



Research article

Rethinking China's *danwei*: lessons from the UK's housing 'crisis'Geraldine Denning^{1,2,*} ¹ Assistant Professor, The University of Hong Kong, Hong Kong² Founder, Director and Lead Architect, Architects for Social Housing (ASH) CIC, London, UK

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Abstract

Under 45 years of neoliberal housing policy, the populations of the world have experienced an appreciably increased housing crisis. This is, first and foremost, a crisis of affordability but it is also a crisis of access, of supply and of quality. The fact these housing crises are occurring in Hong Kong as much as in London, in Vancouver as well as in Beijing – cities that have radically different urban topographies, economies and housing policies – strongly suggests that the usual excuses of insufficient housing densities, lack of access to land, an excess of regulation or an influx of immigrants cannot explain what is a global phenomenon, in both cause and effect. Comparing the regeneration of the UK's council housing estates with that of a uniquely Chinese type of public housing called the *danwei dayuan* (work-unit compound), this article outlines some of the key similarities and differences, both economic and social, between policies and practices of public housing and renewal in the UK and China over the last 45 years. Informed by the research and design proposals of Architects for Social Housing CIC, which has pursued research into

housing practices and policies for over a decade, this article will propose opportunities for alternative regeneration strategies derived from the respective conditions in the UK and China. To do so, it explores what lessons can be learned from this comparison with a view to increasing the provision, improvement and maintenance of public housing estates and their communities, and – by default – the liveability of our cities.

Keywords *danwei*; public housing; urban renewal; estate regeneration; refurbishment

Introduction

More than 150 years have passed since Friedrich Engels published 'The Housing Question' in 1872, but his analysis of the causes of housing crises are still applicable today: the commodification of a human need, the marketisation of housing provision and financial speculation in that market. Together, these have manufactured the scarcity of provision from which the profits in the housing market are extracted.¹ Depriving the population of housing drives up both the value of land and the price of the residential properties built on it, which in a financialised housing market become deposit boxes for global capital whose use value as housing is rendered almost irrelevant.

Across the world, public housing estates emerged in the nineteenth and twentieth centuries, partly in response to the housing crises Engels described, and are now often located in high-value, inner-city areas. Over the past 45 years, however – through various forms of urban 'renewal' or 'regeneration' processes that typically mean demolition and redevelopment – these well-located working-class neighbourhoods have been rapidly disappearing: as the public land returns to the market, the latent land value uplift is realised. Without adequate housing policies to protect existing public housing stock from demolition and replacement by residential properties designed primarily for capital investment, our cities have become increasingly segregated, spatially, economically and socially. No city can be deemed 'liveable' if the qualities of liveability – an affordable, contractually secure and sanitary home, proximity to public transport and the workplace, sufficient social infrastructure, parks, healthcare, schools and employment – are only accessible to a wealthy few, while the working class are driven out to the peripheries of the city, increasingly housed in cramped, insecure, poorly connected, unaffordable and often slum housing.

Focusing on policies and practices of public housing 'regeneration' and 'renewal', this article outlines some of the key similarities and differences, both economic and social, between the UK and China over the last 45 years. It compares the regeneration of the UK's council housing estates with that of a uniquely Chinese type of public housing called the *danwei dayuan* – a neighbourhood compound associated with a work unit that emerged alongside the formation of the People's Republic of China from 1949 onwards. Informed by the research and design proposals of Architects for Social Housing CIC, which has pursued research into social housing practices and policies for over a decade,² this article proposes opportunities for alternative regeneration strategies derived from the respective conditions in the UK and China. Finally, it explores what lessons can be learned from this comparison with a view to increasing the provision, improvement, refurbishment, densification and maintenance of public housing estates and their communities, and – by default – the affordability and liveability of our cities.

Public housing policy and inequality

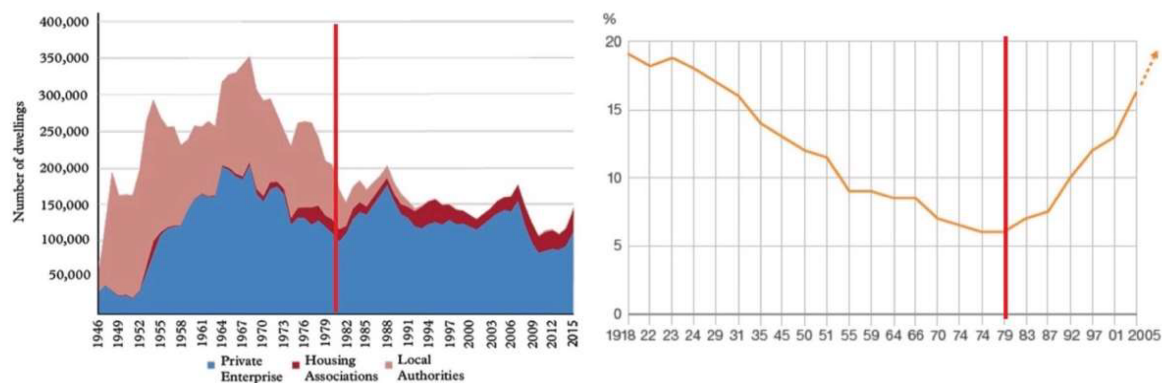
There is a direct correlation between the privatisation of the provision of public housing and economic inequality.³ Rent on the private market being one of the highest monthly household expenses – especially in the UK, where only 50 per cent of the population owns its own home – means that even small increases have an exaggerated impact on households in the lowest income brackets.⁴ Any reduction in the provision of social housing, therefore, has significant negative consequences for the British working class.

Public housing in the UK

A defining aspect of the UK's post-war, public housing masterplans was the locating of council (that is, public) housing estates in well-connected, inner-city locations, with the specific intention of maximising the accessibility of facilities, such as green spaces and civic amenities, for working-class communities. In the early 1950s, local authorities (councils) in the UK built over 200,000 council homes a year. As a result, by 1979, 42 per cent of the UK's population was housed in council and social (housing association) housing.⁵ As the comparison between the graphs above shows (Figure 1), the increased provision of low-cost housing for the UK's working classes in the post-war period corresponded with a drop in income inequality to an all-time low in 1979. And, after the governments headed by Margaret Thatcher effectively abandoned the building of council housing in the UK, compounded by the introduction of the Right to Buy with the Housing Act 1980 that lost over 2 million council homes to the private sector, economic inequality rose sharply again.⁶ Alongside policies supporting mortgage interest tax relief, this resulted in the progressive marketisation of the UK's social housing stock and financialisation of the housing market.

In addition, since 1997, under the banner of 'regeneration', UK housing policy has enabled the demolition, redevelopment and privatisation of precisely these well-located, inner-city council and social housing estates, primarily in order to gain access to the increasingly valuable land on which they were built.⁷ Combined with the Right to Buy, this practice has further diminished the UK's stock of public housing, forced council tenants onto an increasingly unaffordable private rental market, and privatised formerly public land. As a result, only 17 per cent of the UK population is living in social and council housing in the UK today, with 1.33 million households on local authority housing waiting lists.⁸ Far from addressing the housing crisis, 45 years of neoliberal housing policy have instead increased the profits of developers and investors in the housing market.

Figure 1. Left: Housing completions in the UK by tenure type.⁹ Right: The yellow line indicates the share of all UK income received by the richest 1 per cent.¹⁰ The red line on each chart indicates the timing of the implementation of the Housing Act 1980

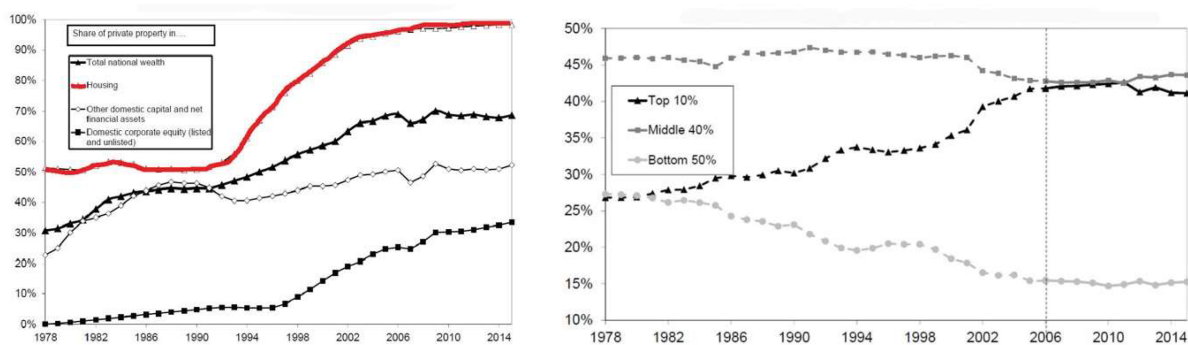


Public housing in China

As one would expect, China's housing policies and the political context in which they are made are very different to those in the UK. However, in the 45 years since Deng Xiaoping instigated economic reforms or 'opening up' in 1979, moving from a socialist economy to a socialist market economy, China has increasingly relied on the market for its housing provision. Just as the UK has suffered under nearly half a century of neoliberalism, China has experienced a corresponding increase in wealth inequality (see Figure 2). Indeed, much as happened in the UK, between 1978 and 2014 the poorest 50 per cent of China's population has seen its share of the national income reduce from 27 per cent to 15 per cent, while the top 10 per cent, in contrast, has increased its share from 27 per cent to 41 per cent.¹¹ There is a parallel, therefore, between the social and economic impacts of the neoliberal policies implemented across the West since the late 1970s and the economic reforms in China.

Under the socialist planned economy implemented in 1949, housing in the People's Republic of China was funded by the state, but its provision in urban areas was largely delegated to neighbourhood work units or *danwei*. Constructed and managed by state-owned enterprises (SOEs), by the late 1970s *danwei* compounds housed 95 per cent of China's urban working population and their families.¹² After the transformation of the economic structure of China that began in 1979, urban and housing development became a complex arrangement in which all urban land remains in state ownership but private developers collaborate with SOEs on a range of joint venture or partnership configurations, with the marketisation of housing provision in China leading to the 1988 urban housing reform.¹³ Here, just as happened after the UK's Housing Act 1980 instigated the Right to Buy scheme, homes in *danwei* were sold to their residents as leasehold properties purchasable at below market prices. Finally, in 1998, further reforms essentially ended the *danwei* provision of housing as linked to employment.¹⁴ Forty-five years later – as seen in the chart above left (Figure 2) – home ownership in China has increased to 96 per cent, compared to 50 per cent in the UK's supposedly 'property-owning democracy'.¹⁵ And yet, as the chart on the right (Figure 2) illustrates, with this extraordinarily high level of home ownership – in fact, the highest in the world – the inequality and wealth gap has also risen.¹⁶

Figure 2. Left: The rise of private property in China, 1978–2015. Right: Income inequality in China, 1978–2015¹⁷



Today, after decades of an annual economic growth rate of around 10 per cent, China's economy – like the UK's and indeed that of the rest of the world – is contracting, with the economy growing by 4.9 per cent in 2024 and projected at 4.5 per cent in 2025.¹⁸ The liquidation in 2024 of one of China's largest housing developers, Evergrande, signalled the end of this particular period of rapid growth and expansion facilitated by private developers.¹⁹ And with this economic change has come a parallel shift in housing policy, away from urban expansion and towards regeneration. In addition, the household registration system (*hukou*), which binds Chinese citizens applying for state support to their place of birth, is being reformed.²⁰ Piloted in Guangzhou, when – or if, for this has been promised for years – this reform is extended across China it will enable rural migrants already living in cities to gain urban residency status, allowing them access to public housing and other state services, including education, welfare and healthcare, putting increased pressure on inner-city housing and infrastructure.²¹ As the neoliberal housing policies of the last 45 years are reformed, therefore, with the provision of public housing by SOEs placed at the forefront of current housing policy and state investment in China, two questions must be addressed: (1) where will this housing be built, and (2) how will the 'regeneration' process be implemented?²²

The *danwei* compared to UK social housing

The *danwei* was a key component of the industrialisation, modernisation and reorganisation of the People's Republic of China between 1949 and 1979, at the end of which time 95 per cent of the urban population lived and worked in one. As the primary mechanism for housing China's rapidly growing urban population, the *danwei* was a neighbourhood structured around the workplace – industrial, institutional,

educational or enterprise – providing all the housing, civil and social facilities the residents needed. This created an extremely close-knit residential and working community, and also a highly controlled one.²³

Like their public housing counterparts in the UK, many *danwei* are located in central urban locations on what is now highly valuable land, and under the economic reforms they were – and remain today – threatened by demolition and redevelopment, with the consequent dispersal of the communities they house.²⁴ And, as in the UK, after their demolition the typically ageing, working-class and migrant residents of existing *danwei* are either not eligible, or unable to afford, to purchase or rent similar properties on the redeveloped *danwei*.²⁵ They are, therefore, obliged to relocate away from their communities to less well connected areas outside the city, with debilitating social and economic consequences. The demolition entailed in large-scale, urban renewal redevelopment projects has already resulted in social conflicts in China, which echo those in the UK between residents and local authorities or housing associations. For example, successful campaigns to prevent the demolition of the dormitories of the Chinese Academy of Sciences in North Zhongguancun resulted from residents opposing the demolition of their homes.²⁶

The regeneration process in China has been complicated by the economic reforms, which transformed the ownership structures of the *danwei* away from their clear ownership and management by the original SOE to a variety of systems, and led to leaseholders housed within mixed-tenure housing blocks (as has also happened in the UK, although on a far smaller scale). In some cases, this complexity of ownership and the consequent disruption of the decision-making process has prevented the *danwei*'s demolition and redevelopment, but it has also resulted in a lack of effective administration to maintain the remaining housing, communal spaces and facilities. This has led to widespread dilapidation in the *danwei*, with negative consequences for the remaining residents.²⁷

Owing to the low rents and their – in many cases – central and well-connected locations, the surviving *danwei*, in addition to housing many of the original residents, have also attracted a growing number of migrants from largely rural areas who are without housing rights in the cities. The result is a diverse and fragmented residential demographic, often living in overcrowded accommodation sublet by individual leaseholders-cum-private landlords. This poses the problem of how to house the existing *danwei* communities in homes maintained up to modern standards, while also providing homes for existing and new communities.

Economic reforms and urban renewal in China

After the economic reforms of the 1980s, most Chinese cities were initially developed through urban expansion, resulting in the assimilation and conversion of what had been rural or farmland into urban land, and in many cases the creation of poorly connected dormitory suburbs. However, with the growing recognition of the economic and environmental importance of retaining China's limited amount of arable land, this programme of urban expansion has been halted and the focus shifted to urban renewal with associated social consequences. In their 2023 report 'Urban Regeneration under National Land Use Control: Guangdong's "Three-Old" Redevelopment Programme', the authors write: 'The central government has made urban regeneration a key focus in China's ongoing 14th National Five-Year Plan (2021–2025) and the Development Vision of 2035 ... A key challenge will be ensuring social justice in urban regeneration.'²⁸

The 'Three-Old' redevelopment programme (also referred to elsewhere as the 'shantytown redevelopment programme') refers, respectively, to blighted urban neighbourhoods, outdated industrial plants and dilapidated villages. The plight of, and fight for, urban villages in China has been well documented, particularly around issues of economic compensation for property- and landowners, but regeneration practices for other working-class, inner-city neighbourhoods, such as the *danwei*, have not been as comprehensively explored. The 'social justice' consideration identified in this report is a key challenge for urban renewal practices in both the UK and China, indicating similar social concerns despite differing contexts.

China's current housing context

Having produced many of the same problems in housing provision that we have in the UK, the Chinese government is now starting to significantly increase the provision of what it calls 'affordable' housing

through its publicly funded housing programmes.²⁹ Primarily led by SOEs rather than private developers, the aim is to increase social housing provision from the existing 10 per cent to between 30 and 40 per cent of housing supply.³⁰

In addition, at the end of 2021, the Ministry of Housing and Urban-Rural Development committed to additional support for the refurbishment of old urban residential neighbourhoods – including *danwei* – encouraging them to focus on quality, reduce dependence on subsidies from the central government, introduce more social capital and establish sustainable construction and management mechanisms. In 2022, the Ministry of Finance allocated funds of, respectively, 30.7 billion yuan, 22.41 billion yuan and 10 billion yuan to promote the renovation of old residential areas, build affordable rental housing and renovate shanty towns.³¹ Around 219,000 old urban residential communities that were built before the end of 2000 were expected to be renovated during the 14th Five-Year Plan period (2021–25) that will conclude this year.³²

Returning the provision of new social housing to SOEs points to neighbourhood structures such as the *danwei* as ideal potential sites and governing structures for this new housing, but their complex funding mechanisms and limited stakeholder participation still impede regeneration projects.³³ What can we learn from practices in the UK that might apply to the regeneration of the *danwei*? And, conversely, what might the historic and contemporary structures of the *danwei* teach us in the UK?

Architects for Social Housing's response to the neoliberalism of the city and its effects on UK public housing

In 2015, author and architect Geraldine Denning and writer and researcher Simon Elmer founded Architects for Social Housing (ASH), a not-for-profit community interest company, to develop an architectural response to the UK's crisis of housing affordability. ASH's research focused specifically on the estate regeneration programme, which ASH identified as occupying a key role in reproducing and exacerbating the UK's crisis of housing affordability. Contrary to the stated intentions of this programme, which include increasing and improving the provision of housing on existing estates, ASH's research has shown that the purpose of estate regeneration is to realise the potential uplift in the value of the land on which the demolished estate stood by replacing council and social housing with market-sale properties.³⁴ Accordingly, this programme targets housing estates in the UK's inner cities, where new homes go on sale for upwards of three-quarters of a million pounds. Such properties are overwhelmingly purchased by buy-to-let landlords, property speculators and overseas investors, with existing residents being priced out, unable to afford to move into the new housing (see Figure 3).

In 2017, ASH was invited to undertake a residency at the Institute of Contemporary Arts, where we mapped the housing estates affected by the estate regeneration programme (see Figure 4).³⁵ We identified 237 London estates that had undergone or were threatened by this programme. At an average of 450 homes on each of the estates with which we have worked – with the larger estates having an average of 1,500 homes – this would equate to well over 100,000 homes out of 789,000 'affordable' homes owned by local authorities or housing associations in London.³⁶ This figure has undoubtedly increased in the intervening eight years.

In addition to our research, between 2015 and 2022 we worked with residents of public housing estates across London that were threatened with 'regeneration' to produce architectural alternatives to their demolition. This consisted of producing designs for the refurbishment, improvement and densification of seven estates, including Central Hill, Knights Walk, West Kensington and Gibbs Green, Northwold, Patmore and St Raphael's.³⁷ These design proposals demonstrated that it is possible to increase the housing capacity on each of these estates by between 50 and 80 per cent through infill and roof extensions and that by selling or renting not more than half of the new properties on the private market it was possible to generate sufficient funds to refurbish all the existing council homes and improve the existing landscape and community facilities, and in doing so keep the existing communities in their homes.

Figure 3. Buyer profiles for the redevelopment on the South Kilburn council estate in London, South Kilburn Regeneration Phase 4: NWCC Development Report, December 2019³⁸



ASH's most recent project, St Raphael's estate in West London, consisted of designs for the refurbishment of all five different building types on the 760-home estate (see Figure 5). Structural engineers corroborated the feasibility of our proposals and ASH commissioned reports by environmental engineers calculating that the full demolition scheme proposed by the council's architect would accrue four times as much embodied carbon as ASH's infill and refurbishment scheme. In addition, an independent quantity surveyor assessed the financial costs of demolition and rebuilding to be three times as expensive per home than ASH's refurbishment and infill scheme.³⁹

By demonstrating that the refurbishment and infill of London's public housing is more socially beneficial, economically viable and environmentally sustainable than their demolition and redevelopment, ASH's research has helped to directly prevent the demolition of 2,580 council and housing association dwellings in London, as well as contributing to changes in UK housing policy. This includes, crucially, the removal of Greater London Authority subsidies for the replacement of demolished existing council and social housing properties.⁴⁰ The question this article wants to address is: can the ASH model of refurbishment and densification be exported as a solution to China's very different set of problems? And, conversely, what can China tell us about addressing the housing crisis in the UK?

Figure 4. Map of London council and social housing estates that have undergone, are undergoing or are threatened with regeneration, demolition or privatisation, exhibited at the Institute of Contemporary Art⁴¹

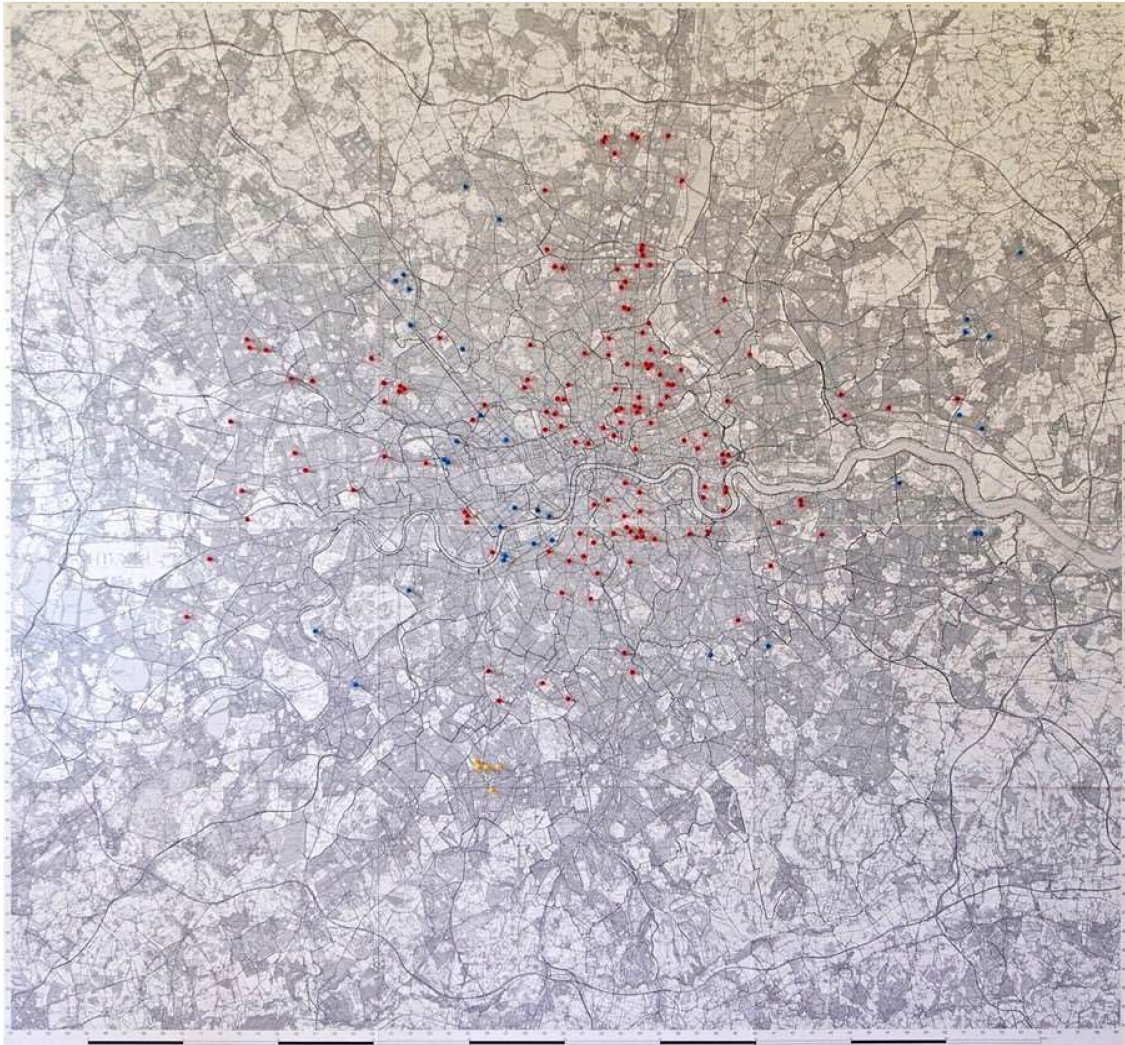


Figure 5. Infill and refurbishment plan from *Saving St. Raphael's Estate; The Alternative to Demolition*⁴²



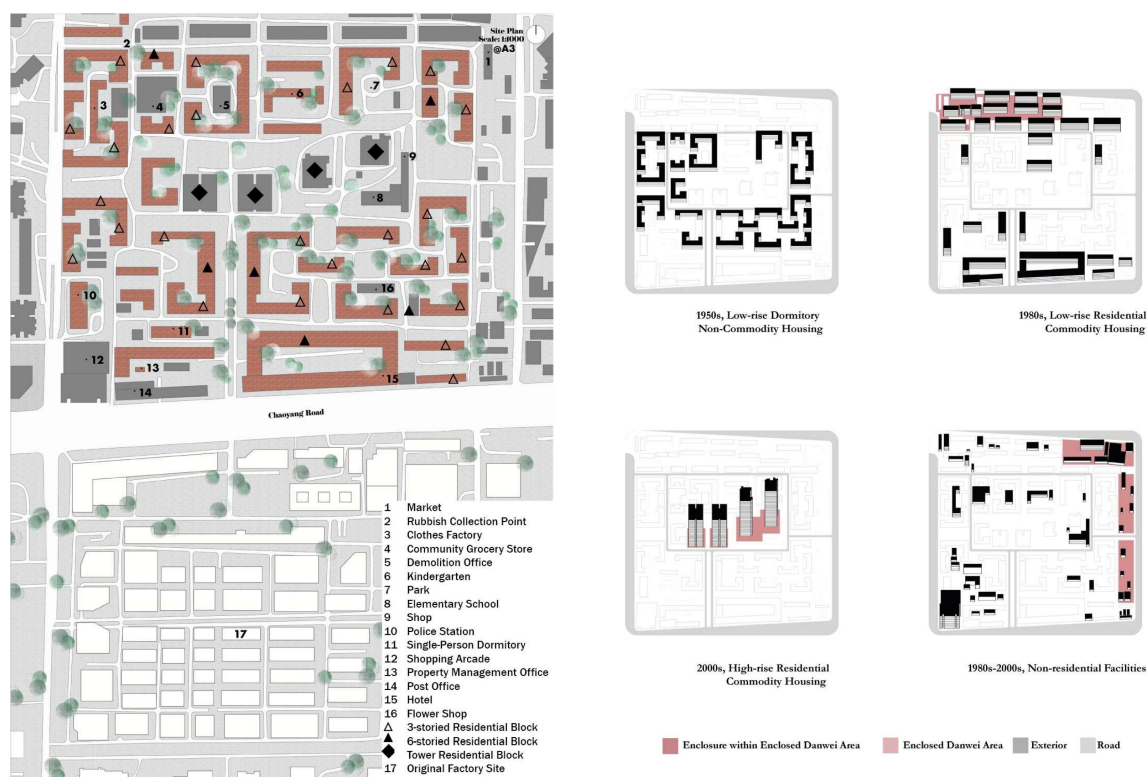
The *danwei*

To this end, we need to understand the composition of the remaining *danwei* and what we can learn, for instance, from their historic structures as well as from the current regeneration plans.

As the capital of what, in 1949, was the newly founded People's Republic of China, Beijing was where many of the first *danwei* housing projects were constructed in the 1950s.⁴³ These included the Hua Gong Da Yuan compound, the dormitories of the Chinese Academy of Sciences in North Zhongguancun, and the Beijing No. 2 Textile Factory,⁴⁴ which has been mapped below by my Year 4 BA (Architecture) students from the University of Hong Kong as part of a study trip to Beijing in 2024 (see Figure 6).

The first *danwei* compounds of the 1950s followed standardised urban and architectural design and construction principles. Again, this was not dissimilar to the UK's public housing of the same time, responding, as it was, to similar but far greater demands to house the rapidly urbanising population. These included the use of self-contained neighbourhood compounds composed of mid-rise, three- to four-storey, concrete-framed masonry buildings that formed perimeter blocks around partially symmetrical courtyards, forming partial and open courtyards in between. This arrangement was ideological as well as being guided by efficiency and expediency. Borrowed from precedents in the Soviet Union, the urban structures acquired a range of Chinese historical characteristics and urban forms. Some have argued that these can be traced back to the Chinese walled courtyard compound or *siheyuan*, in which collective identity was prioritised over the individual.⁴⁵ In this respect, as in many others, their history disposed the Chinese people to the principles of communism.

Figure 6. Plans of Beijing No. 2 Textile Factory showing the infilling of the *danwei*, Balizhuan by Inez Lam, Lin Mengfei Phoebe and Gong Tianshu Sky (HKU students)



The drawings of the Beijing No. 2 Textile Factory (Figure 6 above) show, on the left, the relationship between the housing in the north of the complex and the factory in the south. The drawings on the right show the stages in the construction and transformation of the *danwei* over time. To the north, the majority of the original courtyard housing remains, with the addition of new, high-rise infill housing from the 1980s following the economic reforms. After 45 years, the Beijing No. 2 Textile Factory is no longer operational and has been transformed into that icon of late capitalism, a 'creative hub'. In contrast, the adjacent *danwei* factory compounds 1 and 3 were demolished. The reason the housing on this *danwei*, and not the others, has been retained appears to be for its heritage value.

The original internal layouts of the living spaces within the blocks ranged from larger family units around common stairwells to shared dormitories flanking central communal corridors (see Figure 7). The dormitory rooms would typically house a single person or a couple and did not include private kitchens or bathrooms (Figure 8).

The larger flats had large bedrooms but little or no communal living space and only very small kitchens, encouraging communal and collective activities to take place in a canteen. Block designs and layouts varied within the *danwei* and between *danwei*, depending on the relative success of the particular enterprise that it served.

Although reduced in number, all these *danwei* continue to provide some communal facilities such as gardens and parks, shops and kindergartens (see Figure 9). Some were part of the original *danwei* but many – especially the smaller shops and private enterprises – have emerged since the economic reforms. These provide both employment and low-cost commercial facilities for the residents, which are especially important for many of the now-retired factory workers and new migrant workers.

My students interviewed a retired *danwei* resident who had worked for the textile factory and previously lived in one of the courtyard buildings. She said that the living quality of the original 1950s housing was better, with larger room sizes, more light and higher ceilings, than the newer 1980s housing she had been moved into on the same *danwei*, but that owing to her mobility problems she needed somewhere with a lift, which the older buildings lacked.

Figure 7. Left: Plan of original residences by Gong Tianshu Sky (HKU student). Right: Photograph by Geraldine Dening, 2024



Figure 8. Plans and photographs of Dormitories of the Chinese Academy of Sciences, North Zhongguancun, by Chan Chun Nam Manson, Chu Long Yiu Dominic and Lin Wei Alex (HKU students)



Figure 9. Kindergarten and communal play spaces, Beijing No. 2 Textile Factory, Balizhuang. Photographs by Geraldine Denning, 2024



Refurbishment and improvement of the *danwei* and new ways of living

The *danwei*'s dormitories and flats may no longer meet current 'standards' but, through a combination of renovations, internal modifications and external extensions, living conditions could be greatly improved without demolishing the existing buildings, and at considerably lower costs than demolition and redevelopment. Indeed, various forms of co-housing are increasingly being explored in the UK and across Europe, where housing developments for both the elderly and young people, in which smaller private living spaces are accompanied by shared communal facilities, suggest the potential in the *danwei* for sensitive and thoughtful refurbishments. The growth of the elderly population in China, as across much of the world, is demanding new approaches to housing and shared and sheltered living environments, such as those provided by the *danwei*, could potentially provide supportive living structures for elderly communities. Indeed, it is these ageing *danwei* communities who have the most to lose from the demolition and redevelopment of their homes and who are, despite the increasing dilapidation of the often long-neglected buildings, most keen to remain in their well-connected and located communities.

China's policies on refurbishment, such as the 'Shanty-Town Redevelopment Projects', are starting to reflect this and there are numerous examples of refurbishment of existing *danwei* with the addition of new roofs, services and external decorations.⁴⁶ This varies, depending on the location of the *danwei*, such as a first-tier city or a less economically developed region.

As a strategy for improving the living standards of existing residents while also providing new homes, the addition of roof extensions to existing blocks alongside refurbishment of the existing homes – on the model proposed by ASH in the UK – does not appear to be a major part of China's urban renewal toolkit, at least not yet. However, based on our work in the UK, this is the most efficient, cost effective, least environmentally damaging and socially disruptive mechanism for improving and increasing the density of inner-city neighbourhoods of this period.

Construction methods have changed across the decades, but the buildings constructed in the 1950s, even up to the 1970s and 1980s, would typically include a reinforced concrete slab and sheer walls with brick infill. These are, potentially, capable of accommodating at least one and maybe two additional floors of lightweight construction. Indeed, the standardisation of the original design and construction methods offers the opportunity for prototypical refurbishments to buildings of similar construction. The density and layout of the existing neighbourhood would, however, ultimately dictate the extent to which additional roof extensions can be added. The addition of one or two floors of rooftop housing may be unfeasible in neighbourhoods that are already very dense. Light studies would need to be undertaken, as well as structural studies, on a case-by-case basis to ensure that any proposal did not significantly reduce light levels or impinge on the privacy and overlooking of the existing dwellings. The climate is hugely varied across China, so all proposals would have to respond to the local conditions: the very hot dry summers and cold dry winters of Beijing and northern China have little in common with the humid and

semi-tropical climate of Guangdong and the south, and this would have to be taken into consideration in any proposal or prototype.

Arguments against demolition

In opposing the demolition of the UK's housing estates, ASH addressed and countered each of the councils' stated claims regarding the purported 'need' to demolish the estate. Similarly, in China, we must look at the reasons stated for the need for each urban renewal scheme to take place. In some cases, refurbishment is proposed with the straightforward intention of improving living standards, and indeed this is the stated aim of the funding within the Chinese housing policies to which I have referred, and specifically that of 'micro-regeneration' (*weigaizao*).⁴⁷ However, in inner-city locations, and in situations where local government departments and private developers in collaboration with SOEs can see an opportunity for financial gain, profit can be a significant motivation in undertaking an urban renewal project. Municipal authorities are obliged by the government of China to identify and make available potential sites for redevelopment, especially in city centres where there is potential for increased tourism or other projects to boost the local economy. In equivalent cases in the UK, such as Balfron Tower in London, the refurbishment of historic buildings or areas can result in the eviction of working-class communities from these areas owing to the increased rents.⁴⁸

At ASH, we have conclusively demonstrated that the motivation for the demolition of public housing estates in the UK, and particularly on potentially lucrative land in city centres, is to free up the land for privatisation and realise its latent value with high-cost properties for market sale. From the research I have conducted since arriving in China, it appears that the same motivation is present for the demolition of well-located *danwei*, where SOEs that still own and manage the *danwei* stand to gain financially from the sale or redevelopment of their land. However, the existing leaseholders, who own their former tenancies on the *danwei*, appear to have a greater say in demanding compensation for, or opposing, the demolition. Increasingly, many residents are unwilling to accept cash payouts or housing vouchers in return for moving out of the area to a larger property on the outskirts of the city – which is typically what they are offered – for fear of losing their community, facilities and the communal support they have come to rely on from other residents, many of them having lived there for their whole adult lives.

In many cases, the *danwei* neighbourhoods are already very dense, housing large numbers of people in small compounds. The density of the *danwei* areas to the north of Guangzhou train station, for example, is approximately 38,700 people per square kilometre, which is 3.5 times the average population density of Guangzhou's built-up areas, which at 11,000 people per square kilometre is similar to some of the denser parts of Central London. This makes many *danwei* denser than the council housing estates on which ASH proposed infill housing, so the 'densification' of these neighbourhoods, both to provide additional housing and to cross-subsidise the improvement works, may be less viable. However, if these places are already significantly dense, then one of the arguments for their demolition – the need to increase their density – becomes open to challenge.

The question of whether a *danwei* should be demolished or can, alternatively, be refurbished can only be addressed on a case-by-case basis; but each of the six London estates for which we proposed infill housing and roof extensions demonstrated that it is possible. The urban renewal practices in the UK in the early twentieth century were founded on the accusation that so-called 'slum' housing was overcrowded. The fact that much of this inner-city housing, once cleared of its working-class residents, has been renovated and is now being sold on the market for over a million pounds, shows that such emotive designations are never architectural but always political and economic.⁴⁹

The later *danwei* from the 1970s and 1980s, such as those in Guangdong and Kunming, in Yunnan, accommodate a broader range of building types than the earlier examples. These include double-aspect flats with balconies around well-designed and well-used, if poorly maintained, public spaces and green pedestrian landscapes at their heart (Figure 10, left). In addition, the residential blocks demonstrate their ability to accommodate residents' efforts to transform and improve their own living spaces according to their tastes and needs, with each building showing different modifications of their facades, and especially the balconies, within the structural framework of the existing building (Figure 10, right). While encouraging the provision of communal facilities for the collective use of the resident community, any proposal to refurbish a *danwei* should take its point of departure from these modifications, rather than architects imposing their own opinions about what is best for residents.

Figure 10. *Danwei* housing in Guangzhou (left) and Kunming (right). Source: Photographs by Geraldine Denning, 2024



Governance, decision-making processes and resident participation

Resident participation in the governance of housing estates is universally important, not only in terms of reaching agreements on decisions but also in contributing to individual agency within the community. This is particularly important when the demographic of the community changes. The Grenfell Tower fire on the Silchester estate in West London in June 2017 was a demonstration of the fact that, without adequate resident representation on management boards making decisions affecting their homes, the consequences can be disastrous.⁵⁰ In response to widespread protests and opposition over the past decade, there have been changes to the Greater London Authority's practices in estate regeneration, including the introduction of resident ballots into the estate regeneration process in July 2018.⁵¹ However, although welcome, this is little more than a token gesture, and has not significantly altered the participatory role of residents in estate regeneration schemes, which are still overwhelmingly biased towards the profits of developers and investors, for which resident consent is carefully manufactured.⁵²

An essential component of the creation of the People's Republic of China – and the *danwei* as the urban architectural embodiment of that – was that it was one in which each citizen participated. Originally, every employee of the *danwei* would have participated in the management and collective decision-making process through the Staff and Workers' Representative Council (a Chinese cousin of the 'soviet' workers councils of the Soviet Union).⁵³ When it came to issues that affected people directly and personally (for example, the allocation of housing, as distinct from the running of the company), between 10 and 15 per cent of the workforce were elected to this council in order to represent the rest of the residents. Some of these 'deliberative democratic' processes remain in place within SOEs that own *danwei*, and guide decisions about the living and built environment made by the resident – or, more accurately, the leasehold – population. This generally consists of non-governmental 'property owners' committees' who oversee the property managers' operation and management.⁵⁴ In many cases, between 50 and 80 per cent of residents are required to agree before the work can take place and the complex ownership structures may well prevent major decisions from being implemented, particularly when private financial contributions are needed or when compensation is inadequate. As ASH has

witnessed in the UK, it is often the leaseholders who have most to lose when undergoing an estate regeneration scheme, as they are never given compensation for their demolished homes sufficient to allow them to be able to buy back into the redeveloped estate. In both cases, compensation for homeowners has become an increasingly large stumbling block in the financial viability of estate demolition schemes in both contexts and private tenants' needs are ignored.

However, following the changes to the resident demographic of *danwei*, through leaseholders renting out their properties and through internal migration from rural areas, not all current residents are able to participate in making decisions. Retired *danwei* workers were also not able to participate fully, and private tenants – often migrant workers composing a large proportion of the existing population – also do not qualify. Today, rather than employment status, homeownership or leasehold status is the deciding consideration in the agency of the resident.

Alternative organisational structures and funding mechanisms

In the UK, across Europe, in North America and in Canada in particular, alternative organisational structures have – to varying degrees – proved useful mechanisms for exploring more representative structures for funding and development in areas where previous organisational structures have proved unsuccessful. A community land trust, for example, would be able to raise funds and enable a range of individuals with a range of tenures, as well as groups, organisations and enterprises, to own 'shares' in the neighbourhood or urban area. In some cases, some form of 'sweat equity' (contributions to housing costs with labour as opposed to financially) might be possible. In the example of ASH's proposal for the works to the West Kensington and Gibbs Green estates, the community land trust formed and managed by the residents – West Kensington and Gibbs Green Community Homes – considered the possibility that, if leaseholders were unable to contribute financially to the refurbishment of their homes, part-funding contributions could be made, at least until the property was sold.⁵⁵ The Patmore estate in Wandsworth, London, for example, is a council estate owned by the local authority but managed as a housing co-operative, where decisions related to the management of the estate are taken by the resident board and where residents therefore have a greater involvement in the day-to-day running of the estate.

China already uses a rural land trust as a mechanism to deal with collectively owned rural land, so this may be a useful familiar route.⁵⁶ Indeed, all Chinese rural villages are owned and managed by a co-operative, a system that was established following the communist revolution and which remains to this day. This co-operative structure has been particularly effective in ensuring village residents remain in control of decisions affecting the land on which they live and work. This is particularly true in the case of 'urban villages', where a previously rural village has been swallowed up by an expanding city and what was previously farmland rises exponentially in value. Canny villagers have been some of the greatest financial beneficiaries of China's rapid urban expansion, becoming millionaires overnight. In contrast, migrant workers who do not have the appropriate *hukou* or resident status are – yet again – the class of residents who do not benefit from this potential windfall. As in the UK, this commodification of land and housing has not improved the lot of the working classes of China.

Significance

Danwei still constitute a large proportion of housing in China's inner cities – in some places up to 60 per cent of urban housing.⁵⁷ And, although by 1998 the structures of government funding for the *danwei* had been dismantled, in many instances the built form and organisational structures still persist. Changes to the *danwei* in the years since the economic reforms are varied and depend on a range of factors. These include the economic success and therefore continuation of the *danwei*'s original enterprise; its geographic location within the city; the rising value of the land on which they are built; and the physical and architectural quality of the original structures.

Physical transformations to the original *danwei* include the partial infilling of their courtyards to build new housing; the partial demolition of redundant structures – typically those housing communal, workplace or institutional facilities no longer supported in the transformed institution – and their replacement with new housing; their demolition, sale of the land on which they stood and the relocation of the housing to peripheral sites; and the total dismantling of the *danwei*, both organisationally and physically, often because of bankruptcy. Interestingly, as China reflects on 75 years of unprecedented

modernisation and urbanisation, heritage values are becoming better understood and the importance of the *danwei* as a historical part of China's urban heritage is slowly being recognised.

Application of the ASH model to the *danwei*

Through a variety of policy interventions over the past two decades, such as the 'shantytown' redevelopment policies mentioned earlier, the Chinese government has acknowledged the need, and provided some funding, to refurbish and revivify old urban residential neighbourhoods (meaning anything built before 2000)⁵⁸ including the *danwei*.⁵⁹ We already have examples of successful regenerations – including the Camerich *danwei* on the outskirts of Beijing, renovated by Zao and Standard Architecture. Originally comprising a furniture factory with residential dormitories, a communal canteen and sports facilities for the workers, there was no increase in the amount of housing on the site, but the project does demonstrate that a sensitive refurbishment of such structures is both architecturally possible and socially beneficial.

The key question remains where the funds for such retrofitting projects will come from, because the funding allocated by the Chinese government typically falls short. In the UK, where there is no adequate funding for refurbishing social housing estates, ASH, working with quantity surveyors, demonstrated that the funds for all the improvement and new works could be generated through a combination of grants and the market sale and rent of around 50 per cent of the new-build homes. The majority of these projects, however, were located in high-value, inner-city contexts and the financial viability of our proposals was based on increasing the density of these estates by around 50 per cent. Indeed, the infilling of the existing *danwei* – in both underused spaces around and among the housing blocks, as well as in now-redundant industrial buildings or areas – with additional housing having been added throughout the past 45 years, as seen in the Beijing case studies above, is an illustration of this already taking place. This funding strategy, however, may only be appropriate in areas where the land value, and therefore the resale or rental value of new-build properties on that land, is high, and in *danwei* where there remain opportunities for increasing the housing density. As I said, each *danwei* must be approached on a case-by-case basis but, given the sheer numbers of this housing form built in China, there must be thousands of *danwei* to which the ASH model of regeneration could be explored and potentially applied. The environmental costs, pollution and waste involved in large-scale demolition – which ASH explored in detail in our work on both the Central Hill and St Raphael's estates – must also be taken into consideration when measuring the consequences of demolition.

Conclusions

The key question this article seeks to address is how to provide and maintain high-quality and low-cost public housing and living environments for citizens across the world. Over the past 45 years, in the UK and in China, both the provision of public rental housing and the financial support for the maintenance of that housing have significantly decreased – in the UK to the point of almost being withdrawn altogether. As I have shown, the marketisation of public housing manifested specifically through various methods of urban renewal and estate regeneration has significantly contributed to a reduction in public housing and a subsequent increase in spatial segregation and economic inequality in both contexts, as well as to a deterioration in the living conditions on the remaining estates and in neighbourhoods. The refurbishment and densification strategies that were explored by ASH in the UK to retain, support and improve the living conditions for existing communities within their original locations are crucial to address these consequences and ensure residents can remain in place. Spatially and architecturally, the UK's twentieth-century public housing estates and China's *danwei* – although not identical – both offer potential solutions at scale for such improvements.

Funding mechanisms are key to the realisation of these solutions, but we should not forget that anything is possible with the political will to carry it out. The UK's programme of council housing was vastly expanded after the Second World War, when the UK's debt was 230 per cent of GDP. Today, despite successive global financial crises, that debt is 104 per cent. At the same time, between 2023 and 2026, the UK is set to spend over five times more (£58.2 billion) on subsidising private landlords with financial support than on its entire affordable housing programme (£11.5 billion).⁶⁰ That alone would be enough to build over 250,000 new homes for social rent, or to refurbish millions more. Just as the government

of China has come to the realisation that it cannot rely on the market to provide the public housing the country needs and has brought the provision of public housing back in-house, so the UK too must bring the provision of social housing back into the public sector, even as that sector itself is being privatised.

Having said that, as we have argued in *For a Socialist Architecture: Under capitalism*, residents of housing estates that are threatened with demolition and in need of refurbishment are not in a position to wait for a change in government or housing policy, so the proposals made by ASH for densification and refurbishment are designed and costed to be implemented within the existing economic and policy frameworks and not to be contingent on radical policies of land reform.⁶¹

A key aspect of the success of the original *danwei* structure was its governance, in which every member had the opportunity and duty to participate to make decisions relating to changes to their living environment. More direct participation in these decisions, or the transferral of council estates into the collective stewardship of residents with greater control over the decisions associated with their homes, would appreciably improve the housing security of the people living on the UK's housing estates. Correspondingly, in China, the changing nature of the organisational structure and residential demographic of the *danwei* over the last 45 years has eroded much of what made them such a successful housing model, so they too need to restructure and regenerate if they are to survive into the future. Originally, as SOEs located on state-owned land, the *danwei* were run as not-for-profit organisations, recognising only the use value of the housing, not siphoning off profits to absent landlords or shareholders. It is in returning to this earlier incarnation – as well as to the mixed-use spatial and neighbourhood visions – that the *danwei*, as this article argues, is a potential model for future housing provision in both countries. Maintaining, improving and densifying our existing public housing – not replacing it with private housing – is essential if we are to address the housing crises of affordability, access, supply and quality and the liveability of our cities.

Notes

- 1 Engels, 'The housing question'.
- 2 Architects for Social Housing, 'ASH – Architects for Social Housing'.
- 3 Council of Europe Development Bank, 'Housing inequality in Europe'.
- 4 Steed, 'UK home ownership statistics'.
- 5 Harris, 'End of council housing'.
- 6 Bloomer, 'It's time to say "buy"'.
- 7 Elmer, 'Rioting, legislation and estate demolition'.
- 8 Ministry of Housing, Communities and Local Government, 'Social housing lettings'.
- 9 Department for Levelling Up, Housing and Communities, 'House building'.
- 10 Dorling, *Fair Play*.
- 11 Li and Fan, 'Housing wealth inequality in urban China'.
- 12 Fang and Logan, 'Housing inequality in China'.
- 13 Man, *China's Housing Reform and Outcomes*.
- 14 UK Public General Acts, 'Housing Act 1980'.
- 15 Piketty, Li and Zucman, 'Income inequality is growing fast'.
- 16 Li, Kleinhans and Van Ham, 'Shantytown redevelopment projects'; Man, *China's Housing Reform and Outcomes*.
- 17 Piketty, Li and Zucman, 'Income inequality is growing fast'.
- 18 Dey, Zhang and Woo, 'World Bank raises China's GDP forecast'.
- 19 Zongyuan, 'Does Evergrande's collapse threaten China's economy?'.
- 20 Yang, 'Deepening reform'.
- 21 Wang and Jacoby, 'Housing experimentation and design guides'.
- 22 Li, 'Government-market-society relationship change'.
- 23 Naughton, 'Danwei'.
- 24 Li, Kleinhans and Van Ham, 'Ambivalence in place attachment'.
- 25 Shepard, *Ghost Cities of China*.
- 26 *Phoenix News*, 'Li Pei's dream'.

- 27 Chen et al., 'Perceptions of improvements'.
- 28 Liu et al., 'Urban regeneration'.
- 29 Wang and Jacoby, 'Housing experimentation and design guides'.
- 30 *The Economist*, 'China's state is eating the private property market'.
- 31 Liu, 'Chinese residents embrace better life'.
- 32 Ding and Fan, 'China advances renovation'.
- 33 Zhuo and Li, 'Study on cost allocation'.
- 34 Architects for Social Housing, *Costs of Estate Regeneration*.
- 35 Architects for Social Housing, 'ASH retrospective at the ICA'.
- 36 Architects for Social Housing, 'Mapping London's Estate Regeneration Programme'.
- 37 Architects for Social Housing, 'Knight's Walk public consultation'; Architects for Social Housing, *West Kensington and Gibbs Green Estates*; Architects for Social Housing, 'Saving Northwold Estate'; Architects for Social Housing, *Central Hill*; Architects for Social Housing, *Patmore Housing Co-operative*; Architects for Social Housing, *Saving St. Raphael's Estate*.
- 38 Brent Council, *South Kilburn Regeneration*.
- 39 Architects for Social Housing, *Saving St. Raphael's Estate*.
- 40 Mayor of London, 'Homes for Londoners'; Mayor of London, 'London Estate Regeneration Fund'.
- 41 Architects for Social Housing, 'Mapping London's Estate Regeneration Programme'.
- 42 Architects for Social Housing, *Saving St. Raphael's Estate*.
- 43 Shao and Takamura, 'Impact of Soviet worker residential area design', a translation into English from the original Japanese; Zhang et al., 'Property right redistribution'.
- 44 Bonino and De Pieri, *Beijing Danwei*.
- 45 Bray, *Social Space and Governance*, 24–5.
- 46 Chen et al., 'Perceptions of improvements'.
- 47 Wang, Zhang and Wu, "'Micro-regeneration'".
- 48 Wainwright, "'The council tenants weren't going to be allowed back'".
- 49 BBC, *Secret History of Our Streets*.
- 50 Architects for Social Housing, *Truth about Grenfell Tower*.
- 51 Mayor of London, 'GLA capital funding guide'.
- 52 Elmer, 'Manufacturing consent'.
- 53 Unger, Chan and Chung, 'Deliberative democracy at China's grassroots'.
- 54 Silva, *Urban Revitalization*, 20.
- 55 Architects for Social Housing, *West Kensington and Gibbs Green Estates*.
- 56 Nie, 'Developing the commons'.
- 57 Ye et al., 'Study of the spatial distribution'.
- 58 Urban Planning Society of China, 'Renovation of old urban residential neighbourhoods'.
- 59 Liu, 'Shantytown redevelopment and housing prices'.
- 60 New Economics Foundation, 'Government to spend over £46bn'.
- 61 Architects for Social Housing, *For a Socialist Architecture*.

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