.

A full list of fire safety round table attendees was published in the first of this series of four in RIBAJ, January 2021 (p42-43).

Further perspectives on insurance and procurement will appear in the March and April 2021 issues.



The world has changed a lot in the last year. What do you, the architects of the future, think about it?

Write it down we'll publish the winners

Do you have burning things to say about architecture in the context of Covid, climate change or Black Lives Matter? How do we tackle homelessness, the struggling retail sector, schools under pressure? What makes efficient practice, how do we best serve our clients and users, help diversify and expand the profession and its reach? Are there design issues you yearn to celebrate, condemn, change?

Have your say with our writing competition run in collaboration with RIBA Future Architects Network.

We want to hear from and feature architecture students and early career professionals (part I, part II or studying for part III) to showcase the voice of the next generation.

We are looking for bright, insightful, original submissions of 800 – 1000 words.

Judges: Shawn Adams, POoR Collective, RIBAJ Rising Star and New Architecture Writers alumni; Wajiha Afsar, Atkins Global and commended in Future Architects writing competition 2020; Lucy Watson, commissioning editor, Financial Times; Eleanor Young, acting editor, RIBA Journal.

Deadline: Friday 19 February 2021 ribaj.com/future-writers Civic values – profile **62**

The power of boring

Investing in the tedious tasks can pay huge dividends



Eleanor Young Acting Editor

High on a house a roofer swiftly lifts and slides down the tiles to his mate. A couple of hours later I pass by again, returning from my daily exercise. They are still at it. What looked fun at first now looks a little boring, though still a party compared with many lockdown experiences.

I am surprised the word boring has not risen to greater prominence after nearly a year of Covid. Where are the newspaper lifestyle articles with 10 things to do when you are bored? Where is the trending hashtag on Twitter, the moans on WhatsApp groups, the grey horizons on Instagram? Perhaps the security of four walls, a refuge from a world turned upside down, have trumped boring.

But it would be good to think that is because we have learnt the upside of boring, the ability of a spreadsheet to unlock the real value of a project (not in the door handles, in most cases) or to interrogate an area schedule. Here can be the chance to turn school circulation into informal learning space, or to push it outside the envelope and claim the space back for classrooms. It is hard to

The future's here – radical architecture **70**

3: Culture

get away with calling boring things creative without a snigger, but let's at least call them powerful.

Co-founder of Architecture 00 Indy Johar is a rethinker of workspace and open source design and an advocate for architects who can take on finance, tech and management in their own language. He talks of a 'boring revolution' where the underpinnings of architecture are tackled, from warranties to property rights and contracts. These are the big issues, this is the movement that dug into land holdings and gave us community land trusts, community asset transfer in the early 2000s and the designation of community assets that has allowed neighbourhoods to take on local pubs even where developers might have snapped them up for housing. There is no such thing as form follows function when you take a critical look, in Johar's view. 'Form follows the code of capital,' he insists. And tackling the boring is how to change that code.

Even if you are not a fully fledged revolutionary, you can arm yourself by becoming an expert in the boring tools that govern projects, interrogating your own contracts and what you are committing to. Small practices find checking contractors out not just with Companies House but with your local contacts can pay off. Going beyond building regulations and getting to grips with Passivhaus principles was one of the things that won Mikhail Riches the Stirling Prize for Goldsmith Street in 2019. These are tools of control but can be turned around. They can be used by architects just as much dry supplementary planning guidance and local plans can be used as ammunition to allow plots and unloved buildings to be developed into good architecture.

OK, there is still repetition, as any roofer could tell you. Even with the advent of artificial intelligence or robots there will still be boring. So choose when to use boring to your advantage, and go with its comfortable, if rather dull, flow.

ONLY ON RIBAJ.COM 'Architecture is not one of the traditionally recognised career options for people from a BAME background' Pamela Buxton finds out what RE-SET-GO is doing about that: ribaj.com/reset

CORRECTION

The article on BORD's waterpark (RIBAJ January 2021) should read that Hungary lost its connection to the sea following the Treaty of Trianon after the First World War, not the Second.

Below Not a spreadsheet in sight and still looking bored.

Indv Johar talks

revolution' where

the underpinnings

of architecture are

of a 'boring

tackled



Culture Opinion

Vicarious pleasures

No need to feel trapped at home – puzzling can take vou somewhere else



Verity-Jane Keefe

The crowd pours in through the entrance gates, a temporary structure designed to look like a castle entrance with a psychedelic sign saying Festival. It's incredibly confusing to look at. I lose myself in this. Who designed this? It looks badly made but in a good way, not a dangerous way, more creative let's say than a slick temporary pop-up structure. Who came up with it - putting a ticket booth in a fake stone castle gate support? It reminds me of other tourist experiences I've had over the years, a souvenir kiosk in a giant fibreglass rock, a sweet stall in a column and - the most enjoyable - temporary toilets where you step through a constructed facade of a cave. Back to the festival. A city of tents and marquees dominate the scene. Beer stalls, main stage, small stage, t-shirt stand and then hundreds of small tents in a field in the distance. There's a huge crowd, a rush from the tent to the outside stage. I stop and stare at the scene piecing together in front of me. Why is there no other reference to the castle? Was that a theme, a leftover from another festival? I'm thinking about the Zaha Hadid Serpentine Pavilion-come-events space at Flambards Theme Park in Cornwall. So extraordinarily out of place, yet making perfect sense. Temporary spaces transported into other space, fictional and real.

The Festival continues for two days, it's a challenge and the architecture - the overall design vision - does start to become

There's a huge crowd, a rush from the tent to the outside stage. I stop and stare at the scene piecing together in front of me



little clearer and then I'm done. I break up the jigsaw puzzle and put it back in the box, sellotaped back up with my review written in the lid for the next pre-covid-life-searching-tourist that buys it from the charity shop. 'The Dutch Architect of the POP FES-TIVAL1000 PIECES has a vivid imagination and is clearly a fan of temporary structures and details. The VIP and RIP spots are a lovely detail, the castle - confusing, but it did take me away for two days. Enjoy!'.

I give myself a day to recover. And then move on for a much more ambitious trip, less niche, more global, historical. I am a cartographer's granddaughter. Nova totivs terrarvm orbis geographica ac hydrographica tabvla, a new complete map of the geography of the earth and oceans begins to unfold. I visit continents drawn in the past at snail pace, piecing the equator together across my table-cloth, joined by earth, wind, fire and water, flanking the two spheres of the Atlas, with Julius Caesar, Claudius Ptolemy, Gerard Mercator and Jodocus Hondius looking hand drawn yet refined in each corner. I'm on the boat chopping through the North Pacific heading towards San Diego, I jump ship and look for one much closer to home, tracing the Tropic of Cancer with my fingers, skipping over gaps. Walking through places, broken up on trays across my living room floor and in my mind, thinking about when it might be possible to be in other places, carefree. Not quite world tour via boat, but I'd take a multiple county drift, a music festival, an underwhelming biennale filled with temporary pavilions or permanent, tent or building, baroque cartography or cartoon escapism. I'll take any of it in. I'll take all of it.

I tend to loathe rituals and routine, preferring a muddled through and spontaneous approach, but the annual festive jigsaw bender is one that I carry with me. A year of visiting places via streetview and youtube finished off with a lost weekend at a Dutch festival. What a trip. I'll have most likely broken all of my new year's resolutions by the time you read this, apart from one: never take for granted moving, and being in different places again. And to never feign an excuse to not go somewhere, or worry I really shouldn't because I've got X, Y, Z on. For now, I have the two package holidays in their boxes, let me know if anyone fancies 1000-2000 jigsaw pieced tourism and I'll pass them over. /erity-Jane Keefe is a visual artist

SLOW BOAT TO ANYWHERE

We can often be found soaring over the Galápagos Islands on Google Earth or walking through Becontree on streetview on my sofa. For the ultimate dose of escapism, an obvious one but really perfect for these times. lose vourselves between Oslo and Bergen at real time. A seven-hour orgy of slowness. You're welcome: youtube.com/ watch?v=hvHK4yZNXpk

Culture President

Stepping up, together

With a renewed sense of urgency, Council meetings are intense and exciting, tackling real issues



Alan Jones

The half day December 2020 online RIBA Council meeting was intense, with real progress on the key issues of the day, rather than the 'day to day' that bogged down previous all day council meetings, a change enabled by the new governance of March 2020. There is a gathering pace, a realisation that time is of the essence, across practice and future practice, architects and future architects. There was a sense of urgency and togetherness, consensus and consistency of direction. Council members spoke freely and passionately, debated and voted on issues that revealed themselves as increasingly interconnected and discussed risks to and opportunities for our profession.

The details of The Way Ahead, the much heralded, once in a generation, reform of August 2020, are being fleshed out; together we reviewed and agreed knowledge schedules for climate literacy and ethical practice. They contain what architects need to know and understand to be competent, to structure the education of future architects, professional development and mandatory regular testing of competency. Together with the previously approved knowledge schedule for health and life safety and the forthcoming one on research literacy, these schedules set out the core of what architects need to know in key areas - and with the RIBA working closely with the ARB there is co-ordination and a chance for clarity, for schools of architecture and architects to be clear about the

knowledge base of the profession, to allow us to do what we have to and want to. They go along with developments like the RIBA CPD recording platform of late 2019. Drawing on these robust schedules and recording we are highlighting this change of culture to government and society, demonstrating how chartered architects are stepping up to deliver more effectively, more professionally – and how government must make use of architects and reciprocate. Signing up to the 2030 Climate Challenge is a choice, but the structural change to what is taught and must be known is a fundamental shift in position, requiring all architects to engage. Knowing what to know will also keep ever helpful architects within their remit and appointment, increasing clarity and reducing risks, which our insurers will no doubt be delighted with.

A council paper on maximising the integration and co-ordination of the RIBA's efforts on the climate emergency was warmly approved. It emphasised how we must be able to look back from 2030 and agree that we had done all we could to explain and promote the architects' role in reducing the impact of climate change and averting biodiversity disaster. A debate on changes to the UK Architects Act connected to another on Regulation of Function, a potential step change in the legislation and operation of architects - which was met with a widespread vote of approval and agreement to progress the next steps.

It is now for RIBA Board to finally consider all these matters, of how they dovetail with existing resources, strategy and financial plans. There is an urgency, but only certain bandwidth within the RIBA to shift and move, to balance and meet existing and future priorities and policies.

There is always room for improvement; work is starting on the format of the March council meeting, to make the most of the new RIBA governance structure, pulling debate and decision on fundamental issues even more to the forefront with education of future architects on the agenda.

The proceedings of RIBA Council are a reflection of our profession. The message of December's council meeting is clear; it is a great time to join the profession and to be in it. Present day pandemic and insurance worries cannot be forgotten but for that afternoon there was brightness; we are all continuing on the journey, forwards and upwards. @AlanJonesFRIBA

DISCIPLINARY SANCTION: EXPULSION

Following a hearing of the Professional Conduct Committee on 3 December 2020, Robert Lukas was deemed to have breached **RIBA Code of Professional** Conduct Principles 1.1. 1.2, 1.3 and 1.4 in that he oversaw and witnessed a regime of substantial and regular cash payments to the contractor in circumstances where the Complainant had gueried the method of payment and made regular complaints about a lack of materials on the site and poor workmanship.

Further, he was found to have breached Principles 2.1, 2.2, 2.3 and 2.5 of the Code of Professional Conduct in that he carried out a flawed tender process, provided and used an inappropriate contract for the building work and failed to administer the building contract competently.

Lastly, he was found to have breached Principle 3.5 of the Code of Professional Conduct in that he failed to act impartially and independently in respect of the complaints of the Complainant regarding the contractor's poor workmanship throughout the period the contractor was onsite.

In accordance with the **RIBA** Disciplinary **Procedures, the Committee** issued Mr Lukas with an expulsion from RIBA membership.

DISCIPI INARY SANCTION: EXPULSION

Following a hearing of the Professional Conduct Committee on 13 November 2020, Andrew Guy was deemed to have breached **RIBA** Code of Professional Conduct. He was found to have posted false reviews under pseudonym(s) in relation to multiple businesses and in doing so. acted dishonestly and/or without integrity.

He was found to have breached Principle 1.1 of the Code of Professional Conduct in that he failed to act with impartiality. responsibility and/or truthfulness at all times. He was also found to have breached of Principle 1.3 of the Code of Professional Conduct in that he was party to statements which he knew to be untrue, misleading and/or unfair to others.

Further, he breached of Principle 1.5 of the Code of Professional Conduct in that he failed to respect confidentiality and the privacy of others and breached Principle 3.1 of the Code of Professional Conduct in that he demonstrated no concern or regard for the effect that his comments may have had on the individuals he targeted.

In accordance with the **RIBA** Disciplinary **Procedures**, the Committee issued Mr Guy with an expulsion from RIBA membership.



Collaborative working pervades every aspect of Dutch practice Civic's approach to its projects - as it should, with a name like that Words: Jan-Carlos Kucharek Portrait: Dic Nicolai

All together now

Should it come as a surprise that the partners of Dutch practice Civic, even via the limitations of a Teams chat, come across as incredibly...well, civil? Talking to them a day before the Netherlands entered a month-long lockdown at the end of 2020, they all seem relaxed, sanguine, even jovial about things. Perhaps the trio present are vicariously looking forward to the imminent arrival of absent partner Jan Lebbink's first child, but I get the impression they're always that way. It doesn't seem like the office behind them is being worked any harder before closure. Someone sauntered into view at one point, but their six staff are otherwise keeping a low profile.

That phrase sums up the nature of the Amsterdam practice – at least it did until its LocHal public library project opened in 2018, repurposing an abandoned train shed near the station in the Dutch city of Tilburg. The domestic and international acclaim it met with has thrust the young firm into the spotlight. It has certainly put big-scale projects

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Below Repurposing a disused train shed to create a hybrid library/ public space: Civic's LocHal in Tilburg.



on its books, like a new faculty building at the University of Twente and a museum in the city of Waalwijk. But success hasn't affected the architects' innate humility, born out of the time that they studied in 2002, when the SuperDutch phase and its cult of personality was ending, and before the 2007 financial crash that proved a reckoning for everyone.

'Certainly there were great things about that time,' says partner Rick ten Doeschate, 'but we just felt the idea of co-operation across disciplines was undervalued. We graduated thinking a collaborative approach would generate more interesting and diverse projects.' Partner Gert Kwekkeboom segues into the comment: 'We believe in complementary ways of working. There's only 10 of us here, four of whom are partners, so two of us will be working on any one project in the office, bringing joint perspectives to anything we design. We hope that radiates to our clients and those we collaborate with.' Their practice is a natural extension of the friendships they

Culture Profile

made while students at TU Eindhoven.

Partner Ingrid van der Heijden offers the back story on the practice's organic development. All four graduated with distinctions and, while all working, set up Cloud Collective – a loose, multidisciplinary group of 20 or so other graduate architects and designers.

'We began by designing installations, public interventions and competitions in our spare time during the financial crisis, but after a while we polarised into three entities,' she explains. 'Each wanted to specialise, and with the four of us obviously drawn to buildings and their relation to the public space, it's how we ended up together.' Cloud Collective still exists, though in a more formalised way. Civic sticks to architecture, while elsewhere in Amsterdam urban design consultancy Bright is making its own sense of the world. Matters, a graphic design and scenography firm, works out of Paris.

So, do they think of themselves as a reaction to that past culture of big personalities? Not really, says Kwekkeboom. 'It's just not about big theories on modern culture like it was then. Focus has shifted back to local communities rather than big picture stuff. It's still important to know what's going on in the world to make a good building but there's more emphasis on locality.' It might have influenced their work in 2013 on repurposing an Amsterdam school into the Mevlana mosque, a small, local, municipality-backed regeneration project, done at a time when the Muslim community was under particular scrutiny by wider Dutch society. 'It was more edgy and on the fringes – and I think that's where we feel naturally at home,' says ten Doeschate. 'We're not the kind of people who do private villas. We're drawn to projects



Above Civic's Mevlana mosque in Amsterdam, a converted school, was a means of supporting the regeneration of a deprived suburb.

Below Tilburg's Puishaven Pavilion championed public access over mere monetisation of a popular gathering space in the regenerating harbour area.

We're not the kind who do private villas. We're drawn to projects with physical or historical complexity



with physical or historical complexity.'

Which, in its post-industrial context, LocHal had in spades. When guizzed about how they made the jump from informal group to a firm landing a big job like this, ten Doeschate sees Civic's trajectory as meeting their aspiration of working small but dreaming big. LocHal library was not just a lucky break, he points out. 'The early DIY stuff Cloud Collective did for Tilburg led to an invited competition for the 2014 Willem II passage, which we won knowing that the tender for the library was coming up. It was two years away, but in that time we engaged with more experienced firms (like Petra Blaisse's Inside Outside, heritage architect Braaksma & Roos and Mecanoo), that we knew could help us win it.' All the while the ambitious little firm was seeking big collaborators to work with.

LocHal's success comes from the way it weaves together all the strands of Civic's thinking in terms of how they realised it and how it functions as public space. The municipality had asked for a new library appended to a heritage structure, leaving the latter almost 'as found'. But in merging the two buildings, not only did Civic create a 10,000m² facility but a novel approach to the library typology. Van der Heijden says their aim was to create immersive public space within its huge hall - which meant taking on Arup's 'zonal' approach as to how such a vast space could be heated. 'While internal "labs" are conditioned, the main hall has a lower ambient temperature. But once you find your book you'll sit on a warmed seat,' she explains. 'It was a bold concept, but we chose to heat the people, not the building.'

This use of technology to give it specific humanity also applies to Petra Blaisse's huge moving textile screens, which reconfigure the massive space in minutes. 'We wanted public and 'quiet' zones to be interwoven too,' says van der Heijden. 'What the city was missing was a public gathering space for up to 1,000 people – driving our monumental stair event space idea.' And stacks relate subject-wise and spatially to interior designer Mecanoo's specialist 'making' labs as a foil to the Dewey Decimal way of configuring knowledge.

'Like any good public space, you don't predict what's going to happen in it, you create the conditions for things to happen,' says ten Doeschate. In other words, creating new relationships between the building type and the people it is meant to serve. Before lockdown hit, it had become the go-to destination for the city's residents.

Iterations between the big picture and the detail, like those at LocHal, seem to suffuse their work. As much as Willem II passage in Tilburg was about facilitating connectivity to a run-down area (van der Heijden says people used to walk 1km around to avoid using the underpass), with its cast recycled glass brick walls it was also about creating a safe route that interacted with users as well as being tactile; what ten Doeschate terms 'ambitions for craft as well as connectivity'. This was generated by working with glass artists in much the same way as deep engagement with the steel fabricators for Civic's 2017 Puishaven pavilion, also in Tilburg, brought about the engineering of the similarly deep C section perimeter beam that defines its structure.

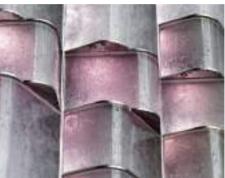
To argue over whether this pier pavilion looks more like Rotterdam Kunsthal (my view) or Mies' Neue Nationalgalerie (theirs) is missing the point. They were motivated by the politics of connecting the 'rich/developed' north side of the harbour with the 'poor/undeveloped' south. A popular spot for impromptu cultural events, the firm took on board the municipality's wish to monetise the site with a restaurant but also addressed its civic potential, with a perimeter beam framing a public platform raising people above the pier level. 'Performative architecture with a public aspect,' says ten Doeschate. 'This is the territory where we like to operate...whether or not you're buying a drink, the public can still enjoy the space fully,' adds Kwekkeboom.

And with its penchant for adaptive reuse exemplified at LocHal, the firm has been charged with other projects – notably at Twente University in the city of Enschede,



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Top At the Willem II passage in Tilburg, the illuminated, interactive wall creates a safe route to a developing, postindustrial part of the city.

Above The cast glass wall of the passage has a robust tactility.

Below left Twente University ITC. The design of the new performance facade works within the frame of the existing structure. Below Four atria, carved out of Twente University's former geography faculty, give its new institute lungs to breathe.



where a 1970s chemistry block is being reconfigured as part of the new International Institute for Geo-Information Sciences (ITC), a 13,500m² postdoctoral research facility for sustainable technologies. Presented with a 220x38m concrete and steel structure, the firm looked to the act of removal rather than addition to meet the brief. Here, structure is being carved out to introduce four 24x12m open atria running the length of the building, separating the various research, lab and office areas. This gives the previously heavily conditioned building given four new lungs, consigning service intensive functions to the lower level and public ones, like library, lecture spaces and restaurant, to the generous upper. 'By subtracting space we're able to add light, fresh air and green to the building,' explains ten Doeschate. 'In the atria we're creating biodiverse environments that allow for natural ventilation and contribute to its social function.' With the old brutalist structure consciously re-revealed in the process, it's a kind of extreme retrofit that fits the building's new purpose.

Public, municipality, architects, contractor, Civic is looking to work with them all, seeing it as a formalisation of the mindset its partners have always had, creating 'pure architecture' in their terms, which is representative of those who use it and accepted by the wider community. At the end I ask if they think they do what it says on the tin and Kwekkeboom answers without hesitation: 'The firm's name is a statement of our values – and you're right; if you've called it Civic then you have a duty to live up to it.'

But ten Doeschate interprets that duty in wider, social terms. 'This last year has taught us the importance of meeting, of going places, of being together; of touch. If we can't understand the value of public space now, when will we?' •



Culture Profile

As Eleanor Young steps up to edit the journal, how might readers expect it to evolve? How will she apply her deep understanding of the publication?

Words: Helen Castle Portrait: Abi Bansal

When a new editor takes over a publication, there is speculation as to how their influence will play out. How might editorial interests and treatment shift? This crystal ball gazing is even cloudier for the journal with the succession of Eleanor Young as acting editor because her presence already permeates its pages. Part of the editorial team for almost 20 years, she has been executive editor since 2006. She is an established and powerful voice in the architectural community. Hugh Pearman, who retired as editor in December, describes her as 'a force for good in architecture, known and admired across the profession.'

As executive editor, Eleanor has been the engine of the journal for 15 years, planning and organising it, commissioning the Intelligence section and key initiatives such as Rising Stars, as well as contributing building critiques, practice profiles and interviews. Architects recognise her journalism for its mix of passion, acumen and curiosity simultaneously championing and questioning. 'Eleanor has a keen eye, a brave approach and a way with words,' says Sasha Bhavan, co-founder of Knox Bhavan. 'Her approach is open minded and fair while also challenging, encouraging and applauding.' Architect and broadcaster Piers Taylor adds: 'Eleanor has a natural and infectious enthusiasm for architecture, and brings the same energy to interviewing a Gold Medal Winner as she does to a muddy site visit. Her frame of reference spans the historical, philosophical and the practical, and her inquisitive and "can do" attitude means that she is a brilliant journalist and brings a breadth to her role at the RIBA Journal where she understands the diverse components of architecture.'

So how might the editorial direction of the journal shift with Eleanor at the helm? What are her architectural passions and penchants? How do her existing influences on the journal manifest themselves?



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off their latest acquisitions.' These included cultural landmarks such as The Lowry and the Imperial War Museum North in Manchester and the Baltic Centre in Gateshead.

Eleanor recalls the drama of Foster + Partner's Great Court at the British Museum and its inventive opening up of an existing institution. It was, however, smaller scale innovations that captured her imagination. For her Cottrell and Vermeulen's Cardboard Classroom and Afterschool Club for Westborough Primary School in Westcliff-on-Sea, Essex stood out as brave for its community focus and use of alternative materials – recycled laminated card.

She remembers fondly 'conversations with 6a and Sergison Bates for the technical pages and writing about their door handle designs for Izé, the ironware company co-founded by the Financial Times critic Edwin Heathcote.' This was epitomised by 'the delicate touch' of the Budapest apartment handles that 6A used in its South London Galleries.

One project, though, represents a turning point for Eleanor, shifting her attention from the novel to the contextual and historic: Haworth Tompkins' refurbishment of the Royal Court Theatre, London. Here not only was a new basement created to accommodate a restaurant, bar and bookshop, but the walls and layers of history were confidently exposed and celebrated in what is a nowfamiliar style.

Unlike many journalists, Eleanor is less interested in interviewing well-known names – she recollects waiting an hour to speak to Zaha Hadid. For her, 'the buzz remains from visiting a really good building'. She is excited by good design in all its forms and seeks out buildings that have a strong consideration of sustainability. She appreciates the tactility of timber and stone with their 'established history of use'.

It is, however, that uplifting 'sense of space – air and calm – of the world stretching' that distinguishes the most interesting architecture for her. Attracted to Architype's University of East Anglia (UEA) Enterprise Centre in Norwich by its more superficial elements (the thatch cladding), she was surprised and exhilarated by 'its materiality – the cleanness of its walls – it didn't have the plastic, glue smell of a new building', and moreover by 'the beautiful calm of its internal spaces'.

In the Intelligence section Eleanor has antennae for what is topical, but also relevant to her readers

Below Cottrell and Vermeulen, Cardboard Classroom and Afterschool Club for Westborough Primary School, Westcliff-on-Sea, 2001. A stand-out project for Eleanor from her first year on RIBAJ.

Intelligence

When the journal was redesigned in 2013, it was reorganised into three sections – Buildings, Intelligence and Culture. Eleanor, who contributes to all three, became responsible for commissioning Intelligence, which in her words provides 'analysis and insights on construction and property markets, informing how practices can build their businesses'.

She has antennae for what is topical, but also relevant to her readers, as highlighted by Mark Kemp, director of Place Architects and chair of the RIBAJ editorial panel: 'If like me you've recently found yourself drawn more and more to the Intelligence pages of the journal, it is because Eleanor's editing of this middle section has found a way to relate the contributions to each other and to the architect readers. Issues of the moment have obviously been featured heavily, but many of the articles resonate directly with what I actually do day to day and what I often find myself thinking about.'

The Intelligence pages have never been in more demand online than in 2020, amid the pandemic, a challenge that Eleanor rose



to. 'Last year in particular she demonstrated her commitment and agility of thought,' says Hugh. 'The journal had to respond to a rapidly changing world and provide a highly relevant response for readers in everything from the RIBA's Rethink 2025 post-Covid competition to the vital issue of real diversity of talent and opportunity in architecture – while still foregrounding the urgent issue of the climate and biodiversity emergency. In all these areas she led from the front.'

Rising Stars

Another area which Hugh recognises as a particular success for Eleanor is the Rising Stars initiative. 'That identifies, celebrates and encourages the emerging generation of talent in architecture,' he says. It's something that is crucial to the future health of the profession, and 'is now being echoed by others, the best form of flattery'. Rising Stars alumni Úna Breathnach-Hifearnáin (2017) of McGregor Coxall and Kieren Majhail (2018) of Karakusevic Carson Architects explain what it has meant to them. It gave Úna 'the opportunity to be heard as a project architect working in a larger firm, instilling confidence to express my architectural thought in a new way.' It is the follow-up opportunities that Eleanor generously volunteers, though, which are as valuable to the cohort as the initial recognition. Kieren explains: 'She always has words of encouragement and instils a sense of confidence, inspiring the Rising Stars to push themselves, whether that be writing pieces for the journal or to challenge themselves in their future careers.'

By showcasing different types of talent, not just project architects in large practices, but start-ups from a broad range of cultures and background, Rising Stars has championed emerging and diverse voices in the profession. Tara Gbolade of Gbolade Design Studio (2018 alumnus) recognises how refreshing and encouraging Eleanor's proactive and consistent approach is 'to reaching out to a diverse range of contributors'.

Eleanor is emphatic that a much broader perspective is required in practice and society, addressing the triple bottom line, taking into account people and the planet as much as profit. Though the journal has achieved greater gender parity over the last decade with speakers at events, for instance, she recognises there is still work to be done in achieving diversity. She remains on the ERS TAYLOR

lookout for eloquent and talented diverse voices. One is Gurmeet Sian, a British architect of Indian descent, who in a moving personal account in July 2020 articulated the racism he has encountered in the profession (RIBAJ August 2020). In 2020, Eleanor and the team also developed a takeover slot in which a contributor collaborates on text and design and is given the opportunity 'to insert a more diverse voice, changing the narrative of design'. Already we have seen Part 2 Rosa Turner Wood (RIBAJ October 2020) exploring how recruiting more women in construction could be the answer to the UK's ageing and declining, largely male workforce, and Ben Holland on the groundswell of students changing the conversation on climate emergency (RIBAJ January 2021).

Sadie Morgan, founding director of dRMM and chair of the Quality of Life Foundation, commends the manner in which Eleanor has 'continued to champion the underrepresented and give a human voice to a profession in dire need of one'.

Climate change

For Eleanor, one overarching preoccupation is critical to the journal: the climate emergency. It is a movement that in the last couple of years has gained traction with the RIBA 2030 Climate Challenge and Architects Declare. She seeks out the voices of leaders in design to explore provocations: one example is Piers Taylor's critical review of Jonathan Porritt's Hope in Hell (RIBAJ September 2020). In September 2019, all the articles in the Intelligence section were dedicated to the topic - most memorably Duncan Baker-Brown on how architects should tap into the circular economy in their buildings and Steve Webb's engaging feature in which he measured carbon dioxide emissions in Range Rovers Shopping Trips (RSTs).

The journal's treatment of sustainability is holistic. It spans the latest ideas presented in the context of architects' work to the

Her work is characterised by its passion, rigour, and occasionally uncomfortable inquistion



choice of buildings. For Eleanor 'multi-faceted performance is important – buildings have to respond to the climate emergency and work for those living in them. With the anticipated rise in energy costs, it is going to be increasingly important that they are affordable to run. Building to Passivhaus standards will also help avoid fuel poverty.'

Steve Webb, co-founder of Webb Yates Engineers, has experienced the level of scrutiny she exercises in her selection and review of sustainable buildings.

'I met Eleanor at our York House project. I was rather proud that we'd managed to make quite a big office refurbishment out of wood. She kind of sniffed and said "lot of layers". She was right on the money. She meant, mullions and columns and external load bearing screen. We need to be more succinct with our buildings. It's rather fabulous that someone who cares about climate change and the environment can see so clearly through all the fluff and is now editor of RIBAJ.'

So what can we expect from the new acting editor of the RIBA Journal? Fergus Feilden, founding director of Feilden Fowles Architects, pinpoints 'her powerful personality and approachability' as key, combined with her ability to make 'powerful connections into broader contexts of politics and motives along with concerns of place making and how projects serve the people who use and inhabit them'. Eleanor's work is characterised for Fergus by its 'passion, rigour and occasionally uncomfortable inquisition'. It is this 'ambition and commitment' to the good in architecture, combined with the talents of the wider editorial team, that 'will continue the journal's high standards and drive forwards excellent journalism'.

Helen Castle is publishing director at RIBA

The future is here

A new book highlights 79 projects that push the boundaries of architecture

Pamela Buxton

Radical Architecture of the Future is a stimulating book which shines a light on what could be termed radical practice today.

Author Beatrice Galilee, a former curator of architecture and design at the Metropolitan Museum of Modern Art, has brought together 79 projects as precedents, examples and inspirations of 'a diversified, conscientious, nimble and responsible future architecture'. She sets these in the context of both past radicalism and changes to the terms under which architecture exists today but which are now being questioned.

Galilee sees the future of architecture as 'often immaterial, traversing media, social

structures and liminal spaces; and made by people who may not identify as architects and designers'. This is reflected in the content, which draws widely from those outside and on the fringes of the profession. Projects are grouped into five categories: 'Visionaries' who have diversified their practices; 'Insiders' such as Adjaye Associates, Heatherwick Studio and Lacaton & Vassal, which are pushing against the status quo; up-andcoming 'Breakthrough' practices; 'Radical' practitioners using architecture as a medium; and 'Masterminds', a broad category taking in philosophers, artists, film-makers, scientists and academics, including Forensic Architecture's Eyal Weizman and Indy Johar of London-based think tank Dark Matter Labs.

Despite its title, this is a book about projects today, albeit ones that offer a strong steer towards what could be architecture's future direction of travel. Sometimes, the projects are buildings, but often they are not, whether a performance project celebrating marching bands and drumlines (Marching On) or Steve McQueen's photographic project Year 3. But all offer rich and often uplifting food for thought.

Radical Architecture of the Future, by Beatrice Galilee, published by Phaidon, 240pp, £39.95

Despite its title, this is about projects today, albeit ones offering a strong steer on the future direction of travel

Plasencia Auditorium and Congress Centre, designed by SelagasCano, Plasencia, Spain, 2017

The design of this chrysalis-like building is all about ninimising its footprint, both physically on the landscape and environmentally. The building, in the Spanish city of Plasencia, has a volume of some 8,000m², containing a theatre, dance hall, exhibition space and conference auditorium, though only 400m² makes contact with the ground. It is wrapped in a translucent ETFE skin that, while barely adding any weight to the structure, offers an up to 45 per cent reduction in solar heat gain. In doing so, it reduces the need for air conditioning. Visitors enter via an orange gangway with circulation routes wrapped around the interior perimeter to give views over the landscape.



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New Andean Architecture, Freddy Mamani, El Alto, Bolivia, 2005

Engineer turned architect Freddy Mamani draws on the traditional vivid colours and imagery of his Aymara heritage - an indigenous ethnic group in Bolivia – in his bold designs for the city of El Alto. This, his first project, is a mixed-use party hall with rentable commercial spaces on the ground floor, middle floors for events and weddings, and a top-floor apartment where the building's owner typically lives. Colours are inspired by traditional textiles, with the Andean cross and circle also incorporated as a motif. The distinctive architecture has played an important role in El Alto's regeneration.



ribaj.com

The contents draws widely from those outside and on the fringes of the profession



Climavore: On Tidal Zones, created by Cooking Sections, Isle of Skye, Scotland. 2015

Every day at low tide, this installation emerges above the sea at Portree on the Isle of Skye to provide an occasional public dining venue. At high tide it is submerged as a multi-species oyster bed. The project was created by Cooking Sections, a duo of spatial practitioners who use food to explore the systems that organise the world. The aim was to highlight the environmental effects of the island's industrial salmon farming, which had contaminated the water. The project established workshops, apprenticeships and guidance on setting up an oyster or seaweed farm. Local chefs were enlisted to create dishes using species that nurtured rather than harmed the marine ecology.

Color(ed) Theory: Currency Exchange/ Safe Passage, Amanda Williams, Chicago, USA, 2014-16.

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In her series Color(ed) Theory, architect, artist and academic Amanda Williams explores a colour palette that responds to the spatial and social politics of colour in the south Chicago neighbourhood where she grew up. It reflects on the history of segregation of black communities and the government-led disinvestment in their areas. In creating the palette, she draws on evocative references to well-known products, and questions what colours could represent different conditions. such as urban, poverty and privilege. She then paints her culturally coded palette on to abandoned houses that are due for demolition. Pictured: Color(ed) Theory: Currency Exchange/Safe Passage.

Ocho Quebradas House, Elemental, Los Vilos. Chile. 2016

Three distinct volumes interconnect to create this spectacular weekend retreat designed by Alejandro Aravena's practice Elemental. Designed in response to the site's strong winds and rugged geography the house is organised as a low slab of living accommodation with a fire pit positioned beneath an angled chimney which opens up to the sky. The third volume is a tower of bedrooms which can be completely closed off by shutters, giving a distinctive, sculptural appearance. The house uses only three materials – glass, concrete and wood – and is intended to encourage residents to embrace a simpler way of life.



Obituary

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George Henry Spiridion Tsiantar 1959 - 2020

Award-winning charismatic architect known for his personalised home designs, community involvement and delight in taking his pet rabbit to work



I first met George Tsiantar, who has died unexpectedly at his home in Hale near Altrincham in Cheshire, in the union bar at the Manchester School of Architecture in September 1977. A close friend ever since, I watched him become one of the most sought after architects creating homes for individual clients.

George was always a different type of student, taking his pet rabbit to work during his first year out at Michael Hyde Architects. Born into a culturally rich and diverse family with a father from Greece and a French mother born in Vietnam, George's design philosophy drew from the many countries he had travelled to and his resultant eclectic style was not always well received by his tutors. Undeterred, he lapped up his second year out experiences at Leach Rhodes and Walker and David Dewhirst Architects in Manchester before qualifying in 1984. In 1986, George met John Dempsey; an inspiration builder of dream homes. Dempsey was a mentor to George, encouraging him to work from an office on site; to understand every inch of the new builds, to design plasterwork friezes, room bars, bespoke ironmongery and spindles, 'kissing gates', stained glass windows and furniture, applying creative design to every detail of building and fitout.

Following a spell as director at The Building a Theme Company, he co-founded Tsiantar Architects with his wife Suzanne over 30 years ago, designing all manner of projects both commercial and residential. These ranged from hotels to schools, food courts to cruise ships, theme parks to restaurants - many overseas in the US, South Africa, Spain, Germany, Portugal and France.

Over the last 20 years, George focused on creating bespoke homes for clients that epitomise their individual personalities and influences as well as working alongside skilled, small developers to provide homes for the open market. With his small and long-serving dedicated team, Tsiantar Architects became one of the most sought-after

and respected residential architects in Cheshire, with the practice most recently winning the LABC Award for Best Individual House in 2020, Best Practice at the Northern Design Awards in 2019, Best Boutique Architect's Practice 2018, both finalist and regional winner at the Building Excellence Awards 2017, and many before that.

In recent years George returned to Manchester School of Architecture as a part time lecturer, enthralling students with his own life stories and personal experiences setting up and managing a small and successful' practice. While extremely charismatic, part of his charm was his understated and self-effacing, self-deprecating style, which endeared him to everyone. He did play up to his nickname of 'the housewife's choice'.

For 30 years George was a governor at St Vincent's primary school, with a passion for improving and extending the school buildings in a cost effective and spatially clever manner. His dream was to design and oversee the building of a new school, with enough renewables to more than match the demands of the school and to sell electricity back to the grid. The school is designed, just for fun at home, waiting for the commission.

His latest plan was in the development of a breathable double-glazed unit, no gas, no limit on size or altitude, conditions and guaranteed for life, one that has been in prototypes for three years and the patent is pending.

George also helped and advised on the St Vincent's Church finance committee for many years and was rightly proud that English Heritage's report to list the building remarked on how well it was maintained and sensitively decorated, giving the impression of a well-loved space in which a community can gather to worship God.

George's other passions included rugby, skiing, anything French, Greek or Italian, especially the architecture and the food, and most of all his family and friends. He cherished them as much as he was loved in return.

George is survived by his wife Suzanne who carries on leading the work of the team at Tsiantar Architects, alongside Drew Farren and Tom Bedford, Lee Pollitt, Sam Milne. He lives on in his sons Christian, Jacques and Thomas, who is also training as an architect. Stewart Grant

IN MEMORIAM

Michael John Huckstepp ELECTED 1951, EAST SUSSEX

James McNeil Squire ELECTED 1953, NEWCASTI F UPON TYNE

Alexander Kerr FI FCTFD 1954, FDINBURGH

Keith Leslie Westrope ELECTED 1957, NORFOLK

Harry Bernard Noel Grillo FI FCTFD 1974, SURREY

Kevin Joseph Tooher ELECTED 1979, CHESHIRE

Peter Raymond Vere Hammond ELECTED 1958, WORCESTERSHIRE

Joseph John Arthur Caunt ELECTED 1947. SALISBURY

Douglas William Burford ELECTED 1948, BRISTOL

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When the Social Democrats came to power in Austria in 1919 the country was still in the grip of poverty and unemployment following the end of World War I. The new administration of the capital, the so-called Rotes Wien (Red Vienna), launched a programme of social reforms and re-housing of the population, especially the hundreds of thousands of workers who lived in cramped dwellings with no running water.

Among the many new housing estates, the Karl Marx-Hof stood out for its size and fortress-like appearance. Designed by a pupil of Otto Wagner, Karl Ehn, and

built between 1927 and 1930, it was over 1km long and included vast green spaces, play areas and amenities such as laundries, stores, baths, kindergartens, a clinic, a pharmacy and a post office. This block of flats became a symbol of the city's transformation and then, during the brief civil war of 1934, was the final barricaded position of the insurgents against the new right-wing government. The building, still inhabited by women and children, was heavily shelled but repaired in the 1950s, and was restored in the late 1980s. • Valeria Carullo Acting editor **Eleanor Young**

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