Urban densification and social capital: neighbourhood restructuring in Jinan, China

XIN LI
MINNA SUNIKKA-BLANK

*Author affiliations can be found in the back matter of this article

ABSTRACT
Urban densification and massive restructuring projects in China have dictated profound socioeconomic changes. This paper explores changes in social capital and residents’ daily practices (cooking, eating, cleaning, shopping and socialising) in Jinan, Shandong province, after their low-rise courtyard dwellings were demolished and replaced with high-rise apartments. At the neighbourhood scale, privatised practices have reduced the use of urban streets and communal facilities. At the building scale, a transition for long-term residents from a courtyard housing typology to high-rise has led to a radical change in their daily practices that has moved from outdoors to indoors. Such changes have increased privacy and reduced social relations and social capital in the neighbourhood. These residents continue to maintain very close relationships with each other, but this can exclude ‘newcomers’ who have moved to the neighbourhood after the restructuring—an outcome regarded as the ‘dark side’ of social capital. Residents in high-rise flats have developed a preference for privacy and increased use of indoor spaces for activities such as sleeping, cooking, eating and socialising. By showing how urban densification changes material arrangements and residents’ practices and social interactions, the study reveals the unintended consequences of policy-driven densification in China.

POLICY RELEVANCE
This research reveals the unintended impacts of urban densification on neighbourhood social capital and the division between ‘stayers’ and ‘newcomers’, underlying the importance of social sustainability when planning urban restructuring projects in China. Three recommendations are made for policymakers. First, residents’ lived experiences and social impacts are vital for planning urban restructuring. The utility of urban spaces can generate social capital, which improves the social sustainability of the project. The courtyard house typology encourages more outdoor activities and social interaction than the high-rise typology. Decisions made at the neighbourhood level and about density will impact the local residents. Second, the categories of ‘stayers’ and ‘newcomers’ can be used to better understand the diversity of practices and neighbourhood social capital, instead of limiting to demographic indicators, e.g. income levels. Third, residents’ appreciation of the gated communities makes it more difficult to implement the current government policy of opening the gates.
1. INTRODUCTION

The rapid housing relocation practices conducted in mainland China have dictated profound socioeconomic changes, altering the way of living for many urbanites. Housing demolition and redevelopment are at the centre of these changes, leading to significant urban densification in China in the past few decades.

The study of China’s urban densification is relevant for the following reasons. First, China has introduced a large number of housing demolition and relocation programmes to improve people’s quality of life in cities. It is reported that 87,000 resettlement housing units were scheduled to be constructed in Shandong province in 2010. There was a gradual increase in the scheduled units between 2015 and 2018, from 475,000 units in 2015 to 852,000 units in 2018. In 2019, 187,000 units were completed in Shandong (Shandong Provincial Bureau of Statistics 2019). From 2008 to 2017, a total of 38.96 million units of shantytown relocation housing were built nationwide, helping around 100 million people ‘move from shantytowns to buildings’ (Liu 2019). Although the recent guidelines state that, by 2020, the renovation of shantytowns will be basically completed in Chinese cities, a considerably large number of residents have been affected by such relocation projects (Xinhua News Agency 2014).

Second, such relocation programmes in Chinese cities have led to the emergence of densified high-rise gated communities, which have replaced the traditional courtyard houses. Blakely & Snyder (1997: 2) define gated communities as residential areas protected by walls or fences with restricted access to prevent penetration by non-residents. Moreover, relocation-led urban densification in China caused changes to the sociodemographic status of neighbourhoods. During restructuring processes, significant residential mobility out of, within and into the renewal areas is inevitable. With such mobility, the neighbourhood’s social connections are reshaped and restructured. Compared with regular residential mobility patterns, the renewal-related mobility changes the population’s characteristics more fundamentally (Kleinhans et al. 2007). From this perspective, urban restructuring significantly changes the composition of the population and thus has an impact on local social capital.

Third, the everyday activities of occupants are shaped by the buildings in which they live. Their built environment is changed as a result of the densification process, which impacts their daily activities. Instead of considering buildings simply as grounds for technological efficiency in construction, there is a need to view them as the material counterparts of competing social practices (Khalid & Sunikka-Blank 2018: 293–294). In their study of restructuring projects in the Netherlands, Kleinhans et al. (2007: 1074) argue that social interactions that occur in practice can create social capital in a very straightforward manner: by making connections between people and by maintaining these contacts over time:

people are able to achieve things that they either could not achieve by themselves, or only with difficulty and at high costs.

To the extent that social interactions and networks compose a resource, they form social capital. Thus, an individual must be connected to others to gain the benefits of collective social capital.

There is a need to understand change in the spatial arrangements of housing and how these interlink with everyday practices that can lead to change in neighbourhood social capital. In this research, social capital refers to resources that are accessible through social contacts, social networks, reciprocity, norms and trust. Despite the high volume of restructuring projects, this has not been studied in a Chinese context.

In this paper, the term ‘stayers’ refers to residents who have lived in the neighbourhood, then their previous home was demolished and they were relocated to the upgraded housing within the same neighbourhood. ‘Newcomers’ are new residents from anywhere outside the restructured neighbourhood. They mainly moved to the newly constructed houses.
Further, there is a need to focus on how to construct socially sustainable urban environments through relational networks comprised by interactions between residents, buildings, facilities and domestic spaces. Caprotti & Gong’s (2017) research on Tianjin eco-city called for a move away from the analysis of blueprints toward the analysis of lived spaces and human capital in the neighbourhood. Wang & Shaw (2018) also point out that the development of sustainable neighbourhoods cannot be simply based on technical regulations, but should also consider the real social consequences of the development. Human and social capital are proved to have a positive effect on connecting and involving local communities in the urban development process, promoting multi-participatory and community-based restructuring practices (Forrest & Kearns 2001; Kearns 2003; Kleinhans et al. 2007; Middleton et al. 2005). Social changes at the neighbourhood level have also been explored widely by several Chinese sociologists and geographers, ranging from residential diversity, to neighbourhood trust to local community involvement (Li 2013; Wang et al. 2017; 2; Wu 2012), but few studies have distinguished different social categories such as stayers and newcomers. These studies show that neighbourhood attachment and social trust are associated with neighbourhood stability, although the relationship may not be straightforward. The results reveal a necessity for further exploring certain groups of people, such as massive migration or short-term tenants.

The present research attempts to fill this gap by focusing on changes in China’s housing and neighbourhood spatial arrangements due to urban densification at the neighbourhood and building scales, respectively, and how these interlink with everyday practices that can lead to different social impacts amongst stayers and newcomers.

A densified vertical gated neighbourhood named Weijiazhuang (WJZ) in Jinan, Shandong, forms the basis of this case study. The paper explores social capital between two groups, namely stayers who have strong local roots and newcomers who have a relatively short length of residence in the same neighbourhood. Using 14 semi-structured interviews, this paper aims to answer the following questions:

- How have residents’ cooking, eating, cleaning, shopping and socialising practices changed after the neighbourhood’s restructuring at both neighbourhood and building scales?
- How have the changes in practices transformed the stayers’ and the newcomers’ social relations?

The paper is structured as follows. Key definitions and practice-based theories are described in Section 2, followed by an overview of the political, economic and social context of WJZ’s neighbourhood restructuring in Section 3. Section 4 presents the methods. The findings are described in relation to neighbourhood and building scales in Section 5. Section 6 presents the key conclusions and offers insights for policy and planning.

2. PRACTICE-BASED THEORIES AND SOCIAL CAPITAL

Practice-based theories have been adopted in built-environment research, especially to understand energy demand (Gram-Hanssen 2010; Hand et al. 2017; Judson & Maller 2014; Walker et al. 2014). Gram-Hanssen (2011) describes how practices are entities consisting of know-how and embodied habits, institutionalised knowledge and explicit rules, engagements and technologies. According to Khalid & Sunikka-Blank (2017), practice-based theories suggest that the common practices are not shaped by a group of individuals acting independently, but formed by interlinked sets of social norms, embodied habits, understandings and infrastructure. However, most existing studies have focused on the Western context. Bourdieu (1970) describes an example of the socio-spatial analysis of gendered practices in a Berber society, explaining that the built environment can structure and mediate daily practices.

Taking a step further, Schatzki (1996: 12) uses social practices as the unit of analysis as they are the site ‘where understanding is structured and intelligibility articulated’. Schatzki (2010) suggests that most social phenomena are intercalated constellations of practice, technology and materiality. He recognises that materiality is part of social phenomena and presents the
theorisation of recognising social phenomena as bundles of practices and material arrangements. Schatzki (2011) defines ‘practices’ as organised spatial–temporal manifolds of human activity, such as cooking, manufacturing, sport, dating and horse breeding. ‘Material arrangements’ are defined as connected people, organisms, artefacts and things of nature (Schatzki 2011: 4). Such arrangements are affected, modified by and inseparable from practices, while practices in turn are prefigured and facilitated by material arrangements. Thus, the physical configuration of the neighbourhood and housing presents an example of material spatial arrangements that structure and mediate various household practices. It has been suggested that new bundles are formed by the redesign of the built environment to accommodate changing practices (Khalid & Sunikka-Blank 2018: 294). The domestic architecture, before and after restructuring, can thus provide evidence of how housing can mediate trajectories of practice nexuses and social interactions, resulting in change in residents’ social relations. In other words, studying the neighbourhood restructuring project through practice-based lenses can provide evidence for how stayers’ and newcomers’ daily practices shape, and are shaped by, the built environment, further having an impact on their social connections and social capital in the neighbourhood. Urban densification inevitably changes the material arrangements of a neighbourhood and therefore the residents’ practices. This framework is described in Figure 1.

Since the 1990s, there have been pervasive discussions on the concept of social capital in the academic literature. In general, social capital refers to resources that are accessible through social contacts, social networks, reciprocity, norms and trust (Bourdieu 2002; Coleman 1988; Field 2003; Kleinhans et al. 2007; Putnam 2000). There are two forms of social capital. The first is bridging social capital. It is included in the loose, less dense, cross-cutting social ties between individuals, such as friends of your friends, indirect acquaintances or certain colleagues from your work. Information about job opportunities passed on between loosely connected people through a common acquaintance is a classic example. The second form is bonding social capital. It is a resource generated in the strong social ties between individuals, such as family members or close friends. It is an essential resource that can provide people with emotional and material support, especially for the lower income group among residents (Kleinhans et al. 2007: 1074).

There has been a growing significance for social capital in the discourse on urban renewal and neighbourhood restructuring (Cattell 2001; Kleinhans et al. 2007; Middleton et al. 2005). However, this debate has not been related to the effects of urban densification and changes in building typologies and residents’ daily practices. Kleinhans et al. (2007) summarise that in a neighbourhood context, social capital involves cursory social interactions, shared norms about how to treat each other, and behaviour in space, trust and collective actions for shared purposes. As Putnam (2000: 307) states:

> Neighbourhoods with high levels of social capital tend to be good places to raise children. In high-social-capital areas public spaces are cleaner, people are friendlier, and the streets are safer.
Cursory social interactions can generate social capital without necessarily being a member of each other’s network. Social norms are unwritten social rules and opinions with regard to social interactions with others and behaviour in public space—which are often transformed in urban densification process. Such norms may be enforced top-down by landlords (Kleinhans et al. 2007: 1076).

Another important component of social capital in neighbourhoods is trust. At the basic level, trust can be defined as a condition for social interaction, support and reciprocity. Trust can develop a positive consequence of interactions and mutual support (Brehm & Rahn 1997). Some scholars believe that social trust serves as an essential determinant of social cohesion and integration, generating a variety of socioeconomic outcomes. Studies show that, overall, individuals with a richer stock of social capital are more likely to be trusted than others (Li 2005; Li et al. 2015; Putnam 2000; Uslaner 2015).

There are also criticisms of social capital, mostly for its ambiguity and variability (Claridge 2018). These suggest that social capital is more of an umbrella concept than a functioning theory (Haynes 2009).

The literature review suggests that adopting practice-based theories in architecture and urban studies is still European centred, whereas it has received little attention in China, despite its rapid urban and neighbourhood redevelopments. There is currently little engagement with contemporary geographical, sociological and practice-based perspectives that address the underlying influences of urban densification in the Chinese context. Browne’s (2016) history review of patterns of water consumption practice in China calls for theoretical and empirical projects based on practice theories to be further developed in China as it is not enough to apply European and Global North theories to a Chinese context. Furthermore, the current literature tends to focus on practices in smaller scale sites, such as cooking in kitchens or heating in living rooms (e.g. Debnath et al. 2019; Gram-Hanssen 2010). Understanding how social capital changes in restructured, hyper-dense Chinese neighbourhoods using practice-based theories in different scales is little developed in the literature.

Using practice-based theories with Schatzki’s concept of prefiguration (Schatzki 2010) as an analytical framework, this study aims to fill this research gap by exploring how building typologies and the urban densification process influence neighbourhood social capital in China. A recently restructured neighbourhood in Jinan, Shandong, provides the basis for the case study. Therefore, it is important to understand and conduct a more nuanced analysis on a new social category of groups, here named as ‘stayers’ and ‘newcomers’.

3. CASE STUDY: URBAN DENSIFICATION IN WJZ NEIGHBOURHOOD

3.1 CONTEXT

By 1978, the housing conditions in Chinese cities were in need of urgent attention, especially in inner-city districts. Per capita living space had decreased from 4.5 m$^2$ in 1952 to 3.6 m$^2$ in 1978 (Shin 2007: 165). Apart from the reduction in per capita living space, older dwellings in cities lacked resources for maintenance and management. Problems included lack of private kitchens for residents, no access to private toilets and no indoor tap water (Shin 2007). In 1991, a plan to demolish and redevelop old and dilapidated dwellings in inner-city areas was issued by the Beijing municipal government. Similar restructuring programmes were also found in many other Chinese cities, including Jinan in Shandong.

Neighbourhood restructuring and residential relocation are complicated processes involving various groups, including the local government, demolition companies, real estate developers and relocated households. Local governments in mainland China were given greater powers to make decisions about managing and proceeding with local investment to meet their regional needs and achieve local economic goals (Wei 1996). Moreover, the local governments need to ensure the improvement of housing conditions after restructuring and simultaneously achieve the economic regeneration and space creation for investors. The local governments opted to use a market-oriented approach to regenerate dilapidated areas. Property-led redevelopment has now become
a prevailing trend (He & Wu 2005). The core idea behind such a strategy is to let local authorities provide administrative support, while real estate developers are brought in as the main financiers and project implementers. Shin (2007: 166) comments that it can be seen as an:

inevitable solution to the severity of dilapidated housing problems and the limits of public finance.

As a result, closely packed high-rise apartments and commercial buildings with few green spaces are the end products.

WJZ district is a residential and commercial area in Jinan. It used to be one of the most upmarket residential areas in Jinan between 1911 and 1949, but by the period 1990–2008 it had turned into the largest shantytown in Jinan city centre (Jian 2017) (Figure 2). In 2007, the local government decided to redevelop this area using a property-led redevelopment model. In 2007, the WJZ Shanty Town Renovation Project Implement Plan (WJZ Penghuqu Gaizao Gongcheng Chaiqian Shishi Fang’an) illustrated the reasons for the renewal of the WJZ area, including improvements in the urban appearance and taste, enhancing the quality of both living conditions and the environment, as well as bringing economic and social benefits to the city. The whole WJZ district covers an area of 167.4 ha, and the planned land use was 139.9 ha. The demolition area was 40 ha, including 267 privately owned non-residential units with a floor area of 2.9 ha, 3911 residential units with a total floor area of 22.6 ha, and 42 state-owned enterprises and public institutions with a total floor area of 12.5 ha. It should be noted that the plot ratio before restructuring was 0.28. After restructuring the ratio has reached 3.0.

Residents displaced from the WJZ neighbourhood were offered three options. The first was a one-off cash compensation. The second was to be relocated to dwellings provided by the developer, which were situated on the periphery of the city centre. The third was to return to WJZ after the project finished in a dwelling with a similar floor area. The local authorities encouraged the take-up of the first two options because the number of newly built resettlement housing in WJZ was very limited. Residents were offered either cash or in-kind compensation according to the number of registered household members and the original floor area of their houses. Such a strategy, however, led to low profitability and high project cost. Apart from those rehousing apartments rebuilt on-site, luxury commercial flats were also built in order to generate a profit.
WJZ showed the typical characteristics of old and dilapidated low-rise courtyard dwellings in urban China before 2007. The relocation of WJZ’s inhabitants was completed in 2008. The old low-rise courtyard houses were replaced by newly built high-rise apartments. Those high-rise blocks were grouped into five clusters, with retail on the ground level, including two clusters of rehousing apartments (clusters B and E) and three clusters of luxury commercial flats (clusters A, C and D). Table 1 shows the number of households in each cluster. Figure 3 shows the arrangement of these clusters on-site. Figure 4 shows part of the completed development.

| CLUSTER         | NUMBER OF HOUSEHOLDS | BLOCK CODE |
|-----------------|----------------------|------------|
| Hongjing Garden | 1,455                | B          |
| Shengjing Garden| 400                  | E          |
| Dijing Garden   | 723                  | A          |
| Haojing Garden  | 224                  | C          |
| Huajing Garden  | 324                  | D          |

Table 1: Household numbers in city of Jinan’s Weijiazhuang (WJZ) neighbourhood after restructuring.
Source: Author (X. L.).

Figure 3: Layout of WJZ neighbourhood after the restructuring project.
Note: Shaded blocks are community buildings that were conserved in the restructuring project.
Source: Author (X. L.).

3.2 PREVIOUS STUDIES ON NEIGHBOURHOOD RESTRUCTURING

Studies have shown that extensive urban restructuring and densification have several potential social consequences. First, Marcuse & Kempen (2000: 14) focus on the profile of gentrified areas, explaining that by introducing luxury commercial flats to redeveloped areas, the densification process is often associated with gentrification in Western societies. The profile of gentrified areas is often observed with the arrival of professionals, managers and higher technicians, cosmopolitans and careerists. Smith (1996) argues that gentrification is the returning of ‘capital’ instead of people to the gentrified area, using the example of Harlem (New York City) in the US. This means that current studies are only useful to explain the aggregated effects on the place as they are based on the population census from that area, not the people who have been relocated.

Second, some studies focus on displaced residents’ accessibility to facilities. Wang & Murie (2000) examine the early evidence on the social and spatial consequences of housing reform in China, and argue that although residents who moved from the central area to peripheral estates have
experienced an increase in housing quality, there has been a reduction of their access to services and facilities. Thus, the redevelopment process has led to difficulties in developing some of the worse peripheral areas, while gentrifying the central urban space, creating greater residential inequality (Wu 2002).

Third, current research emphasises the impacts on different income levels of residents. For example, He & Wu (2005) suggest that urban redevelopment and densification in China are more likely to benefit middle- to high-income groups compared with low-income groups. They also indicate that urban densification imposes several undesirable impacts on low-income groups and affects their life chances, although their physical housing conditions are improved.

3.3 SOCIAL RELATIONS

Existing studies have covered topics ranging from the residents’ profile of gentrified areas and residential inequality to impacts on different income groups. However, evidence is still lacking to illustrate the lived experiences of different social groups such as stayers and newcomers, and how social relations shape, and are reshaped by, the neighbourhood restructuring and densification process. Therefore, this study investigates how social relations and social capital have changed due to neighbourhood densification in a specific geographical context in urban China, using WJZ as a case study.

In this context, ‘stayers’ need to satisfy two conditions:

- Those who have been formally registered at the WJZ Street Office and lived in WJZ at least for six months before the WJZ relocation policy was published in 2007.
- Those who have moved back in WJZ after the relocation project completed in 2008 and formally registered again at the WJZ Street Office.

‘Newcomers’ need to satisfy the following two conditions:

- Those who were not registered at the WJZ Street Office and did not live in WJZ before the relocation project started.
- Those who have moved to the WJZ area after the project completed either as homeowners or as tenants.
4. METHODS

This research is based on qualitative research methods. Qualitative research emphasises words rather than quantification in the collection and analysis of data (Bryman 2016: 374). It provides detailed perspectives of a selected number of people and captures the voices and experiences of the participants. It also allows the participants’ experiences to be understood in context (Creswell 2014). The research included semi-structured interviews, mapping, observational drawings and transect walks in the case study area. The field research took place in WJZ in February 2019. Transect walks took place over one week and at different times of the day. The attached fieldnotes from these walks included observations, e.g. on key access points, parking locations, neighbourhood facilities and parks. Photographs were taken during the walks in order to record user behaviour in different street conditions, around the buildings and in car parking areas. Photographs on the conditions in the neighbourhood before the WJZ restructuring project were provided by one participant. Relevant planning and policy files were reviewed in order to understand the staged construction process, the key actors involved in the restructuring project and the motivation for the planning, as well as other relevant background information.

Semi-structured interviews focused on how the residents’ daily practices had changed after the restructuring and how these changes continue to influence the residents’ social relations in the neighbourhood. Consent forms and information on the project were given to the participants. The design of the interviews was semi-structured rather than a list of closed questions and answers. This enabled the respondents to describe their opinions and attitudes in their own words, which helped redefine the scope of interview questions where appropriate. The interviews ranged from 20 to 40 minutes and were conducted in February 2019 with focus on nine stayers and five newcomers, respectively (Table 2).

| LABEL | ROLE | GENDER | CLUSTER* | AGE RANGE (YEARS) | OCCUPATION | MONTHLY INCOME (RMB) |
|-------|------|--------|----------|-------------------|------------|----------------------|
| S1    | Stayer | Female | Hongjing | 51–60 | Community staff | 2,000–4,000 |
| S2    | Stayer | Female | Hongjing | >60 | Retired | 2,000–4,000 |
| S3    | Stayer | Female | Hongjing | 41–50 | Unemployed | <2,000 |
| S4    | Stayer | Female | Hongjing | 51–60 | Retired | 2,000–4,000 |
| S5    | Stayer | Male   | Hongjing | 51–60 | Unemployed | <2,000 |
| S6    | Stayer | Female | Hongjing | 51–60 | Retired | 2,000–4,000 |
| S7    | Stayer | Female | Hongjing | 51–60 | Retired | 2,000–4,000 |
| S8    | Stayer | Female | Hongjing | >60 | Retired | 2,000–4,000 |
| S9    | Renter | Female | Shengjing | 21–30 | Community staff | 2,000–4,000 |
| N1    | Newcomer | Female | Huajing | 51–60 | Retired | Prefer not to say |
| N2    | Newcomer | Female | Huajing | 21–30 | Community staff | 2,000–4,000 |
| N3    | Newcomer | Female | Hongjing | 41–50 | Community staff | 4,000–6,000 |
| N4    | Newcomer | Female | Dijing | 31–40 | Public institution | 4,000–6,000 |
| N5    | Tenant | Female | Hongjing | 31–40 | Self-employed | 2,000–4,000 |

All interviews were recorded, translated from Chinese to English, and transcribed. NVivo was used in the coding process. First, essential themes were highlighted, if a theme was repeated in several places during the interview or if the interviewee explicitly had stated that it was important. Second, the information highlighted was coded into several nodes. Third, six key categories were created based on the previous steps of the coding, focusing on daily practices such as shopping, cooking, eating, cleaning and socialising. Finally, the coding categories were connected to the interview narratives.

Participants for interview were recruited using a snowballing approach: a ‘gatekeeper’ interviewee, who was a resident and staff member from WJZ community, helped to recruit the other
participants. There are limitations to this approach. The sample may not be fully representative of the WJZ residents as there are limited demographic data available for the population. The sample size is very limited and focused on this particular case study. However, the aim of this research is not to generalise the findings in any statistical manner, but to understand the lived experience of the residents and provide new empirical data in this context where a research gap exists. In order to overcome the limitations, responses from this sample were collected until they reached the saturation point where no new, different information was provided during the interviews. One characteristic worth noticing is that in this sample the majority of participants were female. One factor is likely to be that the community was only accessible to the researchers during daytime hours when many of the male residents were working and therefore unavailable. Further, different methods were used to ensure triangulation of the data, including observational drawings at the neighbourhood and building scales, photographs, mapping, policy and document file analysis, and informal discussions with residents in the neighbourhood.

5. FINDINGS

5.1 NEIGHBOURHOOD SCALE: DENSIFICATION AND CHANGES IN COMMUNAL FACILITIES

Neighbourhood restructuring in the WJZ area has completely changed the neighbourhood’s street layouts and configuration. It was observed that the scale of the streets had changed and shopping facilities had become more concentrated and located further away. Before the restructuring, shops and grocers were located closer to the residents’ homes (Figure 5). One resident participant explained how she felt there are ‘fewer’ shops around her house now, although the quality of those shops has improved:

There are fewer shops and convenience stores than before. [...] The quality of those shops has improved indeed though.

(interview S1)

The types of shops have also changed, and these shops are being visited less after the restructuring. As one participant pointed out:

They sold vegetables along the streets before. [...] Here are many shops along the streets now, too, but you see, all beauty salons, car repair, a few noodle bars. We rarely use them.

(interview S9)
In the restructuring process, the new street layout is designed to be much wider, but in fact is seldom used (Figure 6). As interviewee S9 revealed above, it is partly because the types of retail shops located along the street have been ‘upgraded’. For example, residents use beauty salons or car repair facilities less frequently compared with daily groceries, which were used almost every day. Residents now have to travel further to buy their daily necessities, such as vegetables. City streets themselves are a key source of integration and ‘exuberant diversity’, but only ‘when the concrete, tangible facilities it [street life] requires are present’ (Jacobs 1961: 70).

It was also observed that the public bathing house was removed after restructuring. According to the survey in WJZ, 36% of the stayers shifted from bathing in a public bath house to private showering. The result shows a shift from communal or public bathing activity to a more individual and private routine for part of the stayers. This shift in hygiene practice was also sped up by the provision of a reliable domestic water supply. As Hand et al. (2017) discussed, the practice of
personal washing can be considered as a bundle of technology, cleanliness and self-care norms, and speed and convenience. A change in any of the three dimensions would alter the practice. The provision of new housing in WJZ made new infrastructural arrangements and independent material resources available for all households.

At the neighbourhood scale, the street layout and communal facilities were changed due to the densification process, leading to the reduced use of urban streets in the neighbourhood. Cursory interactions between neighbours are therefore reduced and there are changes in daily shopping practices that further disadvantage neighbourhood communication:

There is only one big supermarket nearby. They used to sell vegetables along [the] streets before, the stallholders. [...] There were so many stands and you saw neighbours around you. I know people who drive to get food; we don’t meet that much now.  
(interview S9)

5.2 BUILDING SCALE

5.2.1 Transition from a courtyard typology

Neighbourhood densification in the WJZ case led to a radical change in building typology, and the stayers’ daily practices, such as cooking, eating and hygiene, shifted from outdoors to indoors. Before demolition, the majority of the houses in the WJZ area were low-rise courtyard houses. Residents’ cooking facilities were often located outdoors, usually within central courtyards (Figure 7). As one courtyard house was shared with several households or generations, each household would take up a space somewhere in the courtyard and set up different facilities such as spaces for cooking or eating. These facilities might be shared with other households. Many households used to eat outside:

I used to live in a one-storey courtyard house on Phoenix Street, just like others did. [...] We would just set up a table outside to eat and we all shared food.  
(interview S5)

Another significant change after the restructuring is the alteration of the toilet’s location and form. It has been moved from the outside to the inside, and each unit has individual sanitation facilities (Figure 8). Those old pit latrines were shared by people within the same courtyard house. After restructuring, each unit is equipped with individual flush toilets. It was found that all stayers were quite satisfied with the change. Some explained that they used to suffer from visiting the toilet at night or during the winter when it was freezing outside, although some interviewees did complain about the quality of the toilets in their new house:

We don’t have to go out for toilet anymore. This is the best thing for us.  
(interview S5)

The toilet [is] always leaking.  
(interview S4)
The central courtyard is regarded as an outdoor, semi-private space and acts as a mediator between inside and outside spaces. Courtyards in such a building typology are ‘introverted’ (Grube 1995: 197), conceived from the inside out with layers of social accessibility. At the urban level, such a building typology forms an organic, maze-like urban fabric with inclusive mixed-use developments (Grube 1995). A key feature of living in such a courtyard typology, as in the case study area, is that residents can maintain a close connection with their neighbours, meaning that more social interactions, especially informal ones, can take place in the neighbourhood to build up mutual trust, which is one of the major effects of social capital in a neighbourhood context, as commented on by one stayer in this study:

We wouldn’t lose things even without closing the door.

(interview S5)

Furthermore, in the courtyard typology, both indoor and outdoor spaces were used interchangeably for a wide range of practices such as eating, sleeping, recreation and socialising (Figure 9). Such informal usage of space was efficient for joint or multi-generational family structures and ensures the optimal use of the available space. In the high-rise apartments, practices are dispersed into specific function rooms designed for a certain practice, such as bedroom, living room, kitchen and dining room, with non-flexible partition walls for each space. This change is described by one stayer as follows:

I lived in a big room with my sisters and children. That was about 20 square metres. There were just beds, no separate rooms at all—no living room, no kitchen, no bathroom [...] only one large box for storage, no closet. In the middle of the room, there was a table. Two beds were against the wall [...].

(interview S4)

Further, the spatial dispersion of practices after the restructuring is not only caused by the change in the housing typology, but is also a result of a changing culture in living, moving from a collective form of living to more individualised practice performances. During the Republican period in China (1911–49), the family was regarded as an institution and it was under scrutiny by political parties. After 1949, rural communal kitchens, in the collectivisation movements, were introduced as an extreme way to control individuals and their family’s lives. It appears that the political rhetoric in the 20th century emphasised the paramount national importance of the public good over
individualism and the private life of people, aiming to generate a ‘public sphere’ (Pow 2007: 818). Changes have occurred in both social and cultural realms in Chinese cities, as traditional shared values, such as communism and Confucianism, have lost their importance and Chinese society has become more tribalised (Miao 2003: 58). As one interviewee described this change in their living:

What privacy? It didn’t exist at all. We all ate together, slept together. Everyone knew what you were doing. [...] Now it’s different. Everyone needs a space for the so-called privacy.

(interview S5)

5.2.2 The high-rise flat typology

The restructuring project has resulted in physical improvements (e.g. piped gas, toilets and kitchens in self-contained flats). However, after moving to high-rise blocks, such self-containment has increased privacy and reduced the neighbourhood’s social relations that were previously gained through the sharing of facilities. It was found that the residents talk less with their neighbours after moving to high-rise apartments:

I often talk to my friends, but not my neighbours. We used to talk a lot in the courtyard house, but now we don’t talk much in this apartment. You just can’t knock on their door. [...] The building is like a cage.

(interview S3)

We naturally start conversations when we meet, but won’t proactively talk.

(interview S5)

The results echo a survey by Middleton et al. (2005: 1726) that also found that there is a strong relation between people’s contact with their neighbours and housing dwelling type. People living in flats, particularly high-rise flats, are much less likely to chat with their neighbours than those living in houses.

Newcomers in WJZ are generally categorised into two groups: tenants who rent their house from those old residents in WJZ; and homeowners who bought and are now living in the commercial apartments. Because a strong identity with the people and a sense of attachment to the area are mostly found in those long-term roots and locally extended families, a strong social network was formed by them. In this network, every individual maintains very close relationships with each other and tends to exclude newcomers, especially tenants—an outcome regarded as the ‘dark side’ of social capital (Rubio 1997). Results show that several stayers who moved back into this area distrust the tenants. The conflicts between stayers and tenants were pointed out by half the stayers interviewed:

Yes, I wish I could [count on my neighbours to take care of my children], but who to count on? No one. There are all tenants, almost no old residents that I know anymore. I can’t count on those tenants. I don’t know them.

(interview S4)

This phenomenon explains the:

social sorting involved in the creation of residential submarkets, the likelihood of encountering difference and otherness is minimised, by the same token, when such encounters do occur, the greater is the likelihood that a moral panic will ensure.

(Sibley 1995: 416)

Such ‘otherness’, in this context, outsiders or tenants, is perceived by the ‘local’ as the rawness and unpredictability of the neighbourhood:

Those outsiders [tenants] moved in and we don’t know them. [...] There was some kind of temporary residence permit, but now there isn’t any. [...] It isn’t like the courtyard houses before—everyone knew each other. We need a patrol agency. [...] There are even foreigners here.

(interview S8)

Connolly (2002: 64) explains that such identity converts differences into otherness to ensure its self-certainty. These differences between ‘local’ and ‘non-local’ are further perceived as privilege or priority.
This phenomenon may also be explained by the (expected) length of residence. It is evident that there is a connection between years of residence and social capital in the neighbourhood (DiPasquale & Glaeser 1998; Saegert & Winkel 2004). Tenants moved in after restructuring and their period of residence in this neighbourhood was shorter than those stayers. Thus, their contribution to community affairs is likely to be less than those stayers. Besides, residents’ expected length to stay in this neighbourhood may also be associated with social capital. For those short-term tenants, a tendency to move out shortly may have a negative impact on their social capital as they are not willing to contribute their time and money to the neighbourhood. However, a Dutch case found that the (expected) length of residence was not necessarily associated with a resident’s social capital level (Kleinhans et al. 2007).

5.3 GATED COMMUNITIES

The Ministry of Housing and Urban–Rural Development of the People’s Republic of China (MOHURD) released a directive on 21 February 2016 and proposed the gradual opening up of the existing gated communities so that private streets in the communities would be accessible by the public in order to reduce traffic pressures and improve land-use efficiency. Over 70% of approximately 38,000 internet users rejected the idea by voting on Sina.com, commenting that property owners should be compensated if they have to open the gates (CEFC n.d.).

Although the aim of opening the gates is to increase land-use efficiency, the social impacts on local residents should not be overlooked. The case study has shown that the ‘gates’ are still appreciated by some residents and are perceived as a symbol of a secured environment:

The replacement housing extends in all directions with so many doors. [...] People from other places come to walk their dogs, and when they finish, nobody picks up the garbage. [...] This community should be gated and dogs should be forbidden to enter. [...] Huajing Garden and Dijing Garden are good—they have gates to control the visitors. [...] If so, it would be more organised and safer.

(interview S7)

Replacement dwellings and commercial dwellings were divided geographically at the beginning of the redevelopment planning stage. A psychological boundary has further permeated, shaped and structured the social life between the ‘local’ and the ‘non-local’ in the restructured neighbourhood, overlapping with the geographical boundaries of the gated blocks (Figure 10). In other words, the gates further reinforced the line between stayers and newcomers and increased residents’ differentiation. Opening the gates may provide higher land-use efficiency and eliminate the physical boundaries between building blocks; it remains uncertain whether the psychological boundary between the ‘local’ and the ‘non-local’ would be erased.

Figure 10: Accessibility for each community to adjacent neighbourhood streets. Note: Black triangles mark the entrances with restricted access control; and dotted arrows mark sideway access without the control of visitors. Source: Author’s (X. L.) field notes.
Instead of focusing merely on technically ‘opening the gates’, providing more services and facilities such as schools may be an effective way to promote social cohesion within the neighbourhood, as cooperation with childcare can be a valuable resource to generate social capital. Childrearing practices can generate opportunities for parents to meet and interact, e.g. by the provision of outdoor play areas and parks. Children themselves can act as a mediator for stayers and newcomers to communicate, having an impact on neighbourhood social capital:

I work here and my kid is in the kindergarten here. [...] I don’t have many close friends here, only two or three. They are parents of children of the same age. We got to know each other by playing with our children in this neighbourhood. [...] I seldomly talk to my neighbours except when we meet in the lift or playing with the children downstairs.

(interview N4)

Figure 11 summarises the research findings in the context of the analytical framework, as outlined in Figure 1. It shows how urban densification has resulted in changes in building typologies and how these material arrangements have transformed the residents’ practices and therefore their social interactions. It is acknowledged that the study is based on one neighbourhood and a limited interview sample, but as a highly typical and representative case of restructuring in urban China, the empirical data collected can provide a useful contribution to the debate on how to make these hyper-dense neighbourhoods socially sustainable and what are the unintended consequences of current policy-driven densification, which is seen as progressive restructuring of the existing neighbourhoods.

6. CONCLUSIONS

This study focused on the social impacts of the changes in material arrangements that are driven by urban densification in China. It shows how the decisions made at the neighbourhood level are reflected in changes in residents’ daily practices and their notions of privacy (research question 1 in Figure 11), revealing a decline in the neighbourhood’s social relations (research question 2 in Figure 11).

Densification has driven changes in housing typology, from low-rise courtyard housing to high-rise flats. At the neighbourhood scale, communal facilities such as bathhouses and grocery stores...
have disappeared, reducing neighbourhood communication and the social capital in the area. At the building scale, the disappearance of the courtyards has forced the residents’ daily practices, such as cooking, eating and cleaning, to shift from outdoors to indoors. In a high-rise flat typology, spatial dispersion and self-containment have increased the level of privacy and further reduced social relations.

The interviews suggest that the residents do not talk to each other as much as they used to. Further, the densification process has brought a new population, ‘newcomers’, to the neighbourhood, which transforms and reshapes the neighbourhood’s relations.

It was observed that stayers are likely to maintain closer relationships with each other, and this tends to further exclude newcomers, especially if they are tenants—an outcome regarded as the ‘dark side’ of social capital. A division exists between the ‘local’ and the ‘non-local’ in the new restructured neighbourhood, overlapping with the geographical boundaries of the gated blocks. The gates reinforce distrust between stayers and newcomers, yet they are still appreciated by some residents.

Three key implications arise for policymakers and planners. First, there is a need to understand residents’ lived experiences during the urban densification process, beyond the concern for the physical quality of housing. The quality and utility of urban spaces and housing typology determine their success as socially sustainable urban projects. Second, the consideration of stayers and newcomers is a useful new category for investigating the lifestyles of the residents, in addition to the existing classifications such as income levels or education. Third, there are unintended social consequences such as more individual and private lifestyles and reduced social relations in the neighbourhood. New high-rise typologies or high-density, low-rise forms of housing should be explored in order to overcome the shortcomings observed in this study. Social sustainability needs to be brought to consideration at the planning stage to broaden the current emphasis on the physical upgrading of housing in Chinese restructuring policies.

NOTES

1 Unless otherwise stated, the information on the status and progress of WJZ redevelopment is from the Weijiazhuang Shanty Town Renovation Project Implement Plan (Weijiazhuang Penghuqu Gaizao Gongcheng Chaqian Fang’an).

2 Data were collected from the developer.

3 Questions for residents were extracted from an integrated questionnaire measuring social capital provided by Grootaert et al. (2004) and modified to fit the context. It consisted of three sections. The first included questions related to changes in residents’ daily practices and their perceptions about their neighbourhood before and after restructuring. The main part of the interview, in the second section, contained six dimensions for measuring social capital, including groups and networks, trust and solidarity, collective action and cooperation, information and communication, social cohesion and empowerment, and political action. Residents were asked for their basic demographic information in the third section.

4 The survey was designed to focus on change in neighbourhood energy-use practices for the next stage of this study, and it was conducted after the semi-structured interviews. It also targeted the WJZ neighbourhood residents and thus provides useful information on this stage. The survey results presented here are used only as supplemental material to illustrate the qualitative interviews. The method used in this article is qualitative.

5 For the full document, see MOHURD (2016).

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AUTHOR AFFILIATIONS

Xin Li orcid.org/0000-0001-8169-4267
Department of Architecture, University of Cambridge, Cambridge, UK

Minna Sunikka-Blank orcid.org/0000-0002-1765-3046
Department of Architecture, University of Cambridge, Cambridge, UK

COMPETING INTERESTS

The authors have no competing interests to declare.

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