cogitatio

**Urban Planning (ISSN: 2183–7635)**
**2022, Volume 7, Issue 4, Pages 364–376**
**https://doi.org/10.17645/up.v7i4.5810**

Article

# Urban Verticality Shaped by a Vertical Terrain: Lessons From Chongqing, China

Yi Jin

Asia Research Institute, National University of Singapore, Singapore; yijin.urban@outlook.com

Submitted: 18 May 2022 | Accepted: 20 September 2022 | Published: 22 November 2022

**Abstract**
Urban studies have long been predominantly flat without a vertical dimension. This horizontal hegemony is partly embedded in the fact that many cities throughout the world, especially the centres of knowledge production, are plain cities. This article argues that even narrowing down urban verticality to high-rise buildings is still a product of horizontal hegemony. This article uses the city of Chongqing in China's mountainous southwest as an example, to extend the understanding of urban verticality beyond high-rise buildings. By investigating three vertical urban projects, namely, the Raffles City, Hongyadong, and the Mountain City Footpath system, the article reveals how vertical terrain, as a vertical element, shapes Chongqing's urban planning, urban governance strategy, and people's experience in the city. As a counter experience to horizontal urbanism, verticality both constitutes part of local people's ordinary living experience and a spectacular experience for outsiders, which has been mobilised by the local government for place-making and city branding.

**Keywords**
China; Chongqing; Hongyadong; Mountain City Footpath; mountainous; Raffles City; terrain; urban verticality; vertical city

**Issue**
This article is part of the issue "Vertical Cities: The Development of High-Rise Neighbourhoods" edited by Brian Webb (Cardiff University) and James T. White (University of Glasgow).



## 1. Introduction

In recent years, there has been a call in urban studies for "stronger theorizations of verticality" (Scott, 2008, p. 1858). High-rise building, a typical mode of vertical urban development, has long been a defining characteristic of modern cities, as exemplified by Downtown and Midtown New York more than 100 years ago. In the past two decades or so, more high-rise buildings, including skyscrapers, have been mushrooming not only in metropolises in developed countries but also in many countries in the Global South. Located in Dubai, the United Arab Emirates, Burj Khalif Tower, the world's tallest building, exceeds 800 m in height. This is perhaps why vertical urban development has caught increasing academic attention. High-rise buildings have been explored from different perspectives, such as their political economy (Nethercote, 2018), their cultural meanings (Bunnell, 1999), their contribution to vertical gentrification (Graham, 2015), and the living experience inside them (Shilon & Eizenberg, 2021).

Undoubtedly, high-rise building is an arresting mode of verticality. Focusing on high-rise buildings alone, nevertheless, may limit the scope of our imagination of urban verticality/verticalities. Some researchers have explored other vertical qualities of contemporary urbanisation to extend our vertical scope, such as satellite maps for civic use (Graham & Hewitt, 2012) and the deployment of drones in the name of securing the urban skies (Shaw, 2017). Even so, urban verticality shaped by mountainous terrain—which can be found in many cities, such as Hong Kong in Asia, Lisbon in Europe, and Rio de Janeiro in South America—has not so far attracted wide attention. As argued by Graham and Hewitt (2012), the analysis of contemporary urban space is still dominated by "a notable horizontalism," leading to the long negligence of vertical dimensions. Limiting urban verticality to high-rise buildings may further reflect the dominance

of horizontalism, or what I call "horizontal hegemony," in that high-rise building is the most common vertical movement in major cities that are mainly flat. For mountainous cities like Hong Kong, the terrain not only creates high density full of high-rise buildings but also leads to a more diverse interplay between urban architecture and the terrain, turning the city from vertical to volumetric (Shelton et al., 2011), which contains multiple grounds at different levels (see also McNeill, 2020).

In this article, I use the case of Chongqing, a city in Western China, to contest my notion of "horizontal hegemony" and explore how the experience of a mountainous city could extend our understanding of urban verticality. Chongqing is a metropolis located in a mountainous region with millions of inhabitants. At the different stages of Chongqing's urbanisation, the varied interplay between the terrain and human constructions has generated different modes of verticality: High-rise buildings can be used and experienced in new ways, while some urban infrastructure without much vertical-*ness*, such as stairs and alleys, may gain new vertical functions, either for the everyday experience of local citizens or for tourists encouraged to visit by the city government.

This article uses the cases of Raffles City Chongqing, Hongyadong, and the Mountain City Footpath system to illustrate the diverse urban verticalities in Chongqing. The article is based on some fieldwork that I conducted intermittently in Chongqing in 2019 and 2020. The research methods I used are mainly qualitative, including site visiting, interviews with local citizens and other professionals, and document analysis. The number of people I could interview in Chongqing was limited due to the travel restrictions following the outbreak of the Covid-19 pandemic. Therefore, some follow-up interviews had to be replaced by further document analysis in order to enhance the reliability of the data. The documents I collected include planning documents, news reports, and other relevant evidence on social media. Since the experience of urban verticality is a critical part of this research, some descriptions are based on the physical and sensorial experiences of Chongqing's citizens and mine, which may reveal a phenomenological research approach.

The remaining part of this article contains six sections. I first review the literature on urban verticality and the basis on which we might extend our vertical scope. This section is followed by a brief introduction to the way in which the mountainous terrain shapes Chongqing's urban development. Then, I use the three cases listed above to illustrate the different modes of urban verticality in Chongqing. The article concludes with reflections on the limitations of the study and suggestions for further research.

## 2. Urban Verticality Beyond High-Rise Buildings

With high-rise residential buildings springing up in Western Europe, North America, and Australia after the Global Financial Crisis, vertical urbanisation has caught more academic attention in recent years. In terms of the boom of high-rise residential buildings, scholars turn to Harvey's (1982) concept of "spatial fix," in which the "secondary circuit of capital," or the built environment sector, could absorb surplus capital generated by the commodity production sector, to unravel the underlying politico-economic mechanism (Craggs, 2018; Nethercote, 2018, 2019). For example, following Harvey's idea, Nethercote (2018) coins the term "vertical housing fix" to highlight two functions of high-rise housing in the circulation of capital; namely, it serves as (a) a labour- and capital-intensive commodity, which can provide jobs, boost demand for construction materials and durable goods, and absorb financial capital, and (b) as an investment on the internationalised real estate markets that attracts worldwide investments from diverse sources. Furthermore, it functions as a cultural artefact for making distinctions, which differentiates cities according to levels and social classes. Nethercote (2019) further uses the case of Melbourne, which has witnessed a dramatic vertical expansion in the wake of the Global Financial Crisis, to illustrate the politico-economic mechanism. In Melbourne, high-rise construction projects, with the help of the state, not only fuelled the local economy and increased state revenue but also helped Melbourne gain a powerful image around the world of its skyline full of newly built skyscrapers.

In fact, high-rise residential building is not a newly emerging phenomenon in the post-crisis era. Between the 1930s and the 1970s, guided by modernism in architecture, Western cities witnessed a boom in high-rise residential buildings, predominantly social housing (Graham, 2015; Urban, 2012). The recent boom is more of a trend towards "elite takeovers of the urban skies" (Graham, 2015, p. 627). High-rise buildings created secure living spaces, or "vertical gated communities" in Graham's (2015, p. 628) terms, in a living style which has long been stigmatised as insecure (see Slater, 2018). Other scholars have investigated the living experience in high-rise social housing in Western metropolises (Baxter, 2017; Ghosh, 2014). It is true that living in these buildings may be associated with violence, crime, and danger, but the shared space, mutual aid, and communal practices can also strengthen the ties between the residents and provide them with a feeling of home. In addition, scrutinising the actual living experience in high-rise buildings beyond the politico-economic mechanism also provides a more nuanced understanding of what living high really means for the residents within (Baxter, 2017; Shilon & Eizenberg, 2021). According to Baxter (2017, pp. 344–345), vertical living may provide residents with new views, a sense of self-isolation from the crowded world, or a feeling of "spatial extension towards the horizon," which are distinct from any experience on the ground.

Beyond Western cities, in Asia, including China, high-rise buildings, including residential buildings, are

even more common than they are in cities in the West due to the high population density and the late urbanisation in Asia. As described by Shin (2011), in East Asian cities like Seoul and Hong Kong, far from reaching the central business district from the airport, visitors may find endless strings of high-rise clustered buildings (see also Yuen & Yeh, 2010). Shin (2011) uses the term "vertical accumulation" to designate the politico-economic dynamics of such a phenomenon. According to Shin (2011), the driving forces of vertical development in Asian cities are (a) the acquisition of property-related revenues, (b) strong developmental states, and (c) the prominence of real-estate capital built on speculative home-ownership aspirations. In addition, an ambition to catch up with or reach a stage of national development to be recognised by the rest of the world also underlies vertical urban development. In fact, since 1998, buildings in Asia (Petronas in Kuala Lumpur first, then Taipei 101 in 2004, and followed by Burj Khalifa in Dubai in 2010) have replaced the former World Trade Centre in New York City as the world's tallest building. Now, 17 of the tallest 20 buildings throughout the world are in Asia (nine in Mainland China; Emporis, 2022b). Bunnell (1999) and Acuto (2010) have respectively explored the cultural and social meanings of Petronas and other spectacular skyscrapers in Dubai. According to Acuto (2010), using the "vertical" architectural language of the West, namely, the highest skyscrapers, Asian cities like Dubai could prove their commitment to development and progress and confirm their positions in the world (see also McNeill, 2005).

In general, existing research has uncovered much of the political economy, living experience, and cultural and social meanings of vertical urbanisation. However, one thing we may need to note is that all the vertical examples addressed here are skyscrapers and high-rise buildings. As stated in the introduction, it may be true that vertical buildings are the first things that come to mind when we think of urban verticality. However, as discussed by Graham and Hewitt (2012), urban verticality/verticalities can be conceived beyond skyscrapers, to include the "God's eye" equipped by Google Earth to provide satellite views from the air, the vertical urban surveillance made possible by drones, and the subterranean facilities for security and other purposes. What constrains our vertical imaginations is what I call "horizontal hegemony." It has long been debated that there is a "flat ontology" in human geography (Collinge, 2006). For Graham and Hewitt (2012), a notable horizontalism still dominates the analyses of contemporary urban space. One possible reason is that most of the centres of knowledge production throughout the world are large cities that are flat or mostly flat, be they London, Paris, New York City, Tokyo, Shanghai, or Singapore. It is reasonable to suppose that plains are preferable sites for city construction. The most conspicuous vertical things in these flat cities are skyscrapers, high-rise buildings, or high towers, equally. In this regard, although verticality has been strongly theorised following Scott's (2008) call, it is still dominated by an innate horizontalism, or a "horizontal hegemony," as illustrated by the lopsided attention paid to high-rise buildings. Hong Kong may be a possible exception. As a mountainous city with limited land resources, Hong Kong has developed in an extremely dense way, with the largest number of high-rise buildings anywhere in the world. Urban verticality in Hong Kong is manifested in the complex systems of vertical infrastructure intertwined with the terrain. To some extent, Hong Kong has become so volumetric that the vertical dimension intersects closely with the horizontal dimension (Bruyns et al., 2021; Shelton et al., 2011; Wang, 2020). In the present article, drawing from Robinson's (2006, p. 1) criticism that "much urban theory, which has taken its primary inspiration from cities in the West and which has tended to privilege certain experiences of these places" and existing research on urban verticality, I use the urban experience of Chongqing, a mountainous metropolis in China's Southwest, to extend the understanding of urban verticality beyond the "horizontal hegemony." I argue that the terrain, or mountainous terrain, in particular, is an important dimension when we try to understand urban verticalities. High-rise buildings and skyscrapers do matter for urban verticality; indeed, their intersection with mountainous terrain can shape a specific mode of everyday urban experience. Such experience may also be partly shared by the citizens of Hong Kong, Lisbon, San Francisco, Rio de Janeiro, and many other mountainous cities. Urban verticality in the mode of terrain may pose challenges to the planning of many infrastructures. In the meantime, it can also be utilised by the government to promote local identity and create a spectacle for those visitors living under the "horizontal hegemony." In its argument, this article seeks to demonstrate that urban verticality is not merely a form but is embedded in the process of urban space production and the everyday experience of citizens.

## 3. Chongqing: Vertical Terrain as the Basis of a City

Chongqing, along with Beijing, Shanghai, and Tianjin, is one of the four provincial-level municipalities under the direct administration of the central government in China, and the only one inland. Within China's mountainous Southwest, the region where Chongqing is located, or the Parallel Canyon in Eastern Sichuan, is extremely rugged. The terrain here is shaped by interlacing ridges and valleys from the northeast to the southwest. The city centre of Chongqing is in a valley between the Tongluo Mountain-Nanshan Mountain to the east, and the Zhongliang Mountain to the west (see Figure 1), with many hills and slopes inside.

Despite the disadvantageous terrain, Chongqing occupies an advantageous location as it is where the Yangtze River is joined by its largest tributary in the Sichuan Basin, the Jialing River. Benefiting from such a location, Chongqing has long been a transportation hub

**Figure 1.** Chongqing city centre and its surrounding terrain.

and became the first treaty port in Southwest China in 1891. In the recent century, the mountainous terrain has surprisingly brought Chongqing several profound opportunities for its development. During the Second Sino-Japanese War (1937–1945), Chongqing was picked as the wartime capital of China by the Kuomintang government in that it was located far away from the war front in the east and was well protected against military attacks by the surrounding mountains. Numerous factories and enterprises evacuated from Eastern China were relocated to Chongqing, transforming this city into a significant political, economic, and industrial centre (see Han & Wang, 2001). Following a similar principle, in the 1960s and 1970s, the Communist leadership in China initiated the Third Front Construction for war preparation and once again conducted the relocation of factories to the mountainous inland, with Chongqing as the centre (see Meyskens, 2020; Naughton, 1988). Entering the new century, to balance the uneven domestic development, the central government in China initiated the Great Western Development and channelled more resources to the Western inland. Chongqing, which was upscaled to be a provincial-level municipality in 1997, thus gained more development opportunities (see Bao et al., 2019). According to Smith (2022), some of Chongqing's practices even become the precursors to the Belt and Road Initiative, now well-known throughout the world. Now, Chongqing has grown to be one of the largest metropolises in China, with a population of more than 10 million in its urban core and 32 million in the entire municipality it administers.

The tension between the mountainous terrain and the intense land demand of such a populous metropolis has forced Chongqing to be highly vertical in both upward and downward directions in its urban land use. For one thing, to connect different parts of the city divided by rivers and mountains together, Chongqing has constructed a wide range of vertical traffic infrastructure, including long-span bridges, tunnels, cable cars, and even escalators and lifts. For another, to intensify land use, tall buildings (high-rises and skyscrapers) or built on the higher slopes and hills have long been common in the city. According to the statistics provided by Emporis (2022a), Chongqing has 298 skyscrapers (above 100 m) and 1,594 high-rise buildings (35–100 m), ranking 15th among the cities with the most skyscrapers in the world and the sixth in mainland China (see Figure 2). Some cities ranking higher than Chongqing, such as Hong Kong, ranking number one, and Guiyang, ranking number 14, have similar terrain to Chongqing's.

The interplay between the mountainous terrain in Chongqing and its diverse vertical infrastructure has produced a creative urban experience. Interacting with urban verticalities, such as climbing up slopes and stairs, or using elevators and escalators as means of public transportation, is part of local citizens' everyday practices. But for outsiders, the mundane urban verticality may constitute a novel experience, or become "weird," as suggested by Roast (2022). The best-known case may be the Liziba Monorail Station. Line 2 of Chongqing Rail Transit (or CRT2), a monorail, started its operation in 2004. It was the first metro line in use in Western China. The starting section of CRT2 runs halfway up the hills along the southern bank of the Jialing River. Liziba Station is a typical transit-oriented development construction of 19 storeys. Its ground floor lies on the bank of the river, while the station is located on the sixth to eighth floors of the building. The lower part of the building is for commercial use, and the upper part is for residential use. Passengers can reach the station either by climbing the six floors from the riverbank, or directly from the sixth floor if they live higher up the hills. Looking up from the riverbank, the moment when a monorail enters the station becomes a spectacle as the train runs through

**Figure 2.** Part of Chongqing's skyline, with many high-rise buildings and bridges across the river.

the building and has even become a tourist attraction (see Figure 3).

Another famous example of an everyday vertical landscape becoming a spectacle is a residential complex called Baixiangju (see Figure 4). Built in 1993, Baixiangju is located on the slope of the north bank of the Yangtze River. It contains six blocks, which rise to the same height. To fit the sloped terrain, the different blocks have unequal numbers of storeys. The block closest to the riverbank is as high as 24 storeys, while further up the slope, the block has only 10 storeys above street level. The blocks are connected by a long corridor with sky bridges. Residents can enter this building by the entrance at ground level by the riverbank, through a gate on the 10th floor halfway up the slope, or by an entrance on the 15th floor leading from the main road at the top of the slope. Such a design takes great advantage of the terrain and avoids using a lift, which in the 1990s was a luxury facility seldom used in China's residential buildings.

In Chongqing, Baixiangju is not a rare case. Due to the mountainous terrain, the residential buildings in Chongqing have made creative use of the terrain from as far back as the 1980s to meet the housing demands of the large population. Many high-rise buildings with no

**Figure 3.** Liziba Station, with a train arriving.

**Figure 4.** Baixiangju residential complex.

lifts in the city centre of Chongqing, similar to Baixiangju, have two or even more entrances on different storeys, each leading to different streets on different levels. Residents can choose any entrance, depending on where they are and where their flats lie. This mode provides the staircases of these buildings with a unique function. In most cities, the staircases in residential buildings lead to one direction only. A staircase is, to some extent, a private space that is exclusively used by residents of the building. It is also common for a building to turn itself into a "gated building" by adding a gate to its entrance to prevent strangers from getting in. In Chongqing, however, the staircases of high-rise buildings with several entrances can serve as public spaces. Pedestrians not residing within the building but with local knowledge can also use the staircase within a residential building if they want to climb up or descend from one entrance to another, namely, from one street level to another street level, to avoid a detour or bad weather. The everyday experience of Chongqing citizens shaped by the verticality of the city thus becomes, to some extent, unique.

## 4. Raffles City Chongqing: Controversial Skyscrapers in a Vertical City

For a vertical city like Chongqing, some common urban verticality, such as skyscrapers, may be experienced in more divergent than other cities exhibit. Raffles City may be the best case. Completed in 2019, Raffles City Chongqing is located right at the confluence of the Yangtze River and the Jialing River (see Figure 5, left). It is a commercial complex made up of eight skyscrapers, of which the two main buildings in the front, with a height of 356 m, are so far the highest skyscrapers in Chongqing. With a total investment of 24 billion RMB yuan (approximately 3.5 billion US dollars), this complex is the largest Singaporean investment project in China, developed by the well-known real estate developer CapitaLand (2022a). It may not be a coincidence that in 2015, three years after its construction began, Chongqing was selected as the site of the China–Singapore Demonstration Initiative on Strategic Connectivity, which is the third inter-governmental cooperation project between China and Singapore, after Suzhou Industrial Park and Tianjin Eco-City, and the first one in Western China (see Smith, 2022). This project set up a display hall on the ground floor of Raffles City Chongqing.

Raffles City is undoubtedly a new instance of "WOW architecture" (see Acuto, 2010, p. 276) in Chongqing. It was designed by Moshe Safdie, a prestigious architect who also designed Marina Bay Sands, the new landmark of Singapore. It is no wonder that the two buildings share the same structure of a giant horizontal sky bridge that links the top of several skyscrapers (see Figure 5). According to CapitaLand, its design drew inspiration from sails to symbolise Chongqing's long history as a hub of waterway transportation. Furthermore, located at the site of the former Chaotian Gate (literally, "facing the sky") of Chongqing city, Raffles City Chongqing also conveys the auspicious idea of sailing toward the sky or a bright future of surging growth (CapitaLand, 2022b). In terms of its internal space, Raffles City claims to represent Chongqing's mountainous characteristics by vertically integrating multiple functions into itself, including consumption, commercial space, residence, and transportation ("Chongqing laifushi zhengshi," 2021).

Raffles City Chongqing, however, became controversial even before its completion. As Roast (2022) reveals, it has become weird for local citizens. The first critique

**Figure 5.** Raffles City Chongqing (left) and Marina Bay Sands, Singapore (right).

of this project contends that its gigantic scale failed to maintain a good relationship with its surroundings. As introduced above, to alleviate the land shortage in this mountainous city, high-rise buildings, including residential buildings, have been introduced into Chongqing in creative ways for many years. Even the sky bridge, as an arresting design in Raffles City, finds something similar in existing buildings like Baixiangju. But other high-rise buildings, especially those built earlier, seem to have been designed in a more careful way in terms of their relations with their surroundings or even creatively use the terrain to vertically extend their function, as noted above. In a news report, Mr Chen, the former chief architect of Chongqing Architectural Design Institute, criticised such a design because "from the perspective of the urban landscape, buildings ought to rise gradually from the riverbank up to the hills, adapting to and integrating with the terrain and nature. It should be vertical and multi-layered" (Liu, 2018). Raffles City, the highest skyscraper in Chongqing, is located at the lowest point of Chongqing's city centre, where the two rivers join here. Its gigantic scale may overwhelm the buildings and traffic nearby and block the view of Chongqing's city centre (see Figure 6, left). As Mr Chen complained:

> From different angles, these buildings overlap with each other, almost in an airtight way. This is very bad in the visual sense….If we adopt a specific perspective from the confluence, there may be some gaps. But from most perspectives, there are no gaps at all. The urban landscape of the entire city centre has been shielded. With its rise, there is a stronger feeling of being blocked. (Liu, 2018)

Mr Chen's critique is quite representative. Similar opinions can be found on local online discussion boards and social media. In 2019, an assessment of the ugliest architecture in China initiated by an architectural website with several architects ranked Raffles City Chongqing in the first place as the ugliest building in its year in that "it savagely tramples on the historical heritage of Chongqing and brutally damages the scale of a mountainous city." (Archcy, 2019) When I was conducting field observation in Chongqing in 2020, I once, by chance, encountered a middle-aged woman who was waiting at a bus stop facing Raffles City; she complained, quite unprompted, "This is really too ugly." Whether this is a reluctant attitude toward a new architectural complex in the city or a short-sighted resistance to its unforeseen bright future, it represents the unwelcoming attitude of many Chongqing citizens to this skyscraper complex.

A further critique of Raffles City Chongqing stems from the cultural and historical significance of Chaotian Gate, the site where Raffles City stands. Chaotian Gate, demolished in 1927, was once the largest entrance from the port through the wall of Chongqing city. In 2015, before the construction of Raffles City, a section of the ancient city wall, which dates back to the Southern Song Dynasty (1127–1279), was found by archaeologists right next to the site of the former Chaotian Gate ("Zhucheng shouduan," 2015). In this regard, the verticality of Chongqing as a historical city extends not only upwards but downwards. How to preserve this section of the ancient city wall, and whether the name of Chaotian Gate would be replaced by Raffles City caused fierce debates among local historians and heritage enthusiasts (see, for example, Han, 2017; He, 2017). A very serious critique even targeted CapitaLand directly as foreign capital and Singapore as its cultural background. It stated:

> CapitaLand, as a representative of Singaporean culture, failed to understand Chinese culture and the human history of Chongqing. It blindly transplanted a copycat design to Chongqing, which has damaged the feelings of Chongqing citizens. (Hexun, 2018)

The appeals of Chongqing citizens achieved a partial success. An archaic-looking new Chaotian Gate will be built in the space between Raffles City and the river (Li & Wang, 2021). The section of the ancient city wall has

**Figure 6.** Street blocked by Raffles City (left) and the ancient city wall underneath it (right).

been preserved in a vertical way under an affiliated structure of Raffles City (see Figure 6, right). In the words of the leader of a local heritage enthusiast community whom I interviewed, the city wall is preserved in a "humiliating way," being fully overshadowed by Raffles City (Interview, 26–11–2020), which represents the lasting angry opposition to the newly built skyscrapers.

## 5. Hongyadong: The Vertical Gentrification of Everyday Landscape and Its Rediscovery

Whereas the engagement of Raffles City Chongqing is transnational, Hongyadong is a more local project developed by Cygnet, a hot pot restaurant group based in Chongqing. Hongyadong is an 11-storey commercial complex, located on the bank of the Jialing River and leaning against a steep slope. Like other high-rise buildings in Chongqing as described above, Hongyadong has two entrances, one on the first storey, leading to an avenue along the riverbank, and another on the 11th storey, leading to the main street at the top of the slope. On each floor are many restaurants, mostly with local features.

The development of Hongyadong is a process that can be called the gentrification of everyday landscapes. The name of Hongyadong has remained unchanged since the redevelopment. In the first sense, Hongyadong, as a steep slope, used to be a dilapidated neighbourhood, whose majority of residents were porters and other manual labourers. The redevelopment of this neighbourhood has relocated such residents and replaced them with consumers with higher consumption capacity. This is a typical process of "new-build gentrification" in the Chinese context (see He, 2010; Shin, 2016). In the second sense, the development of Hongyadong also involves the *spectaclisation* of the everyday landscape, especially that of people with lower social-economic status, depriving it of its original functions and appropriating it for consumption purposes. According to Mrs He Yongzhi, the boss of Cygnet, Hongyadong drew its inspiration from the traditional architecture in Chongqing (Shu, 2020). In Chongqing, single- or multi-storeyed buildings used to be clustered densely on different levels of the same slope. Viewed from afar (especially across the river), the buildings on the slope constitute a unique vertical landscape with multiple layers, which is more commonly associated with disadvantaged social groups. The new development of Hongyadong piles up these layers vertically and integrates them into a massive complex (see Figure 7). Aesthetically, the new development of Hongyadong does keep some features of traditional architecture in Chongqing to arouse a certain nostalgia. Such a design, however, turns the everyday landscape into a spectacle, or in other words, *spectaclises* the everyday landscape of relatively poor social groups, represents it with new materials (concrete rather than bricks and wood) and provides it with brand new functions, particularly for people with higher social-economic status. This process is what I mean by the gentrification of the everyday landscape.

For Hongyadong, now a new landmark of Chongqing, its business success is not a straightforward story. According to a report, in its early years, the monthly loss of this project could reach as much as several million RMB yuan (Shu, 2020). One possible reason, according to a Chongqing interviewee, is that Chongqing citizens are so familiar with this vertical architectural style that they

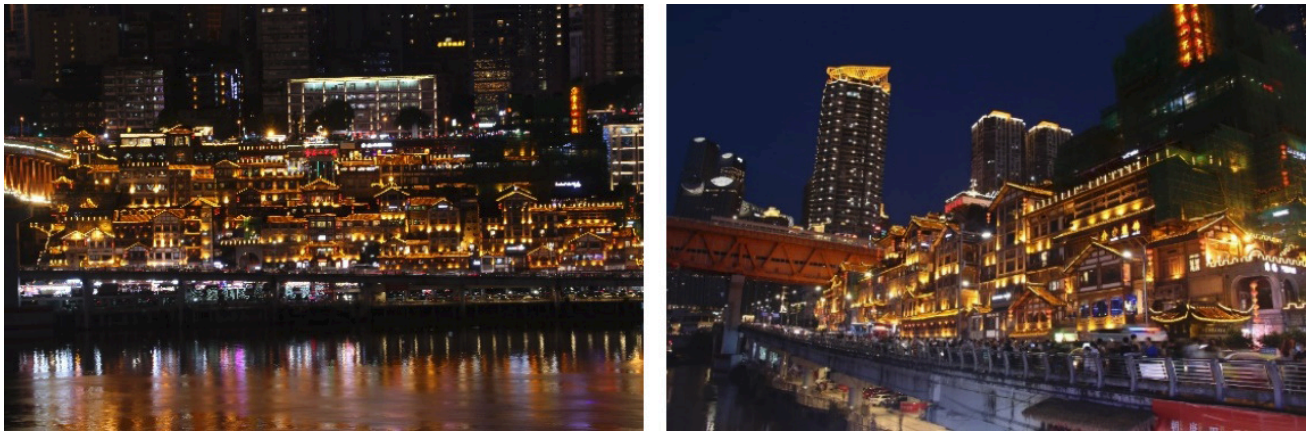

**Figure 7.** Hongyadong: View from the northern bank (left) and the southern bank (right) of the Jialing River.

did not find any novelty in it (Interview, 20–06–2020). Constrained in Chongqing, it could hardly reach its potential consumers.

The rediscovery of Hongyadong started around 2016, owing to the boom of new social media that shares short videos, particularly TikTok. Later in 2018, some people even found Hongyadong resembling a scene in the famous Japanese cartoon film *Spirited Away*. Its unique vertical structure, along with the deliberately designed light, makes it an eye-catching "cyberpunk" landscape on the internet. According to an earlier statistic in 2021, in the Chinese version of TikTok (Douyin), videos under the hashtag Hongyadong have been viewed 630 million times (1.02 billion times in 2022), far surpassing other traditional tourist attractions in Chongqing (Ouyang, 2021). Online attention has also been translated into actual tourist visits. In 2019, Chongqing recorded 657 million tourists, ranking first among all Chinese cities ("Chongqing 2020 lüyouye," 2020). Social media has facilitated the further *spectaclisation* of Hongyadong and helped it reach its target consumers.

Verticality may lie at the core of the popularity of Hongyadong. As discussed in the literature review section, a kind of "horizontal hegemony" has shaped the urban experience of most citizens living in cities with "flat" terrain. Their sense of urban verticality may be limited to high-rise buildings, or, at most, the underground transportation system. The vertical landscape of Chongqing and other mountainous cities constitutes a unique spatiality for them. It would be interesting to enter the Hongyadong complex from its top on the 11th storey, walk all the way down, and eventually arrive at another street level. By adding light, sound, and smell to the vertical setting, Hongyadong successfully created an "affective atmosphere" (see Wang & Li, 2018) for visitors to physically experience the vertical spectacle. In this regard, Hongyadong, which has only 11 storeys, may extend outsiders' urban experience and spatial imagination further than a skyscraper of several hundred metres. Although Hongyadong is a gentrified landscape that has been deprived of the original social and economic meaning associated with its landscape, it is still a miniature of the verticality of Chongqing. Hongyadong seems to be a story of high-rises as spectacles (see Nethercote, 2018, p. 673), but in a somewhat different way.

## 6. Mountainous City Footpath: New Infrastructure to Experience Everyday Verticality

A final example of the diverse verticality in Chongqing that I introduce in this article is the Mountainous City Footpath. Footpaths and trails in cities and suburbs have existed for a long time. For example, in Hong Kong, several long-distance trails, including the famous MacLehose Trail, were developed more than 40 years ago (Cheung & Wong, 2022). But only in recent years has this infrastructure caught the attention of urban officials and planners in mainland China. Chongqing, with its initial plan for the Mountainous City Footpath system first raised in 2003 ("Shirenda tongguo," 2003), became a pioneer in introducing footpaths into China.

In Chongqing, conditioned by the mountainous terrain, walking has long been the dominant means of transportation, and it is rare to find many bicycles in use. According to the Chongqing Institute of Transportation Planning and Research, for Chongqing citizens, walking and using non-motor vehicles accounted for 43.6% of all modes of transportation in 2018 (Cao et al., 2019). As discussed above, in Chongqing, many residential buildings, old and new, are built on different levels of slopes. In addition to motorways that meander on the slopes, these levels are also connected by stairs within buildings, as explained earlier, and/or alleys with many staircases as shortcuts. Some residential buildings along these alleys can be accessed only on foot (see Figure 8). These buildings are undoubtedly unfriendly for vehicle transportation. Residents may also encounter trouble if they are disabled or need to move bulky goods. However, this has long been part of the city's everyday life as a mountainous metropolis with a profound shortage of land. The mountainous terrain with many stair alleys has generated a need for porters, or *bangbang* (sticks) in the

local vocabulary. These labourers hang goods on each end of a stick and shoulder it to move goods up and down the stairs. Even today, with the rapid development of vehicle transportation, there is still a need for such a service in Chongqing. These alleys with stairs, along with motorways, constitute a complex network of vertical transportation in Chongqing.

The Mountainous City Footpath system is a somewhat romanticised version of the existing vertical transportation network, which Chongqing seeks to incorporate into its strategies of city branding. Originally, the Mountainous City Footpath appeared as part of the design of the city image for Chongqing's city centre ("Shirenda tongguo," 2003), which aimed to showcase the unique "footpath culture" of this city, as well as provide convenience for citizens and beautify the urban landscape. The first nine footpaths were broadly based on existing stair alleys in Chongqing's old neighbourhoods (see Figure 8). Qiansi Gate-Huguang Guild Hall Footpath, completed in 2007, is a good example (see Figure 9). This footpath, which is not far from Hongyadong, was transformed from the 200-m-long track of a former funicular linking the southern bank of the Jialing River with a street up a hill. It is still a humble structure that prioritises functional usage, decorated only by the two cable cars that operated on the track.

When Chongqing decided to make its urban verticality a more important element of city branding, as illustrated by the success of Hongyadong, the Mountainous City Footpath system also gained new meaning. As stated by the *Chongqing Daily* in one of its reports on the Mountainous City Footpath:

> As a megacity, Chongqing has three types of footpath: alley footpaths, riverside footpaths and forest footpaths. Individual footpaths within each type are diverse with many mutations. Following the changes of the terrain, they are interwoven into a complex network. *Such a system in Chongqing is highly distinctive throughout the world*. (Cao et al., 2019, p. 3, emphasis added)

Being endowed with new significance, the footpaths in Chongqing have extended considerably. According to the Municipal Government of Chongqing, by 2019, the number of footpaths in the Mountainous City Footpath system had reached 60, covering a total distance of 1,209 km. In the following four years, the municipal government planned to build 17 more footpaths, adding 353 kilometres. The municipal government put forward a long-term vision of another 43 footpaths, adding 854 km in total, to extend this system to more than 2,000 km (Chongqing Municipal Government, 2019). In terms of the practical design of the footpaths, more functions beyond daily use were envisaged, such as facilitating urban regeneration, linking tourist attractions, and

**Figure 8.** An alley in Chongqing with stairs and some residential buildings beside it, now part of the third path of the Mountainous City Footpath.

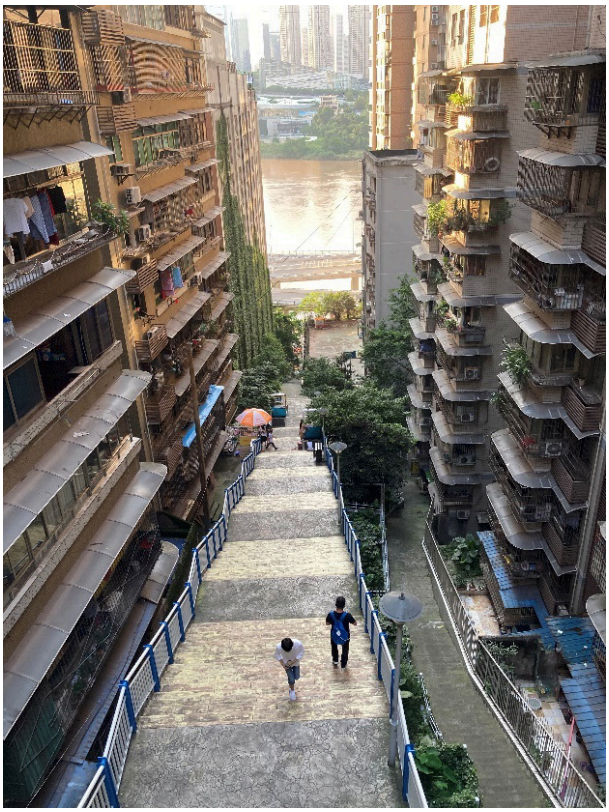

**Figure 9.** Qiansi Gate–Huguang Guild Hall footpath.

encouraging the operation of guesthouses and centres of cultural creativity (Chongqing Municipal Government, 2019). In general, the Municipal Government wants to establish a new infrastructure that could meet the everyday needs of local citizens and simultaneously serve as vertical spectacles and amenities for tourists.

Shancheng Alley (Mountainous City Alley) best epitomizes the extended role of footpaths in Chongqing. Among the first batch of footpaths, Shancheng Alley is a section of the third footpath. It combines several old alleys on the slope by the northern bank of the Yangtze River with some newly built structures, including a plank road along the cliff by the river (see Figure 10, left). Shancheng Alley used to be an ordinary flight of steps in the city centre of Chongqing, with quite a few residents living in some dilapidated dwellings alongside. Since 2018, the neighbourhood of Shancheng Alley has experienced dramatic renewal, although the state media in China still calls it "minor regeneration" ("Dang bainian," 2022). Most of the former residents have been resettled in other districts. Their dwellings, as well as some historic buildings along this alley, were renovated (or even rebuilt) in the style of Chongqing's traditional architecture (see Figure 10, right) and converted for commercial use. A local resident whom I interviewed attributed this transformation to the success of Hongyadong (Interview, 19–11–2020). The success of Hongyadong convinced investors that a vertical urban landscape and the old architectural style had the potential to attract more visitors with higher consumption capability.

Shancheng Alley is still being used by Chongqing citizens as an ordinary vertical facility in their everyday life, although the regeneration, or gentrification process has forced some former residents out. Whether or not Shancheng Alley will achieve its predicted success is yet to be seen against the background of the long-lasting pandemic in China, but as with Hongyadong, Shancheng Alley provides us with a possible example of the way in which, due to Chongqing's terrain and the political economy of urban development, the vertical urban experience, which is an "incidental product" (Roast, 2022), could be a novel spectacle consciously produced by the local government for people in thrall to "horizontal hegemony," and could extend their urban experience.

## 7. Conclusion

The verticality of Chongqing, as discussed in this article, is closely engaged with the mountainous terrain of this city. It shapes the everyday experience of all its citizens. High-rise buildings and skyscrapers are incontrovertibly part of Chongqing's verticality, but they are intertwined with the mountainous terrain and thus yield new ways of being used. In contrast, skyscrapers that fail to take the terrain into serious enough consideration in their design, such as the gigantic Raffles City, may incur contestation. One city's mundane everyday verticality, however, can be a novel urban experience for outsiders dominated by the "horizontal hegemony." As part of the city branding strategy, the everyday vertical landscape, or newly built landscapes following their style, can be further exploited by the city government to cater to the need of outsiders who are visiting for the sake of the novel spectacle, as shown in the cases of Hongyadong and the Mountainous City Footpath system. This is understandable in today's fierce inter-city competition and urban entrepreneurialism.

This article is mostly an initial step to the further investigation of Chongqing's urban verticality. Conditioned by the lockdown and travel restrictions due to the Covid-19 pandemic, I found it impossible to conduct a large sample survey or more interviews to assess Chongqing citizens' experiences and attitudes to the verticality of Chongqing, which would have enabled me to triangulate the findings with secondary sources. Meanwhile, the voices of government officials, planning professionals, and social activists are also needed to deepen the discussion of the politico-economic mechanism associated with Chongqing's urban verticality. If the vertical experience of Chongqing and many other cities

**Figure 10.** Shancheng Alley: The plank road section (left) and the section with renovated buildings (right).

like it can extend the scope of urban verticality, urban planning and urban governance may tackle further questions, such as the circumstances in which cycling could be promoted as a healthy way of urban life, how far the mobility of the disabled and the elderly can be secured in a vertical city, and whether the action of climbing stairs, as part of the urban experience in a vertical city, could be replaced by vertical escalators as in some parts of Hong Kong. All these questions remain to be explored within and beyond the context of Chongqing to further challenge the horizontal hegemony and lay the ground for a new vertical epistemology of cities.

**Acknowledgments**

The author would like to thank Prof. Crison Shuih-Shen Chien, Mr Kaiyuan Lin, Prof. Rui Zhou, and Dr Meng Xu for their kind help at different stages of this research. The author would also like to thank the three anonymous reviewers for their suggestions.

**Conflict of Interests**

The author declares no conflict of interests.

**References**

Acuto, M. (2010). High-rise Dubai urban entrepreneurialism and the technology of symbolic power. *Cities*, *27*, 272–284.

Archcy. (2019). *Jianzhu changyan wang 2019 nian dishijie zhongguo shida choulou jianzhu pingxuan jieguo zhongbang jiexiao* [The top 10 most ugly architecture in China 2019 by Archy released]. http://www.archcy.com/news/bzdj/c95e909e309826e3

Bao, H. X. H., Li, L., & Lizieri, C. (2019). City profile: Chongqing (1997–2017). *Cities*, *94*, 161–171.

Baxter, R. (2017). The high-rise home: Verticality as practice in London. *International Journal of Urban and Regional Research*, *41*(2), 334–352.

Bruyns, G. J. B., Higgins, C. D., & Nel, D. H. (2021). Urban volumetrics: From vertical to volumetric urbanisation and its extensions to empirical morphological analysis. *Urban Studies*, *58*(5), 922–940.

Bunnell, T. (1999). Views from above and below: The Petronas Twin Towers and/in contesting visions of development in contemporary Malaysia. *Singapore Journal of Tropical Geography*, *20*(1), 1–23.

Cao, L., Liao, X., & Shen, J. (2019, April 1). *Jianshe shancheng budao, dazao meili zhi di xingfu lu* [Constructing the Mountainous City Footpath, building the pleasant way in a beautiful place]. *Chongqing Daily*, p. 3.

CapitaLand. (2022a). *Raffles City Chongqing*. https://www.capitaland.com/international/en/find-a-property/global-property-listing/retail/raffles-city-chongqing.html

CapitaLand. (2022b). *Chongqing laifushi* [Raffles City Chongqing]. https://www.capitaland.com/cn/zh/shop/malls-listing/raffles-city-chongqing.html

Cheung, L. T. O., & Wong, F. Y. (2022). Overview the values of the long-distance trails in the country parks of Hong Kong. *Tourism Planning & Development*. Advance online publication. https://doi.org/10.1080/21568316.2021.2023208

Chongqing 2020 Lüyouye fada chengdu quanguo di'er, renqibang quanguo diyi [The tourism industry in Chongqing ranks the second in terms of its scale, and first in terms of its popularity]. (2020, September 30). *Jiemian News*. https://www.jiemian.com/article/5065856.html

Chongqing Laifushi zhengshi yangfan yuanhang [Raffles City Chongqing officially departs]. (2021, June 28). *Chongqing Daily*, p. 23.

Chongqing Municipal Government. (2019). *Chongqing shi zhuchengqu shancheng budao jianshe shishi fang'an* [Scheme of implementing the construction of Mountainous City Footpath in Chongqing City Centre]. http://www.cq.gov.cn/zwgk/zfxxgkml/szfwj/qtgw/201905/t20190517_8614192.html

Collinge, C. (2006). Flat ontology and the deconstruction of scale: A response to Marston, Jones and Woodward. *Transactions of the Institute of British Geographers*, *31*(2), 244–251.

Craggs, D. (2018). Skyscraper development and the dynamics of crisis: The new London skyline and spatial recapitalization. *Built Environment*, *43*(4), 500–519.

Dang Bainian laoxiang xiehou chengshi gengxin [When old alley of 100 years encounters urban regeneration]. (2022, February 28). *Xinhua News*. http://www.news.cn/fashion/20220228/eee797f238d44a2abf17dbb0eb00232c/c.html

Emporis. (2022a). *Chongqing*. https://www.emporis.com/city/100217/chongqing-china

Emporis. (2022b). *List of the world's tallest buildings*. https://www.emporis.com/statistics/worlds-tallest-buildings

Ghosh, S. (2014). Everyday lives in vertical neighbourhoods: Exploring Bangladeshi residential space in Toronto's inner suburbs. *International Journal of Urban and Regional Research*, *38*(6), 2008–2024.

Graham, S. (2015). Luxified skies. *City*, *19*(5), 618–645.

Graham, S., & Hewitt, L. (2012). Getting off the ground: On the politics of urban verticality. *Progress in Human Geography*, *37*(1), 72–92.

Han, H. (2017). *Chongqing laifushi, loupan guini, ba guangchang mingcheng he yingyou de biaoji liugei chaotianmen xingbuxing* [Raffles City Chongqing: You keep the real estate project, leave the name and sign of Chaotian Gate]. Wechat Official Account: Chongqing Old Street. https://mp.weixin.qq.com/s/47YtZwAMrBI-TawBe4f-FA

Han, S. S., & Wang, Y. (2001). City profile: Chongqing. *Cities*, *18*(2), 115–125.

Harvey, D. (1982). *The limits to capital*. Blackwell.

He, S. (2010). New-build gentrification in Central Shanghai: Demographic changes and socioeconomic implications. *Population, Space and Place*, *16*(5), 345–361.

He, Y. (2017). *Chongqing chaotianmen, yingming yao yongcun* [The heroic name of Chaotian Gate should be maintained]. Wechat Official Account: Chongqing Old Street. https://mp.weixin.qq.com/s/jU1FV__2sO9cWEIBJlIGSA

Hexun. (2018). *Ruhe baohu chaotianmen, kaide de Chongqing nanti* [How to protect Chaotian Gate culturally: A difficult question for CapitaLand in Chongqing]. http://cq.house.hexun.com/news/details/id/107578.html

Li, S., & Wang, Z. (2021, May 31). Zaixian bayu xiongguan, chaotianmen jiang fanggu [Make the old fort reappear: An archaistic city gate and city wall will be rebuilt in Chaotian Gate]. *Chongqing Morning Paper*, pp. 1, 3.

Liu, X. (2018, August 15). *Zhengyi chongqing laifushi guangchang* [Raffles City Chongqing in debate]. *Jiemian News*. https://www.jiemian.com/article/2383661.html

McNeill, D. (2005). Skyscraper geography. *Progress in Human Geography*, *29*(1), 41–55.

McNeill, D. (2020). The volumetric city. *Progress in Human Geography*, *44*(5), 815–831.

Meyskens, C. F. (2020). *Mao's Third Front: The militarization of Cold War China*. Colombia University Press.

Naughton, B. (1988). The Third Front: Defence industrialization in the Chinese interior. *The China Quarterly*, *115*, 358–386.

Nethercote, M. (2018). Theorising vertical urbanisation. *City*, *22*(5/6), 657–684.

Nethercote, M. (2019). Melbourne's vertical expansion and the political economies of high-rise residential development. *Urban Studies*, *56*(16), 3394–3414.

Ouyang, J. (2021). Traveling cultural heritage in the age of TikTok. In *The Asian Conference on the Social Sciences 2021: Official conference proceedings* (pp. 13–19). The International Academic Forum. https://doi.org/10.22492/issn.2186-2303.2021.3

Roast, A. (2022). Toward weird verticality: The spectacle of vertical spaces in Chongqing. *Urban Studies*. Advance online publication. https://doi.org/10.1177/00420980221094465

Robinson, J. (2006). *Ordinary cities: Between modernity and development*. Routledge.

Scott, H. V. (2008). Colonialism, landscape and the subterranean. *Geography Compass*, *2*(6), 1853–1869.

Shaw, I. G. R. (2017). The great war of enclosure: Securing the skies. *Antipode*, *49*(4), 883–906.

Shelton, B., Karakiewicz, J., & Kvan, T. (2011). *The making of Honk Kong: From vertical to volumetric*. Routledge.

Shilon, M., & Eizenberg, E. (2021). Experiencing vertical living: Affects, atmospheres, and technology. *Planning Theory*, *20*(2), 121–142.

Shin, H. B. (2011). Vertical accumulation and accelerated urbanism: The East Asian experience. In M. Gandy (Ed.), *Urban constellations* (pp. 48–53). JOVIS.

Shin, H. B. (2016). Economic transition and speculative urbanisation in China: Gentrification versus dispossession. *Urban Studies*, *53*(3), 471–489.

Shirenda tongguo yuzhong xingxiang sheji [People's Congress of Chongqing passed the image design of central Chongqing]. (2003, December 4). *Chongqing Commercial Daily*. https://news.sina.com.cn/c/2003-12-04/00021249071s.shtml

Shu, Y. (2020, November 15). *He Yongzhi: Hongyadong shi bu'an changli chupai zhangda de haizi* [He Yongzhi: The untypical development of Hongyadong]. *Sina*. https://finance.sina.com.cn/stock/stockzmt/2020-11-15/doc-iiznctke1472458.shtml

Slater, T. (2018). The invention of the "sink estate": Consequential categorisation and the UK housing crisis. *The Sociological Review*, *66*(4), 877–897.

Smith, N. R. (2022). Continental metropolitanization: Chongqing and the urban origins of China's Belt and Road Initiative. *Urban Geography*. Advance online publication. https://doi.org/10.1080/02723638.2021.2014670

Urban, F. (2012). *Tower and slab: Histories of global mass housing*. Routledge.

Wang, J., & Li, Y. (2018). Creativity and Chinese urbanism: The moral atmosphere of Lishui Barbizon. In M. Jayne (Ed.), *Chinese urbanism: Critical perspectives* (pp. 208–219). Routledge.

Wang, W. (2020). Everyday practice in the high density, volumetric Hong Kong: Ambiguity, intensity and life between interfaces. *Cities*, *96*, Article 102462.

Yuen, B., & Yeh, A. G.O. (Eds.). (2010). *High-rise living in Asian cities*. Springer.

Zhucheng shouduan songdai guchengqiang xianshen chaotianmen [Ancient city wall of the Southern Song Dynasty appears in Chongqing]. (2015, June 10). *Chongqing Morning Paper*. http://cq.sina.com.cn/news/b/2015-06-10/detail-icrvvpkk8173423.shtml

**About the Author**

**Yi Jin** is a researcher affiliated with the Asia Research Institute at the National University of Singapore. Dr Jin obtained his PhD in human geography and urban studies from LSE. His research focuses on urban development and redevelopment, urban governance, industrial heritage, and everyday urban life. His recent works have been published in *Housing Studies* and the *International Journal of Urban and Regional Research*.