
REPAIR
THE
Spring
EDITION

THE EDITION is a quarterly newsletter produced by Editional Studio, architects based in Manchester, UK.

THE SPRING EDITION's theme is 'repair'. Our deep thinking contributors bring you their thoughts:

The Architecture of Repair
Writer, Critic and Curator Phin Harper asks why we're so repair-averse when it comes to our built environment.

Confronting the Climate Crisis with Care
Til Wallis shares Canopy Housing's approach to community-led retrofit through an eco-feminist lense.

Enough Already?
We discuss energy use throughout history with Architectural historian and writer Barnabas Calder.

Taverna-core
Editional Studio co-director Jo Sharples reflects on women in the construction industry and the need to embrace a repair aesthetic.

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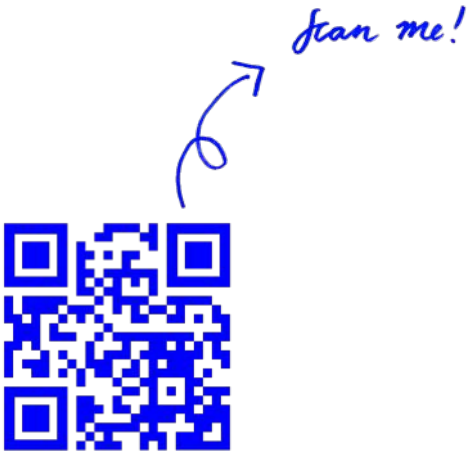

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Repair Model and Photography by Editional Studio.

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The Architecture of Repair

by Phin Harper

In 1982, American social scientists James Q. Wilson and George L. Kelling penned perhaps the most consequential essay on urbanism ever published. In it, the pair lay out a theory that small signs of social disorder, like an abandoned building with broken windows, create the conditions for major atrocities – even murder. They suggest that if police forces were to spend more time clamping down on petty annoyances; drunken beggars, "obstreperous" teenagers, social harmony would never deteriorate to the point that serious crimes occur.

Propelled to international attention by Malcolm Gladwell's bestselling 00's book The Tipping Point. Broken Windows Theory went viral becoming the cornerstone of New York policing, reaching policymakers and designers around the world. Its influence drove the rise of cops on both sides of the Atlantic using stop-and-search while fundamentally changing the geometry and material language of urban architecture.

Nowhere is the influence of Broken Windows Theory on design more evident than in the Camden Bench. A concrete monolith with no nooks to squirrel away crisp packets or flat surfaces to lie on, the Camden Bench was launched to some fanfare in 2012, winning a Design Council award: "Best practice for reducing crime". Crime? The angled surfaces certainly made life harder for rough sleepers, but since when was it a crime to lie down in public?

The giddy fanfare that greeted the Camden Bench, with its hateful overtones of anti-homeless sentiment, can only be truly understood in the context of the cult-like following that Broken Windows Theory had by then accrued. Acolytes now believed any sign of urban disorder, even a stray coffee cup or rough sleeper, could lead to murder. For the faithful, therefore, any amount of lumpen, ugly, street furniture, however hostile to civic life, was a good thing.

This cold logic still sits behind the proliferation of super-robust construction materials specified to require minimal maintenance. If a breakage, however minor, is one step on the road to homicide, good designers should, obviously, never pick materials that need periodic care. Wilson and Kelling's once-fringe theory had defined the new macho logic of public architecture: tough and unbreakable.

But suddenly the bubble burst. Stop-and-Search was struck down by a New York court in 2013. According to Broken Windows Theory, crime should have soared as the NYPD were barred from using one of their main tools of maintaining urban order. Instead, serious crime fell. By 2019 murder was down 50% compared to 2010.

The Camden Bench.
Credit: Factory Furniture

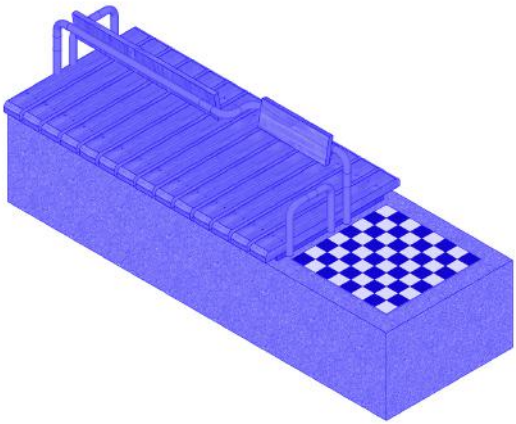
It turned out Broken Windows Theory was nonsense, wrongly urging police to pursue random teenagers and homeless people who posed no real threat. In an eight-year window, 2.3 million people were frisked in New York under Broken Windows Policing. Weapons were found in just 1.5% of those stops. Reflecting on his role in elevating Wilson and Kelling's crank theory to international notoriety, Gladwell apologised: "I was wrong" he said, "I'm sorry."

Yet while Gladwell recanted, architecture is still drinking the Kool-Aid, pursuing an almost pathological aversion to the possibility of breakage as if Broken Windows Theory was never debunked. In Britain we've even now handed power directly to police forces to dictate the design of not just our public spaces but our homes and schools too through their so-called Secured by Design programme.

Ultimately, designing to minimise repair is really designing to maximise neglect. It is this culture of venerating neglect that degrades the built landscape as park benches are made not from wood but from wood-effect plastic or, worse, removed entirely at the behest of police to deter "loitering". For me there is a clear link between the miserly instinct of those who rather take a bench away from an entire community than occasionally see it used by rowdy teens, and Broken Windows Theory, which insists on constant pristineness. It is a culture that believes some broken windows are worse than no windows at all.

But let's get real. The stakes are too high for the debunked pseudoscientific hunches of deceased American men to continue shaping urban practice. Last month a House of Lords inquiry for the first time called on the government to evaluate the extent to which the British police's influence over architecture may "hinder effective urban design, community building, and placemaking." They are right to do so. Tough unbreakable citymaking means high carbon materials and design decisions that discourse socialisation and civic life.

Broken windows do not cause murder. Architecture that requires occasional fixing is not a failure. Breakage and repair are not the seeds of violent crime or social decay but simply natural features of a healthy, active relationship between people and place. Instead of designing-out breakage, architects should design-in repair: creating places that are easily and ecologically fixable. A rich culture of architectural repair can be expressive, empowering and iterative. When mending is anticipated and designed for, every breakage becomes, not a crisis, but simply an opportunity for improvement – one fix after another.



Designs for existing concrete benches in Manchester, fixed by adding comfy timber seats and back rests, and board games to encourage play. *Credit: Editional Studio*

Confronting the climate crisis with care

Words & Photography by Til Wallis, Site Worker at Canopy Housing

Canopy is a Leeds-based housing charity that empowers people who are homeless to transform empty back-to-back houses into homes and become part of a community. Community-led retrofit, and the 'self-help' model that Canopy operates within, enables people to make decisions about their own homes, supports large numbers of people to learn key retrofit skills and harnesses local knowledge to prevent a one-size-fits-all approach to retrofit.

The Canopy Guide to Retrofit, written by Til and Editional Studio, is available to read on Canopy's website.

The guide is the outcome of two years of collaborative working between Canopy and Editional Studio, funded by the Energy Redress Scheme. During this time we designed and delivered 8 retrofits of back-to-back, terraced housing. Canopy's approach to retrofit - prioritising community building and bio-based materials - was tested and refined throughout the project and presented in an accessible way with the ambition of helping other housing charities and community organisations to emulate this inspiring approach to community-led retrofit.

Here Til explains how Canopy approaches site work and why the construction industry needs radical change.

It is frightening but necessary to confront the realities of the moment we are living in with our eyes wide open.

Our food and water make us sick, our communities have been decimated by austerity, prices of food, fuel and housing continue to rise, whilst wages stagnate, automation and service robots cast a long shadow over the future of job security. These crises are not separate from the climate emergency and the depletion of natural resources - they are threads of the same fabric. The cost of essential resources rises as availability shrinks, driven by unpredictable weather patterns, changing landscapes of pests and diseases as the climate changes. Conflicts are being waged over what remains - most notably water and oil.

Insulating a bay window with woodfibre insulation.

Global temperatures are predicted to reach 1.5 degrees over pre-industrial levels by 2030, a reality that will see the Caribbean, the horn of Africa and Southern Asia disappearing under water. Despite 29 UN COPs, and significant scientific attention, climate change stats continue to worsen. Mitigation and adaptation solutions have generally relied on ensuring the maintenance of business as usual, and without us having to reconsider what we consume and how we consume it.

There has never been a more important time to be alive. It is our responsibility to accept that this poly crisis cannot be solved within the confines of the systems that caused them in the first place, and understand that these systems rely on one another for survival. This means that solutions to the climate crisis must also tackle the systems of domination inherent in pro-growth Capitalism: patriarchy, imperialism, and ecological harm.

The construction industry is one of the biggest levers we have for mitigating climate change, but it is an industry wedded to a pro-growth mentality. UK construction relies heavily on imports of timber, steel and minerals, the supply chains of which involve deforestation, energy intensive extraction, harmful pollution, human displacement and ecosystem damage. In the UK alone, the industry is responsible for producing 25% of the total greenhouse gas emissions, consuming 400 million tonnes of raw material per year, and producing 120 million tonnes of waste annually - 13 million tonnes of which is unused material.

The news at the end of last year about the outcomes from ECO4 - the government-funded scheme aimed at improving the energy efficiency of low-income and vulnerable households - was incredibly depressing. 30,000 households who had their homes insulated under the programme were left with defects that needed urgent remediation within the first year, 98% of the homes that had external wall insulation fitted needed repairs, and 3,000 of the retrofitted homes posed an immediate threat to the health and safety of the occupants.

The retrofit and green building industries outside of the ECO programmes are not necessarily doing much better. The UK's first Passive House had an 800m2 floor area, a 23m2 triple glazed window and 300 solar panels on the roof. The couple who built it planned to live in the building alone, clearly using far more land, materials and resources than their fair share.

The industry is still trapped in a bigger is better mentality, and sustainability rankings add an extra competitive element that encourage increased material use, increase the value of buildings and open the floodgates to green gentrification.

The construction industry is the most male dominated industry in the UK. Women make up only around 15% of the UK construction workforce—and as little as 1–2% of on-site trades. Pay gaps remain significant, and the majority of women report experiencing discrimination, pointing to deeply embedded structural inequalities within the industry. The industry is culturally treated as one of the "hard" backbones of the economy. Employment within

Insulating an attic room with sheepswool insulation produced in Yorkshire.

it is seen as highly masculine, and a symbol of personal strength, progress, and power. Environmental concern however is often dismissed as feminine, soft and naïve.

If we are to minimise the harm associated with the industry, we need to move our society towards one that is underpinned by cultures that have historically been associated with femininity – care; environmental stewardship; slowness and consideration over rapid growth; and broadening participation.

Eco-feminist theory states that sustainable thinking relating to the construction industry needs to move beyond efficiency, certification, and technologies and must consider ecological and social justice. It argues that the pro-growth, imperialist, patriarchal system that

we live beneath fundamentally relies on human and ecological domination, therefore successful remediation strategies will be those that tackle multiple forms of oppression simultaneously.

Canopy can be read as an example of an organisation operating subtly yet decidedly within an eco-feminist praxis. As a social housing charity, it provides supported accommodation for individuals and families at risk of homelessness, while also intervening in the structural shortage of affordable housing by purchasing former Right to Buy properties and returning them to social housing stock.

Retrofit work is carried out by a mixed team of skilled workers and volunteers drawn from the local community, who use natural, low-toxicity materials that prioritise breathability, indoor air quality, and the embodied wellbeing of both residents and builders. This emphasis on health, material care, and embodied experience reflects an eco-feminist challenge to dominant construction logic, which often privilege efficiency, extraction, and technical performance over relational and bodily impacts.

Site workers & volunteers taking a break on site.

Canopy also functions as a social ecology as much as a building project. It brings together people from different class, race, and life backgrounds in shared labour and decision-making, creating mutual spaces for people to meet that resist social segregation. This can be understood through an eco-feminist lens as an attempt to rebuild fractured relations—between people, and between people and place—through practices of care, cooperation, and shared vulnerability.

The organisation's emphasis on dialogue and lived experience situates knowledge as relational rather than purely technical, aligning with eco-feminist critiques of hierarchical expertise. Decision-making is guided by need, context, and ecological responsiveness rather than profit maximisation. The pace of work is intentionally slow and experimental, foregrounding care, repair, and collective learning over speed.

Canopy's ethics do not come at the expense of performance. A recently retrofitted property achieved air permeability of 5 air changes per hour - meeting the target for a new build house - particularly impressive for a retrofit using natural materials.

Site workers & volunteers in front of a typical Canopy house.

Finally, Canopy's model extends eco-feminist principles into labour and access: it actively opens construction spaces to women and marginalised genders, provides free training in natural building techniques, and creates pathways into work for people excluded from conventional labour markets. In doing so, it challenges the gender and class structures of the construction industry itself, while reconfiguring building as a practice of care, inclusion, and ecological responsibility rather than extraction and control.

Canopy Housing has recently published a series of 'how-to' guides that dive deeply into the theories, practices and behaviours that have shaped how Canopy functions.

The first guide relates to site work delivery, transformative education and community cohesion. The second relates to the practical delivery of site, retrofit principles and building detailing. The third is for tenants living in retrofitted properties.

They were written in a bid to support other people to set up similar organisations and new systems and structures that genuinely might just save us all.

Enough Already?

by Jack Richards

We sat down with architectural historian Barnabas Calder to discuss how his research into energy use throughout history can inform the way in which we conceive, design and deliver projects in the 21st Century.

Barnabas' books *'Architecture: from Prehistory to the Climate Emergency'* and, with Florian Urban and John Burns, *'Form Follows Fuel : 14 Buildings from Antiquity to the Oil Age'* calculate the human and fossil fuel energy used to build significant buildings from the architectural cannon.

We asked him to put himself in the shoes of the decision makers and the labourers of the past to explore how the construction industry can make better decisions in the present.

ES: If you had enormous wealth and power - the equivalent of the Pharaohs of Egypt to build a monumental memorial in your name, what would you do to push the environmental agenda of the built environment?

***BC**: The first thing to say is that we do literally have the power of the Pharaohs of Egypt… Every four Americans in their lifetime will use the amount of energy it costs to build the Pyramid of Khufu.*

In terms of relative power, that's tech billionaires, isn't it? But even their agency is limited, because they subscribe to the cult of excellence – they are trapped in furious competition.

Excellence is a really stupid idea based on simple things like a

hundred meter sprint where one person is faster than the others. In almost everything else, particularly things like architecture and ecology, where there are incredibly complicated multi-factor systems at work, the idea of excellence is destructive because it tends to mean pushing some currently valued attribute ludicrously too hard at the expense of everything else that matters.

The impact of excellence on the very powerful is that they too have their agency limited by this competition with other very powerful people. So, for example, Google, which was trying to be comparatively ethical, has removed its pledge to reach net-zero by 2030, because they're now having to use increasing amounts of fossil fuels to keep up with this race for AI. Asking tech companies to restrain themselves is like asking blue green algae to stick to one side of the lake. Individuals and organizations have a responsibility to restrain themselves, but they will struggle (or fail) to do it without legislation and regulation to enforce radical change."

ES: When we shared our questions, you were surprised that we'd focused on monuments… you suggested that monuments tend to represent society going wrong?

***BC**: Do we actually want to leave Ozimandius's feet sticking out of the desert we're creating? The only monument that our generation could conceivably leave for the future, that anyone would be grateful for, is ecological continuity. Given the level of harm that we've already done and what's currently unfolding, why would we actually want to be remembered? It wouldn't be with any fondness or admiration. The monuments we are already producing for industrial and commercial purposes are going to leave ruins for millennia. Those will be plenty for future generations to use to focus their rage and resentment towards us.*

It's a bit off the cuff but I think generally speaking and from an ecological perspective, monuments feel as though they are almost always avoidable. You don't have to build monuments, and building anything you don't have to build is harmful in the current circumstances. But monuments have always come at a deliberately high cost. The time agrarian people spent building was time they could otherwise have spent doing something more pleasant; some craft, relaxing or thinking. I have floated the idea in the past that one of the reasons for some of the biggest monuments may have been to keep seasonal workers busy when they would otherwise be able to think critically about hierarchy.

You're not very critical at the end of a day of pyramid building but you would be after a season of sitting around with your friends having a drink.

ES: Is social media today's tech oligarchs equivalent time-consuming distraction?

***BC**: That's probably true. The other thing is just the whole acceleration of everything means that we make ourselves unpleasantly busy and then suffer the consequences on our health and our ability to think.*

The structures of debt are a huge part of the problem we have worldwide; that people borrow in order to live a life that is more

"excellent" and to compete with their neighbours. They have to work unpleasantly hard and make compromises of all sorts in their family life, personal life, behavior towards other people and the environment because they've got to pay their debt.

Debt is an incredibly powerful instrument. David Graeber points out that in his book Debt: The First 5000 Years that it's the strategy that gangsters use; they put you in their debt and then they enforce the debt. Debt seems to give legitimacy, people are more likely to resist force on its own. Debt induces this kind of sense of guilt and responsibility that makes people do appalling things.

ES: As built environment professionals - designers, academics, planners - how should we focus our collective energy on turning the ship around from high-tech solutions towards passive design and minimally processed materials?

BC: *I'm always conscious when I'm talking about professionals in the building sector that I get a university salary for doing my job. I'm aware that I'm in a massively privileged position to be advising people whose work is directly proportionate to their ability to survive.*

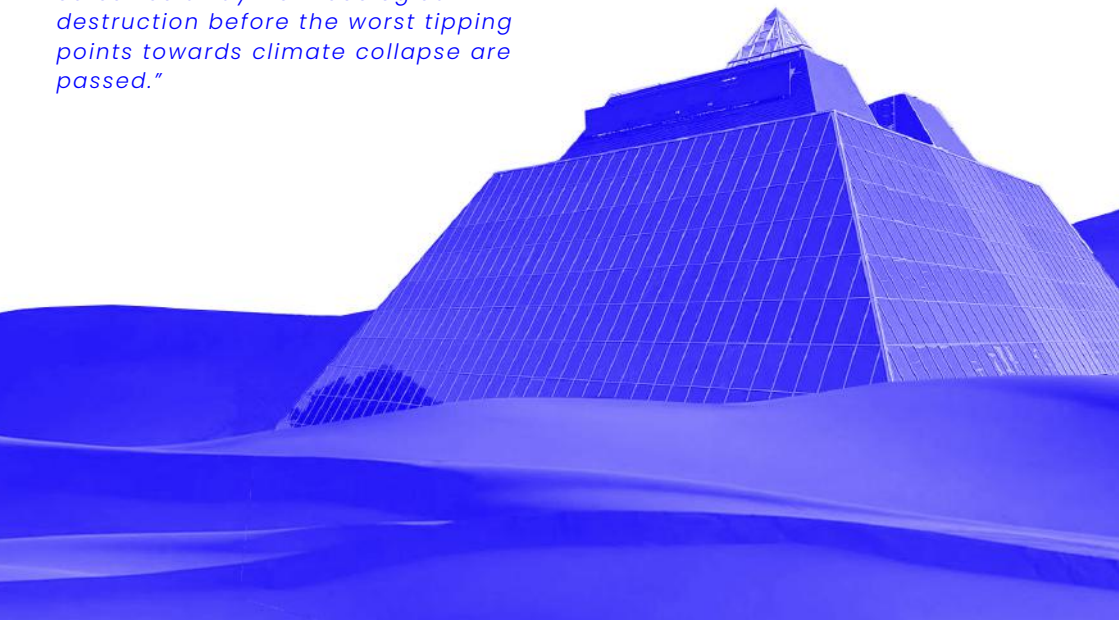
So with that caveat, the most realistic proposal that I've offered to people, who ask about what they can do, is to never greenwash. There's so much apparatus out there to help you greenwash and if you reject that, you're doing good already. If you explicitly talk about the harms associated with the project, offer a lower harm alternative and explain the implications either in terms of increased cost or reduced immunity or both then, at that point, if the client forces the project to go in a bad direction, that's not on you. You can carry on with that project with moral clarity that you did the right thing, that keeping yourself in the industry is the right thing to do, because you're raising these issues, honestly and clearly, with the people who could make the better decision.

ES: With constant talk of AI taking jobs, it seems that joiners, plasterers and plumbers are in an enviable position of being insulated from redundancy by AI bots. Your research explores how ancient civilisations used latent cheap labour to create monumental and enduring feats of architectural history. How might your research inform what we do with this new latency of human energy and labour in helping shift away from fossil fuel dependency?

BC: *People visualise 'AI taking all the jobs' as being harmful to individual progress but essentially peaceful. But actually, it could mean the collapse of the world economy; people being paid to do jobs is what gives rise to economic activity. The system is totally dependent on that. So AI may cause massive economic disruption. That process of disruption could, if we're lucky and wise, give us an opportunity for a radical rethink of the relationship between our values, our ecology and our economy, and might allow us to reorientate ourselves away from ecological destruction before the worst tipping points towards climate collapse are passed."*

Whatever happens, we are heading into a time of massive uncontrolled change economically and environmentally. The things that are most vulnerable to that are long supply chains and complexity. By happy chance, those are also the things that tend to produce the most environmental harm.

The point comes where the damage to the environment, and possibly the damage to our economic systems from AI, will force us into finding some other way. I hope that that way will involve an orderly, most-of-us-surviving, kind of process. Either way, the things that we need in order to maximize our chances of living a worthwhile life in conditions of extreme change are very local skills, the ability to repair what we have, very short supply chains, local materials, and the ability to adapt our expectations to live well with what we have. To live with less stuff, but more leisure, less debt, and strong local communities, because community is the great saviour when things go wrong."



Jo amidst the careful repair and insulation work in her living room.

Taverna-core

by Jo Sharples

The first time I met Til on site at a Canopy house, I could have cried with joy. In 15 years as an architect, I had never encountered a woman on a construction site. I always try to ignore the inappropriate jibes and immediate questioning that comes with the territory of being a woman in the construction industry but clearly it bothers me - otherwise why was my relief so immediate and so strong? At Canopy, the site workers and volunteers were having a wonderful time; learning together, supporting one another and having a laugh. The on-site culture that Canopy works hard to nurture has been so refreshing for us but is sadly completely atypical. The how-to guides we created together are a way of sharing their low-impact approach to retrofit, but more importantly, the spirit of their work. We'd highly recommend everyone working in the construction industry to volunteer for the day on a Canopy retrofit, or to seek them out at UKREiiFF.

In part, this is why we were so overjoyed by the election of our new MP - 'Hannah the Plumber'. She is someone who firmly bucks the trend - representing not only labourers, but female labourers in the construction industry - and is well versed in the complexities of repair and able to convey the depth of remediation works required to our woefully inadequate housing for the long term reduction of energy use. It's early days, but she seems to be someone

who may have the life learned guts to not only reject macho nonsense, but to provide a unifying, hopeful alternative that places our environment back as a priority, the healing of which is at the heart of recovering from these poly-crises.

We didn't think when approaching the brilliant thinkers featured in the Spring Edition on the subject of 'Repair' that it would spurn conversations around eco-feminism and the tarnishing of the patriarchy - more fool us!

From different perspectives, the antidote from all of our contributors unexpectedly point in a similar direction; from Barnabas' call for slower, more considered remedial work, taking care of what we have and a fundamental shift from competitive, comparative mode to being satisfied with less, to Phin's rejection of the punitive, indestructible and unnatural design that has been insidiously feeding into our cities under the false pursuit of 'safety' at the expense of life itself, and Til's cri de coeur for a shift towards mutually respectful ways of caring for buildings, occupants and workers.

It is a difficult prospect for architects on the one hand, wanting to achieve shiny, magazine worthy finishes and on the other, being proud of something that looks repaired. It's often difficult to encourage clients and builders to repair and re-use due to the additional time and expense involved, unless you're able to dedicate the time yourself. Which takes me to my own house, where we have spent endless hours painstakingly fixing, carefully patching and restoring with natural, breathable materials and re-using wherever possible - there are many wobbly edges and idiosyncrasies that would not be there had we the financial means or desire to start again.

We've successfully taken this approach with engaged clients keen to source materials themselves, to re-use elements where appropriate, and willing to take a few risks around warranties.

These projects have a charm and magic that cannot be replicated through newness. Repair and re-use is difficult at a larger scale but change is afoot - we recently visited Tipping Point East, the UK's first Circular Construction Hub. It got us thinking about how we get one up and running in the North West - if anyone is interested get in touch! For now, in our house, we've coined the new aesthetic 'Taverna-core', it's about to go big, get on board.

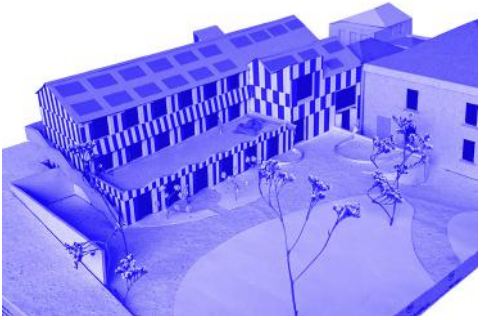
Texture and character in a house that embraces repair.

REAL LIFE EVENTS

ACAN SUMMER PICNIC
11th June @ Chorlton Green
We're hosting the Manchester meet-up of the Architects Climate Action Network. Look out for more details on ACANs socials in the next couple of weeks.

FESTIVAL OF MAKING
4th & 5th July in Audley, Blackburn
Another project with Super Slow Way where we'll be making an in-situ model with residents & visitors to the festival. Somewhere between land art and model village, come and get your hands dirty!

PENDLE FESTIVAL OF CULTURE
27th June in Nelson
Working with Super Slow Way, we're co-designing a masterplan for sites along the Leeds-Liverpool Canal. Come along to the Festival of Culture to tell us what you would like to see in Nelson & Brierfield.



SUMMER EXHIBITION
Tuesday 16th June–Sunday 23rd August @ the Royal Academy
Our model for the extension to the Whitaker Museum has been shortlisted for the Summer Exhibition... hopefully not jinxing it by announcing it here!

If you've enjoyed reading, please pass your copy on to someone else who will find it interesting.

Pop in to the studio if you're passing!
Jo & Jack.