THE ARCHITECTURE OF HOUSING AFTER THE NEOLIBERAL TURN
SPRING / SUMMER 2019

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The housing question

Friedrich Engels's *The Housing Question* (1872) delivered a vital contribution to highlight the relation between adequate workers' housing provision, the prevention of social unrest and the promotion of economic prosperity.[1] With the global dissemination of the Industrial Revolution, housing rose to a prominent position in the apparatus of the capitalist mode of production. Eventually, in the interwar period, workers' housing performed a key role in the re-organisation of class relations and the city, and in shaping modernist architecture. The housing policies and design implemented during the so-called 'Red Vienna' period is a case in point.[2] Later, with the reconstruction of Europe in the aftermath of World War II, housing gained momentum as a key factor to secure the social reproduction of labour. The 'social project' of welfare state politics identified housing as one of its main pillars and attracted the engagement and creativity of talented professionals in private offices and public housing departments.[3] The post-war focus on housing triggered the emergence of theories on the architecture of housing as a social and spatial practice, which proliferated and occupied the main stage in venues such as the CIAM, UIA Congresses, Team 10 meetings, Delos Symposia and so on.[4]

However, the notion of housing as a public good has been ideologically rejected by neoliberal regimes since the 1980s. From the 1980s until the first decade of the twenty-first century there was a sharp decline in the visibility of housing as a mainstream topic in architectural scholarship, media and education. Furthermore, with the exception of a few events (e.g. the Barcelona Olympics, the IBA Berlin, or the harbour conversions of Amsterdam and Hamburg), over these three decades, mass housing projects have seldom made it to the portfolio of notable practicing architects and were rarely included in architectural publications. As Mary McLeod put it as early as 1989, 'in the 1980s most schools stopped offering regular housing studios; gentlemen's clubs, resort hotels, art museums, and vacation homes became the standard programs. Design awards and professional magazine coverage have embodied similar priorities'.[5]

Even recent scholarship seems to overlook the centrality of housing for a critique of how neoliberalism changed behavioural norms and models of subjectivation. In his *The Architecture of Neoliberalism*, Douglas Spencer analyses several architectural projects to assert that 'the truths shared by neoliberalism and the architecture compliant to its agenda have informed projects designed to serve as forms of environmental governmentality.'[6] Spencer uses case studies designed by prominent architects and architectural firms to put through his critique of an architecture of neoliberalism. Conspicuously, while works designed by the likes of Zaha Hadid Architects, Foreign Office Architects, Rem Koolhaas/OMA are featured in the book, not a single housing project is discussed. Spencer apparently does not consider housing a visible manifestation of the architecture of neoliberalism.

This is what this issue of *Footprint* wants to challenge. Rather than examining projects like BMW's Central Building or the new headquarters for CCTV (China Central Television), we believe the focus should be placed on housing as the ultimate form of environmental governability.

Despite still being underrated as a topic in many scholarly publications, professional magazines and architectural schools, since the global economic downturn of 2008, housing once more gained notoriety. In particular, scholarship on the entwined relationship between the current housing crisis and the hegemony of the neoliberal economic system and its associated corporate monopolies is now gaining momentum.[7]

Theorisation of the current housing crisis within architecture and housing studies assigns responsibility to the neoliberal economic system, which has since the 1980s transferred responsibility for housing provision from the state to global markets and the corporate monopolies dominating them, and to the dwellers themselves. The collusion of government (de-) regulation, market ideology, and the architectural desertion of housing theory stalled the production of innovations in the architecture of housing, prompting a crisis in the mechanisms producing and distributing housing solutions for different publics.

To mitigate the growing social unrest created by the current housing crisis, the neoliberal state is now called upon to re-provide housing using planning and policy – an ideological contradiction placing 'solutions' to the housing crisis at a deadlock. From the vantage point of architects, designing housing – whether at the high- or the low end of the market – remains largely a response to the tight constrains of regulatory and financial considerations. Hence, the contribution of contemporary housing design to the growing inequality and deepening of the housing crisis is rarely considered

within the architectural discipline. Consequently, 'architecture' as cultural product is often seen as distinct and separate from 'housing' as a socioeconomic need.[8]

In this issue of *Footprint,* we aim at bringing housing-as-design together with housing-as-policy and housing-as-market. We believe this transdisciplinarity is fundamental to discuss a key question: What is the value of housing today?

The value of housing
In her celebrated *The Entrepreneurial State* (2013), economist Mariana Mazzucato debunks the myths of private enterprise as the fast cheetah of innovation, opposed to the cumbersome and inefficient bureaucratic apparatus of governments and the public sector.[9] Recently, in her *The Value of Everything* (2018), Mazzucato follows up on this discussion, relating stories of wealth creation that challenge some of the most entrenched neoliberal dogmas.[10] To do so, Mazzucato raises a key discussion: what is value and where does it come from? She explains, for example, that a great deal of the wealth produced in Silicon Valley is indebted to public investment in education and research. Undervaluing the public sector is nothing but an ideological bias propelled by the neoliberal agenda.

This ideological bias has also contributed to downplay the importance of housing in the wider political economy. However, as Manuel B. Aalbers and Brett Christophers asserted in 2014, 'housing not only epitomizes but buttresses that wider capitalist ideology: it is in and through housing that much of the political work of reproducing and reinforcing the ideology of capital is performed.'[11] In his *The Financialization of Housing,* published in 2016, Aalbers further stresses the centrality of housing to the contemporary capitalist political economy in general, and particularly the financialisation debate.[12]

Both Mazzucato's and Aalbers's recent work operates mainly in the disciplinary field of political economy. They give us, however, an important intellectual framework to discuss housing in the field or architectural design, history and theory. What is the value of housing today and how has it evolved since the neoliberal turn? Is housing currently being used for value creation or value extraction? And what is the role of architectural design in this process? Are architects, architectural education and discourse more focused on contributing to enhance housing as a human right, as recognised in the 1948 Universal Declaration of Human Rights, or to confirm the commodification of housing?[13] In other words, using John Turner's famous analogy, is the architecture discipline handling housing as a verb or as a noun? A process or a product?[14]

We believe these two aspects should not construct a polar opposition. We should be capable of examining the interdependence between housing-as-policy and housing-as-design in any discussion on housing. Both policymaking and design decisions have to address aspects such as density and liveability, conviviality and affordability. In any of these aspects, we cannot dissociate the process from the product. For this reason, we need a new housing theory that provides a conceptual apparatus to navigate seamlessly between design (morphology/typology/technology) and policy (governance/management).

Mazzucato's brief history of value provides an important framework.[15] She explains how the boundary between what was considered productive (making value) and what was considered unproductive (taking value) have shifted since the first efforts to find a formal theory of value were made in the mid-eighteenth century. For the Physiocrats (e.g. François Quesnay), land was the source of all value. For the main thinkers of Classical Economics (Adam Smith, David Ricardo, and to a certain extent Karl Marx), value was associated with productive labour. Currently, the dominant economic theory is based on the 'marginal revolution', a theory of value that sustains that marginal utility and scarcity are ultimately the measure of value, which is expressed as price. In other words, as she puts it 'value is in the eye of the beholder'.[16]

Now, is it possible to try and determine the value of housing following the theory of value established by the 'marginal revolution'? Should the architecture of housing be re-framed theoretically according to a price tag? There are some approaches that follow this tendency: the famous 'half-of-a-good-house' strategy developed by the Pritzker Prize winner, Alejandro Aravena and Andrés Iacobelli, his partner in Chilean architectural office Elemental, is a case in point.[17] Their incremental housing scheme, especially Quinta Monroy, their pilot project built in the Chilean desert city of Iquique, has been celebrated in Europe and America as the return of social housing to the agenda of architects. Justin McGuirk described Quinta Monroy as an entrepreneurial triumph, an example of a new architectural approach 'designing for scarcity'.[18]

Another example of the use of the 'marginalist' theory of value to discuss the architecture of housing can be found in Reinhold Martin's study of the development known as 'New York by Gehry'.[19] Martin uses this case study to discuss the architecture of inequality, using the intellectual background provided by Thomas Piketty's influential *Capital in the Twenty-First Century* (2014).[20] Martin concludes that Frank Gehry's project – just an example that could be replaced by many other cases – demonstrates 'how something as concrete as a house or apartment plan functions as an investment'. Martin's essay insightfully explicates the interdependence between design decisions and value extraction. He describes the design agency 'correlating a certain life-style with a certain market or helping to shape a particular type of "household" as the primary socio-economic unit around which wealth is built.'[21]

McGuirk's discussion of Quinta Monroy and Martin's reflection on 'New York by Gehry' discuss the architecture of housing after the neoliberal turn as a consequence of how the preferences of millions of individuals (or, conversely, the 1 percent of top earners worldwide) makes or takes value. In particular, this narrative reveals the ways in which architectural design can be used to make value but also harnessed to extract value. As such, it challenges the traditional role of the public sector – and its bureaucratic apparatus – in the production of housing as a social right, rather than a commodity.[22] This raises a new set of important questions. To what extent do the taking and making of value determine the role of the public sector and the market in the production of housing? What are the consequences to the architecture of housing brought about by the changing dynamics of housing production?

In this issue of *Footprint* we want to discuss the implications of the neoliberal housing paradox for the discipline of architecture. Re-theorising the architecture of dwelling is urgent to critically assess past and current experiences and provide insights to engage with future challenges. Can this be an opportunity to reiterate the social relevance of housing and thus attract the best planners, urban designers and architects to contribute innovative solutions to accommodate the 'great number'? What possibilities are there to engage the architecture discipline in the housing question once more? What critical approaches to the housing issue after the neoliberal turn can be used to re-conceptualise the architecture of dwelling in a post-neoliberal period?

Housing: from social good to market commodity
The five research articles included in this issue unpack transformations in conceptions of value attributed to the architectural design of dwellings for the 'great number', providing us with a rich mapping of the transition from housing as social good to housing as market commodity. Corinna Anderson's 'Good Life Now: Leisure and Labour in Cedric Price's Housing Research, 1966–1973' explores Price's 'short-life' housing system, as an explicit commodity. Designed in 1970–72 in response to the British crisis of housing provision, this was one of the first responses to consumer choice as the organising principle of the architectural design of housing. Price's experiments accommodate a lifestyle of precarity characteristic of neoliberal society, emergent in Britain at the beginning of the 1970s. The formal flexibility and the 'short-life' house blurs the separation between the house and workplace, while its customisability and disposability reduces the family home to an expendable commodity.

The market emerges as the ultimate arbiter that inspires the project, through the offerings of caravans, prefabricated living pods and self-build housing brochures amassed in the *Housing Research* files. The composition of the short-life house is driven by consumer choice: not choice exercised abstractly, but through the market and shaped by the market's offerings. Price's provocative approach, through representing individuals' choices, demonstrated that needs were going unmet; he imagined housing as a new commodity, that would satisfy where housing as an 'autonomous and peculiar commodity' had failed. Price's work asks: what happens when the house is not just a container for the paraphernalia of consumption, but when the house itself, the family itself is posited as consumable?

Breaking with traditional forms, Price asks of the house what he would ask of any commodity: what it can do for its user, what part of living it can enable or ease. Anderson's essay thus identifies Price's work in the realm of architecture and design theory as an early design approach to the socio-economic and political processes of neoliberalism. Placed against contemporary discussions in architectural circles, placing 'housing' and 'architecture' as two opposed modes of action, Anderson's revisiting of

Price's *Housing Research* files points to the role of architecture in challenging the dichotomy between social good and market commodity.

In 'Density: Objective Measure or Critical Tool of the Neoliberal Agenda?' Claire Harper focuses on density as the most economic aspect of housing design, and outlines a history of housing density rations as principally economic metrics, against architects' uses and manipulations of density ratios. Harper situates density as a critical instrument of the neoliberal agenda vis-à-vis association of high urban densities with more sustainable, socially diverse, compact urban models. In its capacity to operate as both crude economic measure and qualitative descriptor of the urban experience, density has historically been a key device in the rebranding of urban living. The essay seeks to expand the role that architects have had in negotiating this duality, reviving an image of density that has been essential to its operation as a device for facilitating capital growth.

Housing density ratios, measured in terms of homes or rooms, have been recognised since the 1850s as principally economic metrics. The publication of the planning agenda *Towards an Urban Renaissance* in 1999 marked a turning point in the approach towards urban development and specifically towards urban density. Density was attributed with a range of physical, environmental and social implications, or at least potentialities. Most significant of these was the association of high urban densities with more sustainable, socially diverse, compact urban models – a positive affiliation that lead to the introduction of minimum density ratios for new urban developments and the gradual introduction of density ratios as a component of development briefs for new urban housing.

The willingness of the architectural profession to manifest the desires of dominant capital forces in formal, elegant typologies valorises the use of

mechanisms such as density within the development agenda. Meanwhile, positing density as a simple ratio, a Euclidean concept empty of social, political and emotional significance reduces the scope for an expanded, qualitative reading that values the potential arising from conditions of proximity, congestion and chaos as part of a collectively negotiated urban experience. The acute significance of density as a tool of the neoliberal process is borne out of its inherent capacity to hold myriad different meanings, providing the flexibility that responds to the covert operations of neoliberal economics.

Susanne Schindler's article focuses on the language architects use to navigate the intersection of architecture, housing, and neoliberalism. In 'Context, Community, and Capital: Keywords for the Architecture of Housing under Neoliberalism', Schindler argues that terminology plays a powerful role in allowing architects to avoid the socio-economic assumptions embedded in their work. Schindler traces the emergence, evolution, and codification of two such terms, 'context' and 'community', and how they have frequently been conflated. She shows how they were central to New York City's gradual shift from welfare-state to neoliberal housing policies between the mid-1960s and the present day by connecting them to a third key term, 'capital'. The vest-pocket housing plan developed for the South Bronx as part of the federal Model Cities programme serves as a case study. In the Bronx, the triangulation of community, context, and capital led to new development models, as well as new housing typologies, including the large-scale rehabilitation of existing tenements and small-scale new construction of row houses. The resulting shift in architectural discourse, and the codification of these practices in zoning and tax laws, have remained in force in New York City to this day.

Examining a celebrated case of public housing, Zihao Wong critically historicises Singapore's housing legacy by pointing to 'The Nation's "Other"

Housing Project: Pearlbank, Pandan Valley, and Singapore's Private High-Rise Housing Landscape'. Singapore's privatised high-rise housing landscape is the nation's 'other' housing project, emerging alongside the city-state's dominant narrative of its successful public housing project since the 1970s. Unique to Singapore's privatised high-rise housing developments was the intervention of the state in the close regulation of scarce land. Singapore's private high-rise housing developments thus reflect a nation's attitude towards its land as resource, and its subsequent imaginations and productions of more 'land' in the construction of high-rise housing estates. State intervention also maximised these housing developments as part of wider national aspirations to the status of a global city, and for its citizens, a 'green and gracious' Singaporean society. Taking the Pearlbank Apartments and the Pandan Valley Condominium as two key developments of Singapore's emerging private high-rise housing landscape in the 1970s, this article examines the production of the nation's aspirational housing in the confluence of Singaporean state-led vision and a people's housing aspirations. Wong's essay thereby points to neoliberalism as a state project, manifest in alterations to the national project of public housing in ways which challenge common assumptions regarding the role of the market in state housing.

Florian Urban returns to the celebrated example of Vienna's mass housing, outlining a long history of the city's housing legacy, in 'Vienna's Resistance to the Neoliberal Turn: Social Policy Through Residential Architecture from 1970 to the Present'. Examining a number of case studies built at the turn of the twenty-first century, when public authorities all over Europe increasingly retreated from their responsibility for housing, Urban shows how Vienna refrained from large-scale privatisations. Upholding the system of state-subsidised housing, Vienna supported new architecture as a means to regenerate the inner city and to promote innovative social policy. This was based on original design that took from a variety of mostly modernist precedents. The article unpacks Vienna's strategy of harnessing innovative architecture for social policy goals as a successful approach to provide affordable residences that respond to current economic needs. Urban thus argues that the Vienna case demonstrates that the 'neoliberal turn' in housing provision was a matter of political choice rather than economic necessity, challenging the basic assumptions regarding the privatisation of housing.

'The Common Apartment', a visual essay by Golnar Abbasi, looks at the Tehrani typology of what she calls the 'common apartment', where liberalising processes constitute middle class urban citizens as the main players in the market. Following the Iran-Iraq war, the role of housing as the locus of socio-political struggles of Tehrani citizens gradually became a space and a structure embodying complex processes: the state's subjugating agenda, forces of the housing market, its labour and material market, the desires of the people, their political action, and architectural practitioners' attempts to put their practices on the map. This visual essay focuses on three threads in Tehran in housing in the post-Iran-Iraq-war context: the liberalising procedures and regulatory frameworks that still constitute the most common form of housing, positing middle class citizens as the main players in the market; the architectural repercussions of the regulating mechanisms and the subsequent formation of a homogenised form of housing; and a reading of these forms of housing as sites of people's practices of resistance in a framework of constant re-appropriation. Abbasi's visual essay makes a point in letting the architectural data 'speak for itself', reflecting the applicability of seemingly unique case studies of neoliberal housing to many other remote stories, thus pointing to the overarching nature of the questions posed by this issue of *Footprint*.

Looking forward: agents and ideologies

In response to architects' acceptance of the neoliberal free market dictum regarding housing as commodity, Dirk van den Heuvel makes a provocative argument, stating: 'There is no Such Thing as a Free Market: Public Planning versus Private Opportunity in Housing'. This review essay deconstructs the still hegemonic narrative of free market ideologists in the realm of housing by unpacking the positions of Patrik Schumacher, Rem Koolhaas and Jaap Bakema, emphasising the importance of striking a balance between private opportunity and public planning. Van den Heuvel calls out contemporary leading architects' uses of neoliberalism as an alibi for absolving themselves from architecture's responsibility for housing. Positioning Bakema against Schumacher and Koolhaas, van den Heuvel points to the role of architecture history in maintaining disciplinary knowledge and traversing the neoliberal dictum.

In 'House Vision: Architects and Industry Awakening "House" Desires and Visualising New Ways of Living', Cathelijne Nuijsink explores Japanese architects' active proposals in response to the intensification of neoliberal policies, initiating a new housing trend based on sharing, renovation and re-use of the existing housing stock. This essay highlights the work of the House Vision think-tank and full-scale building exhibitions – initiated in 2011 by Japanese designer and art director Kenya Hara – as one response to the socio-economic-political conditions after the Neoliberal Turn. House Vision aims to generate awareness among 'the great number' about alternatives to mainstream housing options, stressing architects' responsibility to design the seeds of change. A collaborative project between designers and industries to push the latest technologies in home electronics, energy and mobility devices into new architectural form, this vision proposes an active, generative role for architects in the neoliberal framework, that challenges the common professional discourse.

Finally, Josep Maria Montaner, in an interview with David H. Falagán, provides a discussion of 'Housing in Barcelona: New Agents for New Policies'. The city of Barcelona has faced a serious period of housing emergency gravely affected by economic crisis, positioning housing at the centre of both municipal politics and professional practice, where the impact of neoliberalism on the political role of architecture can be elaborated. Josep Maria Montaner, chair of the Barcelona School of Architecture Housing Laboratory of the 21st Century, moved from the world of academia to politics as housing councillor for the mayor of Barcelona. In this interview, Montaner highlights the crucial importance of aligning housing policies, housing design, and citizens' participation as a strategy to combat the housing crisis triggered by the dominant neoliberal system. Montaner's professional path in response to housing conditions in Barcelona voices a call for stepping outside of architecture's service position in the neoliberal political economy – and into decision making positions in urban politics. Montaner reads the neoliberal condition identifying new agents, policy makers that understand all the actors.

The contributions included in this issue of *Footprint* show how housing needs to be re-examined as a multi-layered phenomenon. Design is left out of many current discussions on the political economy of housing. However, considering the central role that housing plays in the life of any ordinary person, this separation of architecture and politics ought to be undermined. We believe this issue can stimulate a new theory of housing that combines housing-as-design with housing-as-politics and housing-as-market to address the overwhelming challenges that the current process of rapid urbanisation will pose to future generations.

Notes

1. Frederick Engels, 'The Housing Question', in *Karl Marx, Frederick Engels: Collected Works*, vol. 23 (International Publishers, 1988), 317–91. For a recent account of Engels's influence in contemporary debates on housing, see Haus der Kulturen der Welt, *Wohnungsfrage: Exhibition Guide*, (Leipzig: Spector Books, 2015); Jesko Fezer et al., *Housing after the Neoliberal Turn: International Case Studies*, 1st ed. (Leipzig: Spector Books, 2015).

2. Eve Blau, *The Architecture of Red Vienna, 1919–34* (Cambridge, MA: MIT Press, 1999).

3. Since the turn of the century, many case studies with compelling examples of this process have been published. See, among many others, Ann Waswo, *Housing in Postwar Japan: A Social History* (London: Routledge, 2002); Kenny Cupers, *The Social Project: Housing Postwar France* (Minneapolis: University of Minnesota Press, 2014); Gaia Caramellino and Federico Zanfi, eds., *Post-War Middle-Class Housing: Models, Construction and Change* (Bern: Peter Lang, 2015); Mark Swenarton, *Cook's Camden: The Making of Modern Housing* (London: Lund Humphries, 2017); Yael Allweil, *Homeland: Zionism as Housing Regime, 1860–2011*, Planning, History and Environment Series (Milton Park, Abingdon, Oxon; New York: Routledge, 2017).

4. Eric Mumford, *The CIAM Discourse on Urbanism, 1928–1960* (Cambridge, MA: MIT Press, 2000); Alison Smithson, ed., *Team 10 Meetings 1953–1984* (Delft: Publikatieburo Bouwkunde, 1991).

5. Mary McLeod, 'Architecture and Politics in the Reagan Era: From Postmodernism to Deconstructivism', *Assemblage*, no. 8 (1989): 38.

6. Douglas Spencer, *The Architecture of Neoliberalism: How Contemporary Architecture Became an Instrument of Control and Compliance* (London: Bloomsbury Academic, 2016), 162.

7. See, for example, Jack Self, ed., *Real Estates: Life without Debt* (London: Bedford Press, 2014); Peter Marcuse and David Madden, *In Defense of Housing: The Politics of Crisis* (London; New York: Verso Books, 2016); Reinhold Martin, Jacob Moore, and Susanne Schindler, eds., *The Art of Inequality: Architecture, Housing, and Real Estate – A Provisional Report* (New York: The Temple Hoyne Buell Center for the Study of American Architecture, 2015).

8. Richard Burdett and Philipp Rode, eds., *Shaping Cities in an Urban Age* (London; New York: Phaidon Press Inc, 2018).

9. Mariana Mazzucato, *The Entrepreneurial State: Debunking Public vs. Private Sector Myths* (Penguin Books, 2013).

10. Mariana Mazzucato, *The Value of Everything: Making and Taking in the Global Economy* (Allen Lane, 2018).

11. Manuel B. Aalbers and Brett Christophers, 'Centring Housing in Political Economy', *Housing, Theory and Society* 31, no. 4 (2 October 2014): 384.

12. Manuel Aalbers, *The Financialization of Housing: A Political Economy Approach* (London and New York: Routledge Taylor & Francis Group, 2016).

13. A detailed account of how housing is inscribed as a human right in the policies of the United Nations can be found in Office of the United Nations High Commissioner for Human Rights and UN-Habitat, 'The Right to Adequate Housing' (Geneve: United Nations Human Settlements Programme, 2009). For a good account of current processes of housing commodification see Martin, Moore, and Schindler, *The Art of Inequality*.

14. John Turner, 'Housing as a Verb', in *Freedom to Build: Dweller Control of the Housing Process*, ed. John F. C. Turner and Robert Fichter (New York: Collier Macmillan, 1972), 148–75. For a recent account of process-oriented approaches to urbanism and housing production, see Maroš Krivy and Tahl Kaminer, 'Introduction: The Participatory Turn in Urbanism', *Footprint*, no. 13 (2013): 1–6.

15. Mazzucato, *The Value of Everything*, 21–56.

16. According to Mazzucato, the main figures behind the so-called 'Marginal Revolution' were Léon Walras, William Stanley Jevons and Carl Menger. This new theory of value was developed by British economists Alfred Marshall and Lionel Robbins. Cf. Mazzucato, 57–74. Mazzucato defines 'marginal utility' as something where 'value is in the eye of the beholder.' In

other words, any goods or services being sold at an agreed market price are by definition value-creating.

17. Alejandro Aravena and Andres Iacobelli, *Elemental: Incremental Housing and Participatory Design Manual* (Ostfildern: Hatje Cantz, 2013).

18. Justin McGuirk, *Radical Cities: Across Latin America in Search of a New Architecture* (Verso, 2015), 80–98. In Elemental's writings and in Aravena's lectures, they stress their ability to use the Chilean government subsidy – seven and a half thousand dollars – in an intelligent way for building houses for the poor, complemented with a small amount provided by the owner, to enable people to progressively acquire middle-class living standards. In fact, schemes like Quinta Monroy created an astonishing accumulation of capital for the owner: Investing just four hundred dollars from their savings, each family has now a house whose net worth is approximately fifty thousand dollars. They multiplied their initial investment 125 times in just fifteen years!

19. Martin Reinhold, 'Real Estate Agency', in *The Art of Inequality: Architecture, Housing, and Real Estate – A Provisional Report*, ed. Reinhold Martin, Jacob Moore, and Susanne Schindler (New York: The Temple Hoyne Buell Center for the Study of American Architecture, 2015), 92–131.

20. Thomas Piketty, *Capital in the Twenty-First Century*, trans. Arthur Goldhammer (Cambridge, MA: Harvard University Press, 2014). This book was originally published in French in 2013.

21. Reinhold, 'Real Estate Agency', 125–27.

22. For an account of the contribution of public sector bureaucracy to the consolidation of housing as a social right in the twentieth century, see Nelson Mota and Ricardo Agarez, eds., 'The "Bread & Butter" of Architecture', *Footprint* 17 (Heijningen: Jap Sam Books, 2015).

Biography

Nelson Mota is Assistant Professor at the Faculty of Architecture, TU Delft. He has authored the book *A Arquitectura do Quotidiano* (The Architecture of Everyday, 2010) and co-edited *Footprint* 17: 'The "Bread & Butter" of Architecture: Investigating Everyday Practices' (2015, with Ricardo Agarez) and *Joelho* 8: 'Ideas and Practices for the European City' (2017, with José António Bandeirinha and Luís Miguel Correia). Mota investigates the intersections between vernacular social and spatial practices and the architecture of housing. He is production editor and member of the editorial board of *Footprint* and of the book series *DASH – Delft Architectural Studies on Housing*.

Yael Allweil is an architect and Assistant Professor in the Faculty of Architecture and Town Planning at the Technion, Israel, where she heads the *Housing Architecture, History and Theory* research group. She completed her PhD in architecture history at UC Berkeley exploring the history of Israel-Palestine as a history of the gain and loss of citizen housing. Her research was published in the monograph *Homeland: Zionism as Housing Regime 1860–2011* (Routledge, 2017) and several journal articles in *Urban Studies, Footprint, Architecture Beyond Europe, City, TDSR and IJIA*. During 2019–20 Yael will chair the research group 'Re-Theorising Housing as Architecture' at the Institute for Advanced Studies (IIAS) in Jerusalem (with Gaia Caramellino and Susanne Schindler). Yael's work involves academic research and activism in the context of the Israeli housing social movement.

Good Life Now:
Leisure and Labour in Cedric Price's Housing Research, 1966–1973

Corinna Anderson

Cedric Price is known and loved for his radicalism. He famously kept company with both anarchists and conservative peers, a lifestyle Peter Murray described as 'breakfast of champagne and grouse at the Savoy and lunch with the freaks at Phun City.'[1] His friendship with union leader Norman Willis, his staunch support for the anti-apartheid campaigns waged against the Royal Institute of British Architects, and his taste for Labour politics have secured his reputation as a leftist. His architecture, when examined politically, is usually assessed in the context of these beliefs, but other readings are possible. Price's vision of the architect as an enabler is not politically neutral. Considered within the context of his times, the emphasis he places upon flexibility and freedom from all constraint can be seen to align with nascent neoliberal discourses on individualism. The obvious connection is his collaboration on the 'Non-Plan' project, a radical manifesto for freedom from planning restrictions, whose principles were later implemented in the 1981 creation of the London Docklands Development Corporation by Margaret Thatcher's Conservative government.[2] But beyond this historical link is a more fundamental quality of Price's work: it takes consumer choice as the organising principle of the built environment.

His 'short-life' house, developed through the housing research he published in *Architectural Design* between 1970 and 1972,[3] applies this principle to domestic space.[4] As a housing system that attempts to reduce the home to an expendable

commodity, compressing its lifetime to twenty-five years, it also poses questions about the duration of the social form it houses, the family. Proposed as a solution to a national housing shortfall yet also concerned with satisfying consumers' individual visions of 'the good life,' the short-life house self-consciously operates at multiple scales. These encompass the human level of the home – the patterns of daily life, the paths traced by bodies through designed domestic space – and the market level of flows, consumption trends, supply and demand. In fact, the interconnection of the market and the home is fundamental to Price's vision of housing as a disposable commodity, using consumption patterns as a measure of unmet needs and desires in the population. His writings on the project, as well as the form and intended operation of the house itself, articulate a vision of freedom from constraint, mobility, and a working day that blends into leisure. What is striking, when taking up his 'short-life housing' – and its parent projects, Non-Plan and the Potteries Thinkbelt – today, is how clearly his language aligns with what we now consider neoliberal discourse.

Neoliberalism is a notoriously slippery term, sometimes used as a more palatable academic synonym for 'capitalism' in general. In my use of the term 'neoliberalism', and my understanding of how it relates to architecture, I draw primarily upon the work of David Harvey, Douglas Spencer, and Nancy Fraser. I treat neoliberalism not as synonymous with capitalism, but, as David Harvey sees it,

a historically specific manifestation of capitalism, in which the market becomes not just an economic tool but a social one, seeking to bring 'all human action into [its] domain'.[5] For Harvey, neoliberalism is an ideological economic project – with a series of leaders, institutions, and key texts – but it is also a cultural process that coincided with and appropriated the dramatic shifts occurring in social norms in many parts of the world at the time of its emergence. Fraser shares this view. For her, neoliberalism is a historical shift in capitalism that reverses the norms of its predecessor: while state-organised capitalism sought to 'use politics to tame markets, proponents of [neoliberalism]… use markets to tame politics'.[6] Connecting neoliberalism to architecture, Douglas Spencer traces a genealogy from May '68 to the depoliticised, iconic architecture produced today. For Spencer, neoliberalism is 'a truth game'; fundamental to neoliberal common sense is the idea that 'individuals can achieve only a narrow and very limited knowledge of the complexities of the world,' which casts the planning of society as an untenable – even dangerous – proposition. Instead, 'the economic market is better able to calculate, process and spontaneously order society' than the state.[7] The implications for architecture emerge in cybernetics and flexible designs, which offer freedom within parameters defined in advance. He connects this to neoliberal freedom, which is 'expressed through choices made within the economic market, but not through any choice or determination over the norms structuring this condition.'[8]

These thinkers argue that neoliberal policy initiatives would not have succeeded without a crucial cultural component, which from the beginning addressed subjects on a personal level. The engineers of the neoliberal project understood the link between economic and social forces, seeking to change not only the material conditions of the populace but their very wants, needs, and desires. As the British neoliberal par excellence, Margaret Thatcher, famously stated: 'Economics are the

method. The object is to change the heart and soul.'[9] Thus, an examination of neoliberalism's influence on housing cannot be confined to the results of neoliberal policy, exercised through government power. Long before neoliberalism as an ideology wielded state power in Britain, its ideas were percolating at the level of popular and intellectual culture. This emerges in the work and writings of architectural thinkers such as Alison and Peter Smithson, Archigram, and Reyner Banham as a desire for freedom and 'frontier living'. The complex interrelation of architecture's radical potentials with state and corporate power in the corresponding North American context has been thoroughly documented by Felicity Scott in *Outlaw Territories*.[10] In Great Britain, these critiques have their own character, responding explicitly to the British welfare state. Reacting against the fixed and constricting, the British architectural avant-garde produced visions of living that they intended as emancipatory – even sometimes explicitly leftist – yet came up against what Simon Sadler, speaking of Archigram, called 'the ideological disorder encountered in a bid for complete freedom'.[11] Cedric Price's short-life house offers an illustration of how, contradictorily, those visions aligned with socioeconomic theories later developed into hegemony by the right.

Literate, skilled and highly mobile
When the first of the 'Cedric Price Supplements' appeared in the October 1970 issue of *Architectural Design*, it included a project called 'Non-Plan: An Experiment in Freedom'. The supplements were produced at the invitation of *AD*'s editor, Peter Murray, and provided a space for Price to float ideas and projects both completed and speculative. Non-Plan, an anti-planning manifesto, had first been published months earlier in *New Society*. Its authors Reyner Banham, Peter Hall, Paul Barker, and Cedric Price advocated stripping nearly all planning regulations from special urban and rural zones, where the built environment would be left to grow wild. The article appeared in 1969, when criticisms
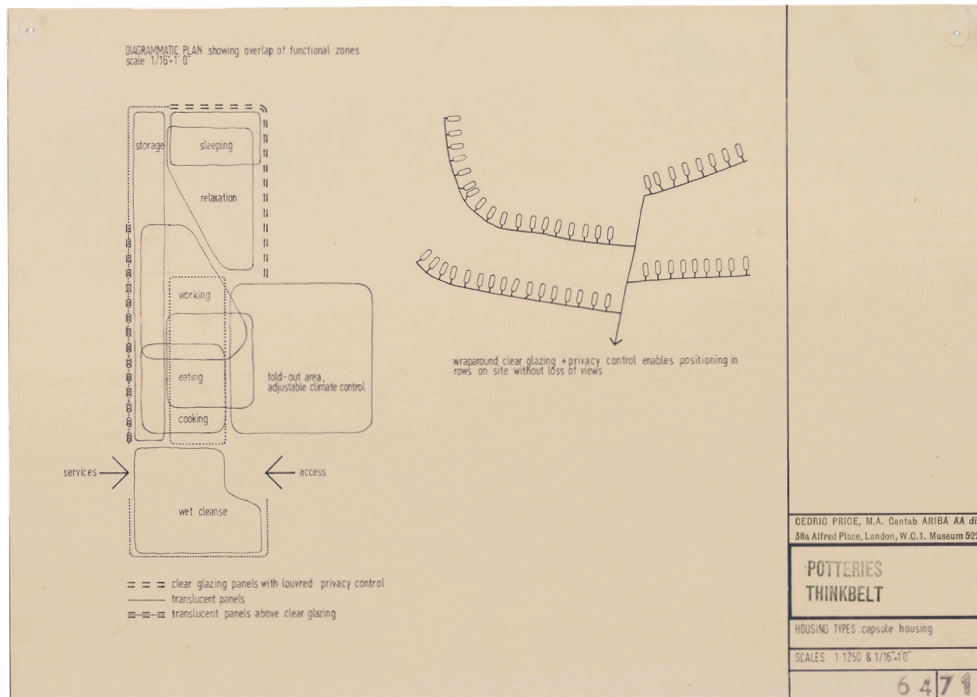
Fig. 1
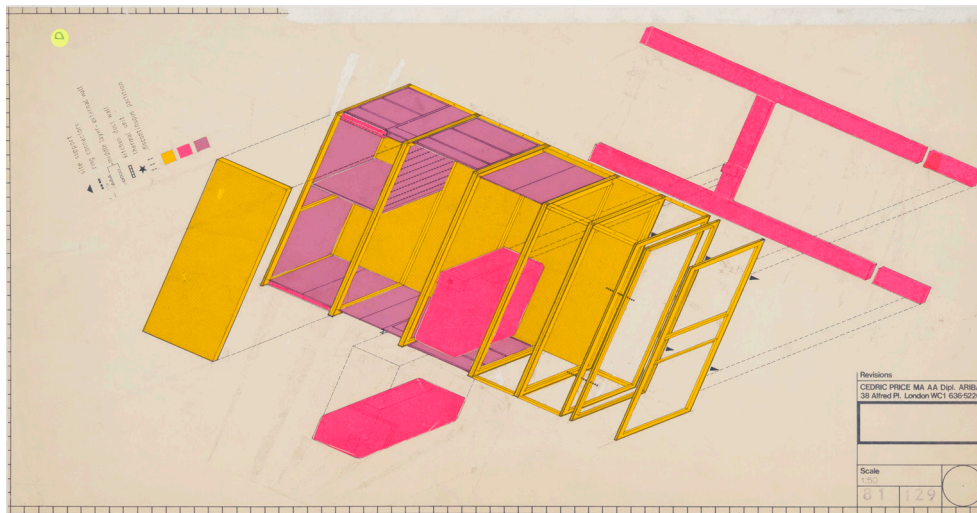
Fig. 2

Fig. 1: Potteries Thinkbelt, example of the 'capsule' housing type. Living zones are mapped according to function, with overlapping 'working', 'eating', and 'cooking' areas marked. Cedric Price, 'Diagrammatic plan and site plan for capsule housing for Potteries Thinkbelt', 1966. Architectural reproduction on paper. 30 x 43 cm. DR1995:0216:291, Cedric Price fonds, Canadian Centre for Architecture.

Fig. 2: Axonometric projection showing the structure of the Steel House. A key indicates site support (triangular icons), 'ring' connectors (line of black dots), and discontinuous partitions (dashed lines). Cedric Price, 'Axonometric for housing unit, from the project file "Housing Research"', 1967–1971. Montage (cutouts over architectural reproduction on paper). 37 x 70 cm. DR2004:0231:001, Cedric Price fonds, Canadian Centre for Architecture.

of the welfare state had become widespread, with a sense that Britain was being 'ground down to a grey mediocrity', under 'the stifling bureaucratic ineptitude of the state apparatus and oppressive trade union power'.[12] The Non-Planners were concerned about the failure of the British welfare state to satisfy the needs of its citizens on a notably *subjective* as well as material basis; that its prescriptions for how plans dictated the use of space might be stifling individuals' visions for a better way of living.[13] They asked: 'what would happen if there were no plan? What would people prefer to do, if their choices were untrammelled?'[14]

Their problem was not just with current planning restrictions, but planning itself. Simon Sadler and Ben Franks have pointed out this project's startling resonance with the emergent New Right, echoing the writings of the neoliberal thinker Friedrich Hayek.[15] Hayek claimed that 'social planning for given outcomes … was insufficiently flexible to deal with the myriad needs and desires of a large population'.[16] The Non-Planners posed this same problem to the field of physical planning, an English tradition they despised, equating it with 'the old bourgeois culture'.[17] 'Why don't we dare trust the choices that would evolve if we let them? … It's permissible to ask – after the dreariness of much public rebuilding, and after the Ronan Point disaster'.[18] Looking to American experience, they argued that decentralisation of industry would create suburban commutes, drawing people out of cities. They predicted 'colossal pressure for scattered, often small-scale growth in hundreds of villages and small towns,' which Non-Plan would allow.[19] Reacting to the British Planning Acts, they disputed 'the notion that the planner has the right to say what is "right"', calling it 'an extraordinary hangover from the days of collectivism in left-wing thought'.[20] In this context, deregulation, which has since been associated with the free market, appeared as 'a truly radical anti-establishment stance,' to left-leaning thinkers like the Non-Planners.[21]

As intended, Non-Plan caused controversy at the time of its publication, only magnified in retrospect when the 'experiment' became real in the neoliberal transformation of the London Docklands.[22] It is thus often segmented off in discussions of Price's work, detracting from the narrative of his social conscience, leftist credentials, and general popularity. But Price's susceptibility to these ideas need not be an uncomfortable footnote in his story; it can draw attention to the complex political meanings that surround ideas of flexibility and freedom in architecture, especially at this time in history, and the contradictions of the political moment. This analysis posits that Non-Plan is not an aberration in Price's oeuvre, but that the same ideas guiding Non-Plan emerge in other projects, notably in his housing. Price presents an especially self-aware case of how a bundle of ideas can extend through multiple project-iterations, changing and developing, at each stage still presented with a wink as potentially complete solutions. In his own, later article on Non-Plan, included under the 'resultant forms, patterns, systems and artefacts' he thought likely to flourish in these zones of freedom was 'housing as a consumer commodity'.[23]

This idea first appeared in the intellectual workers' housing of the Potteries Thinkbelt (1966). The Thinkbelt was a university system conceived to re-educate workers suffering from the loss of manufacturing jobs in the Potteries region of Staffordshire, where Price grew up. Published in the June 1966 issue of *New Society*, Price's university consisted of a network of rail transport cars and interchanges, through which the students would move, and portable, flexible housing that would accommodate both students and teaching staff in towns along the network. Courses would teach practical skills to address the 'brain drain' in trained technicians Britain was suffering at the time.[24] Notably, as they trained to fill these positions they would be paid a wage, with student grants becoming salaries. Price's rationale was: 'If people are doing a
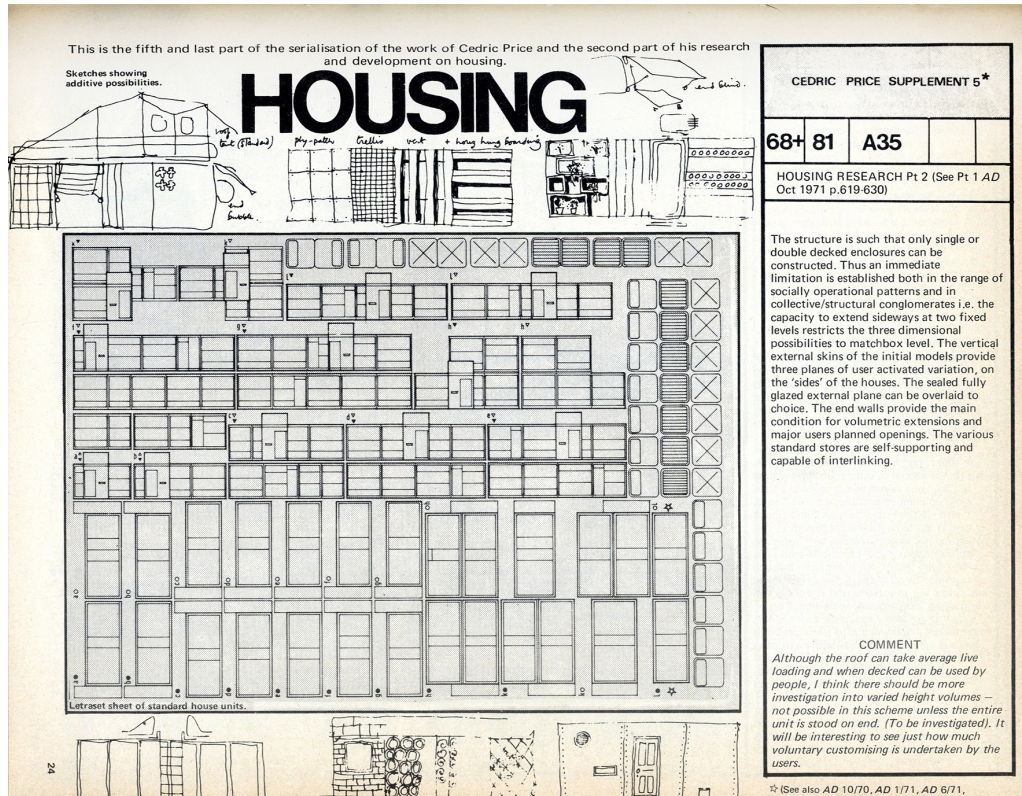
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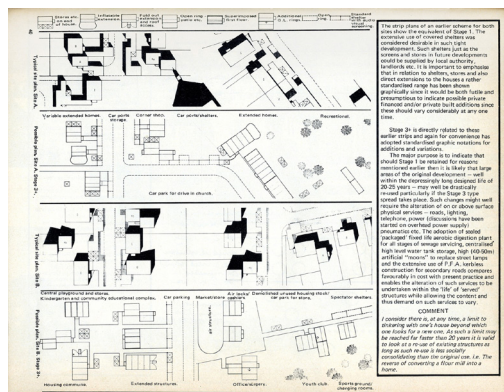
Fig. 4a
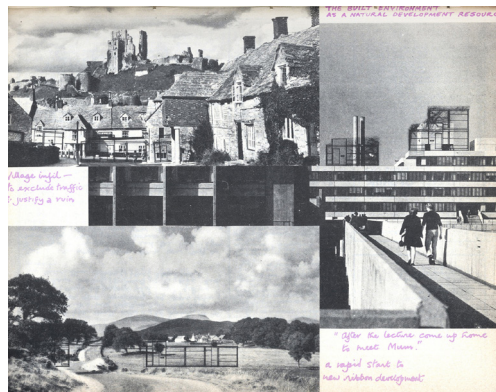
Fig. 4b

Fig. 3: The opening page of 'Cedric Price Supplement 5', the second of the two supplements dedicated to *Housing Research*. Prefabricated construction provided a whole catalogue of possibilities for the user to select. Cedric Price, 'Cedric Price Supplement 5', *Architectural Design* 43 (January 1972): 24.

Fig. 4a: The short-life house's pattern of expansion over prospective sites, as published in Supplement 5. Cedric Price, 'Cedric Price Supplement 5', *Architectural Design* 43 (January 1972): 40.

Fig. 4b: The short-life house, comically out-of-scale, perches atop a university building, advertising its siting versatility: 'After the lecture come up home to meet Mum.' Another model, this one single-story, rests lightly on a broad field along-side a country road. Cedric Price, 'Cedric Price Supplement 5', *Architectural Design* 43 (January 1972): 42.

job society wants them to do, they should be paid for it.'[25] The project sought to repurpose neglected manufacturing infrastructure, both mechanical and human, in a system dynamic enough to accommodate future changes in labour demand.

Spencer has posited, along with others, that neoliberalism is characterised by changes in the form of productive labour in society.[26] Drawing from Foucault's *The Birth of Biopolitics*, he describes how productive labour comes to incorporate 'the investment of the self as capital', and notes its implications for the worker's experience of space. Under neoliberalism, 'investment of the self as capital' takes place 'in conditions where divisions between labour and its reproduction, between production and consumption, are progressively dissolved'.[27] Pier Vittorio Aureli, considering the Potteries Thinkbelt project in the context of today's neoliberal policies, draws parallels to the Bologna Process in European higher education. As Price clearly intended the Thinkbelt to interact with the economy directly, educating workers in 'knowledge that would be immediately useful in the jobs market', Aureli claims this foreshadows the shift to workers' responsibility for their own educations, and the phenomenon of the 'student entrepreneur'.[28] This is characteristic of the neoliberalisation of labour, wherein the worker's personality, free time and motivation are monetised and subsumed into a lifelong working day. A spatial expression of this blurring can be seen in the housing that accompanied the project.

The Potteries housing accommodates a lifestyle in which the workplace and home are overlapping categories. In Fig. 1 we see the interior of one of the Potteries houses mapped by use, with areas of 'working', overlapping with the basics of reproductive labour – 'cooking', 'eating', and 'sleeping'. The whole unit was designed to be lightweight, easily transportable, to rest lightly on the ground and leave few traces. Not only are the unique living patterns of the student or intellectual labourer designed for

at the scale of the body, but in the larger aggregate patterns of housing. Features of the mobile housing unit such as 'flexible siting with minimal disturbance to existing amenity' and 'small unit size, jacked supports and flexible service/access requirements [allowing] siting in any ground condition' give the instability of the students' living-patterns a practical architectural answer.[29] As Price makes explicit in the text:

> The Thinkbelt accepts the student as an integral part of the local authority housing programme, and the three-to-five-year student cycle is an opportunity for hot-house research into new living patterns and types of housing. The requirements of a student population approximate closely to *the future pattern of a literate, skilled and highly mobile society.*[30]

In later issues of the 'Cedric Price Supplements,' Price returned to this idea with a new subject, asking: what happens when the nuclear family takes on the nomadic lifestyle of a student labourer?

The volatility of dwelling
In a car I would require
What in homes is rarely seen
The lineaments of a satisfied desire
(Price, 1967–71)[31]

The 1960s in Britain saw housing in a crisis, suffering from a shortage due to high consumer demand, a rapidly aging existing housing stock, and scarcity of usable and desirable land for building. The post-war focus on 'slum clearance' in housing policy that had dominated the approach to housing 'blight' – clearing large segments of unsuccessful housing to build anew – had produced long waiting lists for council housing, which neither New Towns nor new towers could immediately satisfy.[32] In 1966, the Ministry of Housing and Local Government published *The Deeplish Study*, examining the area of Rochdale in Greater Manchester.[33] It was significant for marking a turn from the policy of
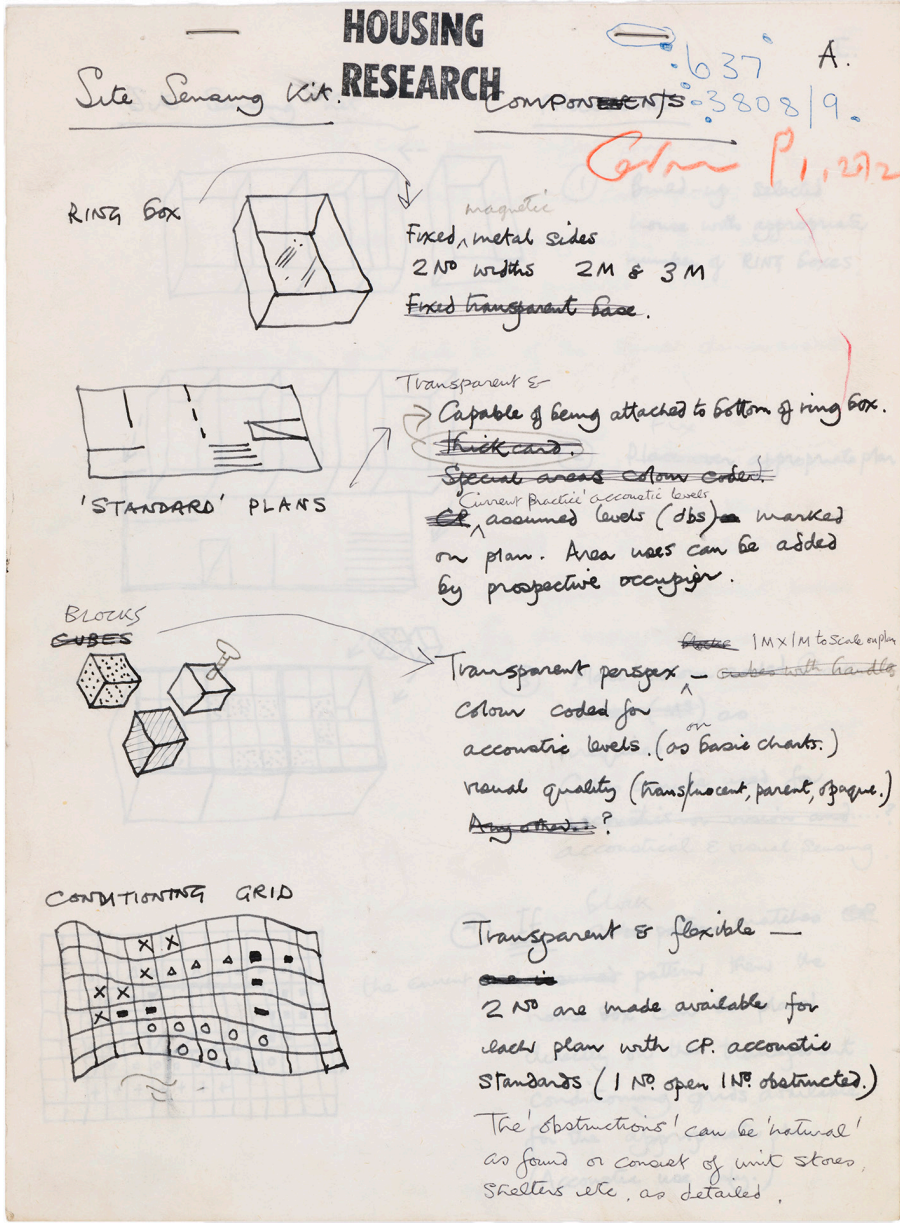
Fig. 5: Price's notes on the Site-Sensing kit. The procedure begins: '1) Build-up selected house with appropriate number of RING BOXES, 2) Fix appropriate plan, 3) Place colour coded blocks as required. Cubes can be used for acoustic and visual sensing, 4) If block pattern matches the current practice patterns then the house box can be placed directly on the transparent conditioning grids available for the appropriate plan (Acoustic use only.).' On the final page, Price notes proudly: 'There is no requirement for thermal sensing since all units are fully air-conditioned with variable area control.' Cedric Price, 'Description of "Site Sensing Kit", from the project file "Housing Research"' 1967–1971. Ink and graphite on paper. 29 x 21 cm. DR2004:0260:001, Cedric Price fonds, Canadian Centre for Architecture.

slum clearance, suggesting instead grants offered to the owner-occupiers of the area, and government-driven environmental improvements to make brownfield sites more liveable. It opened up the question of piecemeal solutions to what had long been considered totalising problems; what was not clear was how the production of new housing fit into this picture.

The problem of how to create a 'good life' for the population through housing, carried over from Modernist principles of social transformation, still occupied the architectural thinkers of the day.[34] The Architects' Department of the Greater London Council (GLC) was, in the late 1960s, beginning to embrace industrialised building methods.[35] Mass prefabricated housing had operated as a stop-gap in the acute postwar housing crisis of the 1940s and 50s, but was generally considered temporary; however, new architectural experiments in system-built council housing were emerging as they enabled more rapid production and required less labour.[36] These were aided by the establishment of the National Building Agency (NBA) in 1964, which produced standardised plans for houses with the aim of streamlining production.[37] During the same period, early experiments with flexible architecture, such as the PSSHAK (Primary Support System and Housing Assembly Kits), unveiled by the GLC in 1967, proposed the separation of the main building structure and its internal fittings, an idea certainly influential on the Steel House, the structural basis of the short-life house, which was developed by Price's office that same year.[38] The state, like Price, took up housing as a social concern – though perhaps the possibilities produced were not imaginative enough for his liking.

One antidote was the high-tech, unbuildable fantasies of Archigram, the group founded in part by three LCC architects.[39] Contemporaries of Price – who were, by contrast, proudly apolitical – Archigram also reacted against the constricting and planned,

with their idea of 'indeterminacy.' Against functionalism and 'kit of parts' prefabrication, which they associated with wartime austerity, Archigram proposed luxury and comfort. As Sadler explains, they thought 'modularisation smacked of standardisation, when what the postwar public wanted was *choice*'.[40] In his words, they championed the breakdown between high and low, valuable and kitsch, navigating 'the entente between the avant-garde and "popularity"' which saw the avant-garde – once considered oppositional to the status quo, begin 'assimilating late capitalism' into its operation.[41] Price was was a regular contributor to Archigram's eponymous publication *Archigram*,[42] and he benefitted greatly from 'the shift toward informality and pop' they helped initiate in British architecture.[43]

Price was also not the first to look to the freedom and pleasure of motor vehicles for inspiration. Alison and Peter Smithson saw a vision of housing freedom in the caravan, which 'provides a "home" *at the right time, at the right price*; with little or no outlay on furnishings, and which is technological, twentieth century, new or very nearly so', a symbol of 'population in flux.'[44] They insisted that architects and designers see in the rise of the caravan a population 'expressing as clearly as they know how, through choice of what the market offers, their needs in a technological society in economic and functional terms'.[45] Their writings also recognise the significance of the development of the car as a status symbol, the car being an object whose rapid obsolescence seemingly only made it more attractive.[46]

The needs of this young, mobile 'population in flux' were not necessarily the needs of their parents. They had new desires, prompted by a generally improved and rising standard of living. Eric Hobsbawm has described the changes that the collective expectations of workers underwent in Britain during this period. 'The range of goods and services offered by the productive system, and available to them, made

former luxuries part of everyday consumption.'[47] When incomes rose year by year, how 'would they not go on rising forever?'[48] Social mobility also translated into desire for physical mobility: with increased leisure time and education came a will to travel.[49] This is the landscape Price's short-life house was placed within in his imaginings and writings in *AD*. It self-consciously anticipates and celebrates a future lifestyle in which 'the working day shrinks', at a time when the evisceration of worker power that was to follow in the 1970s and 80s seemed inconceivable in Britain.[50]

Price's research approached the housing problem in this spirit. He identified problems in '1) Overall numerical provision, 2) Social and physical mobility, 3) Product choice' and '4) Environmental performance'. His aim was to 'postulate a coarse model of a potential "housing" service which would correct such a shortfall, and ensure that future appetites and demands, as yet unknown, can be identified and satisfied'.[51] One problem was a misalignment between the number of rooms in houses and the demand for rooms, resulting in either overprovision or overcrowding. Price explains that 'the main reason for this – the reduction in family size – is not likely to continue to the same extent as in the last half century', but there will be 'other factors effecting the size of households such as the earlier formation of separate households by children, earlier marriage, and… easy divorce'.[52] In response to statistics taken from national surveys and journalistic sources, Price hypothesised that families desired in their houses what they wanted in their cars: more space and mobility for less money. He set about constructing an architectural solution in the form of a housing system.

Seeing construction methodology as key to breaking apart the existing 'constricting system', Price's system would begin from a prefabricated kit of parts. He could achieve 'maximum fit between desired degree of occupancy and performance' only with a structure flexible enough to accommodate 'both "over" and "under" occupation'.[53] For site, he demanded 'maximum separation between the housing product and the land upon which it alights, enabling rapid response to greater mobility'.[54] The sort of home that could provide this, as can be seen in the news clippings and product brochures he collected on the new potential of caravans, would be temporary and easily adapted.[55] Finally, 'maximum environmental "plateau" for each dwelling coupled with minimum time lapse before such a plateau can be upgraded by every individual through the selection of a new model'.[56] Thus, the house is to be consumed, like any other commodity. Indeed, this is how Price sees it: housing has always been a commodity that, due to sentiment and tradition, has not been recognised as such. He blames the housing crisis on this 'categorisation of "housing" as *an autonomous and peculiar* commodity, which has built up a self-perpetuating and exclusive interlocking supply system'. Claiming the 'full extent of unsatisfied appetites can only be sampled by an investigation of fields external to "housing" where diversification of production has occurred to supply such demands', he cites the increased number of temporary homes being sold as leisure equipment as evidence that desires are not being met.[57]

Hobsbawm notes that the young people of the 1960s and 1970s did not only desire new choices, they also 'rejected the long-established and historical ordering of human relations in society'.[58] Attentive to these shifts, Price examines what a family actually looks like in Britain at the time of the study, and what forms it might shortly take, mapping a variety of possible influences that would have real impact on housing demands. For instance, 'All children leave home one year earlier' results in a 3.58 percent increase in households. Also considered are 'Life expectancy increases by one year' (+1.79 percent) and 'Average marriage age increases 1 year' (+1.79

percent). Price included the extreme 'All 18–23 year olds change to 1 person households' (+10.14 percent) to demonstrate just what new social norms could do to the figures.[59] Since changes in the domestic composition of the family aggregate into population-wide shifts, Price determines that an appropriate housing solution should address both scales. He also sees the need to account for error in his modelling – due to the impossibility of accurately predicting future changes, flexibility must be *built into* the house.

Rethinking the 'life' of a home becomes crucial. Comparing a hypothetical twenty-five-year house to the standard sixty-year build, he finds that maintenance expenditures as well as foundational changes defray costs, with short-life housing ultimately costing 84.3 percent the amount of a conventional dwelling.[60] Reconsidering this one entrenched convention, lifespan, generates the formal solution: a prefabricated steel housing system, borrowed from the unsuccessful 'Steel House' competition entry of 1966–67.[61] The structure was a rectangular shell Price called a 'ring,' two by seven metres in dimension, with a lifespan of forty to fifty years. The inner living area, subdivided into cells, would have a life of only twenty to twenty-five years, hence the term 'short-life housing' (Fig. 2 shows how these fit together). The factory-fixed rings could rest lightly on the site with a minimal foundation, reducing on-site labour as well as manufacturing time for 'maximum speed of erection and removal', while the inner cells allowed maximum variety for consumer choice.[62] The idea was that the parts could be assembled in kits for transport to the site on a single truck. As Fig. 3 shows, a wide range of fittings created a variety of choices, checked only by a two-level limit imposed by the structure.[63]

Two sites were selected to illustrate the benefits of the short-life house. As Steven Mullin, an employee of Price's office, explained in a 1976 issue of AD, Price was inspired by the Deeplish Study, 'the first in this country to recommend rehabilitation of old housing stock in preference to demolition and development'. It seemed logical to combine the Steel House and 'sprawl housing' of the Potteries into new 'limited-life housing', tested in Deeplish and a '"virgin" site in Tilbury, Essex'.[64] These two examples were chosen for contrast, to illustrate versatility: the short-life house was meant to operate as a pattern, springing up in an area as demand, job opportunities, and desire dictated, expanding the habitation possibilities of otherwise unused or brownfield land. Price speculates on suburban possibilities in Fig. 4a, which gives sample locations of the 'variable extended homes' where 'inflatable extensions' can spread outward alongside such modern (and typically Pricean) amenities as the 'car park for drive-in church'.[65] Fig. 4b shows how the houses could perch on nontraditional sites and nestle into existing architecture, operating as infill in urban settings.

On neoliberal logic, Harvey notes that 'to presume that markets and market signals can best determine all allocative decisions is to presume that everything can in principle be treated like a commodity'.[66] What Price's short-life house set out to do explicitly was make the home a commodity like any other, provided as easily and in as many forms as 'a chocolate bar'.[67] He observes that 'despite a lack of public or governmental realisation', housing 'is rapidly becoming a consumable commodity'. Moreover, 'the reality of this comparatively new role is a major motivational force in the individual's and the family's use of the house', a use which his design accommodates.[68] Just as the project had been generated in constant consultation with statistical evidence of the British family's new needs, the selection, combination and erection of the house would happen through interaction with the members of that family.
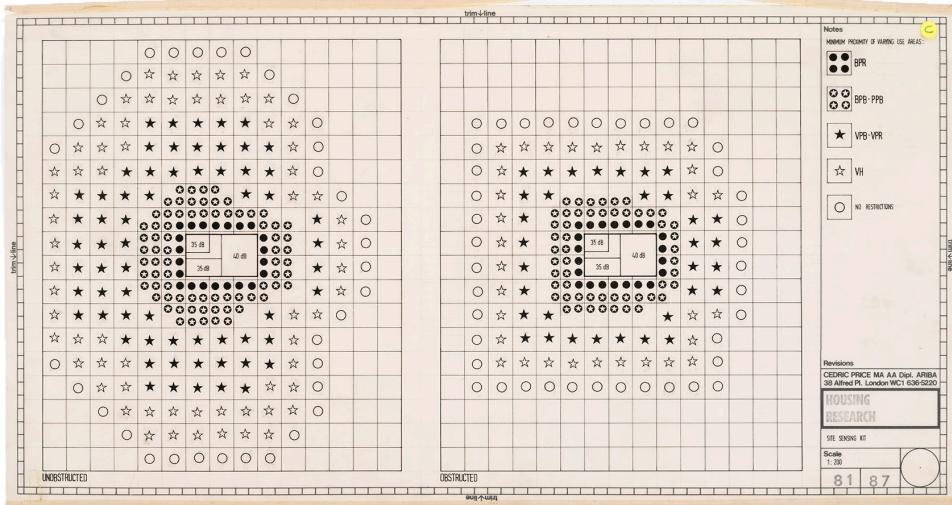
Fig. 6
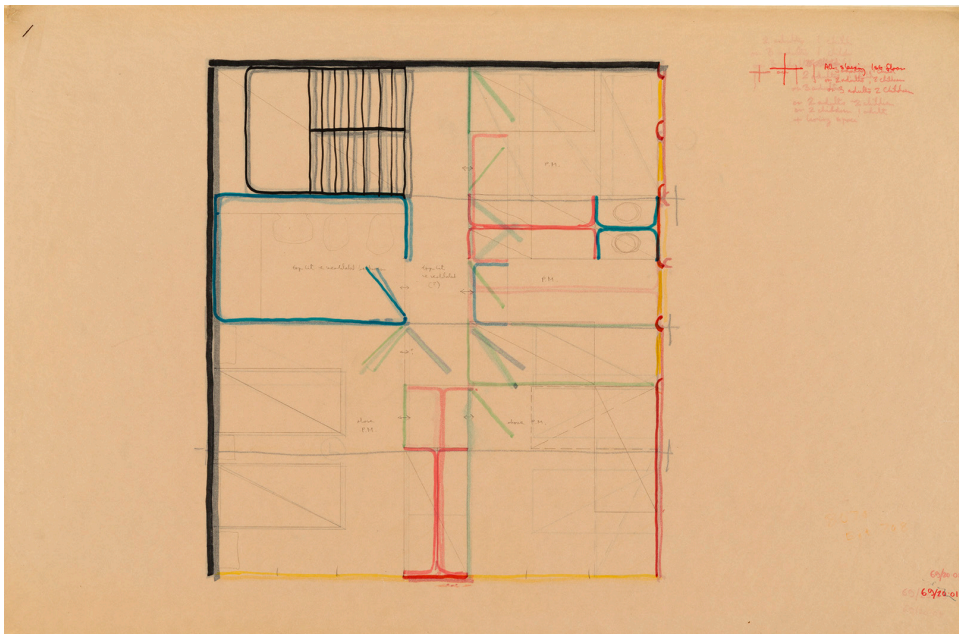
Fig. 7

Fig. 6: Sheet from the site-sensing kit, meant to be overlaid with a site plan of corresponding scale to show acceptable range of noise disturbance around the unit. Cedric Price, '"Conditioning grids" for "Site Sensing Kit", from the project file "Housing Research"' 1967–1971. Ink and transfer type on pre-printed translucent paper. 38 x 72 cm. DR2004:0232:006, Cedric Price fonds, Canadian Centre for Architecture.

Fig. 7: Here, in a typically Pricean way, bright and fluid drawings accumulate to exhaust the possibilities of an underlying tireless, optimising logic. A key notes the meanings of the colour-coding, which differentiates only very broadly as to the function of certain areas of the walls (yellow: 'access to natural light, air, views, etc', blue: 'wet servicing', pink: 'storage', green: 'non-storage partition') without prescribing room usage. Cedric Price, 'Plans for Steel House,' 1965–1969. Ink and graphite on translucent paper. 51 x 77 cm. DR1995:0226:063–066, Cedric Price fonds, Canadian Centre for Architecture.

Twenty-four-hour living toy

Reyner Banham theorised design's entanglement with consumerism in his 1961 article 'Design By Choice'. In it, he tracked the beginnings of the prominence of consumer choice in design in the 1950s, and the difficulties it presented to the architect, whose past attempts at 'total design' had failed but who nevertheless maintained some responsibility for the interior conditions he created. Banham locates the fundamental difficulty in 'incomparable rates of obsolescence', since 'architects, for entirely valid reasons, are habituated to think in terms of a time scale whose basic unit is about half a century'.[69] Meanwhile, the ordinary domestic occupier will not make the 'right' aesthetic choices when purchasing furnishings and all the commodities that fill the building. This clash, which Banham formulated as between mass and elite, called for 'some sort of reasonably permissive architecture with built-in directions about where to put things'.[70] Price saw the same problem, seeking to resolve it instead by diminishing the status of the building to the point that it became another product, catalogue-ordered and built to suit.

If the Modernist dilemma had been 'how can one make people desire that which is standardised?', Banham and Price rebelled against the welfare state's status quo of distilling the essentials of needs before designing for them.[71] Addressing the history of this practice in European welfare states, David Kuchenbuch describes how, in Germany, the debate in the 1950s centred around differentiating between 'true, indispensable needs and wishes'. At the same time, 'Swedish architects tried to raise people's ability to rationalise their needs and articulate them properly'.[72] The 1960s saw the rise of sociological approaches to the 'user', in Anglo-American and European spheres, with new implications for architecture.[73] With the use of studies and consumer reports, the needs of the people no longer needed to be approximated, but could be expressed directly as desires, articulated through census, survey, and purchases. This opened up the possibility of the architect as an 'enabler' rather than interpreter, who could present a set of options to the subject of architecture – the user.

Choice determined the short-life house's form. The 'Site-Sensing Kit' was a 'handbag-sized' invention meant to help consumers – the families purchasing the house and overseeing its assembly – determine the optimal auditory and visual placement of their purchase. Never produced, but explained somewhat cryptically in the supplement (and more fully in unpublished notes, see Fig. 5) the kit allows the client to take a plan of their proposed site, and, using tables prepared by Price's office pertaining to the structural qualities of the prefabricated rings, design and position the house optimally.[74] As seen in Fig. 6, inner cell and room placement could be determined by mapping the noise levels in environmental surrounds, on the basis of statistics on typical road noise that had been collected by Price's office. The selection of the number and arrangement of rings is created through a negotiation between the family's sensory needs (light, sound) and consumer wants (space, height), in an interplay of data and desire.

This process of creating an individualised living space responds to a lack of certainty about what the needs and desires of users will be. As Harvey notes,

> the process of neoliberalisation has entailed much "creative destruction," not only of prior institutional frameworks and powers but also of divisions of labor, social relations, welfare provisions, technological mixes, ways of life and thought, reproductive activities, attachments to the land and habits of the heart.[75]

These upheavals, which Price tried to track with statistics, cannot be designed for; this is where the user's agency must come in. The user, Price insists, has always 'reacted against the house as found' to some extent. But he identified a shift
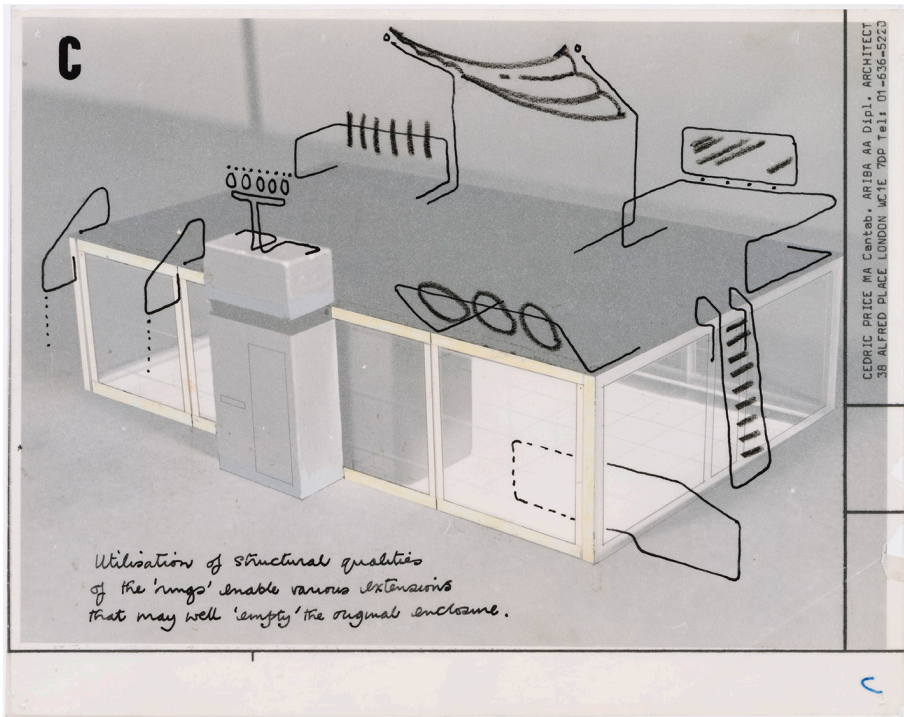
Fig. 9a
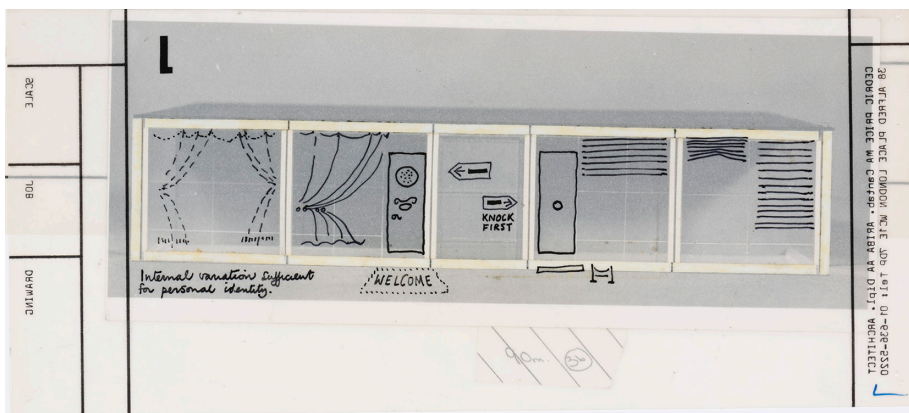
Fig. 9b

Fig. 9a: Price's model of the 'matchbox' housing generated was photographed, and overlays allowed him to visually speculate as to what outward appearance 'the good life' could take. Cedric Price, 'Perspective sketch for house showing "extensions"', from the project file "Housing Research"' 1967–1971. Photomontage (manipulated photograph overlaid with sketch in ink and coloured pencil on translucent paper). 21 x 26. DR2004:0228:001, Cedric Price fonds, Canadian Centre for Architecture.

Fig. 9b. Different personalities can be accommodated. Here an extrovert and an introvert room in the same structure, with separate entrances. Price comments laconically that his house provides 'internal variation sufficient for personal identity'. Cedric Price, 'Perspective sketch for house, showing internal variations, from the project file "Housing Research"', 1967–1971. Photomontage (manipulated photograph overlaid with sketch in ink on translucent paper. 14 x 30 cm. DR2004:0228:002, Cedric Price fonds, Canadian Centre for Architecture.

where 'the role of a house as a long-term adaptable living-box becomes less important than its 24-hour cycle performance as an economic living-toy'.[76] His short-life house is unfettered by nostalgia for the fixed forms of the family or the home, driven by the manifesto printed in block capitals in Supplement 2: 'THE HOUSE IS NO LONGER ACCEPTABLE AS A PRE-SET ORDERING MECHANISM FOR FAMILY LIFE'.[77]

Price thought the romantic notion of the family could be replaced by the contemporary 'family unit'. According to him, the actually-existing household was damagingly idealised by the designers of other housing studies, and completely ignored by the existing British housing stock.[78] In unpublished notes, Price points to the endurance of the traditional '"Christian Family" or its derivatives as assumed sole consumer of houses' as central to the problem, although perhaps he was wary of including this wording in his final draft for *AD*.[79] The tedious plans produced by the NBA, for instance, with prescribed room usage for everything, owed more 'to loose, slovenly assumptions on the part of the designer than to *the nature and immutability of the home and family*'.[80] Instead, he defines dwelling unsentimentally as 'a person-to-person multi-purpose exchange condition'.[81] In his initial sketches, Price iterates different combinations of a five-person family, with two children, two parents and 'one other adult'. [Fig. 7] However, though he designs for a family of a 'traditional' shape, Price hints that the relationships within it are fluid. In fact, rather than a family bound by blood, the composition of the modern family could be looser, bound by economic necessity.

> The family house is as much related to isolation and solitude as to kinship, friendship, and conviviality. The patterning of parents, children, other relations, short- or long-term guests, friends, acquaintances, is too sophisticated a variable in design to be neatly matched by architecture.

His goal in the face of this was, 'a physically protected matrix for a voluntary group of people… a house but not necessarily a home.'[82]

In designing this house that is not a home, Price turned to flexible architecture. Tatjana Schneider and Jeremy Till distinguish between two different kinds of 'flexibility' in nineteenth and twentieth century housing. They define it primarily as 'housing that can respond to the volatility of dwelling', by being 'adaptable, or flexible, or both'.[83] They distinguish between 'adaptability as "capable of different social uses" and flexibility as "capable of different physical arrangements"'.[84] The flexible house can offer its residents varying degrees of customisation and rearranging within the structure designed by the architect – that is, its physical construction lends itself to 'permitted' modification. The adaptable house encourages the use of the same space for different functions. Price's short-life house has both qualities.

Physically, its flexibility manifested as mobility and customisability of parts. The wall interfaces were composed of panels, chosen by the user, which could be fixed or left to shift over the life of the dwelling. [Fig. 8] Alongside designed-in modifiability, Price's hopes for the project included user-modification, the ultimate expression of individual choice. This would be accomplished through 'additives' applied to the generic wall openings Price designed and extensions that could puncture through them. Price points out excitedly that 'vertical external skins of the initial models provide three planes of user activated variation'.[85] The inhabitants can vary their store-bought product as needed'; the autonomy of the individual members of this family is enacted through product selection, with the later purchases of the occupier absorbed by the house. [Fig. 9a, 9b]

The design was also adaptable, avoiding prescribed uses for rooms. Price roundly criticised what he called a 'form of slovenly overdesigning

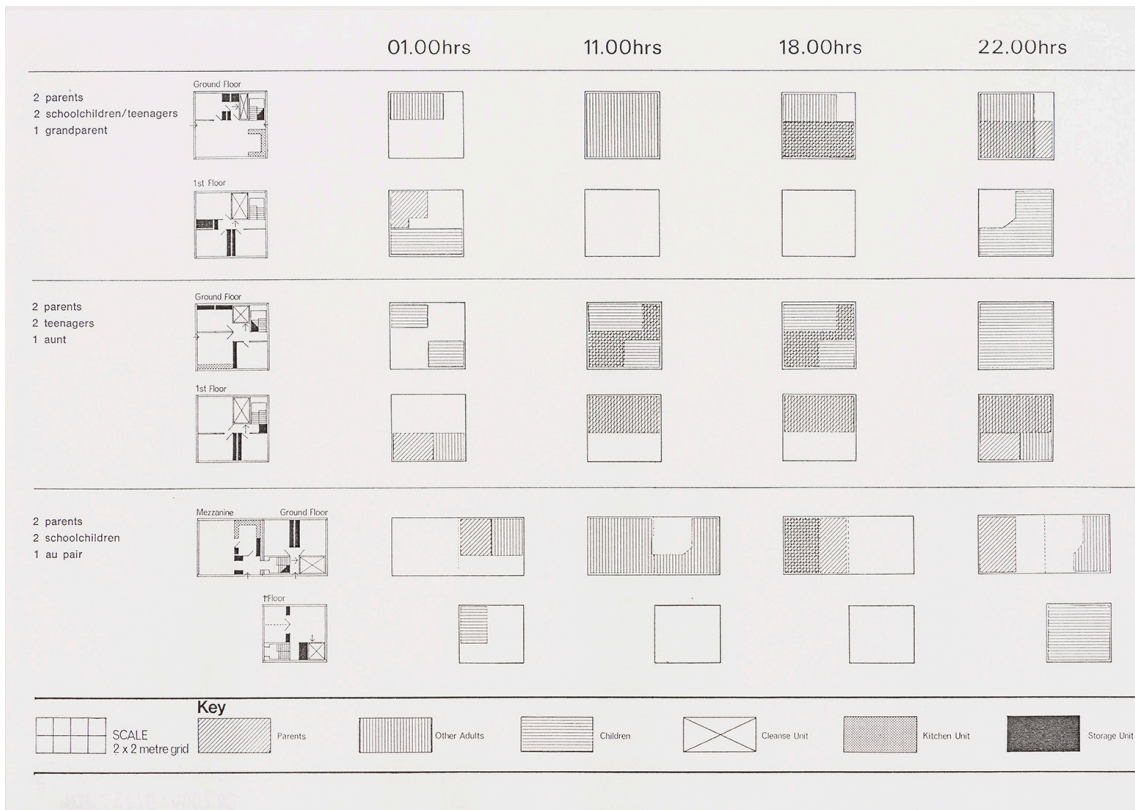Fig. 10. Price notably specifies different kinds of adult occupants by their familial relationships: an aunt, an uncle, and a grandmother move into and out of the spare room. Cedric Price, 'Plans for housing units showing occupation of space at different times of the day, from the project file "Housing Research"', 1967–1971. Photocopy on paper. 22 x 30 cm. DR2004:0223:001, Cedric Price fonds, Canadian Centre for Architecture.

insulating and *sterilizing* all available areas on the off-chance of something happening anywhere sometime.'[86] His designs, rather, were 'intended to enable an increase in the frequency and particularization of individuals' personal servicing (urinating, making love etc.) through a separation of necessary physical zoning through a 24 hour cycle'.[87] Thus, each room was supposed to be capable of being adapted to different uses, with functions separated not in space but in time. By opening up the usage of each room, he frees the house from its most basic prescription: that it is the place where reproductive labour takes place, its equipment and room provisions all oriented around various kinds of individualised restorative function. Nancy Fraser has examined how financialised neoliberal capitalism creates a crisis in social reproduction, where 'reproduction' comprises 'the work of birthing and socialising the young… caring for the old, maintaining households, building communities and sustaining the shared meanings, affective dispositions and horizons of value that underpin social cooperation'.[88] One part of this is how neoliberalism 'squeezes' the capacities of its labouring populations, inside and outside the workplace.

In *24/7: Late Capitalism and the Ends of Sleep*, Jonathan Crary considers what Marx called 'the annihilation of space by time', the drive to continuously extend productive capacities into every waking moment. Under neoliberalism, reproductive and productive functions blur together, as the working day extends into leisure time, and into the home.[89] Price's short-life house is built to accommodate this lifestyle. Here, it is not as blatant as the overlapping boxes prescribing where to 'work' and 'eat/sleep' in the Potteries student housing – the family is more complex. A twenty-four-hour activity cycle is mapped speculatively in diagrams, showing when different members of the family are using the spaces. [Fig. 10] Education again forges a link between 'work' and 'leisure.' Price asserts that 'an example of the massive domestic space demands likely to be made in the near future is that for the provision of selfpace educational facilities, which, with the increase of educational radio, TV and postal services, are likely to be based primarily in the home'.[90] Advances in technology will allow intellectual working-from-home, which Price intends to accommodate.[91] In fact, the living toy must even accommodate straightforward productive work; space for 'offices, studios, classrooms, shops or chapels must be available', showing the interconnectivity between 'work' and 'leisure' that Price's vehicle for the good life supports.[92] Individuals' desires are limited by the form, which Price will loosen. In doing so, and in encouraging emerging technologies that can bring labour into the home, the short-life house encourages the infiltration of production into the realm of reproduction.

The Good Life
Beyond presenting a solution for the housing provision problem, Price really sought to create a house that would 'gratify' desire in the same way his most beloved consumer object, the car, could, and that would entertain during the hours of 'increased leisure time' he envisioned in Britain's near future.[93] This house was functional – a '71 model machine for living in, designed for efficiency but with pleasure in mind. As Price put it: 'Maximum opportunity for occupants to mess around with the house combined with minimal need – on physical well-being terms – to do so. The right to idleness must not be sacrificed.'[94] Through Price's framing of the project we see the thread that continues from Non-Plan: his belief that 'physical planning… should consist at most of setting up frameworks for decision'.[95] The house

> must enable and encourage its occupants' desires for a finer life, and not stultify or restrict them… *Since prediction of "the good life" for others is neither feasible nor desirable*, housing must incorporate socially desirable life-spans in its physical design.[96]

The assumption that predicting the good life is somehow threatening returns us to Hayek – where planning is inherently oppressive. Yet, when the fixed is replaced with the infinitely adaptable, other oppressions can emerge.

Price frequently poses new, seemingly emancipatory forms of economic flexibility and affluence against the static, oppressive model of 'traditional family life'. Notably, he constantly connects this dichotomy of fluidity/solidity to architecture, equating the fixed with the constricting. 'Security and shelter are often cited as the domain of domestic architecture, although a healthy bank balance and hotel credit cards can provide appetizing alternatives.'[97] The potential instability of this mode of living, characteristic of precarious labour under neoliberalism, is not yet imagined. His talk of 'increased leisure time' indicates that his vision of 'the good life' is one in which the workday will play an increasingly shrinking role, in a context where worker power is presumably still robust.[98] Moreover, the implications of a fully commodified society are not necessarily explored beyond the rhetorical flair they lend Price's project. For instance the favoured metaphor of the car, as a product that requires built-in stylistic obsolescence to avoid market saturation, reveals the flip side of the pleasurable expendable commodity; that the continued health of the market depends upon the quick and continual turnover of commodities.[99]

Throughout all of this, the market emerges as the ultimate arbiter. It inspires the project, through the offerings of caravans, prefabricated living pods and self-build housing brochures amassed in the *Housing Research* files; it demonstrates that needs are going unmet, through representing individuals' choices; it offers a solution in the imagined dissemination of Price's new commodity, a commodity that will satisfy where housing as an 'autonomous and peculiar commodity' has failed. The composition of the short-life house is driven by consumer choice: not choice exercised abstractly, in a blank field of possibility, but through the market and shaped by the market's offerings. It asks: what happens when the house is not just a container for the paraphernalia of consumption, the property of the owner, but when the house itself, the family itself is posited as consumable? Breaking with traditional forms, Price asks of the house what he would ask of any commodity: what it can do for its user, what part of living it can enable or ease. He envisions a system where 'the good life' is not designed but self-organised by the consumer, who purchases the house either 'privately over the shelf (cf cans of soup)' or through the state 'as a national service (cf false teeth)' and designs it according to his or her specific wishes; an individualised vision of mass housing.

Rather than condemning Price for unforeseen future developments, this analysis serves simply to point out that the common characterisation of his work as 'radical' or 'leftist' is overly simplistic. Beyond his opinions, his work can convey something more useful; his historically-specific conditions, which he designed it to accommodate. Price's proposal to pay students a wage in the Potteries Thinkbelt did not come out of a critical understanding of the increasing complicity of higher education with industry and capital. Similarly, his short-life housing is not a fundamental challenge to the family itself, British housing policy, or capitalism. It is not necessarily interested in imagining the negative implications of precarious living for labour, addressing why the family form might be dissolving, or what kind of new social relations could be made possible, but this does not invalidate it.

Schneider and Till assert that in architecture 'there is a simplistic association of flexibility with progress: something that can move escapes the shackles of tradition, something that can be changed is forever new'. Within this logic, flexibility provides 'a convenient and immediate fix to that common architectural need to be allied with the "progressive" forces of modernity'.[100] Adrian Forty condemned the false

progressivism of flexible architecture, suggesting that while it pretends to cede autonomy to the user, it really 'allows architects the illusion of projecting their control over the building into the future'.[101] Considered in this context, the Non-Planners' careful avoidance of control can backfire. Price was famously opposed to the preservation of the small number of built projects he produced. He succeeded in defeating the listing of one of his notable flexible buildings, the Inter-Action Centre (1971), and it was demolished in 2003, the year of his death. He recognised that even his designed uncertainty would ultimately fail in its ability to service ever-changing needs. Whether or not he thought of it this way, he understood that his buildings, like all things, would dissolve in the fast flow of capital.

Notes

Every effort has been made to trace copyright holders and to obtain their permission for the use of copyright material. The author apologizes for any errors or omissions and would be grateful if notified of any corrections that should be incorporated in future reprints or editions of this article.

1. Peter Murray quoted in Cedric Price, 'Cedric Price Supplement 5', *Architectural Design* 43 (January 1972): 43.
2. Reyner Banham et al., 'Non-Plan: An Experiment in Freedom', *New Society* 13, no. 388 (March 1969): 443.
3. Cedric Price, 'Cedric Price Supplement,' *Architectural Design* 40 (October 1970): 507–522. Cedric Price, 'Cedric Price Supplement 2,' *Architectural Design* 41 (January 1971): 25–40. Cedric Price, 'Cedric Price Supplement 3,' *Architectural Design* 41 (June 1971): 353–368. Cedric Price, 'Cedric Price Supplement 4', *Architectural Design* 41 (October 1971): 619–630. Cedric Price, 'Cedric Price Supplement 5', *Architectural Design* 43 (January 1972), 24–43.
4. 'Housing Research' was the name under which Cedric Price's office grouped the papers, drawings, pamphlets, and ephemera relating to the development of the 'short-life house.'
5. David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), 3.
6. Nancy Fraser, *Fortunes of Feminism* (London: Verso, 2013), 218.
7. Douglas Spencer, *The Architecture of Neoliberalism* (London: Bloomsbury, 2016), 2.
8. Douglas Spencer, 'Architecture After California,' *e-flux Architecture*, 12 October 2017, https://e-flux.com.
9. Ronald Butt, 'Mrs. Thatcher: The First Two Years,' Sunday Times, 3 May 1981.
10. Felicity Scott, *Outlaw Territories* (Brooklyn, NY: Zone Books, 2016).
11. Simon Sadler, *Archigram: Architecture Without Architecture* (Cambridge, MA: MIT Press, 2005), 8.
12. Harvey, *A Brief History of Neoliberalism*, 57.
13. Ben Franks, 'New Right/New Left: An alternative experiment in freedom,' in *Non-Plan: Essays on freedom participation and change in modern architecture and urbanism*, ed. Jonathan Hughes and Simon Sadler (New York: Routledge, 2000), 39.
14. Banham et al., 'Non-Plan', 436.
15. Franks, 'New Right/New Left', 32.
16. Ibid., 33.
17. Banham et al., 'Non-Plan,' 442.
18. Ibid., 437.
19. Ibid., 438.
20. Ibid., '443.
21. Simon Sadler, 'Open Ends: The social visions of 1960s Non-Planning', in *Non-Plan*, ed. Hughes and Sadler,145.
22. Jonathan Hughes, 'After Non-Plan,' in *Non-Plan*, ed. Hughes and Sadler, 176.
23. Cedric Price, 'Non-Plan', *Architectural Design* 39 (May 1969): 271.
24. Stanley Mathews, *From Agit-Prop to Free Space: The Architecture of Cedric Price* (London: Black Dog Publishing, 2007): 198.
25. Cedric Price, 'Potteries Thinkbelt', *New Society* 7, no. 192 (2 June 1966): 17.
26. For more about the neoliberal monetisation of subjectivity, see Maurizio Lazzarato, *Signs and Machines: Capitalism and the Production of Subjectivity* (New

York: Semiotexte/ Foreign Agents, 2014).

27. Spencer, 'Architecture After California'.

28. Pier Vittorio Aureli, 'Labor and Architecture: Revisiting Cedric Price's Potteries Thinkbelt,' *Log* 23 (2011): 113–114.

29. Cedric Price, 'Potteries Thinkbelt Housing Types: Capsule Housing,' 1966, *Potteries Thinkbelt* document folio DR1995:0216:283-300, Cedric Price fonds, Canadian Centre for Architecture.

30. Price, 'Potteries Thinkbelt,' 15; emphasis added.

31. In reference to William Blake, from *Gnomic Verses*:
    'What is it men in women to require?
    The lineaments of gratified desire.
    What is it women do in men require?
    The lineaments of gratified desire.'
    Cedric Price, 'In a car I would require', 1967–1971,
    Housing Research document folio DR2004:0252,
    Cedric Price fonds, Canadian Centre for Architecture.

32. Nicholas Bullock, 'West Ham and the Welfare State 1945–1970: A Suitable Case for Treatment?' in *Architecture and the Welfare State*, ed. Mark Swenarton, Tom Avermaete and Dirk van den Heuvel (New York: Routledge, 2015), 99.

33. Ministry of Housing and Local Government, *The Deeplish Study: Improvement possibilities in a district of Rochdale* (Richmond: HMSO, 1966).

34. John Gold, *The Practice of Modernism: Modern Architects and Urban Transformation, 1954–1972* (New York: Routledge, 2007), 205.

35. Ibid., 192.

36. Ibid., 193.

37. Ibid., 199.

38. GLC Architects, *New Directions in Housing* (London: Academy Editions, 1977), 48.

39. The London County Council (LCC) was replaced by the Greater London Council (GLC) in 1965.

40. Sadler, Archigram, 103; emphasis in original.

41. Ibid., 7.

42. Ibid., 107.

43. Ibid., 64.

44. Alison Smithson, 'Caravan, Embryo, Appliance House', *Architectural Design* 29 (September 1959): 348; emphasis in original.

45. Ibid., 348.

46. M. Christine Boyer, *Not Quite Architecture: Writing Around Alison and Peter Smithson* (Cambridge: MIT Press, 2017), 205.

47. Eric Hobsbawm, *The Age of Extremes* (London: Abacus, 1995), 267.

48. Ibid*.,* 267.

49. Boyer, *Not Quite Architecture*, 205.

50. Hobsbawm, *The Age of Extremes*, 307.

51. Cedric Price, 'A change is required in our current attitude to "Housing"', 1967-1971, *Housing Research* document folio DR2004:0252, Cedric Price fonds, Canadian Centre for Architecture.

52. Cedric Price, 'Cedric Price Supplement 4', *Architectural Design* 41 (October 1971): 623.

53. Ibid., 620.

54. Ibid., 621.

55. Ibid., 620.

56. Ibid., 621.

57. Price, 'A change is required'. Emphasis in original.

58. Hobsbawm, *The Age of Extremes*, 334.

59. Cedric Price, 'Supplement 5', 29.

60. Price, 'Supplement 4', 625.

61. Submitted as an entry to the European Coal and Steel Community Competition, 1967. Cedric Price, 'Homes in Steel', *Building Magazine* (28 April 1967): 115–16.

62. Price, 'Supplement 4', 620.

63. Price, 'Supplement 5', 24.

64. Steve Mullin, 'Cedric Price, or, still keeps going when everything else has stopped', *Architectural Design* 46 (May 1976): 287.

65. Price, 'Supplement 5', 40.

66. Harvey, *Brief History of Neoliberalism,* 165.

67. Price, 'Supplement 4', 619.

68. Cedric Price, 'Cedric Price Supplement 2,' *Architectural Design* 41 (January 1971): 28.

69. Reyner Banham, 'Design By Choice,' in *A Critic Writes*, ed. Mary Banham (Berkeley: University of California Press, 1996), 71.

70. Ibid., 75.

71. Helena Mattsson and Sven-Olov Wallenstein, 'Introduction', in *Swedish Modernism: Architecture, Consumption and the Welfare State* (London: Black

Dog Publishing, 2010), 22.

72. David Kuchenbuch, 'Footprints in the Snow', in *Swedish Modernism*, ed. Mattsson and Wallenstein, 166–167.

73. Avigail Sachs, Architects, users, and the social sciences in Postwar America', in *Use Matters: An Alternative History of Architecture*, ed. Kenny Cupers (New York: Routledge, 2013), 71.

74. Price, 'Supplement 4', 627.

75. Harvey, *A Brief History of Neoliberalism*, 3.

76. Price, 'Supplement 2' 28.

77. Ibid.

78. In 1965, it was estimated that half of Britain's housing stock was over 70 years old, and up to one sixth was over a hundred years old. W. Beckerman, *The British Economy in 1975* (Cambridge: Cambridge University Press, 1965), 381.

79. Cedric Price, 'Housing Group: Present Barriers', 1969, *Housing Research* document folio DR2004:0243, Cedric Price fonds, Canadian Centre for Architecture.

80. Cedric Price, 'Architecture as a device', 1969, *Steel House* document folio DR2004:0260, Cedric Price fonds, Canadian Centre for Architecture. Emphasis in original.

81. Cedric Price, 'CASE: FIELD PROBE: STUDY'.

82. Price, 'Architecture as a device'.

83. Tatjana Schneider and Jeremy Till, *Flexible Housing* (Oxford: Architectural Press, 2007), 5.

84. Ibid.

85. Price, 'Supplement 2', 24; emphasis added.

86. Ibid., 28; emphasis added.

87. Ibid., 28.

88. Nancy Fraser, 'Capital and Care', *New Left Review* 100 (July/August 2016): 101.

89. Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2014), 74.

90. The Open University, broadcasting educational courses on public radio and television, was founded in 1969. Price, 'Supplement 4', 630.

91. Samantha Hardingham, *Cedric Price Works 1952–2003: A Forward-minded Retrospective* (London: Architectural Association Press, 2016), 217.

92. Price, 'Supplement 4', 630.

93. Mathews notes that there was a climate of expectation in Britain in the early 1960s that the government's assumed commitment to welfare state policies of full employment and the increase in workplace automation would result in shorter working hours and more free time for workers. An urgent subject of debate was the development of leisure equipment and activities that could occupy such new freed time. Mathews, *From Agit-Prop to Free Space*, 196.

94. Price, 'Supplement 5', 41.

95. Banham et al., 'Non-Plan', 442.

96. Cedric Price, 'Steel Housing,' *Architectural Design* 37 (May 1967): 246; emphasis added.

97. Price, 'Architecture as a device'.

98. Price: 'Steel Housing,' 245.

99. Boyer, *Not Quite Architecture*, 196.

100. Schneider and Till, *Flexible Housing*, 5.

101. Adrian Forty, *Words and Buildings* (London: Routledge, 2000), 143.

Biography

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Density:
Objective Measure or Critical Tool of the Neoliberal Agenda?
Claire Harper

Introduction

> What kind of vitality and intensity was actually being striven for when all parties united around the flag of "urbanity"? Was it the friction and "accident and mess" that seemed to be an important part of Jacobs's urban vitality? Or was it the concentration of retail outlets and gentrification, the nice front of diversity and "cappuccino urbanism" that lead to a less diverse social reality? (Berghauser Pont and Haupt, 2010)[1]

The publication of the planning agenda *Towards an Urban Renaissance* in 1999 and subsequent Urban White Paper published in 2000 marked a turning point in the approach towards urban development in the UK. The report was compiled by an appointed 'Urban Task Force' (UTF): an assembled team of architects, planners, urban designers and researchers, chaired by the architect Richard Rogers.[2] The report was written in reaction to the prevalent trend of de-densification of the urban landscape and rampant suburban housebuilding that dominated the last two decades of the twentieth century. Urban density was a key part of the new agenda it proposed. The report promoted reuse of former industrial sites, consolidating urban neighbourhoods and reducing expansion on greenfield sites on the edges of cities and posited urban density as an essential factor in achieving sustainable public transport systems. It championed the urban lifestyle, and promoted a vertical mix of shops, offices and residential spaces common in the vibrant, vital, centres of cities like Barcelona and Paris.[3] On the

basis of these benefits, or potentialities at least, the report called for the introduction of minimum density ratios for new housing development, reversing the trend of maximum development densities that had prevailed in planning policy throughout the twentieth century.[4] The report was premised on the belief that continued development on greenfield sites at too low densities, threatened not only the economic prosperity of UK towns and cities, but presented an ecological threat through over-consumption of land for housebuilding and fuel consumed in transporting the populace from their detached, suburban homes, to work in towns and cities.[5]

Over the past almost twenty years the objective of increasing urban densities (relative to the very low, 'anti-urban' densities that had characterised development in the period 1976–1999) has come to be accepted uncritically by (many within) the architectural profession. My PhD supervisor described it as akin to the polar ice-caps issue, such was the persuasiveness of the densification argument and conviction among the architectural and planning disciplines that increased urban densities were a necessary component of a sustainable urban future. While framed in numeric terms through planning policy, the new landscapes of densification would be designed, shaped and materialised by architects. Indeed, following the UTF report, UK architects seized the challenge of devising new, urbane typologies in housing, dusting off their housing and urban design skills after many decades

of being ostracised from any role in the design of housing on a large scale.

As a criterion underlying so many architectural commissions in recent decades, the mechanisms of density – the means through which it is measured and the validity with which it can be used to describe spatial or experiential conditions – deserve further consideration. The reversal of density policy at the turn of the century, while couched in positive rhetoric around sustainability and vibrancy, was also a core mechanism of the emerging financial model through which land and housing would become the ultimate inflationary commodities of neoliberal economics. Following the 'crude deregulatory strategies' of the 1980s and 'rolling-back' of state involvement in the provision of housing, by the time that the UTF report was published in the late 1990s, the political agenda had also begun to shift. As Allmendinger describes in his history of planning under the New Labour government, 'market-supportive re-regulation', privileging public-private partnerships was the order of the day.[6] In terms of planning policy, this meant 'bringing forward' former industrial sites for develop-ment and delivering the 'necessary strategies and institutional fixes in order to legitimise and facilitate growth'.[7] David Harvey and others have situated the revival of interest in urban development that has taken place in the UK, USA and Western Europe over the past two decades as part of a concerted political effort to find avenues for the investment of surplus capital. Under the neoliberal process (as Harvey describes it), planning policies have been configured to both provide investment opportuni-ties for private capital, and support financial growth for those investments, with densification as a core component of those policies.[8]

Development densities and the setting of minimum and maximum limits clearly has pronounced economic consequences. At its most basic, density is a simple ratio of matter to space. However, the units of density are far from neutral or unpolitical. The most common measurement of density used in urban development are those of houses: dwell-ings per hectare (dw/ha) or habitable rooms per hectare (hr/ha). In sharing the same units as those used by real estate agents and land buyers, density ratios have quickly become adopted as effective mechanisms of development economics. In the UK, in the context of a critical housing demand defined in terms of 'new households', dwelling densities provide a relatively simple measure of site capacity and a crude representation of the effectiveness with which land is being used in the provision of new housing.[9] The provision of more dwellings is equated with more efficient use of land, as well as more profit for developers whose returns are based on the number of homes sold rather than their rela-tive size or value. As can be seen in the diagram shown in figure 1, however, different measurements incentivise different forms of housing. Maximum dwelling densities (dw/ha) incentivise building the largest homes possible on the site, maximising the amount of development permitted within the guide-lines. When limits are defined in terms of habitable rooms (hr/ha), the opposite is true, and more, smaller dwellings prove more profitable.

Yet, despite its relatively narrow definition, density is far more than a simple ratio measure to be manipulated to maximise building mass. Density is also a laden term, imbued with a range of imag-ined qualitative associations and attributed a range of social, ecological, psychological and formal consequences – its attribution as a core ingredient of sustainable urban neighbourhoods being a clear example.[10] Even where the inquiry is focused on the use of density in architectural practice and housing design in a UK context, there is a lack of distinction between density as measured and density as expe-rienced. As psychologist Arza Churchman neatly identifies, 'at first glance, the concept of density is wonderfully appealing to planners [and designers].

It is an objective, quantitative, and, by itself, neutral term. However, a second and third glance reveals that it is a very complex concept.'[11]

In this article, I argue that this conflation between the measured and the perceived is precisely what situates density as an ideal tool of the neoliberal agenda. In the obfuscation between measurement and meaning lies the critical capacity of density to be ideologically packaged and therefore 'sold' to consumers of urban design and planning, while at the same time providing a device through which value can be effectively measured and controlled. For those who come to inhabit the homes that have been built out under the densification agenda, those measured units of dwellings and rooms constitute the spatial framework of their everyday lives. They are the physical structures in which households and neighbourhoods are organised. As most architects concerned with the design of housing are well aware, the location, configuration and design of these homes have profound implications for the interplay of social relations, both internally within the household and externally, as part of communities.[12] Yet, in spite of this crucial role as mediators between cartesian, measured space and the lived experience of the housing created, there has been very little scrutiny of the application and implications of densification for housing architecture.

In the first section, I set out a brief history of architects' relationship with density through a series of historical episodes. The intention is to situate density as an instrument of modernity, and the architect as an agent whose skills are continually deployed in service of land-owning agencies. In the second section I draw on two recent housing developments in a rapidly densifying part of East London. The case studies are used as a means of illustrating some of the implications of densification both for the role that architects have, and for the design and spatial configuration of the new housing

as homes – spaces where people, families and communities carry out their daily lives.

Finally, these spatial manifestations are situated in relation to broader objectives of the neoliberalisation agenda, positing that the unquestioning normalisation of densification (in which architects have played a key role) has presented an opportunity for even greater exploitation of density ratios as part of the neoliberal process.

Part I: density measurements as design instrument

Cities have variously grappled with mechanisms for controlling the expanse and populace of cities (i.e. density) throughout western history. The need for containment versus the need for growth has been exercised in pursuit of defence, taxes, power and significance.[13] However, the act of setting or prescribing density ratios for urban development is a relatively recent phenomenon, coinciding with the emergence of town planning as a scientific discipline in the early twentieth century.[14] Berghauser Pont and Haupt's *Spacematrix* study traces the first use of density ratios as a design instrument back to the garden city movement in England and the early modernists in Germany. In both epochs, efforts to determine the form and layout of the city were in reaction to the conditions of too many people, dwellings and workplaces, combined with too little air, light and open space. These poor conditions led to social deprivation and ill-health in the industrial cities of late nineteenth century Europe as recorded in numerous social observations.[15] In this context, mechanisms through which the number of people occupying a given amount of space could be measured and ultimately controlled were highly valued.[16] While the garden cities are one of the earliest recorded examples of density ratios being deployed with a deterministic view to shape the layout, character and organisation of a townscape, there is a precursor to Ebenezer Howard's model

that highlights an important distinction between the role of town planners and that of architects.

Overcrowding and a designed solution

Until the mid-nineteenth century, architects had been relatively unconcerned with the design of housing for the working classes.[17] However, from the 1850s onwards, overcrowding had begun to be recognised as compromising the improvements made to public health and sanitation. Society was concerned, not only over the physiological dangers of overcrowding, but also the moral deficiencies of so many bodies sharing so little space in sub-let houses and tenements of the industrial working classes.[18] Among the first published response to these recorded deficiencies from the architectural profession were plans for Model Dwellings. The architects of the Model Dwellings sought to address the core problems of lack of hygiene and privacy with housing models that would separate individual households into small, self-contained apartments, with dedicated sanitary facilities and outdoor space.[19] The housing typologies that were developed provided both improved sanitation and privacy while, crucially, allowing for the same number of households to be rehoused, maintaining the site density.

The Model Dwellings experiments highlight some important issues that have since become implicit in notions of density. For one, the assumed relationship between density and the experience of overcrowding was established. While for the architects, density ratios were seen as a means of controlling the impact of crowding, the popular conflation of the terminology was established. This stigmatised density and became a primary argument through which later proposals to redevelop urban neighbourhoods at much lower densities were promoted. Secondly, the proposed design solutions reveal the governing role of patronage in terms of architects' role in housing design. While

it is not clear whether this was set out explicitly in the architects' brief, the designs represent an early attempt to mediate between societal concerns over public health and safeguarding rental income for the landlords and investors who might commission those same architects.

Setting densities

Ebenezer Howard's *Garden Cities of To-morrow* (published 1898) demonstrates a further step in the sophisticated appropriation of density ratios. In his model for the garden city, Howard set out quotas for the 'proper arrangement of the individual buildings and the limitation of the amount of building in relation to an area of open space' – effectively, density ratios.[20] His model, part socio-economic thesis, part spatial planning proposition, posits a network of new towns, with a strict limit on the population and expanse of each with the intent of optimising living conditions for the town's inhabitants. Meanwhile the increase in land values generated by the conversion of agricultural land for development would be transferred to and held in a land trust for the community.[21]

Howard's ideal formed the basis for the early-twentieth century garden cities. The first of these was built at Letchworth, where Raymond Unwin and Barry Parker were commissioned as architects for the New Town in 1904. Drawing on Howard's application of density ratios as determinants of residential 'amenity', Unwin further extended this application. Whereas Howard's application of density ratios was essentially socio-political in its intent, Unwin deployed the ratio mechanism to substantiate his case for low-density, arcadian housing layouts that he envisaged for the residential parts of the New Town.[22] He demonstrated that by limiting the density of development on a site, and developing a typical site in his preferred perimeter arrangement, large areas of green space could be provided for the amenity of the surrounding dwellings. Furthermore, the lower-density layout would

reduce expenditure on infrastructure compared with typical terraced streets, thereby reducing development costs. [Fig. 2]

Unwin's economic argument was set out in his 1912 publication *Nothing Gained by Overcrowding!* He presented his model with the clear purpose of persuading potential investors and private landowners of the viability of his proposal, hence, his text is an important moment in the history of architects' involvement with density. He gains authority by simultaneously visualising an enticing future housing landscape, while at the same time carefully appealing to the private economic interests of developers and landowners (i.e., potential future patrons). The beautiful and enticing renderings of an Arcadian suburban idyll presented by Parker and Unwin can be read as seductive advertisement – a necessary device in the encouragement of landowners to sell, developers to build, and households to buy in to the new garden suburbs model.

Density and early modernism: the seduction of numbers
The next significant shift in architects' use of density ratios was led most vociferously by the pioneers of early modernism in central Europe. In the 1920s, Le Corbusier's famous proposal for the redevelopment of Paris framed density as a means of optimising productivity. 'The density, which is too great as things are at present, of the districts affected by the "Voisin" plan would not be reduced. It would be quadrupled.'[23]

These augmented densities would be achieved by building tall – a revolution in residential architecture. The new high-density, high-rise typologies were lauded with various attributes: the tall buildings not only liberated the ground space to enable wider, faster roads and more green space, but the collective housing models would facilitate otherwise unaffordable services for residents. As

demonstrated in the Unité d'Habitation, in-house nurseries, concierge services, not to mention internal plumbing and heating would all be enabled by the concentration of apartments on a site.

Walter Gropius was also enticed by the quasi-scientific rationality of density ratios. In his 1935 publication *The New Architecture,* he formalised what would become a rich seam of morphological study testing the relationship between density ratio, built form and sunlight. His diagrammatic studies demonstrated the simple principle that taller housing blocks, set further apart, made more efficient use of the site and generated higher site capacities. Furthermore, if site densities were fixed, then taller buildings set further apart on the site received more sunlight than lower-rise housing set close together.[24]

Gropius's explication of a simple, rational model through which the critical components of site planning – building height, separation distances, number of dwellings, and the resulting sunlight and daylight – could be controlled, made a vital contribution to the establishment of density ratios as design instruments. Given the prevalent conception of the dangers associated with the crowded city (and therefore, density), and recent recognition of the health-giving benefits of sunlight and ventilation, this tri-part relationship gained significant traction.

As opposed to the private investment sought by the architectural protagonists in the earlier episodes, Le Corbusier and Gropius expounded their proposals in terms intended to appeal to politicians, councillors, and newly formed town planning departments. Instead of an emphasis on economic returns (as expounded by Unwin), the currency used was that of public health, convenience and modernity. In both cases, the new architectures and landscapes they proposed required the authority and mechanisms of the state

to achieve the necessary scale of implementation. Working at this scale it was possible to explicate housing forms in which a higher ratio of building mass to footprint was countered by careful control over the landscape and wider neighbourhood plan.

Inspired by the principles set out by Le Corbusier and Gropius, Abercrombie and Forshaw's 1943 *County of London Plan* applied the notion of optimal site densities to support their proposed approach for post-war redevelopment in and around London.[25] Based on predetermined site densities and areas of open space required for recreation, quantitative calculations could be used to determine the height of the proposed buildings, as well as the site layouts and mix of housing typologies for the redeveloped areas: in every sense, planning by numbers. As figure 3 shows, the plan included three prototypical layouts for new housing developments for three different densities. Using this principle, it could be determined that at a density of a hundred persons per acre (247 ppl/ha) up to 55 percent would be in houses and 45 percent in flats (up to three storeys). At two hundred persons per acre (500 ppl/ha) all would be flats, with 65–85 percent of them between seven and ten storeys high.

This planning methodology had two important consequences for the subsequent use of density ratios. First, it had provided the increasingly empirical disciplines of planning and architecture with a rational, quasi-scientific methodology for housing production. In this context, design intent was frequently obscured by the emphasis on numbers, particularly in the context of a national housing shortage defined quantitatively. As criticism of the housing developed by this method began to mount, it demonstrated the inadequacies of an overly quantitative approach to housing design. The other important consequence of this period was the rebranding of density. The early modernists had effectively countered the association of density with the crowded, congested conditions of

the old industrial cities using radical visual imagery that spoke of spaciousness and greenery, occasionally punctured by tall, pavilion-like structures. Meanwhile the later applications of these ideas as the prevalent planning policy for post-war housing development contributed to a new, popular association between the language of density and high-rise housing forms.[26] This was an important moment, establishing a stigma that would see attitudes towards density pegged alongside the increasing unpopularity of high-rise housing during the latter part of the twentieth century. Part of the critical role that architects have had in the densification agenda post-UTF has been to alter some of these common associations, but the simple tools of persuasive visualisations and neat economic viability calculations remain central to the architect's toolkit.

Beyond a formal experimentation

There was widespread criticism of the housing landscapes generated by the numbers-led approach.[27] From within the architectural discipline there was also concern over the autogenetic housing architecture that it produced. Perhaps most effective of these criticisms was from architect-academics Leslie Martin and Lionel March who neatly challenged the approach on its own methodological terms. They argued that the land-use efficiency-argument which had been used to underpin the need for high-rise building in the inner-cities was motivated more by stylistic impetus than rationalist calculation.[28] Through a series of figurative experiments, they demonstrated the fallibility of the prevalent efficiency-case for building high-rise, and presented a thorough analysis showing plot ratios to be composites of different dimensions of built form. [Fig. 4] Density ratios provided the fixed parameters within which form could be manipulated, leading to models in which building mass and open space were inverted, creating 'anti-forms', as they described them. Their experiments countered the assumption that high(er) densities automatically generated high-rise architecture by demonstrating

37sqm

1 no. studio - 37 sqm
1 no. habitable room

37sqm 37sqm 37sqm

3 no. studios - 111 sqm
3 no. habitable rooms

1
2

3
4

5
6

1 no 4 bed house - 110 sqm
6 no. habitable rooms

Fig 1

SCHEME I   10 ACRES   SCHEME II   10 ACRES

340 houses

83.5 sq yd
average plot size

£9747.10s
cost of roads

£5000
cost of land

£43.76s
total cost per
house

8d
equivalent
ground rent per
week

10s 4.5d
price of plot per
sq yd

21ft
average
frontage

Tennis Courts   Childrens Playground   Bowling Green

Tennis Courts   Childrens Playground   Bowling Green

152 houses

261.5 sq yd
average plot size

£4480.10s
cost of roads

£5000
cost of land

£62.75s
total cost per
house

11.25d
equivalent
ground rent per
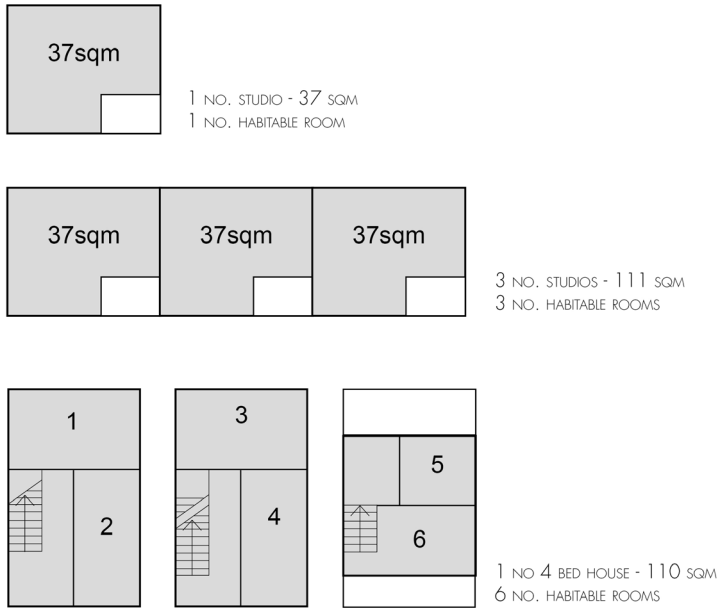week

4s 9.5d
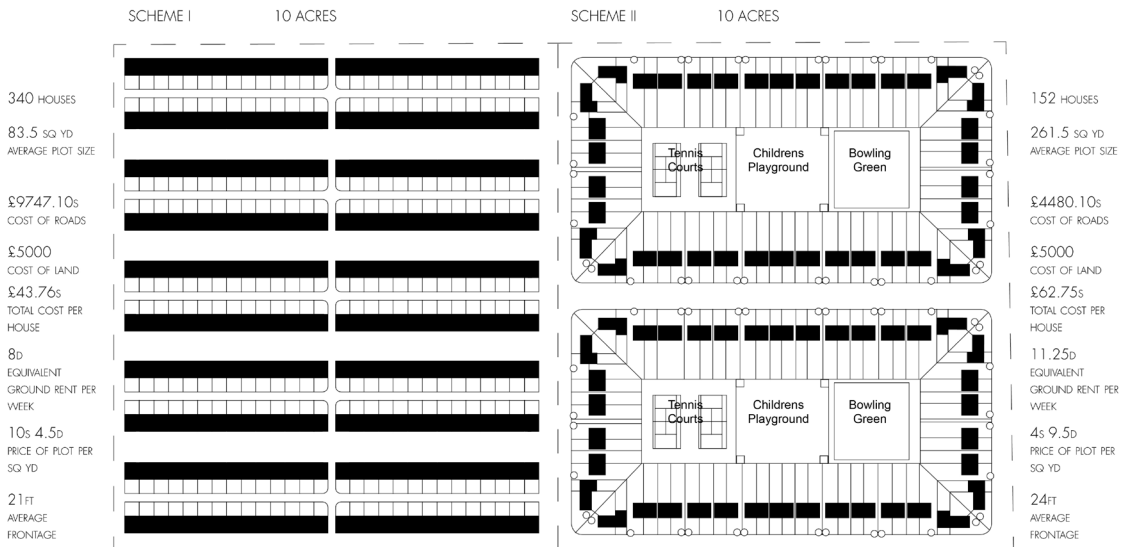price of plot per
sq yd

24ft
average
frontage

Fig 2

Fig 1: Diagram showing how the units of measurement encourage different types of development. Source: author.

Fig 2: Diagram showing Unwin's proposed perimeter layout contrasted with a typical layout of byelaw terraced streets.

Redrawn by the author based on Unwin's diagram in *Nothing Gained by Overcrowding!*

that equivalent densities could be generated with low, continuous built mass, articulated by open courtyards.

Their models are credited with informing a number of high-density, lower-rise housing schemes developed, particularly in London, during the late 1960s and 1970s. A prerequisite of these housing projects was that site density must be maintained (Local Authority revenues depended upon retaining population figures). Hence, with numbers fixed, architects were free to experiment with form and layout which could be governed by other aspirations. Neave Brown, architect of a number of these schemes, described these as 'to build low, to fill the site, to geometrically define open space, to integrate. And at the same time to return to housing the traditional quality of continuous background stuff, anonymous, cellular, repetitive, that has always been its virtue.'[29]

As with the earlier housing landscapes of the immediate post-war years, these housing models required implementation at the neighbourhood scale. In contrast to the segregated zoning of earlier housing estates, however, these low-rise, high-density prototype schemes provided a model for integration of housing with all the other ingredients of a typical residential neighbourhood: schools, shops, parks, car-parking, with a clear hierarchy that prioritised social and community spaces over parking and transit routes.[30] In contrast to the earlier episodes, the housing architecture developed under this agenda demonstrated a degree of engagement by the architects with the social potential of housing architecture. They demonstrated that, beyond the formal manipulation of building mass (as so rigorously expounded by Martin and March), the units of density (i.e., rooms, houses and buildings) could be considered in ways that contributed to making convivial, sociable neighbourhoods and homes. In so doing (or at least in describing their architecture in these terms), these archetypal housing schemes also expanded the lexicon of

density, at least concerning their influence within the architectural discipline, beyond the merely formal, to include notions such as continuity, proximity and an architectural modesty, at odds with the heroic formalism of earlier decades.

The Urban Renaissance: a turning point for density and a new role for designers

During the 1970s and '80s, following heightened criticism of post-war housing, particularly in inner-urban areas, there began a process of disinvestment in the production of housing as a public asset and a gradual shift towards private development as the dominant mode of housing production in the UK.[31] Nationally this manifested in a shift towards development on the urban peripheries (greenfield sites being the favoured option of private housebuilders), comprising diffuse landscapes of individual houses.[32] The houses themselves were predominantly standard 'products', developed by housebuilders with an emphasis on shop-window attributes: front and rear gardens, driveway and garage, and perhaps an en-suite bathroom. Density ratios were of the order promoted by Unwin sixty years previously.[33] The role of architects in relation to the design and production of housing was also vastly diminished.

Historic connotations associating density with congested, overcrowded cities endured, having underlain planning policy throughout much of the previous century. Furthermore, the terminology of density was stigmatised, with 'high-density' associated with discredited and unpopular housing typologies – namely the high-rise. If the objective of increasing urban densities was to be borne out, there was significant work to do in rebranding density and re-popularising the idea of urban living. Hence the architect's role was framed enticingly and attractively: to develop a more attractive 'urban product' and re-popularise the notion of urban living.[34] Much was borrowed from the more compact, higher-density urban centres of continental Europe,

HOUSING MIX FOR A SITE AT 3 DIFFERENT DENSITIES

2 STOREY HOUSES
3 STOREY FLATS
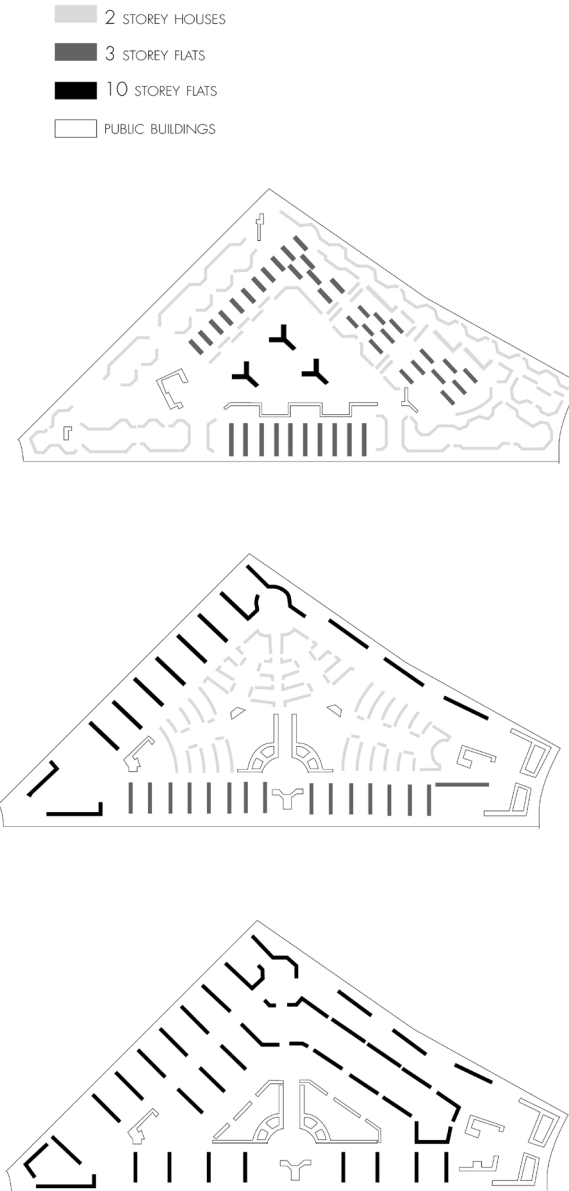10 STOREY FLATS
PUBLIC BUILDINGS

Fig 3: Diagrams showing a site developed at 100, 136 and 200 persons per acre, described by the authors as 'a mixture of low density housing and high density flats'. Source (quotation and image): Patrick Abercrombie and John Henry Forshaw, County of London Plan (London: MacMillan & Co., 1943), 27 and 79. Redrawn from the original.

and exploited as much for the architectural princi-pals as the dynamic neighbourhoods and lifestyles it enabled. By comparison with the preceding fifty years in which architects had expounded their proposals based on rationalised methodologies substantiated by objective, numeric data (within which density ratios had played a key role), density was now framed as an experience: one of vibrant, bustling urbanity.

Density: a neoliberal tool

In spite of the Urban Task Force promoting a revival of the urban landscape lead by good design with imposition of regulations kept to a judicious minimum, the lure of density ratios as a numeric, and therefore quantifiable measure proved tantalising expedient, and planning policies were introduced that reinforced the densification objectives with numeric targets. Planning Policy Guidance (PPG3) introduced in 2000 set minimum density ratios nationally – immediately reversing the twentieth century doctrine of maximum densities to mitigate against overcrowding and congestion. The 2004 *London Plan* also included a density matrix: a simple table setting out maximum density ratios for hypothetical development sites according to their relative level of public transport connectivity and proximity to urban centres.[35] [Fig. 5] Zones were defined based on transport accessibility, which, coupled with site area, enabled easy calculation of permissible density ratios for any given develop-ment site.

While planning policy, and specifically density policy has remained relatively consistent since 2000, its manifestation in terms of housing archi-tecture has not. In his recent planning history, Allmendinger notes that whereas the period 2004–7 was characterised by an emphasis on sustainability, inclusion and cultural diversity, post 2007, concern over the delivery of new housing and the impacts of the economic recession saw the emphasis shift

towards economic competitiveness and growth.[36] With density ratios positioned as technical limits to be manipulated through design to maximise revenue and financial return, the role of architec-ture in translating the numeric into built form comes into sharp focus. David Harvey suggests that the neoliberal process is one of commodification, where image and the enhancement of property values are the core objectives.[37] In the early 2000s, those objectives were at least veiled. The UTF empha-sised design quality and the need for housing densities adequate to support the development of public transport and infrastructure, and architects had responded with urban housing projects at densities similar to those of the historic centres of UK towns and cities.[38] By the end of the decade, the references were scaled up, with urban villages, seemingly referencing Manhattan rather than the sleepy English architype becoming the norm.

In this context, the role that architects had begun to play in promoting a lifestyle and image of urban living helped to reinforce a narrative around densi-fication that focused on the social and convivial qualities of density.[39] In short, architects had dealt with density's image problem. Indeed, so revived by the opportunities to work in housing again, housing architects had begun to compile compendiums of typologies, documenting myriad design solutions to the broad challenge of densification – on one hand cataloguing their extensive design outputs, and on the other promoting their usefulness as techni-cians of the densification agenda.[40] Amongst the most meaningful of these was the *Housing Density Study*.[41] It takes the density matrix as a framework and systematically explores how the density ratios prescribed within it could be manifest in terms of housing prototypes. [Fig. 6] It demonstrates how circulation, dwelling size, car parking and the urban or suburban context might shape housing archi-tecture through a series of illustrated examples. Despite various morphological studies (following

THE PAVILION AND ITS ANTI-FORM
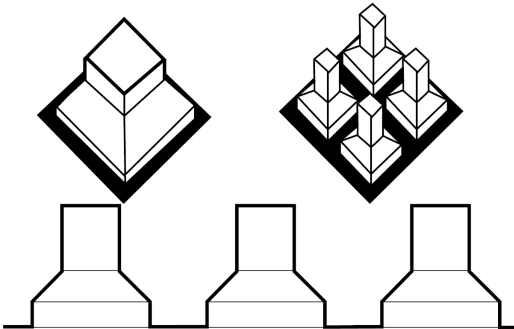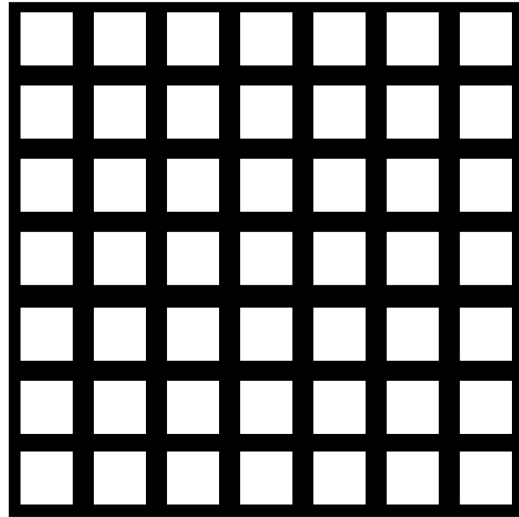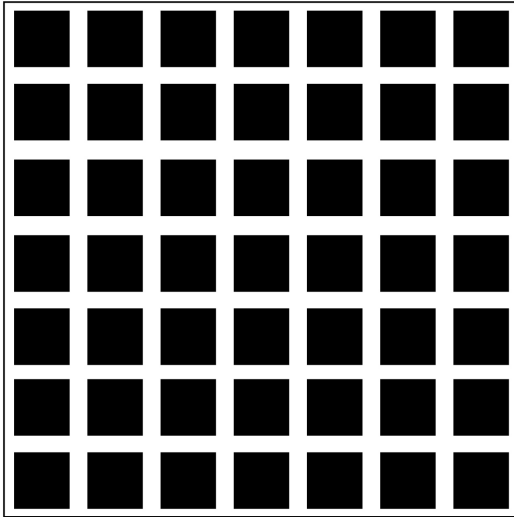
PAVILION

Taking the typical high-density pavilion form of a low podium surmounted by a tower (a typical New York block), the same amount of floor area can be accommodated in the 'anti-form'
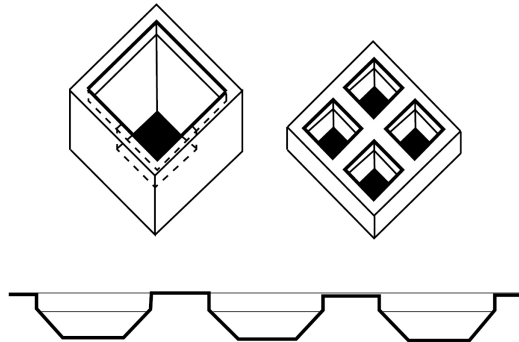
COURT

a court arrangement occupying the 'negative space' of the city grid at approximately one third the height of the pavilion provides the same floor area

Fig 4: The pavilion and its anti-form. Figurative experiments developed by Leslie Martin and Lionel March. Taking a typical New York block of low podium surmounted by a tower, they demonstrate that the same floor area can be accommodated in the 'anti-form', a court arrangement occupying the negative space of the city grid at approximately one third the height. In the anti-form, the narrow street is also replaced by a series of open courts out of which an alternative 'grid of movement' would develop. Source: March and Martin, 'Speculations', 21 and 37–38. Redrawn from the original.

in the footsteps of Leslie Martin and Lionel March) that have sought to problematise the relationship between measured densities and the resulting built form, the extensive list of examples serve to illustrate possible, viable options for development. In many ways it represents a more comprehensive update to the text that Raymond Unwin had published a century earlier, demonstrating how density ratios can be translated into housing types, with illustrations (for the residents) and numbers (for the investors).[42] The effect (although perhaps not the intent) is to provide investors contemplating the viability of a development site with even greater certainty than they were able to calculate from the simple correlation of site area and permitted densities. Using these examples, they have visualisations and housing prototypes that can be costed speculatively, providing greater surety around financial investment in housing. Furthermore, with the increased site densities being pursued by developers, the image of density over which architects have had such an essential influence has an increasingly critical role to play.

Part II: The density agenda and its manifestation in new housing architecture

It is its capacity to be both measured and therefore costed, while at the same time imagined and experiential, that casts density as such a critical instrument within neoliberal planning and development processes. Drawing on two recent East London housing projects it is possible to see how the malleability of density has facilitated its use as a mechanism for the extrusion of economic value, and its implications for housing architecture. The examples are taken as illustrative rather than representative but begin to demonstrate the 'double-agent' potential of density in action.

The examples are both located in Bromley-by-Bow, East London. Bromley-by-Bow is a rapidly changing area with a heterogeneous urban landscape comprising fragments of nineteenth century terraced housing, early twentieth century mansion-style tenement buildings and mid-twentieth century 'mixed development'. These fragments take the form of estates – inwardly looking and developed in isolation from neighbouring lots, which has created opportunities for infill development and larger-scale redevelopment. For areas like Bromley-by-Bow, the Urban Renaissance agenda had huge persuasive potential – promising infill and consolidation, increased social and economic diversity and all the positive experiential benefits of a more vibrant and animated neighbourhood. At the same time, despite relatively low land values in the area (pre-2008), the proximity of public transport established potential for densification, bringing rapid inflation in land values.[43] The examples cited are two amongst numerous infill and redevelopment projects that have been undertaken through public-private partnerships or 'project based agencies' over the past decade.[44]

Redevelopment of the Crossways Estate (since renamed as Bow Cross) was initiated in 2002, with construction work commencing in 2008.[45] It can be read as an example of the best intentions of the Urban Renaissance. The estate centred around three twenty-five-storey point-block apartment buildings that would be consolidated with new, lower-rise housing laid out in a clear network of streets and providing a better-defined landscape around the tower blocks. [Fig. 7] The infill development would also provide revenue to fund refurbishment of the existing tower blocks and new community facilities. The second example is the redevelopment of St Andrew's hospital site located a few hundred metres south of Bow Cross.[46] The planning application for the site was submitted in 2008, with construction starting in 2010. In this case, the development was delivered by a private housebuilder, supported by the London Development Agency.[47] [Fig. 8]

There is a step change in the density ratio between the redevelopment of Bow Cross and the

PTAL		0-1	2-3	4-6	
SUBURBAN		150-200	150-250	200-350	hr/ha
	Large	35-55	35-65	45-90	dw/ha
	Medium	40-65	40-80	55-115	
	Small	50-75	50-95	70-130	
URBAN		150-250	200-450	200-700	hr/ha
	Large	35-65	45-120	45-185	dw/ha
	Medium	40-80	55-145	55-225	
	Small	50-95	70-170	70-260	
CENTRAL		150-300	300-650	650-1100	hr/ha
	Large	35-80	65-170	140-290	dw/ha
	Medium	40-100	80-210	175-355	
	Small	50-110	100-240	215-405	

Large	3.8 – 4.6 habitable rooms per dwelling
Medium	3.1 - 3.7 hr/dw
Small	2.7 – 3.0 hr/dw

Table 1: Definition of terms - Density Matrix 2011

LOCATION	DENSITY	*EXISTING BUILDING FORM/ MASSING*	EXISTING BUILDING HEIGHT	PTAL	EXISTING BUILDING USES
Central	Very dense development	*Large building footprints*	Typically 4-6 storeys	Within 800m of International, Metropolitan or Major town centre or on main arterial route	Mix of different uses
Urban	Predominantly dense development	*Terraced houses or Mansion blocks*	Typically 2-4 storeys	Within 800m of a District centre or along an arterial route	Mix of uses
Suburban	Predominantly lower density	*Detached and semi-detached houses Small building footprints*	Typically 2-3 storeys		Predominantly residential

Fig 5: Density matrix with accompanying definition of terms, taken from London Plan (2011), revised since 2004.

Source: Greater London Authority, 'The London Plan: Spatial Development Strategy for Greater London' (Mayor of London, July 2011).

40 u/ha, 200 hr/ha   55 u/ha, 250 hr/ha   90 u/ha, 325 hr/ha   70 u/ha, 250 hr/ha

0%   22%   62%   61%

115 u/ha, 400 hr/ha   185 u/ha, 620 hr/ha   220 u/ha, 650 hr/ha   280 u/ha, 820 hr/ha

66%   78%   82%   86%
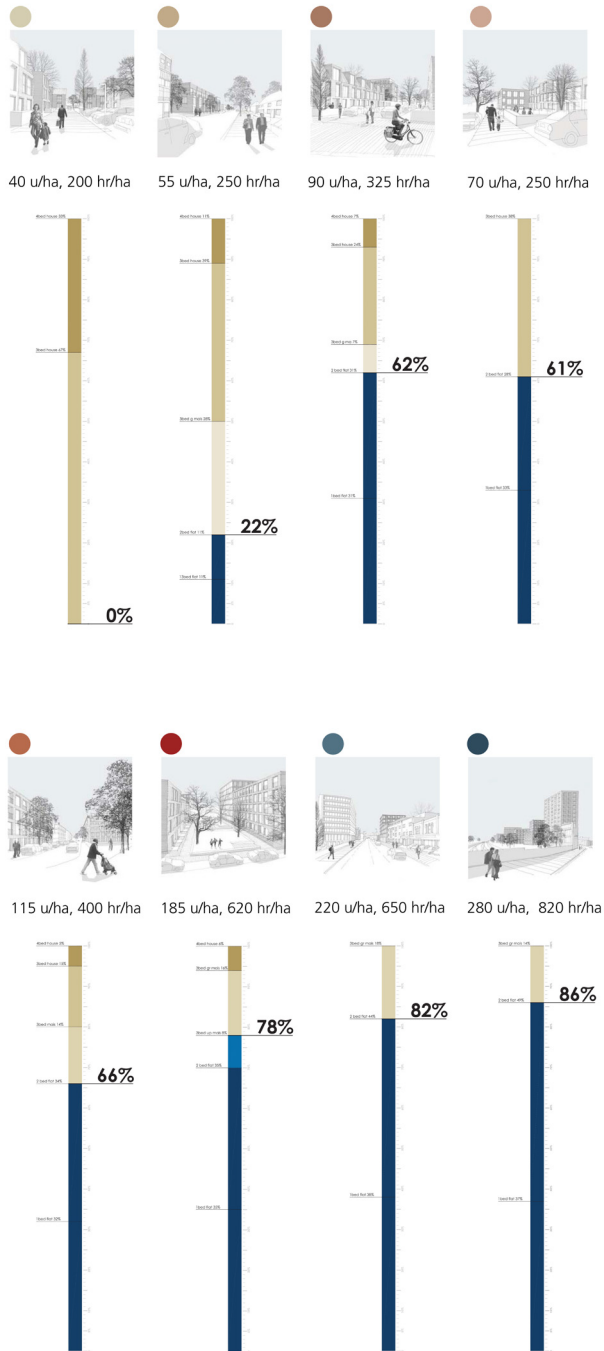
Fig 6: Diagram showing typology mix of the different illustration schemes referred to in the Housing Density Study.
Source: Maccreanor Lavington Architects, Emily Greeves Architects, and Graham Harrington Planning Advice, 'Housing Density Study', 149.

Fig 7a

Fig 7b

Fig 8

Fig 7a: Bow Cross estate plan before redevelopment showing development site outline. Redrawn from the original.

Fig 7b: Bow Cross estate site plan before redevelopment and after – PRP architects. Redrawn from the original.

Fig 8: St Andrew's site plan – Allies and Morrison Architects. Redrawn from the original.

St Andrews development, and comparison between the housing architecture of the two schemes supports the shift that Allmendinger points to, in the way that the development agenda shifted following the onset of the global financial crisis. He argues that while planning policies and objectives remained largely consistent, the ends to which they were deployed changed, with the balance between private investment and public benefit tilted towards the protection of capital investment.[48] Unpacking the architecture of these schemes begins to highlight the intrinsic role that architects, and architecture, has played in facilitating appropriation of the broad principles of densification to enhance economic value. It draws on the agency attributed to architecture throughout each of the earlier episodes described above, with designers deriving efficient floor plates, maximising habitable room densities, and at the same time, helping to conjure an image of the lifestyle facilitated by the new typologies. Three key themes are drawn out: site layout and built form, housing typologies, and communal spaces and services. These serve to illustrate some of the consequences arising from the pursuit of higher density ratios in order to highlight architecture's role and the potential implications of a callous pursuit of more density, rentable space and profit, over the consideration of liveable and convivial housing.

Site layout and built form
In terms of optimising the development potential of a site, the layout and massing of the buildings clearly carries huge potential. Infill of vacant sites was identified by the UTF as an easy win for landowners, providing a means of consolidating fragmented urban landscapes, and at the same time exploiting available, undeveloped sites in existing urban neighbourhoods. The redevelopment of Bow Cross enacted these principles. The new housing was deliberately squeezed up to site edges, eliminating the grassy verges that had previously disconnected the estate from the neighbouring streets. [Fig. 9]

Medium-rise apartment buildings and town houses are laid out in terraces with clearly defined frontages and main entrances onto the streets, with private gardens and parking courtyards behind.

The estate now has a more coherent network of streets with clearly defined public and private spaces. The redevelopment, which retained most of the existing buildings on the site (as well as their inhabitants) increased the number of homes from 298 to 679, increasing the site density from approximately 85 dwellings per hectare (dw/ha) to 185 dw/ha.

By comparison, the three hectare site at St Andrews (compared with 3.6ha at Bow Cross), a former hospital site, was cleared for development. The new scheme accommodates 976 new homes at a density of 325dw/ha, or 964 habitable rooms per hectare (hr/ha). [Fig. 10] In terms of permitted maxima, those ratios are somewhere near the top of the range outlined in the *London Plan Density Matrix* for the most accessible and most centrally located sites in London. It plays out in the massing and layout of the site.

By comparison with the three to five storeys typical of the new housing at Bow Cross, the buildings at St Andrews are typically nine to ten storeys, with narrower street widths too. Whereas the massing in the earlier scheme represents the formal aspirations of the UTF report, the massing and site layout at St. Andrews takes the notional form of the Barcelona apartment buildings or Berlin 'block' buildings espoused as exemplars by the UTF authors, but the height of the buildings and depth of plan are scaled up. Indeed, closer scrutiny of the section suggests that separation distances between the buildings have been squeezed to the minimum permissible in order that ground floor apartments receive minimum required daylight levels.

Fig. 9

Fig 10
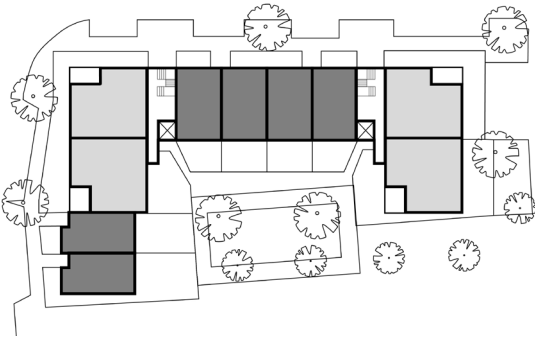
Fig 11
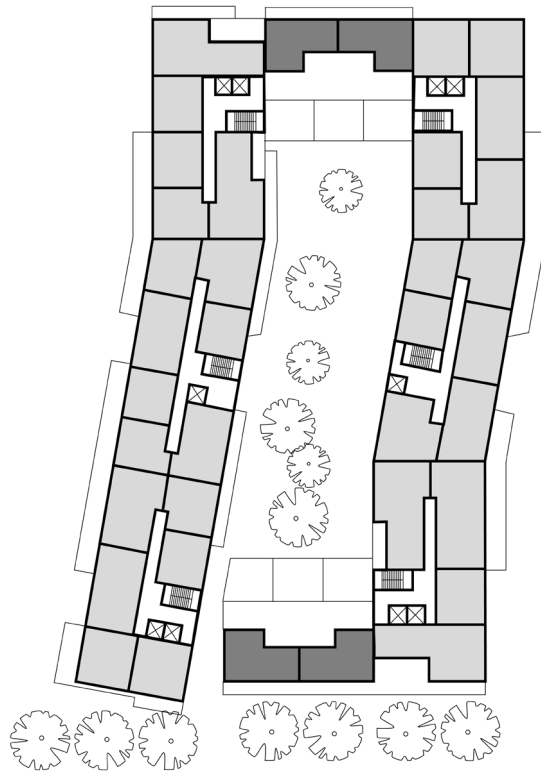
Fig 12

Fig 9: Bow Cross estate with new housing (foreground) and refurbished tower block. Photo: author.

Fig 10: St Andrew's new housing, Allies and Morrison and Maccreanor Lavington Architects. Street view. Photo: author.

Fig 11: Block layout at Bow Cross showing a mix of houses and apartments with entrances onto the street and circulation cores shared between two or three apartments per floor. Redrawn from original.

Fig 12: Block layout at St. Andrew's showing predominantly apartments with entrances to circulation cores from the private courtyard. Stairwells are shared between six or seven apartments per floor, up to 70 in total. Redrawn from original.

Building and housing typologies

The shift in the scale of the buildings also plays out in the layout and spatial organisation of the housing itself. Bow Cross has a mixture of terraced houses and medium-rise apartments. The apartment buildings have front doors onto the street, and stairwells shared between two apartments per floor. [Fig. 11] While not lavish in their décor, the natural daylight, views out to the street, and relatively small numbers of residents sharing the space make the stairwells and lobbies potentially sociable spaces where residents encounter their neighbours and recognise and acknowledge familiar visitors. By comparison, at St Andrews the deeper plan is formed of two apartments on either side of a central corridor. The apartments are predominantly single-aspect: one faces the street, the other into the courtyard.

The double-banked corridor is an efficient layout, with optimum ratios between residential floor area and circulation space (excellent for investors seeking maximum rental return). [Fig. 12] But it also has important consequences, both for the relationship between apartment and street, and between neighbours. Whereas the dual aspect of the Bow Cross apartments serves to delineate a front and rear elevation, enabling more and less-private spaces within the dwellings, the move to single-aspect typologies removes this capacity for flexibility and therefore control. All elevations, both street and courtyard-facing are rendered 'front elevations', with privacy moderated through residents' interventions: curtains or blinds, or by technical devices such as mechanical ventilation mitigating the need for (and option to) open windows. There are also examples of behavioural codes: no ball games in the courtyards, no doormats in corridors, no bikes stored on balconies.[49] These rules, in part a necessary consequence of the advanced fire strategies required for residential buildings with such high capacities, can also be read as controlling devices, negating the need for consensually agreed behaviours in shared spaces within and around the building.

Hence, while the double-banked corridor layout and single-aspect apartment typologies (of which St Andrews is a good example) generate the density ratios demanded by developers and their investors, the architects' role extends beyond this. Equally critical is the look and feel of the architecture, which supports the careful programming and management plans that seek to control how spaces might be used. The narrow, artificially lit corridors with elegant yet generic finishes and furnishings, in part a consequence of an efficient layout, can also be read as a means of inhibiting meaningful neighbourly encounter with interiors that allude to the uncanny anonymity of hotel lobbies and corridors.[50] In these spaces the idiosyncratic, personal and chaotic character of the domestic is suppressed in lieu of a controlled, predictable and therefore, rentable, residential 'product'. They are an example of the ways in which the housing architecture serves to enable ever higher density ratios without concession to the potentially limiting factors of noise, congestion and bustle in the spaces around the home. The social opportunities created by density and proximity between neighbours – those celebrated by the architects of the low-rise, compact urban schemes of the 1960s and 70s – are essentially designed out.

Communal spaces and commercial services

While the anonymity of the shared lobbies and hallways in the higher density scheme might have marked consequences for the neighbourliness of the building, it is also a designed condition that is part of a serviced residential experience, akin to that in a hotel, or the convenience-oriented lifestyle advocated by Le Corbusier in his early proposals for the modern apartment complex. He famously championed the opportunities that higher residential densities could facilitate, liberating housewives from the drudgery of housework with a plethora of communal services. Dependent upon the scale of the development, these might include concierge, crèche, hairdressers and cleaning services, as well

as shared utilities such as central heating and hot water, made viable by the vertical organisation and proximity of so many homes.[51] Indeed the type and provision of communal services can have significant socio-political consequences. Le Corbusier recognised this fact, yet the role they play as part of housing development under a neoliberal agenda is disregarded.

Both Bow Cross and St Andrews include examples of services and spaces facilitated by the site density ratio, but the nuances of what is provided, how and for whom, is less consistent. During the late 1990s and early 2000s, public-private partnerships in housing delivery were promoted as a means of enabling investment in the provision of public services. The new community centre, housing office and games court at Bow Cross would be an example of this.

Along with a number of children's play parks, these spaces are all freely accessible for residents and cater for various community groups and charities. At St Andrews the comparable list is extensive and includes underground parking, bike stores, an on-site gym, a GP surgery, a convenience store, concierge services, and a car share scheme. There first two on this list are spatial provisions required to supplement the apartment typologies on the site. The remainder, however, are an array of revenue-generating services. Whereas at Bow Cross, private financial investment is ostensibly being used to fund community spaces and amenities, at St Andrews, most of the amenities are paid-for services. The density of housing units also represents a density of demand. The higher the concentration of demand, the greater the interest from companies to run these services as revenue-earning franchises. The zero-parking policy applied by the planning authority to the St Andrew's development creates a concentrated market for a car-rental scheme. Similarly, a gym is more necessary when one's home is reduced to minimal space standards and has no space for

squat thrusts. In this way, the architecture of density provides further means of extracting capital out of the basic daily routines of home.[52]

These themes and the two selected case studies are in no way intended to represent, or even describe, an architecture of density. They do, however, serve to demonstrate how architects' efforts to increase site densities have profound consequences for the lived experience of the residential environments created. The seminal urban critic Jane Jacobs criticised Le Corbusier's vision of 'maximum individual liberty' as 'not liberty to do anything much, but liberty from ordinary responsibility'.[53] There is an assumption inherent in her criticism that responsibility is equated with a kind of civility reinforced through normative social practices. Applied to thinking about the home and its environment, these practices might include the mundane and under-valued labour associated with the domestic: doing laundry, repairing a bicycle, hosting visitors. Where these practices, generic and unremarkable as they may be, begin to be curtailed by the architecture of the home and its environment, this has consequences for the interplay of social relations.[54] Hence the motivations underpinning these morphologies in housing architecture ought to be a central concern for the architects commissioned with briefs for high-density housing.

Conclusions

In each of the historic episodes considered briefly above, two recurring themes are apparent: one is the importance of patronage to the architect's role, and the second is the continued ambiguity of measured density ratios and the experience of crowding, proximity and bustle with which it is associated. Housing architects from the 1850s onwards recognised that density ratios measured in terms of homes or rooms are principally economic metrics. Raymond Unwin's famous manifesto for the garden cities illustrates various ways in which architecture could act to extrude the economic potential of

density. In Unwin's case the benefactor was clear, whereas the complexity of neoliberal development economics makes that relationship less explicit. Architects might be employed by a developer, who has in turn been appointed by a local authority, who has sought funding for a development from private investment channels, with housing developed for private sale, and sometimes rental. Far from a mere technical issue, architects' translation of density ratios into built form has significant consequences for each of these parties.

The measurability of density ratios gives them great veracity, enabling developers to calculate potential returns based on ratios of rentable floor space per square meterage of site. But density is different from cold, hard metrics like rental values or internal floor area in that it is laden with myriad qualitative assumptions. In the early twentieth century, it was associated with crowding and congestion. By the 1970s, that conception had shifted, and density acquired a stigma associated with tall buildings and pavilion-like residential buildings in windswept landscapes. Since the turn of the twenty-first century, density has been rebranded once more. In planning discourse, it has associations with land-use efficiency, consolidation of urban development and increased viability for public transport and other services. Housing development supported by the state, as in the Bromley-by-Bow case studies, has been promoted on the basis of potential environmental and social benefits for the wider community. Convenient access to public transport and on-site amenities form part of a commodified housing 'offer' for prospective residents. Meanwhile, as the example of St Andrew's begins to demonstrate, floor plans and spatial configurations are poured over by their architects in pursuit of higher density ratios and higher profit returns for investors. With each new development that pushes at permitted density limits, a new benchmark for the development potential of nearby sites is established. The financial incentive to push density ratios higher still challenges designers to devise yet more deterministic housing programmes to enable and facilitate the increased numbers.

Equally important is the narrative to entice residents to buy into this new residential paradigm. The marketing of new housing being developed under the densification agenda conjures an experience of urban living – coffee on the balcony, speedy connections to the city centre, a view from above on the chaotic street below – are all part of this renewed image. It is one that architects have played a crucial role in imagining, articulating and bringing into fruition. For the neoliberal process, as David Harvey describes it, image is critical.[55] The commodity value of everything – land, housing, the lifestyle and convenience associated with having a gymnasium in your apartment building – is driven by image. Drawing on references to historic European cities, or increasingly, the more frenetic density conditions of New York and Tokyo, architects have contributed to renewing the image of density, enhancing and facilitating the capitalisation that is its primary cause.

There is clearly a need to distinguish between the density ratio that is measured, the experience of density that is 'sold', and the lived reality of density as it manifests in housing architecture. It may be that each require different approaches, different methods of measuring, visualising and interpreting, but each should be part of the architect's concern. Instead, as architect and theorist Roemer van Toorn suggests, the architectural profession has tended towards denial of the broader implications of their pursuits.

> Instead of taking responsibility for the design, instead of having the courage to steer flows in a certain direction, the ethical and political consequences arising from the design decisions are left to market realism, and the architect retreats into the givens of his discipline.[56]

In retreating in this way, architecture relinquishes its inherent agency. Taken at its most basic, density ratios are crude instruments of economic calculation. The willingness of the architectural profession to manifest the desires of dominant capital forces in formal, elegant typologies valorises the use of mechanisms such as density within the development agenda. Meanwhile, positing density as a simple ratio, a Euclidean concept empty of social, political and emotional significance reduces the scope for an expanded, qualitative reading that values the potential arising from conditions of proximity, congestion and chaos as part of a collectively negotiated urban experience. The acute significance of density as a tool of the neoliberal process is borne out of its inherent capacity to hold myriad different meanings. The divergence between the imagined experience of density – as either overcrowded, congested city, or vibrant and animated urban setting – and the cold measurability of density ratios provides a flexibility that responds to the covert operations of neoliberal economics.

Notes

1. Meta Berghauser Pont and Per Haupt, *Spacematrix: Space, Density and Urban Form* (Rotterdam: NAI Publishers, 2010), 67–68.

2. Richard Rogers was appointed by the then Deputy UK Prime Minister, John Prescott, to chair the panel following his publication *Cities for a Small Planet,* which iterated the danger of continued sprawling urban expansion and championed a revival of more compact, residential urban centres.

3. Urban Task Force, *Towards an Urban Renaissance* (London: Department of the Environment, Transport and the Region, 1999), 59.

4. UTF, *Towards an Urban Renaissance*, 59–64; Peter Hall and Colin Ward, *Sociable Cities: The Legacy of Ebenezer Howard* (Chichester: John Wiley & Sons, 1999).

5. Richard Rogers, Chairman of the UTF in his introduction to the report *Towards an Urban Renaissance*, 7.

6. Phil Allmendinger, *New Labour and Planning: From New Right to New Left* (London: Routledge, 2011), 157.

7. Ben Clifford and Mark Tewdwr-Jones, *The Collaborating Planner? Practitioners in the Neoliberal Age* (Bristol: Policy Press, 2013).

8. David Harvey, 'The Right to the City', *New Left Review* 53 (October 2008).

9. Kate Barker's 'Review of Housing Supply' report emphasised the quantitative need for new housing based on population growth and decreasing household size driving demand for new homes. 'Review of Housing Supply: Delivering Stability: Securing Our Future Housing Needs' (Her Majesty's Stationery Office, 2004), 15–16.

10. Anthropologists, architects, geographers, economists, planners, developers and psychologists have variously considered the impact of density at different scales, measuring different units, or indeed, not measuring at all but speculating and conceptualising. A detailed review of the breadth and diversity of this study is outlined in Boyko and Cooper's article 'Clarifying and Re-Conceptualising Density', *Progress in Planning* 76 (2011): 1–61; and Arza Churchman, 'Disentangling the Concept of Density', *Journal of Planning Literature* 13, no. 4 (1999): 390.

11. Churchman, 'Disentangling the Concept of Density', 389.

12. Nishat Awan, Tatjana Schneider, and Jeremy Till, *Spatial Agency: Other Ways Of Doing Architecture* (London: Routledge, 2011), 38.

13. Architects and historians have explored the consequences of alternate political strategies for the form and composition of the city at length. Through a history of changing urban form, Ludwig Hilberseimer's *Nature of Cities* attached social, economic and political implications to conditions of compaction and dispersal – notionally positioning density as a rationale for his proposed dissolution of the compact urban centre. Ludwig Hilberseimer, Nature of Cities (Chicago: Paul Theobald, 1955).

14. Miles Glendinning and Stefan Muthesius, *Tower Block: Modern Public Housing in England, Scotland,*

Wales and Northern Ireland (New Haven: Yale University Press, 1994), 37; Berghauser Pont and Haupt, *Spacematrix*.

15. These reports included George Godwin, *Another Blow for Life* (London: Wm. H. Allen, 1864), The Strand (2nd Annual Report on Sanitary Conditions of the Strand, 1858), *The Report of the General Board of Health* (1850) and Charles Booth's '*Descriptive Maps of London's Poverty*' (1889) which mapped the geographical coincidence between social status and the density of occupancy of houses.

16. Meta Berghauser Pont and Per Haupt, 'City or Sprawl? The Need for a Science of Density', *'Scape*, no. 1 (April 2007): 60.

17. Anthony S. Wohl, *The Eternal Slum: Housing and Social Policy in Victorian London*, 2002 ed. (London: Edward Arnold Publishers, 1977).

18. Robin Evans, 'Rookeries and Model Dwellings: English Housing Reform and the Moralities of Private Space', in *Translations from Drawing to Building and Other Essays* (London: Janet Evans and Architectural Association Publications, 1978), 96.

19. A detailed review of these housing models is set out in S. Martin Gaskell, *Model Housing: From the Great Exhibition to the Festival of Britain*, Studies in History, Planning and the Environment 10 (London: Mansell Publishing, 1986).

20. Raymond Unwin, *Nothing Gained by Overcrowding! How the Garden City Type of Development May Benefit Both Owner and Occupier*, 3rd ed. (Garden Cities and Town Planning Association, 1918), 3.

21. Hall and Ward, *Sociable Cities*.

22. Note that Howard's proposed garden cities were based on a density of approximately 225 persons per hectare or 45dw/ha (based on the average household size of five persons in 1898). Hall and Ward, *Sociable Cities*, 22.

23. Le Corbusier, *The City of To-Morrow*, Translated from the 8th ed. (London: John Rodker, 1929), 281.

24. Walter Gropius, *The New Architecture and the Bauhaus*, trans. P. Morton Shand (London: Faber and Faber Limited, 1935).

25. The plan was published following the Barlow Commission (1940) which concluded that some decentralisation was necessary in order to improve the general conditions within UK towns and cities, but that the density of the inner-city areas ought to be maintained in accordance with 'industrial conditions' (i.e., employment). Patrick Abercrombie and John Henry Forshaw, *County of London Plan* (London: MacMillan & Co., 1943), 9.

26. The tower blocks were part of an extraordinary drive towards modernisation during and after World War II. New housing was designed based on a 'greatly expanded science of habitation' – both technical and socio-psychological. Glendinning and Muthesius, *Tower Block*, 2.

27. Nicholas Taylor, *Village in the City* (London: Maurice Temple Smith Ltd, 1973); Jane Jacobs, *Death and Life of Great American Cities*, new edition (Random House Inc, 1997).

28. Lionel March and Leslie Martin, 'Speculations', in *Urban Space and Structures* (Cambridge: Cambridge University Press, 1972). Glendinning and Muthesius also argued that the motivation for higher densities was motivated by aesthetic as well as social and economic factors. Glendinning and Muthesius, *Tower Block.*

29. Neave Brown, 'The Form of Housing', *Architectural Design* 37 no. 9 (September 1967): 433.

30. A detailed history of some of the seminal examples of housing from this period has recently been published by Mark Swenarton. *Cook's Camden: The Making of Modern Housing* (London: Lund Humphries Publishers Ltd, 2017).

31. This coincided with the gradual withdrawal of local authorities from housebuilding. A fuller analysis of this shift, along with an excellent diagram showing UK housing production over the past sixty years can be found in Alastair Parvin et al., *A Right to Build: The Next Mass-Housebuilding Industry* (Sheffield: Architecture 00:/ and University of Sheffield School of Architecture, 2011).

32. The Planning Policy Guidance Note (PPG) series introduced in 1988 gave little attention to the strategic role of density for spatial planning. Nicola Dempsey

and Mike Jenks, 'The Language and Meaning of Density', in *Future Forms and Design for Sustainable Cities* (Amsterdam: Architectural Press, 2005), 295; Michael Collins and Patrick Clarke, 'Planning Research Programme: The Use of Density in Urban Planning' (Department of the Environment, Transport and the Region, 1998), 15.

33. Professor Sir Peter Hall, 'Foreword: Nothing Gained by Overcrowding! A Centenary Celebration and Re-Exploration of Raymond Unwin's Pamphlet "How the Garden City Type of Development May Benefit Both Owner and Occupier"' (London: Town and Country Planning Association, April 2012), 2 https://tcpa.org.uk

34. New developments were to deliver attractive, compact urban neighbourhoods, driven by good design principles rather than restrictive, numeric targets and limits. UTF, *Towards an Urban Renaissance*, ix. The planning theorist and historian Phil Allmendinger describes the 'Urban Renaissance' as design and culture-led, situating the architecture of these new urban neighbourhoods as central to their success. Allmendinger, *New Labour and Planning*, 66.

35. The density matrix was first developed as part of a study carried out by Llewelyn-Davies and The Metropolitan Transport Unit, *Sustainable Residential Quality: Exploring the Housing Potential of Large Sites* (London: London Planning Advisory Committee, 2000). The report was developed to support the emerging emphasis on the city region and what McFarlane refers to as 'tentpole densities' – poly nucleated centres within a regional strategy. This characterises the plan for London, with identified urban 'villages' being positioned as cores for transport and infrastructure provision and the development potential of sites calculated according to their proximity to these centres. Colin McFarlane, 'The Geographies of Urban Density: Topology, Politics and the City', *Progress in Human Geography* 40, no. 5 (1 October 2016): 629–48. Duncan Bowie also gives a very thorough review of the policy in *Politics, Planning and Homes in a World City* (Oxon: Routledge, 2010).

36. Allmendinger, *New Labour and Planning*, 156.

37. David Harvey cited in Berghauser Pont and Haupt, *Spacematrix*, 74–75.

38. Islington in London and Brighton in Sussex were both cited as examples of attractive, vibrant, residential urban environments. UTF, *Towards an Urban Renaissance*, 27.

39. Margit Mayer, Catharina Thörn, and Håkan Thörn, eds., *Urban Uprisings: Challenging Neoliberal Urbanism in Europe* (Palgrave Macmillan, 2016).

40. The a+t publications are a good example of these. Javier Mozas, *Density: New Collective Housing* (Madrid: a+t ediciones, 2006); Javier Mozas and Aurora Fernandez Per, *Dbook: Density, Data, Diagrams, Dwellings* (Madrid: a+t ediciones, 2007).

41. Maccreanor Lavington Architects, Emily Greeves Architects, and Graham Harrington Planning Advice, 'Housing Density Study' (Greater London Authority, 30 August 2012). The authors of the report have established reputations as prominent housing architects, delivering a number of critically revered schemes, including substantial involvement with the St Andrews development.

42. The density matrix, in essence, provided a simple equation through which the economic value of any development site in London could be valorised. Margit Mayer and others have characterised neoliberal urbanism as the deliberate commodification of public space extending to the provision of housing that, in the UK, is now almost entirely delivered by private developers rather than the state. *Urban Uprisings*, 65. The density matrix is published as part of the London Plan Greater London Authority, 'The London Plan: Spatial Development Strategy for Greater London' (Mayor of London, July 2011).

43. Over the past decade the vast majority of the former council-owned estates in the area have been transferred to Registered Social Landlords and Management organisations. For more information see 'Poplar HARCA: About Us' (Poplar HARCA, 2004). Tenure status for the Bromley-by-Bow ward is almost 50 percent socially rented (compared with the 17 percent average for London). Office for National Statistics, 'Key Figures for 2001 Census: Census

Area Statistics', (London: Office for National Statistics, 2001).

44. 'Project-based agencies' is a term used by Berghauser Pont and Haupt, *Spacematrix*, 74–75.

45. The redevelopment of the estate was funded through a mixture of private and public finance. PRP architects were appointed to develop the masterplan and new housing, including refurbishment of the original 1960s tower blocks. Swan Housing Group, 'Bow Cross: Awards Entry for Best Regeneration Project' (Billericay: Swan Housing Group, 2014).

46. These examples, along with a number of others were considered in much greater detail as part of my PhD on the subject of urban densities and their design implications. Claire Harper, 'Compaction, Scale and Proximity: An investigation into the spatial implications of density for the design of new urban housing', (PhD dissertation, University of Westminster, 2013), https://westminsterresearch.westminster.ac.uk.

47. The LDA was a publicly funded organisation established as a functional body of the Greater London Authority (GLA). Its purpose was to provide funding for projects that would support sustainable economic growth for the London region.

48. Allmendinger, *New Labour and Planning*, 156.

49. Notices insisting that children should be supervised, prohibiting noise after 9 pm, and forbidding barbeques, ball games or skating are commonly found in the communal spaces of higher-density developments.

50. Geographers Ash Amin and Nigel Thrift describe the benefits of familiar and recurring encounter in terms of broad social benefits: recognition, understanding and belonging. They point to the '"micro-public" sites of compulsory daily interaction' – stairwells, front gardens, school gates – as sites of greater socio-political significance than the designed public spaces of town squares and public streets. Amin and Thrift cited in Ruth Fincher and Kurt Iveson, *Planning and Diversity in the City* (Basingstoke: Palgrave MacMillan, 2008), 14.

51. 'By attaining order we arrive at liberty', he wrote, suggesting that the provision of domestic services, hitherto the privilege of the wealthy, would liberate housewives from enslavement to domestic service. Corbusier, *The City of To-Morrow*, 216–17.

52. This trend is extrapolated even further by models such as The Collective, where minimal private dwelling spaces are supplemented by communal lounge, dining, cinema, games rooms and gardens. The Collective Partners LLP, 'The Collective / Co-Living' (The Collective, 2015).

53. Jacobs, *Death and Life of Great American Cities*, 20.

54. Social geographer Sophie Watson proposes that the way the public-private division is understood remains a key part of how people live together in cities. She suggests that behaviour that is accepted and acceptable relates more to socio-cultural notions of privacy than to the idea of a body politic. Sophie Watson, *City Publics: The (Dis)Enchantments of Urban Encounters* (Oxon: Routledge, 2006), 60.

55. David Harvey cited in Berghauser Pont and Haupt, *Spacematrix*, 74–75.

56. Roemer van Toorn, '*No More Dreams? The Passion for Reality in Recent Dutch Architecture* (2007) cited in Nishat Awan, Tatjana Schneider, and Jeremy Till, *Spatial Agency: Other Ways of Doing Architecture* (London: Routledge, 2011), 39.

Biography

Claire Harper is an architect and educator. Her research interests focus on the design of housing, residential landscapes and the procurement systems in which they are cultivated. Her doctoral thesis, *Compaction, scale and proximity: an investigation into the spatial implications of density for the design of new urban housing*, presented a critique of the dominance of quantitative measures in housing design and was shortlisted for the RIBA President's Award for Outstanding PhD Thesis in 2015. As a practitioner, she has worked for architectural practices in The Netherlands and England (London and the North East) and currently runs a small design studio alongside her teaching and research.

Context, Community, and Capital:
Keywords for the Architecture of Housing under Neoliberalism
Susanne Schindler

The N-word of architectural discourse

Recently over coffee, a colleague who was thinking about mounting an exhibition of what he called 'innovative' housing design over the past half-century asked my opinion on a particular aspect of the project: was it really unavoidable that he address neoliberalism in the show? There was a slight hesitation before his mouth formed the word 'neoliberalism'. Although he didn't say so outright, it was clear he was seeking legitimation to show-case the architecture of housing without having to consider the socio-economic order of which it is a part. That order, as it pertains to the 1960s, was a well-established welfare state increasingly questioned by both the left and the right. Our socio-economic order today is generally abbreviated as neoliberalism, shorthand for the deregulation, privatisation, financialisation, austerity measures, and growing inequality of a post-welfare state world. Of course, I assured my colleague, he could feature housing in purely architectural terms. But if he wanted to convincingly explain what makes a particularly slender high-rise possible or why its associated ecological features seem desirable, he couldn't disconnect these architectural elements from their legal, financial, and political aspects. After all, I noted, housing is back on architects' agendas today because it – or more precisely the lack of affordable versions of it – is back on the public's agenda. My colleague seemed unconvinced: in our short exchange, I had not given him the absolu-tion he was seeking. What he gave me, however, was a reminder of how difficult it is for architects to connect built form to questions of finance and politics. To him, merely using the word neoliber-alism was fraught with fear of appearing ideological; addressing the entanglement of architecture, power and money seemed to undermine his belief that he, the scholar and critic, alone should be shaping architectural discourse.

There are other architects and scholars, of course, who embrace the term neoliberalism precisely for its shock value, to then make the case for the political role and agency of architecture in face of the inequity which is fundamental to the neoliberal order. In Karen Kubey's recent issue of *Architectural Design*, 'Housing as Intervention: Architecture Towards Social Equity', for example, urban histo-rian Robert Fishman subtitled his essay 'The Global Crisis of Affordable Housing' with a call to arms: 'Architecture Versus Neoliberalism.'[1] Fishman's point of departure is the paradox that our neolib-eral time, characterised by the hugely inadequate financial support for housing for low- and moderate income families, has been one of the most 'crea-tive' for architects; he defines creativity as architects 'problem solving' and working closely with the many small-scale non-profit developers, responsible for what is today called 'affordable housing.'[2] In many ways, this is the point of the larger *AD* issue: to showcase architects who are taking on new roles to advance the production of housing priced below market rates within a neoliberal order.

While the reader can accept the argument that the constraints of working in a complex system of private and public actors demands creative solutions as accurate, in tracing how we got to this point, Fishman makes a basic conceptual error: he conflates housing typologies with financial systems. In his historical meta-narrative, Fishman indicts the 'bureaucratic state' which produced 'towers in the park' as rental housing in the post-war era. In so doing, he equates towers and slabs with the social democracy under which they were built. Accordingly, he welcomes the advent of community- or resident-driven housing development in the early 1970s, which largely produced low-rise typologies often to advance homeownership as a preferred model of tenancy. At the same time, however, Fishman laments the demise of large-scale state subsidies that were precisely what the 'bureaucratic state' was all about, all while revealing, through the choice of illustrations – a photograph of the 1966 Park Hill estate in Sheffield, taken before its renovation and privatisation by Urban Splash in the 2000s – that he, like many architects, in fact admires the architectural qualities produced by the bureaucratic state. Fishman's article thus shows that connecting architecture to the socio-economic order isn't as simple as 'row house equals commodity' or as linear from large-scale to small-scale as we have been accustomed to think.

To make his case for this well-established storyline – the end of bad, large-scale, top down housing development, and the beginning of good, small-scale, bottom up models in the late 1960s – Fishman cites the PREVI project on the periphery of Lima, Peru. This low-rise housing development was designed at that time by well-known architects under the auspices of the United Nations, configured to allow residents to build out and on as their means allowed. In this celebration, however, Fishman not once considers the financial structure that underlay PREVI: individual home ownership

with no resale restrictions, precisely what Prime Minister Margaret Thatcher sought in Britain with her right-to-buy policies, which he critiques. That is, at PREVI, in contrast to other state-sponsored mass housing of the period, individual households took on the responsibility for their homes, invested in them when they built out or up, and they were eventually rewarded for this risk-taking by accruing the rising resale value. These are the basic tenets of a neoliberal housing policy: to understand the home not as mere shelter, a non-negotiable need, but as an individual's investment, a commodity. Fishman's argument is accompanied by photographs of one of Elemental's many recent projects in Chile, a present-day successor to PREVI's incremental, ownership-based model.[3] The comparison of PREVI, Elemental and British Council Housing thus reveals that the architecture of housing is not a reliable indicator of how it functions socio-economically in the lives of its residents.

I point out Fishman's contradictory equation of typological models and financial models not to single him out, but because this conflation is so widespread. This is the case regardless of whether architects seek to see themselves as non-ideological, like my colleague, or claim to be political by siding with the vaguely defined needs of residents. In either case, resorting to words like 'innovative' or 'creative' – generally connoted as positive – allows architects to avoid precisely describing the terms that they accept – the neoliberal order – in being innovative or creative. Perhaps it is easier for non-architects to see clearly what is at stake. In his new book *Capital City*, geographer, planner, activist, and scholar Samuel Stein addresses planners, not architects. He sets out to question whether planners' widespread conceit that they are working for the 'public good' is still possible in the neoliberal age. Is it possible to talk of public good when planners' main task is to incentivise private real estate development, which inevitably leads to gentrification and

displacement? According to Stein what is at stake for planners, and I would argue also for architects, is an 'existential question': 'If the city is an investment strategy, are they just wealth managers?'[4] Stein's approach, in contrast to my colleague's and Fishman's, helps him to address and describe how planning decisions are made and how the results play out. This is an approach that architects can learn from.

The terms of housing: New York City, ca. 1965
In this essay, I focus on the language we use to talk (or not) about the intersection of architecture, housing, and neoliberalism. Terminology, I argue, plays a powerful and underrecognised role in allowing architects to avoid what is at stake. To reveal the role of language in any paradigmatic turn, as stipulated in this issue, I trace the emergence, evolution, and codification of two such terms, 'context' and 'community', as central to New York City's gradual shift to neoliberal housing policies between the mid-1960s and the present day. 'Context' generally designates urban design and architecture that is considered sensitive to existing surroundings, in particular by referring to the scale and aesthetics of neighbouring buildings, almost invariably cast as the opposite to Fishman's 'towers in the park.'[5] 'Community' is generally used to invoke the participation of residents in planning decisions, or, again in Fishman's terms, the opposite to the 'bureaucratic state.' Looking at 'context' and 'community' reveals that the neoliberal turn in US housing policy emerged precisely in conjunction with – and not in opposition to – experiments in small-scale housing design and more user participation as early as the mid-1960s, and that the two notions were often connected, even then, and have remained so to this day.[6] There was a third term that was central to this shift: 'capital.' The term is not one much invoked by architects or activists today; 'capital' or 'capitalism' is just too close to 'neoliberalism.'[7] 'Capital', however, is and was synonymous

with various governments' concerted attempts to attract more private-sector involvement in the provision of low-income housing. 'Capital' thus gives us the third C in a trinity that I posit is central to the architecture of housing in the neoliberal age.

In New York City, the case for stronger citizen involvement in planning decisions at the local level, coupled with a call for more 'private investment in the ghetto', dates back at least to the mid-1960s. This was the era of 'advocacy planning', powerfully advanced by lawyer Paul Davidoff.[8] Davidoff was a founding member of Planners for Equal Opportunity, of a group of young planners who, in 1964, challenged the role of the profession as advancing only the interests of the powerful. In his best-known essay, 'Advocacy and Pluralism in Planning,' Davidoff argued that planners were no longer to see themselves in the role of the expert charged with developing a singular plan focused exclusively on the physical environment. Rather, he argued, planners should work with local residents to articulate broader goals for improving their lives, which they would then translate into possible planning options.[9] Invoking more participation was part of the larger movement to expand civil rights to formerly disenfranchised citizens, prompted and made urgent by growing civil unrest. In this spirit, Mayor John V. Lindsay, elected in late 1965, proposed Neighbourhood City Halls to expand on the power of Community Planning Boards, set up a decade earlier. Lindsay also actively embraced a new federal programme, launched by President Lyndon B. Johnson as part of his Great Society and War on Poverty programmes, the Demonstration Cities and Metropolitan Development Act, better known as Model Cities. The programme was approved by the US Congress in November of 1966 and aimed specifically to provide funding to regenerate poverty-stricken and underserved residential neighbourhoods; the federal grants were to benefit closely coordinated social and physical

programmes, designed by local citizens; the money could be spent on anything from job training to transportation, sanitation to health services. While programme elements were defined by citizens, they were to be implemented by city agencies and they were to draw to the largest possible extent on private-sector involvement.

The decentralisation of decision-making and the call for more private investment – two key tenets of neoliberalism – thus went hand in hand. Importantly, however, in the late 1960s, this involvement of the private sector did not mean a withdrawal of the state, on the contrary. It meant its expansion. As housing historian Alexander von Hoffman has shown, it was Johnson's programmes, not Richard Nixon or Ronald Reagan's later policies, which positioned the private sector as central for the provision of low-income housing; in fact, Johnson was the first president to use the term and advocate for 'public-private partnerships'. Federal mortgage subsidy programmes like Section 235 (for homeownership) and Section 236 (for rental housing), which lowered the interest rate of conventional mortgages to 1 percent, were passed as part of the 1968 Housing and Urban Development Act. Between 1969 and 1973, the two new programmes generated roughly 508,000 homes; in contrast, the long-running and well-established public housing programme produced only 415,000 homes.[10]

Housing and its design ended up playing a central role in Model Cities, even though the programme was explicitly conceived as taking on a novel, broader approach to inequality, of which the physical environment was only one part.[11] To jumpstart Model Cities, the Lindsay administration launched a 'vest-pocket housing and rehabilitation' programme in mid-1966, even before the federal programme was approved; 'vest-pocket' designated sites that were smaller than a full block, an approach which then and now is more frequently called 'infill

housing.'[12] By mid-1967, relevant municipal entities had approved the plans prepared by local citizens working with appointed planners to site roughly 1,600 apartments in five areas, which, combined with other initiatives came to a total of 14,500 apartments to be developed in this new manner. Most of these were envisioned as 'head starts' to New York City's proposed Model Cities neighbourhoods called Central Brooklyn, Harlem–East Harlem, and the South Bronx, encompassing the city's poorest and most racially segregated areas. This was a significant reorientation in the city's post-war housing policy, which to date had privileged building non-profit, often union-sponsored middle-class housing with a sprinkling of public housing to stabilise areas deemed on the verge of decay, but easily salvageable.[13]

As the authors of a 1967 pamphlet on the vest pocket programme wrote, the goal was to generate much-needed affordable housing on 'long-neglected, vacant, and underused sites' through buildings that would 'fit into the neighbourhood, including 3, 4, 5, and 6 stories.'[14] The authors directly connected housing typology and citizen involvement. As they wrote: 'Too often in the past, housing projects have been planned and built in a vacuum, a vacuum of non-participation. The result has been large, impersonal towers that destroy the smaller scale of the neighbourhood.'[15] The assumption that 'context' and 'community' are inherently connected was already well formed at this point, even if these terms were not used. 'Fitting into the neighbourhood' was seen as the solution to the challenge of not only designing in democracy, but to providing its basic services.

As to who would provide the capital to make the connection of context and community possible, the assumption was, at the time: federal, state, and municipal programmes, even if the ultimate goal was to attract 'private investment in the ghetto'.[16]

The general formula for the five vest pocket housing studies commissioned in 1966 was to incorporate in equal parts rehabilitation of existing housing and new construction, to balance low- and moderate-income housing, and coordinate it with new schools and other facilities.[17] [Fig.1] The Housing Authority, responsible for low-income public housing, was to take the lead; the non-profit organisations were to follow with moderate-income rental housing; and the private sector, ultimately, was to come in with a variety of housing types, including for ownership. This last step was deemed possible only once an area had been made attractive again for private investment – or, in the words of the authors of an early task-force report leading up to Model Cities, 'turned around'.[18]

A shift to new actors, ca. 1970
How would the triangulation of citizen participation, contextual design, and private capital, following a public-sector lead, work out? Model Cities proved to be a catalyst in entangling context, community, and capital in housing in ways the programme's authors, implementing municipal authorities, and participating local residents likely had not imagined.[19] At first, the vest pocket housing plans did jumpstart the larger Model Cities planning as the Lindsay administration had intended. However, significant delays caused by the acquisition of land through eminent domain (compulsory purchase), the relocation of residents, approvals of financing under a new set of federal housing programmes, and continuously rising construction costs – in short, the same problems that had plagued the earlier urban renewal efforts – led, by 1969, to a situation where little or no progress was visible on the ground and in some cases, conditions had even deteriorated. In parallel, faith in the promise of community participation and the ability or willingness of the established bureaucracy to implement local planning decisions was quickly waning. This was the case both on the part of local residents who waited for results, and

on the part of the general public, to which reports on the sometimes violent infighting among local groups about who would control the funding did not convey a positive picture.[20] All this occurred against the backdrop of a nationwide conservative reaction against big government, the counterculture, and urban protest, which had contributed, in part, to the election of President Richard Nixon in late 1968. By 1970, then, the Lindsay administration – under intense pressure to deliver results – was open to embracing actors other than the public and non-profit sectors originally stipulated to develop the housing which had so carefully been planned. In the Central Brooklyn Model Cities neighbourhood, for example, housing was envisioned in a range of typologies including three-story rowhouses emulating historic brownstones, to six-story perimeter blocks along the new edges of two city blocks which had been combined to create a large landscaped courtyard replete with tennis courts.

The Mott Haven vest pocket housing area in the South Bronx reveals the simultaneous emergence of new architectural forms and new development models as public and non-profit developers proved unable to deliver in a politically expedient manner. In 1970, it was a Boston-based for-profit developer working with private investors who took on the renovation of over thirty-two tenement buildings with over 1,300 apartments. The historicist facades and characteristic fire escapes of the six-story, early twentieth-century tenement buildings were preserved, while their interiors were gutted and adjacent buildings were combined to allow for the insertion of modern amenities like elevators and the creation of larger apartments that met current building codes. The project, named Beekman Houses and designed by Beyer Blinder Belle, indicates a broader rethinking on the part of the municipal authorities in the face of the accelerating abandonment of existing rental buildings no longer deemed profitable by owners. Large-scale

rehabilitation, paralleled by a citizen-led drive for broader historic preservation, came to replace new construction as a vehicle of choice of policymakers. [Fig. 2, 3]

What made the project possible? Beekman Houses was financed through low-interest mortgages made available to private developers as part of the 1968 Housing and Urban Development Act. Critically, however, the project's attractiveness as an investment was boosted by generous tax incentives, including multiple ways to deduct losses and shelter taxes, by the 1969 Tax Reform Act. The two community organisations that were officially co-sponsors of Beekman Houses optimistically hailed 'the operation as a most imaginative and effective blending of government, financial, private, and community resources, in which each participant is doing that which he does best'.[21] The actual decision making in the project resided with the developers who had access to capital; the community co-sponsors merely served to pave the way politically; and without the federal and city subsidies, none of it would have worked out financially. Context (in the form of literally preserving existing buildings), community (in the form of local political support, but no financial stake in the project), and capital (delivered by wealthy individuals seeking tax shelters) thus came together in a new way in this project.

Mott Haven was also the site where a new form of non-profit developer, the community development corporation (CDC), emerged on the basis of earlier experiments, including in Brooklyn.[22] The particular entity founded here, the South Bronx Community Housing Corporation (SBCHC), was formally incorporated in 1971 and launched its inaugural project in 1972: a complex of forty-four row houses with two apartments, each with an individual entrance, clustered on four separate sites. The project expanded on the principles of the vest pocket housing

programme, which were focused on infill sites and low-rise construction, by embracing ideas that were being simultaneously advanced by architect Oscar Newman in his 1972 book *Defensible Space*.[23] Written as a solution to the growing problem of crime in low-income neighbourhoods, Newman made the case for new low-rise, high-density typologies with clearly delineated public, shared, and private space. Plaza Borinquen, designed by Ciardullo Ehman Architects, provided just that. But let us not jump to conclusions and assume that Plaza Borinquen's split-level rowhouses were part of a quest to promote individual home ownership. No, the split-level apartments were rentals just like the single-level apartments at Beekman Houses, financed through the same mortgage subsidy programme mentioned above, Section 236. [Fig. 4, 5]

While Beekman Houses and Plaza Borinquen seem strikingly different – one was about the rehabilitation of existing tenement housing, the other about the new construction of a new form of individual townhouses; one was built by a nationally operating for-profit developer, the other by a locally rooted non-profit organisation – they both relied not only on federal financing programmes but on private capital to come through. In the case of SBCHC, it was – at least at first – not so much investment of privately held capital, but rather the political clout of those managing capital in large-scale firms. SBCHC was made possible politically only through the presence of major Wall Street players on the new entity's board, who legitimated the new local actor and pressured the Lindsay administration to transfer the three-year, seven-million-dollar Model Cities housing budget and designated Model Cities sites – previously under the purview of a city agency – to the new group.[24] In other words, by the early 1970s, essential steps in the neoliberal turn in the architecture of housing had taken place in Mott Haven. Both for-profit developers and community development corporations had taken the lead in low-income

housing production replacing public sector agencies and authorities. The public sector had not disappeared, however, since it was essential to financially incentivising the private developments, overseeing the community developers, and guaranteeing the private investment in both. Politically, the shift was acceptable since private investors were generally partnering with, and thus were being legitimated by, the newly formed community groups. Architecturally, all of this took the form of what today is known as contextual design, whether through the preservation of existing stock or the new construction of midrise apartments or low-rise townhouses. Contextual design can therefore also be understood as a strategy to make the shift from direct public-sector action to a community-cum-capital approach more acceptable.

A shift in architectural discourse, ca. 1975
Architecture critics and theorists at the time were not keen on making this connection between contextual design, community participation (or lack thereof), and the roles of private capital. While the buildings realised at Mott Haven were barely covered in the architectural press, those realised as a result of the Twin Parks vest pocket housing plan, in a slightly more affluent area of the Bronx, were, and as such allow us to understand how architectural discourse, too, shifted. Just as in Mott Haven, the housing at Twin Parks was to be realised by the Housing Authority and a local non-profit organisation, in this case a group of churches. When there were delays in securing funding, the trajectory was slightly different than in Mott Haven, however. Here, the clergy did not set up its own CDC or partner with individual investors, but partnered with the just-founded New York State Urban Development Corporation (UDC). This public-benefit corporation was founded in 1968 to centralise and expedite the development process of low-income housing. It did so by enlisting the private sector in a slightly different fashion. The UDC partnered with for-profit

developer-contractors who would not only build, but ultimately own and operate the new buildings. The UDC would facilitate the process by issuing bonds to raise private capital, while drawing on the same federal low-cost mortgages and tax incentives that the private developers at Mott Haven made use of.[25] In other words, while the housing trajectory at Mott Haven was one of fragmentation into various independently acting development entities, at Twin Parks there was a process of consolidation due to the establishment of the UDC. For both versions of early neoliberal housing policies, private investors were central, however.

The best-known of the projects at Twin Parks is a building complex sited on three adjacent city blocks with over five hundred apartments designed by then-emerging architect Richard Meier. [Fig.6] Meier sited seven- to sixteen-story building parts around existing buildings, creating a whole that emphasised both street frontages and created urban markers through its high-rise components and created a new public plaza at its centre. As such, when completed in 1973, Meier's buildings became central to a new discourse in architecture, which by now had received a more compelling name than 'fitting in': 'contextualism'. Yet this discourse, however, explicitly and consciously severed any connection of how 'context', understood as form, was connected to the political dimensions of 'community' or the economic dimensions of 'capital.'

How this disconnection happened is beautifully illustrated by a twenty-page essay in the second issue of the theory journal *Oppositions*. In it, architect Stuart Cohen took Meier's project to advance the case for a new design process in which buildings were devised in response to their sites, both at the level of spatial organisation and at the level of symbolic imagery. The title of Cohen's piece, 'Physical Context/Human Context: Including It All', suggested that Cohen might argue for linking
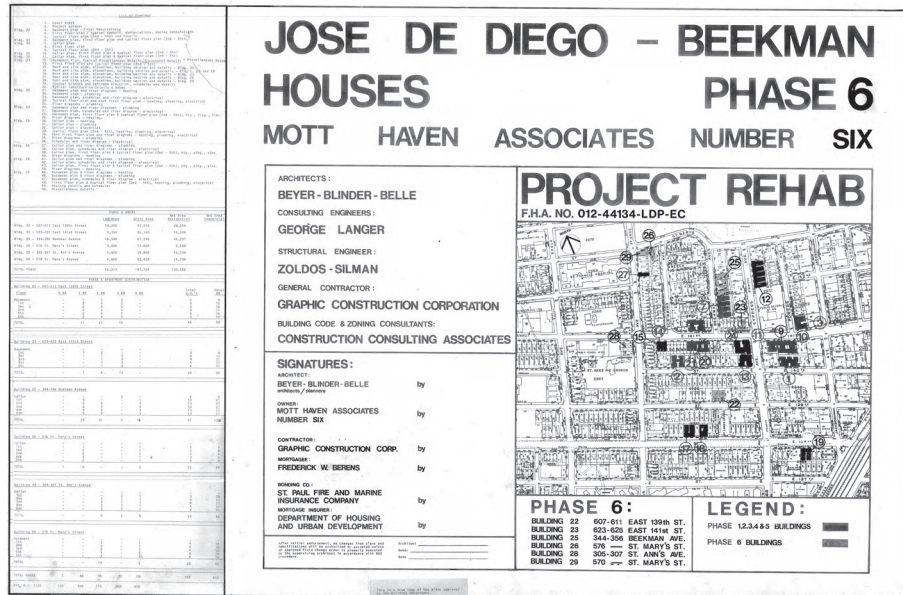
Fig. 1

Fig. 2

Fig. 1: Jonas Vizbaras, planning consultant, with Mott Haven Committee, Mott Haven Plan 67, plan of site selection with different treatment options, 1967. Source: MIT Libraries.

Fig. 2: Beyer Blinder Belle, architects, for Continental Wingate, developer, Jose de Diego-Beekman Houses, Phase 6, cover sheet showing overall site plan, 1973. Courtesy Beyer Blinder Belle.
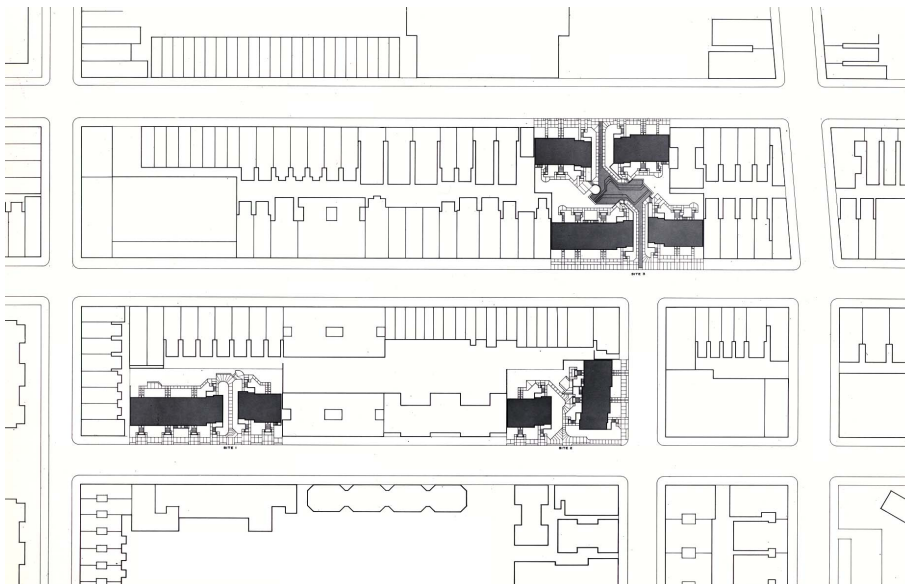
Fig. 3

Fig. 4

Fig. 3: Review of Beekman Houses in *Progressive Architecture*, March 1976. Courtesy Hanley Wood.

Fig. 4: Ciardullo Ehmann, architects, for SBCHC, developer, Plaza Borinquen, site plan, 1973.
Courtesy John Ciardullo P.C.

the building (the physical) and its inhabitants (the human). Cohen, however, had little to say about the role of residents and users. Rather, underlying the 'contextual' modus operandi, Cohen wrote, was the assumption 'that one could morally operate in this [contextual] way, making decisions that did not directly relate to many of our urban problems, because Modern architecture had already amply illustrated the inability of built form alone to solve problems of largely social or economic origin.'[26]

In other words, by focusing on morphology and building type, Cohen argued, architects could avoid falling into the trap of trying to solve the social or economic problems of residents and instead focus on the buildings themselves.

Cohen's explicit rejection of architecture's entanglement with 'problems of largely social or economic origin' – that is: those problems that arise from community and capital – to argue instead for the embracing of 'context' was published in the year that the political and economic conditions that had made the housing at Mott Haven and at Twin Parks possible came to an end. New York City was on the verge of bankruptcy, and shortly there-after the UDC defaulted on its bonds, in part as a result of changing housing policies at the federal level. In early 1973, the Nixon administration had proclaimed a moratorium on all programmes that had financed low-income housing, and with the passage of new federal housing programmes in late 1974, Model Cities and the various low-interest mortgage programmes were officially ended. Subsequently, it was no longer through direct action that the federal government sought to stimulate low-income housing production, but by way of tax credits and other incentives which were admin-istered by local and state authorities, who in turn delegated the actual planning and realisation to the many emerging community development corpora-tions and/or the private sector. The 'decentralised

network' of very different stakeholders – as David Erickson has aptly characterised today's neoliberal order[27] – emerged pre-1974, was codified post-1974, and has remained remarkably stable to the present day. The experiments of the late 1960s, although frequently portrayed as part of a different era, were central to the emergence of our current order. This emergence has involved the codifica-tion not only of investment vehicles and forms of governance, but also design principles.

Indeed, despite the end of the federal, state, and municipal housing programmes launched a decade earlier, many of those programmes' underlying prin-ciples were soon codified at the very high point of New York City's fiscal crisis.[28] For example, in 1975, Lindsay's successor, Abraham Beame, reaffirmed the role of community boards as the vehicle for local residents involvement in planning decisions.[29] That same year, Beame signed into law 'Zoning for Housing Quality', a programme to promote small- and mid-rise infill development.[30] Over the coming decades, in response to ever shifting economic fortunes, the city honed the tools required to attract the private sector to provide low- and moderate-income housing, namely zoning incentives and various forms of tax incentives. Strikingly, the terms 'context' and 'community' remained central in this pursuit of private capital toward the public good.

Fast-forward to 2016
However, in the four decades since the mid-1970s, the world of development and housing in New York City has changed radically. Let's simply say that the city, including the former Model Cities neigh-bourhoods, is challenged not by disinvestment and demographic shrinkage, but rather by overinvest-ment and growth. Upon this backdrop, invoking context and community to enable private capital as the main vehicle to build low-income housing, no longer goes unchallenged. This was made amply clear in March of 2016, when fifty of the fifty-nine
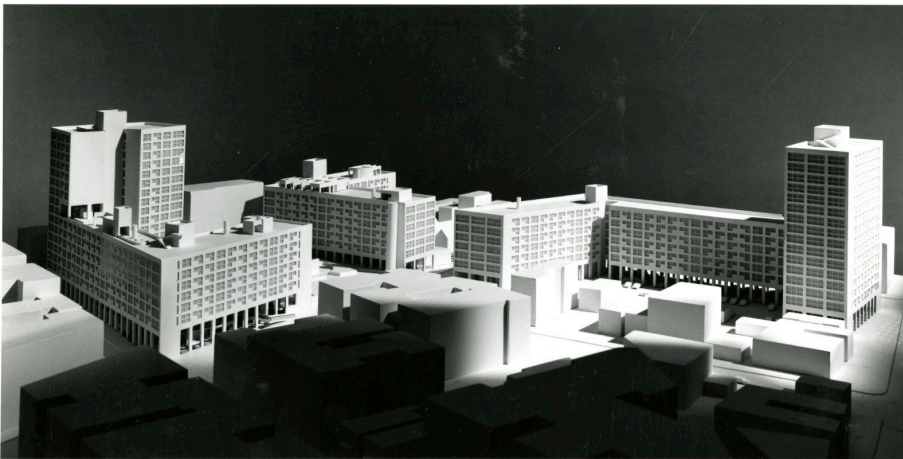
Fig. 5

Fig. 6

Fig. 5: Ciardullo Ehmann, architects, for SBCHC, developer, Plaza Borinquen, photograph of completed interior court-yard, c. 1975. Courtesy John Ciardullo P.C.

Fig. 6: Richard Meier, architect, for Urban Development Corporation and the DeMatteis Companies, developer, Twin Parks Northeast, photograph of site model, c. 1970. Courtesy Richard Meier Associates.

community boards rejected two proposals placed before them for comment, in which a slight readjustment of the roles of context, community, and capital was suggested.

Spearheaded by the Department of City Planning, the administration of Mayor Bill de Blasio had crafted these programmes – Mandatory Inclusionary Housing (MIH) and Zoning for Quality and Affordability (ZQA) – to address the severe lack of affordable housing. Despite his self-declared progressive identity, the administration did so not by proposing new publicly-headed housing construction programmes, but rather embraced the well-honed tools of neoliberal housing policy: extending zoning incentives, often coupled with tax incentives, to the private market. The premise of MIH was to harness the booming private real estate market to generate below-market rate housing. According to the proposal, all residential development in areas that would henceforth be rezoned, which generally meant allowing for more floor area on a given parcel, would be required to include permanently deed-restricted housing. Inclusionary housing was not a new tool; as an instrument, it has been well-established in US municipalities, including New York City, at least since the 1980s, to produce affordable housing as an integral part of any new development. MIH, however, went beyond previous requirements by demanding that the income- and price-restrictions of these apartments would never expire, that is, never 'revert to the market' as is the case in most such market-driven programmes.[31]

The language of context – describing physical attributes – and community – describing democratic aspirations – was central to the connected MIH and ZQA proposals; the concepts were often linked as if one depended on the other, as had been the case with the vest-pocket housing programme. In its promotional material, for example, the Department of City Planning described ZQA as a policy that 'foster[s] diverse, liveable communities with buildings that contribute to the character and quality of neighbourhoods.'[32] City planners formulated ZQA to support MIH's upzoning by adjusting certain design guidelines, among them limits to building height and bulk in 'contextual zoning districts'. These districts had been codified in the Zoning Resolution in 1987 in order to advance urban design based on uniform building heights and continuous street edges. In so-called 'non-contextual districts', these urban design goals were incentivised by giving developers floor area bonuses, or the right to build more than allowed by zoning.[33] The 1987 contextual zoning rules were based directly on the design principles introduced to the city's Zoning Resolution in 1975, mentioned above; the main change in comparison to the earlier voluntary programme was to make these contextual design guidelines either mandatory or financially attractive by incentivising them. By the mid-1980s, these incentives for contextual design were coupled with incentives for affordable housing provided through a property tax abatement.[34] [Fig. 7a and 7b]

It was these combined zoning guidelines that came under scrutiny in 2016, in particular those aspects of 'contextual zoning' that prevented developers from making full use of the floor area allowed by zoning. In other words, a certain parcel may have been zoned to allow for five thousand square metres of new construction, but the maximum building height, set-back restrictions, or other dimensional design requirements may have limited the actually buildable square metreage to 4,800 square metres – which, in terms of housing policy, translates to up to four unbuilt apartments. In its report 'The Envelope Conundrum', produced as part of the lead-up to the 2016 revisions, the Citizens' Housing and Planning Council (CHPC), an influential policy think tank, argued that the 'unused allowable floor area' – that is, the floor area that could not be realised due to conflicting regulations

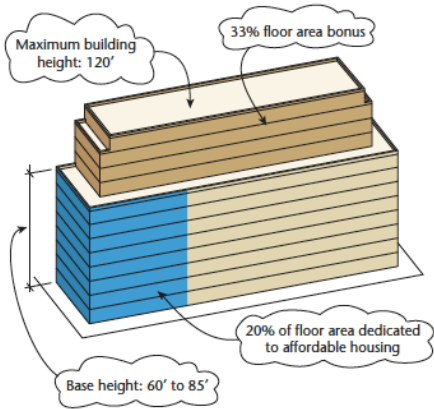**Example of Inclusionary Housing designated area Bonus in an R8A District**

A portion of an R8A district mapped along 4th Avenue in South Park Slope in Brooklyn Community District 7 has been mapped as an Inclusionary Housing designated area.

- The base FAR in most R8A districts is 6.02
- The base FAR in an R8A district within an Inclusionary Housing designated area is 5.40
- The maximum FAR for a development that provides affordable housing in an Inclusionary Housing designated area, including the bonus, is 7.20

Using the Inclusionary Housing designated areas Program, the floor area may be increased by 1.25 square feet for each square foot of affordable housing provided, up to the maximum FAR—a bonus of 33 percent for providing 20 percent of affordable housing.

Fig. 7a

"Contextual" Building Envelope

As a response to public dismay over height factor buildings, in 1987 the Quality Housing Program was established, which sought to restore neighborhood fabric by including street wall location provisions, maximum base heights and maximum building heights. These provisions are mandatory in 'Contextual Zoning Districts'.
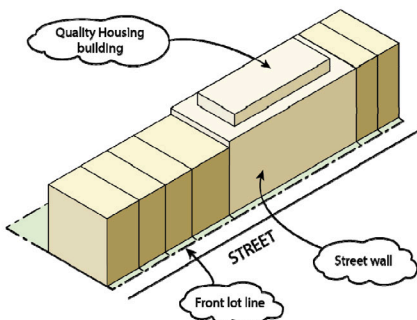

Fig. 7b

Fig. 7a and b: Illustration of how an inclusionary zoning floor area bonus worked in 2015, and illustration of the basic elements of contextual zoning. Source: New York City Department of City Planning. https://nyc.gov.

– was a main deterrent for the production of housing in the city. Significantly, the authors of the CHPC report criticised existing regulations by conjoining notions of 'community' and 'context.' Its authors wrote: 'Increasingly viewed as providing community protection from excessively tall buildings, 43 percent of New York City zoning lots are now zoned as contextual districts.'[35] The CHPC posited that the 'contextual' zoning restrictions passed to limit tall buildings, ostensibly to protect the 'community', were in fact hurting that community by limiting the production of housing, whether affordable or not. In its critique, the CHPC never addressed the role of 'capital' and how that might be adjusted in these dynamics.

Given the rhetorical centrality and assumed connection between context and community in advancing these housing programmes, it is telling that the community boards rejected them nearly universally. Residents of low-income neighbourhoods were not convinced by the argument that new market-rate housing, even if it generated up to 25 percent permanently affordable apartments, would not raise prices throughout the area, thereby displacing long-term residents not protected by rent regulation. Residents of high-income areas, in contrast, especially those of historically landmarked districts, were opposed to the proposed universal five-foot increase to allowable building heights to make ground floors more useable, and to the proposal that one to two additional stories would be allowed for any new affordable senior housing. Despite the adamant local objections from various community boards, the city council, which holds decision-making power in land-use matters, approved MIH and ZQA in April of 2016. It did so after making some revisions in response to local objections, including maintaining the existing building height restrictions in historic districts, and demanding that more of the new affordable housing be reserved for households of very low incomes.

In 2018 in New York City housing and planning policies, then, in a neoliberal age navigated by self-identified progressive mayors, the notions of context – a placeholder for better urban design – and community – a placeholder for more democracy – have become simultaneously institutionalised, incessantly invoked, and virtually meaningless. One reason may be the lack of willingness not only on the part of architects, but even more so on the part of policy makers, to explicitly connect them to the central role of capital and the conditions under which it will, or will not, participate in contributing to the public good in the form of low-income housing.

Afterthoughts

In tracing the role of terminology in the neoliberal turn of the architecture of housing circa 1970, it may be worth re-reading some of the canonical writings of that time. It could help us to reframe architecture and its socio-economic entanglements, rather than wishing the realms to be independent (as my colleague, who was mounting the exhibition, did) or connected in a kind of linear dependency (as Robert Fishman did).

Toward that end, it is worth re-examining Paul Davidoff's essay 'Advocacy and Pluralism in Planning', mentioned above. Among architects, advocacy planning has been received as undervaluing the role of design, as leading to endless discussions with no outcome. In fact, the reverse is true: when I recently read Davidoff for the first time, I found that he unswervingly embraces the power of the plan. As he writes, 'lively political dispute aided by plural plans could do much to improve the level of rationality in the process of preparing the public plan.'[36] To Davidoff, a competition between alternative plans advanced by different stakeholders was a strategy not only to upend the dominance of the 'unitary plan' put forward by the city-planning department, but to improve the quality of the plans. Davidoff saw design as an instrument to advance democracy (or 'community'), not in opposition to it.[37]

Architects have been also critical of Oscar Newman's *Defensible Space,* another text mentioned above, but for the opposite reason. Newman has generally been received as over-emphasising the role of design in shaping the behaviour of residents, while giving too little weight to the socio-economic factors in their lives. Again, in actually reading his words, I found that Newman addresses these in great detail as they play out for single parents on welfare, traditional middle-class families, and well as those wealthy enough to employ full-time nannies. He positions the design of the physical environment as only one part in the attempt to address the system that has led to poverty and crime: 'the root causes of inner city and ghetto crime lie deep in the social structure of our nation. Criminal and victim alike come from that strata of the population without the power of choice.'[38] While Newman's writing can certainly come across as paternalistic, he is highly attuned to how certain architectural features (the elevator is his favourite example) can only function if adequately maintained – the result not of design, but of whether a building is sufficiently funded and staffed.

But we may also need to start reading texts that have barely been noticed, in particular because the authors just mentioned – Davidoff and Newman – connect context and community, but do not touch on capital. Some of their contemporaries did. In her 1976 essay 'Toward a Theory of Environment', Lynda Simmons, an architect turned philanthropic housing developer who for decades played a central role in post-fiscal-crisis housing in New York City, makes an explicit case for the necessity that architects understand the power of capital. Simmons argues that architects need to consider broader forces than just design if their work is to make a change. In support of her position, she deploys a multi-level diagram in which she at once separates and connects process and product, economic value and use value. Interestingly, Simmons locates the term context under process, not product: 'context

comprises the physical and the social setting of the proposed project; the natural setting and resources underlying its potentiality. The power relationships involved, and their origins in geography, economics, history, ideology.'[39] Reading Simmons's text reveals that even in the mid-1970s, context was being debated not only as urban morphology, but in connection to community and capital. As Simmons sums up her essay: 'Environmental change is the name of the phenomenon being studied; its economic name is Real Estate Development. Architecture is only one part of the phenomenon.'[40]

In short, re-reading well-known and reading little-known texts written by architects and planners at the time of the neoliberal turn of 1970 might be helpful not only in understanding the changing meanings of keywords since then, but in the task of re-conceptualising what is happening today.

Notes

1. Robert Fishman, 'The Global Crisis of Affordable Housing: Architecture Versus Neoliberalism', in *Housing as Intervention: Architecture towards Social Equity*. Architectural Design, guest edited by Karen Kubey (John Wiley & Sons Ltd, 2018), 22–29.
2. In the US, the term 'affordable' had replaced 'low-income' or 'moderate-income' by the 1980s to describe governmentally regulated, price- and income-restricted housing. While the former terminology described the eligibility of residents in terms of their income levels, and thus was also considered stigmatising, 'affordable housing' is a more flexible and in theory all-encompassing term, since 'affordable' is defined by the federal government as no more than 30 percent of one's income. It is worth noting that the terms 'mass housing' and 'social housing' so common to most post-war European housing programmes conceived to serve all citizens, not just the poorest, were never in use in the US.
3. The connection between PREVI and Elemental has also been made by Justin McQuirk in chapter 2 of

Radical Cities: Across Latin America in Search of New Architecture (London/New York: Verso 2015). For additional discussion on this link, see also Anne Kockelkorn, 'A Sample Atlas', in *Housing after the Neoliberal Turn*, ed. Stefan Aue et al. (Berlin: Spector Books & HKW, 2015): 59–115.

4. Samuel Stein, *Capital City: Gentrification and the Real Estate State* (London/New York: Verso 2019), 6.

5. For a brief description of the emergence of the term and its continually changing meanings as it travelled back and forth across the Atlantic, see Adrian Forty, 'Context', *Words and Buildings* (Oxford: Thames and Hudson) 2000, 132–35. The terms 'context' and 'contextual' remain central to today's urban design culture. See, for example, the recent Eric Parry, *Context: Architecture and the Genius of Place* (Chichester: Wiley 2015).

6. The implicit connection between 'context' and 'community' is revealed in titles of works celebrating traditional architecture, for instance Dhiru A. Thadani and Peter J. Hetzel, eds., *The Architecture of Community: Leon Krier* (Washington, DC: Island Press, 2005).

7. For a convincing argument on why we need to reclaim rather than avoid 'capitalism' as an analytical concept today, a short reconstruction as to how 'capitalism' emerged only in the early twentieth century, whereas 'capital' and 'capitalist' were established by the mid-nineteenth, see Jürgen Kocka, *Capitalism: A Short History,* trans. Jeremiah Riemer (Princeton: Princeton University Press, 2016).

8. For an overview of Davidoff's career, see the recently launched research project, Paul Davidoff: The Tapes Project, hosted at the University of Massachusetts Boston. https://pauldavidoff.com.

9. Paul Davidoff, 'Advocacy and Pluralism in Planning', *Journal of the American Institute of Planners* 31, no. 4 (1965): 331–38.

10. Most of this narrative is taken from Alexander von Hoffman, 'Calling upon the Genius of Private Enterprise: The Housing and Urban Development Act of 1968 and the Liberal Turn to Public-Private Partnerships', *Studies in American Political Development* 27, no. 2 (2013): 165–94. The numbers of housing units produced in the three programmes are cited on page 187, footnote 92.

11. Model Cities was conceived as a corrective to two existing federal urban programmes. On the one hand, it sought to counteract the purely physical focus of urban renewal, established in 1949, which had largely benefitted central business districts at the expense of the poor who were displaced through slum clearance. On the other, it sought a retreat from the 'maximum feasible participation' mandated by the Community Action Program, launched in 1964, which gave federal funding directly to local non-profit organisations, thereby bypassing elected mayors and city councils. In a nutshell, Model Cities sought to balance improvements to the built environment and increasing socio-economic opportunity, all while involving local residents and elected officials at the municipal level.

12. Boston's Model Cities programme, for example, included an 'Infill Housing Program' based on a similar idea of low-rise new housing inserted on small lots scattered throughout its target area. The programme sought to produce four hundred new apartments through prefabricated concrete construction; only a fraction was built before the developer became insolvent. See n.a., 'The Infill Housing Program, 1968–1973', n.d. http://bostonlocaltv.org.

13. For a general history of New York City housing policy from the late nineteenth century to the present, see Nicholas Dagen Bloom and Matthew Gordon Lasner, eds., *Affordable Housing in New York : The People, Places, and Policies That Transformed a City* (Princeton: Princeton University Press, 2016).

14. New York City Housing Development Administration, *People and Plans: Vest Pocket Housing, The First Step in New York's Model Cities Program* (A Report to Mayor John V. Lindsay from Jason R. Nathan, Administrator, Housing Development Administration), July 12, 1967, 1, 3.

15. New York City, *People and Plans*, 2.

16. This phrase was used by Robert Kennedy, one of many politicians in the 1960s who proposed new

vehicles to attract corporations and businesses to invest in what was interchangeably called 'slums' or 'ghettos.' n.a., 'Kennedy Offers Plan on Ghettos', *New York Times,* May 16, 1966. For a comprehensive account of how Kennedy's initiative played out in the case of Bedford-Stuyvesant, Brooklyn, see Michael Woodsworth, *Battle for Bed-Stuy: The Long War on Poverty in New York City* (Cambridge, MA: Harvard University Press, 2016).

17. For more details of the five very different vest-pocket plans, see Susanne Schindler, '1966 Can Be the Year of Rebirth for American Cities', *San Rocco* 14, no. 66 (April 2018): 100–109.

18. *Report on the Task Force for Metropolitan and Urban Problems,* 30 November 1964, 17.

19. Tracing how the early community development and Black Power movements in the late 1960s led to unintended results, namely a form of economic development ostensibly rooted in and promoted for 'the community', but largely benefitting those able to invest in real estate development, forms the basis of Brian Goldstein's account of Harlem's transformation over the past half-century. Goldstein does not consider Model Cities in his history. Brian Goldstein, *The Roots of Urban Renaissance: Gentrification and the Struggle Over Harlem* (Cambridge, MA: Harvard University Press, 2017).

20 For a more detailed account of the rapid loss of faith in the Model Cities programme in New York City, see Susanne Schindler, 'Model Conflicts', *e-flux architecture*, July 2018, https://e-flux.com.

21 Departmental Memorandum re: 'Bronx Housing Event – 'Project Rehab', from Albert A Walsh, Administrator, Housing and Development Administration, to John V. Lindsay, 18 January 1971, p. 3. Manuscripts and Archives, Yale University Library, John V. Lindsay Papers, Group 592, Box 5, Folder 76.

22. The most famous of these is the Bedford-Stuyvesant Restoration Corporation, from which the Mott Haven SBHC took inspiration. For a detailed history, see Woodsworth, *Battle for Bed-Stuy.*

23. Oscar Newman, *Defensible Space: Crime Prevention through Urban Design* (New York: Macmillan, 1972).

24. New York State Temporary Charter Revision Commission for New York City, *Report on Model Cities* (New York: November 1973): 80-81, 89.

25. For a concise story of the UDC at Twin Parks, see Juliette Spertus and Susanne Schindler, 'Co-op City and Twin Parks: Two 1970s Models of Middle-Class Living in the Bronx', in *Middle-Class Housing in Perspective*, ed. Gaia Caramellino and Federico Zanfi (Bern: Peter Lang, 2015), 167–90.

26. Stuart Cohen, 'Cultural Context/Physical Context: Including It All', *Oppositions* 2 (January 1974): 1–40; quote 3.

27. For an excellent, if uncritical history of the emergence, evolution, and reasons for the endurance of community development corporations in the US as a main vehicle for producing below-market rate housing in partnership with the private sector, see David J. Erickson, *The Housing Policy Revolution: Networks and Neighbourhoods* (Washington, DC: The Urban Institute Press, 2009).

28. On the connection of the fiscal crisis and the shift to neoliberal governance, see Kim Moody, *From Welfare State to Real Estate: Regime Change in New York City, 1974 to the Present* (New York: New Press, 2007) and Kimberly Philips-Fein, *Fear City: New York's Fiscal Crisis and the Rise of Austerity Politics* (New York: Henry Holt, 2017).

29. These boards had significantly less power than envisioned for them by Lindsay, or those held by the short-lived Model Cities committees. Their members remained appointed, not elected, and they had purely advisory roles, with neither budgetary nor other powers. Nonetheless, community boards to this day have a central mandate in reviewing all proposed land-use changes. The city's 1989 Charter Revision enabled community boards to initiate their own master planning documents, so-called 197a plans; however, they are provided with neither funding nor technical support to do so, and to date only twelve such plans have been initiated. For a summary of the evolution

of community boards and their planning competencies, see New York City Department of City Planning, 'Evolution of ULURP, Step 5: Uniform Land Use Review Procedure (ULURP)', http://nyc.gov, accessed 8 June 2016. For a more detailed historical account, see Thomas Angotti, *New York for Sale: Community Planning Confronts Global Real Estate* (Cambridge, MA: MIT Press, 2008).

30. New York City Planning Commission, 'Zoning for Housing Quality', September 1975 (BYDCP 75-16).

31. For a concise overview of inclusionary housing, alternately called inclusionary zoning, with many useful links to recent scholarship, see Benjamin Schneider, 'CityLab University: Inclusionary Zoning', *CityLab,* 17 July 2018, https://citylab.com.

32. New York City Department of City Planning, 'Zoning for Quality and Affordability', http://nyc.gov, accessed 7 June 2016.

33. New York City Planning Commission, Report N 870385A, N 870197A, 17 June 1987, p. 11.

34. A city-wide property tax abatement was first enacted in 1971 as a ten-year provision for any construction on vacant or underutilised land. It was renewed in 1977 as '421a,' and in 1985, shortly before the Quality Housing programme came about, it was reformed so that any development built in high-value areas of Manhattan would receive the tax abatement only if it makes a contribution to affordable housing, either through onsite or offsite construction. These rules have been periodically adjusted and were last overhauled in 2017. For an overview of the history, see Municipal Art Society, 'History of 421a', http://mas.org, accessed 8 August 2016. For a summary of the latest revisions, see Charles Bagli, 'Affordable Housing Programme gives Tax Break to Developers', *New York Times*, 10 April 2017.

35. CHPC, 'The Envelope Conundrum'', 2014, http://chpcny.org.

36. Davidoff, 'Advocacy and Pluralism', 332.

37. In recent years Davidoff's ideas have been rehabilitated in architectural scholarship. See, for example, Nishat Awan, Tatjana Schneider and Jeremy Till, *Spatial Agency: Other Ways of Doing Architecture* (Abingdon: Routledge, 2011). See also the special issue of *Footprint* dedicated to the 'Participatory Turn in Urbanism', edited by Maros Krivy and Tahl Kaminer. *Footprint* 13 (Autumn 2013), https://journals.open.tudelft.nl/.

38. Newman, *Defensible Space,* 13.

39. Lynda Simmons, 'Toward a Theory of the Environment', *Journal for Architectural Education*, 29, no. 4 (1976): 18–19; quote 19.

40. Simmons, 'Toward a Theory', 19.

Biography

Susanne Schindler is an architect and historian focused on the intersection of policy and design in housing. She is currently a visiting lecturer at MIT's School of Architecture and Planning and co-directs the MAS program in the history and theory of architecture at ETH Zurich. From 2013 to 2016, Susanne was lead researcher and co-curator of the research and exhibition project House Housing: An Untimely History of Architecture and Real Estate at Columbia University, and co-author of *The Art of Inequality*. In her current book project, based on her doctoral research at ETH Zurich, Susanne analyses how the little-known and largely discredited Model Cities program played out in New York in the late 1960s and set the stage for many housing practices still with us today. Susanne writes regularly for a range of publications, including *Urban Omnibus*, the online journal of the Architectural League of New York.

The Nation's 'Other' Housing Project: Pearlbank, Pandan Valley, and Singapore's Private High-rise Housing Landscape

Zihao Wong

Singapore's 'other' housing project

Post-colonial Singapore in the 1960s was a massive landscape of transformation, as the young city-state grappled with the crises of global economic survival, as well as other internal pressures. Among these was the need for the newly founded state (Singapore gained its independence in 1965) to stabilise its rapidly growing immigrant population that was already settling in the urban areas and in squatter villages that proliferated in and around the fringes of the city. These informal settlements were characterised by overcrowded living conditions – a direct outcome of inefficiencies in the housing provided by the British colonial government.[1] Singapore's Housing and Development Board (HDB) was founded in 1960 to clear the congestion in the shophouses and slums, and resettle the nation in modern living environments – the public housing flats.[2] The HDB project is a major commitment by the government towards providing affordable, clean and sanitary housing to its people through its comprehensive urban redevelopments, visibly rendering efficacy to the young government's transformative abilities in the built environment. A mere two to three decades saw the nation quickly recover from its post-war, post-independence crisis and rise up as an emergent developing economy onto the global platform.[3] Modernist HDB flats and their newly created townscapes had sprung up in the span of a decade, beginning in the urban fringes around the city core, and gradually spreading out to the suburban areas. These new estates replaced the old ways of life of a past Singapore with modern and pragmatic living. Even today, Singapore's HDB project maintains a dominant role in the nation's developmental narrative, and has become seen worldwide as a public housing success story.[4]

Yet, by the 1970s, along with the dominant narrative of nation-building via the public housing project, an alternative privatised landscape of new high-rise housing types was also emerging in and around the city, extending towards the urban fringes. These were unlike the widespread standardised architectural forms – essentially basic block-forms – of the public housing project. Instead, these privatised high-rise housing developments varied in typology, reflecting in their construction different concerns from that of the public housing provisions. At the start, these housing schemes formed part of an overarching strategy of state-facilitated urban renewal, aimed at reinvigorating the city centre as the nation looked to globalise its economy. These were housing solutions specifically aimed at a growing affluent middle-class, who were the necessary highly-skilled workforce for a globalising city. This was a middle-class that was beginning to aspire to more than what the basic HDB models could provide. In 1972, the government introduced the concept – foreign until then – of the gated condominium as a measure to control land-use, due to a surge in housing aspirations for 'landed' residences in the suburbs. The term landed housing in Singapore refers to various iterations of the free-standing house where the land

is privately-owned.[5] The Singapore condominium was a localised translation of landed housing set into high-rise prototypes, giving architectural form to a new suburban landscape of contained gentrified neighbourhoods. Unique to Singapore's privatised high-rise housing developments was the intervention of the state in its close regulation of scarce land. Singapore's private high-rise housing developments thus reflect a nation's attitude towards its land as a resource, and its subsequent imaginations and productions of more 'land' in the construction of high-rise housing estates. State intervention also maximised these housing developments as part of wider national aspirations towards the status of a global city, and for its citizens, a 'green and gracious' Singaporean society.

In this article, I will critically re-trace the intertwined histories, with particular focus on the conceptions, of two notable examples of Singapore's early privatised high-rise housing developments in the 1970s. The Pearlbank Apartments and the Pandan Valley Condominium were both designed by Singaporean architect Tan Cheng Siong of Archurban Architects Planners.[6] Completed in 1976, the Pearlbank was one of the early luxury housing sites planned along the urban fringe of Pearl's Hill, witnessing Singapore's post-independence transformation. In the midst of the Pearlbank's construction, the government implemented the condominium concept in 1972, an originally foreign housing concept that would be imported, localised and pioneered later in the test-site of the Pandan Valley Condominium, completed in 1978. Starting from the Pearlbank's conceptual beginnings in 1969, this article examines two of Singapore's early private high-rise housing developments as an architectural confluence of Singaporean state-led visions and a people's housing aspirations.

New high-rise housing for a high-rise city
November 1969, Singapore. The Third Sale of Urban Renewal Sites for Private Development

included 'fourteen premium parcels [of land] within the Central Area' up for public tender.[7] This was the third instalment of an ongoing series of land sales started in 1967, enacting the state's determined control and management of its land as scant national resource. The scarcity of land – the island republic has an area of just $580km^2$ – was a major concern of the newly-formed state, a main motivation behind much of the state's urban redevelopment efforts.[8] Yet, its small physical size contrasted with the nation's growing global ambitions. The land sales and the urban renewal programmes were aimed at bolstering private sector development for a new city centre, with the state taking the lead in the mass accumulation of small privately-owned land fragments, a result of early colonial land subdivisions.[9] Ultimately, the goal was to stamp out 'central area slums and urban sprawl caused by a decaying city centre'.[10] The state intended to develop the tourism industry, starting from a revitalised Central Area, hoping to woo large multi-national corporations into Singapore.[11] New privatised urban housing alternatives situated along the city fringes of Beach Road and Chinatown, were outcomes of the successful first sale of sites in 1967. The result was the development of then-novel block-on-podium building types that included high-rise housing atop malls on the luxurious Golden Mile Strip along Beach Road, and the People's Park market on the edges of Chinatown, earlier cleared out by a fire in 1966.[12] Parcel Eleven on the Third Sale of Sites was a two-acre (approximately eight thousand square metre) triangular plot of hillside land beside Outram Park to the west, and the tree-capped Pearl's Hill to the north, earmarked as the site of a luxury flat complex.[13] The Pearlbank site promised a new typology of high-rise housing developments that sought to distinguish itself from the main decade-old narrative of the public housing programme.

Singapore's early public housing flats were built on pragmatic modernist principles, in order to quickly house a large working population. These

typically took the form of reinforced concrete living units with standardised sizes, ranging from one- to three-room flats, stacked and organised into high-rise and high-density rectilinear blocks. These flats came equipped with basic facilities of clean water and electricity supply, and sanitary flush toilets, encouraging a new standard of living seen as modern, clean and highly rational. The early flats were typically slab-blocks that were 'horizontally divided into segments of six to eight dwelling units per storey with all the doors [and some windows] facing into the short corridor and stairs-landing, thus keeping all these public spaces within the visual attention of the residents'.[14] To minimise construction costs, the newly-introduced mechanical lifts did not serve every floor, and one had to use the stairs (climbing up or down two to three floors) to connect from home to lift lobby. The corridors and void deck, together with neighbourhood amenities – from public playgrounds and sports courts, to fresh produce and hawker markets, and town centres – serve to reproduce the familiar social and recreational settings of the *kampong* village and informal settlements of the recent past, breaking down the monotony of the block of flats within an even larger estate.[15] [Fig. 1]

Singapore's public housing programme was more than the physical output of architecture. The blocks were erected upon the former sites of slums and squatter neighbourhoods, cleared when the state acquired huge tracts of land at below market prices, rationalised to the public as being 'in the interest of "national development"'.[16] The Home Ownership Scheme was introduced in 1964 to encourage Singaporeans, including lower-income groups, to change from being tenants, to home owners. This was coupled with a financing model set in place in 1968 that allowed Singaporeans to withdraw up to 80 percent of their savings from the Central Provident Fund to pay for their homes, instilling in the new-found citizenry an interest in issues of national development, having now a stake in the land, albeit

a high-rise plot of 'land' up in the air.[17] The sociologist Chua Beng-Huat notes that the home ownership scheme had a related effect on employment and ensured a steadily growing workforce, putting the carrot before the cart of national survival.[18] In this way, HDB's extensive public-housing programme was visible and lived-in evidence of the state's efficacy, reminding Singaporeans that their living conditions were steadily improving.[19] Moreover, the expansive tangibility and repetitiveness of modern HDB towns and estates, dramatically transforming Singapore's post-war, post-colonial landscape, was seen as instrumental to the shaping of once informal squatter villagers into national citizens. Credited with rooting a once migrant population to their new urban 'homeland' in the public high-rise flats, the HDB project naturally formed a dominant narrative in the nation's housing success story.[20] By the 1970s, two waves of new satellite HDB towns had been built, with the earliest towns around the city centre where the most squalid congestions once were.[21]

Complementary to the HDB project was the urban redevelopment of the city centre. The sale of sites programme encouraged private development to happen in accordance to the state's vision of urban renewal – similar to the HDB process, with the government acquiring plots of land, vacant or otherwise. As explained earlier, the state facilitated private development by clearing decrepit and congested areas, consolidating the land into larger plots ripe for development.[22] Significantly, this developmental ideology and control of land befitted the state's vision of urban renewal and the nation's renewed vision of becoming Asia's 'Instant City', by enabling effective and immediate land clearance to make way for the rapid transformation of Singapore's urban landscape.[23] The Chief Urban Planner noted the private developers' 'great difficulty in obtaining choice sites for proper development'.[24] The government was concerned that many of these developers, if left without support, were unable to finance such

large developments of land, which resulted from the accrual of originally smaller land fragments. Added to this were the problems of having to convince the multiple existing occupants of each fragmented plot to sell their land for redevelopment and to clear away their property. This was especially tricky with the informal settlements that were spreading organically precisely because there was a lack of structure governing the sites and an overt inertia towards any planned redevelopment.[25] To achieve 'instant' change, the Singaporean state exercised its ability to acquire and clear land, re-shaping and re-planning land parcels to then enable private development of the city centre, rationalising its authoritarian top-down approach to planning as the only way for the 'betterment' of Singaporean society and the nation's future.[26]

The Pearlbank Apartments: an architecture of 'landed' aspirations
The winning proposal for Plot Eleven, the Pearlbank Apartments, was designed by Tan Cheng Siong and his team formerly known as Archynamics. The bold proposal exceeded the brief, providing more than just luxury apartments, but considering instead what a housing community for a rising educated middle-income population would look like. While the national developmental narrative and the public housing programme focused on housing solutions to root a population of immigrants and former villagers in the Singaporean homeland, the Pearlbank proposal presented another housing solution for a less-considered and emergent demographic. They were the young, educated professionals who could afford to leave the island-city to look for opportunities abroad. Yet this was the very skilled workforce that the nation envisioned would populate and expand its city core – and the Pearlbank would be the housing solution to bind them to their Singaporean homeland. The cylindrical apartment building was to stand thirty-eight storeys tall, the tallest of residential buildings in Singapore and Southeast Asia at the

time it was completed.[27] The design proposed to be the first fully residential development that had the highest density, containing a compact arrangement of 296 units – the largest number of apartments in a single block at that time – to accommodate approximately one and a half thousand dwellers.[28] In many ways it was an architectural marvel: Brutalist in form and finish, the curved block was a sculptural massing of concrete and shadow of interlocking split-level apartment units, with private staircases inside each unit configuring two or three floors. Each floor had eight apartments in a mix of four-, three- and two-bedroom arrangements. At the top were eight penthouse units complete with roof terraces.[29] [Fig. 2]

Radical for the time, the proposal promised not just high-rise homes, but also a way of living that emphasised the forming of vertical neighbourhoods and communities for a socially and globally mobile skilled workforce.[30] The cylindrical tower maximised the privacy of each apartment unit's living areas and bedrooms, with optimised views that open up along the outer curve to the surrounding Pearl's Hill woods and the emerging skyline of the central business district. On the internal rim, the curved corridor connected main doors with their dedicated lift lobbies, and two apartment units shared a common lift shaft. Also in the internal curve, a system of cantilevering staircases linked kitchens to back entrances and yards. This intentionally zones a shared communal space of domestic work like cooking, washing and cleaning all along the internal towering vertical 'courtyard'. The future resident profile – the young educated family – was implied by the inclusion of a kindergarten on top of the adjoining multi-storey carpark, and a library on the communal deck on the twenty-seventh storey. Perhaps the public sky-deck promoted more than just recreational reading. Drawing on the state's imagination of the urban workforce, here the adults were envisioned as a gentrified community,

Fig. 1

Fig. 2

Fig. 1: Early Housing Development Board flats, Singapore. Photo: Author.

Fig. 2: Pearlbank Apartments in the midst of a changing landscape, Singapore. Photo: Author.

expected to share in lifestyle activities provided for by a games and billiard room, and a women's association meeting room, all located on the communal deck.[31] The household would be run with the aid of a domestic worker – a symbol of affluence, expected to share in the routines of daily domestic duties played out in the internal matrix of service yards, backdoors and cantilevering staircases. Each family would be car-mobile – with the provision of one parking lot per unit.[32] The modern house was to shape a modern and affluent urban lifestyle.

The sale of sites, and the public housing – or re-housing – programme developed in the 1970s reflected time and again the nation's insecurities about land scarcity. The modern city's housing project was really an experiment that sought to re-imagine notions of land and the typologies of landed housing in a new urban context, recreating 'land' and its related ideologies, shifting homes and communities off the ground and up into their new high-rise habitats. Yet, Tan Cheng Siong recalls that in the 1960s, people were not accustomed to city living, relating past urban contexts in their collective memories to cramped and congested slums and shophouses. Conversely, the wealthy owned tracts of land on the outskirts of the city, where they lived on landed estates.[33] Tan considered these aspirations for the Pearlbank; at the same time, he was mindful that the Singaporean majority had now grown accustomed to a rather rational and basic vision of 'home' as set out by the low-cost HDB living.[34] The Pearlbank would surely have to provide much more than the standardised shoe-box living.

The split-level floors of each Pearlbank unit were meant to create a modified version of a landed house – or rather the much favoured terrace house that was luxurious yet still affordable to middle-income buyers. The split levels resulted in a perception of living in a landed house with multiple storeys. There were two or three floors depending on the unit size, with all floors accessible by internal staircases. In the Pearlbank's three-bedroom apartment, the lift lobby led through the main entrance, past the kitchen and into the dining room. One then ascended a flight of stairs to the living room above on an intermediate level, with two adjoining bedrooms. Yet above this was another floor with one more bedroom and an 'outdoor' service yard. [Fig. 3] The layout was reversed in the four-bedroom unit, where one entered from the 'top' floor with the kitchen and dining room, and made one's way down first to the living room with two adjoining bedrooms, and down again to another two rooms. In the penthouse, one entered through the middle 'ground' floor and either went upstairs to the 'roof terrace' – or downstairs to the 'basement'. The Pearlbank was a matrix of landed properties vertically interlocking one 'house' with another – perhaps a construction of pieces of 'land' stacked one atop another. In this way, the Pearlbank was a national site of experiment, providing an architectural testbed to solve the nation's land scarcity. As a housing solution, it re-interpreted and re-configured spatially the private 'landed' estate aspirations of a Singaporean middle-class population into new architectural expressions of the 'house' in the high-rise building.

Tan's vision of new stacked architectural 'landscapes' of the suburban house in the Pearlbank Apartments was perhaps derived from popular imaginings of the ideal home. To them, the ideal was manifested in the form of a freestanding, single-unit suburban house – or else its variations of conjoined semi-detached or terraced houses. The geographer Paul Mitchell Hess claims that the fantasies and ideas of suburbia conjure up spatially a generic 'unbounded landscape of sprawl', not necessarily tied to a specific place, time or site.[35] Contrastingly, in land-scarce Singapore, the visions of suburban sprawl stand in vast opposition to the pragmatism, economic and spatial rationalities and limitations brought about in the majority of public housing estates. Social anthropologist Yao Souchou describes the ideals of Singaporean

'upmarket residencies' to include privacy in the form of 'individual allotments' of homogenised dwellings that promised a 'generous living space' comprised of gardens and yards (and even swimming pools), that became spatial metaphors for a gentrified familial lifestyle of 'leisure' and 'home away from work'.[36] Yao illustrates these instances as 'weekend ritual[s] of washing the family car, having perhaps a sandpit or a swing for the kids in the backyard, and of course the endless toil of Ajax and Pine-O-Clean by foreign maids' in the suburban home.[37] Understood as such, 'leisure' was a privilege set apart from the workplace. The affluent Singaporean house was imagined as a leisurely suburban home, set outside of the city's workplaces.

Housing a new middle class
Construction of the Pearlbank started in the middle of 1970, with an expected completion date three and a half years hence. Yet the unfamiliarity of such an unprecedented building required new construction technologies for the foundation and structural walls that had to be sourced and imported from outside Singapore. This was owed to the sheer density and height of the building, as well as the complexities caused by the matrix of interlocking housing units with interiors that stretched vertically across floors.[38] In addition there was a series of delays due to construction mishaps, including a fire in 1972 causing the death of two workers, as well as an acute material and labour shortage in the construction industry. All of this delayed the building's completion by one and a half years; the Pearlbank was finally completed in 1976.[39] During the Pearlbank's prolonged construction, the private high-rise housing landscape was actively changing in order to cope with the housing needs and aspirations of a globalising Singapore and its growing middle-class population.

Singapore's growing affluent population in the 1970's was the result of the successful restructuring of the economy and labour markets over the previous decade, launching Singapore as one of Asia's 'miracle tiger' economies by the 1980s. The financial crisis of 1985 saw the city-state shift away from domestic markets towards 'global city' status – Singapore's vision of itself that was already in the making since the 1970s.[40] Concomitant to the nation's movement up the developmental ladder was the rising affluence of its people, attributed to an efficient workforce that bred a successful economy. Here was a well-rehearsed mantra that translated spatially into the public's imagination of housing – aspirations extending beyond the levels of comfort of the HDB flat. A wave of newfound interest and a sudden rush for terrace and semi-detached houses during the property boom became a cause for alarm for the government.[41] The state's concerns over land scarcity and the constant need to carefully plan urban development was threatened by the impending 'wasteful sprawl of low-density housing developments of small home plots in the suburban area of Singapore'.[42]

Alongside the Pearlbank, other privatised developments of luxury apartments were expanding upon new vocabularies of landed and leisurely living environments of a shrinking suburbia in a rapidly urbanising Singapore, incorporating an array of innovative technologies that targeted young, modern and cultured households. A promising string of new housing developments were planned, matching standards of bungalow-size flats, large swimming pools and spacious landscaped surroundings.[43] The competition of housing towers ranged from the thirteen-storey Maxima (completed in 1972), 'home of gadgets, sounds and slick mechanization'; to the twenty-eight-storey Beverly Mai (completed in 1974), boasting split-level maisonettes; to 'Asia's Choicest Apartments' in the space-age paraboloid forms of the twenty-five-storey Futura (completed in 1976). All three projects formed part of an evolving series of high-rise housing projects conceptualised around the idea of 'bungalows-in-the-air'.[44]

Yet the concept of a private high-rise house posed problems for residents. Outside the private interiors of these apartments, living in flats meant that neighbours were effectively 'sharing the same roof, same lift, same staircase, same walls and same grounds'.[45] These 'same grounds' revealed maintenance costs for the very luxurious shared amenities, including swimming pools, landscaped gardens and sports courts – and in the case of the Pearlbank, the sky deck with its recreational rooms. Home-owners of the luxury Hilltops apartments in the upmarket Cairnhill Circle district became embroiled in a legal battle with the developer over lapses in the overseeing of the property. All 103 families experienced a 'dry spell' over twenty-four hours when the water pump failed to work.[46] One 1971 newspaper article reminded buyers of private high-rise apartments to be mindful of these 'unexpected' expenditures – perhaps a reflection of the public's scepticism towards these private yet communal arrangements.[47]

Pandan Valley Condominium: suburban housing dreams

16 May 1972. The Ministry of National Development expressed their concerns to the Singapore Institute of Architects (SIA) over 'wasteful land development practices' specifically relating to the low-yield land-use in the suburban areas. Increased public adoption of terrace housing in the suburbs resulted in 'problems of inadequate and poorly maintained open space and other common facilities' within these private housing estates. The trend was for developers of these suburban estates to subdivide sites into small fenced plots with pocket-sized front yards, leaving very little room for public green space in the neighbourhood.[48] The SIA commissioned a study to provide an understanding and overview of how the foreign condominium housing typology was 'applied abroad, including a historical review and a look at the differences between a condominium and co-operative housing' among other goals.[49] The condominium, a form of gated residential

community, was understood as a 'global' housing concept that Singapore borrowed from its western peers. The geographer Choon-Piew Pow lists some common variants of these gated communities, sited within suburban estates that project and promote images of leisurely living outside of the city. These fenced-in establishments become exclusionary settings for the privileged classes to socialise within 'leisure clubs', with the gate becoming a symbol of social distinction and keeping within its boundaries the estate's high property value.[50]

Differentiating from the definitions of the 'condominium housing' as interpreted and expressed overseas, the 1972 concept report presented instead a Singaporean condominium that was first and foremost a set of planning parameters that would 'encourage more intensive use of scarce land, preserve more greenery and open spaces for communal recreation, [and] secure the proper maintenance of community amenities and facilities in housing estates and [private] apartment blocks'.[51] From an architectural standpoint, the Singaporean condominium was not defined by any specific distinguishing built features. On the contrary, many aspects of communal amenities such as the swimming pools, children's playgrounds, and sports courts were already common features provided in luxury apartments.[52] What was new, was that the condominium concept was to guide the specific land-use and planning of affluent housing solutions in the suburban areas of Singapore.[53] This was perhaps aligned with the state's shifting focus away from the city centre to the suburban zones, which now required land renewal and intensification strategies.

In 1972, upon the government's implementation of the condominium concept, the Pearlbank's architects submitted a proposal for a new condominium project to the planning authority befitting the requirements stipulated by the condominium guidelines.[54] Different from the dense tower of the Pearlbank,

the Pandan Valley was a gated and fenced-in residential scheme with a 'generous' landscaped natural valley covering a twenty-acre (approximately eight hectare) site, set outside of the city and well-lodged in a wooded suburban site off Holland Road, regarded as one of Singapore's exclusive residential districts.[55] [Fig. 4] When completed in 1978, the landscaped and hilly perimeter all around the Pandan Valley site contained a geography of low- to high-rise housing arranged in a variety of sprawling slab-blocks, stepped-blocks and point towers. Seven blocks in total, the blocks presented residents with a choice of thirteen different plan layouts. In similar fashion to the housing units of the Pearlbank Apartments, the units of the Pandan Valley were conceived as part of the landed housing logic. The different permutation of the units in the slab, stepped or point blocks were modelled after the terrace house, the semi-detached house, or the stand-alone bungalow.[56] The apartments in the stepped-blocks were 'expected to be more popular among Singaporeans because they have a single level layout, similar to conventional semi-detached houses but with private greens and one house elevated over the other'.[57] [Fig. 5, 6] Again, this logic of landed housing typologies set within the density of urban blocks, in turn situated in the context of the Singaporean suburbs, presented an urbanity that was less-than urban. Here was an interpretation of the suburban dream home, albeit stacked into high-rise block configurations catering to the ideals of the affluent classes. As well as providing middle-class housing, the Pandan Valley was also housing for a new group, the foreign talent, both of which were to drive the growth of Singapore's new global city.[58]

The Singaporean condominium: from suburbia to green and gracious city
The imagination – and imaginability – of the suburban dream home was part of a wider scheme of national campaigns and policies aimed at presenting Singapore as a globally-oriented city and society, reflecting a continuum of progress in the national developmental narrative. Not only was the Singaporean condominium a viable housing form for the growing affluent populations in the global city, it was also a way to inculcate in Singaporean citizens the state's vision of a green and gracious society.[59] This was evident in the condominium concept's guidelines that rejected the sprawl of earlier private housing development, that 'cut up [limited suburban land] into pocket-handkerchief sizes so that the development of communal facilities is not possible'.[60] Instead, the guidelines facilitated a suburban landscape strategy in which future private housing development would contribute on an urban scale to the government's garden city vision, introduced by the Prime Minister Lee Kuan Yew in 1967. The Singaporean condominium's push for intensive use of land further intensified the existing suburban greenery. Developers had to 'preserve the natural features of the land while … improv[ing] the living environment and establish[ing] communal facilities in a housing estate'.[61] Spatially this had the impact of developers amassing smaller land plots into larger condominium estates, within which only 20 percent of the land was allowed to be built-up. The rest was – by the efforts of the developers – to be intensively landscaped.[62] The Singaporean condominium extended the state's efforts to beautify the city into the suburbs. The Pandan Valley site, the largest of suburban housing sites in the 1970s, produced 'more' suburban land by making the original suburban landscape greener, and making dense 'layers' of suburban housing stacked one a top another.

In addition to the garden city concept, the government introduced the Gracious Singaporean Society in 1969, addressing the noticeably increase in affluent classes and their emerging demands for better social culture and standards of living, and perhaps paving the way forward for the global city. This campaign aimed at an education of the public, with the Prime Minister holding up 'gracious living' as the 'new way of life' for Singaporeans, a result
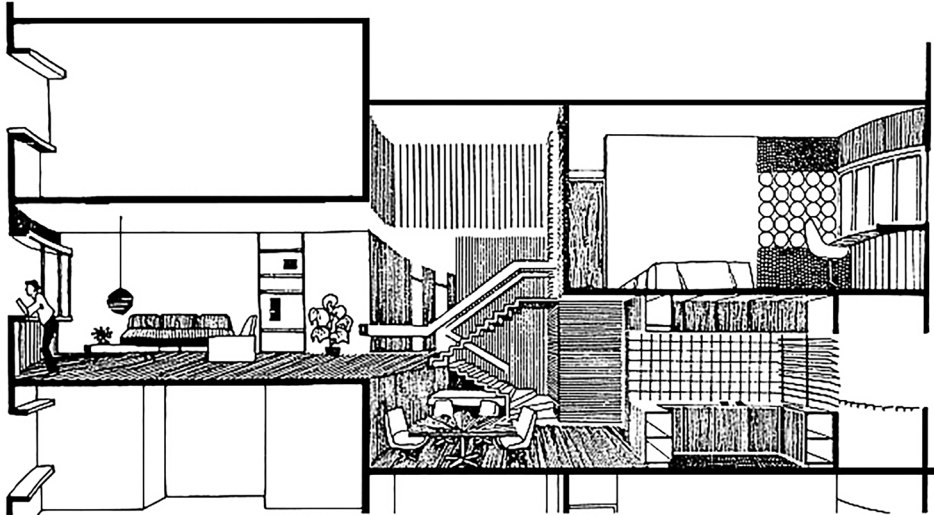
Fig 3: Section of a split-level three-bedroom unit of the Pearlbank Apartments. Image: Courtesy of Archurban Architects Planners.

Fig 4: Slab, stepped and point blocks set in the garden suburbia of the Pandan Valley Condominium. Photo courtesy of Archurban Architects Planners.
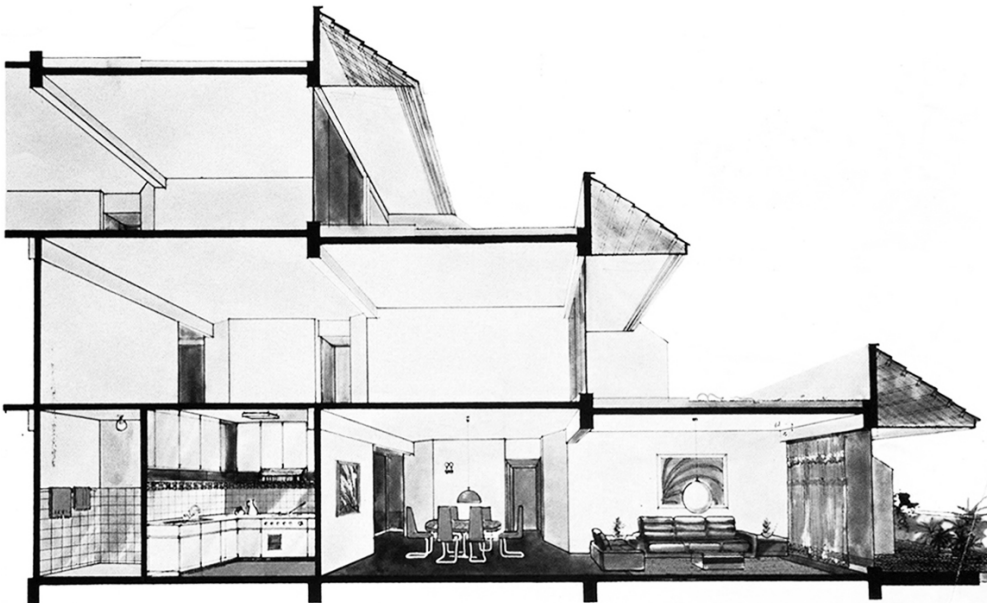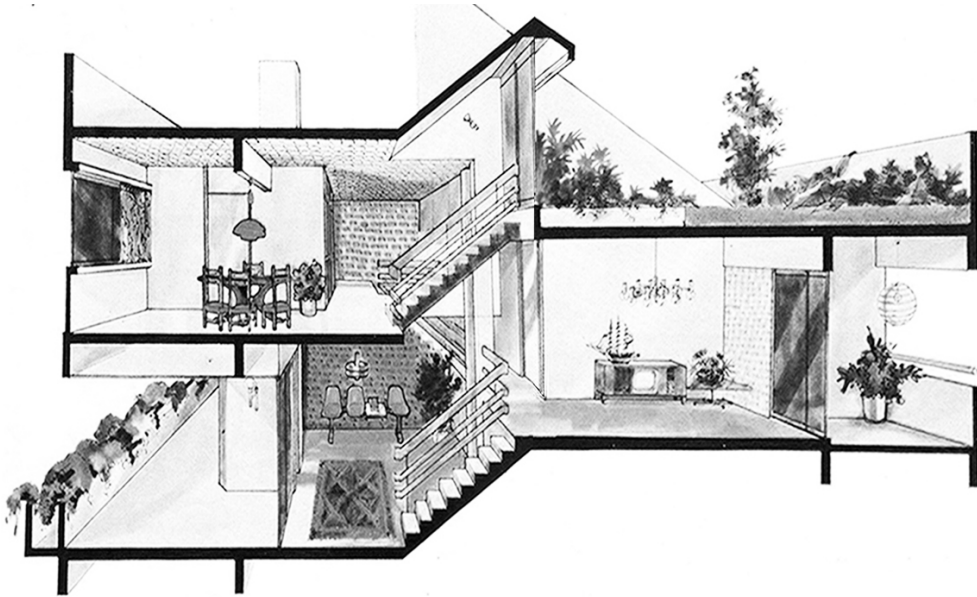
Fig 5: High-rise typologies of the landed house, Unit Type G of the Pandan Valley. Image courtesy of Archurban Architects Planners.

Fig 6: High-rise typologies of the landed house, Unit Type L of the Pandan Valley. Image courtesy of Archurban Architects Planners.

of hard work in building the nation, who now could afford to 'strive for social and cultural goals'.[63] This campaign went hand in hand with the adoption of the Singaporean condominium by a newly cultured gentry who could now afford to look outside of their daily work and home routine at a new form of 'leisurely' and 'cultured' lifestyle. The campaign also projected the 'gracious' and 'cultured' citizenry as essential to the global city. The Singaporean condominium was perhaps an incubator of Singaporean affluent society, presenting a living environment that emphasised good social behaviour in a housing utopia. Inside the Singaporean condominium, there would be none of the boundary fences that ungraciously divided up land, property, and neighbourly interactions, most associated with those sprawling low-rise housing estates that the condominium was expected to tackle and replace.[64] With the vanished dividers, the 'condominium dweller [would] literally step out from his doorway into an area under common use and joint ownership'.[65]

And this was expressed in the Pandan Valley. Outside of the individual apartment units was a pedestrianised landscaped site, safe for the residents to roam freely within, unencumbered by roadside traffic. Vehicular movements and carparks were kept to the peripheral front of the estate, while the slab blocks lined the back of the valley in a crescent shape.[66] This produced 'ample and safe play-grounds for social integration and interaction among neighbours of all ages and at the same time provided certain minimum recreational and sporting facilities for the neighbourhood'.[67] As part of its landscaped grounds there was a sprinkling of recreational amenities: a large swimming pool consisting of a children's wading pool and a twenty-five-metre long competition pool, sun decks for poolside parties and sunbathing, tennis and squash courts, jogging tracks, putting greens and even a lake.[68] And there were additional services including a kindergarten with an adjoining playground, music school, ballet school, shops and cafes on the ground floors of the blocks facing the front main road and accessible to the non-resident public.[69] In a radical manner, the Pandan Valley's sprawling landscape of internal suburbia was originally designed to be fence-free, relying instead on the natural topography to define the development's perimeters.[70] After four years of inhabitation, the large perimeter of the sprawling Pandan Valley had to be fenced up, as residents became victims of theft, burglary, and vandalism, particularly to their cars.[71] Behind its perimeter the Singaporean condominium represented a 'gracious and cultured' society, extending from the revolutionary vanishing property fences, where families were 'encouraged to be less self-centred and to participate in community activities and more particularly in decision-taking on the management and maintenance of the condominium'.[72]

This raises the issue of the contentious and ambiguous private-yet-public, exclusive-yet-shared spatial and programmatic arrangements that the condominium constituted within its perimeter walls. The fenceless private house that envisioned neighbours sharing communal infrastructure and recreational facilities as part of the common 'ground-scape' already caused friction in the private apartments preceding the implementation of the Singaporean condominium. Even the Pearlbank was facing its own set of private/public problems only two years after its completion. For a whole month, all 296 housing units of the Pearlbank were inconvenienced by the breakdown of seven of its nine elevators, including the fire-safety lifts. The residents were left uncertain about who would be responsible for rectifying the issue, since the lifts were in the ambiguous zone of publicly shared infrastructure, which in this case fell under the jurisdiction of a badly functioning developer and management agent.[73] Taking lessons from these types of private housing developments, the state took steps to further refine the Land Strata Act (originally passed in 1967). This act was now to 'facilitate the subdivision of land [and air-space]

into strata' in which all the units in a building could be separately owned, allowing 'flat owners [rather than developers] to form an association to look after their own interests [such as maintenance of shared facilities] some time after purchase'.[74]

In a similar process to the HDB resettlement programme, physical land has been re-conceptualised into abstract notions of air-space, an inevitable transition for the high-rise, land-scarce city. The private high-rise housing landscape was a walled-in private neighbourhood, containing a paradisiacal environment of landscape and leisure that was shared and needed to be continually maintained, and which afforded 'magically' – and materially and tangibly – a heightened status to the otherwise imaginary air-space of home. Maintaining this paradisiacal 'ground' was no mean feat: constant discipline required the mowing of lawns, trimming of topiary gardens, clearing of leaves from swimming pools, pumping of fountains, oiling of gym equipment, among many other tasks. Inscribed into this new understanding of private land was the need to ground values of ownership in the management of conceptual property.

Making concrete all of this was the strata-titled Singaporean condominium as 'a complex legal device involving [both] separate [and undivided] interests in common' – recognising the rights of divided 'ownership of air-space' in their high-rise housing interiors, and what remains as communally shared and collectively maintainable 'ground' facilities.[75] Like a microcosm of Singaporean society, the cultured classes managed their 'estates' through election of their management corporations and councils who in turn decide the contracting of managing agents to run the countless tasks within their estate. All of these were contained within the neatly delineated property walls of the Singaporean condominium, in which a disappearing suburbia was reinvented as the home for a section of society linked by similar income-strata.

Conclusion: (re)visions of housing and Singaporean land

Singapore's private high-rise housing landscape is a result of an overarching national developmental narrative that posited housing as the perceptible reward of hard work and success, thus becoming a material indicator of achievement and status. Pandering to popular ideas of luxury housing forms that promised more than the standard public housing flat, the aspirational high-rise house was constructed on ambiguous redefinitions of traditional concepts of 'land' translated into 'air-space' assets. Unique to the Singaporean privatised high-rise housing developments was the state's conception of its land as a limited resource requiring of constant renewal and revisions to maximise land-use potential. State-intervention into a 'haphazard' early privatised housing landscape in the 1970s included the promotion of national ideologies and campaigns for the garden city and a gracious society which largely undergirded the land development policies and motivations behind the production of the Singaporean condominium. Tracing the conceptual beginnings from the Pearlbank to the Pandan Valley, Singapore's early private high-rise housing landscape reveals the evolution of 'land' as architectural concept and its concomitant imagination in the high-rise aspirational house by a nation and its people. Yet Singapore's conceptions of land and its planning is always in constant phases of renewal. In recent years, both the Pearlbank and the Pandan Valley – and their communities – have become threatened by the very motivations that constructed them: the ever-shifting land renewal practices of the Singaporean state and the nation's continued ideologies of upward social mobility.

In February 2018, both the Pearlbank Apartments and the Pandan Valley Condominium were headed for collective en-bloc sales.[76] The Pearlbank, after almost four decades since its residents first moved in, was now a conundrum of problems for some households, with the tired building crossing the

halfway mark of its 99-year land lease.[77] One resident living in a penthouse unit on the top floors of the tower said that on his moving into the Pearlbank in 2000, the unit was 'hidden behind years of neglect' and accumulated garbage.[78] Some units were said to be subdivided and rented out to 'foreign workers, students and working girls from the red light district', a result of liberal use, and management lapses of private space within a shared building.[79] In more recent years, the building's management reported that the maintenance and repair of key facilities needed to be done every two years and costs a hefty $2.5 million.[80] The Pearlbank was also plagued by leaking pipes that caused flooding and water seepage, the repairs difficult to carry out owing to the unique complications brought about by the interlocking walls and floor plates between units.[81] The once heroic building had been returned to the very conditions of disorder and decay which the Pearlbank was first conceived to stamp out.

The en-bloc sales of the Pearlbank came as no surprise, having already dodged and gone through four earlier unsuccessful rounds of collective votes.[82] Residents voted to agree to the sale of their individual units, before the entire building may be sold to the developer. With the most recent en-bloc process re-started in November 2017, the Pearlbank was soon sold to a developer by February 2018, with the collective sale going through after gaining the prerequisite 80 percent votes of its residents. This marked the start of the Pearlbank's eventual demolition and redevelopment.[83] Here was the obduracy of architecture – inflexible and vulnerable to the destructive forces of deterioration and whims of market forces. The old building's impending replacement was also urban renewal at play – uncannily reminiscent of how the Pearlbank was once a monument of change and a part of a comprehensive urban housing strategy bringing transformation to the backward city of slums of past Singapore. In the slew of other older vertical housing developments of the 1970s that were too

facing threats of en-bloc sales, the Pandan Valley's residents followed suit and called for their collective sales in March 2018, hoping for a chance at a property upgrade.

Since en-bloc sales went through for the Pearlbank, Tan Cheng Siong – the old architect of the post-independence housing development – was tasked to collect 100 percent of the residents' votes to allow the building's historic conservation; this proved to be an impossible task given that some of the aged residents remained uncontactable – their homes left vacant, or else unable to make decisions due to ill health. Tan insists that new models of architectural renewal must be produced for the city's constant re-visioning of land renewal. He asserted that these profit-driven 'processes of en-bloc sales… are disruptive to communities and societies here at large' – setting off a cautionary alarm that 'every home [could become] just a market value to be realised or reaped very quickly'.[84] In a twist of circumstances, the Pearlbank had become Tan's new housing experiment – almost fifty years after its conception. Tan's model of renewal architecture envisions a new twenty-eight-storey semi-circular block of brand new apartments set within multi-storey landscapes of hanging gardens to replace the old carpark block. Topped with a swimming pool on the roof deck, this block of hanging suburbia extended from the original renovated and retro-fitted conserved cylindrical tower, revisiting earlier experiments with land and the landed. [Fig. 7] In both the Pearlbank and the Pandan Valley's lives are a recording of the forces of shifting national agendas and its people's housing desires. At the time of writing, the Pearlbank awaits its demolition – its residents set to move out within a year, while the Pandan Valley Condominium remains unsure of its future plight. Still, their old architect continues experimenting with new concepts of high-rise 'Singaporean land', against the backdrop of a still-shifting landscape.

Fig 7: The green tower and the conservation of the Pearlbank, c.2015. Image courtesy of Archurban Architects Planners.

Notes

1. Beng-Huat Chua, *Political Legitimacy and Housing: Stakeholders in Singapore* (London: Routledge, 1997), 134.

2. The shophouse is a vernacular form of housing, seen in most parts of Southeast Asia. In Singapore, the earliest shophouses (1840s) were built by immigrants from Southern China, organised into rows of units along the river banks and eventually forming the bulk of urban development in the city core. Each shophouse had a narrow business-front facing the street. Behind the shopfront and in the floors above were the living spaces. By the 1960s, many of these shophouses were overcrowded with multiple families or tenants living in dark and unsanitary conditions.

3. Ibid. See chapter 7, 'Public Housing and Political Legitimacy', 124–51.

4. Beng-Huat Chua, 'Singapore as Model: Planning Innovations, Knowledge Experts', in *Worlding Cities: Asian Experiments and the Art of Being Global*, ed. Anaya Roy and Aihwa Ong (Oxford: Blackwell Publishing, 2011), 29–54; Koon Hean Cheong, 'The Evolution of HDB Towns', in *50 Years of Urban Planning in Singapore*, ed. Chye Kiang Heng (Singapore: World Scientific Publishing, 2017), 101–25.

5. In essence, these privately-owned land parcels gave home-owners access to their bounded plots of small front garden and backyard, reminiscent of wealthy estates of the past and in the present indicators of material standing in land-scarce Singapore. Landed housing types also include the colonial-influenced bungalow, the semi-detached and terrace house.

6. I am grateful to Mr. Tan Cheng Siong and Archurban Architects Planners for their enthusiastic help in granting me the conversations that form the basis of the discussion regarding the two housing developments in this article.

7. 'Third Sale of Urban Renewal Sites for Private Development', *Journal of the Singapore Institute of Architecture*, no. 38 (January/February, 1970): 2–23.

8. Alan F. C. Choe, 'Objectives in Urban Renewal', *Journal of the Singapore Institute of Architecture*, no. 30 (November, 1968): 2.

9. Alan F. C. Choe, 'The Early Years of Nation-Building: Reflections on Singapore's Urban History', in *50 Years*, ed. Heng, 12-3.

10. Choe, 'Objectives in Urban Renewal', 2.

11. Personal Communication with Tan Cheng Siong, 30 October 2018.

12. 'Urban Renewal Sites for Private Development', *Journal of the Singapore Institute of Architecture*, no. 13/14 (June/July, 1967): 4–19. The architectural historian Eunice Seng records the fire on Christmas night of 1966. Eunice Seng, 'The Podium, The Tower and the "People": The Private Development Of A Public Complex, c. 1965–70', *Proceedings of the Society of Architectural Historians, Australia and New Zealand*, vol. 1 (Gold Coast: SAHANZ, 2013), 220.

13. 'Third Sale', 17; See also: 'Skyline 7', in *Journal of the Singapore Institute of Architecture*, no. 10 (March, 1967): 12–13.

14. Chua, *Political Legitimacy*, 121.

15. Ibid., 120-21.

16. Ibid., 133. See also: M. Castells, L. Goh and R. Y.-W. Kwok, *The Shek Kip Mei Syndrome: Economic Development and Public Housing in Hong Kong and Singapore* (London: Pion Limited, 1990), 267–70.

17. Chua, Political Legitimacy, 135. See also: Castells, Goh and Kwok, Shek Kip Mei Syndrome, 270-80.

18. Chua, *Political Legitimacy*, 135.

19. Ibid., 139.

20. Eunice Seng, 'Habitation and the Invention of a Nation, Singapore 1936–1979' (PhD in Architecture Thesis, Columbia University, 2015).

21. Cheong, 'Evolution of HDB Towns', 101–3.

22. Castells, Goh and Kwok, *Shek Kip Mei Syndrome*, 267–70; Choe, 'Early Years of Nation-Building', 12–13.

23. Choe, 'Objectives in Urban Renewal', 4–5.

24. Ibid., 3.

25. Ibid.

26. Ibid., 2.

27. Singapore Heritage Society, 'Pearl Bank Apartments', in *Too Young To Die: Giving New Lease of Life to Singapore's Modernist Icons* (Position Paper, Singapore Heritage Society, 2018), 18; See also: 'Cylindrical Tower Provides High Density Accommodation in

Split-level Apartments', *Building Materials and Equipment Southeast Asia* (April 1976): 35.

28. Ibid.

29. 'Cylindrical Tower', 34–57.

30. Personal Communication with Tan, 30 October 2018.

31. 'Cylindrical Tower', 49.

32. Ibid., 39 and 44.

33. Personal Communication with Tan, 30 October 2018

34. Ibid.

35. Paul Mitchell Hess, 'Neighbourhoods Apart: Site/Non-Sight and Suburban Apartments', in *Site Matters: Design Concepts, Histories, and Strategies*, ed. Carol J. Burns and Andrea Kahn (New York, Oxon: Routledge, 2005), 223.

36. Yao Souchou, 'Halifax, Asia: Cities, Family, and the Unhomely', in *Looking at Culture*, ed. Sanjay Krishnan, Sharaad Kuttan, Lee Weng Choy, Leon Perera, and Jimmy Yap (Singapore: Atres Design and Communications, 1996), 142.

37. Ibid., 142–3.

38. 'Cylindrical Tower', 39–41.

39. Personal Communication with Tan, 30 October 2018. See also: Edward Liu, 'Top Floor Fire in Unfinished Apartments', *The Straits Times*, 22 December 1972, 20; 'Apartment Block Ready at Last', *New Nation*, 10 October 1975, 2.

40. Selvaraj Velayutham, *Responding to Globalisation: Nation, Culture and Identity in Singapore* (Singapore: ISEAS Publishing, 2007), 83–85.

41. 'Developers Cash in on C-Plan Concept. House Prices Go Up', *New Nation*, 27 July 1972, 3.

42. 'Report on Condominiums', *Journal of the Singapore Institute of Architecture*, no. 55 (Nov/Dec, 1972): 2–13.

43. William Campbell, 'Highrise Goes High Class', *The Straits Times,* 19 June 1970, 8.

44. All three projects were designed by Timothy Seow and Partners. See: Campbell, 'Highrise Goes High Class', *The Straits Times*; Nellie Har, 'Home of Gadgets, Sounds and Slick Mechanisation', *The Straits Times,* 22 February 1971, 8; 'Private Projects Are Being Delayed', *The Straits Times,* 15 January 1974, 15.

45. Abby Tan, 'The High Cost of Maintenance that is the Bane of High-rise Living', *New Nation*, 29 May 1972, 12.

46. '"Dry Spell" Residents of Luxury Flats Send Lawyer's Letter', *The Straits Times*, 23 March 1972, 1; '"Solution" Offer for Water Crisis Apartments', *New Nation*, 23 March 1972, 1.

47. Tan, 'High Cost of Maintenance'.

48. Poteik Chia, 'The Condominium Concept – A New Approach to Gracious Living', *The Straits Times,* 17 May 1972, 18.

49. Cher Soon Tan, 'Architects to Help With Condominiums. Study Will Be Carried Out Soon', *New Nation*, 23 May 1972, 5; See also: 'Report on Condominiums', 2–13.

50. Ibid.

51. 'Report on Condominiums', 2.

52. Abby Tan, 'Up Goes the Price of Houses. Condominium Concept Brings a Property Boom Here', *New Nation*, 31 October 1972, 19.

53. 'Report on Condominiums', 2.

54. 'Pandan Valley Condominium Housing', *Journal of the Singapore Institute of Architecture,* no. 73 (Nov/Dec, 1975): 22–27.

55. Ibid, 22–27. See also: 'Pandan Valley' in *Rumah: Contemporary Architecture of Singapore* (Singapore: Singapore Institute of Architects, 1981),168–69; 'Pandan Valley Will House 3500', *New Nation*, 29 December 1975, 4.

56. 'Pandan Valley Condominium Housing', 26.

57. 'Pandan Valley Will House 3500', *New Nation*.

58. In 1972, Singapore's then Minister for Foreign Affairs, Mr. S. Rajaratnam, introduced the concept of the Global City in a speech at the Singapore Press Club. This heralded a renewed vision for the island-city that was to look beyond its region, extending Singapore's economic networks out into the world. Some effects of Singapore's pursuit of Global City status was a continued drive to attract foreign investment and talent.

59. 'Gracious Living' was a phrase introduced in a speech in 1969 by then Prime Minister Mr. Lee Kuan Yew at the opening of a community centre. His speech entitled 'More Gracious Living' addressed the positive results of the 1960s developments in Singapore, pushing Singaporeans towards adopting higher standards of social and cultural awareness. The phrase was adapted into more national slogans around

the building of a green (garden city) and gracious (cultured) society in the 1970s.

60. Chia, 'A New Approach to Gracious Living', *The Straits Times.*

61. Ibid.

62. 'Report on Condominiums', 2.

63. 'Life Should Be More Than Just Existence', *The Straits Times*, 27 October 1969, 20; See also: Kuan Yew Lee, 'More Gracious Living: Speech by the Prime Minister, Mr. Lee Kuan Yew, on the Occasion of the 9th Anniversary of the Tiong Bahru Community Centre', Ministry of Culture, Singapore, 25 October 1969.

64. William Campbell, 'Designs For Better Living', *The Straits Times*, 9 January 1973, 12.

65. Ibid.

66. 'Pandan Valley Will House 3500'.

67. Ibid.

68. Development Bank Singapore, 'The Condo Project That Almost Didn't Happen', accessed 21 January 2019, https://dbs.com. See also: 'Swimming Pool at Pandan Valley Condominium', *Journal of the Singapore Institute of Architecture*, no. 112 (May/June 1982), 28.

69. Ibid. See also: Annie Chia, 'DBS Land Sues Pandan Valley Owners' Council', *Singapore Monitor*, 12 May 1985, 11.

70. 'Pandan Valley Tightens Security', *The Straits Times,* 28 December 1982, 10.

71. Ibid.

72. Campbell, 'Designs For Better Living', *The Straits Times.*

73. 'The "Invisible" Repairmen at Pearlbank', *The Straits Times*, 12 September 1978, 7.

74. Tan, 'High Cost of Maintenance'. See also: 'Land Titles (Strata) Act', *Singapore Statutes Online*, 31 July 2009, https://sso.agc.gov.sg.

75. 'Report on Condominiums', 4.

76. In Singapore, the en-bloc sale of a high-rise housing development, for instance, is one where 'all the units in [the] strata-titled development are sold to a developer', who will then redevelop the land singularly or with adjoining parcels, with the 'proceeds […] divided amongst all the unit owners'. 'Collective Sale. Land Titles (Strata) Act', Ministry of National Development Strata Titles Board, 16 April 2018, https://stratatb.gov.sg. Also see Pei Ting Wong, 'En-bloc Sales "Fracture" Communities', *Today Online*, 10 February 2018, https://todayonline.com.

77. While all HDB flats are capped at 99 years, the privatised high-rise housing developments may range from tenures of 99 to 999 years, to freehold. The Pearlbank has an 'expiry' of 99-years, while the Pandan Valley is actually a freehold property; yet the later development is not immune from en-bloc for a variety of reasons including the ageing estate and the latent opportunities of building larger and taller. In turn, residents of old private housing developments usually want to sell off the property sooner, before prices plummet as buildings reach the end of land-leases. See: Rachel Phua, 'Pearl Bank Apartment Makes 4th Attempt at En-bloc Sale', *Channel News Asia*, 8 July 2017, www.channelnewsasia.com.

78. Interview with Ed Poole, in Wong She-Reen, 'Cultured Pearl', *Singapore Architect*, No. 250, (2008): 50.

79. Ibid.

80. Janice Tai, 'Pearlbank May Not Be Spared the Wrecking Ball', *The Straits Times*, 18 February 2018, https://straitstimes.com.

81. Ibid.

82. Phua, 'Pearl Bank Apartment Makes 4th Attempt'.

83. Wong, 'En-bloc Sales "Fracture" Communities'.

84. Ibid.

Biography

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Vienna's Resistance to the Neoliberal Turn: Social Policy through Residential Architecture from 1970 to the Present

Florian Urban

The Resilient Welfare State

Vienna's residential architecture is unusual. In the late twentieth century, when most of Europe experienced a 'neoliberal turn' and municipal and national governments handed over the responsibility for housing to the private sector, the City of Vienna chose a different path. Rather than dismantling the welfare state, it increased interventionism to the extent that in the early twenty-first century the housing market was more tightly regulated than in the 1970s. The basic parameters of this approach were maintained. To date, the City of Vienna owns over a quarter of the city's housing stock, and the vast majority of construction is carried out with different forms of state subsidy. This situation is not only beneficial for the Viennese, who tend to enjoy high-quality housing at an affordable price. It also created a unique built environment in which architectural design was used to promote social policy.

In this article I will argue that the resistance against neoliberal housing policies and the resilience of the welfare state in Vienna was a matter of political choice rather than economic necessity, and favoured by particular socio-cultural and historical conditions.[1] I will also show that as a result of this choice Vienna's residential architecture has effectively contributed to a social agenda, furthered a sustainable lifestyle, and promoted the integration of diverse social groups.

By focusing on recent residential architecture, I will also show that Vienna adopted certain aspects of postmodern, post-Fordist urban policy in a way that made them compatible with welfare state principles. These include spectacular design – such as, for example, the Hundertwasser House – connected with city marketing and image politics, as well as the diversification of architecture designed for particular social groups, such as the Car-Free Model Estate or the Frauen-Werk-Stadt. While in other European cities such diversification aligned with a greater market influence and an increasing polarisation and fragmentation of society, in Vienna they were integrated into the municipality's cohesive and egalitarian goals. [Fig. 1]

In recent years, there has been an increasing pressure on this system of welfare-state housing provision, resulting from rising demand in a growing city as well as from EU regulations against protective local policies. And increasing numbers of people are unable to gain access to those provisions. While there is no denying either these obvious challenges or the necessity for continuous reform and adaptation, I would argue that the benefits of this system have so far outweighed the deficiencies.

Vienna's residential architecture is distinctive because it evolved in a city characterised by both inherent conservativism and continuous innovation. *Wien bleibt Wien* (Vienna remains Vienna), the title of Johann Schrammel's relentlessly popular nineteenth-century tune, is not only programmatic for a tourist industry banking on operas, emperors, and Sacher cakes. It also mirrors the experience of

many Viennese, who cherish their cosy and somewhat stuffy city, relive memories of past glory, and traditionally have a strong attachment to their neighbourhood.[2] And it is exemplified in the astounding political continuity of a city which, with the exception of the Nazi period, has been ruled by the same Social Democratic Party since 1919, and whose previous mayor, Michael Häupl, had been one of the longest-serving democratic leaders in Europe when in 2018, after twenty-six years in office, he was relieved by his fellow social democrat Michael Ludwig.[3]

And yet Vienna is also, and always has been, a dynamic and innovative metropolis. This is reflected in a vibrant architectural culture connected with the big names of the late twentieth century such as Hans Hollein, Friedrich Kurrent, Viktor Hufnagl, Harry Glück, and Wolf Prix, as well as with up-and-coming offices such as Delugan Meissl, BKK, Einszueins and Querkraft.

Vienna's residential architecture has been subject to intense research. Recently, Liane Lefaivre's excellent book stands out for providing a concise and yet comprehensive history of Vienna's architecture since the 1900s.[4] Other publications on recent residential architecture contain portions on Vienna.[5] There are also several books sponsored by the Vienna municipality, which despite a certain bias are based on sound research.[6] Many publications, particularly those by Vienna-based scholars, are designed for a local audience and only to a small extent show the bigger picture.[7]

Modernist Continuities

Vienna's promotion of social policy through architecture is not an innovation of the late twentieth century but has a long history. The most significant predecessor was the 'Red Vienna' housing programme of the interwar years, which was initiated by the Social Democratic city council. Today

these buildings are almost universally acknowledged for their efficiency in mitigating the housing shortage as well as for their high-quality design.[8] This assessment, which has not always been so unambiguous, has certainly been influential for the acceptance of similar approaches. Schemes such as the Karl-Marx-Hof (1930, Karl Ehn) or the George-Washington-Hof (1927, Karl Krist/Robert Oerley) still attract flocks of architecture students today. In a way, the momentum was never lost, as throughout the twentieth century the City of Vienna sponsored internationally renowned architecture and at the same time, defying the image of self-centredness, occasionally also allowed outsiders to design innovative buildings. In the late twentieth century, these included Jean Nouvel, Herzog and De Meuron, Hillmer and Sattler, Rob Krier, and Timo Penttilä. Most of these projects derived from competitions (co)-financed by the municipality.

Vienna's innovative conservativism with regard to architectural policy was also facilitated by the structure of the urban fabric. The destructions of the Second World War were limited and did not inspire radically modernist replanning. Some inner-city motorways and large-scale demolitions similar to those that ravaged many European metropolises during the 1960s and 1970s were also planned in Vienna, but they were never implemented. Rather, the promoters of a conservative modernisation took a lead, and they maintained the primacy of the historic centre and filled the gap sites left by wartime destruction with modernist perimeter block buildings of similar dimensions. Vienna's medieval inner city and the surrounding nineteenth-century districts are therefore visually intact. The *Zinshäuser* (tenements) of the late 1800s with their four storeys, courtyards, and lushly ornamented stucco façades are now carefully preserved. They are still ubiquitous: close to a third of the population live in buildings that are more than a hundred years old, which is one of the highest rates in any large European
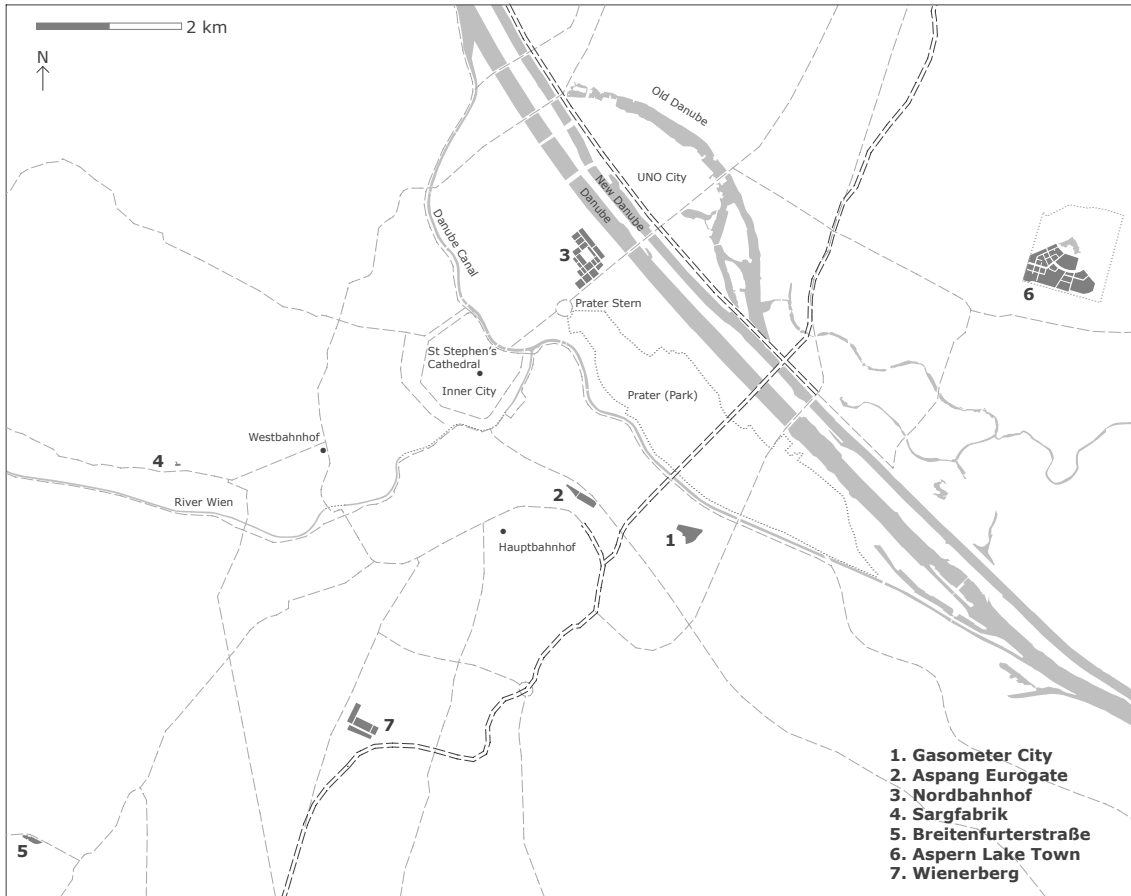
Fig 1: Select recent housing developments in Vienna. Plan: author.

city.[9] Accordingly, recent design has respected the historical plan. The frequency of dense medium-rise architecture in the central districts is thus to a large extent a result of the historic block structure, which was only broken up in exceptional cases.

The architectural continuity was matched by an unusual combination of demographic decline and economic stability. Unlike most metropolitan regions worldwide, where the population exploded in the second half of the twentieth century, Vienna reached its all-time high of 2.2 million inhabitants around 1914, after which it continued to shrink. Only in the late 1980s, at a size of 1.4 million, did the city slowly start growing again.[10] Neither did Vienna experience an economic downturn in the 1970s.[11] Given a diversified economy with little reliance on heavy industry, the economic crisis after the Oil Shock was comparatively moderate and was only noticed much later, that is, in the 1980s. It was soon mitigated by the new economic opportunities after the fall of the Iron Curtain. In this context Vienna, which is situated only about sixty kilometres from the Hungarian, Czech, and Slovak borders, was able to reactivate its long-standing connections with East Central Europe and the Balkans.[12]

In the early twenty-first century Vienna, after almost eighty years of decline, experienced a period of economic growth and increasing immigration. The city grew at a pace unmatched in any other Central or Western European metropolis. At the same time the composition of its inhabitants became increasingly international: in 2014 one out of three Viennese was born abroad.[13]

The strong continuities notwithstanding Vienna is anything but an open-air museum. New architecture can be found almost anywhere. Contrary to what one might expect in a historically conscious city this architecture is largely modernist. This might be related to the fact that Vienna has no shortage of real historic buildings and therefore little need to copy them. It also might be an outcome of the long-standing acceptance of nineteenth-century architecture which, unlike in many other European cities, was never subject to collective devaluation, and which therefore did not need to be powerfully rediscovered.[14] And it also might result from the strong tradition of Red Vienna modernism, discussed below. In any case, it reflects the city's dynamism.

Modern architecture not only remained influential as a model for design but also as a social project connected to state-led redistribution, social welfare, and the promotion of acceptable living conditions for all. In the 1980s and 90s, when Britain, the US and many other countries embraced neoliberal politics and engaged in the large-scale privatisation of housing, the level of state intervention in Austria was growing. This period of 'Austro-Keynesianism' was heralded by the government of Social Democratic chancellor Bruno Kreisky (in office from 1970 to 1983), who was nick-named the *Sonnenkanzler* (sun chancellor) for his unshakeable position at the centre of a flourishing economy.[15] At a time when Margaret Thatcher broke the power of the trade unions and Ronald Reagan cut back on social services the Austrian welfare state grew stronger than ever before.

Two factors are likely to have been influential in Vienna's unusual political development. One is the above-mentioned stability of the local economy and the time lag, which meant that the Oil Shock and the decline of heavy industry that hit other European metropolises at the time was not felt until much later, when it was soon mitigated by the economic upsurge resulting from the lifting of the Iron Curtain.[16] In the Vienna of the 1970s unemployment was low, and given the demographic decline the housing market was relaxed.[17] The second factor, which should not be underestimated, was the political commitment.

Fig 2: Hundertwasser House (1983–85, Friedensreich Hundertwasser, Josef Krawina, Peter Pelikan). Photo: ThomasLedl/Wikimedia Commons.

The Social Democratic city council was eager to invest abundant public funds in improved standards of dwelling, and the conviction that tax revenues should be used for the improvement of housing was widely shared.

Such 'modernist' political programmes were easy to promote, since, in contrast to other cities, Vienna's modernist architecture tended to be modest, of high quality, and above all well maintained. There were no crumbling 'sink estates', as Vienna's few tower block developments were comparatively small and showed few signs of ghettoisation.

At the same time the original promises of the welfare state housing programmes were fulfilled. The housing situation had improved significantly since the Second World War, and modernisation was still continuing. In 1971 only 19 percent of Vienna's households had central heating and 40 percent had no bathroom.[18] Against this background the Social Democrats' commitment to subsidised housing and modernisation was widely supported.

Subsidised housing in a neoliberal era
The *Gemeindewohnung* (council flat) built and owned by the *Gemeinde Wien* (Municipality of Vienna) has been the most influential planning tool in Vienna's housing policy since the interwar period. Its significance has barely waned during the minor restructuring of the subsidy system at the turn of the twenty-first century. Vienna's council flats could not be further removed from the associations that council housing, public housing, or social housing carry in other countries. There is no social stigma attached to municipally owned flats. They tend to be well managed, many are located in desirable neighbourhoods, and many feature innovative design.

The scope of this article does not allow for a comprehensive overview of the complex access regulations to social housing in Vienna, which depend, among others, on income and family status. But broadly speaking, they were originally designed for the working classes (not necessarily the poorest strata among them) and modified over time to include large portions of the middle classes as well. As a result, Vienna's municipal flats are not necessarily the dwellings of the poor. As alluded to earlier, in the early twenty-first century there were approximately 220,000 council flats, housing about half a million Viennese, that is, over a quarter of the population.[19] Most importantly in the context of this article, the history of housing architecture in Vienna at the time of the neoliberal turn elsewhere is thus to a large extent a history of the municipally built, owned, and managed *Gemeindewohnungen*.

Apart from the *Gemeindewohnungen* there are several other forms of subsidised housing.[20] There are *gemeinnützige Bauvereinigungen* (non-profit housing associations, often partially owned by the municipality), there are *Baugruppen* (building groups – in Austria a form of subsidised cooperative housing), and there are private developers profiting from *Wohnbauförderung* (housing subsidies) and in return committing to the conditions set by the municipality, including rent caps and minimum standards. In fact, only a minority of Vienna's housing is built without subsidies[21] – in 2010, the share was less than 20 percent.[22]

This system is built on tenant protection and a generally shared conviction that state authorities have the right to legislate the housing market, regulate tenancy, and cap rent levels. It is to a large extent based on the fact that the vast majority of Viennese, including a considerable share of the middle classes, are renters and not owners. In 2013, the number stood at 78 percent.[23] In London, for example, the share is less than 50 percent.[24] Against this background no Austrian politician would feel the need to request, along the lines of British Prime Minister Theresa May's condescending remark, that 'renters must be treated like human beings'.[25]

The most significant constraint on the free market was placed in 1984: private developers were banned from buying land. Instead, all land used for subsidised housing development (that is, almost all multi-family housing) was bought by a municipal agency and passed on to developers.[26] Dietmar Steiner, the founding director of Vienna's Centre for Architecture, called this measure 'a form of enlightened Stalinism' unique in the Western world.[27] To an even greater extent than before housing became a municipal enterprise, and has largely remained so to date. While in 2004 the City of Vienna discontinued the direct commissioning of housing in favour of subsidising and tightly regulating private developers such as the company Wiener Wohnen, this apparent end of the *Gemeindewohnung* did not end the regime of state-financed housing. Compared to other countries, Austria still invests a large share of its tax yield in housing.[28] And Wiener Wohnen, although working on market principles, is also tightly regulated and thus very different from a profit-oriented housing company in Britain or the US. Even the *Gemeindewohnung* programme has been resumed. In 2017 mayor Michael Häupl declared that 'we stand internationally for social housing', and the City of Vienna started building the first 120 flats on Fontanastraße as part of a plan to complete four thousand council flats in the whole city by 2020.[29]

Vienna made only small concessions to the neoliberal spirit of competition. There was no sale of municipal housing, but rather an increasingly cautious use of economic resources along the lines of a 'social investment welfare state'. In 1995, a small competitive element was introduced. This was the so-called *Bauträgerwettbewerbe* (developers' competitions), masterminded by the Councillor for Housing and Urban Regeneration and future Austrian chancellor Werner Faymann.[30] Now developers had to collaborate with architects and submit 'package proposals' as entries to public competitions. This led, to a certain extent, to a greater variety of design. It did not, however, lead to developers cutting cost at the expense of future inhabitants as one might have expected. The municipality continued to set the guidelines and tightly monitored the quality of execution and future rent levels. Non-compliant developers could be forced to repay subsidies. From the perspective of the developers the competitions were still advantageous, as they put private developers in a position similar to that of non-profit housing associations, where previously they had been at a disadvantage.[31]

Showcase council housing: the Hundertwasser House

Among the policies of the neoliberal era that Vienna has at least partially adopted was place marketing through architecture – a conscious break with the modernist goal of similar living conditions for all. But even here, social policy goals for the entire city predominated, as the signature buildings were an integrative part of welfare state housing provision, designed to celebrate the achievements of this system, and aimed at inspiring the bulk of non-signature architecture.

About a decade before the term 'Bilbao Effect' entered the architectural discourse, the City of Vienna commissioned a very peculiar example of signature architecture: the Hundertwasser House (1983–85, Friedensreich Hundertwasser, Josef Krawina, Peter Pelikan). [Fig. 2] Like Frank Gehry's Guggenheim Museum in Bilbao, the Hundertwasser House soon appeared on postcards, t-shirts, and shopping bags, and became a symbol for Vienna's cultural dynamism. Unlike the Guggenheim it did not celebrate the post-industrial leisure society, but rather the achievements of the welfare state.

The Hundertwasser House was the showpiece of the state-subsidised housing programme. It was a social housing scheme, inspired by the pressing ecological concerns at the time, and held the promise of a new and better society. With its turrets,

oriels, multi-coloured tiles and irregular windows it looks like a child's drawing of a dream house and at the same time points to a friendly vision of sustainable urban life.

This building was the work of a world-famous artist. The painter Friedensreich Hundertwasser (1928–2000) made his name in the 1950s with colourful, decorative paintings (from which straight lines are banned) that communicate an ecological vision imbued with childish optimism and a strictly anti-authoritarian attitude. In his 1958 'Mould Manifesto against Rationalism in Architecture' he indicted tower blocks and repetitive slabs as inhumane and worthy of rotting away. His catchphrases such as 'The straight line is godless and immoral'[32] evocatively rebuffed Le Corbusier's equally catchy 'Man walks in a straight line because he has a goal and know where he is going'.[33] They thus went down well with a generation disappointed with Corbusian modernism.

Hundertwasser's bright colours and curved forms combined a yellow-submarine aesthetic with inspirations from Gustav Klimt and Otto Wagner. He was thus, in a very Viennese way, at the same time conservative and progressive. He touted an ecological revolution and the obsolescence of existing cities while also harking back to an early twentieth century Jugendstil with a bucolic inflection. As a cantankerous eccentric, he was able to embody both the image of the visionary rebel artist and that of the well-rooted, dyed-in-the-wool Viennese. In the early 1970s he appeared on national television, promoting his visions for a 'humanist architecture' to millions of Austrians, and showing undulating multi-coloured houses surrounded by greenery and grazing farm animals. His ecological, anti-authoritarian ideas struck a chord with the generation of 1968 student protesters. At the same time his love for gold ornamentation and rural idylls made him equally acceptable to nostalgic traditionalists.

The Hundertwasser House was constructed in the Landstraße district, a densely built-up neighbourhood in the city centre, where it both complements and contrasts with the surrounding late-nineteenth-century tenements.[34] The building consists of two rounded volumes on a roughly rectangular plan. Right angles are avoided wherever possible. The multi-coloured façade features irregular windows, protruding ornaments, and turrets. There are three communal and sixteen private roof terraces, some of them situated behind an inclined parapet wall. There is greenery on balconies and roofs, which over the years have almost overgrown the building. In addition to fifty-two flats the building includes a children's playroom, a party or meeting room, a winter garden, a doctor's office and a restaurant. There is also a subterranean car park. Most of the building is carried out in brick and reflects Hundertwasser's love for traditional materials. Only the ceilings and other load-bearing portions were executed in reinforced concrete.

The goal of administering social policy through architecture was part and parcel of the project. Contemporary observers praised the city council's goal of reinvesting surplus wealth not only in increased square meterage and modern amenities, as was customary in the 1960s, but also in aesthetic harmony and organic design.[35] Designed to increase the quality of life, the municipality agreed to 'green materials', customised doors and windows, and costly ornamentation. For example, the half-round balconies were adorned with undulating hand-wrought iron banisters.

Despite its alignment with some of the battle cries of the 1968-generation, the Hundertwasser House resulted from an initiative not by rebellious students but rather by the older generation of the Viennese establishment. The first impulse came from chancellor Bruno Kreisky, who recommended Hundertwasser to mayor Leopold Gratz (in office from 1973 to 1984).[36] Both the mayor and

Fig 3

Fig 4

Fig 3: Karl-Waldbrunner-Hof (1981–84, Erwin Fleckseder, Sepp Frank, Peter Lindner and Heinz Neumann) on Lechnerstraße 2–4. Photo: author.

Fig 4: Roman-Felleis-Hof (1927–28, Johann Rothmüller) on Hagenmüllerstraße 32. Photo: author.

the painter were in their fifties at the time; Kreisky was approaching seventy. They were united in the conviction that, as Kreisky put it, Hundertwasser's ideas 'represent the romantic longing of the population'. The city council was in favour – the decision was supported by three councillors: housing councillor Johann Hatzl, planning councillor Rudolf Wurzer, and culture councillor Helmut Zilk, later Gratz's successor as mayor of Vienna.[37] As for the general population, widespread approval took slightly longer. Throughout the 1980s a somewhat benevolent battle between supporters and opponents of Hundertwasser's design dominated the local press.[38]

In addition to being an emblem of Vienna's council housing programme, the building soon became a tourist magnet at a time when weekend trips to cities became popular, and it added to the appeal of the Austrian capital as a tourist destination. An exhibition catalogue from 1991 spoke of a 'colourful media spectacle, which offers fun and variety to every tourist to Vienna'.[39] The building's showcase status became particularly apparent when, somewhat painfully for the municipality, Hundertwasser fell out with his collaborator, the architect Josef Krawina. With the building still under construction, they became embroiled in a legal battle over the intellectual ownership of the design, dragging on for years. In 2010 the court finally ruled that Krawina had to be acknowledged, along with Hundertwasser, as the author.[40] Hundertwasser, a painter who lacked architectural training, depended on professional advice. Eventually he collaborated with the architect Peter Pelikan to finish his design.

The building's unique style and its subsequent popularity led to many follow-up commissions for Hundertwasser. Until his death, he designed more than thirty buildings, mostly in Austria and Germany, including Hundertwasser Houses in Plochingen and Wittenberg and the garbage incineration plant in Vienna-Spittelau. The style also influenced a few other dream castle-style council houses in Vienna, most importantly those co-designed by Hundertwasser's collaborator Peter Pelikan: the house on Wallgasse 13 (1986–88, Peter Pelikan) and the Arik Brauer House on Gumpendorfer Straße 134 (1993–96, designed by Peter Pelikan and the painter Arik Brauer).

The lushly ornamented Hundertwasser House might appear unusual against the unpretentious modernism of most other city-sponsored residential buildings at the time. At the same time, it exemplifies the City of Vienna's typical approach. Architecture was employed to promote a vision for the future, change social behaviour for the better, and increase standards of living beyond the confines of the self-contained flat. Tax revenue was reinvested in both physical and social improvement, and the city council used emblematic buildings to tout the merits of its policy; the Hundertwasser House was a particularly successful example.

Red Vienna revival

Vienna's more mundane council residences built since the 1980s were visually connected to the city's social project at a different level. Their design language often bore references to the architecture of Red Vienna whose value was by now more or less universally acknowledged.[41] Consciously or unconsciously, the city council promoted this revival, possibly because an inventive modernism was widely appreciated by the population, and possibly to recapture the success of interwar housing, corresponding with the council's social goals. After all, the housing programme of the 1920s was credited to the Social Democratic Party, which still dominated the city council sixty years later. Concomitantly, along with the critique of functionalist planning, the typologies of the early twentieth century were vindicated. This included the small mixed-use courtyards of the Austro-Hungarian era, and even more significantly, the larger courtyards of the First Republic prominently built in the Red Vienna programme.[42]

The most important formal references were geometrical elements, jagged protruding forms, and horizontal partitions in the windows. The Karl-Waldbrunner-Hof (1981–84, Erwin Fleckseder, Sepp Frank, Peter Lindner and Heinz Neumann) on Lechnerstraße 2–4 is a good example. [Fig. 3] It was built on a disused dairy and occupied the inner portion of a block with two exits towards the street. Hence the traditional courtyard typology was an obvious design choice. The large portion towards Lechnerstraße was designed by Peter Lindner and boasts a triangular gable with angular bay windows. A possible model was the Hanusch-Hof (1923–25, Robert Oerley) on Ludwig-Koeßler-Platz 2–4, almost opposite the building, a classical Red Vienna example, or the Roman-Felleis-Hof (1927–28, Johann Rothmüller) on Hagenmüllerstraße 32 close by. [Fig. 4]

Similar design principles can be found in the scheme of Adolf-Scharner-Hof (1993–94, Erich Amon) on Goldeggasse 28. [Fig. 5] The six-storey building has a jagged protruding roof. The façade is divided into three volumes and resembles models from the 1920s, as do the horizontal grooves on the ground floor. These and many other buildings at the time exemplify the increasing popularity of Red-Vienna references, which paralleled the continuity of state intervention and strong regulation of the housing market.

Diversification and group-specific architecture
Another element of neoliberal housing policy was adopted by the municipal authorities, and again in a way that made it compatible with welfare state goals: the diversification of the housing market. No longer was the aim only to provide equal housing standards for everyone, but now, in addition, to cater to different needs. Architecture was to provide an environment that favours the integration and empowerment of particular groups such as women, young people, the elderly, or immigrants. The projects nonetheless were part of the municipally

led housing provision for the whole of society. The new buildings were also integrated into the overarching goal of promoting social policy through housing, which remained as significant at the turn of the twenty-first century as it had been in the mid-twentieth century.

A few projects are particularly noteworthy in this context. The Margarete-Schütte-Lihotzky-Hof (1993–97, Liselotte Peretti, Gisela Podreka, Elsa Prochazka, Franziska Ullmann), also known as Frauen-Werk-Stadt (women's work city, and a play on *werkstatt*, workshop), was built on Donaufelder Straße 97 and Carminweg 6 in Floridsdorf on the Danube's left bank, the site of many recent housing developments. [Fig. 6] The scheme was supported by the City of Vienna's Women's Office. It was named for Margarete Schütte-Lihotzky (1897–2000), the first practicing female architect in Austria and designer of the famous Frankfurt Kitchen, the prototype of the modern built-in kitchen. In her spirit the project was to reflect a women-centred approach, reflected not only in the the all-female team of architects. The development was designed with working mothers as projected inhabitants.[43]

From the outside, the design is rather unspectacular. The dense medium-rise ensemble comprises over 350 flats in several buildings assembled on an irregularly shaped block around a courtyard. The southern portion towards the main street, Donaufelderstraße, designed by Franziska Ullmann, consists of five-storey buildings with unadorned modernist façades. Their middle part is structured by alternating rows of windows and loggia balconies of different sizes, while the corner portions are painted bright red.

The inner portion of the block is more noteworthy. It is connected to the architects' goal to foster community life, seen as especially important for working mothers. The development includes a kindergarten accessed from the courtyard, a

doctor's office, and several common spaces such as a laundry room and a 'multi-purpose room' for meetings and celebrations. The courtyard, entered from Donaufelderstraße, is publicly accessible and forms a sequence of flowing spaces that are fitted out with greenery and two playgrounds. The buildings on the right side of the courtyard, designed by Lieselotte Peretti, feature a modernist design with classical harmonies. Those on the left, designed by Elsa Prochazka, have four storeys and feature a high modernist vocabulary with white façades.

The goal of gender equality is hard to detect for the uninformed visitor. It is also probably not central to the scheme's mode of operation. After all, in Vienna and elsewhere male and female lifestyles are far more similar than during Schütte-Lihotzky's youth. Hence the innovative aspects of the Margarete-Schütte-Lihotzky-Hof are somewhat directed at both sexes, and the ensemble houses both male and female residents.

One goal is to facilitate other modes of living than the nuclear family with a single breadwinner, reflected in the transition between private flats and semi-public courtyard spaces, and particularly in the common spaces and amenities that aim to support community life. Another aim is to design for different user groups, evident in the four flats for wheelchair users and six flats for the elderly, as well as flats for both families and single residents. And there is the goal of sustainability: a concern with the conservation of resources is apparent in the use of energy efficient construction materials, the provision of storage facilities for bicycles, and the dense and community-orientated design aiming at low levels of (car) traffic.

Among Vienna's many housing ensembles that follow similar approaches the Autofreie Mustersiedlung (car-free housing project, 1996–99, Cornelia Schindler and Rudolf Szedenik for Domizil and Gewog) is particularly interesting. [Fig. 7]

The project is located on Nordmanngasse 25–27 approximately two hundred metres southwest of the Margarete-Schütte-Lihotzky-Hof. Like the latter, the development does not stand out for its exterior design. It consists of three five-storey buildings with a total of 244 flats. The buildings are assembled around two approximately square partially open courtyards.[44] The courtyards are publicly accessible and connect Donaufelder Straße with its parallel street, Nordmanngasse. The buildings are carried out in a modest modernist style with white concrete walls, flat roofs, and rows of similar transomless windows interrupted by bright red balconies. Only the courtyard plan, the density, the comparatively small size, and the lush landscaping are concessions to post-functionalist late-twentieth-century planning.

The unusual aspect is the programme. As the name suggests, the Autofreie Mustersiedlung was built as a pilot project to decrease car traffic in the city. It goes back to a 1992 initiative by the Green Party and councillor Christoph Chorherr. The project was explicitly exempted from the requirement to build at least one parking spot for every new-built flat, a regulation that from the 1990s onwards was reinforced less and less. Tenants for the estate were asked to sign a voluntary commitment to renounce car ownership. At the same time the funds saved on car parks were invested in community facilities, offered to the tenants free of charge: a children's room, a meeting room for grown-ups, a party room, a 'youth room' with a roof terrace, a laundry room, and of course the large subterranean bicycle storage spaces. The ensemble also included facilities available to all tenants for a small fee: a sauna with fitness room and a workshop.

Like the Margarete-Schütte-Lihotzky-Hof, the Autofreie Mustersiedlung uses green technology, and some of the technological solutions were particularly sophisticated. These include a 'sewage warm-water pump' in which sewage is used to gain

Fig 5

Fig 6

Fig :. Adolf-Scharner-Hof (1993–94, Erich Amon) on Goldeggasse 28. Photo: author.

Fig 6: Margarete-Schütte-Lihotzky-Hof (1993–97, Liselotte Peretti, Gisela Podreka, Elsa Prochazka, Franziska Ullmann), also known as Frauen-Werk-Stadt, courtyard view. Photo: author.

heat and then, after bacterial cleaning, for toilet flushing. There are also solar panels on the roofs. Some flats have private vegetable gardens, and the communal greenery is looked after by resident volunteers.[45]

What sounds like an idea too good to be true seems to stand the test of reality. Not only the press greeted the Autofreie Mustersiedlung with great enthusiasm.[46] The residents also seem to be content, as is evident from an independent evaluation commissioned by the municipality and published in 2008.[47] The basic principle, the renunciation of car ownership, is respected by most residents, despite the fact that it could not be legally enforced or even monitored. Residents also declare that they strongly identify with the scheme. Of course, widespread acceptance of the scheme partly results from positive selection, since the project attracted like-minded ecologically conscious people with similar political views. Particularly interesting in this context are the answers of potential tenants who initially expressed an interest in the project but later declined to apply. Asked about their reasons, 47 percent declared that they did not want to live in the (comparatively remote) Floridsdorf district, and 28 percent stated that, upon reflection, they would not like to renounce car ownership.[48]

Nonetheless, the goals of creating a mixed community and keeping families in the city were to a large extent fulfilled. Over 30 percent of residents are households with children. While the middle classes dominate they are not exclusive: 47 percent of adult residents have a university degree, but 16 percent are skilled workers and 5 percent unskilled workers. Ecologically conscious behaviour is widespread. Most residents commute to work by bicycle, and many also use the car-sharing agency that was established especially for this scheme. The shared facilities are well used, and vandalism ranges below average. A strong sense of community is also evidenced by the fact that about 60 percent of the inhabitants regularly volunteer in community activities, and 90 percent point out that there is 'a positive community atmosphere'. Overall resident satisfaction with their scheme is high – on a scale from 1 (very good) to 6 (unsatisfactory) the average stood at 2.1 (good).[49]

The architecture of the leisure society: Bike and Swim

The social-policy approach inherent in the Margarete Schütte-Lihotzky-Hof and the Autofreie Mustersiedlung was widely followed in other housing projects, although not always in such a consistent way. A good example is the Nordbahnhof area (master plan 1992 by Boris Podrecca and Heinz Tesar, buildings 1992–2015 by various architects), a seventy-hectare site north of the Old Town. [Fig. 8] After decades of neglect, the former freight train station was redeveloped into a post-industrial estate designed to strengthen the inner city as a place of residence, similar to urban renewal projects all over Europe at the time.

The post-functionalist planning principles also reflect the spirit of the time. Dense, medium-rise residences, often built on the block perimeter, employ a modern rather than neo-historical idiom. The open courtyards are publicly accessible, and the area is, to an extent, designed for mixed use, with offices, shops, cafés and restaurants in addition to the residences, as well as schools and kindergartens. The comparatively dense medium-rise buildings and the legible street grid give the area a feel similar to Vienna's nineteenth-century neighbourhoods; at the same time the open courtyards and the abundant greenery are reminiscent of modernist estates.

The different competitions through which the architects were selected specified communal facilities aiming at a sustainable lifestyle. The Bike City building (2006–08, Claudia König/Werner Larch) on

Fig 7: Autofreie Mustersiedlung (1996–99, Cornelia Schindler and Rudolf Szedenik). Photo: author.

Vorgartenstraße 130–32 serves as an example. The modernist façade with an elevated volume reaching from the first to the sixth storey and the regular horizontal windows look rather unspectacular, but the same cannot be said about the interior. The flats are mostly maisonettes with one corridor every three storeys (like in Le Corbusier's Unité d'habitation). The designers significantly reduced the number of underground car parks – only fifty-six are available for ninety-nine flats, as opposed to at least one per flat in normal developments – and invested the savings in meeting rooms, and in thirty-three bicycle racks on each floor, as well as large lifts allowing for bicycle transport.[50]

A similar focus on cycling and exercise is apparent in the design of Bike and Swim (2012, Günter Lautner and Nicolaj Kiritsis). [Fig. 9] The U-shaped building was erected along Vorgartenstraße, Hausteinstraße and Engerthstraße, featuring alternating protruding and inset balconies on all floors. Those on the first floor are protected by shell-shaped wind shades. Window frames are a conspicuous orange. The building is entered through bridges across a sunken garden. Bike and Swim also significantly reduced the number of car parks – only 104 are available for 231 units, compared to 515 bike spaces. The communal spaces are luxurious: there is a spa area on the top floor equipped with a sauna, gym, sun deck and swimming pool on the roof, with spectacular views. The project, which in any other city would be an upmarket development, has surprisingly low rents: 6.83 euros per square meter, that is, approximately 550 euros for an eighty-square-metre two-bedroom flat (2012 numbers).[51] The positive reviews in the press suggest that the buildings are highly valued.[52]

An unusual new town: Aspern Lake Town
The modernist approach to housing – in the sense of state-led, redistribution-orientated, and supportive of social policy – was also applied to other construction projects that otherwise reflected the goals and challenges of the postmodern era. An example is Seestadt Aspern (Aspern Lake Town, begun in 2005, with the first portion opened in 2014, master plan by Johannes Tovatt, buildings by various architects), Vienna's largest construction project of the early twenty-first century. On the one hand it is a new town in the modernist vein, erected around an artificial lake like Brasilia or Canberra, planned by the local authority to provide homes for twenty thousand and workspaces for six thousand people, and based on comprehensive planning and state intervention.[53] On the other hand it is a post-industrial development on a former airfield, situated on the periphery but clearly a part of the Vienna municipality, and designed according to the principles of traditional urbanism.[54]

Aspern Lake Town features a traditional block scheme on both sides of a ring road called Sonnenallee. The street plan is hierarchical; from the ring road, the main boulevard, smaller radial streets lead to the lake at the centre and the *Seepark* (lake park) at its side.[55] The buildings are medium-rise structures rarely higher than eight storeys. The many architectural competitions used to recruit architects had the aim of quality design and at the same time of an architectural variation within the traditional urban scheme. The town is designed for mixed use: there are social tenants, unsubsidised tenants, cooperatives and owner-occupiers. Functions are mixed, with residences alongside shops and offices, as well as designated industrial areas.

Aspern embodies the goals of sustainability, bicycle use and community building inherent in the previously mentioned examples. The development also includes buildings designed for particular groups, for instance the B.R.O.T. building (2013–15, Franz Kuzmich) on Hannah-Arendt-Platz 9 derived from an interreligious *Baugruppe* (construction

Fig 8

Fig 9

Fig 10

Fig 8: Looking southeast on Vorgartenstraße, Nordbahnhof area. Left: Bike and Swim (with plastic-shaded balconies on the first floor, 2012, Günter Lautner and Nicolaj Kirisits). Right: Wohnen am Park (with protruding volumes, 2003–09, Anna Popelka and Georg Poduschka), and in the distance Bike City (behind the cross-shaped element, 2006–08, Claudia König and Werner Larch). Photo: author.

Fig 9: Bike and Swim (2012, Günter Lautner and Nicolaj Kirisits) on Vorgartenstraße, Nordbahnhof area. Photo: author.

Fig 10: B.R.O.T. building (2013–15, Franz Kuzmich), Aspern Lake Town. Photo: author.

group) committed to spiritual values. [Fig. 10] These explicitly extend beyond Christianity, although name and symbolism of the building are taken from Christian faith: *Brot* (bread) alludes to the Eucharist and the acronym stands for 'beten, reden, offensein, teilen' (pray, talk, be open, share). The group operates two other buildings in Vienna. This one has forty-one units and extensive common spaces (over 40 percent of the total space). It is a six-storey building with stepped terraces and balconies on all sides.

Other buildings were commissioned by *Baugruppen* without a spiritual background. Austrian construction groups, in contrast for example to such German groups, are usually organised as cooperatives and often organisationally and financially supported by the municipality. Members own shares of the building which they can sell if they wish to move out, but they are unable to speculate on their real estate and profit from a potential value increase of the building. An example is the Seestern building (2014–16, Einszueins) on Gisela-Legath-Gasse 5 next to the B.R.O.T. building, with which it shares some formal properties, and the Jaspern building (2014, Fritz Oettl/pos architekten) on Hannah-Arendt-Platz 10 with its conspicuous, slightly undulating façade. [Fig. 11] Both buildings have community rooms and roof terraces accessible for all residents; the Jaspern building also has an event space for up to sixty people and a basement workshop.

Whether the goals of sustainable lifestyle and community building will be fulfilled in Aspern Lake Town remains to be seen. But already a few years after completion of the first buildings it is clear that Viennese housing policy created an unusual neighbourhood: lively, architecturally innovative, and despite its peripheral situation, reliant upon public transport.

Conclusion

Vienna's residential architecture after the neoliberal turn is largely characterised by the absence of neoliberal policy. To date the powerful Austrian welfare state has not been ideologically questioned. Rather, certain influences of post-Fordist urban policy were taken up and integrated into the system of welfare-state provision, including city marketing through architecture and the diversification of the housing market for particular groups. These adaptations gave rise to a number of innovative projects. Social housing as such, however, has not been undermined or stigmatised. And housing provision did not undergo any radical changes.

Viennese observers might not entirely agree with this assessment and rather point to the recent modifications of the system of housing provision, namely the introduction of some market elements and the municipality's outsourcing of housing construction. They may also mention that under the recent conditions of growth the system is working less than ideally, and a growing number of Viennese residents, particularly newcomers, are left in the cold and have few ways to access the system. And they will possibly point out that there are likely to be significant changes in the near future.

All these points are valid. But, rather than speculating about the future, this article has assessed the recent past of Vienna's unusual system of housing provision. The examples show that, compared to most other countries in Europe, welfare-state provision of housing is still working well, in the sense that it provides attractive housing to a large portion of the population. As elsewhere, an attractive flat is a scarce commodity in Vienna, but the housing shortage is less extreme than in other European metropolises and flats are far more affordable. So why, one could ask, have the Viennese fared better than others? The question is significant because in many respects Vienna is very similar to other West

European metropolises: it is a wealthy city inhabited by an egalitarian middle class, and it is a cultural hub with a vibrant architectural culture.

There is much to suggest that the resilience of the welfare state relied to some extent on Vienna's unusual characteristics, in particular the stable economy combined with a shrinking population, the extraordinary political continuity, and the continuous popularity of architectural modernism with its social underpinnings.

But to a great extent this resilience is also the outcome on conscious decisions rooted in a particular political culture. Vienna was characterised by slow policy change and strong social and political continuities. In the 1950s and 1960s plans for comprehensive restructuring of modernist buildings were developed slowly, and they were implemented in a less extreme way than in other cities; as a result, modern architecture as such was never discredited. Political struggle never led to a disruption of society. And the economic stability hardly tempted politicians to look for neoliberal inspiration. Rather, the Viennese attitude was that as long as certain policies worked, there was no reason to change them. Hence the themes of postmodern urbanism, including signature projects, diversified planning, leisure-oriented programmes and group-specific architectural design were accommodated within the modernist framework of governance characterised by redistribution and a strong state.

Obviously, Vienna's inherent conservativism has significant downsides. The influx of refugees and other immigrants in recent years has led to marked social tensions, and the growth of right-wing populism in the last decades is endangering Vienna's liberal culture and integrative potential. It seems that the uncontested leadership of the Social Democratic Party in the city council may slowly be coming to an end after almost a hundred years.

While these factors are increasingly disruptive to Viennese society they have not yet manifested at the level of architecture and housing provision. Vienna's newest residential buildings are to a large extent well designed, attractive, and affordable. In this respect, Vienna's resistance to market-oriented ideologies and the resilience of the welfare state has proved to be effective in the creation of an attractive city with a high quality of life.

Notes

1. The term neoliberal is used here, rather generally, as shorthand for different urban policy approaches, particularly since the 1980s, that aimed at removing or reducing state responsibility for housing and giving greater power to the market, for example through the cutting of housing subsidies and the privatisation of municipally owned flats. For an analysis of these policies see for example David Harvey, *The Condition of Postmodernity* (Oxford: Blackwell, 1990) or Sarah Glynn, ed., *Where the other half lives: Lower-income Housing in a Neo-liberal World* (London: Pluto Press, 2009). For the theory of welfare state policy see for example Gøsta Esping-Andersen, *Politics Against Markets* (New York: Princeton University Press,1985)

2. Up to the 1970s the average Viennese only changed his or her flat once every thirty years. Manfred Lang, *60 Jahre Wien: 1945–2005* (Vienna: Bohmann, 2005), 211.

3. Gustav Biehl, 'Wien 1945–2005: Eine politische Geschichte' in *Wien, Geschichte einer Stadt: Von 1790 bis zur Gegenwart,* ed. Peter Csendes and Ferdinand Opll, vol. 3 (Vienna: Böhlau, 2006), 599–650

4. Liane Lefaivre, *Rebel Modernists: Viennese Architecture Since Otto Wagner* (London: Lund Humphries, 2017).

5. See, for example, Florian Urban, *The New Tenement: Residences in the Inner City Since 1970* (Abingdon: Routledge, 2018), 159–84.

6. Karl Mang and Felix Czeike, *Kommunaler Wohnbau in Wien* (Vienna: Presse- und Informationsamt der Stadt

Wien, 1978); Magistrat der Stadt Wien, ed., *Wiener Wohnbau: Wirklichkeiten* (Vienna: City of Vienna, 1985); Magistrat der Stadt Wien, ed., *Gemeinde Baut: Wiener Wohnbau 1920–2020* (Vienna: City of Vienna, 2014); Wolfgang Förster, *80 years of Social Housing in Vienna* (Vienna: City of Vienna, Department of Housing Subsidies, c. 2010).

7. Lutz Musner, 'Ist Wien anders? Zur Kulturgeschichte der Stadt nach 1945', in *Wien, Geschichte einer Stadt*, ed. Csendes and Opll, 3: 739–820; Friedrich Achleitner, *Wiener Architektur: Zwischen typologischem Fatalismus und semantischem Schlamassel* (Vienna: Böhlau, 1996); Peter Marchart, *Wohnbau in Wien 1923–1983* (Vienna: Compress, 1984); Erich Bramhas, *Der Wiener Gemeindebau: Vom Karl-Marx-Hof zum Hundertwasserhaus* (Basel: Birkhäuser 1987); Wolfgang Förster and William Menking, eds., *The Vienna model: Housing for the Twenty-First-Century City* (Berlin: Jovis, 2016); Christoph Reinprecht, 'Die Zukunft des Wiener Gemeindebaus und die Transformation des Sozialen', in *living rooms: Politik der Zugehörigkeiten im Wiener Gemeindebau,* ed. Florian Bettel, Julia Permoser, Sieglinde Rosenberger (Vienna: Springer, 2012); Andreas Rumpfhuber, 'Vienna's Housing Apparatus and its Contemporary Challenges: Superblock Turned Überstadt" *Dérive* no. 46 (Jan–Mar 2012): 25–29.

8. Eve Blau, *The Architecture of Red Vienna 1919–34* (Cambridge, MA: MIT Press, 1999); Helmut Weihsmann, *Das Rote Wien* (Vienna: Promedia, 2001 [1985]).

9. In 2013 the percentage of residences (for each household is counted as a residence, regardless whether it is a flat or a house) completed before 1919 was 27.9. Statistik Austria, *Wohnen–Zahlen: Daten und Indikatoren der Wohnstatistik* (Vienna: Statistik Austria, 2014), 19.

10. Statistik Austria, *Statistisches Jahrbuch 2009* (Vienna: Statistik Austria, 2009).

11. Musner, 'Ist Wien anders?', 779.

12. Gerhard Meißl, 'Ökonomie und Urbanität: Zur wirtschafts- und sozialgeschichtlichen Entwicklung Wiens im 20. Jahrhundert und zu Beginn des 21. Jahrhunderts' in *Wien, Geschichte einer Stadt,* ed. Csendes and Opll, 3:724.

13. 33.14 percent according to 2014 census data, Statistik Austria, http://statistik.at.

14. This argument is for example brought forward in Achleitner, *Wiener Architektur*, 175. See also Urban, *The New Tenement*, 162.

15. Musner, 'Ist Wien anders?', 779.

16. Meißl, 'Ökonomie und Urbanität', 724.

17. 'An Arbeit herrscht kein Mangel', *Wien Aktuell* 80 no. 9 (1975), 7–8.

18. Häuser und Wohnungszählung Wien', *Wien Aktuell* 80 no. 11 (1975), XIII.

19. Vienna's official website, accessed July 2012, http://wien.gv.at.

20. A 1980 calculation mentioned 200,000 *Gemeindewohnungen* and 250,000 other flats funded through public subsidies. A.l.f., 'Modern, komfortabel und eschwinglich', *Wien Aktuell* 86 no. 4 (1981), 2–4.

21. The relationship between the different target groups has not always been harmonious. Representatives of the City of Vienna, in one way or another, competed with the also partially city-owned non-profit association Gesiba as well as with private developers, and housing associations associated with the Conservative Party (ÖVP) competed with those connected to the Social Democratic Party (SPÖ). The rivalries so far have not led to a questioning of the system of state-led housing provision as such.

22. Wolfgang Amann, *Gewerbliche Bauträger im geförderten Mietwohnbau in Wien* (Vienna: Wirtschaftskammer Wien, 2006), 8 (study commissioned by the Vienna chamber of commerce.

23. Tenants include cooperative members; 3 percent 'other'. Statistik Austria, *Wohnen–Zahlen*, 23.

24. Greater London Authority, *Housing in London 2018* (London: Greater London Authority, 2018), 17..

25. Theresa May, speech in the British Parliament, quoted in Kate Proctor, 'Theresa May speech on housing: renters must be treated like "human beings"', *The Standard,* 5 March 2018.

26. This was the newly founded *Wiener Bodenbereitstellungs- und Stadterneuerungsfonds* (WBSF, now Wohnfonds Wien).

27. Dietmar Steiner, 'Vorwort' in Winfried Kallinger, *Wiener Baugeschichten 1970–2010* (Vienna: Bucher, 2010), 9.

28. The number of multifamily buildings (i.e. tenements) built with the aid of state subsidies each year has not substantially changed since the early 1990s. In 2010 approximately 60 percent of all newly built dwell-ings (two thirds of them flats) were subsidised. The level of subsidy is thus higher than in almost any other European country. See data from Institut für Immobilien, Bauen und Wohnen, accessed February 2015, http://iibw.at. See also Wolfgang Amann, *Lenkeffekte der Wohnbauförderung* (Vienna: Institut für Immobilien, Bauen und Wohnen, 2010), 3–4.

29. Press release by the City of Vienna, 2017, https://wien.gv.at.

30. As a result of the introduction of free-market competi-tion, construction prices plummeted by 10–15 percent 'overnight'. Kallinger, *Wiener Baugeschichten*, 11.

31. Ibid.

32. Friedensreich Hundertwasser, *Verschimmelungsmanifest gegen den Rationalismus in der Architektur* (Wiesbaden: Gallery Renate Boukes, 1958), no page numbers.

33. Le Corbusier, *The City of To-Morrow and its Planning* (Cambridge, MA, MIT Press, 1971 [1925]), 12.

34. For detailed descriptions see for example Friedensreich Hundertwasser, *Das Haus Hundertwasser* (Vienna: Österreichischer Bundesverlag/Compress Verlag, 1985); Maria Czedik, 'Hundertwasser-Haus', *Der Aufbau* 40 no. 7–8 (1985), 444–47; or City of Vienna/ Wiener Wohnen, Fact Sheet 'Ökohaus', accessed March 2018, https://wienerwohnen.at.

35. Erwin Melchart, 'Die Bio-Burg in der Löwengasse', *Wien Aktuell* 85 no. 11 (1980), 21–23.

36. See letters by Kreisky to Gratz dated 30 November 1970 and Gratz to Hundertwasser dated 15 December 1977, quoted in Hundertwasser, *Das Haus Hundertwasser*, 160–61.

37. Melchart, ' Bio-Burg in der Löwengasse', 21–23.

38. See for example Melchart, ' Bio-Burg in der Löwengasse', 21–23; Hans-Werner Sokop, 'Zum Thema Stadtplanung', *Wien Aktuell* 90 no. 5 (1985), VI; Christian Röttinger, 'Auch eine Revolution der Maurer und Fliesenleger', *Wien Aktuell* 90 no. 5 (1985), VI–VII; Karl-Heinz Krüger, 'Kein Stil – aber es paßt' in *Der Spiegel* 35 (1987, 173; Günther Feuerstein, *Title Transparent* 19 no. 9–10 (1988); Hermann Czech, 'Conversation with Vitus Weh' in *Zur Sache Kunst am Bau*, ed. Markus Wailand and Vitus Weh (Vienna: Triton, 1998), 80.

39. Dietmar Steiner, *Neuer Wiener Wohnbau* (Vienna: Löcker, 1991), 65. Extended version of the catalogue for an exhibition organised by the Austrian Foreign Ministry in 1986.

40. See for example the decision by the Austrian Supreme Court dated 11 March 2010, file reference 4Ob195/09v, Österreichisches *Bundesgesetzblatt*, http://ris.bka.gv.at.

41. Blau, *Architecture of Red Vienna*.

42. Large courtyards were redeemed by the eminent architect Viktor Hufnagl. See Viktor Hufnagl, 'Wohnen in Wiener Höfen' in Magistrat der Stadt Wien, ed., *Wiener Wohnbau Wirklichkeiten* (Vienna: Compress, 1985), 110–13 (exhibition catalogue).

43. Walter Zschokke, 'Über den kleinen Unterschied' *Spectrum,* 8 November 1997, https://nextroom.at. See also City of Vienna/Wiener Wohnen, Fact Sheet on Margarete-Schütte-Lihotzky-Hof, accessed March 2018, https://wienerwohnen.at.

44. Gewog, *Modellprojekt Autofreie Mustersiedlung* (Vienna: Gewog, 2000). Brochure by the housing association, June 2000, http://gewog-wohnen.at. See also the official website, accessed March 2018, https://autofrei.org.

45. Julia Schilly, 'Das Wohnen mit dem Rad neu erfinden' *Der Standard*, 17 January 2011.

46. See for example Schilly, 'Das Wohnen mit dem Rad'; Rosa Winkler-Hermaden, 'Floridsdorf: Ohne Auto im Autofahrer-Bezirk', *Der Standard,* 20 October 2016, https://derstandard.at.

47. Evaluation of the Autofreie Mustersiedlung by the

firm SRZ Stadt- und Regionalforschung Wien under the direction of Peter Moser and Eva Stocker, 2008, http://wohnbauforschung.at.

48. Ibid., 32.

49. Ibid., 33.

50. Christian Kühn, 'Stadt fährt ab', *Die Presse,* 21 March 2009, 13.

51. 'Bike & Swim', press release by the municipally owned city administration company Wien Holding, 21 June 2012, http:/wienholding.at. See also 'Rechnungshof kritisiert Wiener Bauträger Gesiba', *Der Standard,* 24 February 2015.

52. See for example Franziska Zoidl, 'Exklusiv für Bewohner: Schwimmbad am Dach', *Der Standard,* 22 May 2016; Lisa Rieger, 'Immer mehr Dächer sinnvoll genutzt', ORF [Austrian National Radio], 4 June 2016, http://wien.orf.at.

53. Vienna City Council, Department of District Planning and Land Use MA 21B *Aspern Airfield Master Plan– Executive Summary* (Vienna: Vienna City Council, 2008), 19.

54. Ibid., 8–10.

55. Ibid. See also Robert Temel, 'Urbanisierung im Marchfeld', *Der Standard,* 18 August 2007, A8.

Biography

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Visual Essay
The Common Apartment
Golnar Abbasi

In Tehran, housing has been vital in forming a tamed post-1979-revolution nation, and expanding the middle class.[1] The *house* has for a long time been the locus of the Tehrani citizen's socio-political struggles. After the Iran-Iraq war (1980–1988), the Tehrani house gradually came to materialise more complex socio-political issues. It became a space and a structure that, on the one hand, embodied the state's subjugating agenda, the forces of the housing market, and the labour and material market, while on the other hand it exemplified and accommodated the people's desires, their political action, and architectural practitioners' attempts to prove their practices relevant to the market. This visual essay focuses on the form of housing that emerged after the privatisation of the Iranian housing market – starting in 1989, at the end of the Iran-Iraq war – which positioned the middle-class citizen as the main player of housing production, a state of affairs still current. This time period is characterised by the courses of action in housing in response to two forces: the country's post-war conditions, and global neoliberal economies.

The population of Tehran grew by 40 percent from 1976 to 1991, two million people over the course of fifteen years. This population increase was a result of three main factors: a baby boom promoted by the government to stabilise the power of the nation-state, large numbers of war migrants moving from the southern war-torn cities, and the increase of general post-war rural-urban migrations. The policies under-taken in the post-Khomeini period (from 1989 on) to solve the housing challenge were also a response to the global shift to neoliberal economies. The exhaustion of governmental funds (as well as human and natural resources) financing eight years of war, created a major budget deficit. In response to this crisis, the govern-ment of Akbar Hashemi Rafsanjani adopted policies that prioritised economic advancement.[2] He announced a list of twenty-three main challenges in the country, and argued that the way to deal with these diverse issues has to be primarily through economic frameworks.[3] In addition, he started publicly indicating that "making money is a 'good thing' which should be encouraged".[4] Through this list, he prepared the ground for his economically liberal policies, presenting privatisation as the main premise for the new financial plan.[5] This was widely propagandised as 'cooperation of the people and the government' in the post-war recon-struction effort. The government's announcement that it would outsource housing investment to the private sector, among other privatisation procedures signalled Iran's move to a to a neoliberal economy; one that for the most part celebrated 'people's participation'.

The start of Rafsanjani's liberalising plans, saw the construction of some large housing projects that played an important role in attempting to redefine the housing industry by increasing the square metre per capita from less than 70 in 1960s to around 150 in 1994 and creating speculation in the market.[6] However, they did not succeed in revitalising the industry in a substantial or durable manner. The government soon proposed more comprehensive policy plans to make it accessible for smaller private investors to engage in housing construction. The policy plans introduced a framework of housing production to be undertaken mainly by middle class citizens. And thus, a regime of housing was produced that would not only localise the middle-class citizens' practices of living, but also their economic conduct; a regime of control that worked by framing bodies as well as absorbing their capital. These regulatory frameworks are based on a neoliberal model in which the government acts as facilitator, leaving the production of housing almost completely to the private sector.

This visual essay shows how the sum of this objective liberalisation process – built upon distinct economic and political agendas – brings a multifaceted idea of the house, which in spatial terms comes to manifest as an architecture that is standardised, elemental and versatile. Concurrently, performances of domesticity, resistance, and production that have historically been intertwined within the locus of 'home', are practiced differently in these architectures in Tehran today. Further, we see how the constant (re)examination of basic principles of the house constitutes a new 'resident subject' whose agency is not limited to one of a mere dweller, but is rather that of an active agent in the constant (re)formulation of housing. In such manner, the generic frame of the house is constantly stripped bare by this new resident subject, conceptualised as a tabula rasa, and a frame of probabilities.

Re-regulating housing as a standard

Several scholars distinguish between two periods in post-revolutionary Iran, corresponding to two specific approaches to restoration of power structures through economic re-ordering.[7] During the first period, the decade after the revolution (1979–1989),[8] known as the time of 'revolutionary reconstruction', the provisional government of Iran appeared to commit to the popular revolutionary cause of subverting class divisions.[9] This involved measures such as land reform, the formulation of progressive labour laws, and the nationalisation of foreign trade.[10] During the second phase, starting in 1989, the radical 'advancements' of the first phase were undone. It is a period of economic liberalisation, characterised by the suppression of the demands of the working class, peasants and ethnic minorities, and the empowerment of landowners and merchants.[11] Capitalist relations of production were revived. Procedures towards a standardised form of housing began with the second phase, as did an economic transformation towards neoliberal structures of governance. Re-regulating building practices on a more structural level was done through multiplying channels of state intervention, and the establishment of administrative bodies.[12] Housing was a core to these re-regulations. The regulations firmly established a typical spatial configuration for housing, resulting in a homogeneous form of housing that arose all over Iran.

1. Photo: Abbas Vahedi, 2017.

Regulatory frameworks

A crucial regulatory shift in making the production of housing accessible to private parties was made when the municipality set up a system of 'density sale' in 1992. The density zoning system included in the Comprehensive Plan of Tehran (1992) prescribes a certain density rate to each area of the city for future development.[13] The density sale system is a form of privatisation that outsources the execution of the Comprehensive Plan of Tehran to the private sector and citizens in a monetary fashion. The monetisation of these permits transforms the administrative process into a commercialised, and hence, flexible one. Allowing private owners to buy permits for their land created a crucial shift in the project of housing by proliferation of housing construction on small privately-owned pieces of land, in the place of grand housing projects on large pieces of state-provided land on the periphery of the city, as had formerly been the case. The result was a prolific amount of private housing construction, turning it into one of the dominant industries in the country. Hence, a booming housing market was formed through the circulation of wealth among smaller (but abundant) private investors. The re-regulation of housing based on citizen's private funds facilitated a lucrative real-estate market whose main players were the middle-class citizens, and increased the speed and scale of housing construction (to an exaggerated level), to the detriment of architectural thought in the process. Initially, investors minimised the role of the architect simply to reduce costs by avoiding architectural design fees and other allocated expenses. Thus, a system in which every square metre of housing space equalled so much profit, instantly caused the limitations imposed by regulations to be the only determining factor in the spatial layout of the houses. In 1989 the first brief set of regulations was published, fundamentally establishing a language, a series of components, and a toolbox, which Tehran would later use to exponentially expand its territory. It addressed issues such as construction permits, density limits, spatial protocols for backyards and balconies, and defined the parties involved in construction (e.g. supervisors, municipalities).

2. Generic plans showing internal spatial arrangements of apartments (top left and middle) and reproduction of regulation drawing that shows massing as well as balcony measurements on a plot of land (top right). Drawings: author. Photo: Ramtin Taherian, 2014.

60%
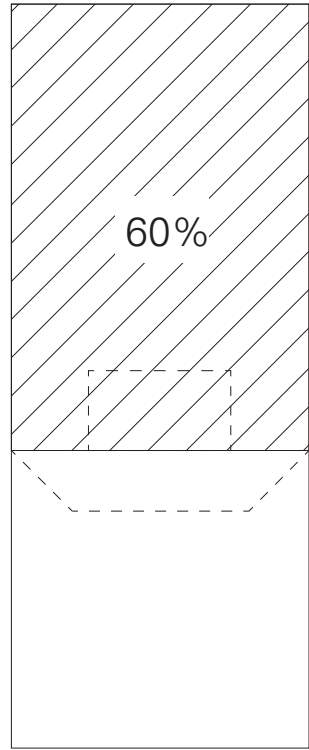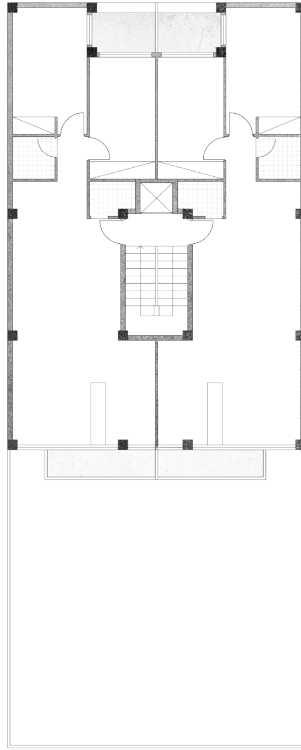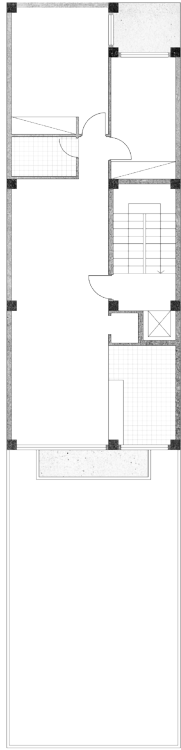
An analogous frame: the Common Apartment

The elaborate structural instructions for housing production published in the regulation briefs, modulate all the main steps in the construction procedure, while also fundamentally shaping the spatial layout of apartments. The regulations set a limit of 60 percent for built area on a plot of land, and also prescribed its positioning on that land, establishing a relationship between the building and its front/backyard. The regulations also control visibility in openings, windows, and terraces, based on the Islamic doctrine of the nuclear family's privacy from the gaze of strangers, reinforcing a binary relation between the domestic life within and the street.[14] Additionally, regulations organise the rather wide variety of commonly-owned spaces around apartments (e.g. patios, rooftops, yards, staircases). Today, the whole of these shared spaces takes up at least 12 percent of the built area of a plot,[15] and due to the similar proportions and orientation of plots, these commonly-owned spaces are distributed in ways that eventually homogenise the spatial layout of houses.[16] Thus, these seemingly inconsequential spaces turn into one of the critical structuring elements of apartment buildings. A crucial consequence of regulating housing based on such standards is that the construction of housing is broken down into dual steps: the structuring frame (rigidly defining the spatial layout), and the interior components (walls, joinery, etc). The generic frame, consisting of columns and slabs, becomes the main structure of housing, while every other architectural element seems supplementary. This establishes a distinctly simple system of construction detaching the frame from anything inside, allowing investors of different financial statuses to contribute to the market.[17] The cost of constructing the frame is proportionately similar in all areas, while the significant difference lies in the interior components and finishing: windows, floorings, joinery. The procedure is divided into two distinct steps[18] for housing construction to remain relatively simple and pragmatic; and thus, for its production to continue without interruptions.[19] The result is an urban landscape based on an architectural form chiefly defined by building regulations. Houses became standardised, homogeneous, uncomplicated in construction, and accessible to a major portion of the population. As a result of a housing market in which the apartment buildings were commodities, in order to liquidate the house at a decent price, its design and execution process became highly risk-averse and conforming. Hence, the city of Tehran gradually transformed into a field of urbanisation whose main component was this standardised building: the *Common Apartment*.

3. Steps of the construction of the Common Apartment. Drawing: author.
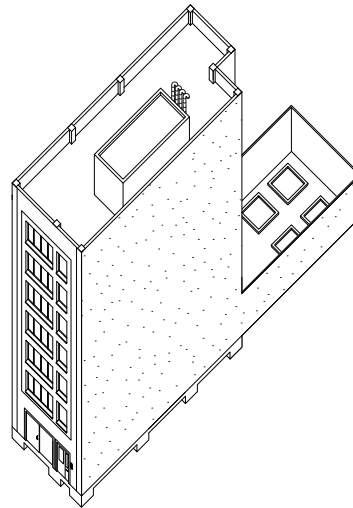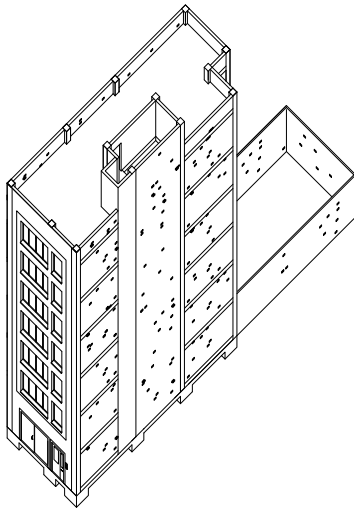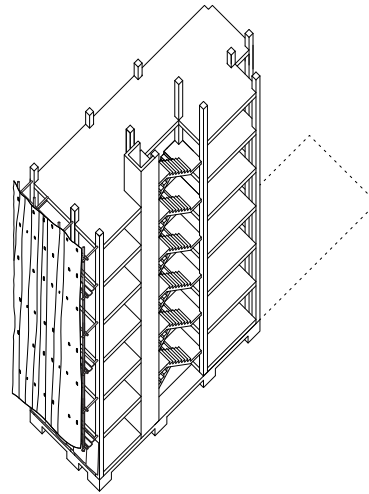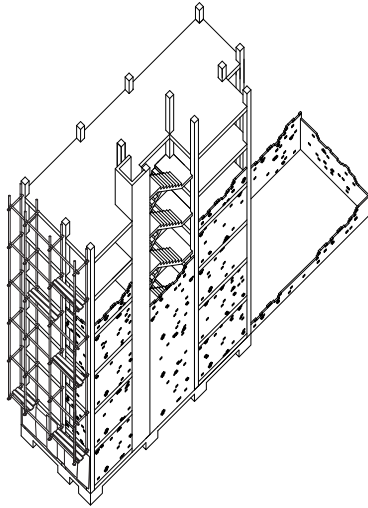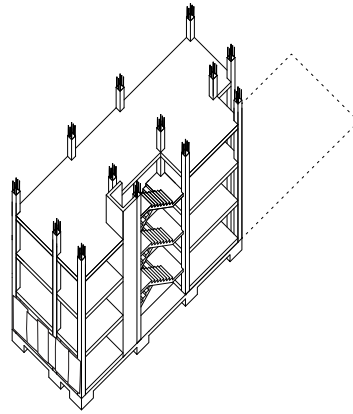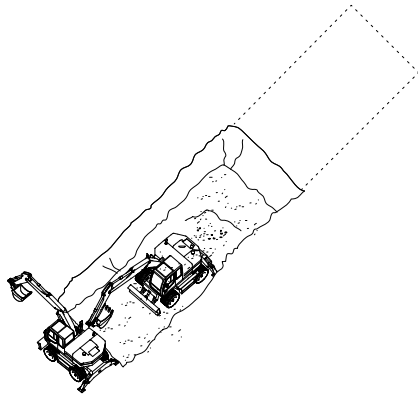
The interior: a space of subversion

In the interior of Common Apartments, materialities became the main or even only area to be designed or modified. This unfolded not only in the form of material trends in the market, but also in it becoming the only space where design duties can be handed over to architects. They would make new arrangements for the same trendy materials, deliver new 'styles', or design only facades. This extremely standardised way of house production carried out by the middle class, based almost solely on regulations, removes the knowledge of spatial design and material construction from the province of any particular profession, and posits it instead as a common knowledge mastered by all; construction procedures, penalties, material choices, and even design, became the subject of everyday conversations. Ultimately, the knowledge and practice of the architect are not only marginalised, but the values and aims of the housing project render them essentially trivial; a paradigm shift that minimises (professional) discourse and maximises production. Hence, here, the agency of citizens in housing production is not limited to their practices of domesticity as mere 'dwellers', but is expanded in the ways that housing is financed, drafted, and produced. The subjects' knowledge and practice in the production of housing carries liberating possibilities. While the house reinforces a (normalised) regime of privacy and its underlying habits, it should be noted that these very codifications are used as elements in a toolbox for the subject to resist that system of norms. In Tehran, since the 1979 revolution, not only did life turn increasingly inwards (and away from the street), but also many non-domestic activities found their place of operation at home. The public space of the post-revolution Iran is characterised by explicit systems of control.[20] As part of the post-revolutionary discourse on the Islamisation of living practices, the government stressed the binary pair of public and private to define what can be performed visibly.[21] As a result, a number of activities that were banned or restricted in public found refuge in the private domain or were refined in accordance to this withdrawal process. In this context, practices of disobedience have become greatly nuanced and widespread, and must be understood as alternatives to the state's order of norms – forms of praxis that continuously re-codify both practices and spaces of living beyond the conventional notions of domesticity and home.[22] The house becomes an enabling ground for resistance. It can be read as what Bernard Cache calls a 'frame'[23]: a structure with the agency of framing the becomings of the subjects it houses.

4. Photo: Abbas Vahedi, 2017.

Framing of frames

In Iran, people have come to perceive the house as a frame that allows them to constantly undermine normalised standards. Hence, emancipatory practices of resistance shall not *only* be traced in particular moments of political rupture (such as the Green Movement in 2007) but also in everyday practices. While the public sphere increasingly embodies the control of the state, the private sphere is reformulated to house a spectrum of activities wider than what is usually considered domestic. It plays the role of an enabling structure. The state's compartmentalising and disciplinary processes do not succeed in subjugating life in its entirety, but rather people's conduct subvert those procedures, and everyday rituals of living embody resistant ambitions. It is in this context that the idea of form-of-life[24] becomes an important deliberation to this thesis; as a life whose constitutive parts cannot be separated from each other – a life that cannot be separated from its form.[25]

The spatial components of the apartment building are utilised by the citizens according to their spatial possibilities. A crucial instance is that of autonomous and underground cultural and artistic activities, that in the restrained artistic landscape of the post-revolution Iranian government, have to consistently navigate through landscapes of censorship and control. After a twenty-year interruption in any public artistic practice (due to the 1979 Revolution and the Iran-Iraq War), they re-emerged during Ayatollah Khatami's reformist government (1997).[26] Here artistic practices proliferated, finding shelter in the Common Apartments; not only due to the abundance of these spaces but also their safety as formulated within the private/public dichotomy. The endangered and vulnerable practices of critical artistic production that could not exist freely, found refuge behind the face of housing – a safe space of domesticity. Spaces such as exhibition venues, artists' residencies, studios, and collective platforms often inhabit the privately-owned architecture of the house, where they do not simply survive, but even thrive. These resistant practices perform spatial and organisational strategies that re-codifying houses as (temporary) spaces of counter-action. Appropriating and reterritorialising the spaces of Common Apartments, made possible by their elemental and simple spatial frame, here epitomises the house as a space of possibility. The internal relations of the space are re-arranged and reassembled through the demolition and the construction of new walls, thresholds, and boundaries. The shell of a living unit after its walls have been cleared, or re-compartmentalised through the construction of new partitions, operates as an underground platform.

5. The living room of a Common Apartment unit (top) becoming appropriated as an unofficial space of collective cultural production (bottom). The image represents a series of spatial tactics used in the formation of several such spaces in Tehran, namely Sazmanab in Sadeghieh (2008). Drawings: author.
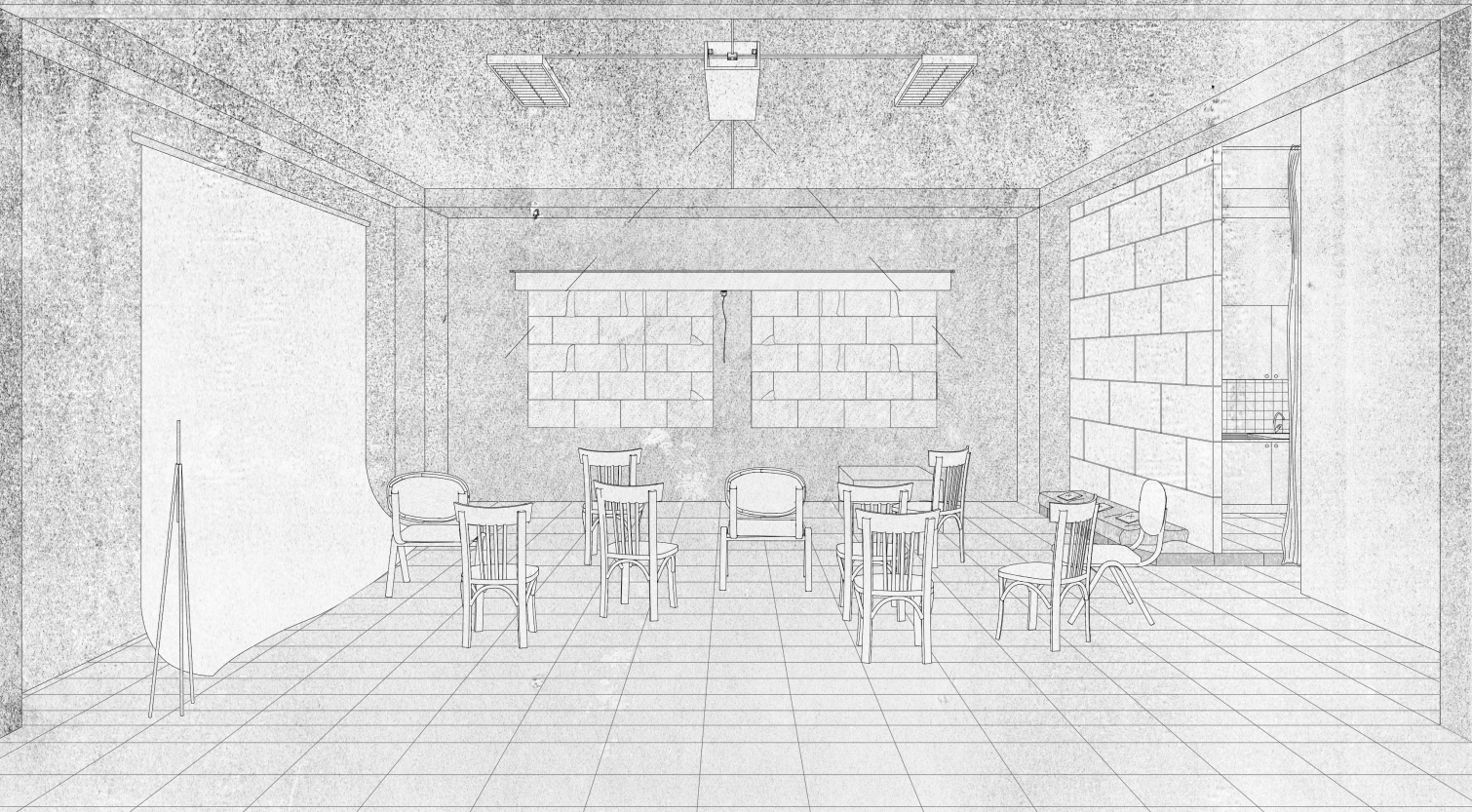
An apparatus of control – an instrument of resistance

The modern house is a spatial arrangement that classifies and segregates, while also connecting citizens. The house is a political form. Its architecture frames and solidifies the idea of citizenship through private or collective ownership. It is an apparatus with a strategic function: to advance the state's plans. It is the state's most fundamental biopolitical project. In the four decades of neoliberal housing policies in Iran, there is a shift in both the project of housing itself, and in how it constitutes the constant transformations of the city of Tehran. Where previously large housing projects served as the precursor to the outwards expansion of the city, now the mass proliferation of single apartment buildings is the constitutive architectural element of the city. This overview also shows that strategies adopted to cope with the sociopolitical conditions of Tehran use housing and domesticity as their main instrument. The generic frame of the Common Apartment should be read not as an isolated architectural entity but a (bio-)political form and the meeting place of supply and demand. While the dominant paradigms consider the binary pair of producers (e.g. construction firms) and consumers (citizens), in the case of Tehran these categories are overturned. Housing here turns into an entity that embodies the economic stability and 'development' of the nation-state at large, as a bureaucratic system, and a market. It is itself a commodity. It embodies the formation of the middle class not only by housing their (domestic) lives, but also by investing their savings in this market. By promoting the notion of 'responsible' citizen who subscribes to a (moral) value system, the state propagandises the neoliberal privatisation of housing as cooperation of the government and the people. The Common Apartment plays a complex role: it is an apparatus embodying market forces and the regimes of privacy they put forward, as well as the subversive practices of the people. It can be understood as an assemblage of architectural form, the political forces conditioning it, and the practices of the people that constitute its constant (re)formation. It is a form that not only accommodates the domestic practices of the nuclear family, but embodies forms of familial and non-familial kinship. It can be read through its potential for not only framing everyday practices such as of caring for the body, procreation, or maintaining the institution of the family; but rather to frame and support ones that that define a human life as processes of living that are above all, *possibilities*.[27]

6. Photos: Monireh Askari, 2015 (top), Farhad Yassavoli, 2013 (bottom).

Notes

1. The microcosm of the home as the site of the socio-political struggles of the Tehrani citizen is an extensive discussion addressed in the work of many authors. Arguments in architectural discourse of biopolitical resistance is put forward in the work of Hamed Khosravi. See Hamed Khosravi, Amir Djalali, and Francesco Marullo, *Tehran – Life Within Walls: A City, Its Territory, and Forms of Dwelling* (Berlin. Hatje Cantz, 2017).

2. Immediately after Ayatollah Khomeini's death in 1989, the role of the presidency gained more authority. Hashemi Rafsanjani was Iran's infamous post-war president for two terms.

3. Ali Akbar Hashemi Rafsanjani, *Ettelaat* newspaper. Tehran, 1989. More details on this source are not currently available, as the archive is not accessible due to political restrictions.

4. Ibid.

5. Ali M. Ansari, *Modern Iran Since 1921: The Pahlavis and After.* (London: Pearson Education, 2003), 244. Two items on the list explicitly mark the start of the liberalisation: the discontinuation of subsidies that people and government agencies relied upon, and urging the revival of municipalities out of war-time bankruptcy.

6. In the introduction of the seminar report for *Policies of Housing Development in Iran* (1994) this growth is explained by the injection of oil revenues into housing projects, and the further breaking down of extended families into nuclear families.

7. Several scholars make a somewhat similar distinction; the argument put forward here is based on: Farhad Nomani and Sohrab Behdad, 'The Rise and Fall of Iranian Classes in the Post-Revolutionary Decades', *Middle Eastern Studies* 44, no. 3 (2008): 377-396; and Mansoor Moaddel, 'Class Struggle in Post-Revolutionary Iran', *International Journal of Middle East Studies* 23, no. 3 (1991): 317-343.

8. The decade after the 1979 revolution is specifically significant featuring the Iran-Iraq war, ending with the death of Ayatollah Khomeini.

9. Nomani and Behdad, 'Rise and Fall', 377–96.

10. Called the 'social revolutionary phase' in Moaddel, 'Class Struggle', 319–20, and the 'structural involution' phase in Nomani and Behdad, 'Rise and Fall', 377.

11. Named the 'reversal' phase in Moaddel, 'Class Struggle', 319; and the 'de-involutionary process' in Nomani and Behdad, 'Rise and Fall', 377.

12. Neoliberalising procedures, often referred to as "deregulation" in favour of flexibility and less restrictions, are indeed ones in favour of capitalist control on fundamental levels; minimising supervision as such, while reinforcing control in the level of planning. Perhaps in this case they are better called re-regulations.

13. The term 'density' is also known as floor area ratio or plot ratio.

14. The terraces have an extensive set of regulations regarding placement, size, and openings. For instance the minimum width allowed is so narrow (eighty centimetres on the street side) that Common Apartments often feature very cramped terraces.

15. National Building Regulations, (Tehran: Ministry of Roads and Urban Development Deputy for Housing and Construction, 2013).

16. In order to place the living room and kitchen on the sunlit south side, bedrooms are placed in the north, somewhat determining the place of staircase and elevator as well.

17. This construction model has created an occupational phenomenon called Besaz-befrooshi, someone who mediates the multiple fronts of housing production (investor, builder, administration) for profit; Nomani and Behdad call them 'small real-estate entrepreneurs'; 'Rise and Fall', 390.

18. The different phases of construction are adapted to budgets: costly processes like the digging of deep foundations could be, and facade construction could be postponed, even until moving in.

19. In his essay, Mehdi Taleb, advisor to the minister of Housing and Urban Development, discusses the pros and cons of the proposed mechanism, and explicitly mentions the advantages of a gradual building of houses that facilitates construction for people from different financial classes. Mehdi Taleb, 'Housing Cooperatives Facing Change and Transformation' in

the seminar report *Policies of Housing Development in Iran* (Tehran: 1994), 238.

20. This is based on the Islamic doctrine of modesty in society. The impact on public life of the Islamisation discourse in post-revolutionary Iran, regarding both gender segregation and private life, is discussed in Z. Pamela Karimi, 'Transitions in Domestic Architecture and Home Culture in Twentieth Century Iran' (PhD dissertation, MIT, 2009), 266.

21. Karimi, 'Transitions in Domestic Architecture', 271.

22. Here too, a certain regime of privacy is enforced in the private sphere of the home, to align the domestic lives of the nation with the doctrine of modesty of Islam. Home life was part of the discourse on re-organising society in the Islamic Republic of Iran, part of which is a refusal of 'Western' ways of life. See Karimi, 'Transitions in Domestic Architecture', 282.

23. The notion of the frame is elaborated in Bernard Cache, *Earth Moves: The Furnishing of Territories*. (Cambridge, MA:MIT Press), 1995.

24. Ideas about form-of-life are elaborated by Giorgio Agamben, *Means Without End: Notes on Politics* (Minneapolis, MN: University of Minnesota Press, 2000), 3.

25. Ibid.

26. Mohammad Ali Khatami's government adopted culturally liberal policies while the rise of oil prices and privatisation rejuvenated the economy.

27. Agamben, *Means Without End*, 3

Biography

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Review Article
There is no Such Thing as a Free Market:
Public Planning versus Private Opportunity in Housing
Dirk van den Heuvel

About two years ago, in November 2016, Patrik Schumacher, the famed and notorious director of Zaha Hadid Architects, baffled the world of architecture and beyond with his radical proposal for a solution to the contemporary housing question. In his view, all it would take to end the misery of homeseekers in an overpriced housing market was to simply privatise anything that makes up our cities: not just council housing estates and the land they are built on, not only infrastructure, civil works and services, but all public spaces and assets that make a city. Even a priceless place like Hyde Park in London would be better off if redeveloped by the forces of a wholly free market system, according to the highly successful German-born architect, who is building high-end projects all around the globe. Wholesale privatisation would make the most of our cities. It would make the right places available to the right people, maximise value, and counter underusage. Who could be against that? In itself Schumacher's position could not be a surprise, since he has made the case for a 'free market urbanism' before, linking it to the idea of *autopoiesis*, which is key to his proposition of parametricism in architecture, a new style that builds on all-pervasive digital technologies and results in sleek and glamourous curvaceous shapes.[1] But this time his statement was made at a high-profile, international public event broadcast online by web platform Dezeen.

Schumacher chose the event of the World Architecture Festival in Berlin as a podium for an act of *épater le bourgeois*. *Wired* magazine compared him to a James Bond villain, and Schumacher seems to take up the bad-ass role quite gleefully.[2] He delivered the concluding keynote on a day full of architects' talks on the pressing issue of 'housing for everyone'.[3] When the news broke of what Schumacher had suggested, a furore hit the media and protests were staged outside his London office. He was accused of fascism and promoting social cleansing.[4] In an interview with *The Guardian*, a newspaper he actually criticised in his talk for offering 'false avenues of reflection', he proved unrepentant.[5] On the contrary, in various successive statements and publications he insisted that complete privatisation is the only way forward. 'Only Capitalism Can Solve the Housing Crisis' was the defiant title of a lengthy essay he wrote for the Adam Smith Institute, published in April 2018.[6]

Triggering strong emotional responses across the profession and media – even the London mayor Sadiq Khan felt pressured to step in – Schumacher's rhetoric is most successful in terms of the standards of the attention economy. Yet the problem with Schumacher's proposition is quite elementary. Schumacher often refers to 'basic economics', but he seems unaware of a few of those basics himself, or he prefers to be for the sake of the game he is playing. He draws some false analogies with other markets (food, cars), and he makes the impossible distinction between real productive entrepreneurs adding value to the economy and

'high earners', who undeservedly profit from financial privilege – assumedly Schumacher is referring to bankers and traders here. But even for a dilettante like me, when it comes to unpicking the exact connections between architecture, planning and capitalism, Schumacher glosses over the following two interrelated terms much too easily, and they require more careful attention: the concept of the so-called free market and the practice of state intervention.

The utopia of a free market
Ever since neoliberalism started to undercut the post-WWII welfare state and its hybrid economic system, this was done in the name of the fata morgana of a so-called free market that would solve most if not all of our society's problems. I myself grew up with this mantra in my country, the Netherlands, which followed a different path from the United Kingdom, but here too, all sorts of welfare state institutions were gradually broken down and often replaced by market provision: from access to university education, healthcare, unemployment benefits, to the large-scale privatisation of almost every sector: public transport, postal and telephone services, housing corporations, university properties, hospitals. It is a familiar story in Western Europe and welfare states elsewhere, quite dramatically recounted not to say lamented in such grand narratives as Tony Judt's *Postwar* (2005) and *Ill Fares the Land* (2010), or Owen Hatherley's *A Guide to the New Ruins of Great Britain* (2010).

Free market ideologists tell us that unhindered by state intervention or regulation the market and entrepreneurs would exclusively provide for what people (supposedly) need and want. And truth be told, new market arrangements did and still do deliver all sorts of innovative products and approaches, especially when it comes to a speedy introduction of new technologies. Yet everybody knows – or should know in my view – that there is no such thing as a wholly

free market, to paraphrase Margaret Thatcher. By its very nature a market is a regulated place for transactions. Who is allowed to enter, who can sell, who can buy, what and under what conditions, it is all up for negotiation and controlled by all sorts of authorities and social contracts. Any Google search will spawn a vast literature about the subject and how the notion of a free market is either contested or propagated, from Friedrich Hayek's abhorrence of 'serfdom' under a central state to 'free-market socialists' who oppose private ownership altogether. The bottom line is that a wholly free playing field for entrepreneurs is contrary to a market condition and ends up with monopolies controlled by global companies.

The ideology of the free market then is not so much about a universal ideal of human freedom as some proponents seem to suggest; it is all about contested ways of organising exchange under different sets of rules, and different arrangements for different groups of citizens, entrepreneurs and other actors, and often much less binary than suggested by free market apologists like Schumacher.

Police force
The second problem with Schumacher's plea for the abandonment of any public control lies with the caricature of the state and government bodies that he reproduces. Schumacher posits that the state is too much on the side of the economically weak and privileges the unproductive, a situation that can only persist, according to him, because of the state's monopoly on 'force' and 'policing'. Moreover, the state is generally too bureaucratic, setting the wrong kind of standards, and too static, holding back innovation – the familiar diatribe since the 1970s. According to Schumacher, the state should preferably just get out of the way of the entrepreneurs who know best, also when it comes to city planning and solving the housing crisis. All sorts of land-use regulations, zoning, minimum standards of comfort

and safety for housing – it should all be thrown out of the window, because a 'free' process between demand and supply of housing would bring wholly new and innovative solutions. It is one of the boldest claims in Schumacher's argument, also because he connects this with a more just and even more democratic society. 'Analogous to shareholder rights in stock companies', parties with more assets, who produce more 'profit' and maximise 'value', should have a bigger say in the decision-making process than those who are 'subsidised' and 'freeriding' on their privilege secured by the protection of state force.[7]

But it is not just Schumacher's depiction of the state and its roles vis-à-vis land-use and planning standards that is problematic here. What is lacking from his proposition is the recognition that capitalism itself cannot survive without a state apparatus. Capitalism needs the state. Not only in the conventional sense that the state creates and maintains the necessary infrastructure (an idea which Schumacher refutes), but precisely with regard to the monopoly on force that the modern state holds over its citizens and territory. It is capitalism and the free market which are most in need of a police force here. It is private ownership, especially landownership, that can only be secured and maintained through a vast body of controlling agencies, from the courts and solicitors to surveyors and cartographers. The emergence of agrarian capitalism in England holds similarly clear examples of how enforcement is brought into play, as in the case of the privatisation and expropriation of common grounds.[8] Even today, under a global, post-welfare state condition of empire as described by Michael Hardt and Antonio Negri, it is the state who has to come to the rescue of banks 'too big to fail'; even when enmeshed in global networks and institutions the modern state and its rule of law still hold crucial agency.[9] Schumacher prefers to leave this kind of 'police force' and who it protects unmentioned.

Maximum profit, minimum dwelling
Another reason why Schumacher's proposition is unconvincing is the sheer lack of evidence. Even though Schumacher claims that his office builds housing for everyone, the examples he showed at the World Architecture Festival were all, one after another, luxury apartment blocks, from New York to Miami, Singapore, Milan, Copacabana, Malta and of course, London, while highlighting that his office successfully manages to generate maximum value out of a site, often more than expected by the developer. 'Profit' is 'not a dirty word', it is a measure of success, even of social responsibility if you follow Schumacher. Because apparently, a city is in essence only about making profit, and generating maximum value; only then can a society take care of itself.

However, not only are we looking at very narrow and banal definitions of success and responsibility, but this also fits a bigger pattern as described by Richard Florida in his latest book on so-called 'winner-take-all urbanism' and its concomitant 'superstar cities' such as London and New York. *The New Urban Crisis* (2017) reads as the sequel to Florida's ground-breaking *The Rise of the Creative Class* (2002), but it is much more pessimistic.[10] Where Florida recognised new opportunities for cities due to the rise of the so-called creative industry around the turn of the century, he now points to the highly disruptive effects of the new economy unleashed onto urban communities. *The New Urban Crisis* not only maps growing inequality in economically successful cities, but demonstrates the actual links between urban success and those patterns of growing inequality, of which gentrification and housing bubbles are but the two most familiar examples.

Schumacher shows himself to be an unapologetic exponent of the driving forces behind such social bifurcation. Particularly so when he elaborates on

the second niche of housing, which he identifies as an opportunity for innovation and more productive cities: the micro-units for single, urban professionals. One of Schumacher's greatest objections to government-controlled standards is the guideline for the minimum size of dwellings, about thirty-seven square metres in the United Kingdom. But according to Schumacher, people are yearning for smaller homes, if only in the right spot, that is, central London locations close to work opportunities, but currently occupied by council housing. Schumacher therefore proposes to remove the estates and their inhabitants to make room for the 'users who are most potent' and 'most productive'. To Schumacher, it is useless to demand three or four-bedroom flats for families in such locations, since eventually they will all be 'flat-shared' under current market conditions. Schumacher mentions that a twenty square-metre studio in the Barbican is a much sought after asset, but even a ten to twelve square-metre flat could be a 'villa-in-the-sky' when combined with 'free shared spaces'. Even better would be to ultimately integrate these Airbnb-style homes with the workspaces of start-up companies, thus creating a maximum synthesis between housing and twenty-first century profit-production.

At this point, the libertarian approach of disruption and acceleration that Schumacher promotes paradoxically and ironically coincides with the socialist models of collectivist housing as designed by the Russian Constructivists, where all individual space has been dissolved in order to create one social body. In his talk, Schumacher himself casually refers to projects developed by Pier Vittorio Aureli at Yale university, in which all private spaces are eradicated as well. Other, less architecturally correct comparisons spring to mind though, such as the ultra-high-density developments created through autopoetic self-regulation, especially in Hong Kong, another superstar city: the extreme typology of 'coffin cubicles'; or the infamous icon of *noir* urbanism: the Kowloon Walled City, which was

demolished mid-1990s because of its rampant crime and unhealthy conditions.[11] Here, self-regulation means triads stepping in where the state is absent.

But perhaps in the end, reflection on the basic principles of economic governance and systemic, asymmetrical interdependencies is too serious a response to Schumacher's provocation of architects and what he calls the 'left-liberal consensus'. After all, 2016 is also the year of Trump and of Brexit. The week before Schumacher's talk, the United States had elected Donald Trump as their new president after a relentless campaign characterised by what we now call the art of bullshitting and gaslighting. Trump's campaign was not unlike the unfolding of the Brexit referendum of June 26, which was won by sheer bluff. By now – I am writing this piece while the outcome of the debates on the Brexit deal remain unclear with the prospective Brexit date of March 29 less than a couple of weeks away – it has become all too evident that there was and still is nothing but the bluster of unsubstantiated claims by the Leave camp. Patrik Schumacher might only fit a pattern in an awkward turn of the *Zeitgeist*.

Hostile environment
One of the more striking elements of Schumacher's presentation is how much of it is framed by a London perspective, even when the 2016 edition of the World Architecture Festival took place in Berlin targeting a global market.[12] At this point, it must be noted that the current London housing crisis is not only the outcome of a new global economy and the rise of a creative class originating in the 1990s. It is also one of the most paradoxical outcomes of breaking down welfare state provision and regulation by the government of Margaret Thatcher, who was elected prime minister in 1979. Michael Hesseltine was her Secretary of State of the Environment and as such responsible for the Housing Act of 1980, which enshrined the principle of 'right-to-buy' in the case of council housing. Construction of new council housing was minimised, among other

Fig. 1a

Fig. 1b

Fig. 1c

Fig. 1d

Fig. 1a, b, c, d: The demolition of Robin Hood Gardens, 2017. Photos: author.

measures by restricting the possibilities of local councils to borrow for housing construction. Various subsequent redrafts of the Housing Act (1988 and 1996) would grant more power to landlords while taking away the rights of renters of private property. Since the mid-1990s the profitable practice of 'buy-to-let' received an impetus from new, more liberal mortgage possibilities and hence gradually started to choke the housing market for young people in particular. The favouring of landlords and property owners over renters by the government has led to the current deadlock situation, in which homeownership rates are actually falling under a Tory government.

Another devastating result of forty years of market dominance in planning and housing construction in the United Kingdom is the lack of proper judicial power and planning authority in the field of housing, especially at the level of local councils. Whereas famously, the London County Council was once home to the largest architectural office in the world and attracted the best of young talents, today councils simply lack the resources and knowledge for effectively accommodating the often contradictory and conflicting environmental demands in a hyperdynamic metropolis like London. In contrast, local councils are today forced to sell their land and housing for commercial project development, also known as 'urban regeneration'. To build much-needed new homes, and to raise money for their underfunded services, councils have to monetise their public assets. Especially for Labour councils this presents a catch-22. It brings about the awkward practice of closing deals with global developers at real estate conferences outside of the public limelight and public accountability, such as the MIPIM in Cannes. It also implies the forced removal of the council's own constituents. It is the worst-case, nightmare scenario in a democracy: elected councils become complicit in social cleansing, moving out the economically and socially weak in favour

of wealthier citizens. Strict government regulations make it impossible to rebuild necessary council housing and the council housing stock is consistently further reduced. A limited number of newly constructed housing units is usually categorised as 'affordable' housing. However 'affordable' is a misleading term in this policy-speak. Affordable currently means a price range of 80 percent of the maximum market value, which in too many cases is not very affordable from a homeseeker's perspective.

In *Big Capital: Who Is London For?* journalist Anna Minton recounts this story and acutely maps the destructive lobbies and ruthless policy-making that have led to the current predicament and the often alarming situations of deprivation.[13] It is not a pretty picture. But the misery doesn't stop with housing; the housing crisis is not an isolated event. The United Kingdom is going through a major welfare crisis, due to years of so-called austerity politics by the Tory government in the aftermath of the credit crisis. It saw dramatic cutbacks in, among others, local council spending of up to 40 percent.[14] From bedroom taxes to forced evictions and homelessness, the whole support system of benefits and social services seems to be tailored to harass rather than to help the socially weak and underprivileged. Such force exercised by government came out in various scandals, most notably last year with the Windrush scandal, which saw the unlawful detainment and deportation of British citizens from former colonies, mostly in the Caribbean. This entailed the more general 'hostile environment' policy aimed against illegal immigrants, which is usually identified with Theresa May, now Prime Minister of Brexit Britain but then Home Secretary under David Cameron.[15]

Tragically, and infuriatingly, the demolition of the first part of Robin Hood Gardens and the deadly Grenfell Tower fire – both in 2017 – are nothing
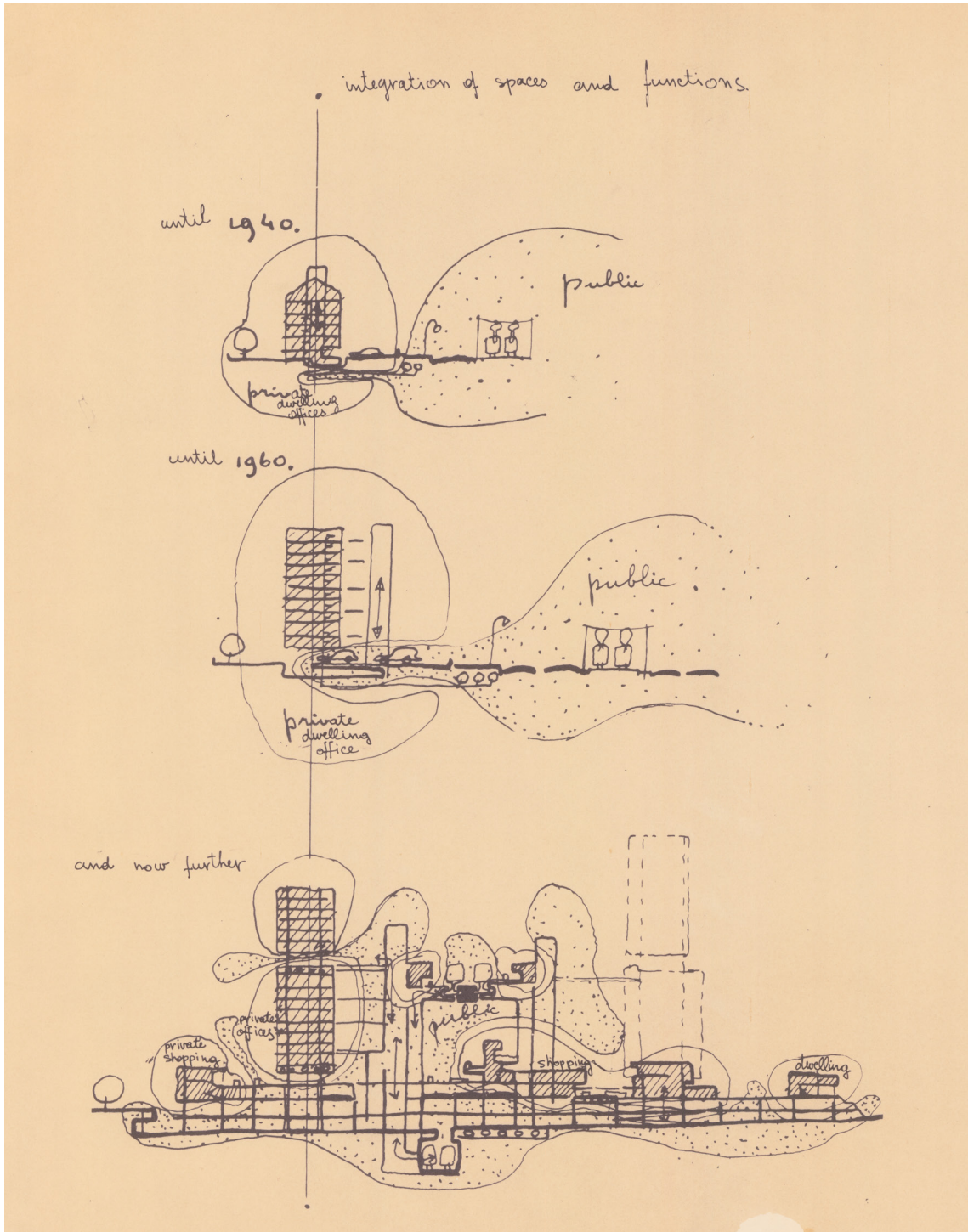
Fig. 2: Jaap Bakema, diagram ca. 1960. Collection Het Nieuwe Instituut, Rotterdam.

but symptoms of the situation and indicate the general lack of proper care and maintenance in social housing. Robin Hood Gardens and especially Grenfell caused an immense public outrage, yet with no real change of policy in sight. In the end they are just another example of displacement of citizens within a merciless system of disinvestment and monetisation of public goods.

Alternatives

In the context of real social crisis, Schumacher's position combines Ayn Rand-style heroism with pitiless, Nietzschean master-servant morality. At this point, Schumacher seems the spawn of Rem Koolhaas, particularly the early Koolhaas of his radical project for London: Exodus, or the Voluntary Prisoners of Architecture, and of his reinterpretation of Manhattan as a manifesto for a new kind of modernity: *Delirious New York*. Both are challenging expeditions into the darker psychologies of the modern metropolis as a highly abusive and exploitative, yet also creative habitat for a new kind of human subject. The ultimate example is the figure of the 'Metropolitanite' who inhabits the Manhattan Downtown Athletic Club. Koolhaas highlights the metropolitanites and their routines of self-enhancement to describe a condition of 'collective narcissism', 'free of family cares', directed toward 'self-induced mutations' and sterile 'self-regeneration'.[16] This is Koolhaas at his rhetorical peak – surely inspired by his then partner, the visual artist Madelon Vriesendorp – the Koolhaas who in face of all the social-democratic, modernist do-gooders points to the profound violence of architecture itself, while at the same time rendering architecture's potential as an instrument of control only more seductive.

In the 1980s Koolhaas was a master of such double-edged metaphors, leaving room for neither comfort nor indulgence: the architect as a surfer riding the waves, incapable of controlling the larger forces of economy and politics; the architect as the tormented protagonist of the Edgar Allan Poe story 'A Descent into the Maelström' at the mercy of the stream that pulls him to the bottom of the sea – better to just let yourself go with the flow and get to see what is down there than to fight the inevitable, which would surely mean death by drowning; and last but not least, the architect as hostage, who has to call home to assure his loved-ones that he is doing perfectly fine while held at gunpoint. At least, that is how I recall his lectures in Delft at the time. The bottom line of Koolhaas's rhetoric was then that resistance is futile, that architecture won't change the course of events, that you'd better get on board and find out where the new winds of globalisation and modernisation might take you – eerily similar to the more Thatcherite, 'There is no alternative.'

But there are alternatives, of course. And through the years Koolhaas proved himself much more versatile in this respect. In making his case, though, Schumacher prefers to ignore the classic examples of successful social housing policies on the Continent – from Red Vienna to the Siedlungen of Berlin and Frankfurt, to pre-WWII Amsterdam as the 'Mecca of social housing'. As is well-known, the conception of these housing campaigns was in the very failure of *laissez-faire* policies and speculative capitalism. They were made possible by balancing powers between governments, government bodies, private enterprise and collective action – a veritable ecosystem from which a modern city ideal emerges, which is not only an economic powerhouse but also an assemblage of social spaces. There are plenty of other cases to highlight, such as the SAAL projects in Portugal, the urban renewal projects by Aldo van Eyck and Theo Bosch, or the IBA Kreuzberg in West Berlin. These icons of well-designed and well-managed assets for the lower and middle classes show a very different approach from the 'free market' model propagated by Schumacher. At the same time, they also present thoroughly urban

conceptions of architectural intervention. One might even claim that they are much more urban in their relational and mixed-use approach than the one-system, hypertech mode of operation of Schumacher's parametricism.

As a conclusion, a last remark on welfare-state regimes in relation to land-use control and how political and popular opinions about these matters shift over time. A champion as well a critic of the welfare-state model, the Dutch architect Jaap Bakema propagated the idea of an open society, a political arrangement open to critique and change, open to diversity and differentiation, while still working from and towards systems of coherence rather than fragmentation. In light of fast-growing cities and an exploding world population, Bakema had set his hopes on, among others, a megastructure approach that was, however, generally dismissed in the 1970s, with the rise of postmodernism and a preference for small-scale patterns of urbanisation. One famous diagram Bakema returned to over and over, is a sketch of a megastructure development from 1940 to 1960 and beyond. Apart from an ever growing complexity of stacked volumes and infrastructure, the sketch displays a development of interpenetrating bubbles of the private and public spheres. For Bakema, the necessary future direction was crystal clear. Whereas in 1940 and 1960, the land is still shared between the two realms, in the future Bakema envisioned that the land and the infrastructure fully belonged to the public domain, in order to guarantee a proper political support structure for his ideal of a democratic, open society. Such an extensive control of the economy and its resources by collectivisation seems outlandish in our neoliberal age. Yet, in the 1970s, it was a widely shared belief that this was an inevitable development. Wasteful mass production and out-of-control inflation convinced many that the market needed even more central control than was already the case under post-war welfare-state arrangements.

Today, some might object that too much 'public' comes awkwardly close to the model of China, which ironically is an example of ruthless, state-led capitalism, of course, and not of the free market. Still, in my view the diagram demonstrates first and foremost that good housing begins and ends with the balancing of private opportunity and sensible public planning.

Notes

1. Patrik Schumacher, 'Free Market Urbanism. Urbanism beyond Planning', in *Masterplanning the Adaptive City: Computational Urbanism in the Twenty-First Century*, ed. Tom Verebes (Abingdon: Routledge, 2013), 118–122. For a critique of Schumacher's thinking see: Douglas Spencer, *The Architecure of Neoliberalism* (London: Bloomsbury, 2016). Schumacher's statement on parametricism is available from a website that collects his writings: https://patrikschumacher.com

2. Sam Lubell, 'Meet Patrik Schumacher, Zaha Hadid's Ambitious, Abrasive Successor', *Wired*, 26 October 2016, https://wired.com.

3. *Dezeen* posted the lecture, moderated by Jeremy Melvin online, 17 November 2016: https://dezeen.com.

4. 'Quick Report on Class War against social cleansing architect Patrik Schumacher', *Class War* (blog), 8 December 2016, https://www.classwarparty.org.uk.

5. Aaron M. Renn, 'Architect Patrik Schumacher: 'I've been depicted as a fascist', *The Guardian*, 17 January 2018, https://theguardian.com.

6. Patrik Schumacher, 'Only Capitalism Can Solve the Housing Crisis', *Adam Smith Institute e-Bulletin*, 25 April 2018, https://www.adamsmith.orgs.

7. Schumacher, 'Only Capitalism Can Solve the Housing Crisis': 'To the extent that collective decision making is called for to regulate development rights in the light of externalities, I suggest that an organised association of property owners should set regulations. Voting rights could be distributed in accordance with the relative value of the respective holdings, analogous to shareholder rights in stock companies. Such a

privately organised planning system (similar to how to many successful industry self-regulation initiatives operate) can be expected to maximise total social value, in contrast to our current political processes.'

8. It's a classic argument in Marxist analysis of course, e.g. E.P. Thompson, *The Making of the English Working Class*, (London: Victor Gollancz Ltd, 1963); in this context especially the chapters 'Exploitation' and 'The Field Labourers'.

9. Michael Hardt and Antonio Negri, *Empire*, (Cambridge, MA and London: Harvard University Press, 2000).

10. Richard Florida, *The New Urban Crisis* (London: Oneworld Publications, 2017) and *The Rise of the Creative Class* (New York: Basic Books, 2002).

11. Benny Lam, 'Boxed in: life inside the "coffin cubicles" of Hong Kong – in pictures', The Guardian, 7 June 2017, https://theguardian.com and the *Wall Street Journal's* website *Kowloon Walled City*, 2014, http://projects.wsj.com.

12. It must be noted that the festival itself is a London-based enterprise founded and (co-)organised by Paul Finch, editor of both *The Architectural Review* and the *Architects' Journal*. In an interview with *World-Architects* in 2013, Finch states that the goal of the WAF is to provide an 'inclusive global event for architects where architecture [is] the main focus, rather than the many international real estate events that architects attend'. The first WAF was in 2008, in Barcelona, the latest edition of 2018 happened in Amsterdam. Finch describes the WAF as a collegial, celebratory get-together of architects, yet clearly the whole set-up fits the neoliberal entrepeneurial format with an Award programme as the core element and entrance tickets of up to 1800 euros. https:www.worldarchitecturefestival.com, and John Hill, 'Talking WAF: Interview with Paul Finch', *World-Architects*, 8 April 2013, https://world-architects.com.

13. Anna Minton, *Big Capital: Who Is London For?* (London: Penguin Books, 2017); another devastating account on the cultural and economical state of the UK comes from Guardian journalist Mike Carter, *All Together Now? One Man's Walk in Search of His Father and a Lost England* (London: Guardian Faber Publishing, 2019).

14. As reported by the 'Centre for Cities' thinktank in their report 'Cities Outlook 2019', London, January 2019, centreforcities.org; Patrick Butler, 'Deprived northern regions worst hit by UK austerity, study finds', *The Guardian*, 28 January 2019.

15. Wikipedia gives a good introduction with plenty of further reading options: https://en.wikipedia.org.

16. Rem Koolhaas, *Delirious New York. A Retroactive Manifesto for Manhattan* (Rotterdam: 010 Publishers, 1994 [1978]), 158.

Biography

Dirk van den Heuvel is Associate Professor at the Faculty of Architecture, TU Delft, and the co-founder and head of the Jaap Bakema Study Centre at Het Nieuwe Instituut in Rotterdam. He has (co-) authored various books: *Jaap Bakema and the Open Society* (2018), *Architecture and the Welfare State* (2015, with M. Swenarton and T. Avermaete), *Team 10 – In Search of a Utopia of the Present* (2005, with M. Risselada), and *Alison and Peter Smithson – From the House of the Future to a House of Today* (2004, with M. Risselada). Van den Heuvel was the curator of the Dutch pavilion for the 2014 Architecture Biennale of Venice. He was awarded with a Richard Rogers Fellowship from Harvard University GSD in 2017, which enabled him to reinvestigate the intersections between brutalism, the post-war welfare state and the architecture of housing.

Review Article

House Vision: Architects and Industry Awakening 'House' Desires and Visualising New Ways of Living

Cathelijne Nuijsink

The design of the detached house has been at the core of architectural developments in post-Second World War Japan and the subject of a lively discussion among architects about what makes a good home at a particular moment.[1] Alongside the continuous production of houses, architects actively proposed new ways of living that contrasted with what was increasingly becoming a uniform housing stock based on mass fabrication. For decades, the architect-designed house and the accompanying debate saw multiple trends, moving from architects' social involvement in the immediate post-war years to a deliberate making of artistic houses in the 1960s. However, the intensification of neoliberal policies after a decade of severe economic crisis in the 1990s drove architects towards social involvement once again, initiating a housing trend based on sharing, renovation and re-use of the existing housing stock. This essay will highlight the work of the *House Vision* think-tank and full-scale building exhibitions – initiated in 2011 by Japanese designer and art director Kenya Hara – as one response to the socio-economic and political conditions after the neoliberal turn. Similar to the efforts of independent architects in recent decades, *House Vision* aims to generate awareness in society about alternatives to mainstream housing options. Yet what makes this initiative different is that it is not an individual effort but a collaborative project between designers and industries to push the latest technologies in home electronics, energy and mobility devices into new architectural forms.

Japan's post-war housing policy

Using a model of state-driven economic development, Japan experienced a rapid industrial recovery after the Second World War that would go down in history as the economic miracle. Between the start of the Korean War in 1953 and the Oil Crisis in the early 1970s, Japan transformed itself from a country whose cities had been reduced to ashes into an industrial giant. Central to this economic recovery was Japan's post-war housing policy. Through the introduction of long-term, fixed, low-interest mortgages provided by the Government Housing and Loan Corporation (GHLC) on standard lending conditions, the government actively supported home ownership.[2] As a result, the construction sector turned into Japan's principal industry. Simultaneously, government bureaucrats and politicians configured housing as an essential component of a 'middle-class consciousness' (*chūryū ishiki*) and designated the home as the place to 'support and nourish the central project of economic growth and prosperity'.[3] The full-time housewife (*sengyōshufu*) at home was as much part of the mythology of the 100 million-strong middle-class (*ichioku sō chūryū*) as the salaried man (*sararīman*) devoted to his company, all with the prospect of climbing the housing ladder towards home ownership.[4]

Individual architects profited from government policy as it provided them with clients in search of homes that represented an entirely new image of

house and home for a post-war society. Influenced by the 1947 Japanese Constitution that promoted democracy, a common understanding arose among architects that architecture in post-war Japan should be democratised.[5] In the belief that house design could bring about a revolution – showing what Japanese society could be in the near future – architects enthusiastically started to design basic shelters in the form of minimum houses. The initial response of architects to the demand for 4.2 million housing units immediately after the Second World War was to explore rational building methods that could speed up the construction of prefabricated dwellings. Soon architects started to experiment with the design of prototypes for minimum houses intended for mass production.[6] Just as architects in other countries involved in the war repurposed wartime and production technologies, architects in Japan collaborated with former war industries.[7] When the use of experimental prototypes for mass production stalled due to a lack of building materials and shortcomings in technical know-how in the 1950s, attention shifted to the design of individual houses embracing the new post-war family ideology of a couple-centred family. Efficient housing plans for limited floor areas predicted the future housing condition of a nuclear family living in a micro-urban space.

Technological innovations and the booming economy in the 1960s made it possible for the prefab housing industry to develop.[8] The driver behind the success of this industry was a middle-class desire for home ownership. Once people demanded more luxury in the late 1960s, house manufacturers set out to remove the temporary, cheap and homogeneous character from their prefab structures. By applying decorations and exotic foreign building styles, some superficial variations on the initially simple boxy houses started to appear. However, in the transformation from a minimal box with modernist aspirations to colourful 'shortcake

houses'[9] with postmodern connotations, independent architects lost interest in what had started as assembling industrial products and stopped actively collaborating with the prefab industry. This split marked the start of a sharp division in Japan between the independent artist architect who strove for differentiation, a humanised dwelling space and anarchy, and a housing industry that focused on mass sales based on a notion that the same house layout would fit all.

The Neoliberal Turn

Japan's economic miracle ended with the bursting of the asset bubble in the early 1990s. What followed was a period of severe economic crisis, a 'lost decade' in which the government explicitly started to promote neoliberal policies. During the Nakasone administration (1982–1987), these policies took form in the privatisation of state-owned enterprises, such as the Japan National Railways, and barely influenced daily life.[10] However, starting with the Koizumi administration (2001–6), neoliberal policy gradually unfolded and started to have an impact on society. Through deregulation of the labour laws, Prime Minister Junichiro Koizumi and his cabinet removed the main pillar of Japan's post-war housing system – a system based on salaried and secure lifetime employment – causing work and life to become much more precarious. In addition, with the abolition of the system of GHLC mortgages in 2007, home ownership became limited to those accepted under the strict conditions of private banks. A direct consequence of these policies was the shift from a society based on home ownership to one of private landlords.[11] The neoliberal restructuring of the labour market, together with the promotion of individual responsibility introduced by the Koizumi administration and the global financial crisis in 2008, caused what anthropologist Anne Allison has described as a 'liquefying' of Japan.[12] What was once a close-knit society based on lifetime employment and family values, changed

into a relationship-less or bondless society (*muen shakkai*). Since companies were allowed to fire people in response to market conditions, it created job insecurity that destabilised the male bread-winner employment system and pushed women into the workforce. With little welfare compensa-tion from the government, and no family to fall back on, the Japanese saw an increase of alternative employment systems such as net-café refugees (homeless people who sleep in twenty-four-hour Internet or manga cafés), freeters (non-regular workers aged fifteen to thirty-four in low-wage jobs) and NEETs (people who are Not in Employment, Education or Training).[13] All of these issues came on top of an already precarious situation involving a rapidly ageing population, a declining birth rate and increasing social polarisation.[14]

The triple disaster of the Great East Japan Earthquake added a cataclysmic event to an already liquefying Japan. The earthquake hit north-eastern Japan on 11 March 2011, and its subsequent tsunami and meltdown of the Fukushima Daiichi Nuclear Power Plant killed thousands of people and caused significant material damage to build-ings and infrastructure. The problems resulting from the disaster were of such enormity that they not only affected the Tohoku area, they also shook the personal values of family and friendship across the entire country, prompting larger questions about the meaning of work and life.[15] Consumption patterns naturally followed suit. The economic struggles of the lost decade of the 1990s and the Great East Japan Earthquake brought to the surface a feeling of enough-ness (*mō jūbun*), which reflected itself in a change in consumption pattern from material things (*mono*) to non-materialistic values (*koto*). As sociologist Atsushi Miura has described, consump-tion patterns in Japan moved from a 'third stage' into a 'fourth stage' of consumer society.[16] In this 'fourth stage' people no longer valued personal consumption in which the individual came first.

Instead, priority was given to the *sharing* of goods in a much larger society.

Micro-resistance to neoliberalism
The lost decade and the Great East Japan Earthquake (3.11) prompted Japanese architects to rethink their professional outlook. As a result of the everyday reality of a post-3.11 Japan, the newly designed detached house, for the time being, lost its role among architects in favour of social concerns. The *mō jūbun* mentality triggered the demise of the dream of home ownership and consequently the rise of alternative living arrangements. Architects readily adopted their social duty of shared living, do-it-yourself and renovation as alternatives to the custom-designed, new-build home. Many architects envisaged themselves playing a central role in the realisation of a creative solution for the disaster-hit area. Starting with big questions such as 'What is architecture?' and 'What can we architects do?', architects teamed up with other professionals to refine their questions into the larger planning issues of 'Where should we head towards – rebuilding the Tohoku area or all of Japan?' and assigned themselves a social role.[17]

The responses from architects tied in with the much larger discourse around the importance of social bonds (*kizuna*), calling for a humanistic recovery in which designers no longer believed in a grand modernist slogan like 'form follows function'. Philosopher Yoshiyuki Sato, in the context of the Japan Pavilion at the 2016 Venice Biennale, called the bottom-up struggles of architects 'a micro-resistance to neoliberalism'.[18] Interest among architects had shifted from fashion and aesthetics to more fundamental and primitive matters. New forms of collective living, the recycling of the existing housing stock, and renewed interest in local materials and production systems led to collaborative efforts between designers who envisaged a recovery of Japan. Emblematic of

Fig. 1: Poster of House Vision 2 2016 Tokyo Exhibition. This exhibition addressed the question of how we can bring together and re-connect individuals, urban and rural areas and fragmented technologies. Source: House Vision.

Fig. 2

Fig. 3

Fig. 4

Fig. 2: House Vision 2013 Tokyo Exhibition. In House of Suki, artist Hiroshi Sugimoto and Sumitomo Forestry use tools and techniques found in the traditional Japanese tea house as a material for the future. Photo: House Vision.

Fig. 3: House Vision 2013 Tokyo Exhibition. Power generation and storage, heat circulation, electric vehicles, home life and the city are seamlessly connected in Sou Fujimoto and Honda's collaborative design of House of Mobility and Energy. Photo: House Vision.

Fig. 4: House Vision 2013 Tokyo Exhibition. Toyo Ito and Lixl rethink happiness in daily life through releasing the house in Japan from the restricting floorplan based on n number of bedrooms, a living and dining-kitchen (nLDK) floorplan that was introduced in post-Second World War Japan. Photo: House Vision.

this mentality change is Toyo Ito's call to fellow architects to break away from introversion and abstraction and instead create a viable relationship with nature, away from modernism. Looking at the ruins of the disaster-stricken area of Tohoku in 2011, he projected the future direction of architecture:

> The media often uses the phrase 'beyond assumption' for the disaster, meaning that its force was beyond structural requirements. But I can't help sensing a more fundamental disruption between our norm and the reality. I think we design things in a mechanical manner as a 'complete machine', complying with nature defined in quantities or abstract definitions … I think our task now is to rethink how we 'assume' design conditions, rather than reviewing the conditions. We need to start by questioning the way we relate to nature. The people or community we always argue for in our architecture – aren't they just an abstracted scheme?[19]

House Vision initiative

In the context of a liquefied Japan that nurtured a profound interest in the quality of life, Kenya Hara launched the platform *House Vision*. In his role as art director of Japan's retail company Muji (*Mujirushi Ryōhin,* or *No Brand Quality Goods*), Hara has revolutionised the way the Japanese thought about customising their own houses. By stripping decorations from a wide variety of household and consumer goods, Muji has become well-known for its simple yet valuable products that stimulate customers to arrange the interior of their houses more freely. Building on Muji's success in raising what he calls people's 'life literacy', Hara started to focus on the house as the key to understanding societal problems in Japan.[20] *House Vision* was brought to life as a series of workshops and symposia involving various types of industries and talented designers in order to create a future for Japanese cities and industries.[21] Together, they started to discuss problems inherent to contemporary Japan, ranging from

a rapidly ageing society, to the outward migration of young people from rural areas and the growth of alternative families, to the new reality of second-hand buildings.[22] By capturing 'home' as a place 'to blend various possibilities, such as energy, movement, electric appliances, mature marketing or aesthetic resources', *House Vision* aspires to visualise the potentials of Japanese industries.[23] The role of companies in this collaborative project is not that of a sponsor advertising its own products. They should, according to Hara be drivers of innovations that can give concrete form to unexplored possibilities. Companies cannot do this alone. Their technological know-how is complemented by the creativity of architects as a means to develop ideas about the house that could not be imagined without synergy between the two parties.[24] The launch of *House Vision* correlated with the changing role of the designer in a post-3.11 society. The general feeling of 'enough-ness' became even more profound after the Great East Japan Earthquake and affected product designers as much as it did architects. For Hara, the responsibility of a designer was no longer one of 'creating beautiful forms or clear identification for brands' but rather one of 'visualizing the possibilities of new industries' and adding value to a product.[25] Likening design to the 'education of desire', Hara uses the design approach of introducing inspirational examples and alternatives as a means of making people aware of their latent desires. Thus, when people learn about their house-desires, they will open their eyes to alternative housing models and imagine the house as an extension of their personalities. Hara refers to this as 'maturation of living literacy'; awaken in people the possibility that they can create their own living environment.[26]

House Vision exhibitions

In a bid to connect the results from the workshops and symposia to society, Hara started to expand the *House Vision* project with building exhibitions

Fig. 5

Fig. 6

Fig. 5: House Vision 2016 Tokyo Exhibition. Architect Jun Igarashi, furniture designer Taiji Fujimori and Toto produced a house in which windows becoming openings with depth, producing unfamiliar spaces between what we usually think of as inside and outside. Photo: House Vision.

Fig. 6: House Vision 2016 Tokyo Exhibition. Go Hasegawa and Airbnb's Yoshino House envision the future of the house with a strong guest-host relationship. The bookable Airbnb property is managed by the village of Yoshino and merges a community centre (downstairs) with a guesthouse (upstairs) as a way to strengthen local culture. Photo: House Vision.

where people could experience the architectural proposals. Since paper architectural models would not allow architects' creativity to be properly introduced to a non-architect audience, all house proposals were shown as full-scale models. The first attempt to share the ideas formulated in *House Vision* with the public was the 2013 Tokyo Exhibition [Fig. 1]. This featured full-scale model homes at an open-air exhibition site in Tokyo's Odaiba area. Here, car manufacturer Honda, telecommunications company KDDI, housing and wood corporation Sumitomo Forestry, toilet manufacturer Toto, the water and housing products company Lixil, and bookshop Tsutaya Books, alongside Muji, among others re-invented the house using the overall theme of 'designing a home with a new common sense' (*atarashii jōshiki de ie o tsukurō*).

Artist Hiroshi Sugimoto collaborated with Sumitomo Forestry to produce something new based on forestry and timber. As an artist known for putting traditional Japanese aesthetics in a contemporary context, he designed a house using traditional Japanese wood aesthetics infused with new energy for future usage. [Fig. 2] The 'new common sense' in his House of Suki is the aesthetics of a traditional Japanese tea ceremony house. Instead of adding high-tech features, Sugimoto focused on preserving the woodworking skills that are close to becoming extinct. He applied existing craftsmanship to materials or elements that differed from those used in the Japanese tea house, producing things like solid camphor flooring and a natural hedge made from bamboo brooms.

Architect Sou Fujimoto teamed up with car manufacturer Honda to produce the House of Mobility and Energy, a three-layered nested structure with a seamless energy cycle. [Fig. 3] The house generates its own energy through solar panels and natural gas, stores it locally and uses it to power Honda's personal mobility devices. Two and four-wheeled moveable robotic stools and electric cars run on smart energy, in and out of the house, effortlessly connecting its residents within the house and between the house and the city. Fujimoto successfully visualised this potential of personal mobility in architectural form. Contrary to a conventional dwelling that strictly separates inside from outside, this house is an open structure that reformulates the relationship between the house and the city. Configured as three differently sized house-shaped frames nested in each other, the house is experienced as multiple gradations between interior and exterior. Electric vehicles driving into the outer layer of the house dissolve the border between inside and outside.

Toyo Ito recalls in his proposal a 'new common sense' Japanese lifestyle in which residents regain direct contact with soil, rain and natural scents. His Beyond the Residence: Imagining a House for the Nostalgic Future designed in collaboration with Lixil combines the pleasures of outdoor living with the comfort of a highly controlled indoor space. [Fig. 4] Moveable wooden louvres spanning the front façade of the house allow light and wind to freely enter the house. The Earthen Room behind the louvres, containing a garden, veranda, outdoor bath and stove, invokes a lifestyle akin to the *doma* [earth floor] in a traditional Japanese house, neither strictly inside or outside. By contrast, the highly controlled indoor spaces of living room and soundproof hobby room, equipped with the latest technologies such as self-heating tiles, ensure a comfortable indoor climate that is lacking in traditional Japanese houses. As such, people can enjoy the best of both worlds. The house stems from Ito's idea of 'simple happiness'. For the architect, simple happiness derives from living in a rich environment that allows people to choose between various options according to their mood. The behaviour of residents is 'much like that of a dog, freely deciding where in the house it will take a nap.'[27] The second Tokyo exhibition, in 2016, started from the societal challenge of Japan's rapidly declining birth rate

Fig. 7

Fig. 8a

Fig. 8b

Fig. 7: House Vision 2016 Tokyo Exhibition. Daito Trust Construction and architect Sou Fujimoto redefined the standard Japanese rental apartment with luxuriously generous shared spaces. Photo: House Vision.

Fig. 8a, b: House Vision 2016 Tokyo Exhibition. Rental Space Tower advances collective living in Japan using a complex scheme of private and public spaces. Photo 8a: SFA Photo (courtesy of Sou Fujimoto Architects). Photo 8b: Nacása & Partners Inc (courtesy of House Vision).

and the rise of alternatives to the post-war nuclear family. For decades, the Japanese housing industry has catered to the house for the nuclear family, but the recent increase in single-person households renders this image of the house obsolete.

In response to families 'splitting up into individuals that freely come and go', Hara introduced the theme of *House Vision 2* under the heading 'Co-dividual: Split and Connect/Separate and Come Together' (*wakarete tsunagaru/hanarete atsumaru*).[28] The proposals investigate how the house can reconnect individuals. One of the twelve full-scale homes on display was the collaboration between Japan's famous door-to-door delivery service company Yamato and industrial designer Fumie Shibata. House with Refrigerator Access from Outside makes full use of Yamato's extensive logistics system through the introduction of not merely door-to-door deliveries but multiple deliveries such as 'from factory refrigerator to private refrigerator', and 'from dry cleaner to private closet'. The house features all kinds of storage devices that allow delivery services to access the house, without making residents dependent on delivery times.

For architect Go Hasegawa, co-dividual implied the building of communities.[29] Together with Airbnb, the online hospitality service, he designed a large house made from local cedar wood that contains rentable accommodation as well as an event space for the local community. Through the combination of these two different functions, Yoshino-sugi Cedar House – relocated to its final destination in rural Yoshino after the *House Vision* exhibition – aims to provide travellers with a deeper understanding of Yoshino culture. [Fig, 6]

Residential leasing and management company Daito Trust, together with architect Sou Fujimoto, aspired to redefine the typical rental apartment in Japan. In contrast to the standard apartment in which residents tend to isolate themselves, Fujimoto proposed a form of collective living that invited residents to connect with their neighbours. By reducing the private spaces to an absolute minimum and maximising its collective spaces, Rental Space Tower [Fig. 7, 8a, 8b] provides residents with an urban luxury unheard of in standard Japanese apartments; large outdoor bathing facilities, cooking in a royal-sized outdoor kitchen, and the possibility to grow their own vegetables.

Conclusions

More than generating revolutionary housing ideas, *House Vision* was set up with the ambition of introducing to society realistic alternatives to the existing housing market. During the post-war era, Japan experienced rapid economic growth that was largely propelled and sustained by the white-collar salaryman, his lifetime employment and the dream of home ownership. Government and industry pushed the housing market towards 'the house for the nuclear family', which subsequently became the default housing option. However, recent socio-economic and political changes, such as a lingering recession, a declining birth rate, and the rise of alternative families, have rendered this housing mythology obsolete. It is at this breaking point that *House Vision* was launched. Using his philosophy of 'educating people about their own desires', Kenya Hara challenged people to open their eyes to alternative housing models and imagine the house as an extension of their own personalities. The emphasis is not on the final product called a house, but rather on raising awareness among the public about the possibility of choosing a housing scheme that better fits their lifestyle. Merely displaying small architectural models will not do the job of delivering exclusive architectural ideas to audiences beyond architectural circles. Full-scale open-air exhibitions are indispensable in providing a first-hand experience of what an alternative housing scheme might entail. The proposals that architects and companies have drawn up in *House Vision* demonstrate a range of future scenarios for the house. On the one hand,

proposals are high-tech and integrate the latest mobility and energy sources using new architectural vocabulary. On the other hand, proposals look back to the past to find inspiration for the future. These reinterpretations of traditional Japanese aesthetics and lifestyles are adapted to meet twenty-first-century levels of comfort. Since *House Vision* starts from crucial societal problems, the proposals are likely to find an audience. Although the initiative does not differ substantially from the decades-long endeavours of individual architects in Japan to present alternatives to mainstream housing, significant media coverage and government support might make *House Vision* more successful in planting the actual seeds of change.

Notes

The larger context in which House Vision is presented in this article is part of the author's PhD dissertation and rewritten with funding from Cecelia Segawa Siegle Prize. House Vision Exhibitions: Director: Kenya Hara; Planning & Coordination: Sadao Tsuchiya; Production/Execution: Nippon Design Center, HARA Design Institute.

1. For an investigation of the recent history of the single-family house in Japan as a product of intense theoretical examination and architectural experimentation see Cathelijne Nuijsink, 'What is a House? Architects Redesigning the Domestic Sphere in Contemporary Japan, 1995–2011' (PhD dissertation, University of Pennsylvania, 2017).

2. For a detailed account of how the housing system in Japan has driven the expansion of home ownership as a means of facilitating the formation of a middle-class society, see Yosuke Hirayama, 'Reshaping the Housing System: Home Ownership as a Catalyst for Social Transformation', in *Housing and Social Transition in Japan*, ed. Yosuke Hirayama and Richard Ronald (London: Routledge, 2007), 15–46.

3. Amy Beth Borovoy, *The Too-Good Wife: Alcohol, Codependency, and the Politics of Nurturance in Postwar Japan* (Berkeley: University of California Press, 2005), 8. Scholars in the social sciences

and humanities have extensively analysed the shift from the hegemonic post-war image of the standard nuclear family life to new patterns and lifestyles. Emiko Ochiai, *The Japanese Family System in Transition: A Sociological Analysis of Family Change in Postwar Japan* (Tokyo: LTBC International Library Foundation, 1997). Chizuko Ueno, *The Modern Family in Japan: Its Rise and Fall* (Melbourne: Trans-Pacific Press, 2009). Richard Ronald and Allison Alexy, *Home and Family in Japan* (London: Routledge, 2011).

4. As social scientist Yosuke Hirayama has explained, home ownership was touted as an indispensable component of middle-class life identity and completed the picture of the normative family. Both the government and businesses supported the housing system as beneficial to the country's economic growth. While the government provided housing loans, corporations granted company men lifetime employment and the prospect of climbing the housing ladder with a gradually rising income. Hirayama, 'Reshaping the Housing System', 20–22.

5. Architecture critic Ryuichi Hamaguchi, in his 1947 book *Architecture of Humanism: Reconsideration and Prospects of Japanese Modern Architecture* [in Japanese], considered Japanese modern architecture – as developed in Japan between the Meiji Era and the Second World War – as a deviation from the right course, calling it nationalistic, dedicated to the ruling class and lacking a human dimension. In its place, he proposed that Japanese architects embrace the spirit of functionalism as embedded in international modernism, as its functionalism contained a humanist spirit that tried to reach many people. Hamaguchi's writings formed the roots of a common understanding that architecture in post-war Japan should be democratised and greatly inspired his Japanese contemporaries to turn to functionalism. Ryūichi Hamaguchi, 「ヒューマニズムの建築：日本近代建築の反省と展望 」 *Hyūmanizumu No Kenchiku* (Tokyo: Ondorisha, 1947).

6. Examples of prototypes for minimum houses intended for mass production are Junzo Sakakura's A-frame building system and Kunio Maekawa's PREMOS.

Architect Kiyoshi Ikebe stood out in the second category of individual houses embracing the new post-war family ideology of a couple-centred family. Ikebe developed nearly a hundred case study houses that included experiments with industrialised elements based on a simplified version of Le Corbusier's Modulor. Ken Oshima, 'Postulating the Potential of Prefab: The Case of Japan', in *Home Delivery: Fabricating The Modern Dwelling*, ed. Barry Bergdoll and Peter Christensen (Basel: Birkhäuser, 2008), 33.

7. One well-known example of an architect who was convinced that former military production methods should be reused for a new purpose was Buckminster Fuller, who designed the temporary dwelling of Dymaxion Dwelling Machine (1944–46). For this and more examples, see Jean-Louis Cohen, *The Future of Architecture Since 1889* (London: Phaidon, 2012), 293, and Jean-Louis Cohen, *Architecture in Uniform: Designing and Building for the Second World War* (Paris: Hazan, 2011).

8. Ken Oshima, 'Postulating the Potential of Prefab', 34.

9. The architect Osamu Nishiyama coined the term 'shortcake houses' to ridicule the look of commercial houses, in his book「笑う住宅」*Warau Jūtaku* [Houses that Laugh] (Tokyo: Chikuma Shobo, 1995), 37.

10. Forrest and Hirayama have argued that, although Japan already sympathised with neoliberal policies in Britain and the United States in the early 1980s, it was not until the mid-1990s that such policies were actively implemented in Japan. Ray Forrest and Yosuke Hirayama, 'The Uneven Impact of Neoliberalism on Housing Opportunities', *International Journal of Urban and Regional Research* 33, no. 4 (2009): 998–1013, doi:10.1111/j.1468-2427.2009.00903.x.

11. Ray Forrest and Yosuke Hirayama, 'The Financialisation of the Social Project: Embedded Liberalism, Neoliberalism and Home Ownership', *Urban Studies* 52, no. 2 (2015), 239.

12. Anne Allison introduced the idea of 'liquidity' in the context of Japan but the notion finds affinity with sociologist Zygmunt Bauman's concept of 'liquid life', which he defined as 'precarious life, lived under conditions of constant insecurity'. Anne Allison, *Precarious Japan* (Durham: Duke University Press, 2013). Zygmunt Bauman, *Liquid Life* (Polity Press, 2005), 2.

13. Richard Ronald and Allison Alexy, 'Continuity and change in Japanese homes and families', in Ronald and Alexy, *Home And Family*, 10–11.

14. *The Statistical Handbook of Japan 2018* shows that both the birth rate and death rate have dramatically declined since 1950, while the aged population (sixty-five years and over) marked a record high in 2017, constituting 27.7 percent of the total population (one in every four persons). (Tokyo: Statistics Bureau, Ministry of Internal Affairs and Communications Japan, 2017), https://stat.go.jp. For an account of how Japan's demographic changes affect the country's system of social stratification and inequality, see Sawako Shirahase, *Demographic Change and Inequality in Japan* (Melbourne: Trans-Pacific Press, 2011).

15. Political scientist Richard Samuels was quick to consider the impact of the triple disaster on the Japanese government and society, arguing that two decades of economic malaise in combination with 3.11 had disrupted the Japanese system and consequently resulted in 'national soul-searching'. Richard J. Samuels, *3.11: Disaster And Change In Japan* (Ithaca: Cornell University Press, 2013).

16. Sociologist Atsushi Miura described the social changes in Japan from a consumption perspective, explaining that Japan around 2005 gradually moved from a 'third stage' into a 'fourth stage' of consumer society. Atsushi Miura,「第四の消費：つながりを生み出す社会へ」*Daiyon no shōhi : tsunagari o Umidasu Shakai e* (Tokyo: Asahi Shimbun Shuppan, 2012), translated by Dana Lewis as *The Rise of Sharing: Fourth-Stage Consumer Society in Japan* (Tokyo: International House of Japan, 2014).

17. Some notable collaborative projects came into being after the disaster: Hitoshi Abe and Yoshiharu Tsukamoto joined forces and formed the Relief and Recovery Network *ArchiAid* to overcome the limitations of an architect's individual endeavours. *ArchiAid* envisaged a collaboration between architects, (international)

professionals, local experts and students with the aim of revitalizing the affected regions and exploring new ways of providing architecture education. Another new support platform with a social agenda was KISYN no kai, an initiative by five of Japan's master architects, Toyo Ito, Riken Yamamoto, Kengo Kuma, Hiroshi Naito and Kazuyo Sejima. KISYN no kai initiated the collaborative project Home-for-All (みんなの家 *Minna no ie*), public gathering places for the victims of the recent earthquake. Moreover, KISYN no kai provided Ito with the rare opportunity, for an independent architect in Japan, to work as a master planner for the reconstruction of Kamaishi, a regional town destroyed by the tsunami. Taro Igarashi,「３．１１からの建築家の動き」 '3.11 kara no kenchikuka no ugoki' [Initiatives by Architects Since 3.11], *The Japan Architect* 84 (Yearbook 2011), no. 4 (2012):6.

18. Yoshiyuki Sato,「新自由主義へのミクロな抵抗」 'Shinjiyūshugi e no mikurona teikō' [A Micro-Resistance to Neoliberalism] in Yoshiyuki Yamana, Seiichi Hishikawa, Masaki Uchino, and Masatake Shinohara「En [縁]:アート・オブ・ネクサス」 *En āto obu nekusasu* [Art of Nexus] (Tokyo: Toto Publishers, 2016), 146–47.

19. Toyo Ito, 'Postscript', in *Project Japan: Metabolism Talks*, ed. Rem Koolhaas and Hans-Ulrich Obrist (Cologne: Taschen, 2011), 697. Ito announced his new design methodology of an architecture that blends with nature in his book *Architecture from that Day Onwards* [in Japanese]. He takes his projects of *Minna-no-Ie* and a reconstruction project for the town of Kamaishi as examples to demonstrate his interests in 'community' and his switch to designing buildings with a social character. Toyo Ito,「あの日からの建築」 *Ano hi hara no kenchiku* [Architecture from that Day Onwards] (Tokyo: Shūeisha, 2012). For a recent reflection on the impact of 3.11 on the work of Toyo Ito in the past years and his interest in a renewed relationship between people, nature and architecture, see also Toyo ito, 'Toyo Ito Reconstruction and Ideology', interview by Nikolaus Hirsch, *e-flux* no. 94 (October 2018), https://e-flux.com.

20. According to Hara, people in Japan were not sufficiently literate when it comes to building homes. Educating a desire in people to create a space that suits their own lifestyle is key behind the idea of Muji as well as *House Vision*. http://house-vision.jp

21. The theme of the first workshop, 'Life from Now On', took an entirely different meaning when four days later Japan was hit by the Great East Japan Earthquake. Sadao Tsuchiya. 「House Vision　の始まり」 *House Vision no hajimari* [House Vision 2013 Tokyo Exhibition] (Tokyo: Heibonsha, 2013), 172.

22. Until recently, in Japan it has been the preference to buy things new rather than secondhand, including the home. However, a decreasing population and the 'fourth stage' consumption pattern has put downward pressure on the new-homes market. As part of the growing interest in actively re-using things, Japan accepted the idea of second-hand or used houses and introduced qualitative renovations of the existing housing stock.

23. Cameron Allan McKean, 'Kenya Hara: The Future of Design', *The Japan Times*, 4 January 2014. https://japantimes.co.jp.

24. Kenya Hara and Giovanni Maggioni, 'House Vision: How to Educate Desires', *Abitare* no. 557 (September 2016): 106.

25. Kenya Hara, 'Kenya Hara: The role of the designer is changing', lecture at AGI Open London 2013. *Design Indaba TV*. Published on 29 October 2013. https://youtube.com. See also: McKean, 'Kenya Hara'.

26. Edan Corkill, 'Awakening the Desire for a Home with Personality', *The Japan Times*, 3 March 2013. https://japantimes.co.jp.

27. Toyo Ito. 「住の先へ．　懐かしい未来の家を考える」 'Jū no saki e. Natsukashī mirai no ie o kangaeru', in *House Vision 2013 Tokyo Exhibition,* ed. Kenya Hara and House Vision Executive Committee (Tokyo: Heibonsha, 2013), 32.

28. Kenya Hara in the introduction to the exhibition catalogue *House Vision, 2 : 2016 Tokyo Exhibition* (Tokyo: Bijutsu Shuppansha, 2016), 11.

29. Go Hasegawa, Project text on House Vision website, 2016, http://house-vision.jp.

Biography

Cathelijne Nuijsink graduated in Architecture from Delft University of Technology and the University of Tokyo before embarking on a PhD in East Asian Languages & Civilizations at the University of Pennsylvania. In her PhD thesis, *What is a House? Architects Redesigning the Domestic Sphere in Contemporary Japan, 1995–2011* she investigated the recent history of the single-family house in Japan as a product of intense theoretical examination and architectural experimentation. Currently, Nuijsink is a Marie Sklodowska-Curie postdoc researcher at the Institute for the History and Theory of Architecture (gta) at ETH Zürich where she is developing a new methodological and theoretical framework that aims to revise the existing architectural history canon.

Interview
Housing in Barcelona: New Agents for New Policies
Josep Maria Montaner (JMM) interviewed by David H. Falagán (DHF)

Josep Maria Montaner has spent an important part of his professional career in academia, surrounded by books and students, but also travelling and understanding the realities and contexts of other worlds.[1] This urge for knowledge soon became a vocation to share it – he authored more than fifty books on the theory and history of architecture – and a drive to participate actively in the urban transformation of Barcelona, his city. In 2015 that vocation led to his political venture as housing councillor in Barcelona and deputy councillor in the district of Sant Martí. Since then he has been part of the cabinet headed by mayor Ada Colau.

Among other things, in the academic world Montaner is considered an expert in housing. Between 2005 and 2015 he co-directed the Master's programme *Laboratorio de la Vivienda Sostenible del Siglo XXI* (Laboratory for Sustainable Housing of the Twenty-First Century) with professor Zaida Muxí in the Polytechnic University of Catalonia. Both directors curated the exhibition *Habitar el presente. Vivienda en España: sociedad, ciudad, tecnología y recursos* (Inhabiting the present. Housing in Spain: society, city, technology and resources), a historical portrait of the Spanish housing situation before the economic crisis.[2] More recently, he has published *La arquitectura de la vivienda colectiva* (The architecture of collective housing), one of the most complete texts about the evolution of collective housing over the last hundred years.[3]

We met him in Barcelona in October 2018 to find out more about his perspective on habitat and current housing policy.

From academia to municipal management
DHF: After almost forty years dedicated to education, being considered a professor with indisputable academic prestige, you decided to shift to municipal politics. What reasons led you to make this decision?

JMM: The main reason was the unique opportunity to devote myself to the city of Barcelona, an object of study and experience through decades, to which I have dedicated courses and books, and about which I directed a research group analysing the Barcelona model. It was also an opportunity to enter into politics and get to know the reality from an active position that I had defended in books such as *Arquitectura y Política* (Architecture and Politics) (2011), written with Zaida Muxí, and *Del diagrama a las experiencias, hacia una arquitectura de la acción* (From diagrams to experiences, towards an architecture of action) (2014).[4]

From the beginning, we took part in the groups that have worked since 2014 to prepare the candidature of Ada Colau and 'Barcelona en Comú'.[5] Even though I never expected to get involved in politics, the need for an architect in Colau's list created the opportunity. The most important aspect of this experience has been to be part of a magnificent group managing the city.

DHF: From this new perspective, what do you think are the crucial challenges regarding housing in the next years?

JMM: Housing in Barcelona, as in all of Catalonia and Spain, faces the challenge of catching up in relation to Europe regarding the continuous development of public housing policies. For the Spanish authorities, housing has always been understood as a means for obtaining economic results rather than a basic human right. Here, I should clarify that indeed public housing neighbourhoods were built over the last century, but following the housing policies established by different Spanish and Catalan governments, it was possible to convert them to private ownership after twenty or twenty-five years. For example, it is estimated that in the whole Catalonia almost two hundred thousand public houses were built during the last eight decades, all of which eventually entered the private housing market. When we started our term in the Municipality of Barcelona, in June 2015, there were fewer than seven thousand public rental houses owned by the municipality. However, if we added all the houses built over many decades by public housing agencies such as the Obra Sindical del Hogar, the Ministerio de Vivienda, ADIGSA and the Patronat Municipal de la Vivienda, we would have thirty thousand houses. Therefore, the main challenge for the current municipal cabinet is to advance a resilient and highly diversified housing policy for the next decade. This challenge is defined in our Plan for the Right to Housing in Barcelona (*Plan del Derecho a la Vivienda en Barcelona*, 2016–2025), which aims at reserving eighty percent of the new residential developments for affordable rental and social housing.

DHF: Considering your academic background, what are your sources (both intellectual and professional) of good practices in housing architecture?[6]

JMM: There are a lot of intellectual and professional models, as well as political, that serve as our sources. They start from the social democratic housing policies in Europe in the interwar period, especially in cities like Vienna, and in countries like the Netherlands and Germany. Another important source is the housing policies implemented in the 1930s in the United States, after the 1929 crisis, following Catherine Bauer's studies, issuing laws and developing plans to support the right to housing. Latin America also stood out during the 1960's and 70's, with good housing policies that had more or less continuity. In Allende's Chile, in the 1970's in Mexico, and in the stable housing policies in Uruguay, especially in the cooperative housing sector, social housing has continued to develop without interruption according to policies established fifty years ago.

DHF: Aside from past examples, can you name a few contemporary cases that are worth mentioning?

JMM: We are talking about times of neoliberalism, and the search for solutions to get out of the housing crises that have afflicted countries and cities since the turn of the century (in the Netherlands, Finland and Japan since the 1990's), finishing in the last and disastrous stages: the mortgage crisis in 2007 and the disruption of housing finance, which has led to an abusive increase in rent values in the most representative cities of the planet. Therefore, today it is hard to find good examples. Instead, we can study how different cities and countries are dealing with this crisis. In this regard, Barcelona is an exemplar, despite its delay, thanks to all the diverse resources and tools that the city has formulated to meet the crisis and shift the paradigm. To achieve this, it helps that Barcelona has a very strong tradition of affordable housing for the elderly, and today, a new tradition of cooperative housing is being consolidated. In the international scene, there are still good examples in the Nordic countries and in

England, nowadays implemented essentially by housing associations, which are compensating for the absence of the public sector after the neoliberal turn. Before the crisis, Brazil provided one of the best examples with the 'Favela-Bairro' programme developed in the 1990s in Rio de Janeiro, and with the policies for the redevelopment of the favelas of São Paulo, implemented around 2010.

State of the art

DHF: The team to which you belong, directed by mayor Ada Colau, started their mandate in a very challenging moment regarding access to housing. The mayor herself was a prominent activist in favour of the right to housing – she is one of the founders of the *Plataforma de Afectados por la Hipoteca* (platform for the victims of mortgages). What was the situation you encountered when you started as Barcelona's Councillor for Housing?

JMM: Both the situation we inherited and the evolution that took place from then could be defined as a condition of housing emergency, complicating even further the possibility of a wide and diversified housing plan, since the most urgent matters demand a great effort. To address this, we created new support units to help families and cohabitation groups affected by eviction processes.[7] Moreover, we started implementing Catalonia's 2007 Law for the Right to Housing.[8] Most of its articles had remained merely 'on paper' since 2007, and we finally started to apply them. Barcelona was thus ahead of other Catalonian cities in the introduction of several measures in the housing sector. A new jurisprudence was created, going beyond the discipline of urbanism, defending the right to housing and fighting against sub-standard housing. To achieve this, the regulation of construction permits (*Ordenanza de permisos de obras,* ORPIMO) was revised to protect tenants whose houses go through renovation processes; municipal norms against real estate harassment were added, and the housing

offices were strengthened with new staff and lawyers specialised in the laws protecting housing rights.

DHF: To what extent do you think this scenario can be extrapolated to other contexts? Which of the critical factors can be considered global?

JMM: Beyond the specific and circumstantial factors in each city – in Barcelona, the pressure created by tourism and the arrival of specialised technicians and students in a context of scarcity of affordable housing – the problem of housing exists all over the planet and has very different manifestations. These are marked by the dominating tendency to encourage the purchase of housing units, the lack of governmental involvement and investment, leaving big sectors of society unattended and pushing them to desperate actions, such as squatting or self-building in the periphery.

DHF: With your experience as Barcelona's Councillor for Housing, how do you evaluate the situation of Catalonia and Spain concerning housing policies?

JMM: In Spain, there are no continuous public housing policies. The situation has even been aggravated by many processes converting public housing into owner-occupied homes. Since the beginning of the democratic period [the last half of the 1970s], policy has largely depended on the policies and capacities of the governments of Spain's autonomous provinces. In fact, the government of the Basque Country is an example, with a continuous and strong housing policy over forty years that has turned places like Vitoria into cities with almost no housing problems. Also, the government of Andalucía developed a very good housing policy in the 1990's, building many popular, contemporary neighbourhoods and promoting self-help construction policies. In those years, there were

also many good initiatives of housing competitions for young architects. In the beginning of the democratic period, the Autonomous Community of Valencia also promoted public housing. In the case of Catalonia, the government only developed an authentic housing policy during the seven years of the tripartite government (2003–2010), in which a basic legal document was written: the Catalonian Law for the Right to Housing, published in 2007.[9] These conditions set the backgrounds against which each city and autonomous community faces the housing problem today, in a general scenario where the aid for public housing has been gradually reduced to the minimum: in 2017 it represented 0,06 percent of the Spanish GDP, when the average of many European countries is above one percent.

DHF: To what extent do you think that neoliberal politics have influenced the current situation of housing?

JMM: The monetisation of housing, in the last decades, triggered the appreciation of housing as a commodity for investment and profitability (often, also speculation) instead of a right and a responsibility of governmental authorities. In order to deal with this big problem of the accelerated commodification of housing in the neoliberal context, it is crucial to provide public housing policies and a rental housing stock that have been lacking in Spain. The countries that had this provision (percentages of public housing above twenty-five percent of the entire housing stock) have been able to face this crisis with more resources and tools.

Objectives and strategies of Barcelona's governmental housing plan

DHF: Together with your team at the municipality, you have developed an ambitious Plan for the Right to Housing, that includes exceptional measures. What, in your opinion, are the fundamental features in the housing policies projected in the plan?

JMM: Naturally, introducing a paradigm shift in Barcelona's housing policies could only have happened from the basis of the new Plan for the Right to Housing 2016–2025 (*Plan por el Derecho a la Vivienda de Barcelona 2016–2025*, in Spanish), designed with a participative process in the neighbourhoods.[10] It involved twenty-one sessions (in order to develop a plan that is not only for the city but also adapted to the characteristics of each district). It was discussed with the main actors of the real estate sector and negotiated with the political parties in power in order to achieve the maximum possible consensus. This consensus was widely achieved (thirty votes in favour, out of forty-one). The Plan for the Right to Housing 2016–2025 is centred in four essential vectors of great influence: the fight against situations of housing emergency, the definition of all possible resources and tools to achieve a good use of the current housing stock, such as the empty flats census, the aid provided to owners to renovate their houses and incorporate them in the affordable housing stock. Further, the plan includes a series of measures for a new housing approach that combats sub-standard housing, the withholding of houses that are empty for more than two years, or real estate harassment. The plan is producing a major shift in the production systems of new housing, currently developing seventy-two different projects and fulfilling current society goals, such as achieving energetic efficiency, promoting healthy environments, flexibility and gender equality, and a complete re-thinking of the renovation policies. These are based on the diversification of mechanisms and scales (calls for community engagement and participation, fair distribution of aid and support among the neighbourhoods) and on the introduction of new actions such as the renovation of interiors, proactive technical intervention in areas of high complexity and the introduction of urban renewal approaches that include anti-gentrification measures.

DHF: Is there a concrete strategic plan for the progressive application of these objectives?

JMM: In short, the plan is based on a total diversification of lines of action and processes, without giving away any of the possibilities, opening lines of collaboration with the third sector, cooperatives, foundations, non-profit and limited-profit organisations and companies. The plan is aware that there is not a unique, magical or instant solution to solve the housing problem within the capitalist mode of production and the private ownership of land. Therefore, the problem is perceived as insoluble in a definitive way, but needing to be continuously tackled.

DHF: Which of these implemented measures or launched mechanisms, in your view, sums up the impact that this change of attitude may have?

JMM: We consider that this change of attitude is noticeable in each of the four vectors we are working on. Regarding the housing emergency, we have created a set of conditions in which, despite the continuation of evictions and rent increases, the community is aware that they are not alone in finding solutions to their problems. In relation to the good use of housing, we finally have a census of empty flats and we have demonstrated that the municipality of Barcelona is relentless regarding any kind of abuse in relation to the right to housing: housing discipline, fines on illegal tourist apartments, penalties to banks and financial entities that do not observe the law or that keep empty flats, or that do not take responsibility for occupied flats under their ownership used illegally. Regarding new construction, we have boosted new forms, such as *Covivienda* (Co-housing) and cooperative housing. We have also started new forms of public-private partnership such as the *Operador Metropolitano de Vivienda* (Metropolitan Operator for Housing), the first organisation in Spain similar to the housing associations model popular in northern Europe.

Regarding renovation, we have shifted the model, from an administration that provides bureaucratic support to a proactive initiative that takes action in the houses that have proven to need it.

DHF: Which agents or tools that were invisible before have been incorporated in the measures that you are applying?

JMM: Apart from the ones mentioned above, such as the creation of the UCER (*Unidad Contra la Exclusión Residencial*, Unit Against Housing Exclusion) or the initiatives towards a more controlled housing sector, we can highlight two different kinds of measures. On the one hand, those related to the shift in urban planning approaches to protect the right to housing, such as the Modification to the General Metropolitan Plan (*Modificación del Plan General Metropolitano*, MPMG) to reserve a thirty percent quota of affordable housing in all the projects (constructions above six hundred square metres) in a consolidated urban fabric, whether they are new construction or rehabilitation projects. Furthermore the "right of first refusal" for the City Council over all purchases of housing buildings and land for housing has been extended to the whole city. On the other hand, we can find measures related to industrialisation and housing production, to rapidly increase the public housing stock through calls for projects such as *Proyecto y Obra* (Project and Construction). Moreover, the creation of the APROP (*Alojamientos de Proximidad Provisionales*, Temporary Neighbouring Housing) was essential. These are quickly built temporary, modular and prefabricated houses to be located in areas of high real estate pressure, and the strategy is to strengthen the small community life. [Fig. 1, 2]

Learning

DHF: Considering your experience, do you think that a new theory about housing and its future challenges is necessary?

JMM: A new theory about housing is always necessary. We have to look back to learn from previous experiences but also from contemporary initiatives. It is very important to adjust and synthesise all the aspects and areas that come together in the field of housing but, usually, are handled individually: architectural and urban quality, bio-construction and health, social aspects, management and financing mechanisms, and so on. Since housing is a global issue to which each country and city adopts different positions, it an alliance between cities is vital, in order to share experiences and tools. This alliance should have the intention of insisting that more competences be allocated to cities, aiming to defend society's is ceaseless and direct demand for the right to housing.

DHF: What role can urban planning and architecture play as innovative tools to contribute to a global development of the right to housing?

JMM: The role that urban planning plays is essential as a tool to anticipate and innovate. Therefore, it is important, first, to have updated data and information (this is why we have promoted the creation of the Housing Metropolitan Observatory for Barcelona) and, in consequence, design policies and urban plans that provide an answer to the problems diagnosed. In this sense, in the case of Barcelona it is vital to understand the housing problem within a metropolitan context. Unambiguous information, planning and housing policies in tune with reality are the bases to anticipate, as much as possible, future trends.

DHF: Do you think there a need for a re-orientation of the approach towards housing in architectural education?

JMM: Undoubtedly. In architectural education, the vision of great feats (and therefore, large, star projects) and the great male heroes is still dominant. However, architecture is a collective work related to social context in which housing is an essential part of the urban fabric. Therefore, introducing social, ecological and feminist visions is crucial, and, within this vision, it is very important to give a substantial role to housing and teach students to be inspired by reality, come closer to users and be sensitive towards participation processes. As a result, the values we should transmit are equality and justice, flexibility and perfectibility, and rehabilitation and health.

DHF: Does architecture, as a discipline, have options to approach the actual problems of housing in a sharper way?

JMM: It does, and it has also had options in the past. If it does not reinvent itself to face the challenges, take advantage of the opportunities and make space for the young generation, for innovations and new ideas, it will become obsolete. It will continue to be an instrument for power and speculation, with models only available to the unreachable stars of architecture. Definitely, there are many hints that indicate that it will not be like this, and a new collective architecture, a new urbanism of the commons and new social and collaborative approaches are already happening. In many cases, these new ideas are embryonic developments, sometimes only pilots of good practices, which are gradually becoming more visible.

Fig. 1

Fig. 2

Fig. 1: APROP project in Ciutat Vella, Barcelona; general view. Source: Straddle3 Constructors.

Fig. 2: La Borda Housing Cooperative. Cohousing project in Barcelona; interior view. Source: LaCol Cooperativa d'Arquitectes.

Notes

1. The original transcript, in Spanish, was translated into English by Gonzalo Zylberman.

2. Josep Maria Montaner and Zaida Muxí, *Habitar el presente. Vivienda en España: sociedad, ciudad, tecnología y recursos* (Madrid: Ministerio de Vivienda, 2006).

3. Josep Maria Montaner, *La arquitectura de la vivienda colectiva: Políticas y proyectos en la ciudad contemporánea*, Estudios Universitarios de Arquitectura 26 (Barcelona: Editorial Reverté, 2015).

4. Josep Maria Montaner and Zaida Muxí, *Arquitectura y Política: Ensayos para mundos alternativos* (Barcelona: Editorial Gustavo Gili, 2011); Josep Maria Montaner, *Del diagrama a las experiencias, hacia una arquitectura de la acción* (Barcelona: Editorial Gustavo Gili, 2014).

5. Ada Colau was one of the founding members and a spokesperson of the *Plataforma de Afectados por la Hipoteca* (platform for the victims of mortgages), created in 2009. In June 2014, she founded *Barcelona en Comú* (Barcelona in common), a citizen's platform currently governing the city of Barcelona, after the May 2015 municipal elections.

6. David H. Falagán (ed.) *Innovation in Afordable Housing. Barcelona 2015-2018* (Barcelona: Ajuntament de Barcelona, 2019).

7. These units were SIPHO (*Servei d'Intervenció en la Pèrdua d'Habitatge i Ocupació*, Intervention Service in the Loss of Housing and Employment), and UCER (*Unidad Contra la Exclusión Residencial*, Unit Against Housing Exclusion).

8. Law 18/2007 (28 December 2007).

9. Catalonia's tripartite governments (2003–2010) were formed by the PSC (Catalonia's Socialist Party), the eco-socialists of the ICV and the secessionist republicans of the ERC.

10. For an overview of the plan's goals, see: https://youtu.be, accessed 7 January 2019 and 'Barcelona Right to Housing Plan 2016–2025', *Qüestions d'Habitatge* 21 (Barcelona: Ajuntament de Barcelona, 2018).

Biographies

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