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Issue 10 – Housing

EDITORIAL

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Ryue Nishizawa and Kazuyo Sejima's influence on a generation of architects was almost immediate.

ASSEMBLE PAPERS ISSN 2203 - 5303 ISSUE #10, 2018. Assemble is a Melbourne-based residential property development company focused on delivering more well-designed and accessible housing that bridges the gap between renting and home ownership in Melbourne and beyond. 86 High Street, Windsor, 3181 03 9081 2400 hello@assemblepapers.com.au ©ASSEMBLE 2018. Cover: MPavilion 2018. Photo supplied by Carme Pinós of Estudio Carme Pinós. Printing Newsprinters Pty Ltd, Shepparton, VIC. Cover stock: 160gsm Ecostar, text stock: 55gsm Norstar 80. Ecostar is 100% recycled post-consumer waste and is a carbon neutral paper. Both stocks are elemental chlorine free and produced from FSC (Forest Stewardship Council) pulp from sustainably managed forests, reaching the ISO 14001 environmental standard.

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Assemble Papers is located on the traditional lands of the Wurundjeri people of the Kulin nation. We acknowledge that sovereignty was never ceded and pay our respects to elders past and present, and extend this respect to other Indigenous Australians.

EDITORIAL TEAM

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"...we have to take a multigenerational, long view of this earth. We are in a society that looks at the 140-character tweet, the 10-second soundbite, and clicks. The long view is that we have seven generations before us, and seven generations after us – and that is your scope of responsibility." – Jodi Gillette

Who Gets to Decide How We All Reside?

How can our generation, our children and their children's generations afford to remain in cities, even as the world is becoming mostly urban? And if we manage to stay, how will we live as we grow old together? How can living in cities in the digital age be a story of resilience and equity, not precarity, exclusion and atomisation? The housing we build today will outlast us – will we be proud of what we leave behind?

As these pages are going to print, the Gatwick Hotel in Melbourne's St Kilda is going on sale. Formerly run (privately) as makeshift crisis housing for between 100-300 people, the 68-room hotel has been turned into five luxury apartments, now listed for seven-figure prices The renovation was the subject of a reality TV show *The Block*, which purchased the building in 2017. If there is a story emblematic of how wrong we got our priorities around housing, this is it.

This issue of Assemble Papers is presented in partnership with our friends at MPavilion, and informed by the dialogue grown around the Naomi Milgrom Foundation's Living Cities Forum. Housing is in crisis around the world - but the solutions, too, are part of this global conversation. Good housing, like healthcare or education, is a necessity. We all need to sleep somewhere every night - and this alone makes it an exceptional moral hazard to leave the provision of adequate housing entirely to the market. Meanwhile, Melbourne has been termed the fifth most unaffordable housing market in the world: the median house price hovers somewhere between \$800-900,000, or 9.9 times the median income. At the same time, 24,000 Victorians are homeless, and almost 400 people sleep rough every night, almost half of whom are on the public housing waiting list, which stretches for years. How did we get ourselves here?

"Form follows finance," says Jack Self (p-16): we have created a system that rewards short-term profit over social good. Saskia Sassen, renowned researcher of globalisation, agrees, pointing out that modest families have been thrown under the bus as an overactive

high-finance sector turns buildings into financial assets (p-24). In our rush to profitably invest, we forget the materiality of buildings, the bricks and mortar that keeps us dry, safe, and near our friends and families – a paradox illustrated by the 'forgotten' boom houses in Spain (p-24), and the sublime landscapes on Melbourne's edge, captured by Tom Ross (p-50). Alexis Kalagas's investigation into 'proptech' in London (p-40), reminds us that we all need affordable housing close to jobs – rich and poor alike.

Social housing used to be an object of civic pride, says Davide Tommaso Ferrando (p-32), , but it was also an opportunity for research into designing housing and neighbourhoods of the highest quality. In many places, that commitment is no longer there, as evidenced by the turning fates of Robin Hood Gardens in London (p-66) and Gino Valle's Giudecca complex in Venice (p-32). But in some places, it still is: Amsterdam's commitment to rent security and social diversity (p-80) has meant that almost 50 percent of rental housing is owned by non-profit housing associations, while Finland has effectively solved homelessness with Housing First (p-74), a commonsense approach arising out of a strong value placed on solidarity and social cohesion.

If this issue of Assemble Papers tells the story of how we got here, it also tells the story of how we can do better. Where regulations are flexible and innovative forms of finance exist, small but significant practices such as Ryue Nishizawa (p-88) and the UK-based Assemble (p-58) are able to maintain a rigorous investigation into participatory processes and truly groundbreaking architectural forms for multi-family living and building. From Germany and Scandinavia to Nightingale and our own Assemble Model, a multitude of innovative housing development models are being tested and successfully scaled up (p-48). What matters is that we remember our duties to one another: in the words of Carme Pinós (p-8), the architect of the 2018 MPavilion, "architecture starts with social responsibility".





A Social Constellation

PREVIOUS: Carme Pinós in Venice. Photo by Tjaša Kalkan.

тор & воттом: Carme Pinós's Caixa Forum (2014) in Zaragoza, Spain. Photos by Ricardo Santoja.





"Architecture starts with social responsibility," **Carme Pinós** tells me. It starts with a demand. The building is the answer to that demand, and the responsibility of the architect is to understand which kind of demand is inherent to the commission. When approaching a new work, she tries to imagine what kind of people will live there, and how they will live there. "I start the design thinking about the context, the program, the experience of the space. But I never start with the final shape; it's additional. I start with trying to understand our responsibility, because architecture is a service – a social service."

Speaking with Pinós about architecture means to repeatedly encounter two concepts: responsibility, as per above – a sense of the profession of architecture as someone whose work is about enriching the environment into which they are brought; but also resistance, rebellion, when the scope of the project is too narrow, or modest, or poorly conceived. When this Catalan architect describes her built work, each is a dynamic narrative about a country, a city, a time, a constellation of social forces, into which Pinós inserts physics and engineering, activities, and – only in the end – a beautiful building.

An easy starting point into Pinós's way of working is Plaça de la Gardunya in her hometown of Barcelona, a multi-part project that has included the renovation of the back of La Boqueria (Sant Josep) Market, as well as the construction of Massana School of Art and Painting and a mixed housing project. One of Barcelona's great historical open markets, the back of La Boqueria was left empty by an accident of planning and history, and used as a parking lot. "For years, this place was empty, dirty, a terrible space in the heart of the city," Pinós says. In 2006, the municipal government held a closed competition to turn the parking lot into a square, as well as build an art school and mixed private/public housing on each side of the space. Pinós disagreed with many of the premises. "It's an area with many different social classes: immigrants, people who lived here all their life, foreigners, young people, very mixed. Additionally, the public spaces in the medieval old city of Barcelona - they weren't regularly shaped, they were all, in a way, the negatives of the buildings." Only one regularly shaped square exists in the area, she noted, Plaça Real, a rectangular square in which all facades are uniform: "a square made for the bourgeoisie". The competition presupposed this geometry. "I said, no way, I don't want this place perfect. It's an area with different social classes... I wanted to stress that."

Instead, Pinós closely observed the way people used the space – the narrow street to the side of the market that was the dominant entry into the square, the way the passageway opened into an enclosed, human-scaled space – and decided to design the housing block so as not to interfere with that pedestrian flow. The small, irregularly-shaped open spaces she created connect with one another "like a string of pearls". She objected again when she was asked to create a facade for the back of the market: "I said, I don't want to. If I make a facade, I will transform into a building what was never a building before. This was a provisional roof that has become permanent, but the market does not have the qualities of a building." But the market had issues with the sun spoiling fruit and vegetables, and rainwater entering inside. OK, she said, let's resolve this – but let's have a dialogue with the existing structure. Pinós duplicated and repeated smaller roof structures that shielded the market without changing its built character, or impeding pedestrian flows. "This movement existed before me. I wanted to respect it, because this movement belongs to the city."

"I didn't want to make 'my square'," she says. "I wanted to sew together a city that had been broken in the middle, in dialogue with everything that was there before – the houses nearby, and La Boqueria, which has a strong memory for us, the people of Barcelona."

The final piece of the puzzle came with the Massana art school, which had moved from its original location into the square. The teachers were worried about moving into the busy, touristy neighbourhood of Raval, and so Pinós designed a building that presents a calm, neutral face to the old city, seeming smaller than it is through a clever play of scales; and a secluded atrium, inspired by the school's previous location in one of Barcelona's perimeter blocks.

Carme Pinós garnered high regard in the 1980s, for her work with late husband Enric Miralles. The two attracted attention with their bold, unusual buildings, representative of the dynamic architecture scene that emerged in Spain following the death of Franco. In a burst of activity after decades of dictatorship, enabled by joining the EU, Spanish architecture rapidly developed a distinctive vibrancy, with an unusual depth of understanding of regional culture and traditions, but open to the future, with a willingness to boldly experiment with material, form and texture. In 1991, Pinós formed her own studio, and has gradually built a highly acclaimed body of work - particularly of public institutions and spaces. Her works have included the crematorium at Igualada Cemetery in Barcelona, Catalan government headquarters in Tortosa, and public housing in Saint-Dizier, a French town for which she is currently preparing the masterplan. In 2016, she was awarded the Berkeley-Rupp Architecture Professorship and Prize for her "outstanding design, vibrant intellectualism, dedication to public architecture and landscape in the public realm, and support of women-led economic development".



Pinós's is an architecture that reflects community and inclusiveness, designing with integrity and generosity – these values can get sidelined in a global market that favours the grand gesture, with architectural projects circulated via the single hero image that untethers the building from its local context, and from the experience of the daily user.

The times might be changing, however, at a time marked by adaptation to extreme climate, and in a year that brought women into the spotlight. Pinós's work was one of those highlighted by curators Yvonne Farrell and Shelley McNamara at this year's Venice Biennale: the two spoke of a generosity of spirit and a sense of humanity at the core of architecture's agenda, and its ability to address the "unspoken wishes of strangers" with free spatial gifts of quality, scale, air and light. The project they chose to exhibit was Cube I in Guadalajara, Mexico, where Pinós built an office tower that emphasises thermal comfort and provides a generous open space in the central atrium.

Though the area is now built up, it was a greenfield space when Pinós was commissioned. "I couldn't enter a dialogue with the context, because the context didn't exist," she says, "so I decided to have a dialogue with the weather." With height, she says, a building becomes defined by the skin: she wanted to find a way to restore the open courtyard to the tower. Pinós notes that public space is not prized in Latin America; everyone drives door to door, only the poor use the street. Pinós did not want to design a closed building, that only the wealthy could enter. "I said, no, I want to make it a city here."

The plot was small, but with no height restrictions. Restoring a central courtyard to the block necessitated splitting the office space into three smaller, taller blocks. To balance the structure, some of the lower-level floors were removed, which brought sunlight and sky views to lower-level offices, dispersing the harsh Mexican light. "A complete game of structure," is how Pinós describes her way of working. It is a tactile process, sketching with pen and paper until she has resolved the structure and the allocation of spaces, which gives her the rules for what will eventually become the final shape. Models are then used to investigate different configurations, until the final form is found. Then, and only then, does she use the computer – "at the resolution at which everything is clear".

Working from clear rules lets the building express its structure. "It's like natural objects: a tree is only an expression of its structure. When the building expresses its structure, it's easier to find, it has a stronger presence, honest. You realise the connection with land, physical forces – it feels more certain. And then all other decisions come from wanting to give a gift to people who will use the building."





THIS SPREAD: Crematorium (2016) in Igualada, Spain. The crematorium is on top of a hill in a cemetery. The design was shaped by a wish to gently understand the situation implied by the program – and to relate to nature by creating a dialogue between the visitors and the distant landscape. Photos by Jesús Arenas. (This is where the team at Assemble Papers would like to rest – ed.)

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RIGHT: Cube Tower I in Guadalajara, Mexico generously creates a public space in the open-air atrium, opening the building up to the passers-by. Photo by Lourdes Gorbet.





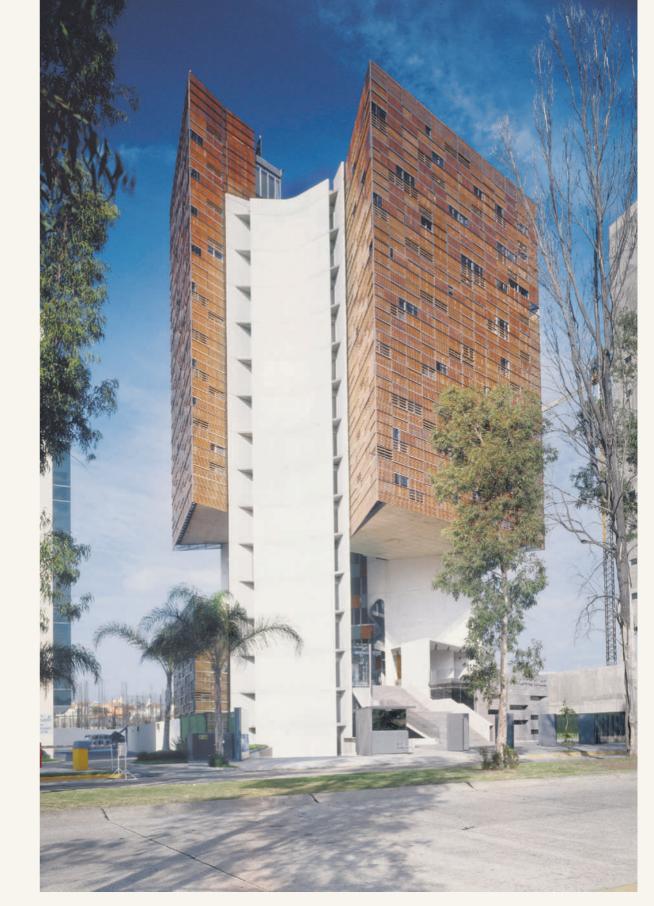
TOP: Massana School of Art and Design in Barcelona, Spain. The distorted scale of the building's timber skin makes the school appear smaller than it is, and less dominant in the historical neighbourhood. Photo by Duccio Malagamba.

воттом: Catalan Government Headquarters in Tortosa, Spain. Photo by Jesús Arenas. A similarly commonsense approach underpins her design for MPavilion in Melbourne, a city that she feels close to – "in an urban sense. It's a much more European city than, for example, Sydney. The dimensions of buildings: it isn't a city consummated by big spaces. The weather too: it's not too hot. I feel that my Mediterranean sensibility can translate here – my relation to shadow, to open air, to nature."

Pinós's MPavilion is a structure of two surfaces of timber latticework – one of her favourite shading materials – which bend, origami-like, and intersect to form a roof. It is designed for people to sit in a park, to enjoy the game of light and shadow, of interior and exterior. Pinós understood the concerns about Melbourne's variable weather: a layer of transparent polycarbonate between the latticework will keep the rain out. "I said, OK, I want to also play with water – rain will be channelled into the garden. When it rains, you will see it and hear it." She didn't want to create a closed room in the park. "This pavilion is like a porch, like a veranda. I thought that the weather permits this."

Architecture is a trigger of relationships, Pinós likes to say; a sensual, not a visual experience. In a conversation with SCI-Arc Channel, she memorably likened an architect to a film director, more than a sculptor: "We must have a script before we start... and we must work with memory. Architecture is a continuous experience. When you pass from one space to another, they are not perceived separately."

"I like to offer the building to the city," she tells me as we're walking away from the model of her Cube Tower. The conscience of the architect, she says, is for her always a social conscience – to make architecture is to make the city." ●



PIERS MORGAN IN CONVERSATION WITH JACK SELF

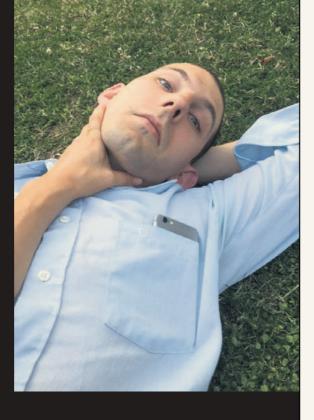
ASSEMBLAGE

The cultural fabric of cities, covering people and projects across art, architecture, design and cross-pollinated creativity



Jack Self: Scepticism & Imagination

A HOME FOR YEARS



ABOVE: Jack Self. Photo courtesy of Jack Self.

Jack Self is an architect with a practice that extends much further than traditional forms of architecture. He's also a publisher, editor and director of the REAL foundation. In 2016, he co-curated the British Pavilion at the Venice Architecture Biennale.

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PREVIOUS AND BELOW: Years Room and Months Room, in *Home Economics* British Pavilion, Venice Architecture Biennale 2016 curated by Jack Self. Photo by Cristiano Corte.



Self's projects interrogate how people's lives are shaped by buildings: he radically engages with neoliberal capitalism by manipulating its structures with the aim of providing better living conditions. He has made it his mandate to challenge some of the underlying principles which govern how people live in contemporary society, proposing alternate models by tinkering in the engine room of housing and architecture – the financial models which support and shape how buildings get made.

PIERS MORGAN

Could you describe to me what the REAL foundation is, and how your practice relates to traditional architecture?

JACK SELF

The REAL foundation is a cultural institute and an architectural firm: it would be your traditional architectural firm that likes to do cultural projects except that we have adopted a voluntary structure of a foundation. We are a limited company, but the foundation model means that we have a board of advisers, and a binding mission statement. In our case that means that we can only pursue certain types of projects, those that advance our core aims: the promotion of inclusivity, of democracy - this has become more urgent recently than we had thought when we founded the REAL foundation - and the promotion of equalities of many kinds, including gender, race, class, wealth and space. In that sense, we are forcing ourselves not to suffer from mission creep. We started working as REAL from the end of 2015, just before we applied for the British Pavilion at the Venice Architecture Biennale, our first project. Which was, I guess, an unusual project for a practice to have as its debut.

PM Yes, is that unprecedented for the Venice Biennale? At least for the British [Pavilion]?

Is I think it was. For the British Pavilion, our project was called *Home Economics*. It was about new models of domestic life, and it basically suggested that if you want to campaign or push for a more just and equal society, then a very good place to look at is how the home is designed in terms of its power relationships and its economic relationships. How it's financed, how we look at housing crises, how we look at furnishing or interior decorating, how all these elements are united in a kind of, let's say, social project.

The other project that we launched simultaneously was our cultural magazine, *Real Review*. We have published about half a dozen books, including, most recently, a book about Mies van der Rohe's only UK project [Mansion House Square], called *Mies in London*. We run *Real Review* in partnership with a design studio [OK-RM], and it has expanded to the point where it's almost a separate entity within the practice. However, in the last four or five months, we are pivoting more to doing design and built work.

PM I also wanted to ask you about the adjunct to architectural projects that the REAL foundation proposes, the financial products.

ASSEMBLAGE

The shortest answer to that is that my main architectural interest is in rejecting all forms of functionalism. Buildings can serve a function and serve it well, but functionalism, as opposed to function, is all about predetermination. In order for architecture to remain useful for very long periods of time, we need to design spaces which can adapt to different forms of life. I'm very interested in finding new ways to explore freedom in space which can create

greater forms of freedom in society. We're always interested in models rather than singular cases. We hope that everything we do can either become a typology or example that can be easily imitated by other people.

PM What's your philosophy on the relationship between

efficiency and freedom in architecture, and in your work?

JS

I'm not interested in creating singular artistic works, I'm interested in creating systems and multiple models which can be replicated and built on collectively, and through that copying become more robust.

PM There was a project you posted on Instagram [in August] -I'm not sure whether it was the beginning of something larger, or just a post - based on the 'plastic number'?

It was designed as an artist's studio for a large, London-based cultural institute. They asked for a proposal for an exhibition, but I wanted to do a building.

I had the Australian condition in mind when I was designing it; Australians generally have a unique and sensitive response to what is actually needed for life, and they're a lot less conservative than Europeans when it comes to alternative forms of life.

That project is called Lux Aeterna: a building with four rooms, no function to them at all, each one pointing in a slightly different direction of the compass, with different qualities of light throughout the day, and those qualities of light will influence your experience of the space. Beyond that, I wanted to completely atomise any function in the building. The bed is a hand-cart which can be rolled around on wheels, the kitchen is basically just a Primus stove, and the bath, which is my favourite design, is filled up with a garden hose, with electric elements inside which allows you to heat the water in place. It sits on one of those pallet trolleys which are used for moving boxes around warehouses. You could have a bath in any of the rooms and you can sleep in any of the rooms. It's up to every individual to inhabit the space as they think best.

Architects have often talked a lot about proportion and systems of proportion, but they very rarely explain how they're actually used. We all know about Palladio and the golden mean, or Corbusier's Modulor, but no-one designs using these modules of proportion; we're more likely to use an arbitrary industrial standard, like the size of a panel of plywood. I'm very interested in this idea of abstract or nonhuman systems of proportions. The 'plastic number' was invented by a monk called Dom Hans van der Laan, who left a very good set of lecture notes that make it possible to understand how it can be used and how it can apply. I wanted to explore his idea in this building.

Js We believe that form follows finance, and that part of having more control over the built environment, and part of building better architecture, is having more control over the way that buildings are financed.

With a traditional developer or housebuilder, a project is established, and the financial models are already in place way before they ask an architect to be involved. There's not a huge amount they can do to that brief, to fundamentally alter either what the project is about or how it must be delivered, because of those financial conditions. If a developer is doing what in the UK is called PRS, private rental sector, which means you build it and you rent it out immediately, a building has to be quite durable because your financial model means that you have to have it occupied for a long period of time, as opposed to developers who are simply building to flip and sell buildings immediately. They're less concerned with quality and more with how rapidly they can build something, because obviously that is related to how much interest they pay on the loan.

We say that finance and business models are design parameters exactly the same as innovation in energy conservation, or water reuse, or historical context, or cultural sensitivities, all of these different factors. So, increasingly, REAL self-initiates projects. We say that we don't really have clients, we have partners. We will work with developers, with cultural institutions, with a variety of actors and agents, but we tend not to work directly or underneath them in a traditional client model because you tend to end up giving away so much agency over how the project evolves.



PM Is it a model where essentially you dream up a project and then go looking for a partner? Or is it more in concert with someone who potentially wants to invest some money in a building?

For a number of years we've been looking at very JS long-term finance models. In Melbourne, you have the Nightingale project, which I know has become a massive success there - we're deeply sympathetic to those types of objectives - but in essence Nightingale is an architectural

innovation using existing financial models. It would be very interesting to imagine what would happen if that was integrated with, for example, shareholder or bond mechanisms, or an equity fund, for example. There are as many different financial products and models open as there are architectural solutions. For five or six years now, we've been researching housing finance which is ultra-sustainable, ultra-long-term and durable, but which provides low-cost rent with the possibility to build up ownership in the building, and a reasonable rate of return to institutional investors. We're getting quite close to establishing a model which we think will be viable. We're working on a master plan for a housing project for an educational institution in the UK, hoping to produce a prototype for a house that's available to buy for £35,000 (AUD\$63,000), which is the average deposit on a mortgage in the UK. If that becomes successful, then REAL will hopefully start a new company solely responsible for delivering extremely low-cost houses.

> In designing extremely lowcost, architecturally designed kit homes, you get to explore a lot of really interesting questions about the history of functionalism, the structure of contemporary life and the family, about the future of sustainability, about what is really necessary for contemporary life.

You get to design buildings on spec without having a client in mind, and that allows you to design houses which are an ideal vision of what you think society might want to live in, rather than having to each time respond directly to the whims or specifics of any individual client. We're really trying to design for society as a whole.

One of a couple of Australasian projects we're involved in at the moment is a co-housing project. It's increasingly very expensive to live in cities like Auckland, Sydney and Melbourne, Toronto, London, which have very similar property markets, impacted by capital flight and shortfall in supply, which means that you get insane overpricing in the markets. But if you move out of the city to the countryside, the only available model is the single-family home. For people used to fixed-gear bikes, flat whites and working in a design studio with likeminded people, moving to a single-family home in a rural environment can be quite isolating. We say there are ways in which we can group together, pool our resources and build - not just groups of individual houses, but a kind of commune or complex with common facilities, such as workshops and studios and other types of amenities. If we're prepared to pool our resources, we will always have more and better quality than if we insist on building everything on our own, which only leads to redundancy and duplication.

LEFT: The Ingot is a proposal for a 350m (1150ft) gold-plated tower sited next to London Bridge, and designed to house low-paid, precarious workers. Image courtesy of Jack Self.

TOP AND BOTTOM: LUX Aeterna is a theoretical design based on the 'plastic number' - an artist studio with four rooms, none of which have a specific function. Self was inspired by the Dutch monk Dom Hans van der Laan and his use of the 'plastic number'. Images courtesy of Jack Self.



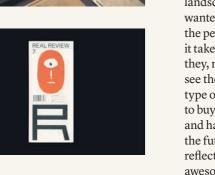
PM The same approach to changing qualities of light, of course, could be taken with thermal comfort – thinking, instead, of 'thermal delight'. Spaces shouldn't necessarily be at 20 degrees the entire cycle of the day and the year.

Is Certainly. In my master's thesis in philosophy, I wrote a text called 20°C, which was a study of Heathrow Airport. Almost all international airports try to hit 21 degrees Centigrade as a form of biometric control. It's the lowest temperature that the average body can drop to before it begins to feel cold. If you're trying to get a group of people to sit still for long periods of time inside a metal tube, the best way is to lower their heart rate and lower their breathing, and lower temperature does that.

Part of what global warming means is being always thermally uncomfortable. It does concern me what will happen to social harmony as global warming gets worse – I think our species is unlikely to keep its cool. We could have substantially avoided the worst of global warming in the mid-1970s, and we missed that opportunity. It is likely that most humans will die – predominantly the poorest people who are also located in the most dangerous places for global warming. The extreme wealth polarity in global civilisation will allow a very small elite to be totally insulated from the effects of global warming. How we can live with ourselves for allowing such a thing to occur to other humans will be difficult to know.

PM You seem to be, on the one hand, a realist to the point of pessimism, and yet still driven and productive and unwilling to give up against what seem to be insurmountable circumstances. I'm reminded of what Czesław Miłosz said when he was asked what he would do if the world was ending tomorrow; he said that he would plant apple trees.

That's a beautiful quote. I completely agree. I worked as a

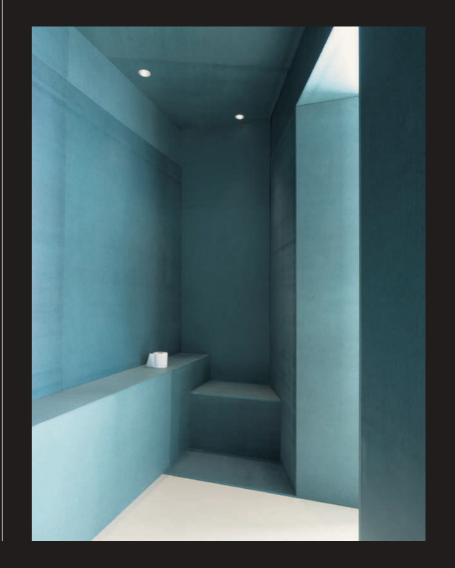


TOP: A project by Modernist architect Mies van der Rohe, the subject of the publication *Mies in London*, was cancelled after two decades of planning. Until now, the project archive (shown) has been inaccessible to the public. Image courtesy of Jack Self.

воттом: *Real Review* is a quarterly magazine published by Self's REAL foundation that explores 'what it means to live today'. landscape architect for Jean Nouvel in France, on a project where they wanted to import 80-year-old oaks from Holland. I remember thinking, the people who planted those oaks as entrance-ways to houses knew that it takes 200 years for an oak to reach full maturity. They knew that not they, nor their children, nor anyone alive on the planet at the time would see the actual design as they had intended, this grand alley of oaks. That type of investment in the future no longer exists. People today just want to buy ready-made, pre-aged oaks, have them shipped over on a barge and have them planted in situ to give the impression of having invested in the future without the necessity of actually doing so. Now, that's just a reflection on the apple tree quote, but I think that Carl Sagan, the 1970s awesome astronomer, is my guide on this. He says, "Approach the world with scepticism and imagination." I am very keen on being a realist inasmuch as understanding what's going on and not shying away from difficult discussions, be they about global warming, institutional racism, gender inequality or discrimination. These are difficult subjects to look at honestly, but hopefully we can see within that condition the possibility of making a proposition.

I think, at its essence, that's what it means to be an architect. Architects are extremely optimistic people. A client will come to you; they've got a shitty site, no money, they've got planning restrictions and they say, "What can you do?" And you say, "I'm going to do the best piece of architecture you've ever seen. I'm going to knock it out of the park." That kind of optimism is the essence of the project. That's what 'project' means: to project a vision of something which is an improvement on what exists at the moment. I think architects are quite unique designers: we are forced to engage with all of the ills in society, the difficulties and complexities of property and the built environment, what it means to live, and out of that we always make a coherent proposal. I don't know whether I became an architect because I think that way, or whether my training as an architect reinforced this. ASSEMBLAGE

I think it's extremely important to have criticality, but no matter how critical you are, you must always make a proposal, otherwise, what's the point? Honestly, how would we build any society if we didn't believe we could make some change? •



RIGHT: Years Room, in *Home Economics* British Pavilion, Venice Architecture Biennale 2016, curated by Jack Self. Photo by Cristiano Corte.

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IMAGES OF LLUÍS ALEXANDRE CASANOVAS BLANCO'S REAL ESTATE BOOM HOUSE

BLUEPRINT CITY Practical thinking on urban design, from the physical to the psychological space of cities

Saskia Sassen:



The Limits of the Material



Real Estate Boom House is a refurbishment project of a single-family dwelling in Cardedeu, a town 42km from Barcelona. The house was built during the Spanish real estate boom, which began in the mid-1980s and ended abruptly in 2008. At certain times during this period, more than 500,000 houses were being constructed every year, all over Spain. While responding to the specific context in Spain, architect Lluís Alexandre Casanovas Blanco invites us to examine a global situation. His project functions as a laboratory in which

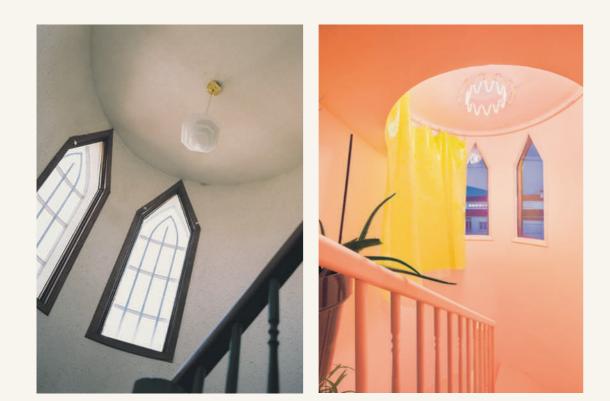
to explore the relationship between the exponential growth of building activity globally, and the increasing accumulation of capital linked to that growth. It is supported by entities such as real estate agencies and banks on the one hand, and architecture on the other – a relationship frequently overlooked in architectural discourse and design criticism, despite its importance.

 Diego Barajas and Camilo García (Husos Architects)

BLUEPRINT CITY

It is July 2018. Standing at the podium at Deakin's Edge, **Saskia Sassen** is outlining the contours of a new world real estate order, one that is reshaping our cities through large-scale property speculation:

"Property investment' is the language used," she says. "It's not quite right. It's a form of acquirement."



PREVIOUS: Saskia Sassen at Living Cities Forum. Photo by Tom Ross. тор-цегт: Photo by Adrià Cañameras. тор-кіднт: Photo by José Hevia.

ASSEMBLE PAPERS

She describes how 16 million subprime mortgage contracts were signed in the United States, of which 14.5 million went broke – the equivalent of the population of Sassen's native Netherlands. She continues the list of the unsettling ways in which bricks and mortar have become monetised: buildings traded on the global market at a scale and speed never seen before, starting from global centres and spreading outwards, to secondtier markets such as Berlin, Hamburg, Shenzhen, Sydney and Melbourne. She notes that the Qatari royals now own more of central London than the Queen of England. "What are they going to financialise next?" Sassen asks, and not just rhetorically. "The city is full of materiality."

The global property market is only one part of Sassen's research. For decades now, the Dutch-American sociologist, who holds professorial positions at Columbia University and London School of Economics, has been one of the world's chief experts on globalisation and its underpinning processes. Growing up in a trilingual household in Argentina gave Sassen a cosmopolitan and egalitarian sensibility that would serve her well in joining the dots between economic changes in the global North, and the trickle-down effects in the South. Her three major books gave us a language to imagine invisible processes: from international cross-border flows of people, to the centralisation of a few key 'global cities' – a term she coined – to the definition of a moneyed 'intermediary sector' oiling the wheels of capitalism.

JANA PERKOVIĆ

You recently said, "I'm always asked to talk about the future." What do you think it is about your work that makes people ask that?

SASKIA SASSEN

As a scholar, I am interested in discovery, not application. Replicating is a mode of establishing how common is a certain condition, and I rely on scholars who replicate studies – but my mode is to discover. We, social scientists, have built knowledge silos, which makes our work less and less relevant. I see the need to work transversally, cut across different knowledge silos. There is an A and there is a D, and most people stay in one or the other, while I am interested in what's in between, the B and the C. Each one of my big books takes me many years, and I am in no hurry to publish. It has sometimes gotten me into trouble. My first book got rejected by 12 publishers – that's a lot! [laughs] So, I paid a price.

> JP Your work shows an ability to see things at a panoramic scale: socioeconomic processes in wealthy countries and the matching socioeconomic processes in poor countries. For example, your work on redefining migration, starting with your first book, *The Mobility of Labor and Capital* (1988).

ss In my first book, I was sniffing something out. We have this notion that migrants just come to us in rich countries. Well, there are about two billion poor people in the world, and about 300 million migrants – most poor people don't migrate. So, who migrates?

When you start tracking who migrates, you realise that there is something that connects us. When we go around the world occupying, we establish links. We, the US, have about a thousand army bases around the world, mostly secret. We build bridges; and then the migrants come. This is an acute version of a process that can have a more diluted shape, too.

The law recognises two kinds of person: the migrant, established in national law, and the refugee, established in international law. Today, we see the emergence of a third subject, a refugee of certain modes of economic development. When she comes to our border, we figuratively say, "hey, but your country is going very well, the GDP per capita is growing!" But the land grabs, the mining, the massive numbers of small landholders expelled from their land... we don't see that. We don't recognise her as a migrant who might be in dire need of a job. I am very interested in this third subject, the migrant for whom there is no law, for whom we do not have a name. Studying her means discovering a condition, establishing a way of naming this person.

So, this is where I am. I am interested in this subject, who is invisible to the eye of the law, and who does not make sense as a migrant – because all those destructions we are generating, that are making her life impossible in her homeland, are measured as growth, as something very good.

> JP In *The Global City* (1991), you proposed a language for talking about the growing importance of a small number of 'global cities' in a globalised economy: hyperconnected cities offering a concentration of highly specialised knowledge workers, for transnational companies operating across territorial borders. How did the book come about?

ss In *The Global City*, I was also trying to discover something. At the time I was living in New York, and most cities were poor: NYC was officially broke, Paris was poor, London was poor. The notion of growth was that it was the economy of infrastructure, building suburbs, great enterprises... The digital was emerging very strongly. People were saying, "We don't need cities, we can go anywhere, we can communicate from wherever." I saw something else happening. Privatisation and deregulation (and out of that, globalisation) were ascendant. The image in my head was of a complex system installing itself in cities. Not emerging out of the city, installing itself.

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I tried to talk to local experts about cities; these were mostly men, very narrowly focused, planners etc. I remember going to a conference, in the late 1980s. I'd go up to these guys and say, "I hear you're really knowledgeable about New York. I'm interested in understanding what's going on in Wall Street, and I wonder if you have any contacts for me..." And they would look at me – all men – and start laughing. "Wall Street is ours, but you know what, you can go at night," they'd tell me. Wall Street had some machines operating, but it wasn't a night district. And I said, "Oh, thank you."

I had done a research project with Dominican immigrants, who were office cleaners. I arranged to have lunch with them - and lunch with cleaners is at midnight, you know. I knew something was happening in Wall Street, particularly one big clunky building, but you couldn't tell from the outside - the newspapers were saying that the city is finished, it was invisible. So, I brought my sandwich and had lunch with them at midnight. I asked, "For whom are you cleaning?" One guy says, "Come, I'll show you." Small, boutique offices, very fancy. He says, "There are 70 nationalities here." That was the data I needed: these were small, specialised, international businesses. It was everything: Goldman Sachs, but also highly specialised international advising of this and that. Law, investment advice on how to handle business in Mongolia... a world of knowledge, all geared towards making money. And the same stuff was happening in London, in Paris - a whole new intermediate sector!

When big corporations suddenly go global, operating in many different countries, they cannot do all the work in-house: they require so many particular modes of knowledge. You may need 25 hours of accounting the way they do it in China, 38 hours of legal work in Argentina... You need an intermediate sector.

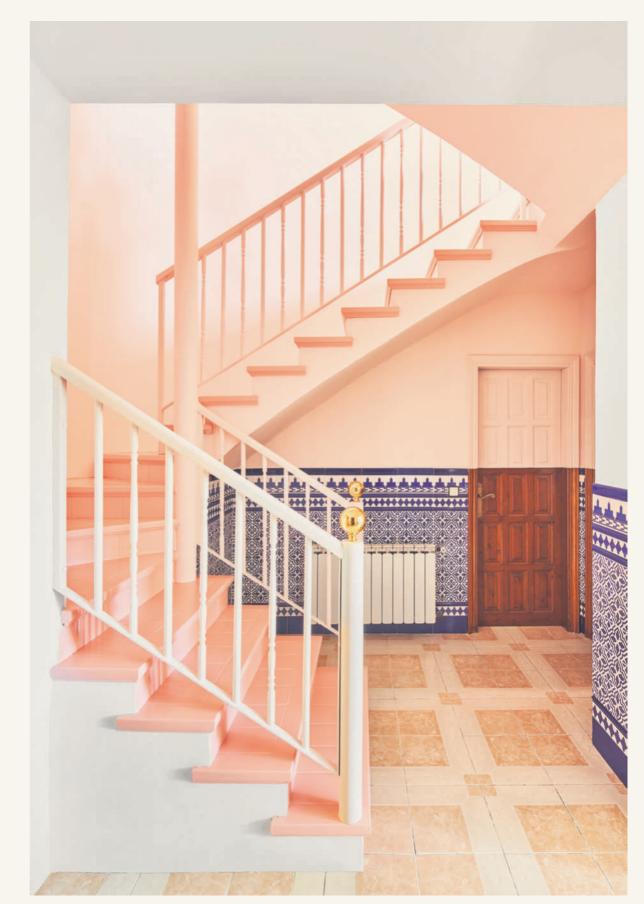
At its narrowest, most academic, the global city function is intermediation. A whole new intermediate sector emerged in the late 1980s, that always made money, and never lost – even if they presided over mergers and acquisitions that failed – because they were producing knowledge for others.

Eventually, this translates into culture, into activism – it spreads. But at its core, here it was, a different type of economy: up to 30 – 40 percent very smart, often very young people, very networked, who became rich and powerful. That sector installs itself in cities. They bring a whole new wealth to cities. Not old wealth, not the prosperous middle classes, and not the top *capos*. But they made a lot of money, the knowledge-bearers.

It changed the city. Where before you may have had a modest home with three families living there, once they took over, it was a home for a single person. So now we had a whole new city, a city that displaces nurses, primary school teachers... Even though NYC was broke, it was an emergent condition that became visible. The system installs itself and, frankly, starts to take over.



авоvе: Photo by Adrià Cañameras. RIGHT: Photo by José Hevia.



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REAL ESTATE BOOM HOUSE: Lluís Alexandre Casanovas Blanco has used one house to preserve the legacy of the Spanish real estate boom. Instead of leaving it as a mummified testimony of history, he carefully resignifies the space, with various actions on different scales: refurbishing a spiral staircase, or reconstructing the stippled paint on the walls, typical of this period in Spanish interiors. Thus, the Real Estate Boom House works with various aspects of the boom itself, including the social realities, imaginaries, dreams and desires that shaped it just as much as financial interests.

 Diego Barajas and Camilo García (Husos Architects)



ABOVE: Photo by Adrià Cañameras. BELOW: Photo by José Hevia.



JP Your work at that point in time provided an elegant explanation of how the globalised economy worked – something so obvious now, but so hard to see in 1991. How has globalisation changed since? What conditions are we dealing with now?

ss Clearly, there is more than one globalisation. When Oxfam sets up a system where fairly isolated people – small farmers, fishermen – can upload and download information, that is a positive example. But the negatives have proliferated over the last decade: impoverishment of honest middle classes, working classes losing ground... The concentration of wealth is just extraordinary. The routinising of a political system that is no longer up to par. The ignorance of our legislators.

In my latest book, *Expulsions: Brutality and Complexity in the Global Economy* (2014), I was interested in understanding what I call 'embedded borderings'. Interstate borders are just one kind of border; I was interested in border spaces that cut across countries, connecting both poor activists and the rich and the powerful.

JP In *Expulsions*, you look at the surprising mechanisms behind the subprime mortgage crisis in the US, which has now been exported around the world. How is the very fabric of our cities, our housing, changing?

ss By the term 'expulsion' I tried to capture something that signals the limits of the material. We tend to think that a wall is a wall. But a lot of the material today has lost the capacity to be 'speech', in an abstract sense. When you financialise buildings through algorithmic mathematics, as is happening now, the building is still there, yes, but the actual operational event is not the building as such – it's an algorithmic formula. You can buy and sell that building several times a day. In Manhattan, we have a number of luxury towers, all empty. People think investors are losing money, but what we now have is empty buildings that are a greater source of profit than occupied buildings. That's really weird, you know?

JP Why are they so profitable? Are they appreciating in value?

ss No. It's not about the economy. A building is no longer simply a building. It's been transformed into an asset. The high wave investment circuit has had it with derivatives [futures, options, and other, often nebulous, financial securities – ed.]. They're now sending derivatives to the average person: municipal governments are buying derivatives without realising. In Italy, about half a year ago 14 municipal governments went broke simultaneously,

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because the derivative had failed. The high investment circuit says: give me asset-backed securities. That's what the subprime mortgage crisis was about. It wasn't about mortgages. They used very modest people, who didn't own a house, to experiment. 14.5 million households went broke in 7 to 8 years; another invisible story. And now they're doing it with very fancy buildings.

JP When you talk about the changing spatiality of the nation-state, in *Expulsions*, you use an interesting turn of phrase: falling off the 'systemic edge'. What do you mean by that?

ss The easiest example for what that means is the long-term unemployed: they really do become invisible to the eye of the law, the eye of the system. They fall off the edge... The body is still there, but they are invisible: not counted, not recognised.

> It intrigues me how the material can become less material... We tend to think that a building is a building is a building. Well – not necessarily! If you have transformed it via 16 really complex steps into something else, the building is there, but its real function is invisible to our eyes. I'm really interested in how the material has a bit less traction than it used to. So much has been financialised.

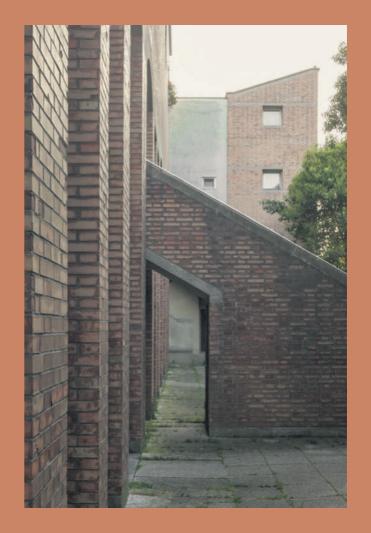
JP You have recently written about colonialisation and how it is geographically changing. Between intrusions of multinationals and new refugee flows, what is sovereign national territory today?

SS That's a big subject for me. We're obsessed with the traditional interstate borders, but there are other borderings we should be paying attention to. One is the corporate world that can very easily morph from one country to another. They have their own, very partial geographies and, like financial centres, they don't care about the rest of the country! But then I look at human rights activists, especially those people interested in recovering bodies in mass graves, they too are not interested in the whole country, only specific sites. There is a long list of cases in which the territorial has enormous specificity for different actors. And yet both parties in these two cases still need to get a document that allows them access to the country - but they are not interested in 'the country', they are interested in a very specific thing! This is what I mean by 'embedded borderings': there are many more at play than we realise. Whether interstate borders are becoming weaker or stronger is open to debate. But there are other borderings for those living now.

THIS VERTICAL LIFE

A leisurely look at the good, the bad and the ugly of apartments throughout the eras of apartment architecture.





Unfolding Pavilion



Venice, May 2018. The Architecture Biennale is opening, to a highbrow audience of

journalists, curators, starchitects and many underpaid interns. The narrow, pedestrian streets of this medieval city, largely completed by the end of the 15th century (when Venice was a city-state of 100,000 inhabitants), are crowded with people who will spend a few days at best in this city which has been in slow decline for longer than many current metropoles have been in existence. Of these visitors, few speak Italian and fewer still will bother to read the local newspaper, which is reporting that the population of the Venetian islands has dropped below 54,000, compared to 175,000 in 1953. The number of tourists, on the other hand, has steadily grown to 17 million a year.

PREVIOUS SPREAD: Triplexes at the front of Gino Valle's public housing complex in Giudecca (1986) are connected with an elevated portico, which leads to a series of interior open spaces that resemble the historical *campi* of Venice.

LEFT: *Giudecca Windowsill*, by Studiospazio. The floating garden 'extends' the living room into the garden outside.

BELOW: Pietro Valle, sitting in the courtyard of the Giudecca housing complex, designed by his father.

Articles with headlines such as 'Venice: Dying City' report that the daily population ratio of the city is 40:60 in favour of tourists over residents, that Venice is losing thousands of inhabitants each year, and that there are more people aged 80–84 than 34–39 living in the city. This is what a demographic catastrophe looks like.

Underpinning it all is a severe housing crisis, driven – as in many Italian cities – by gentrification-by-tourism. High costs of maintenance for historical housing stock (much dating to the 12th century) on a fully non-automotive island, combined with the profits to be made from short-term rentals and Airbnb, as well as the sheer economic pressure of those 17 million visitors, means that families who have lived in this distinct city for generations are finding themselves unable to afford to stay in their hometown.

"The average price for ordinary apartments in the historical centre is almost €6000 per m² [AUD\$9740]," says Davide Tommaso Ferrando, researcher at the University of Innsbruck, originally from Turin. This would translate into prices rivaling those in Sydney or London; but, he points out, at vastly lower wages. "The middle classes cannot afford private market apartments. White-collar workers who work in the city centre cannot afford to live there, because the rents are too high and the costs of buying are, of course, impossible. It's a generalised housing crisis."

The opening of the Biennale was mired in protests by housing activists, who see the event as exclusionary and elitist, out of touch with the real problems plaguing Venice. The protesters' banners referenced one of the key exhibits in the 2018 Biennale, a three-storey piece of the facade of London's 1970s social housing complex Robin Hood Gardens, shipped from London, where the rest of the building was being demolished (see p-66).

This was referred to as turning social housing into a design fetish object: "aesthetic cover for social cleansing of our cities".

For many, this is not the social role that architecture should be playing. Ferrando is part of a group of young architects and theorists behind *Unfolding Pavilion*, an off-Biennale project, now in its second iteration. The aim of this pop-up exhibition and editorial project is to create an inclusive, accessible event that takes place in a real building in Venice, instead of presenting temporary exhibits in walled-off Biennale spaces. In 2018, the focus is something few are aware of: social housing projects in Venice.

While the city has been meticulously socially planned since medieval times, the heyday of social housing in Venice started in the 1970s, when the city expropriated former industrial areas on the edges of the islands forming the historical centre and funnelled EU funding into public housing construction. "It was a massive intervention," says Ferrando. "In those years, social housing was an object of investigation for architects – apartment typologies and typological distribution, construction, cost, social mix." The buildings were designed to blend in with the historical fabric of the lagoon city, and remain somewhat difficult to spot at first glance. However, they are still there, often named after the factories they replaced – 'ex SAFFA', 'ex Scalera-Trevisan' – and include fine housing complexes by architects such as Alvaro Siza, Aldo Rossi, Vittorio Gregotti, or Iginio Cappai and Pietro Mainardis. "But this one is probably the best," says Romanian architect Daniel Tudor Munteanu, as we enter Gino Valle's 94-unit complex in Giudecca, where Unfolding Pavilion is situated this year. "And it's the first time it is open to the public."

Munteanu is, with Ferrando and Sara Favargiotti, the co-convenor of the project. He takes me through the rooms of one of the apartments, now occupied by a group of young Italian architects called Little Italy, who have responded to the building with installations ranging from whimsical Gino Valle-themed wallpaper in the children's bedroom, to a display of the original model of the complex, on loan from Studio Valle archives. Munteanu explains that this was one of the nine unused apartments in the complex: Insula, the city-owned company managing social housing, does not have the funds to refurbish them. "They just stay empty – in a city where housing is such a critical problem."

Munteanu tells me that they are here because they made a deal with Insula to use the apartment rent-free for four months; in return, they have renovated it at no charge. This has involved lugging buckets of paint on small boats that serve as public transport in the city, as well as sleeping on the apartment's floor during renovation. It fits with Unfolding Pavilion's ethos of architects as good citizens: "At the end of the exhibition, the flat can be rented again – the project brings a net benefit to the city."

It is easy to see why Munteanu and Ferrando had held their sight on Valle's project for so long: it is of simply astonishing quality. The complex was designed by combining standard-sized rooms into four rows of buildings of graduated heights – from single-storey garden houses to triplexes at the back – so that every home has expansive lagoon views. Each house opens directly onto a network of lanes, porticos, small and large *campi*, which reproduce the intricate spatiality of the historical Venice. Inside, the three-storey apartment is light and spacious, with quality finishes in timber and stucco, and garden views on one side, the Adriatic Sea on the other. The rooms are small, but in line with the restricted dimensions of historical houses in Venice. This is what low-cost housing can be in the hands of a skilled architect.

"It is actually an amazing building. It feels like a piece of the city, with a really nice scale," agrees Samuele Squassabia of Studiospazio, one of the participants in the exhibition. "But it was regulated by strict rules on surfaces, and the living spaces are tiny." He points out that his installation, a cantilevered window garden, addresses the complaints from residents that Valle's houses lost too much living space on the three-storey staircase.

I try to imagine having a similar conversation in Melbourne: would we measure the design of public housing by the highest standards of excellence? TOP-RIGHT: Curators of Unfolding Pavilion 2018 enjoying the lagoon views from the top-floor balcony. From left to right: Daniel Tudor Munteanu, Davide Tommaso Ferrando and Sara Favargiotti.

BOTTOM-RIGHT: A digitally printed sculpture by ECÒL and research by Gabriele Pitacco, both Little Italy members, exhibited in the second bedroom of Gino Valle's triplex apartment.



ABOVE: The rear of the complex features two-and one-storey houses with gardens, open views and a domestic scale.







The era of social housing as an opportunity for design investigation is over, says Ferrando, even in Europe. "It ended in the 1980s. After that, we have a completely different policy, which is to not put in much effort." Quality social housing has been built since, he says, such as Cino Zucchi's in the 'ex Junghans' area in the 2000s, and they are good buildings for low-income families, but the design exploration stops at how to construct buildings at low cost. Public housing agencies such as Insula no longer have the money to build entire neighbourhoods. Their remit has shrunk to spot interventions: purchasing and refurbishing individual apartments – when they have the funds.

Ferrando notes that Venice will invest some €7 million [AUD\$11 million] into refurbishing houses for social use in 2019 – but this won't be much consolation to the fleeing middle classes who do not qualify for social housing in the first place. This is the sort of wicked problem that unchecked market forces can create, without a cohesive housing strategy in place.

The V&A exhibition on Robin Hood Gardens (p-66) points to the larger shift in political priorities when it quotes employment statistics for British architects: in the 1970s, 49 percent worked in public institutions; now the figure is one percent. The young architects from Genoa 5, one of the groups forming Little Italy, who have turned the children's room of Valle's flat into an exploration of the 1980s childhood, tell me that their installation is a requiem for the social values of the era, when the state invested in high-quality housing for all. They point out that this gave architects career opportunities: Gino Valle built important work when he was still a young man. "Nowadays, that would be impossible. As architects, we don't have the opportunity to produce anything similar."

There is still palpable hunger for city-building on this scale, though, as great interest in Unfolding Pavilion demonstrates. Perhaps because, trapped in a global housing bubble, no-one seems to be having a good time.



LEFT: The design of graduated heights allows open views and a sense of privacy to all dwellings within the Giudecca complex.

ABOVE: The original model of the Giudecca complex in urban context, loaned from the Studio Valle archives.

PHOTOS BY ALEX LAMA

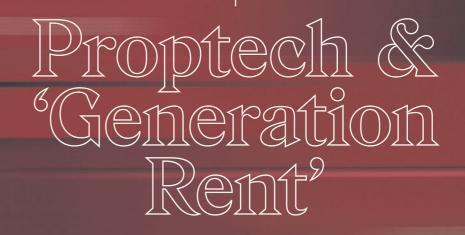
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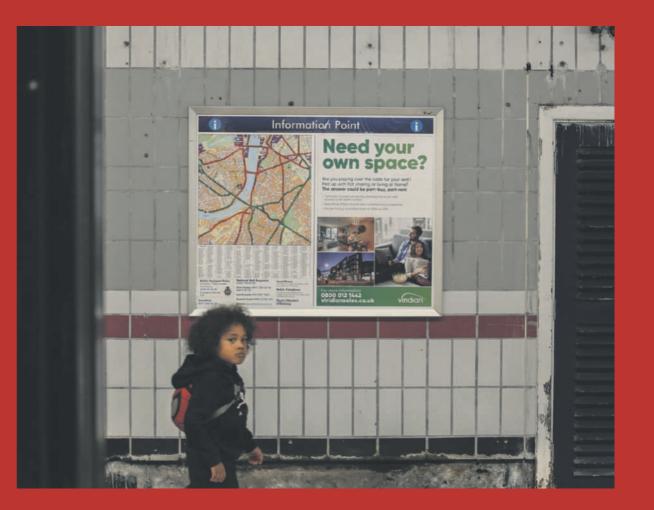
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Practical thinking on urban design, from the physical to the psychological space of cities

The Great Disruption:



This year's British summer was one of the hottest on record. In the depths of the London tube network, pressed up against grim-faced fellow passengers, peak-hour commutes brought to mind a subterranean sweat ritual. Crisscrossing the city in airless silence, the distraction of in-carriage ads became a fascination. The vast majority of underground ads were spruiking new apps or digital services – as expected, in Europe's startup capital. Among the compound names and superfluous suffixes, one theme dominated: housing. Whether a landlord, renter, empty-nester, aspiring buyer or recent homeowner, it seems, there was a product or platform for you. Within the industry, the next generation of businesses looking to disrupt traditional real estate models goes by the inelegant portmanteau 'proptech'. And in London in 2018, proptech is booming.



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Nome PRINT CITY

Proptech is an industry made up of companies that use technology to make real estate transactions more efficient. Even ignoring startups focused on office and retail space, or innovations in design and construction, the London scene alone encompasses everything from online financial vehicles to purchase micro-shares in real estate investment trusts (Bricklane), to algorithmic matchmaking platforms for potential roommates (Ideal Flatmate). It includes companies touting proprietary technologies to optimise landlord rental yields through short-term letting strategies on third-party platforms (Lavanda), and apps that allow users to create a 'rent passport', where regular rent payments build a personal credit history and open up the possibility of deposit-less leases (Canopy). Developers can invest in subscription services that aim to streamline the process of finding and assessing off-market land through integrated mapping and data software (Land Insight), and those looking to get on the property ladder can opt for a faster and - purportedly - cheaper mortgage via an online-only broker (Trussle).

The real estate industry is notoriously resistant to change. When proptech first emerged in the mid-2000s, it was with a singular focus: improving the search experience for residential property listings. Comparatively, proptech has not boomed in Australia to the extent that it has in Europe. The launch of Airbnb in 2009 marked a new kind of path-breaking business. Although instrumental in contributing to the rise of the sharing economy, the company was equally able to capitalise on a host of then-new technologies, including secure online payment platforms, smartphones and other GPS-enabled mobile devices, and a growing acceptance of review-based online trust features. Venture capital investment in the global proptech sector tripled in the three years to 2017. The recent explosion of startups has also piggybacked on innovations in the wider digital economy: AI/machine learning, peer-to-peer lending, big data, alternative trading systems, cloud computing, equity crowdfunding, smart buildings, blockchain, and virtual and augmented reality.

Something else was afoot a decade ago, when companies like Airbnb and Uber emerged to become the new darlings of Silicon Valley. At the time, technological advances dovetailed with widescale social disruption. It's not a coincidence that these linchpins of the modern gig economy found a receptive market during the prolonged economic hangover following the 2008 financial crisis. In the same way, the rise of proptech globally can't be divorced from more recent dynamics in the housing sector. Nowhere in Europe is the affordability crisis more acute than in London. Eighty-nine percent of London renters spend more than half of their disposable income on housing, usually considered a marker of 'extreme' stress. At the same time, it's projected that 50 percent of millennials could be stuck in private rented accommodation into their forties. Thirty-year-olds in Britain are now half as likely to own a home compared to a generation ago, and four times less likely than baby boomers at a similar age.

Sensing opportunity in a charged climate, many London proptech startups are branding themselves as a direct response to the plight of 'Generation Rent'. These companies fall into two broad groups. One has effectively spun out of the city's world-leading financial technology (fintech) scene. These businesses are focused either on reducing transaction costs involved in the buying and selling of property, or lowering barriers to entry for those saving



IMAGES: From Rightmove, Zoopla, Purplebricks to Foxtons... real estate in London has moved into cyberspace.





towards a deposit, by offering access to property–related investment products or collaborative savings and credit schemes. Instead of promising to smooth the pathways to home ownership, the existence of the other group implicitly acknowledges that the housing market has fundamentally shifted to a world where long-term renting is increasingly becoming the norm, rather than a transitional phase bridging the untroubled days of early adulthood.

In mid-July, I accompanied a friend to a weekly 'speed flatmating' event run by SpareRoom - Britain's most popular flat-sharing platform - at a pub in Bethnal Green. Part speed dating, part supply-and-demand curve played out in real time, the popular gatherings have been a mainstay since the company's launch in 2004. Now, however, they seem like a quaint relic of the pre-social media era. The aspiration of more recent startups, like MoveBubble, Ideal Flatmate, Homie, HomeRenter, Residently and Goodlord, has been to construct a seamless online rental experience that removes the need not only for physical paperwork, but also for physical interaction. Users can match with a potential flatmate, search for and rate available properties, chat directly with agents, take a virtual tour, make an offer, process references, generate rental contracts, transfer a deposit, sign a lease and arrange insurance - all without leaving the comforts of the app ecosystem.

This may seem to fit with the common media trope that, as consumers, millennials expect on-demand and frictionless services at the tap of a touchscreen - whether ordering takeaway, hailing a ride or finding a partner. But the digitalisation of the rental process goes hand-in-hand with structural changes in the supply side of the rental market. The United Kingdom's build-to-rent sector grew by 22 percent in 2017, seeing recordbreaking investment of over \$4 billion, the majority in London. Taking cues from the disruptive impact on office real estate by co-working companies like WeWork, the institutional interests behind many build-to-rent developments are embracing the model of 'housing as a service' in place of traditional landlordtenant arrangements. Companies like Fizzy Living ('reinventing renting'), Tipi ('au revoir, lazy landlords') and The Collective ('for anyone, not for everyone') offer features like flexible tenancies or memberships, 24/7 concierges, online resident services, shared amenities, and community programming.

Although appealing for those who can afford them, these bells and whistles distract from a more concrete shift: the ability to maintain relatively high rents while shrinking private living spaces. In part, this suggests how countercultural experiments in co-living have migrated from the margins to the (almost) mainstream. It also reflects shifting priorities, as a generation that has largely rejected the siren call of the suburbs ascribes increased value to the social dimension of higher-density urban living. But there is equally a process of diminished expectations at play. Tenants with a decade or more of cramped flat-share life under their belt have grown accustomed to informal and precarious versions of 'co-living', driven by economic necessity rather than lifestyle choices. In a broader sense, the question of whether the proptech sector will be successful in making long-term renting more palatable ignores the possibility for technology to contribute to systemic change.



ASSEMBLE PAPERS

We could help become house warming Free buyers but our bases At his leafy open-plan office in Hackney, I asked Alastair Parvin, CEO of the innovation non-profit, Open Systems Lab (formerly WikiHouse), about how digital tools could address housing affordability.

"We've already seen technology transform other sectors," he replied. "It's hard to believe it won't transform our relationship with housing and land too. But it won't happen if we simply bolt digital technology onto the same broken market."

Where were the most promising opportunities for innovation? "If I had to pick two, I would say land, and construction supply chains. Designing and developing a building is an expensive, opaque and risky process. We're reliant on short-term speculators to do it for us. But we're moving towards what you could call 'on-demand' development: so simple and low-risk that anyone can do it. This will unlock new kinds of long-term finance – money that invests in the performance of homes as places to live, not just as speculative assets underwritten by mortgage debt."

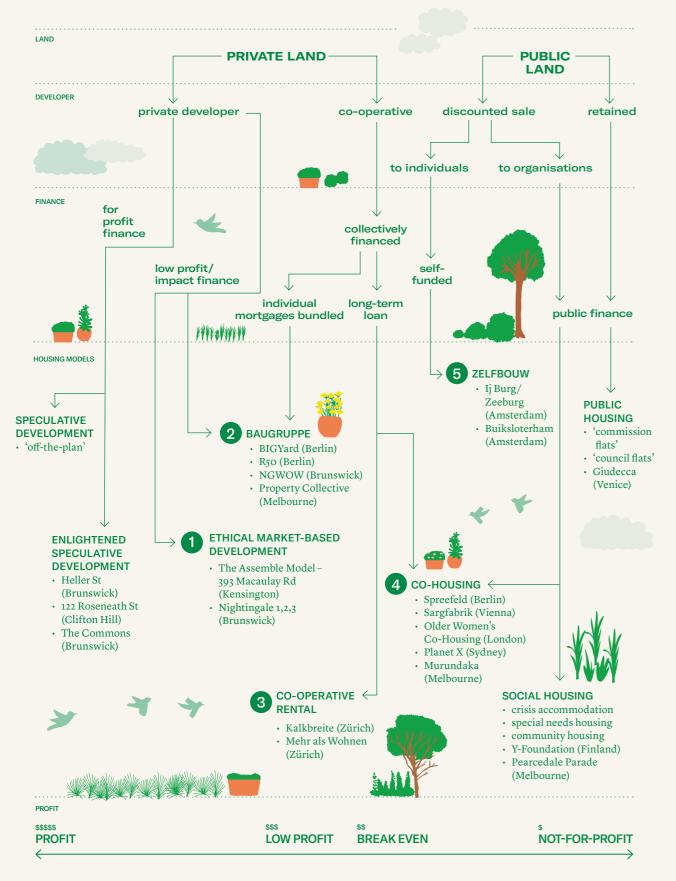
I put a similar question to Euan Mills, future of planning lead at the Future Cities Catapult. Based in Clerkenwell, the organisation operates as an incubator of urban innovation prototypes, as well as liaising between research institutions, planning authorities, and the private sector. A key focus is 'plantech': new digital tools to support a more data-driven and citizen-centered planning system.

"At the root of the affordability issue is the value of land. One of the key factors defining value is planning policy, which establishes what you can build. The way we plan cities today is a relic of a bygone era. We rely on out-of-date data, laborious methods of analysis, and heavilypoliticised decision-making." He continued: "The only way to overcome London's housing challenge is to think of new ways of delivering housing. Digital tools and more open data can level the playing field around land value and reduce speculation."

The 'Generation Rent' universe is beginning to converge. In mid-August, Ideal Flatmate launched a dedicated portal for the build-to-rent sector. Matched with a fellow flat-hunter, users can 'buddy up' and be directed to rooms in new co-living developments. If proptech is contributing to a frictionless rental process, while the industry reorients around large commercial landlords, the focus on user experience skirts the bigger issue – that those users represent an increasingly captive market. Disruptive innovation is at the heart of the startup myth. But although the housing system pricing countless millennials out of ownership is ripe for rethinking, there seems to be little appetite for that challenge. Similarly, the proptech scene has yet to tackle the reasons why long-term renting is stigmatised in Britain, more so than other parts of Europe: it breed uncertainty and insecurity. It's easy to automate agents out of existence, but reframing precarity as 'flexibility' is a harder sell.

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REDESIGNING THE HOUSING MARKET





WORDS BY ANDY FERGUS

1-ETHICAL MARKET-BASED DEVELOPMENT

Evolving from the pragmatics of delivering affordable, environmentally sustainable, community-minded housing in a marketdriven environment, multiple models have appeared in recent years that rely on social impact or low-profit investment, and market directly to community via waiting lists, to cap profits, lower costs and reduce risks.

The Assemble Model bridges the gap between renting and home ownership by allowing residents to lease their home while they save to buy. The rent and purchase price are both fixed, giving them stability while they save – all while having the freedom to leave the lease or decide not to buy. With Assemble acting as the building manager for five years, economies of scale can be put to good use: from the bulk buying of services and utilities to generous shared spaces.

In the Nightingale Model, a mixture of architects and impact investors put up the funds to acquire land, with intermediary financiers supporting the projects in obtaining construction finance. As the model scales up different forms are appearing, with a reduced-profit-on-cost model on one hand, and a fully buyerfunded model (akin to Baugruppe) on the other.

2-BAUGRUPPE

In a German Baugruppe ('Building Group'), the residents collectively finance their own apartment building. Projects are either citizen-led, where they appoint an architect together, or architect-led, where a design is developed and residents are brought on board to fund the project. They are financed through individual mortgages, but require high deposits (often 30 percent). Award-winning buildings have resulted from this close working relationship. Typically, Baugruppen are 'terminating co-operatives', i.e. the cooperative activity finishes once the development is complete. In reality, the shared effort and bonds formed in the project development tend to endure.

3-CO-OPERATIVE RENTAL

Zürich is the epicenter of co-operatives, which make up 25 percent of all housing stock (to be raised to 33 percent). Co-operatives in Zürich use a long-term rental model, funding the construction of projects via low-interest loans with a long payback period, typically on land leased from the city. Only 6 percent equity is required for the deposit; in addition to this, rent is well below market rate. This deposit is transferrable and can be extracted if the resident moves within the co-operative, or to another project elsewhere.

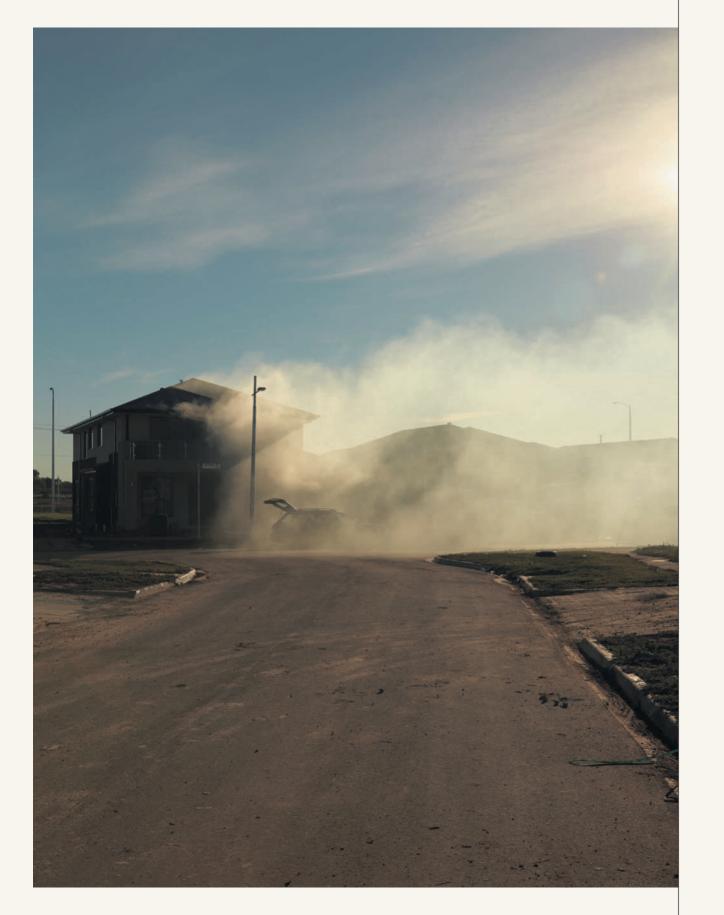
ILLUSTRATION BY ALICE OEHR

4-CO-HOUSING

Co-housing is marked by the ongoing participation in the building community. The preferred scale is approx. 30 dwellings. Groups typically create their own charter to guide the way residents interact. Co-housing projects can be long-term rental or ownershipbased but typically use alternative models of collective finance, guarding against high turnover. They are typically not strata-titled. More experimental co-housing models adopt 'cluster living' or 'shared houses' with non-traditional households sharing large dwellings with oversized living, kitchen and dining areas, in addition to dormitory-style sleeping areas, often with private bathrooms.

5-ZELFBOUW

Many Dutch City councils have designated precincts for Zelfbouw ('Self-Build') projects. Affordable plots are allocated through a ballot, with a series of rules around the design, environmental performance and even the mix of uses. Each owner develops their own plot but must workshop their design with a Master Architect and co-ordinate with their neighbours to achieve the intended quality and diversity. Residents often choose to co-ordinate contractors for cost efficiency. In the biggest Zelfbouw neighbourhoods, hundreds of high-density, individually commissioned townhouses are set within larger masterplans.

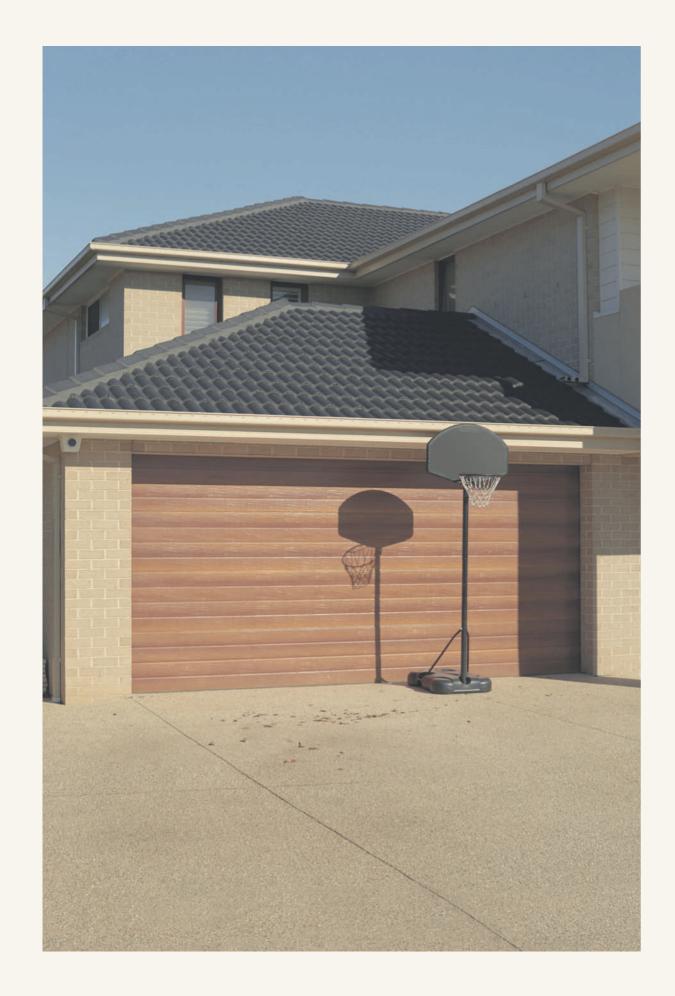


Tom Ross: The Architecture of Least Resistance





ASSEMBLE PAPERS







ASSEMBLAGE

The cultural fabric of cities, covering people and projects across art, architecture, design and cross-pollinated creativity



A Contradictory Space

*NOT US - THERE'S MORE THAN ONE.

The British collective **Assemble** was established in 2010 by a group of friends, most of whom had recently graduated in architecture and found themselves working in conventional practices. They found themselves talking, on a weekly basis, about how architects could work differently, in a more imaginative way.

PREVIOUS: The interior of one of the restored Granby Four Streets terrace houses, the project that won Assemble the Turner Prize in 2015. BELOW: Assemble teamed up with British artist Simon Terrill to create full-size foam replicas of playground designs from architecture's Brutalist era, for the London Festival of Architecture, 2015. Photo by Tristan Fewings.





Putting their ideas into action, they took leave from day jobs over summer to realise their first project The Cineroleum, which involved the temporary conversion of an old petrol station into a cinema. A year later, they transformed a motorway underpass into an arts venue and public space, bringing 40,000 people through in nine weeks. Seven years later, the collective has achieved extraordinary things – they won the Turner Prize in 2015 and established a community-run ceramics workshop. They exhibited at this year's Venice Biennale of Architecture and recently finished their first major building commission, Goldsmiths Centre for Contemporary Art. This nonhierarchical, multi-disciplinary collective of 17 people came to be the organisation it is through experimentation, opportunism and a desire to challenge the status quo.

How does work progress in an organisation with no hierarchy? All prospective projects are put to the collective and given what Jane Hall, one of Assemble's founding members, describes as the 'temperature-reading': each person gives the project a keep rating on a 1–10 scale, along with a one-line reasoning.

"It gives you a solid number," says Hall. "It's never that you can't do it, it just gives you a reading from the group. It also helps people work out what might be necessary to take the project forward; for example, you might need to ask for a higher fee, or check the contract. This system has made it a lot easier to work out what projects people want to take on, but also what we collectively think would be good, as a practice."

Each project is typically led by two people: "most clients get confused if they're meeting all of us, and most projects are of a scale that only requires two people." Each week, active projects are reviewed by everyone. "We've been doing 'pan-Assemble' workshops for eight years now, but they've changed a lot in that time," says Hall. "We're trying to create an environment where they're helpful – no-one will tell you how to run your project, but you might get feedback."

Until this year members had more autonomy over the projects they selected, and how they were managed.

"Now everyone is paid exactly the same salary; I think it's changed the dynamic," says Hall. "There's more responsibility towards each other. I wonder whether it'll make us more conservative in our moves."

Assemble, which started out as "an enrichment thing", has steadily evolved into a fully-fledged business. Office and facilities manager, the Australian-born fashion graduate, Audrey Thomas-Hayes, says the operations model is constantly in flux. "We have working policies that we revise and vote on every quarter," she says. "It's not just about agency for our clients, it's about agency for us, to allow us to work in a way that's acceptable and preferable to us."

ABOVE: Jane Hall and Audrey Thomas-Hayes. Photo by Tom Ross.

ASSEMBLE PAPERS

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According to Hall, this mode of working also provides an excellent support structure. "It gives you the confidence to take on things that you don't have the skill for yet, but know someone else in the group does."

Assemble "didn't start off as a rejection of other practices," says Thomas-Hayes, but it is hard not to compare it to conventional practices. For example, Assemble actively invites chance and mistake. "Most things that are interesting or meaningful come out of mistakes," says Hall. Experimentation is important, a methodology that is rarely encouraged in traditional practice, where "everything is streamlined to actively avoid mistakes, to the point where you become so risk-averse and constrained that you can't do anything." It also resonates with Assemble's desire to give agency to people who have typically been denied a voice in architecture and urban design. "Experimentation doesn't have a prescribed way of doing things, so it allows other people to become part of the process," says Hall, "especially those who feel intimidated by design.

"A lot of our experimentation is highly planned, but the language around it is important because it allows you to talk about failure. I think that's really helpful for diversifying and democratising the process."

Another interesting point that Thomas-Hayes reflects on is that we are becoming increasingly specialised in our work. "Experimenting is fun," she says. "Throughout history, being able to make things has been important to people – I think there's a fear of losing agency in being able to do a lot of things ourselves."

On a practical level, Hall says that making things themselves allows them to have better control over processes when they are outsourced. "We have a better understanding of how something is done," she says. "Often, on site, a contractor will say something's impossible; we have the experience to know if that's correct."

Experimentation and agency played a big role in Assemble's Turner Prize - winning work on the Granby Four Streets project in Toxteth, Liverpool, which involved the restoration of 10 derelict terrace houses. The area, one of Liverpool's most racially and ethnically diverse, had been neglected since the early 1980s. A riot in 1981 led to a further withdrawal of investment in the area, and residents were encouraged to leave. Many houses were demolished; however, some people refused to go. Then, in 2011, after decades of trying to save the remaining houses, a group of hard-working, creative residents established the Granby 4 Streets Community Land Trust. A Community Land Trust (CLT) is a not-for-profit property ownership structure that was developed in the UK approximately 20 years ago. CLTs develop and manage community assets - from affordable housing to commercial spaces and civic buildings - on behalf of a community. After securing a loan from a philanthropist and some grant money, the CLT found Assemble who helped them purchase the first 10 derelict houses from the council for £1 each. The restoration began. Every step of the way, the residents of Granby were involved, including children. During the process, Assemble discovered ways of making ceramics which not only featured in subsequent projects



ABOVE: The Granby Workshop, a manufacturer of architectural ceramics, based in Liverpool.



ABOVE: The tiles made using a process discovered during the Granby Four Streets Project. Tiles using this method have since been used in projects including *The Factory Floor* (Venice Biennale 2018) and the Seven Sisters railway station.



ABOVE: The Cineroleum was Assemble's first project and was entirely self-initiated. They turned an unused petrol station into a temporary cinema. Photo by El Bingle.



ABOVE: Folly for a Flyover was Assemble's second project, which attracted more than 40,000 visitors to a freeway underpass over nine weeks. Talks, workshops and performances were held in the space.

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(including *The Factory Floor* at the 2018 Venice Biennale of Architecture), but inspired them to found the Granby Workshop, which manufactures handmade architectural ceramics and is largely run by Granby locals.

For Hall and Thomas-Hayes, winning the preeminent visual arts award in Britain was, in a way, liberating. "It's a different way of speaking about things. It's more relaxing – it's just art," says Hall. "It's such a relief to not have to dress everything up, to sell something to an industry that you were resisting in the first place." The nomination caused some backlash, especially from within the visual art world. None of this phased the group. "It shows that the definition of art is changing drastically, especially with multimedia and video," says Hall.

"I think architecture is struggling to catch up with a broader definition of itself in reality. It likes the idea of being autonomous, but hates what that looks like in practice."

She admits to not knowing precisely what element of Granby Four Streets they won the Turner Prize for, but believes it was the social aspect. "We know we were used to fulfil the judges' agenda, which was to make the prize more relevant, break with the autonomy of art, and be more accessible and appealing to the general public."

Assemble has since taken on a variety of projects, ranging in scale from the Baltic Street Adventure Playground to the refurbishment of the exterior of the Seven Sisters train station. However, Hall says that they are "slightly cursed" by their legacy of participatory projects. "Our first few projects had a very strong sense of doing something public, but that was nine years ago," she says. "Now we have a really diverse group of people, with very diverse interests. There are some people whose work will always have something to do with community participation, but there are others who just want to detail the heck out of a building." Their continued connection to community comes from listening to their clients and having a clear understanding of who each project is really for. "We advocate on the side of our client, but beyond that our priority is to make sure a project is worth doing," she says.

Assemble lacks a manifesto: Hall says the group would struggle to articulate a combined set of values, because of the range of personalities encompassed. Instead, they work on creating an infrastructure of care: "A lot of what we've done has been about doing things to support 20 people at any one time. That means creating an infrastructure that allows us to sometimes be hypocritical and contradictory, so we're not accused of selling our souls and giving up our ethics when things change."

"We want to create a structure that can't fail, and keeping that alive means allowing some people to do projects that [others] would never touch with a barge pole."



LEFT: Mould mountain produced from the Granby Workshop. ABOVE: The Winter Garden, part of the Granby Four Streets project.

An example of a contradictory space Assemble currently occupies is in the recently completed Goldsmiths Centre for Contemporary Art. "In a way, we so desperately wanted it; it's a real building, so we'll be recognised by those people who are slightly older, who don't see us as a legitimate practice," says Hall. "And at the same time, we're like a subculture. It's a struggle to carve out a space. We're always proximal to discourse in architecture or in art; it's about reacting with them, but also against them."

Is this collective way of working, and questioning the conventional power dynamics that exist in architectural relationships, part of a broader shift in the next generation of architects? Not really, says Hall.

"Every generation tries to do something different from the last; but Assemble is the product of the socio-political and economic context more than anything. I do think, however, that part of Assemble is the process of working out the role of the architect, and architecture, in society."

PERSPECTIVES

Sporadic but timely ideas, essays, reviews and opinions on cities and contemporary culture, from the hyper-local to the internationally relevant

Gardens Robin Hood

PREVIOUS: Robin Hood Gardens: A Ruin in Reverse, special project at Venice Architecture Biennale 2018 in partnership with the V&A. The exhibition, curated by Christopher Turner and Olivia Horsfall Turner, includes a video installation by Korean artist Do Ho Suh. Photo by Tjaša Kalkan. THIS SPREAD: A three-storey piece of the facade of the original building has been shipped and installed in Venice by the V&A. Photos by Franceso Galli, courtesy of Venice Biennale.



In the Victoria and Albert Museum's exhibition at the Venice Architecture Biennale in 2018, a fragment was displayed of Robin Hood Gardens, a recently demolished public housing estate.

The London-based museum of applied art had acquired part of it a few months earlier, as, after the failure of a decade-long effort to save the building, the bulldozers finally went in. If you visit the site you can see the demolition is moving slowly, seemingly flat by flat, module by module, as if to encourage such acts of salvage. Evidently its owners, the London Borough of Tower Hamlets, who had been scornful of attempts to 'list' the building on the grounds of its architectural significance,

were aware of its value to at least the extent of letting the heritage industry add a fragment of the building to its holdings. Modernist public housing, it seemed, was fine for display in a museum or a biennale, but apparently problematic for housing actual people in a city with a profound shortage of affordable housing. For many campaigners, the V&A's purchase was an act of transforming a great social project into middle-class kitsch, just at the time it was most needed.





тор & воттом: The monumental video installation by Do Ho Suh uses the latest 3D-scanning technology. The camera moves along the walkways and appears to cut through the building, depicting and revealing individual lives through domestic interiors within the modular plan. Photos courtesy of Venice Biennale.



Robin Hood Gardens was built in the late 1960s and the early 1970s for the Greater London Council, to the designs of the notoriously theoretical, self-promoting architectural couple Alison and Peter Smithson, who, despite finding international fame as writers and thinkers, built little in a long career that spanned from the 1950s to the 2000s. Robin Hood Gardens was intended as a final built version of several competition entries for housing schemes produced in the fifties, most famously for the Golden Lane Estate, just north of the City of London. This estate intended to rectify what the Smithsons regarded as the cold, isolating, anti-urban qualities of much modernist housing, by trying to build in a certain measure of accident and mess, particularly through the wide access decks that they ambitiously described as "streets in the sky". (A highly dramatic and initially very successful version of the scheme was built soon after, to designs by their students Jack Lynn and Ivor Smith, at Park Hill in Sheffield.)

You could see how much their thinking had changed, though, by the time Robin Hood Gardens was designed. On the one hand, it tried to meet earlier criticisms of the 'streets' by having windows facing onto them - the "eyes on the street" Jane Jacobs had called for - but, on the other, it marks a rather unnerving preoccupation with noise, security and vandalism. The site runs along the thunderous approach road to the Blackwall Tunnel under the Thames, the noise of which it tries to block through a threatening, intrusive system of tall concrete baffles. Access from the streets around was difficult, as if the intention was to hide the estate. The Smithsons called it "building for the socialist dream, which is something different from building for the socialist state" - fine words, but the building itself showed how that dream was dissolving into paranoia and distrust by the 1970s.

By 2007, when Tower Hamlets Council (who took over the buildings in 1986, when the Greater London Council was abolished) slated it for demolition, the building was largely forgotten - except, of course, by its residents. One of the more reliable historians of public housing in Britain, John Boughton, notes that it was built in a period of considerable racial tension in the East End of London, and was semi-officially designated by councillors as an 'Asian' estate, with families from Sylhet, Bangladesh being housed there, and then largely abandoned, with the buildings facing little if any upkeep or renovation. Boughton argues that as housing, the estate's success has been mixed. The flats themselves, with their spacious layouts, high ceilings and views, have been popular throughout; the public spaces much less so, particularly the narrow stairwells and the weirdly steep green between the buildings, formed out of rubble from the demolished slums that were originally on the site, which has been seldom used. A playground designed by the Smithsons was demolished early on. Few of these problems were unfixable, but they added up to a neglected place to live. Visiting it in the 2000s, it was striking to find that the "streets in the sky" were actually reasonably well used,

with residents chatting to each other on the wide decks, but the emptiness of the central space - on one occasion, topped with a pile of burnt furniture - and the poor quality of the building's fabric were inescapable.

PERSPECTIVES

As for its esteem among architects, one indicative opinion can be seen in Edward Jones and Christopher Woodward's widely read Guide to the Architecture of *London*, which describes it as evidence of "a determination to realise a theoretical position at all costs". (Woodward was among Robin Hood Gardens' project architects.) Yet, immediately after the council's proposal to demolish it, the architecture weekly Building Design launched a petition to save it, soon signed by a list of architects (anyone who was anyone, from Richard Rogers to Zaha Hadid), developers (such as Stuart Lipton, founder of the huge property company Stanhope PLC) and celebrities (including the pop philosopher Alain de Botton).

> Progressing without any input from residents, the campaign was easily ridiculed by Tower Hamlets as evidence of little more than the weird obsession of a gaggle of aesthetes who probably lived in nice Georgian houses.

Tellingly, many signatories pointed to 'success stories' for preserving modernist housing estates that had entailed their residents being 'decanted' elsewhere and richer design enthusiasts moving in, such as at the Denys Lasdun-designed Keeling House, in the same London borough. The fact that the estate was, since the 1990s, on the doorstep of the massively overheated new financial centre of Canary Wharf was not coincidental to these considerations. The borough wanted to keep itself afloat by selling what was now hugely valuable land, and the building's defenders imagined well-heeled design aficionados living on the streets in the sky.

Naturally, it is hard to imagine residents being enthusiastic about their own possible eviction for the reasons of their homes' architectural significance, and the council's own consultation showed an apparently overwhelming favouring of demolition and rehousing on site. But then, the replacement proposals also had little to offer them. The new estate will be several times more dense and significantly taller, without any public housing on site, though with the option for residents of being eventually housed in one of the new blocks, albeit at a much higher rent, and without the guarantees local authorities offer with regards to security of tenure. It is, accordingly, unlikely many residents will be rehoused, as the area's demographics shift towards bankers. Several years after Building Design's petition, one resident embarked on his own consultation, to find out what residents' true opinions were; crucially, he conducted it also in Sylheti, the first and sometimes only language of many residents.

ASSEMBLE PAPERS

NEXT PAGE: The original building, Robin Hood Gardens. The dashed outline marks the section of the facade that has been preserved by V&A. Photo courtesy of Venice Biennale.

The desire to stay was as strong as the desire to leave, as shown in the borough's statistics. Yet the residents' wish to stay in their homes and the architects' desire to save them for architectural history never intersected.

What had changed by 2018, to see so much disgust aimed at the V&A's purchase of a three-storey section of building? First, many projects similar to the Robin Hood Gardens replacement had by this point come to pass across London, and it was clear that ex-residents of housing estates were not their beneficiaries. There were high-profile campaigns to save public housing estates, both of architectural significance - Cressingham Gardens and Central Hill in Lambeth, for instance - and of none, such as the Aylesbury and West Hendon estates. These included residents, architects and historians, all part of the same movement, all equally committed to saving - and extending - London's enormous legacy of non-profit housing. This has been given particular urgency by the disaster at Grenfell Tower, a council-built high-rise in west London, which caught fire in June 2017, killing 72 people. So far, all reports argue that the cause of the disaster was the poor quality of the building's renovation, with substandard workmanship and, most notoriously, the installation of flammable cladding panels onto the original concrete. The likelihood that people died in their homes because safety for public housing tenants was of less concern than minor cost-savings has led, of course, to increased concern with building safety. But, in London especially, it has added to a weight of evidence that governments, councils, developers and the building industry don't care about public housing, or the people who live in it.

Because of this, Londoners now finally have the confidence and the anger to stick up for their housing, and not just as something significant for architecture and design, but as something that matters socially, that provides a service that the market will not and cannot. That shift came too late for Robin Hood Gardens.





тор & воттом: The inside of the Robin Hood Gardens installation at Venice Biennale. Photos by Franceso Galli, courtesy of Venice Biennale.

The building was run-down for years before residents began to be moved, and many were very glad to leave what had become a crumbling relic. The chunk placed in a museum and shown at a Biennale has become a symbol, and not the one it was intended to be: an image of neglect and waste in the face of overwhelming human need.

ASSEMBLE PAPERS

BLUEPRINT CITY

Practical thinking on urban design, from the physical to the psychological space of cities



How Finland is Ending Homelessness: Julha Kaalkinen

PREVIOUS SPREAD: The courtyard of social housing project Malagankatu 3, in Jallukka, Helsinki. The project was completed in 2017. Photo by Jouni Törmänen. BELOW: Y-Foundation CEO Juha Kaakinen. Photo courtesy of Y-Foundation.

In the decade since 2008, homelessness has increased in every European country – except **Finland**. During that time Finland has eliminated rough

sleeping, and reduced homelessness by 35 percent. **The homeless population continues to decline.**

The solution is simple: provide permanent accommodation to people experiencing homelessness, a principle known as 'Housing First'. Juha Kaakinen, an architect of the Finnish system and now CEO of the Y-Foundation, Finland's largest not-for-profit housing association, says that it became clear in the mid-2000s that the system of temporary housing was not solving the problem of homelessness. "We are not there yet, we haven't completely eliminated homelessness," says Kaakinen. "But we are on the right track, and we started on that path when we changed our thinking to see housing as a human right, the foundation for living a good life."

In the 1980s, Finland's estimated homeless population was around 20,000, or approximately 0.4 percent of the population, similar to Australia's current rate. The main driver was a lack of affordable housing. Kaakinen describes that period in Finnish homelessness as "very, very bad"; so bad, in fact, it triggered sustained investment in social housing from the national government that continues to this day. The steady rise in affordable housing led to homelessness declining from the 1980s until the early-to mid-2000s, when signs emerged that chronic homelessness was rising (defined in Finland as lasting for a year, or recurring over two years or longer). "For people who experience chronic, long-term homelessness, access to an affordable house isn't the only problem," Kaakinen says. "They have more complex issues to deal with, such as substance abuse and mental health problems. We realised the traditional thinking of using hostels and shelters wasn't working, because the same people were going into temporary accommodation and exiting back into homelessness. We knew we had to change our thinking."

Prior to 2008, the pathway out of homelessness in Finland involved a series of unpredictable placements in temporary accommodation, until one could demonstrate they could live independently. This system is very similar to those in Australian states and indeed, around the world; permanent housing is essentially a reward for having your life in order. "People living in shelters and hostels are still homeless," says Kaakinen. "That's not a place where you can build your life and positive relations with other people. It's also very hard to get back to employment [when] living in temporary housing."

According to Kaakinen, although the number of people experiencing chronic homelessness was "not very high", Finnish society maintains a strong sense that everyone should be cared for. (It is interesting to note that when the program started, the housing minister was from what Kaakinen describes as the "conservative right-wing party".) "To keep the society functioning, you have to keep everybody in," he says. "It's a very strong cultural way of thinking. Finland is quite a small nation, so we really stick together. Like everywhere else, we have political differences, but there is still a very strong tradition that you have to look after your fellow citizens." In 2008, having considered Kaakinen's report, the Finnish housing minister implemented a national scheme targeting the chronically homeless, using the Housing First principle. The Y-Foundation, where Kaakinen is now CEO, owns more than 16,500 apartments across Finland which are rented out to people experiencing or at risk of homelessness - the organisation is the fourth largest landlord in Finland.

The new program required new housing. Many of the 3,500 apartments provided to date - well above the initial target of 2,500 - came from converting temporary accommodation into permanent housing, says Kaakinen, with support staff located in the building. Non-profit housing associations could apply for grants to cover 50 percent of the renovation costs. Support levels vary, with the ratio of staff-to-residents being between 1:10 and 5:10. Crucially, engaging with the support services is not mandatory. "There are different kinds of support, from help with daily activities through to detoxification in the home and support for people with recurring psychoses," says Kaakinen. "It's individually tailored but based on free will; you don't have to take support to get the housing. The housing and support services are separate." Through this system, an incredible 82 percent of people have been able to sustain their tenancy after two years of moving in. The program has been so successful that Kaakinen says

chronic homelessness is no longer an issue in Finland. "In Helsinki, for example, there were approximately 600 spots in temporary accommodation," he says. "Now there's one service that has 52 beds, but that's really for emergencies. It's been a major transformation of the system."

Related to the idea of freewill and respect for the individual is the 'principle of normality', which is integral to helping people maintain their tenancy. "Even though you are experiencing homelessness, you have your own rental contract, with the same rights and obligations as everybody else," says Kaakinen. "But if you can't afford the rent, you're eligible for a housing assistance payment – so the money is not an issue." Beyond rental assistance, the rent is not subsidised.

Kaakinen noted that there was some concern from the community at the start, but "strong media support" curtailed that. "When we started the program, there was information in [the newspapers] showing where the new apartments would be built. People could see 'yes, there's one in my neighbourhood, but also many other ones in other places' and this helped with any lingering resistance."

On the topic of research, Kaakinen calls it a "black spot in our program... We've been so keen to do things that we haven't been documenting it as well as we could have," he says. They know the program is successful through statistics, but equally important, Kaakinen says, is anecdotal measures of success. "The important thing is what happens on a very personal level," he says. "There are very good examples that show the feeling of wellbeing is quite different when you have a house of your own. People who have problems with substance abuse, for example, are reporting that they are drinking less and they are getting their lives in order. It's not always the case, but surprisingly often that's what's happening."

Kaakinen points out that the problem of homelessness is related to the general housing situation in a country.

> "If there's a huge imbalance in the housing system, it will lead to increasing homelessness," he says. "They have to be tackled at the same time, and for that reason social housing is so important. It's a question of social fairness."

To ensure the growth and future of affordable housing in an urban centre like Helsinki, municipal governments have made 'inclusionary zoning' standard. "It is not legally binding, but there is a firm agreement between the municipalities and the property developers that in each new housing area, 20 percent of new development is dedicated to social housing, at exactly the same quality as what is provided in the private rental market. We are working on increasing that number to 30 percent."



LEFT: A social housing unit in Porvoo, Finland. Photo courtesy of Y-Foundation.



BELOW: The outside of one part of the Ruoritie Kotka development, completed in 2016. Photo by Jouni Törmänen.



LEFT: The high-quality interior of a social housing unit in Ruoritie Kotka. Photo by Jouni Törmänen.



ABOVE: Social housing in Finland is built to the same standards as private housing. Here, the bathroom of this unit in Ruoritie Kotka also has a sauna attached. Photo by Jouni Törmänen. Although there is some speculation in the Finnish housing market, Kaakinen says that the consistent investment in social housing and the 20 percent inclusionary zoning has prevented "a housing disaster" from hitting Finland, and Helsinki in particular. "You can see what happens when housing is the playground of finance and speculation, rather than seen as a social right, basic social infrastructure that's needed to keep society functioning," he says.

At the time of writing, social housing makes up 13 percent of Finland's total housing stock and rising, compared to just 4 percent in Australia. "There is no way you can end homelessness with such a low percentage of affordable social housing," he says.

"In a [wealthy] country like Finland or Australia, it's not a money issue. It's also important to understand that helping the homeless out of homelessness actually saves money – we have studies that show when one homeless person gets permanent housing, with support, it saves our society €15,000 [AUD\$ 24,460] per year."

Setting up women's specific services, halving the current homeless population by 2022 and building 5000 new apartments are just some of the new goals set by the Finnish government. Kaakinen's Y-Foundation even runs an affordable housing block for low-income musicians. "We have a whole building dedicated to housing rock musicians," says Kaakinen. "It's very good: we have our own house band now!" The initiative came about after the closure of an underground rock radio station, and reflects a recognition of the contribution artists make to society. "We thought it was a good idea – not everyone can be a star like your Courtney Barnett!"

With a tangible example of how a coordinated, national strategy using Housing First and investment in social housing can end chronic homelessness and save a government money, it raises the question: why is Housing First not being adopted in Australia? "It is quite a mystery," says Kaakinen. "You have extremely good research on homelessness in Australia – honestly, some of the best in the world. But it is strange that it doesn't have more of an impact on actual government policies." Kaakinen also observes that Australia has some good examples of early-phase interventions to identify people at risk of homelessness: "That's something that we don't have as much of in Finland; for example, school screenings. So, there are good elements. It's just hard to understand how the situation in Australia is so difficult." ●

> If you would like to help end homelessness in Australia, the Council to Homeless Persons website lists a range of initiatives on chp.org.au



Practical thinking on urban design, from the physical to the psychological space of cities



Amsterdam Social Housing: A Primer

PREVIOUS: Michel de Klerk's distinctively geometrical Het Schip ('The Ship'), 1919, built for socialist housing association Eigen Haard.

The residential variety across Amsterdam city is stunning. Some rents are high, but many more are controlled, kept affordable by non-profit associations that deliver the bulk of housing in the Netherlands. From the expressive brickwork of early 20th-century workers' dwellings to a new generation of refugee-inclusive youth housing, Amelyn Ng explores the system of affordable housing allocation in Amsterdam.



ABOVE: Entrepotburg (1992). Almost all the units in this spiral-staired 'housing on a bridge' are rent-controlled.

One evening, on a cycling detour through Amsterdam's inner East, I found myself pausing before a fantastical béton brut housing-on-a-bridge hybrid from the 1990s. Who lives here? A local resident disclosed that almost all the units in the portholed, spiral-staired Entrepotbrug complex were rent-controlled. I later happened upon numerous other majority-social-rent buildings, set on prime land despite Amsterdam's escalating housing prices. Many were eye-opening works of architecture: from the 900 house garden suburb of Betondorp ('Concrete Village') that features nine postwar methods of concrete construction, to Barcelonaplein, a neoclassical rotunda along the KNSM Island waterfront. I also came across estates that had narrowly escaped demolition, such as Hoptille, a stretch of low-rise walkups built in the 1980s in reaction to the Modernist high-rise typology, and Heesterveld, a cluster of prefabricated concrete 'cubes' now turned into a quasi-gentrified district of students and artists on temporary leases. The breadth of experimentation and social planning I saw was remarkable, in stark contrast to the standardised commission flats I was used to seeing in Melbourne. The more I looked, the more I understood that there was a significant story to be told here: not only of aesthetic diversity, but of the institutional configurations that have fostered decades of productive and diverse housing developments.

The Netherlands has enjoyed a long, robust tradition of social housing, in large part due to the early establishment of Woningcorporaties (housing associations), organised around trades, religious denominations and political affiliations. When the Woningwet (Housing Act) was passed in 1901, the state enabled housing associations to take up the role of self-developer, landlord and ongoing maintainer of social housing stock. Tracts of land and guaranteed low-cost loans were made available for the construction of improved worker's housing, with development restrictions.

The first social housing, in the brick-expressionist Amsterdam School style, was built in Spaarndammerbuurt to newly initiated regulations such as electricity and sanitary fixtures. One exemplar is the curvilinear Het Schip ('The Ship'), designed by Michel de Klerk in 1919 for socialist housing organisation Eigen Haard, which still operates today. This emblem of the peoples' architecture movement was not just a social housing block, but also a post office and a school. In 2001, Het Schip became a museum of Amsterdam School housing, while maintaining – amazingly – 80 percent rent-controlled apartments.

Post-World War II, housing associations received government subsidies to construct large planned neighbourhoods in the west, and later to the south. A youth squatting movement in the 1970s and 1980s, which sprung up in response to increasing evictions and fostered a culture where tenants' rights were strongly protected. Despite growing privatisation and for-profit development, the national promotion of home ownership, a decline in rent-controlled dwellings and numerous recent corruption scandals across Dutch housing associations, social housing is still the largest housing sector in major cities like Amsterdam (44 percent) and Rotterdam (over 50 percent). In Amsterdam's private rental market, 50,000 units (12 percent of all dwellings) are rent-controlled. Unlike the stigmas of poverty, welfare reliance and 'otherness' associated with public housing in Australia, Dutch social housing is a culturally accepted way of living.

BELOW & RIGHT-TOP: Startblok (2016), a pilot project offering housing to young persons, with a focus on refugees. Set on a former sportsground, the project consists of 565 modular units, built in former shipping containers.



Eager to know more, I contacted Pepijn Bakker, architect and director of the first International Social Housing Festival (ISHF) held in Amsterdam last year. We meet in an up-and-coming neighbourhood near Property Rochdale, where he now advises on development and renovation strategies for their social housing stock. Many present-day organisations have extended roots: Rochdale is the oldest housing association in Amsterdam (from 1904), named after the 1844 Rochdale Society of Equitable Pioneers in England which became a template for the modern co-operative movement. Within these historically trade-based or denominational associations, collectives of to-be tenants were assembled before the act of building itself. "Commitment was easily organised around housing development this way," Bakker remarks.

Until 2014, according to Bakker, Woningcorporaties owned more than half of the Netherlands' total housing stock. Amsterdam alone is home to nine housing associations, some specialising in student or elderly homes, together owning 42 percent of the city's dwellings. He points out that the private rental sector is still very small; around three-quarters of rental homes in the Netherlands still belong to housing associations, which continue to develop, lease and maintain subsidised dwellings. Eighty percent of vacant social housing stock must be let to those with incomes under €35,739 (2016 data), with an average rent of €488 per month [AUD\$770], capped at €710 per month [AUD\$1147]. Housing associations are allowed to lease 10 percent of their stock to higher-income households. Before the Dutch buy a house, they generally rent social housing.

> However, Bakker notes that waiting lists can still stretch up to 12 years, and that the system should not be taken for granted: "I still regard the ability to live in social housing as a gift."

The ISHF, an initiative as uncommon as it is commonsense, was established to remind Amsterdammers of the progressive housing initiatives their city enjoys. Bakker, a former practising architect at MVRDV, started working in more interdisciplinary and equitable spaces, began teaching at TU Delft's Dwelling department, and in 2014 developed the idea for a festival with his students. The ISHF was inaugurated in June 2017, as a joint initiative of actors across local, national and European Union scales: Museum Het Schip (which served as its primary venue), the Municipality of Amsterdam, Amsterdam Federation of Housing Corporations, Federation of Dutch Social Housing (Aedes) and Housing Europe. Its initiators' ambitions and efforts were met with success: held over nine days with 45 events organised by 40 partners, the festival attracted 1300 visitors - a significant number for a niche, first-time event.



BELOW: Amelyn Ng chatting with Aline and Adrian, residents and community managers at Startblok.





"There were at times up to four parallel events. You could never 'see it all'!" smiles Bakker. "That was our programming strategy: to convey that there is always something bigger than you are - events, topics, networks..." The ISHF team became a publisher and instigator, weaving together meetings and exhibitions (such as Het Schip's Dromen over wonen ['dreaming over living'] exhibition by photographer David Zijlstra on temporary newcomer housing), community workshops, field visits and symposia (for example, 'A Right to the City, a Right to Housing' by Het Nieuwe Instituut). The festival format opened a new discursive field in social housing, where one could discuss critical issues "without there being anything at stake," Bakker says. "The whole purpose was to cut across the different strata of people who'd never usually get to speak to each other; for example, we used newsletters to introduce tenants to events other than that of their own housing associations."

On ISHF's closing day, a new '40/40/20' housing mandate for Amsterdam city was announced: a municipal requirement for tenant mixes of 40 percent social housing, 40 percent mid-segment, and 20 percent 'free sector' (commercial) housing. Across the board, the importance of social housing was being recognised again, and relations between municipalities, associations and tenants, frayed in the recent corruption scandals, were being repaired. Research projects presented at ISHF also bore fruit: *A City of Comings and Goings*, presented by Crimson Architectural Historians at ISHF, has gone on to the Venice Biennale 2018. The festival's success has had a ripple effect: Bakker has since been commissioned for the next edition of ISHF in Lyon, France, and another in Rotterdam.

I also visited Startblok Riekerhaven, a pilot housing project for 18-to-28-year-olds developed in 2016 by housing association De Key, with the selfmanagement expertise of youth housing provider Socius Wonen. Set on a former sportsground adjacent to a highway in Amsterdam's Nieuw-West, Startblok offers 565 modular units in renovated former shipping containers. The aim is to give each youth on the block a running start in Amsterdam with five-year tenure security. Rent, including utilities, ranges from \in 411 per month (AUD\$664) for a 14m² room in a four-bed apartment to \in 510 per month (AUD\$824) for a 23m² self-contained studio. LEFT: A peaceful afternoon in Het Schip. One of the most highly regarded social housing buildings in the Netherlands is now a museum – but it still includes rent-controlled housing. When I meet Aline and Adrian, both mid-twenties residents and community managers at Startblok, there is little sense of temporariness often associated with container architecture. Seated in their shared courtyard with hall neighbours Nasr and Ibrahim, they are soon telling me about how they joined Startblok in its startup phase. Nasr, a cheerful 24-year-old refugee status-holder from Syria, had been in the Netherlands for two years before his relocation to Riekerhaven. Educated in criminology, he spoke about the mandatory integration and Dutch-language course for status-holders, his organisation of a recent 'What About' knowledge-sharing evening on Syrian history and culture with other residents, and his work as a sous chef for a local golf club.

Ibrahim, a young lawyer from Palestine who begins a new law degree this summer, is the hall's social and group manager. For him, the best thing about Startblok is its diversity. "There's not a day I haven't learned something new about someone else's culture," he says.

Given the temporary nature of the building's construction, I was expecting sparse standardised interiors. Instead, the studios are personally furnished, fully self-made homes. Each unit came as a bare shell with only cooking and sanitary fixtures – everything else has been purchased and added by residents over time. Crucial to Startblok's reuse strategy is the addition of social spaces, both inside each hall and outdoors: a clubhouse, barbeque pits, sports fields and even a treehouse constructed with leftover timber from a recent music festival. Vital to Startblok's model is resident self-management: Aline and Adrian explain that all management staff are youth residents, including the technical maintenance team – another echo of Amsterdam's selforganising housing history.

The land these studios are built on will revert to its owners after 10 years. There are plans for the containers to be relocated when that happens – most likely to another temporary site. Meanwhile, De Key are starting a new block – this time in Amsterdam North, with construction to be completed this December.

Amsterdam's active commitment to rent security and communitybuilding is encouraging, given today's growing atomisation of city dwellers, gated communities, NIMBY-ism and privatisation. But even in the Netherlands, social housing must still be safeguarded. Bakker tells me that the increasing abdication of concrete religious and political positions in society at large is reflected in the changing structures of housing associations: mergers in the 1990s turned many into "average, profit-driven developers". In the last decade, the Dutch government has aimed to restrict housing associations' commercial activity, by establishing stronger ties to municipal governance and restricting development activities to subsidised housing. Regulatory action around market-rate renting is increasing, and there is talk of improved owner-occupancy rules to combat 'Airbnb gentrification'.

A key lesson from Amsterdam's story is that developers and associations need to recognise who they are building for over the long term. Being community-minded means understanding the importance of protecting social rents and tenant diversity. If reminding housing actors of common rights and future roles means having to throw the occasional festival, so be it.



тор: Betondorp ('Concrete Village') was built in the 1920s as a garden suburb. воттом: Barcelonaplein (1993), a neoclassical rotunda-shaped housing complex, seen from the waterfront.

ASSEMBLAGE

The cultural fabric of cities, covering people and projects across art, architecture, design and cross-pollinated creativity



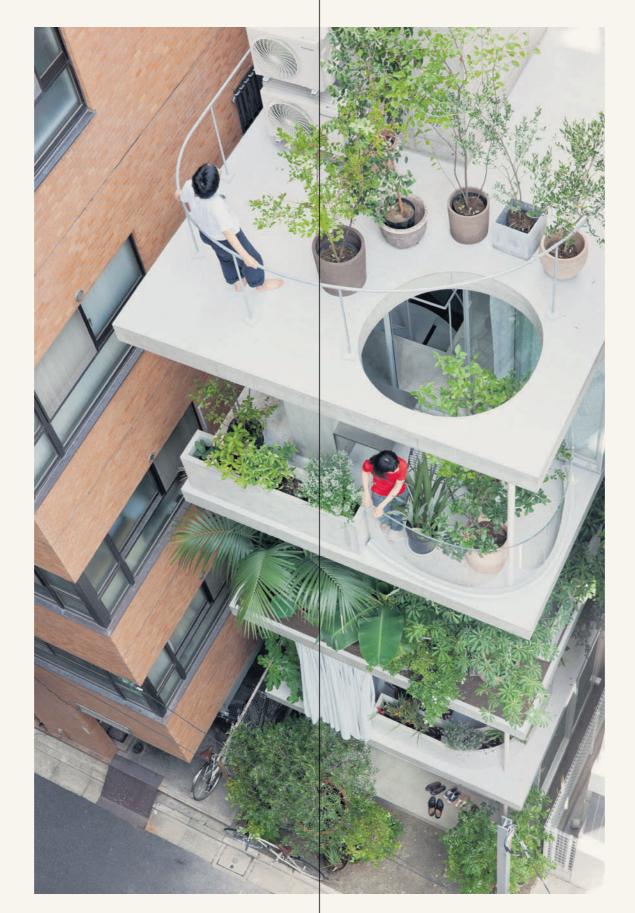
Ryue Nishizawa / SANAA:

The Artificial Belongs to Nature

PREVIOUS: Ryue Nishizawa at Living Cities Forum in Melbourne. Photo by Tom Ross.

THIS PAGE: One of the best-known small residential projects by Office of Ryue Nishizawa, Garden & House mixes up the interior and exterior of the building, the artificial and nature. Photo by Iwan Baan.

Eight years ago, I showed up late to my first day as an intern at **SANAA**, dressed too formally for the summer heat.



I had trouble finding the office, in a Tokyo warehouse by a harbour canal. There had been a big deadline the day before, so the office was mostly empty. I moved slowly through tables towering with models – the best I had ever seen. They were immaculately made, set aside almost casually. After standing near the entrance for some time, I finally found someone to talk to and was introduced to my project. I sat down to attempt to make models on par with the others.

I had been interested in SANAA since I began to study architecture. Led by Ryue Nishizawa and Kazuyo Sejima, SANAA began in 1995 in post-bubble Tokyo and from the beginning demonstrated an incisive and clear mode of design. Both Nishizawa and Sejima also run their own individual practices, sometimes collaborating and other times not. But both architects' buildings seemed to lift off the page, direct from idea to completion in a way that is incredibly rare in an industry where so many people must collaborate, and every project is bound by constraints. Their influence on a generation of architects was almost immediate, and they have continued to refine and explore architecture with a rare combination of aesthetic refinement and technically superb execution. I learned so much about architecture from simply looking at those clear, precise models.

I recently sat down with Ryue Nishizawa, in Melbourne for Living Cities Forum, and asked him about that handmade aspect of his process. While most architects have moved exclusively to 3D computer modelling, he still works physically. "We appreciate studying ideas by models," he says. "It extends our imagination outside of the mind, where there is no scale, and where all of the complex relationships which need to be considered are unclear. With models we see so many unexpected things; they reveal our imagined reality to ourselves."

The physical materiality of models is a revelation, says Nishizawa, who is interested in the moment in which he first sees his imagination become reality: "Computers give another surprise, but very different and not as useful."

Perhaps this physical approach keeps his work more connected with the natural world. Many of Nishizawa's projects have an intimate relationship with nature that is at once apparent to the eye but belied by the materials he uses. They have abstract qualities: glass (transparent but weatherproof), steel (working in compression or tension), concrete (structural, massive), paint (as a method of reflecting light). And yet, by their placement and arrangement, Nishizawa's architecture is able to enhance human connection to nature, almost as if the building acts to magnify the natural world. His architecture accentuates nature and directs human perception to it.

Nishizawa uses obviously artificial building elements, rather than mimicking natural forms or applying natural camouflage to the building with wood or stone. When I ask what he thinks of the current trend of engineered greenery on buildings, he replies:

"Japanese people understand that the artificial belongs to nature. There is no clear boundary."



ABOVE: SANAA's Louvre Lens (2012). A 360-metre long steel and glass structure of the museum is integrated into a 20-hectare wasteland, former coal mine. Photo courtesy of SANAA.

Observe the ground on Nishizawa's projects and you will often see bare soil, interspersed with hearty plants of expressive form. The ground is not manicured or overly hardscaped; the trees are not uniform, the variety feels natural and a bit unruly. "The fashion now is for commercial buildings to do a huge green facade, but these are not as wild as we might have expected," Nishizawa tells me.

"Nature, I imagine, is more alive, more wild. This is true even for a really small plant; the sense of being wild and alive is important."

When looking at Nishizawa's buildings, the impression is that only the fine elements make it through. There is nothing extraneous, no assumptions carried over from the past, nothing pro forma. In his recent Fukita Pavilion project, on the island of Shōdoshima, Nishizawa took the basic elements of floor and roof to their very elemental: two hanging hammocks of steel, one covering the other. This radical, yet simple, approach has the playful effect of recontextualising architectural elements. While architects smack their foreheads, according to Nishizawa, it is children who seem to find the place most appealing.

This perhaps points to the weight of assumptions and history with which most adults, and architects, view architecture – and the value of an architect who questions everything. Nishizawa's Moriyama House in Tokyo is a virtuosic feat of architectural engineering. The walls are as thin as possible: the outside is a plate of steel which supports the floors and roof, a layer of insulation, and plasterboard for the interior. This is a reversal on par with Richard Rogers' externalisation of all the services on the facade of Centre Pompidou: by making the structure into the cladding, Nishizawa refers back to pre-modernist architecture, when bricks or stone both supported the building structurally, and acted as the building's skin. On stepping inside these buildings, one can see a profound understanding of human use patterns. Whether in his Teshima Art Museum in Naoshima, or one of Nishizawa's many perceptive and nuanced residential projects, each is highly concerned with how people will experience the space in time, sequence and in the repetitions of daily life; in ways peculiar to them, and in new ways they may not have known.

The design for Moriyama House reveals a radically nuanced approach to the question of function. The client wanted a place where he could live in retirement, but also potentially rent out some living areas. Taking this brief to its most radical interpretation, Nishizawa designed a series of boxes and detached rooms which can agglomerate to form apartments, scattered throughout the site. This approach required that the resulting boxes worked both with each other and the spaces in between. Nishizawa solved this case by case, working hard to skillfully resolve each room, each moment. The ground is left raw, soil with plants, some wild, some cultivated. The rooftops are accessible where it makes sense for them to be, and thus all of the interstitial spaces are included in the design.

"Throughout history, architecture always shows how people live," says Nishizawa. "If you see a Roman colosseum, you understand how they enjoyed entertainment back then, though we would never have this program in our society today. If you go to the suburbs of Tokyo to see detached houses, you will see two car parks, three kids' rooms, and you will understand that it is a mobile society – to have three kids they had to get out of the city. It's situated very far from Shibuya, so you see that it's a train-commuting society, this means the husband is always away, and the wife is at home occupied as a housewife – you can see all of this through architecture."

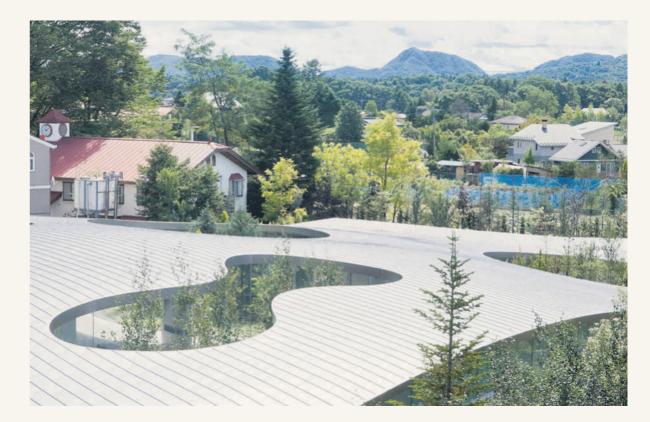
In other words, architecture represents what is important to people, and what is unimportant. Musing on the way that architecture will have to adapt to humans in the future, Nishizawa speculates:

"Our life patterns change. If we lose cars for example, if we lose the computer, there would be so many changes inside and outside. But there are some things which won't change: for instance, gravity, or summer typhoons in Japan."

Given the variety and scale of factors that Nishizawa takes into account when working, it is not surprising he chooses to bring his projects close to reality as soon as possible with physical models. It may be what allows his projects to step into the real world more carefully and considerately, to remain as he imagined: intact.



TOP: Grace Farms (2015), a social and cultural centre in New Canaan, Connecticut, by SANAA. It's open-ended spaces in concrete, steel, glass and wood sit gently on the land. воттом: Hiroshi Senju Museum (2011) in Karuizawa, Japan. The interior of the museum is naturally lit by plant-filled, organically shaped light wells that puncture into the galleries. Photo courtesy of Office of Ryue Nishizawa.



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Jana Perković is the editor of *Assemble Papers*. Her passions include hiking, Chinese restaurant music, and the normcore aesthetic. Jana subscribes to the credo that everything is doable, but not everything is worth doing. Should there ever be a biopic, she'd like to be played by Adrien Brody.

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Tom Ross grew up on Victoria's surf coast, always carrying a camera, but never considering it a career. He started out studying marine biology, but a sevenmonth road trip around Australia caused him to reconsider his path. Graduating from photography at VCA, with a stint at Massachusetts College of Art, Tom has since begun a full-time commercial career in photography, specialising in architecture and editorial work.

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