JOURNAL OF CULTURAL ANALYSIS AND SOCIAL CHANGE

Journal of Cultural Analysis and Social Change,
2025, 10(4), 5133-5140
ISSN: 2589-1316

Research on The Spatial Planning and Renovation Strategy of Urban Village Roads in Guangzhou from a Safety Perspective

Xia Peijie[1], Manus Kaewbucha[2*], Wechagorn Talwanna[3]

[1] *Chakrabongse Bhuvanarth International College of Interdisciplinary Studies, Rajamangala University of Technology Tawan-ok, Thailand. Email: peijie.xia@rmutto.ac.th*
[2] *Ph.D., Chakrabongse Bhuvanarth International College of Interdisciplinary Studies, Rajamangala University of Technology Tawan-ok, Thailand. Email: manus_ka@rmutto.ac.th*
[3] *Chakrabongse Bhuvanarth International College of Interdisciplinary Studies, Rajamangala University of Technology Tawan-ok, Thailand. Email: wechagorn_ta@rmutto.ac.th*

*__Corresponding Author:__ manus_ka@rmutto.ac.th

Citation: Peijie, X., Kaewbucha, K. & Talwanna, W. (2025). Research on The Spatial Planning and Renovation Strategy of Urban Village Roads in Guangzhou from a Safety Perspective, *Journal of Cultural Analysis and Social Change*, 10(4), 5133-5140. https://doi.org/10.64753/jcasc.v11i1.4095

Published: December 27, 2025

ABSTRACT

Urban villages are a persistent spatial phenomenon in rapidly urbanizing Chinese cities, playing a critical role in providing affordable housing for migrant populations while simultaneously facing severe environmental and safety challenges. In Guangzhou, many urban villages have developed through long-term informal construction, resulting in high-density built environments, fragmented road systems, and frequent safety accidents. Among these challenges, road space deficiencies have emerged as a major contributor to traffic accidents, fire hazards, and injuries caused by falling objects. However, large-scale redevelopment of urban villages is often constrained by complex property rights, high costs, and social resistance, underscoring the need for feasible, incremental, safety-oriented interventions. This study investigates the spatial characteristics and safety performance of road systems in urban villages in Guangzhou from a safety-oriented planning perspective. Five representative urban villages, Shangshe Village, Tangxia Village, Chebei Village, Huangcun Village, and Zhucun Village, were selected as case studies. A mixed-methods research design was employed, combining on-site field investigations, photographic documentation, accident case analyses, and resident surveys. A total of 1,944 valid questionnaires were collected to capture residents' demographic characteristics, safety perceptions, accident experiences, and expectations regarding road space conditions. The results reveal that road spaces in the surveyed urban villages are characterized by narrow widths, mixed pedestrian–vehicle traffic, inadequate lighting and drainage, insufficient safety facilities, and unregulated parking behavior. Traffic accidents, fires associated with electric bicycle battery charging, and injuries caused by falling objects were identified as the most common safety incidents. Survey findings indicate widespread dissatisfaction among residents with both community safety and internal road planning. Residents consistently prioritized pedestrian–vehicle separation, road widening, improved parking management, enhanced lighting, and drainage upgrades. The study concludes that road space renovation represents a practical and high-impact entry point for improving safety in urban villages under existing constraints. Safety-oriented, incremental road-space interventions can significantly reduce accident risk and enhance residents' quality of life, offering valuable insights for urban village renewal in Guangzhou and other high-density cities.

Keywords: Urban villages; Road space safety; Urban renewal; Traffic planning; Guangzhou

Copyright © 2025 by Author/s. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited..

INTRODUCTION

Urban villages have become a distinctive spatial phenomenon accompanying the rapid urbanization of Chinese cities. As urban expansion absorbs surrounding rural settlements, formerly independent villages are gradually enveloped by urban built-up areas, forming high-density residential enclaves commonly referred to as "urban villages." These areas play a paradoxical role in contemporary cities. On the one hand, they provide large quantities of low-cost housing for migrant workers, young graduates, and other low-income groups, thereby supporting urban labor markets and economic vitality (Li, Zhang, & Wang, 2014; Wu, 2016). On the other hand, due to fragmented land ownership, weak regulatory oversight, and a lack of systematic planning, urban villages often exhibit severe spatial disorder, infrastructural inadequacies, and heightened safety risks (Chen, Liu, & Lu, 2018).

Guangzhou, as a national central city and a core hub of the Pearl River Delta, contains one of the highest concentrations of urban villages in China. Since the reform and opening-up period, sustained economic growth and massive population inflows have intensified demand for affordable housing, reinforcing the persistence of urban villages within the city's spatial structure (Zhang & Fang, 2004). Although Guangzhou has made significant progress in urban renewal policies, the redevelopment of urban villages remains highly constrained by complex property rights, high compensation costs, and strong social resistance, particularly in districts with dense floating populations such as Tianhe District (He, Wu, & Webster, 2010; Lin, 2019).

Among the multiple challenges faced by urban villages, road safety has emerged as one of the most critical yet underexplored issues. The internal road systems of urban villages are rarely the result of formal planning. Instead, they evolve incrementally through informal construction, resulting in narrow road widths, irregular layouts, mixed pedestrian–vehicle flows, insufficient lighting, and inadequate drainage systems (Zhao, Deng, & Lu, 2010). These spatial characteristics significantly increase the probability of traffic accidents and hinder emergency access, amplifying the severity of secondary hazards such as fires and falling objects from buildings (Wang & Guo, 2017).

Empirical evidence indicates that traffic accidents in high-density informal settlements are closely associated with poor road design and the absence of pedestrian–vehicle separation (World Health Organization [WHO], 2018). In Chinese urban villages, these risks are further intensified by the widespread use of electric bicycles, indiscriminate parking, and illegal roadside vending, all of which encroach on limited road space (Yao & Bai, 2019). Recent incidents involving electric bicycle fires and collisions in residential areas highlight the urgent need for safety-oriented road space interventions (Chen & Pan, 2021).

Despite the recognition of safety problems, large-scale demolition and reconstruction of urban villages are often impractical in the short term. Scholars have increasingly emphasized the importance of "micro-renovation" and incremental spatial optimization as feasible alternatives to comprehensive redevelopment (Guo, 2020; Li & Li, 2022). Within this framework, road space renovation represents a particularly effective entry point, as it directly affects daily mobility, emergency response, and residents' perceptions of safety (Jacobs, 1961; Gehl, 2010).

Road space is not merely a transportation corridor but also a vital public realm that structures social interaction and risk exposure. From a safety perspective, the configuration of road space influences traffic conflict intensity, evacuation efficiency during emergencies, and the likelihood of injuries caused by falling objects from adjacent buildings (Newman, 1972; Zhang et al., 2019). Improving road systems through measures such as pedestrian–vehicle separation, one-way traffic organization, enhanced lighting, drainage upgrades, and regulated parking can therefore produce immediate safety benefits even under severe spatial constraints.

This study focuses on the spatial planning and renovation of road systems in urban villages in Guangzhou from a safety-oriented perspective. Through field investigations in Shangshe Village, Tangxia Village, Chebei Village, Huangcun Village, and Zhucun Village, combined with resident questionnaires, the research examines how existing road space conditions contribute to common safety accidents, including traffic collisions, fires caused by electric bicycles, and injuries from falling objects. These villages were selected as representative cases because of their high population density, complex spatial morphology, and frequent safety incidents, which collectively reflect broader challenges faced by urban villages across Guangzhou and other Chinese cities (Huang, 2017).

The objectives of this research are threefold. First, it aims to systematically assess the current conditions of road space in typical urban villages, identifying key spatial and infrastructural deficiencies related to safety. Second, it seeks to analyze the types and causes of safety accidents occurring within these environments, emphasizing the relationship between road space design and accident risk. Third, based on empirical findings and residents' perceptions, the study proposes feasible and safety-oriented road renovation strategies that can be implemented without large-scale demolition.

LITERATURE REVIEW

Urban Villages and Informal Urbanization

 © 2025 by Author/s

Urban villages are a distinctive outcome of rapid urbanization in China, emerging when rural settlements are enveloped by expanding cities while retaining collective land ownership and village governance structures. Unlike informal settlements in many developing countries, Chinese urban villages are legally ambiguous rather than illegal, resulting from the coexistence of urban expansion and rural land institutions (Zhang & Fang, 2004; Wu, 2016). These areas play an essential role in accommodating migrant populations by providing affordable rental housing and flexible employment opportunities, thereby supporting urban economic growth (He et al., 2010; Li et al., 2014). However, the informality of development within urban villages has produced significant spatial and infrastructural problems. Buildings are often constructed incrementally without adherence to planning regulations, leading to extremely high density, limited public space, and fragmented circulation systems (Chen et al., 2018). Scholars widely agree that the spatial morphology of urban villages—characterized by narrow streets, irregular layouts, and "handshake buildings"—creates environmental stress and safety vulnerabilities (Lin, 2019; Guo, 2020). Previous research on urban village renewal has focused mainly on land redevelopment, governance mechanisms, and socio-economic impacts, including displacement and social equity (He & Wu, 2009; Shin, 2014). While these studies provide important macro-level insights, fewer studies have examined the micro-scale spatial conditions that directly affect residents' daily safety, particularly road space environments.

Road Space, Built Environment, and Safety

Road space is a fundamental component of the built environment that shapes mobility, social interaction, and risk exposure. In urban planning and transportation research, road safety is closely linked to street design, traffic organization, and the separation of different modes of movement (Jacobs, 1961; Gehl, 2010). Studies have consistently shown that mixed-traffic environments without clear pedestrian–vehicle separation are associated with higher accident rates, particularly in high-density residential areas (WHO, 2018). In the context of informal or semi-formal settlements, road safety challenges are often exacerbated by narrow road widths, inadequate lighting, poor drainage, and a lack of safety facilities (UN-Habitat, 2020). These conditions impede emergency access and exacerbate the consequences of secondary hazards, such as fires and falling objects. Newman's (1972) concept of defensible space further highlights how poorly designed circulation spaces can reduce natural surveillance and increase vulnerability to crime. Research on Chinese cities indicates that urban village roads frequently function as multipurpose spaces, accommodating traffic, parking, commercial activities, and social interaction simultaneously (Zhao et al., 2010; Yao & Bai, 2019). While this multifunctionality reflects residents' adaptive use of limited space, it also creates significant safety conflicts. Electric bicycles, now a dominant mode of transport in urban villages, introduce additional risks due to speed differences, battery charging practices, and parking behavior (Chen & Pan, 2021).

Despite growing recognition of these problems, road space safety in urban villages remains underexplored compared to studies on formal urban street networks. This gap underscores the need for context-sensitive research that links road space conditions to specific safety outcomes in urban villages.

Safety-Oriented Renewal and Micro-Renovation Strategies

In recent years, urban renewal research has increasingly shifted from large-scale demolition toward incremental and safety-oriented intervention strategies. Micro-renovation approaches emphasize improving existing spatial conditions through targeted, low-cost measures that enhance functionality and safety while minimizing social disruption (Guo, 2020; Li & Li, 2022). This paradigm is particularly relevant for urban villages, where comprehensive redevelopment often faces financial, legal, and social constraints. From a safety perspective, road space renovation is widely regarded as a high-impact intervention point. Measures such as pedestrian–vehicle separation, one-way traffic organization, improved lighting, drainage upgrades, and regulated parking have been shown to significantly reduce accident risks and improve perceived safety in dense urban environments (Gehl, 2010; WHO, 2018). These strategies align with international principles of people-centered street design and sustainable urban development (UN-Habitat, 2020). In the Chinese context, several scholars have advocated for prioritizing road system optimization in urban village renewal due to its feasibility and immediate benefits (Zhao et al., 2010; Wang & Guo, 2017). However, empirical studies integrating field observation with residents' perceptions remain limited. Existing research often lacks detailed safety-oriented analysis at the micro-spatial level, particularly in megacities such as Guangzhou where urban villages are both numerous and densely populated.

Research Gap and Contribution

The existing literature highlights the importance of urban villages in China's urban system, the safety implications of road space design, and the growing relevance of micro-renovation strategies. Nevertheless, a clear gap remains in empirical research that systematically examines road space safety in urban villages through combined spatial observation and resident-based data. Specifically, there is insufficient evidence linking road space characteristics to concrete safety outcomes and residents' lived experiences in high-density urban villages.

© 2025 by Author/s

Addressing this gap, the present study focuses on road space planning and renovation in Guangzhou's urban villages from a safety-oriented perspective. By integrating field investigations with questionnaire surveys, the study contributes to the literature by providing micro-scale empirical evidence and practical insights for safety-focused urban village renewal.

METHODOLOGY

This study employs a mixed-methods research design to examine road safety issues and renovation strategies in urban villages in Guangzhou. A combination of qualitative field investigation and quantitative questionnaire survey was employed to ensure a comprehensive understanding of both physical spatial conditions and residents' perceptions, consistent with established approaches in urban and spatial research (Creswell & Plano Clark, 2018).

First, qualitative field investigations were conducted in five representative urban villages in Guangzhou: Shangshe Village, Tangxia Village, Chebei Village, Huangcun Village, and Zhucun Village. These sites were selected through purposive sampling because of their high population density, complex spatial morphology, and frequent occurrence of safety accidents. On-site observations focused on road width, pedestrian–vehicle relationships, lighting conditions, drainage facilities, parking behavior, and the presence of roadside commercial activities. Photographic documentation and spatial notes were used to systematically record physical characteristics and safety hazards, in accordance with standard practices in environmental and urban design research (Gehl, 2010).

Second, a questionnaire survey was administered to residents of the selected urban villages to capture safety experiences, accident exposure, and attitudes toward road space conditions. The questionnaire included demographic variables, residential characteristics, perceptions of community safety, and evaluations of road planning. Survey items were developed based on prior studies on urban safety and road environments and refined through expert consultation to enhance content validity (WHO, 2018). A total of 1,944 valid responses were collected via an online survey platform, providing a sufficient sample size for descriptive statistics.

Data analysis consisted of a qualitative synthesis of field observation findings and a quantitative analysis of survey responses, using frequency and percentage distributions. Triangulation between spatial observations and resident feedback was applied to identify key safety problems and validate findings. This integrated methodology enhances the reliability and practical relevance of the proposed road space renovation strategies for urban villages (UN-Habitat, 2020).

RESULTS

This section presents the empirical results obtained from field investigations and questionnaire surveys conducted in five representative urban villages in Guangzhou: Shangshe Village, Tangxia Village, Chebei Village, Huangcun Village, and Zhucun Village. The results are organized into two main components: (1) observed road space conditions based on on-site investigation, and (2) residents' demographic characteristics, safety perceptions, accident experiences, and expectations derived from questionnaire data. Quantitative findings are summarized using tables to improve clarity and comparability.

Results of Field Investigation on Road Space Conditions

Field investigations revealed that the road systems of all five urban villages share highly similar spatial characteristics despite differences in their historical backgrounds and village scales. Overall, road space in the surveyed villages is characterized by informal development, high density, and a lack of systematic safety planning.

A prominent finding across all cases is the absence of functional separation between pedestrians, non-motorized vehicles, and motor vehicles. Internal roads function as shared spaces in which walking, cycling, electric bicycle use, and motor vehicle traffic coexist without physical or visual demarcation. Main roads are typically narrow two-way passages, while secondary roads and alleys are even more constrained, often serving simultaneously as circulation routes, parking areas, and commercial spillover spaces.

The high density of residential buildings significantly exacerbates these conditions. Roads are frequently flanked by closely spaced "handshake buildings," limiting natural lighting and ventilation. Many secondary passages remain dim even during daytime, while nighttime lighting coverage is uneven or entirely absent. These spatial characteristics increase the risk of collisions, falls, theft, and injuries caused by falling objects from adjacent buildings.

In terms of infrastructure, road safety facilities are generally inadequate or absent. Speed control measures, warning signage, pavement markings, convex mirrors, and pedestrian guidance systems were rarely observed. Drainage systems were often incomplete or poorly maintained, leading to water accumulation during rainfall and increasing slip hazards and the risk of electric shock.

 © 2025 by Author/s

Random parking behavior was observed in all villages. Due to the lack of designated parking areas, electric bicycles and motor vehicles are commonly parked along road edges, in pedestrian corridors, or near building entrances. This practice reduces effective road width, obstructs emergency access, and increases the risk of fire incidents related to electric bicycle battery charging. In villages with active roadside commercial activities, outdoor dining areas and vendor facilities further encroach upon limited road space.

A comparative summary of observed road space problems is presented in Table 4.1.

Table 4.1: Summary of Road Space Problems Identified Through Field Investigation

Village	Key road space problems
Tangxia Village	Mixed pedestrian–vehicle traffic; narrow roads; lack of safety facilities; insufficient lighting; inadequate drainage
Shangshe Village	Mixed traffic; narrow main road; dark alleys; lack of lighting and guidance
Chebei Village	Mixed traffic; no buffer zones; inadequate drainage; insufficient monitoring
Huangcun Village	Mixed traffic; random parking; lack of buffer space; poor lighting
Zhucun Village	Severe congestion; mixed traffic; roadside vending; insufficient lighting; parking obstruction

Results of Questionnaire Survey

Demographic and Residential Characteristics

A total of 1,944 valid questionnaires were collected. As shown in Table 4.2, respondents were predominantly of working age, with individuals aged 19–45 years accounting for more than two-thirds of the sample. Over 60% of respondents held a junior college degree or higher, reflecting the role of urban villages as transitional housing for young workers and graduates.

Residential characteristics (Table 4.3) indicate that 99.9% of respondents were renters, confirming that the surveyed villages primarily function as rental communities. Most households consisted of two to three residents, and over 70% of respondents had lived in the village for more than one year.

Table 4.2: Demographic Characteristics of Respondents

Variable	Category	n	%
Age	14–18	224	11.52
	19–30	622	32.00
	31–45	684	35.19
	46–60	317	16.31
	≥61	97	4.99
Education	Junior high or below	250	12.86
	High school	432	22.22
	Junior college	480	24.69
	Undergraduate	723	37.19
	Master's or above	59	3.03

Table 4.3: Residential Characteristics of Respondents

Variable	Category	n	%
Living area	<30 m²	354	18.21
	30–50 m²	853	43.88
	50–70 m²	494	25.41
	>70 m²	243	12.50
Household size	1	357	18.36
	2–3	988	50.82
	4–6	535	27.52
	>6	64	3.29
Tenure	Owner	2	0.10
	Renter	1,942	99.90

Satisfaction With Community Safety and Road Planning

Residents reported generally low satisfaction levels with both community safety and road planning. As shown in Table 4.4, more than 52% of respondents expressed dissatisfaction with overall community safety, while 62.55% were dissatisfied with internal road planning. No respondents reported being "very satisfied" with either aspect.

© 2025 by Author/s

Table 4.4: Residents' Satisfaction With Community Safety and Road Planning

Item	Satisfaction level	n	%
Community safety	Satisfied	15	0.77
	Neutral	900	46.30
	Dissatisfied	1,029	52.93
Road planning	Satisfied	1	0.05
	Neutral	727	37.40
	Dissatisfied	1,216	62.55

Safety Accidents Reported by Residents

Residents reported experiencing or witnessing multiple types of safety accidents. Traffic accidents were reported in all villages and were the most common incidents. Fire accidents, primarily associated with electric bicycle battery charging, and falling objects from high altitude were also frequently reported. Theft and robbery were less consistently reported but occurred mainly in poorly lit areas.

A comparative summary is provided in Table 4.5.

Table 4.5: Types of Safety Accidents Reported by Village

Village	Traffic	Fire	Falling objects	Theft
Tangxia	✔	✔	✔	✔
Shangshe	✔	✔	✔	✔
Chebei	✔	✔	✔	–
Huangcun	✔	✔	✔	✔
Zhucun	✔	✔	✔	–

Residents' Expectations for Road Space Improvement

Residents expressed consistent expectations for road space renovation across all villages. As shown in Table 4.6, the highest priorities included widening roads, separating pedestrian and vehicle traffic, increasing parking capacity, improving drainage, and enhancing nighttime lighting.

Table 4.6: Residents' Priority Expectations for Road Space Improvement

Improvement measure	Tangxia	Shangshe	Chebei	Huangcun	Zhucun
Road widening	✔	✔	✔	✔	✔
Pedestrian–vehicle separation	✔	✔	✔	✔	✔
Parking expansion	✔	✔	✔	✔	✔
Non-motorized parking	✔	✔	✔	✔	✔
Drainage improvement	✔	✔	✔	✔	✔
Nighttime lighting	✔	✔	–	✔	–

Summary of Results

The combined results from field investigations and questionnaire surveys demonstrate that road space deficiencies are a primary source of safety risk in Guangzhou's urban villages. Narrow roads, mixed traffic flows, insufficient infrastructure, and unregulated space use contribute to frequent traffic accidents, fire hazards, and injuries from falling objects. Residents' perceptions strongly corroborate these findings, highlighting road space renovation as a critical and urgent intervention in urban village renewal.

DISCUSSION

The results of this study demonstrate that road space conditions constitute a critical determinant of safety risks in urban villages in Guangzhou. Both field investigations and questionnaire surveys consistently indicate that narrow road widths, mixed pedestrian–vehicle traffic, inadequate infrastructure, and unregulated space use are central contributors to traffic accidents, fire hazards, and injuries caused by falling objects. These findings reinforce existing research suggesting that the safety problems of urban villages are not merely the result of population density, but rather the outcome of long-term informal spatial development and insufficient planning intervention.

 © 2025 by Author/s

Road Space as a Primary Source of Safety Risk

One of the most significant findings is the universal absence of pedestrian–vehicle separation across the surveyed villages. The coexistence of pedestrians, electric bicycles, and motor vehicles within minimal road widths generates frequent conflict points, particularly during peak hours. This confirms previous studies that mixed-traffic environments in high-density residential areas substantially increase accident probability and severity. Unlike formal urban streets, urban village roads lack both physical barriers and behavioral regulation, intensifying safety vulnerabilities.

Moreover, the high concentration of "handshake buildings" along road edges exacerbates the risks posed by falling objects and poor visibility. The absence of buffer zones between buildings and roads exposes pedestrians directly to hazards from upper floors, a problem repeatedly highlighted by residents. These spatial conditions illustrate how architectural density and road design interact to amplify safety risks in informal urban environments.

Infrastructure Deficiencies and Secondary Hazards

The study also reveals that insufficient road infrastructure—particularly lighting, drainage, and safety facilities—plays a critical role in magnifying safety hazards. Poor nighttime lighting not only increases the likelihood of traffic accidents but also creates conditions conducive to theft and robbery, as reported by residents. Inadequate drainage systems further compound risks during rainfall, leading to slippery surfaces, water accumulation, and potential electric shock incidents. Fire risk associated with electric bicycle charging emerges as a particularly urgent issue. The lack of designated parking and charging facilities forces residents to charge batteries in corridors, stairwells, and roadside areas, directly linking road space disorder to fire safety threats. This finding highlights how road space planning intersects with broader issues of infrastructure provision and residential safety.

Residents' Perceptions and Planning Priorities

Residents' dissatisfaction with both community safety and road planning underscores the social consequences of poor road environments. The strong alignment between observed spatial deficiencies and residents' stated priorities, such as pedestrian vehicle separation, parking regulation, improved lighting, and drainage, indicates that safety concerns are rooted in everyday lived experience rather than abstract planning ideals. This alignment strengthens the validity of the proposed focus on road space renovation as a practical intervention. Notably, residents' expectations favor incremental improvement over large-scale redevelopment. This suggests that safety-oriented micro-renovation strategies may achieve higher social acceptance and feasibility than comprehensive demolition and reconstruction, particularly in districts with dense populations and complex property rights.

Implications for Urban Village Renewal

The findings suggest that prioritizing road space renovation offers a realistic pathway for improving safety in urban villages under existing constraints. By focusing on pedestrian–vehicle separation, one-way traffic organization, parking management, lighting enhancement, and drainage improvement, planners can significantly reduce safety risks without disrupting residents' livelihoods. This approach aligns with contemporary urban regeneration principles emphasizing adaptability, cost-effectiveness, and people-centered design.

SUMMARY

This study investigated road space safety issues in five representative urban villages in Guangzhou through field observation and questionnaire surveys. The results indicate that road space deficiencies characterized by narrow widths, mixed traffic, inadequate infrastructure, and unregulated use are a primary source of safety risks, including traffic accidents, fires caused by electric bicycles, and injuries from falling objects. Residents' perceptions strongly corroborate these findings, revealing widespread dissatisfaction with community safety and road planning.

Based on empirical evidence, the study argues that road space renovation should be prioritized as a key entry point for urban village renewal. Safety-oriented, incremental interventions can deliver immediate improvements in living conditions while avoiding the social and economic costs associated with large-scale redevelopment. The findings provide practical guidance for planners and policymakers seeking to enhance safety and quality of life in urban villages, not only in Guangzhou but also in other rapidly urbanizing cities facing similar challenges.

REFERENCE

Chen, M., Liu, W., & Lu, D. (2018). Challenges and countermeasures of urban village redevelopment in China. *Habitat International, 73*, 47–55. https://doi.org/10.1016/j.habitatint.2017.12.006

© 2025 by Author/s

Chen, Y., & Pan, H. (2021). Electric bicycle safety and fire risks in high-density residential areas in China. *Safety Science, 139*, 105258. https://doi.org/10.1016/j.ssci.2021.105258

Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Gehl, J. (2010). *Cities for people*. Island Press.

Guo, J. (2020). Micro-renewal strategies for urban villages in China: Spatial governance and community participation. *Urban Studies, 57*(15), 3125–3142. https://doi.org/10.1177/0042098019885134

He, S., & Wu, F. (2009). China's emerging neoliberal urbanism: Perspectives from urban redevelopment. *Antipode, 41*(2), 282–304. https://doi.org/10.1111/j.1467-8330.2009.00673.x

He, S., Wu, F., & Webster, C. (2010). Poverty concentration and determinants in China's urban low-income neighborhoods and urban villages. *Habitat International, 34*(4), 415–427. https://doi.org/10.1016/j.habitatint.2009.12.002

Huang, L. (2017). *Research on the renovation of urban villages in Guangzhou: A case study of Yagang Village* (Master's thesis). South China University of Technology.

Jacobs, J. (1961). *The death and life of great American cities*. Random House.

Li, L., Zhang, F., & Wang, D. (2014). Urban village redevelopment in China: Policy, practice, and perspective. *Land Use Policy, 41*, 321–330. https://doi.org/10.1016/j.landusepol.2014.06.013

Li, X., & Li, Y. (2022). Incremental urban regeneration and micro-renewal practices in high-density neighborhoods in China. *Cities, 124*, 103586. https://doi.org/10.1016/j.cities.2022.103586

Lin, Y. (2019). Urban village redevelopment, displacement, and social justice in Guangzhou. *Cities, 87*, 128–136. https://doi.org/10.1016/j.cities.2018.12.021

Newman, O. (1972). *Defensible space: Crime prevention through urban design*. Macmillan.

Shin, H. B. (2014). Contesting speculative urbanisation and strategies of resistance. *City, 18*(4–5), 509–516. https://doi.org/10.1080/13604813.2014.939473

UN-Habitat. (2020). *World cities report 2020: The value of sustainable urbanization*. United Nations.

Wang, Y., & Guo, J. (2017). Traffic congestion and safety management in urban villages: Evidence from Shenzhen. *Journal of Urban Planning and Development, 143*(3), 05017006. https://doi.org/10.1061/(ASCE)UP.1943-5444.0000402

World Health Organization. (2018). *Global status report on road safety 2018*. WHO Press.

Wu, F. (2016). *Planning for growth: Urban and regional planning in China*. Routledge.

Yao, W., & Bai, L. (2019). Implementation-oriented optimization of traffic management in urban villages: A case study of Shenzhen. *Urban Planning International, 34*(6), 89–97.

Zhang, L., & Fang, K. (2004). Is history repeating itself? From urban renewal in the United States to inner-city redevelopment in China. *Journal of Planning Education and Research, 23*(3), 286–298. https://doi.org/10.1177/0739456X04264933

Zhang, Y., Li, X., & Chen, J. (2019). Built environment, street design, and pedestrian safety in high-density urban areas. *Journal of Transport & Health, 14*, 100598. https://doi.org/10.1016/j.jth.2019.100598

Zhao, X., Deng, Y., & Lu, J. (2010). An analysis of road traffic conditions in Guangzhou's urban villages. In *Proceedings of the China Urban Planning Annual Conference* (pp. 1–8). ChinArchitecture & Building Press.

 © 2025 by Author/s