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Editorial Department of *Urban Planning International*

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Volume 34 Issue 1, February 2019

## **Toward a Sustainable Rural Governance? The Public Goods Provision in Question Amidst the State-led Rural Construction in China**

*Shen Mingrui, Zhang Jingxiang*

**Abstract:** Under the support of multiple pro-farmer policies, state-led plans and programs have promoted the effectiveness of governance for rural China, meanwhile also changed its structure in some places. However, the problem of unsustainable provision of public goods emerges after the rural construction craze. This paper analyzes Tangjiajia in Nanjing as the typical case of the phenomenon. It illustrates the supply and consumption mechanism of the public goods in Tangjiajia, and uncovers the challenge for collective to sustain village operation after government withdrawal. We argue that the village stakeholders, including the new comers, enjoy high-quality facilities and services originated from the state-led programs and take it for granted. There is no clear pricing mechanism amidst daily management of the village, which can be analogous to the taxing system in cities. Striving for a sustainable rural governance, an endogenous while state-mediated model should be set up, and the provision of public goods in villages should be more relied on the community stakeholders themselves.

**Keywords:** Rural Planning; Public Goods; State-led Program; Rural Governance; Sustainable Development

**Citation:** SHEN M, ZHANG J. Toward a sustainable rural governance? the public goods provision in question amidst the state-led rural construction in China[J]. *Urban planning international*, 2019(1): 1-7. DOI: 10.22217/upi.2018.090.

## **The Latent Application of Deep Learning in Urban Perception: Image Discrimination Analysis by Convolutional Neural Network**

*He Wanyu, Li Chun, Nie Guangyang, Jackie Yong Leong Shong, Wang Chuyu*

**Abstract:** Nowadays, machine learning attracts intense attention from artificial intelligence researches and extends a variety of applications such as image discrimination, voice assistant and smart translator. In particular, image discrimination has been extensively studied and practiced in various industries, including urban field. Thanks to Convolutional Neural Network (CNN) based on Deep Learning (DL) that has made remarkable achievements in computer vision, it is more efficient to train computer to discriminate architecture styles, urban texture and other urban features. Based on image discrimination by DL, this research focuses on exploring the applications of CNN in the field of urban perception. In consideration of limits and errors brought by training customized image discrimination model with the existing open source labeled image dataset, this paper explores a whole process from collecting data, self-constructing training dataset to building a customized image discrimination model which satisfies specific requirements. The latent application of DL in urban scale are discussed through three experiment cases: the cityscape analysis, urban problem detection and urban pattern evaluation.

**Keywords:** Artificial Intelligence; Deep Learning; Convolutional Neural Network; Image Discrimination; Urban Perception

**Citation:** HE W, LI C, NIE G, et al. The latent application of deep learning in urban perception: image discrimination analysis by convolutional neural network[J]. *Urban planning international*, 2019(1): 8-17. DOI: 10.22217/upi.2018.514.

## **Human-scale Quality on Streets: A Large-scale and Efficient Analytical Approach Based on Street View Images and New Urban Analytical Tools**

*Ye Yu, Zhang Zhaoxi, Zhang Xiaohu, Zeng Wei*

**Abstract:** This study provides an operational framework about street quality measurement by the means of large-scale data analysis at the humanistic scale and the results can be regarded as the benchmark for the renewal of urban street space. Taking Hongkou District and Yangpu District of Shanghai as an example, based on Street View Images (SVI) data, this paper takes advantage of machine learning to extract spatial feature, then uses neural network (ANN) to measure the quality of street places with wide distribution and fine resolution. Besides that, an evaluation matrix established by overlapping analysis will combine quality evaluation with network accessibility analysis (sDNA). Finally, we find out those “potential streets” and provide fine theoretical foundation for urban micro-renewal.

**Keywords:** Street Quality; Accessibility; Machine Learning; Human-centered Perspective; Street View Image; Street

**Citation:** YE Y, ZHANG Z, ZHANG X, et al. Human-scale quality on streets: a large-scale and efficient analytical approach based on street view images and new urban analytical tools[J]. *Urban planning international*, 2019(1): 18-27. DOI: 10.22217/upi.2018.490.

## **Influence of Built Environment on Street Vitality and Its Spatiotemporal Characteristics Based on LBS Positioning Data**

*Niu Xinyi, Wu Wanshu, Li Meng*

**Abstract:** Taking Nanjingxi Road in Shanghai as a case study, using mobile internet LBS (Location Based Service) positioning data, the intensity of the activities on the street is represented by the density of the crowd track, and the quantitative measurement of street vitality indices are generated. The spatial lag model is used to measure the spatiotemporal characteristics of the impact of the built environment on the street vitality. Five time-segment models are constructed to measure the influences of 15 indicators on street vitality. These indicators are divided into five groups including function mixing, small street section, old buildings, density, traffic and site design. This study finds that the effects of various built environment indicators on street vitality have different temporal and spatial characteristics. The most significant indicators affecting the vitality of Nanjingxi Road are the metro entrances and the commercial diversity along the street. In addition, the external space design, segment length, sidewalk width and business interface continuity that are concerned by classical planning and design theories are also highly significant. The idea that the functional mixture of buildings on both sides of the street and the proportion of old buildings will promote the street vitality is not established in the current environment of Nanjingxi Road. This study can provide theoretical support and optimization direction for the updating design of Nanjingxi Road and the similar high-density built environments, as well as the municipal commercial streets in the context of inventory planning.

**Keywords:** Street Design; Street Vitality; Built Environment; LBS Positioning Data; Spatial Lag Model; Nanjingxi Road

**Citation:** NIU X, WU W, LI M. Influence of built environment on street vitality and its spatiotemporal characteristics based on LBS positioning data[J]. *Urban planning international*,

2019(1): 28-37. DOI: 10.22217/upi.2018.495.

### **Healing Oriented Street Design: Experimental Explorations via Virtual Reality**

*Xu Leiqing, Meng Ruoxi, Huang Shuqing, Chen Zheng*

**Abstract:** This paper designs two virtual reality experiments to study the healing potential of urban environment. The first one uses Unreal Engine 4 with excellent immersion to model two different urban environments: streets and another with green space. Sympathetic conductance response data shows that green space has better healing potential than streets. In the second experiment, street models are constructed at different levels of green vision and street interfaces, and HTC helmet is used to display the virtual environment. The experimental result shows that both the green viewing rate and the street interfaces have significant effects on healing potential on streets. Finally, the paper summarizes the influence of green vision rate and street interfaces on the healing potential of streets, and discusses the design strategies of Healing Street based on urban renewal.

**Keywords:** Urban Renewal; Healthy Street; Healing Environment; Restorative Environment; Virtual Reality Technology; Green Vision; Street Interface

**Citation:** XU L, MENG R, HUANG S, et al. Healing oriented street design: experimental explorations via virtual reality[J]. *Urban planning international*, 2019(1): 38-45. DOI: 10.22217/upi.2018.496.

### **Three-dimensional Spatial Network Analysis and Its Application in a High Density City Area, Central Hong Kong**

*Zhang Lingzhu, Alain Chiaradia*

**Abstract:** This paper proposes a new GIS based spatial design network analysis (sDNA+) that can be used in three-dimensional built environment. Spatial configuration and its relation to pedestrian movement are quantitatively analysed in the case of Hong Kong Central area. The comparison between outdoor only and indoor + outdoor 3D pedestrian networks shows that it is unrealistic to study the multilevel pedestrian network in high density built environments by only considering the outdoor pedestrian network. Indoor + outdoor 3D pedestrian network helps designers and researchers to decode human-centred spatial configuration and pedestrian activity patterns.

**Keywords:** Three-dimensional Built Environment; Spatial Design Network Analysis (sDNA); Human-centred; High Density; Pedestrian Network; Urban Design; Hong Kong

**Citation:** ZHANG L, CHIARADIA A. Three-dimensional Spatial network analysis and its application in a high density city area, central Hong Kong[J]. *Urban planning international*, 2019(1): 46-53. DOI: 10.22217/upi.2018.513.

### **Dynamic Space Syntax: Towards the Configurational Analysis of the High Frequency Cities**

*Shen Yao*

**Abstract:** Urban digitalisation is currently drawing extensive attention on the socioeconomic

performance in the high-frequency cities and its spatial logics for improving the spatiotemporal effectiveness of spatial interventions that are proposed. In the past decades, configurational analysis provided an ideology/methodology of decoding urban form and its relation to various functionality, which has been widely adopted in the urban studies and planning and design practice in the West. As a mainstream of configurational studies, space syntax delivered a novel way to model the spatial configuration and demonstrated a series of robust relationships between spatial centralities and urban performance. However, as a descriptive model, traditional space syntax model can hardly be used in planning and design processes to address temporal social issues that are emerging temporally. Based on space syntax model, this paper introduces a new method to quantify the spatiotemporal centralities of the spatial configuration, which is sensed via the urban flow data. The delivered method is called co-presence intensity, a dynamic concept in space syntax, to measure various geometric centralities and the emergent modes of humans' trajectories constrained by the spatial configuration. The findings in this paper demonstrate a trend to a dynamic, temporal, flow-focused configurational research from a static, aggregated, form-focused space syntax analysis. This work also implies that urban design, empowered by the proposed configurational analysis technology, can be considered as a social instrument for improving urban spatial functionality during a much short time period than before. This article ends with a discussion about how space syntax could be reconstructed in the new digital society facilitated by the new data environment.

**Keywords:** Spatiotemporality; Space Syntax; Trajectories; Co-presence; Mobility; High-frequency City

**Citation:** SHEN Y. Dynamic space syntax: towards the configurational analysis of the high frequency cities[J]. *Urban planning international*, 2019(1): 54-63. DOI: 10.22217/upi.2018.511.

## **Do Urban Growth Boundaries Contain Urban Sprawl? Explanations and Empirical Examination**

*Lai Shihkung, Wang Liguao*

**Abstract:** There is no consensus about the effects of urban growth boundaries (UGBs) on urban development. Based on the perspective of property rights, this paper explains why UGBs lead to, rather than stop urban sprawl from both theoretical and conceptual perspectives. Using the case of Xinyi District in Taipei, the paper further examines the effectiveness of the UGBs policy. Based on topographic maps and calculation of indicators to conduct comparative quantitative analyses, the results show, unlike our prediction, that there is insufficient evidence indicating that urban sprawl occurred outside the UGBs of Xinyi District. However, it is still believed that a successful means of containing urban sprawl should consider developers' behavioral reactions in order to curb urban sprawl.

**Keywords:** Urban Growth Boundaries (UGBs); Property Rights; Urban Sprawl

**Citation:** LAI S, WANG L. Do urban growth boundaries contain urban sprawl? explanations and empirical examination[J]. *Urban planning international*, 2019(1): 64-70. DOI: 10.22217/upi.2017.570.

### **The Emotional Significances of Historic Environment and Conservation of Historic Cities**

*Wang Yang, Yu Li*

**Abstract:** There is a lack of consideration on the emotional significance of historic environment in existing conservation research and practice of historic cities. Based on literature review and theoretical analysis within the frame of place attachment, a concept which lies in the centre of people-place emotion research and environmental psychology, this paper draws an explanation on the significance of historic environment in helping people developing their sense of identity and the sense of belonging. Conservation of historic cities is thus inspired by taking considerations of this emotional value to promote its public participation level, challenge its current paradigm, realise its economic values and manage townscape changes. At the same time, the vision as well as challenges of getting emotion issues involved in conservation professions in China are also discussed on theoretical level.

**Keywords:** Historic Environment; Emotion; Place Attachment; Conservation of Historic Cities

**Citation:** WANG Y, YU L. The emotional significances of historic environment and conservation of historic cities[J]. Urban planning international, 2019(1): 71-75. DOI: 10.22217/upi.2016.411.

### **The Development Characteristics of Local County Urban-Rural Land Classification System and Its Experience in the USA**

*Yang Huan, He Qingsong*

**Abstract:** In the context of urban-rural overall development, setting up the land classification system to cover the whole urban-rural areas is greatly significant. Based on the analysis of urban-rural land use classification system in the USA, this paper sums up the characteristics and main practices of urban-rural land use classification systems of Durham County and Orange County in North Carolina. Then, this paper digs its inspiration significance to China and guides the better development of overall urban-rural spatial plan.

**Keywords:** The USA; Local Counties; Land Classification System; Development Characteristics; Experience

**Citation:** YANG H, HE Q. The development characteristics of local county urban-rural land classification system and its experience in the USA[J]. Urban planning international, 2019(1): 76-81. DOI: 10.22217/upi.2016.545.

### **The Influence of Built Environment on Chronic Disease: Review and Enlightenment**

*Zhang Yanji*

**Abstract:** Under the background of serious social problem caused by chronic diseases, the construction of healthy city provides an opportunity for re-cooperation between urban planning and public health, while clarifying the impact of urban built environment on chronic diseases is the basis of effective planning. According to western literature, urban planning is fully capable of increasing physical activity, promoting reasonable diets and diminishing chronic diseases via improving physical environment. This paper focuses on quantifying urban built environment, constructing analytical framework, and overcoming problems of self-selection, so as to provide reference for

Chinese empirical research in this field.

**Keywords:** Healthy City; Physical Activity; Built Environment; Chronic Disease; Self-selection

**Citation:** ZHANG Y. The influence of built environment on chronic disease: review and enlightenment[J]. *Urban planning international*, 2019(1): 82-88. DOI: 10.22217/upi.2016.502.

### **On the Urban Development Density Zoning: International Experience and Inspiration**

*Bo Lizhi*

**Abstract:** As early as the end of 19th century, European cities started to put the Density Zoning into practice and had accumulated experience. The Density Zoning methods of New York, Tokyo, Singapore and Hong Kong have both common and different characteristics, adapted to the local climate conditions, living habits, land ownership and the legal system, adjusted moderate and gradually stabilized. Although the overseas Density Zoning methods are difficult to bring into domestic cities directly in the short term, they can give some inspirations in outside environments, value orientations and specific strategies for Density Zoning.

**Keywords:** Development Density Control; Density Zoning; Floor Area Ratio; Special Purpose District; Modification Rules; Block Indicators

**Citation:** BO L. On the urban development density zoning: international experience and inspiration[J]. *Urban planning international*, 2019(1): 89-98. DOI: 10.22217/upi.2016.519.

### **Literature Review of the Overseas Studies on the Economic and Spatial Effect of High-speed Rail**

*Long Maoqian, Meng Xiaochen, Li Guicai*

**Abstract:** Since the operation of the Shinkansen in 1964, the development of High-speed Rail (HSR) has been one of the central features of European and Asia transport infrastructure policy. At the same time, scholars conducted extensive and thorough researches on the economic and spatial effect of HSR, with different methods and from different perspectives, and produced plenty of literatures and abundant conclusions. This study aims at reviewing the various overseas researches on the economic and spatial effect of HSR. Studies on the economic effect of HSR focus on the population, regional economic, industry development and passenger transport market, while the spatial effect of HSR is depended on the research scale. Different conclusions were formed on transnational scale, national and regional scale, urban scale. In the end, some implications are put forward for the research on the economic and spatial effect of HSR in China.

**Keywords:** High-speed Rail; Economic Effect; Spatial Effect; Literature Review

**Citation:** LONG M, MENG X, LI G. Literature review of the overseas studies on the economic and spatial effect of high-speed rail[J]. *Urban planning international*, 2019(1): 99-107. DOI: 10.22217/upi.2016.547.



### **Pedestrian-oriented City Centre Development in the UK**

*Ge Tianyang, Hou Wenjun, Yang Jianqiang*

**Abstract:** The historical development and present situation of city centres in United Kingdom were analysed. It shows the guiding ideology of pedestrian-oriented substantially. Firstly, major roads for cars then have become streets for pedestrians now. Secondly, systematic pedestrian networks have been built on the ground surface. Thirdly, traffic systems with segregation of road and pedestrian have been made based on walking scale. Fourthly, pedestrian was put first in road detailed design. Fifthly, whole pedestrian system was considered when design buildings. Sixthly, abounding and detailed pedestrian information facilities were built. In contrast, in China, the guiding ideology of pedestrian-oriented had not been attached enough importance to, and the construction for pedestrians was not enough, too. It is now an opportunity for China to strengthen the guiding ideology of pedestrian-oriented and put it into practice, when the development focus has been turning into inventory planning.

**Keywords:** Pedestrian-oriented; City Centre; The United Kingdom; Urban Renewal; Pedestrian Design

**Citation:** GE T, HOU W, YANG J. Pedestrian-oriented city centre development in the UK[J]. *Urban planning international*, 2019(1): 108-118. DOI: 10.22217/upi.2016.382.

### **Inspirations of Japanese Welfare Shelter Construction for Aging China**

*Li Wenjing, Zhai Guofang, Gu Fumei, Chen Zewu*

**Abstract:** In view of the insufficient consideration of the shelter needs of the asylum-seekers in the planning process of evacuation sites in China, the Japanese welfare shelters are taken as examples to sort out their planning processes and summarize their experience in construction, activation and management. In Japanese shelter system, the welfare shelters are set up independently, and planning is carried out from the needs of the elderly and other vulnerable people. The relevant construction standards and supporting facilities are more complete, and paid great attentions on daily maintenance and management. This paper aims to provide some inspirations for the planning and construction of shelters in China by combining the development status of China's shelters and the context of continuing aging of population.

**Keywords:** Welfare Shelter; Aging; Shelter Planning; Disaster Prevention; Japan

**Citation:** LI W, ZHAI G, GU F, et al. Inspirations of Japanese welfare shelter construction for aging China[J]. *Urban planning international*, 2019(1): 119-126. DOI: 10.22217/upi.2017.138.

### **Urban Master Plan Oriented Health Impact Assessment: A Case Study on Humboldt County**

*Wu Yiqin, Tian Li*

**Abstract:** Health Impact Assessment (HIA: Health Impact Assessment) is currently used as a tool to improve public health in different fields including urban and rural planning in western countries and it has achieved certain accomplishments. This article begins with the origin and development of HIA and its implement procedure. Then it introduces how HIA was conducted in Humboldt County General Plan. At last, suggestions are proposed for introducing HIA to urban and rural

planning in China.

**Keywords:** Health Impact Assessment; Urban and Rural Planning; Public Health; Master Plan; Impact Factor of Health

**Citation:** WU Y, TIAN L. Urban master plan oriented health impact assessment: a case study on Humboldt County[J]. *Urban planning international*, 2019(1): 127-133. DOI: 10.22217/upi.2017.066.

### **Infill Development on Urban Stock Land: Practices and Studies**

*Wen Ping, Zhao Pengjun*

**Abstract:** It is predictable that urban stock land will become the main land source for Chinese cities in the future. Some mature urban areas in the East Coast have transformed their land use policies from physical expansion to built-up area improvement. However, the main stream of current domestic practices and studies mainly focuses on land supply, rather than development on the stock land. This paper reviews the practices and studies of infill development on urban stock land from a global perspective, covering the whole process of policy-making, definition and classification, potential evaluation, obstacles and responses, implementation results, and impact assessment, providing references and experiences for future development in China.

**Keywords:** Infill Development; Urban Stock Land; Urban Regeneration; Potentiality Evaluation; Implementation Assessment

**Citation:** WEN P, ZHAO P. Infill development on urban stock land: practices and studies[J]. *Urban planning international*, 2019(1): 134-140. DOI: 10.22217/upi.2016.137.

### **Experience and Lessons of the Housing Construction Assessment in the UK**

*Zhao Jie, Peng Zhenghong, Li Zhigang*

**Abstract:** Entering the new era, as an important “supply side” to promote the development of national economy and society, there is a high speed development of housing construction in China, making remarkable achievements. But there are still many challenges, such as the imbalance of supply and demand, the inappropriate structure of housing provision, the heavy burden of residents, and so on. In order to optimize the housing supply and demand, promote the sustainable development of housing market, and improve affordability, the scientific assessment and optimization of housing construction in China has become an important task. This paper reviews the development history of the housing construction assessment in the UK, examining its background, contents and effects, with the introduction of some typical housing construction evaluation models, operation mechanisms and characteristics. We summarize the experience and references and make some suggestions to the evaluation of planning and construction of housing in China. Such lessons provide valuable suggestions to promote the transformation of housing construction in China.

**Keywords:** Housing Construction Evaluation; Planning Decision; Model; The UK; Balance of Housing Supply and Demand

**Citation:** ZHAO J, PENG Z, LI Z. Experience and lessons of the housing construction assessment in the UK[J]. *Urban planning international*, 2019(1): 141-147. DOI: 10.22217/upi.2017.528.

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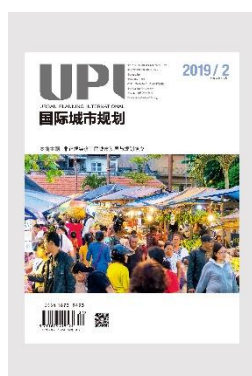
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## Urban Spatial Development in the Context of the Informal Economy: Global Trend and Local Planning Response

*Xu Miao, Chen Yulin, Martha Chen*

**Abstract:** As a preface to this special issue, this paper has two parts. The first part summarizes the scale and importance of the sustained and rapid growth of the informal economy and employment in the urban economic system in worldwide; analyzes the differences between countries and regions and their reflection on urban space, especially in China; and then discusses the limitations and problems of traditional urban planning in dealing with the development of urban informal economy from both theoretical and practical perspectives. The second part introduces the six articles included in this issue. Three of them are from foreign scholars and about the latest international research findings on urban informality. They explore in depth the development and governance of informal cities in developed countries represented by the United States, the informal housing improvement in developing countries and the mistakes and limitations of urban planning in dealing with the informal economy and space. The other three papers are from Chinese scholars and discuss respectively the job-living spatial mismatch for informal workers, the informal housing and community building and the informal use and governance of urban public space, presenting the problems and challenges in the domain of urban spatial planning in face of the pervasive informal economy.

**Keywords:** Informal Economy and Employment; Urban Spatial Development; Global Trend; Local Response; Urban Planning and Governance

**Citation:** XU M, CHEN Y, CHEN M. Urban spatial development in the context of the informal economy: global trend and local planning response[J]. *Urban planning international*, 2019(2): 1-6. DOI: 10.22217/upi.2019.073.

## The Informal American City: Deepening the Understanding of Informal Urbanism

*Vinit Mukhija, Anastasia Loukaitou-Sideris*

**Abstract:** This article draws from the introduction and conclusion chapters of our edited book, *The Informal American City: Beyond Taco Trucks and Day Labor* (Mukhija and Loukaitou-Sideris 2014), which examines the “informal revolution” in American urban life. Through a series of case studies, we empirically and theoretically explore a growing phenomenon more often associated with developing countries than with industrialized ones. While informal urbanism is usually dismissed by planners and policymakers as marginal or even criminal, our case studies from across the country, including Los Angeles, Sacramento, Seattle, Portland, Phoenix, Kansas City, Atlantic City, and New York City, challenge such narrow conceptions. Surprisingly, even the scholarly planning and urban design literature rarely addresses informal urbanism despite its increasing presence. Therefore, we wish to depart from the conventional wisdom and examine the unexpected presence, proliferation, and vibrancy of informal activities in different US settings and cities. But rather than romantically celebrating informality, we are keen to develop more sophisticated ways to recognize, understand, and address it. We also argue for an explicitly spatial understanding of informality and its settings; and discuss how planners, policy makers, urban designers, and communities can respond to the new emerging landscape of opportunities and challenges. Informal activities in U.S. cities are widespread and varied. Most of them are not criminal in nature, nor are they limited to instances of economic

survival. And while informality has often been associated with immigrants, informal activities are pervasive and spread across different social groups, diverse urban settings, and different geographical regions of the country. Formal and informal activities may at times conflict and at times overlap or depend on one another. Case studies of such activities help reveal the logic and underlying rationality of informality, and the structural linkages between informal activities and the larger political economy of cities and regulations. They also show the contradictory nature of informality, with both potential winners and losers associated with informal activities. Some myths and misconceptions about informality have developed over the years. One such myth is that urban informality is part and parcel of the Global South, and only appears in very poor and marginalized neighborhoods of cities of the Global North. However, urban informality of different types is now quite visible even in middle-class and affluent neighborhoods of the Global North. A second myth assumes that formal and informal activities and settings are always distinct and rigidly separated. However, we do not find such drastic separation between some formal and informal settings in cities. A third myth is that informality is a temporary phenomenon and an ephemeral construct; however, the ubiquity and persistence of many informal activities and settings tells us otherwise. Lastly, notions that informality is always a virtue, or the opposite—it is always negative, belie the fact that informal activities are not homogenous but rather depend on context and circumstance. Rather than perpetuating these myths, planners and policy makers should deepen their understanding of informal urbanism and take into consideration their specific social and physical context, before responding to the challenges and opportunities of informal urbanism.

**Keywords:** Informality; Informal Urbanism; American; Misconception; Spatial Understanding

**Citation:** MUKHIJA V, LOUKAITOU-SIDERIS A. The informal American city: deepening the understanding of informal urbanism[J]. *Urban planning international*, 2019(2): 7-14, 30. DOI: 10.22217/upi.2018.552.

### **Reflections on Policies for Informal Real Estate Markets in Developing Countries**

*Bish Sanyal, Chen Yulin*

**Abstract:** This study draws critical issues on urban informal real estate markets through lessons learned by academics and practitioners based on empirical evidence from Brazil, India, and China. The first part provides a brief synopsis of how policy makers viewed informal settlements at the time of the World Bank's study. The second part is a brief analysis of three key policy interventions designed to improve the functioning of informal real estate markets, i.e., in-situ upgrading, offering private property rights, and slum redevelopment. The third part concludes by proposing three research questions that need to be addressed to better intervene in informal real estate markets.

**Keywords:** Informal Housing; Real Estate Market; Policy; Developing Countries; Slum

**Citation:** SANYAL B. Reflections on policies for informal real estate markets in developing countries[J]. *Urban planning international*, 2019(2): 15-22. DOI: 10.22217/upi.2018.551.

## **The Informal Economy in Cities of the Global South: Challenges to the Planning Lexicon**

*Caroline Skinner, Vanessa Watson*

**Abstract:** The informal economy is a significant component of urban economy in global south. Comparing with the field of economic policies, there are few studies focusing on how to support informal economy through policies nowadays in the field of urban planning. In the context of planning as the central tool to regulate and marginalize informal economy, reconsidering informal economy from the aspect of spatial planning is important. The paper firstly describes the scale, the categories and the contribution to the urban economy's growth of informal economy through data. Second, series differential theories and policies towards informal economy are reviewed. In the third part, some cases in global south indicate that some cities provide the proper livelihood for the informal economy through transforming the urban policies and planning strategies, including infrastructures in public spaces, home-based work and waste picker organization. Finally, the paper holds the view that the planners need to improve the planning method facing informal economy. The challenge that the gap between theory and practices of informal economy is increasing in case of regulation is still the main planning method.

**Keywords:** Informal Economy; Planning; Informality; Development Study; Global South

**Citation:** SKINNER C, WATSON V. The informal economy in cities of the global south: challenges to the planning lexicon[J]. *Urban planning international*, 2019(2): 23-30. DOI: 10.22217/upi.2018.548.

## **A Preliminary Study on the Job-Housing Spatial Mismatch of Informal Employment and Its Planning in China's Big Cities**

*Xu Miao, Chen Rui, Yang Bibo*

**Abstract:** Informal employment plays a great role in promoting and stabilizing the national economy, urban employment growth and urbanization. However, urban planning practice and research have not given sufficient attention to informal employment. The blurring of informal employment and formal employment has led to planning policies for low-income urban populations that created deviations and blind spots. This paper investigates the occupational and residential space characteristics of informal employees and the impact of planning policies on their commuting status by means of sample empirical survey. It firstly expounds the lack of space mismatch hypothesis in the perspective of informal employment. Secondly, it makes a theoretical review of the living space and employment space distribution of informal workers. Finally, this paper takes two communities of low-income people in concentrated communities as examples, using the Arc GIS platform to describe and analyze the occupational and residential relationships and commuting characteristics before and after the relocation of informal workers. This paper argues that informal workers have shorter commuting distances and time than formal workers, who are highly dependent on public transportation, and show close to the employment center's job-housing preference. After the relocation, the commuting situation of informal workers deteriorated, showing the characteristics of "spatial mismatch". The empirical results show that in the formulation of planning policies, the characteristics of occupational residence and behavioral preferences of informal workers should be fully considered, and relevant planning tools should be used to actively intervene. These conclusions are helpful to recognize the particularity of informal employees' preferences and

decision-making and to reflect on the limitations and shortcomings of existing planning policies affecting informal employees.

**Keywords:** Informal Employment; Affordable Housing; Urban Planning Intervention; Spatial Mismatch; Job-Housing Relationship

**Citation:** XU M, CHEN R, YANG B. A preliminary study on the job-housing spatial mismatch of informal employment and its planning in China's big cities[J]. *Urban planning international*, 2019(2): 31-39. DOI: 10.22217/upi.2019.049.

### **Informal Housing and Community in Chinese Megacities: Types, Mechanisms and Responses**

*Chen Yulin*

**Abstract:** In the process of rapid urbanization in Chinese megacities, there has been a very diverse phenomenon of urban informality. While previous studies of informal housing were concentrated on urban village, this paper seeks to offer a more comprehensive perspective, informal community, which includes housing, public service and public space, to expand understanding of informality and to examine function of informal economy in community life. Firstly, an analytical framework of “qualification-use-operation” is proposed, and mechanism of informal housing are analyzed from the perspectives of government's supply and citizen's demand. Secondly, representative types of informal housing in historical districts, commodity housing communities and migrant settlements are reviewed, and their characteristics are summarized respectively. Finally, planning and management responses to informal housing and community building are proposed for more inclusive development.

**Keywords:** Urban Informality; Informal Economy; Community Building; Housing; Public Service; Public Space; Megacity; Governance

**Citation:** CHEN Y. Informal housing and community in Chinese megacities: types, mechanisms and responses[J]. *Urban planning international*, 2019(2): 40-46. DOI: 10.22217/upi.2019.052.

### **Governance of Informal Public Space in Urban China: A Post-modern Critique of Spatial Formalization of Urban Street Vending**

*Huang Gengzhi, Xue Desheng, Xu Kongdan, Yang Yanshan, Chen Kunlun*

**Abstract:** Coordinating the contradiction between modernity/formality and informality is one of major challenges facing urban planning in the 21st century. This paper opens up the question of what might be good formalization by examining the nature and contradiction of the permitted-vending-place (shudaoqu) policy in Guangzhou, a permissive approach that seeks to regulate street vendors by positioning them in designated places. It is argued that shudaoqu is a space-based formalization strategy given that it seeks to reform and regulate informalities by immobilizing them in bounded spaces, in which a set of regulation derived from formalities are implemented. However, this formalization project manifests an ideology of ‘formalomorphism’, which tends to neglect the naturalness and advantages of informal economies, and which renders the project facing a potential risk of unsustainability. The risk is caused by the contradiction between four strategies of formalizing and attributes of informal vending, evidenced by tensions between locational

immobility and mobility, rental payment and low cost, contract constraints and flexibility, and product regulation and autonomy. The Guangzhou case indicates the complexity of the coordination of the given order of modern urban spaces and the informal use of public spaces by street vendors. It suggests that planning responses to urban informalities do not simply mean the imposition of existing sets of formal economic institutions on them, but should involve appropriate regulations that meet their needs and suit their circumstances. It therefore suggests that urban planners need to break through the modern planning framework and develop planning theories and methods for responding to mobility and flexibility in an emerging post-modern world.

**Keywords:** Urban Informality; Public Space; Street Vending; Formalization; Post-modernism

**Citation:** HUANG G, XUE D, XU K, et al. Governance of informal public space in urban China: a post-modern critique of spatial formalization of urban street vending[J]. *Urban planning international*, 2019(2): 47-55. DOI: 10.22217/upi.2019.015.

### **The Evolution and Governance of Slums in Rio de Janeiro from the Perspective of Urban Informality**

*Li Mingye, Alex Magalhaes*

**Abstract:** From the perspective of urban informality, this paper reviews the development of slums in Rio de Janeiro and the evolution of related policies, then analyzes the experience of slums upgrading in this region. In general, the policy in Rio which has transformed from ignorance, to forced eviction and removal, and then to upgrading and renewal, is moving towards an equitable and human one. Although due to the economic recession and political corruption, the current policy is facing the problem of inefficiency, the case of Rio illustrates the process of the urban government seeking for an appropriate position of urban informality in the spatial and institutional dimensions, which provides implications for the renewal of “urban villages” in Chinese cities.

**Keywords:** Urban Informality; Slum; Renewal; Inclusivity; Soft Development; Rio de Janeiro

**Citation:** LI M, MAGALHAES A. The evolution and governance of slums in Rio de Janeiro from the perspective of urban informality[J]. *Urban planning international*, 2019(2): 56-63. DOI: 10.22217/upi.2017.203.

### **Job-Housing Spatial Relationship and Job Accessibility of Metropolitan Area: The Influence of Transportation Infrastructure**

*Shen Chen, Zhang Chun, Xia Haishan, Cheng Zhihua*

**Abstract:** In recent years, job-housing spatial mismatch becomes more and more common for metropolitan areas globally, and related issue on job accessibility receives increasing attention from policy makers and policy researchers. As an important link between residential and employment functions, transportation infrastructure is believed to be an important means to increase job accessibility based on existing urban pattern. This paper summarizes the establishment and changes of job-housing spatial relation, as well as the impact of transportation infrastructure on the job accessibility. Accumulated studies show that the public transportation infrastructure directly impact on employment opportunities and the living cost, especially for the low-income and middle-income



groups. Increasing investment on the public transportation infrastructure inputs will improve employment ratio significantly. Compared with the original job-housing mismatch model in North America, job-housing spatial relationship in China are more complicated due to rapid suburbanization, new town development and new industrial zone development. Lack of public transportation in suburban area leads the vulnerable groups to a more disadvantaged situation. Therefore, under various cultural backgrounds and development stages, impact of transportation infrastructure on the improvement of job accessibility might be different. Appropriate traffic infrastructure investment will improve job accessibility, balance and optimize job-housing spatial relationship, and also increase employment opportunities for the low-income group, thus has profound influence for urban development in the future.

**Keywords:** Job-Housing Spatial Relationship; Job Accessibility; Transportation Infrastructure; Metropolitan Area; Low-income Group; Job-Housing Balance; Job-Housing Spatial Mismatch

**Citation:** SHEN C, ZHANG C, XIA H, et al. Job-Housing spatial relationship and job accessibility of metropolitan area: the influence of transportation infrastructure[J]. *Urban planning international*, 2019(2): 64-69. DOI: 10.22217/upi.2017.241.

### **Analysis of Affordable Housing Policy in Global Cities and the Inspiration to Shanghai**

*Jia Yiru, Zhang Ze, Miao Siyu, Xiao Yang*

**Abstract:** In the current stage of globalization, city competition could be regarded as the competition of talents, as globalization has been powered by knowledge and talent flows. Meanwhile, socio-spatial polarization has been even more obvious in global cities. Most global cities are confronted with similar housing crisis: the flood of immigrants has led to the sharp increase of housing demand, along with housing price and rent; on the other hand, housing becomes unaffordable for more people in the context of income polarization. Thus, affordable housing policies have resurged in many global cities in order to boost city competition and maintain social stability, which can be referenced by Shanghai. In the lens of the global city theory, the paper reviews the affordable housing policies in London, New York and Singapore in recent decades. The comparative study of policy contents and outcomes leads to the discussion on the policy convergence and contextual distinctiveness. In the end, this paper analyses the problems and institutional contexts of the affordable housing policies in Shanghai to makes targeted suggestion for further housing policy.

**Keywords:** Global City; Affordable Housing Policy; Comparative Study; Shanghai; London; New York; Singapore

**Citation:** JIA Y, ZHANG Z, MIAO S, et al. Analysis of affordable housing policy in global cities and the inspiration to Shanghai[J]. *Urban planning international*, 2019(2): 70-77. DOI: 10.22217/upi.2016.428.

## **Analysis on Spatial Planning of Foreign Capital Metropolitan Areas from the Perspective of Re-scaling**

*Wu Qian*

**Abstract:** Neil Brenner critically considered the inadequacy of the theory of “deterritorialisation” and put forward the “re-scaling” theory emphasizing “reterritorialisation”. He believes that under the background of globalization, taking the oil crisis of 1970 as dividing line, the relatively fixed space structure has been constantly “created”, “adjusted” and “transformed” to adapt to and carry a new environment for development, resulting in different characteristics. Based on this, taking the Greater London Planning, Paris Region Planning, Tokyo Metropolitan Area Basic Planning and Seoul Metropolitan Area Reorganization Planning as examples, this paper analyzes the evolution of spatial planning in metropolitan areas of typical foreign capitals and puts forward three common trends: the main body shift and cooperation orientation caused by decentralization, the multi-development issue oriented by regional competitiveness and the multicenter decentralized regional spatial layout. In the end, this paper makes a preliminary outlook of the spatial planning of the coordinated development of Beijing-Tianjin-Hebei Region.

**Keywords:** Re-scaling; Capital Metropolitan Area; Spatial Planning; Regional Collaboration; Poly-center Decentralized Aggregation

**Citation:** WU Q. Analysis on Spatial planning of foreign capital metropolitan areas from the perspective of re-scaling[J]. *Urban planning international*, 2019(2): 78-85. DOI: 10.22217/upi.2017.594.

## **Discussion on the Cohesion of Spatial Planning System of All Levels in the UK: The Case of Greater London Planning Practice**

*Tian Ying, Geng Huizhi*

**Abstract:** Nowadays, it is important to adopt workable measures to reform the urban planning structure in China. Based on the analysis of the content and cohesion of spatial planning of all levels in the UK, the paper clears out that the cohesion devices of spatial planning in the UK are mainly achieved by mediating between different levels of administrative system, elaborating the goals and controlling whole process of plan-making. In addition, through an in-depth analysis of the connection between spatial planning in Greater London area, it puts forward three suggestions for urban and rural planning system reform in China: firstly, to simplify the planning content and procedures for examination; secondly, to make a clear division about the planning tasks of all levels; thirdly, to strengthen the goal refinement top-down, and to improve public participation bottom-up.

**Keywords:** Planning Cohesion; Planning System in the UK; Spatial Planning in Greater London; Planning Practice

**Citation:** TIAN Y, GENG H. Discussion on the cohesion of spatial planning system of all levels in the UK: the case of Greater London planning practice[J]. *Urban planning international*, 2019(2): 86-93. DOI: 10.22217/upi.2017.251.

## **Review and Inspiration of the Modern and Contemporary Planning System in the UK Based on the Perspective of Land Development Right**

*Wang Yue, Tan Zongbo*

**Abstract:** In the bundle rights of land, the most important one is the Land Development Right, which was officially formed in the 1947 Planning Act of the UK and established the institution base of its planning system. Based on literature review and taking the Land Development Right as the clue, this paper figures the origin of the contemporary urban planning and reviews the development and changes of modern planning system: from dealing the market failure by negative restriction of private land development right, to positively land develop control by nationalization of land development right, and then to dealing with the government failure by returning development right to the community and sharing with social power. By review this process, this paper thus concludes the experience of the UK and its inspiration to Chinese problem.

**Keywords:** Land Development Right; Planning System; Modern and Contemporary; Market Failure; The UK

**Citation:** WANG Y, TAN Z. Review and inspiration of the modern and contemporary planning system in the UK based on the perspective of land development right[J]. *Urban planning international*, 2019(2): 94-100, 135. DOI: 10.22217/upi.2017.492.

## **Discussion on the Construction of China's Planning Appeal System Based on Hong Kong's Experience**

*Weng Yang, Wang Jianqiang, Zheng Shanwen*

**Abstract:** In these years, China's urban construction has been experiencing such changes as transferring from incremental expansion to stock's improvement and the rise of civil society, etc. Interest pluralism appears increasingly remarkable in urban development, under which the games between interests become more frequent, diverse and complex. For the perfection of the planning administration system, more attention should be paid to the demands that the interest entities are able to safeguard the legal spatial rights by the appeal system. Accordingly, the paper is on the discussion of establishing and perfecting the relevant systems. After overview of the development of the planning appeal system in Hong Kong and analysis of the advanced experience of the system construction, the suggestions about reference will be proposed to solve the problems in the present system and make it improved.

**Keywords:** Planning Appeal System; The Emedial System; Hong Kong; Spatial Rights; Public Participation; Administrative Reconsideration; Administrative Litigation

**Citation:** WENG Y, WANG J, ZHENG S. Discussion on the construction of China's planning appeal system based on Hong Kong's experience[J]. *Urban planning international*, 2019(2): 101-110. DOI: 10.22217/upi.2017.433.

## **Large Scale Spatial Morphology Analysis Method Based on GIS Platform: Take the Height, Density and Intensity of the Metropolitan Central Districts as Example**

*Shi Beixiang, Yang Junyan*

**Abstract:** With the globalization of economy, the density of urban public facilities is increasing, which make the huge scale and complex morphology in urban areas. For this phenomenon with the function of GIS in data processing and spatial analysis, this paper presents some analytical methods to study the spatial morphology of large scale space, that mainly including: basic data analysis, contour analysis, spatial height fitting analysis, spatial fluctuation analysis, cluster analysis and kernel density analysis. With these techniques that could understand the changing law of the height, density and intensity more clearly and effectively, moreover, it is helpful to grasp the characteristics of the spatial form of large scale urban space. Furthermore, as an open platform, GIS is also helpful to the study of the coupling relationship between the spatial form and the stream of people and industry formats.

**Keywords:** Large Scale Urban Space Morphology; GIS Platform; Spatial Analysis; Techniques; Urban Central Zone

**Citation:** SHI B, YANG J. Large scale spatial morphology analysis method based on GIS platform: take the height, density and intensity of the metropolitan central districts as example[J]. Urban planning international, 2019(2): 111-117. DOI: 10.22217/upi.2017.115.

## **Reflection on Street Setback Approaches from the Perspective of 3D Street Interface**

*Liu Quan*

**Abstract:** Based on cases analysis of urban planning standards and design guidelines of different cities at home and abroad, methods of building setback from street are summarized. There are two types of setback methods: integral setback and subsection setback, including six sub types: inflexible setback, side correlation based flexible setback, front correlation based flexible setback, ground floor interface setback, upper floors layered setback and vertical volume layered setback. This paper analyzes the applicable conditions and technical features of these methods. As an important factor of street space, building setback does not only mean space distance between building and street, but also harmonizes vertical, horizontal and lateral dimensions of street interface, keeps appropriate street scale, and affects the space characteristic and functional use between setback area and the whole street. It is better to cognize the concept of setback under the background of the various needs of 3D street interface in order to make this area play a more comprehensive role.

**Keywords:** Building Setback; Street Boundary Line; Build-to-line; Street Interface; Urban Planning Management

**Citation:** LIU Q. Reflection on street setback approaches from the perspective of 3D street interface[J]. Urban planning international, 2019(2): 118-125. DOI: 10.22217/upi.2016.536.

### **Research on Local Activation Strategy: Case Study on Treasure Hill Artist Village in Taipei**

*Zhuo Xiang*

**Abstract:** Treasure Hill Artist Village, as a traditional old town in Taipei, is faced with a lot of practical issues such as disrepaired buildings, mountain safety risks, poor internal transportation, Xindian Creek water pollution and urban low-income groups gathering, which is in urgent need of a new round of urban renewal. And under the premise of maintaining the existing social network structure in the Treasure Hill Artist Village, how to perfect old town infrastructure, create a variety of public space and the revitalization of the regional economic development to achieve urban renewal, is the core issue that Treasure Hill Artist Village is facing. Based on the urban renewal of Treasure Hill Artist Village, this paper systematically analyzes its strategy about the policy in support and implementation, residents' relocation and resettlement, local community building, operation management, construction of legal system and so on. Furthermore, it interprets urban renewal process of Local Activation, and on this basis, it puts forward specific recommendations of four levels, which aim at institutional innovation, operation and management, space design, and policy-driven of old town in mainland China.

**Keywords:** Treasure Hill Artist Village in Taipei; Local Activation; Strategy; Old Town; OURs

**Citation:** ZHUO X. Research on local activation strategy: case study on treasure hill artist village in Taipei[J]. Urban planning international, 2019(2): 126-135. DOI: 10.22217/upi.2016.314.

### **Zero Waste Movement in City: A Case Study on Malmö of Sweden**

*Luo Zhaoxuan, Tong Xin, Huang Jingxian*

**Abstract:** Zero Waste movement has been embraced by local communities in many cities to regain sustainability and vitality through waste prevention and recycling in recent years. This paper takes two communities, Bo01 in Västra Hamnen and Augustenborg, in the city of Malmö in Sweden as the examples to illustrate the cross scale efforts by various stakeholders in building the recycling common space in local communities. The efforts include building pro-recycling environment in neighborhoods, planning recycling facilities for separated waste streams at the municipal level, and redefining the responsibility in waste management in the legal system. The conclusion provides several implications to the urban circular economy policy in China.

**Keywords:** Zero Waste Movement; Recycling; Urban Waste Management System; Extended Producer Responsibility; Malmö

**Citation:** LUO Z, TONG X, HUANG J. Zero waste movement in city: a case study on Malmö of Sweden[J]. Urban planning international, 2019(2): 136-141. DOI: 10.22217/upi.2018.153.

### **Design Practice of Integrating Urban Agriculture into Urban Internal Space in Foreign Countries and Thinking**

*Wang Xiaojing, Zhang Yukun, Zhang Rui*

**Abstract:** This paper summarizes the development of Chinese and foreign urban agriculture in urban areas, and recognizes the important contribution of urban agriculture to modern cities, and emphasizes that intra-urban agriculture is conducive to sustainable urban development. Then, it

analyzes integrated design cases of internal space and agriculture in foreign cities, including their design strategies, integrating methods and technical means, and points out that the current western countries pay more attention to low carbon environmental protection, modern technology, urban art and pragmatic innovation in the process of integrating agriculture. Combined with the present situation of urbanization in China, this paper discusses the necessity and feasibility of developing intra-urban agriculture, and thinks about the differences between China and the West, and puts forward four suggestions for the promotion of urban agriculture in Chinese cities.

**Keywords:** Urban Agriculture; Contribution; Urban Inner Space; Integrated Design; Sustainable Urban Development

**Citation:** WANG X, ZHANG Y, ZHANG R. Design practice of integrating urban agriculture into urban internal space in foreign countries and thinking[J]. *Urban planning international*, 2019(2): 142-148. DOI: 10.22217/upi.2017.562.

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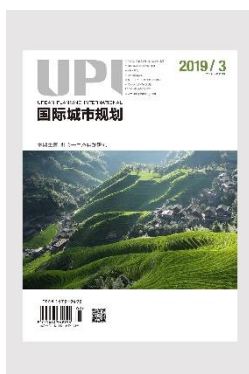
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## **The Logic of Ecological Practice**

*Yan Wentao*

**Abstract:** Taking ecological practice as the research object, we can better understand the basic rules of ecological practice and guide the direction to achieve a successful ecological practice. From the ontological perspective of ecological practice, this paper defines the concept and connotation of ecological practice, and puts forward six characteristics of ecological practice, such as organic system, territoriality, social diversity, spatial matching, temporality and covariance. Furthermore, five logical rules for ecological practice are summarized: indivisibility, context dependence, fault tolerance, adaptation, and feedback, which can help us to identify and avoid mistakes in practice. According to the knowledge source, the ecological practical knowledge is divided into four categories: ecological scientific knowledge, local tacit knowledge, practical motivation knowledge and procedural knowledge.

**Keywords:** Ecological Practice; Connotation and Characteristics; Logical Rules; Ecological Practice Knowledge System; Ecological Practice Framework

**Citation:** YAN W. The logic of ecological practice[J]. Urban planning international, 2019(3): 1-8. DOI: 10.22217/upi.2019.140.

## **Ecopracticology: The Study of Socio-Ecological Practice**

*Xiang Weining, Wang Tao, Huang Lei, Wang Hui*

**Abstract:** In this paper, the author defines ecopracticology as a legitimate field of scholarly inquiry, discusses its object of study, body of knowledge, way of knowing, and theoretical independence. Ecopracticology focuses on the understanding of social-ecological practice, and is committed to the systematization and theorization of its knowledge system. At the same time, ecopracticology is an independent field that interacts with other academic fields. In the multiple branches of sciences and humanities, ecopracticology delves into socio-ecological practice for insights that not only serves the practice but also enriches research and education in these other fields. In particular, ecopracticology is well positioned to support the persistent endeavors to close the theory-practice gap in socioecological practice. Finally, this communication introduces Socio-Ecological Practice Research (SEPR) as the home journal of ecopracticology, and pays tribute to the pioneers of socio-ecological practice, and exhorts the successors.

**Keywords:** Ecopracticology; Ecopracticologist; Socio-Ecological Practice; Socio-Ecological Practice Research; The Theory-Practice Gap

**Citation:** XIANG W. Ecopracticology: the study of socio-ecological practice[J]. Urban planning international, 2019(3): 9-15. DOI: 10.22217/upi.2019.145.

## **High Quality Ecological Practice: Analysis of Core Characteristics and Discussion on Implementation Path**

*Shen Qingji, Ci Hai, Meng Haixing*

**Abstract:** Both the “quality” and the “ecological practice” are one of the hot spots of the academic research of the present day, but there are lack of systematic research on “higher quality practice”.



Based on the literature review and theoretical analysis of the concept of “ecological practice”, the paper puts forward the definition of “ecological practice” and “ecological practice quality”. On the basis of combing and analyzing nearly 50 excellent ecological practice cases at home and abroad, the paper identifies 10 core characteristics of higher quality of ecological practices, and preliminarily discusses the steps to achieve higher quality of ecological practice from the perspectives of logical path, research path and method path.

**Keywords:** Ecological Practice; Ecological Practice Characteristics; Ecological Practice Quality; High Quality Ecological Practice; Analysis of Ecological Practice; Logical Path; Research Path; Method Path

**Citation:** SHEN Q, CI H, MENG H. High quality ecological practice: analysis of core characteristics and discussion on implementation path[J]. *Urban planning international*, 2019(3): 16-29. DOI: 10.22217/upi.2019.150.

### **How to Apply “The Precautionary Principle” in Socio-Ecological Practice?**

*Wang Xinhao*

**Abstract:** The socio-ecological practice research aims at supporting practices related to sustainable development of human society, including policy and regulation development. The socio-ecological system in which human beings live is a complex system with many uncertainties. When people intentionally make changes to improve their living condition, some unintended changes may occur, such as the increase of crimes and the increased exposure to natural disasters. Disasters happen when some changes severally threaten people’s lives, properties, or routine activities. Along with the industrialization and urbanization progress more people are concentrated in urban areas. Since the 1970s many scholars and policy makers have promoted the precautionary principle as the basis for public policy development, in response to the increasing problems associated with population growth and environmental degradation. While the precautionary principle has been widely adopted by various governments and international organizations, it is always associated with debates about its value in decision-making. A review of the debates reveals that the core of difference is not on the value the precautionary principle stands for. Rather, people debate the implementation of the precautionary principle. Some of the debates have revealed the misuse of the principle and the need for clarification and specification. Other differences of opinions can be attributed to the uncertainties of the future since neither the proponents nor the opponents of the principle can be certain about the outcome of a proposed action. Therefore, how to make decisions in the face of this “wicked problem” of decision-making without precise scientific proof? The recent progress of ecological wisdom and resilience thinking have the potential to provide a fresh perspective for applying the precautionary principle in socio-ecological practice. Ecological wisdom requires all involved stakeholders integrate scientific knowledge, local knowledge, experience, and ethical values in developing the human-environment harmonious socio-ecological system. Resilience thinking urges us to pay attentions to other system characteristics besides development, to recognize that disasters will happen and we can never be sure about their nature such as time, location, scale, and frequency. Therefore the socio-ecological system must develop the capacity to respond to disasters and sustain the system functions. Many of the debates about the precautionary principle are due to the separation of pursuing benefits and avoiding problems. The aim of this paper is to remove this separation

through the integration of ecological wisdom and resilience thinking. Facing the uncertain future, everyone has the same obligation in making decisions to sustain the harmonious human-environment relationship, that is, to properly apply the precautionary principle to improve the quality and resilience of the socio-ecology system.

**Keywords:** Precautionary Principle; Uncertainty; Resilience; Ecological Wisdom; Change

**Citation:** WANG X. How to apply “the precautionary principle” in socio-ecological practice?[J]. *Urban planning international*, 2019(3): 30-36. DOI: 10.22217/upi.2019.166.

### **Dance of Nature and Man’s Synergistic Symbiosis: Ecosystem Design and Ecological Practice of Littoral Zone of Hanfeng Lake in Three Gorges Reservoir Area**

*Yuan Xingzhong, Du Chunlan, Yuan Jia, Wang Xiaofeng, Xiong Sen, Huang Yazhou, Liu Yangjin, Gao Lei*

**Abstract:** The seasonal fluctuation of the water level in the Three Gorges reservoir (TGR) has brought great environmental stresses to the littoral zone, including adverse effects on the natural environment of the reservoir and the life quality of migrants in the reservoir area. Taking Hanfeng Lake in Kaizhou District of Chongqing in TGR as an example, based on the principles of co-evolution, symbiosis and water sensitive design, and aiming at the characteristics of water level variation of Hanfeng Lake, the research took the fluctuation zone of Hanfeng Lake as a whole ecosystem, and carried out ecological restoration design of the fluctuation zone and ecological engineering practice. The observation and study lasting nine years show that the ecosystem design and construction in the littoral zone of Hanfeng Lake, carried out by human and nature cooperation, has played a variety of ecological service functions, such as surface runoff water purification, biodiversity conservation, lakeside stabilization, landscape beautification and so on. The beautiful littoral zone and lakeside landscape at different water levels provide a good place for leisure, sightseeing and recreation for the residents of Kaizhou city. The quality of human settlements in this immigrant city has been continuously optimized and improved. As a result of fully absorbing the good will of the aborigines to the littoral zone and waterfront space, the ecological practice of ecological restoration and landscape optimization of littoral zone and waterfront zone have been integrated into the social system of Kaizhou city, becoming an important part of the harmony of social system, thus realizing the goal of the co-existence dance of human and nature.

**Keywords:** Littoral Zone; Ecosystem Design; Ecological Practice; Synergistic Symbiosis; Hanfeng Lake; The Three Gorges Reservoir Area

**Citation:** YUAN X, DU C, YUAN J, et al. Dance of nature and man’s synergistic symbiosis: ecosystem design and ecological practice of littoral zone of Hanfeng Lake in three gorges reservoir area[J]. *Urban planning international*, 2019(3): 37-44. DOI: 10.22217/upi.2019.143.

### **Ecological Land Use Planning Towards Water Environment Protection at Urban Watershed: Ecological Practice Approaches, Spatial Planning Strategies and Development Transect Models**

*Yan Wentao, Zou Jin*

**Abstract:** By analyzing the correlation between land use and water environment at the urban

watershed, we can deeply understand the inter-relationships of land use planning and control to water environment management, and provide scientific basis of ecological land use planning for water environment protection. This paper summarizes the previous empirical results on the relationship between land use and water environment, discusses the restriction and guidance of water environment objectives on land use. Based on those results, this paper proposes the ecological practice approaches for urban watershed, which integrate water environment objectives to ecological land use planning. Furthermore, it puts forward spatial planning strategies for improving water environment performance, from three aspects, (non-)construction land use proportion, land use type and layout at the urban watershed. Lastly, from stream source to outlet, it proposes three conceptual models of ecological transect, aiming at three kinds of urban watershed with different degree of restriction. Exploring to translate quantitative water environment objectives into spatial planning strategies, can provide a spatial framework for improving water quality of urban streams, and also, help us to use land use planning tools to effectively cope with urban water environmental problems.

**Keywords:** Urban Watershed; Water Environment Performance; Ecological Practice Approaches; Spatial Planning Strategies; Development Transect Models

**Citation:** YAN W, ZOU J. Ecological land use planning towards water environment protection at urban watershed: ecological practice approaches, spatial planning strategies and development transect models[J]. *Urban planning international*, 2019(3): 45-55. DOI: 10.22217/upi.2019.141.

### **Classification of POI Natural Cities Scale and Hierarchy Based on Head/Tail Breaks**

*Liu Lingbo, Peng Zhenghong, Wu Hao*

**Abstract:** Scale hierarchy and boundary delimitation play important roles in urban research. Traditional statistic data such as population and economic scale cannot precisely define the real status, alternatively, new data such as light remote sensing, mobile phone signaling, road intersection and location-based social network (LBSN) have been introduced recently by more and more studies, intending to delimit the built up area boundary and measure the size and scale of the city with bottom-to-up approach. However, there are still two problems: lacking dividing standards and representing feature, therefore the H/T breaks point method is provided to classify scale and define boundary for cities. Based on to make a triangular irregular network (TIN) generated by point of interest (POI) data which represents various economic activities, the H/T breaks method is applied classifying the natural city scale in mainland China. The results show that the natural city boundary based on POI reflects the relative scale and density of human settlements, the H/T breaks point classification follows the Zipf's law in rank-size method, offers a more scientific classifying method for naturally grouping of city scale according to the long tail rule and fractal structure of natural cities. The method has promotional value on urban scale measuring and classifying, with the advantage of precision and real data acquisition.

**Keywords:** Big Data; Natural Cities; Long Tail Rule; Rank-Size; Head/Tail Breaks; TIN

**Citation:** LIU L, PENG Z, WU H. Classification of POI natural cities scale and hierarchy based on head/tail breaks[J]. *Urban planning international*, 2019(3): 56-64. DOI: 10.22217/upi.2017.090.

## **Review of the Studies on Ancient Chinese Urban Form in the Western World Since the Mid-20th Century**

*Guo Lu*

**Abstract:** The study of ancient Chinese urban form is an important field of the western Sinology research, which had become comprehensive and in-depth since the mid-20th century. There are three main research issues: (1) general history of urban form focusing on universal features; (2) case studies with the exploration of diversity and interdisciplinary; (3) forming mechanism of urban forms in specific aspects. The vision of comparative study, the methods and technologies of modern science and the unique access to literature of these western studies could have a useful inspiration for the study of contemporary Chinese scholars. However, the limitations of their research standpoint and material acquisition scope have brought negative effects. In summary, the “local” research with a global vision is the future trend of development.

**Keywords:** Ancient Urban Form; Studies in the Western World; Locality; Global Vision; Comparative Study; Urban History

**Citation:** GUO L. Review of the studies on ancient Chinese urban form in the western world since the mid-20th century[J]. *Urban planning international*, 2019(3): 65-70, 117. DOI: 10.22217/upi.2017.110.

## **The Intelligent Urban Governance Based on Big Data: International Experience and China Strategy**

*Cao Yang, Zhen Feng, Xi Guangliang*

**Abstract:** During the development of new urbanization, the interest structure among different social groups are dividing continually. The traditional urban governance model is facing transformation and reformation. Based on the current situation and problems of urban governance, this paper selects the representative cities like Chicago, Singapore and New York on their big data applications, then analyzes the practical application mode and methods from three core aspects of urban operation dynamic monitoring, urban development scenario prediction and urban multi-agents co-governance. On this basis, it combines the mature experiences of foreign countries with the current situation of China’s urban development, focusing on the innovative model and specific application framework of intelligent urban governance supported by big data. Finally, it elaborates the comprehensive application ideas from the four aspects on urban operation situation, urban governance decision-making support, urban governance process supervision and public participation. The authors hope this research could provide theoretical guidance and methods for the intelligent urban governance practice in China.

**Keywords:** Big Data; Urban Governance; Experience Reference; Application Mode; Strategy Research

**Citation:** CAO Y, ZHEN F, XI G. The intelligent urban governance based on big data: international experience and China strategy[J]. *Urban planning international*, 2019(3): 71-77. DOI: 10.22217/upi.2018.101.

## **Justice in City: Ideological Sources of the Western Social Justice Research**

*Zhou Kai, Dong Danli, Pan Lanying*

**Abstract:** The concept of “social justice” has entered the horizon of Chinese planning academics, and became a hotspot in the discussion of urban affairs, while constantly stimulated by the emerging social conflicts. In fact, the philosophical speculations of “justice” and “equity” were nurtured in the whole course of socioeconomic and political theory in Eastern and Western Worlds, leaving rich ideological legacies. Therefore, this paper traces the roots of the social justice discourse back to three major ideological sources: (neo)Liberalism, Communitarianism and (neo)Marxism. It summarizes major social justice ideas in the Western World since the Enlightenment, hence to contextualize thoughts, to distinguish viewpoints, and to uncover origins and successions between theories and theorists. On the one hand, a “distributive justice” that derived from the “moral individualism” and “bottom-line welfare system” advocated by neoliberal scholars has become a “universal value” gradually accepted by the globalized world system (China included). On the other hand, some theories kept trying to redirect the dialogue on social justice from “liberalizing individual freedom” to “establishing the moral standards in collectively living”. The Communitarianism, which rooted in traditional patriotism and the ethics of belief, constantly reminds the individualists that the discussion of social justice should not ignore one’s “communal encumbrance”, “collective responsibilities”, “sense of belonging” and “pride and shame” as a community member. While the theory of “politics of difference” reveals that urban social justice issue involves the “dominative” or “oppressive” power relations between social groups which defined the injustice distribution in the first place. Therefore, hoping for “creating urban commons” and “celebrating city diversification”, a heterogeneous, inclusive and cohesive urban society became the shared vision of a metropolitan living, especially among young generations. From the third source, (neo)Marxists see social injustice as a result of the structural conflicts within the capitalist system. They are using the concept of “the right to the city” as the core analytical tool to explain the “accumulation”, “circulation”, “exploitation”, and “crisis” of capital in the modern urbanization process. The “right to the city” is also serving as the assembly banner for the “new left” in fighting against capitalism in the cities. By reframing the historical and theoretical perspectives on the social justice discourse, this paper is expected to elicit further discussions in regard to the value system, moral standing-point, and professional ethics of urban planners in China.

**Keywords:** Social Justice; Urban Planning; Just City; Right to the City; Spatial Justice

**Citation:** ZHOU K, DONG D, PAN L. Justice in city: ideological sources of the western social justice research[J]. *Urban planning international*, 2019(3): 78-86. DOI: 10.22217/upi.2018.166.

## **Rural Renaissance and Rural Restructuring in France After World War II**

*Fan Dongyang, Liu Jian*

**Abstract:** During the thirty years of glorious development after World War II, when France saw rapid industrialization and urbanization driven by strong economic regeneration, its rural areas had suffered from continuous outflow and remarkable aging, which once made the whole society quite pessimistic about the future of rural France. However, since the 1970s, rural France saw a series of new figures, such as demographic growth, economic restructuring and social reconfiguration, which led to a significant transformation of the rural landscape and the urban-rural interrelationship. This

article reviews the process of renaissance and restructuring of rural France in the later part of the 20th century, and summarizes its general trends: the back flow of urban population to the countryside made the rural society tend to have the same social structure as the urban society but a more serious situation of aging; Land adjustment promoted the scaled development of agriculture, while the prosperity of small-and medium-sized enterprises promoted the economic vitality of the countryside, in particular the growth of tourism, service and real estate; The demographic and industrial changes shaped a new rural territory, with its spatial organization being characterized by the concentration of employment, the dispersion of residence, and the hierarchization of services and its function being transformed from agricultural production to the integration of residence, tourism, environmental protection and landscape heritage. It argues that rural renaissance and restructuring implies the fundamental reconfiguration of the productive elements of people, industry and land and relies on an open market environment, a fair institutional environment, and a positive governmental intervention, with due attention to the role of small towns and small-and medium-sized cities. All these can serve as useful reference for the rural revitalization in China.

**Keywords:** Rural France; Rural Renaissance; Rural Development; Rural Revitalization; Beautiful Countryside Construction

**Citation:** FAN D, LIU J. Rural renaissance and rural restructuring in France after World War II[J]. *Urban planning international*, 2019(3): 87-95, 108. DOI: 10.22217/upi.2018.189.

### **The Reference Significance of the Space Form of Hutong to the Opening of the Residential Area**

*Liu Qiaoran, Zhao Ming, Xu Fang*

**Abstract:** Hutong can be seen as a block area formed by government planning and spontaneous transformation during more than two thousand years. Although there are many problems, it still has unique vitality. Hutong has a hierarchical network of flexible and diversified forms of traffic organization, and has the corresponding hierarchical space. This space form has a systematic planning system and an empirical openness and has great inspiration for practicing the open policy of residential area advocated. This paper focuses on the interpretation of the opening and closing of the residential area, points out that the opening of the residential area is not only a dismantling of the wall, but a spatial reorganization. It analyzes how the Hutong can meet the needs of the residents' traffic and communication through the establishment of the road system and the space of activity. At last, it puts forward the strategy of integrating the Hutong spatial form and the modern residential area advantages.

**Keywords:** Hutong; Open Residential Areas; Enclosed Residential Areas; Space Form; Block System

**Citation:** LIU Q, ZHAO M, XU F. The reference significance of the space form of hutong to the opening of the residential area[J]. *Urban planning international*, 2019(3): 96-102. DOI: 10.22217/upi.2017.401.

## **A Study on Comprehensive Assessment System of Waterfront Edge in New York City and Its Implications in China**

*Zhou Guangkun, Zhuang Qing*

**Abstract:** Since entering the 21st Century, the waterfront area has become an increasingly important resource for urban development. How to effectively guide the construction of waterfront area, and how to effectively supervise the construction quality, these two issues are important for many cities. This paper studies the experience of the comprehensive assessment of the waterfront area in New York City, and analyzes its overall process, evaluation scope, assessment mechanism, assessment index, and assessment certification. After in-depth analysis and with referring to the actual situation in China, this paper puts forward countermeasures for China's comprehensive management of waterfront area: (1) establish integrated waterfront spatial classification system; (2) promote the transformation of fine management of waterfront construction; (3) build scientific and technical assessment framework; (4) create dynamic certification of waterfront construction quality.

**Keywords:** New York; Waterfront Area; Comprehensive Assessment; Indicator Framework; Refined Management

**Citation:** ZHOU G, ZHUANG Q. A study on comprehensive assessment system of waterfront edge in New York City and its implications in China[J]. *Urban planning international*, 2019(3): 103-108. DOI: 10.22217/upi.2017.577.

## **Discussions on Health Impact Assessment and Its Application in Urban Planning: Case Study of San Francisco's Eastern Neighborhoods Community**

*Ding Guosheng, Huang Yekun, Zeng Kejing*

**Abstract:** At the background of severe public health challenges and the policy of Building Healthy China, how to integrate the concept of health into urban planning is one of the frontier issues in the planning circle. Health impact assessment on urban planning has been demonstrated as an innovative and practical way to help planners realize the goal of integrating health into urban planning. The importance of applying health impact assessment on urban planning has been recognized, but the related research work in China is still in the exploratory stage, with lots of key issues to be further studied. This paper firstly theoretically illustrates the connotation of health impact assessment and its application on urban planning. Then, it carries out the case study of Health Impact Assessment on the Eastern Neighborhood Community Plans, which is a classic and has a reference value for China, to discuss some specific issues of health impact assessment on urban planning, such as goals, principles, procedures, process, tools and the mechanisms of assessment. On the basis of those observations, it further discusses how to invent the assessment technology and design the assessment mechanism, which are considered to be two key issues of health impact assessment on urban planning. Finally, some suggestions are proposed for developing health impact assessment on urban planning in China.

**Keywords:** Health Impact Assessment; Assessment Connotation; Assessment Technology; Assessment Mechanism; ENCHIA Practice

**Citation:** DING G, HUANG Y, ZENG K. Discussions on health impact assessment and its application in urban planning: case study of San Francisco's eastern neighborhoods community[J]. *Urban planning international*, 2019(3): 109-117. DOI: 10.22217/upi.2018.009.

## **Reference of Japan's Interest Measurement Theory to Urban and Rural Planning Implementation System in China**

*Wen Chaoxiang, He Yandong, Zhu Chasong*

**Abstract:** Through an in-depth analysis of the theory of interest measurement in Japanese civil law hermeneutics, this paper points out the real source of the “failure” caused by the neglect of interest measurement in China’s urban and rural planning implementation system, and puts forward the enlightenment towards urban and rural planning implementation system construction from three aspects: planning permission, planning law enforcement and planning transaction. As conclusion, the paper also proposes the following system construction strategies: formulating a planning implementation system to provide convenience services for the public; improving the ability of planning departments and public servants to actively administer; and paying attention to the “impact benefit clause” in legal norms.

**Keywords:** Interest Measurement Theory; Urban and Rural Planning; Implementation System; Planning Permission; Planning Law Enforcement; Planning Transaction

**Citation:** WEN C, HE Y, ZHU C. Reference of Japan’s interest measurement theory to urban and rural planning implementation system in China[J]. *Urban planning international*, 2019(3): 118-123. DOI: 10.22217/upi.2018.253.

## **Stage Feature and Regulation Mechanism for Country Parks in Hong Kong**

*Yan Kai, Shen Qingji*

**Abstract:** The development of country parks in Hong Kong has a great significance for the construction of urban green and ecological space in China. The formation, development and regulation of country parks is tightly connected with several versions of spatial planning and policies in Hong Kong. This paper attempts to analyze the features of country parks in different stages and its regulation mechanism. Firstly, this paper summarizes the development stages of country parks through probing the related urban planning and policies, further divides it into four stages, including the consulting research phase of 1945-1970, the large-scale construction phase of 1970-1980, the micro-growth and partial adjustment phase of 1980-2000, and using optimization and expansion planning phase after 2000. The influential dimensions encompasses spatial layout, function definition, morphology design and size definition. There are differences in influential dimension and influential intensification. Secondly, this paper summarizes the regulation mechanism from the dimensions of authority arrangement, law content and empowerment, and multi-stakeholder involvement. The aim of this paper is providing the insightful implication for regulation and policy-making of China’s urban green and ecological space.

**Keywords:** Country Park; Stage Feature; Regulation Mechanism; Planning and Policy; Hong Kong

**Citation:** YAN K, SHEN Q. Stage feature and regulation mechanism for country parks in Hong Kong[J]. *Urban planning international*, 2019(3): 124-131. DOI: 10.22217/upi.2017.289.



## **Experience and Enlightenment of Urban Design System Construction in Taipei**

*Jiang Tao, Jiang Mei*

**Abstract:** After three decades of the development, a relatively complete urban design system which lays equal stress on both technology and management has been built up by Taipei city government. Urban design guidelines and urban design reviews are two distinctive regulation tools in this system. After introducing the evolution of Taipei's urban design system, the paper elaborates these tools and shows their effectiveness with case of Xinyi District. Finally, the paper highlights three aspects of this system which are valuable for reference.

**Keywords:** Urban Design; System; Guideline; Review; Taipei

**Citation:** JIANG T, JIANG M. Experience and enlightenment of urban design system construction in Taipei[J]. Urban planning international, 2019(3): 132-141. DOI: 10.22217/upi.2017.270.

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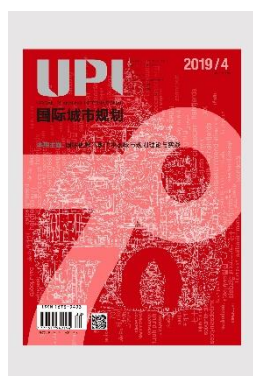
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## **An Analysis on Planning Paradigms and the Evolution of Urban Planning in China**

*Sun Shiwen*

**Abstract:** This paper reviews the major “paradigms” for urban planning around the world and classifies the planning in China into three paradigms: construction-oriented planning, development-oriented planning, and regulation-oriented planning. The contemporary urban planning system in China started with construction-oriented planning in the 1950s under the influence of the Soviet model, and this course was changed after China broke up with Russia. In the early stage of reform and opening up, urban planning system was reshaped with reference to development-oriented planning and was later mixed with regulation-oriented planning at the end of 1980s. Although the key features, contents, and methods in those three paradigms were all absorbed and played an important role in the rapid urbanisation of China, urban planning system is still construction-oriented at its core, notwithstanding the attempts and pilot programmes of urban spatial development strategic plan, territorial planning of cities and counties, and the integration of multi-modal planning. Based on the analysis on the evolution course of urban planning system in China and its functions under given political and socio-economic landscape, this paper reveals the institutions of urban planning in China in different times, its unique development path, as well as the root causes.

**Keywords:** Planning Paradigm; Construction-oriented Planning; Development-oriented Planning; Regulation-oriented Planning; Evolution of Urban Planning; China

**Citation:** SUN S. An analysis on planning paradigms and the evolution of urban planning in China[J]. *Urban planning international*, 2019(4): 1-7. DOI: 10.22217/upi.2019.305.

## **The Evolution of Thoughts on Urban and Rural Planning in China Since the Founding of the People's Republic of China in 1949**

*Zhang Jingxiang, Chen Hao, Wang Yutong*

**Abstract:** This paper employs one contextual framework and two main threads while unraveling the evolution of China's urban and rural planning thoughts since the founding of the People's Republic of China in 1949. The development of China's urban planning thoughts in the past seventy years can be divided into five stages, namely: urban planning as the tool for the spatial deployment of industries; urban planning under an ultra-leftist ideology; urban planning admits the science-based rationalistic methodology; urban planning in a growth-dictates-all environment; and urban planning in the circumstance of the national governance restructuring. The past 70 years saw urban planning thought in China evolved with many changes and certain constants: what changed is the role of urban-rural planning and the conception of its value, as well as the theories and techniques in urban-rural planning; whereas the pragmatic path remained a constant.

**Keywords:** Urban and Rural Planning; Social Thought; State Governance; Historical Evolution; The People's Republic of China

**Citation:** ZHANG J, CHEN H, WANG Y. The evolution of thoughts on urban and rural planning in China since the founding of the People's Republic of China in 1949[J]. *Urban planning international*, 2019(4): 8-15. DOI: 10.22217/upi.2019.262.

## **Development Stages, Planning Thoughts, and Practical Actions: Evolution of Modern Chinese Regional Planning Theories and Practices in an International Context**

*Luo Zhendong, Cui Gonghao, Qiao Yibo*

**Abstract:** Regional planning in China constitutes an integral part of the global history of regional planning. The evolution of Chinese regional planning theories and practices should be understood, interpreted, and compared in a broader, international context. As an important tool for regional governance, the approach to regional planning will inevitably bear characteristics that are distinctive to a specific country and time; whereas the dynamics in the evolution of regional planning theories and practices also comes from adapting to specific development stages in certain countries and regions. Over the last 70 years since the founding of the People's Republic of China, while being exposed to the influence of global theories and practices, China has seen its regional planning in constant adjustments to seek better alignment between the development stage, planning thought, and practical actions. Along with the continuous advancing of China's modernization and urbanization, the understanding of development stage gets clearer, the competition among different interest groups becomes increasingly tough, and the practical actions get more diversified. With that, China's grasp of trends and patterns in regional planning has been gradually improved. This paper aims to figure out the correlations between urbanization in China and in the world, especially in Western developed countries, to relate different stages to one another. Therefore, Chinese planning thought and practical actions over the past seven decades can be reviewed with a frame of reference, with which China's response to international trends in various stages can be evaluated. As conclusions, this paper establishes the correlations between development stages, planning thoughts, and practical actions. Furthermore, based on the judgment on China's urbanization trends, this paper identifies the directions for innovation on China's regional planning.

**Keywords:** Regional Planning; Development Stage; Planning Thought; Practical Action; China

**Citation:** LUO Z, CUI G, QIAO Y. Development stages, planning thoughts, and practical actions: evolution of modern Chinese regional planning theories and practices in an international context[J]. *Urban planning international*, 2019(4): 16-22. DOI: 10.22217/upi.2019.195.

## **Urban and Rural Land Use Planning Evolution in Modern China from the Perspective of Land Management System**

*Lin Jian, Zhao Bing, Liu Shiyi*

**Abstract:** As the carrier of all living and production activities, land is the basic object and land use is the essential content of a variety of planning. Land management system directly determines a series of significant issues such as the supply of urban and rural construction land, the land use efficiency, the allocation of land value appreciation, and so on. Therefore, it influences the philosophy and implementation of planning. In China, there are diverse plans of urban and rural land use managed by multiple agencies. In the early years after the foundation of the PRC, land was allocated by plans with no charge. After the Reform and Opening-Up, paid use of land and land market was introduced, followed up by the establishment of a land use planning system including territorial planning, urban and rural planning, and land use planning. Recently, exploration of building a unified territorial/spatial planning system is undergoing since the Third Plenary Session

of the 18th CPC Central Committee. The evolution of planning manifests the modernization of state governance system, from direct control of land by the state, to the decentralized management of development rights under the separation of land ownership and use rights, to the central-local two-layer management of land development rights in the context of protecting resources and environment, all the way to the unified management of land development rights under the Ecological Civilization. On the basis of reviewing the evolution of urban and rural land use planning in the past 70 years, this paper explores the reforms of the land management system with Chinese characteristics and their impacts on urban and rural land use planning. This paper explains the evolution path of urban and rural land use planning and interprets the transition of planning focus of “construction management—asset management—resource management—ecology management”, as well as the corresponding streamlining process of governments functions.

**Keywords:** Urban and Rural Land Use; Planning; Evolution; Land Management System; Land Development Rights; Territorial Space; China

**Citation:** LIN J, ZHAO B, LIU S. Urban and rural land use planning evolution in modern China from the perspective of land management system[J]. *Urban planning international*, 2019(4): 23-30. DOI: 10.22217/upi.2019.226.

### **Analysis of Evolution of Urban and Rural Land Use Planning System in Modern China from the Perspective of Ingestion and Originality**

*Zhao Bing, Lin Jian, Liu Shiyi*

**Abstract:** The urban and rural land use planning in modern China evolved by continually absorbing international planning theories and concepts based on the domestic practice of land management and planning. During the period of planned economy, China learned from the successful experience of the Soviet Union in social and economic development, as well as urban and rural land use planning. During the period of economic transformation, the land use planning system was influenced by foreign experience other than the Soviet Union. This paper reviews the impacts of learning from foreign countries on urban planning, land use planning, territorial planning, and major functional zoning planning at different times since the foundation of the PRC. It explains the evolution process of relevant planning through integrating foreign experience and domestic innovation, and eventually establishing a planning system with Chinese characteristics and adapt to national conditions. In the end, the paper attempts to put forward some enlightening suggestions for the ongoing territorial spatial planning reform.

**Keywords:** Urban and Rural Land Use; Planning; Evolution; International Perspective; Territorial Spatial Planning Reform; China

**Citation:** ZHAO B, LIN J, LIU S. Analysis of evolution of urban and rural land use planning system in modern China from the perspective of ingestion and originality[J]. *Urban planning international*, 2019(4): 31-36. DOI: 10.22217/upi.2019.227.

## **Evolution and Future Prospect of Urban Ecological Planning in Modern China**

*Shen Qingji, Peng Shanni, Ci Hai*

**Abstract:** The evolution of urban ecological planning in China since 1949 is divided into four periods: initial germination period, slow growth period, framework setting period, and all-round development period. Through reviewing the relationship between socio-economic environment and urban ecological planning, this paper concludes with the evolution features of urban ecological planning in China from both theoretical and practical perspectives, and analyzes the main problems in China's urban ecological planning. With a clear understanding of the evolution trends of ecological planning in China, five aspects are discussed, including adapting to the spatial planning reform; improving the serviceability of urban ecological planning; expanding the niche of urban ecological planning in multiple dimensions; exploring institutional innovations on urban ecological planning; and constructing a theoretical and practical system of urban ecological planning with Chinese characteristics. Thereby, an outlook for the future of urban ecological planning in China is developed and elaborated.

**Keywords:** Urban Ecological Planning in Modern China; Evolution Periods; Theoretical Evolution Features; Practical Evolution Features; Future Outlook

**Citation:** SHEN Q, PENG S, CI H. Evolution and future prospect of urban ecological planning in modern China[J]. *Urban planning international*, 2019(4): 37-48. DOI: 10.22217/upi.2019.327.

## **The Exploration and Development of New China's Urban Transportation Planning**

*Ma Lin*

**Abstract:** The modern urban transportation planning did not appear in China until the late 1970s. Through more than 40 years of study and practice, China continuously absorbed the theories and methods of social, economic, management and other disciplines in order to adapt to social requirements and urban growth. Gradually, it has formed a set of multi-disciplinary theories and techniques for planning, as well as a multi-level planning management system. In transportation planning field, studies and practices have been mutually promoting the evolution of each side. Domestic tests and overseas lessons have resulted in the advancement of urban transportation planning concepts and techniques. This paper is intended to review the development process of urban transportation planning in China, as well as to analyze the main factors that have impacts, such as personnel training and technical development. This paper will reemphasize four issues related to the uncertainty of future urban transportation development and the diverse implementations and management of urban transportation planning.

**Keywords:** Urban Transportation; Urban Comprehensive Transportation System; Urban Comprehensive Transportation Planning; The Compilation of Urban Transportation Plan; Historic Review; China

**Citation:** MA L. The exploration and development of new China's urban transportation planning[J]. *Urban planning international*, 2019(4): 49-53, 71. DOI: 10.22217/upi.2019.199.

## Theory and Practice of the Science of Human Settlements in China

Mao Qizhi

**Abstract:** The science of human settlements is the science that studies the relationship and development between human settlements and their environments. China's theory and practice of the science of human settlements are one of the landmark achievements of the 40th anniversary of reform and opening up. The paper is divided into two parts, the theory and the practice. Part one outlines the origin and development of the science of human settlements in China and its core contents. As its founder of the science of human settlements in China, Wu Liangyong developed and integrated the methods of architecture, urban and rural planning, and landscape architecture. As a result, he provided a theoretical framework for the development of human settlements in urban and rural area as spatially ordered and environment suitable for living. Part two describes the various practice activities around the science of human settlements, from the "Habitat I" to the "Habitat III", the conferences of the United Nations, from the Habitat Agenda to the New Urban Agenda, the Habitat Movement at home and abroad have closely exchanged and promoted interaction. Under the supervision of Wu Liangyong, the research team of Tsinghua University has adhered to problem-oriented and from the reality of China in the practice. Wu Liangyong with his team has looked consciously for a new "paradigm" for the development of human settlements in urban-rural areas and continued to promote the development of human settlements of progress.

**Keywords:** Human Settlement; Ekistics; The Science of Human Settlements; UN-Habitat; New Urban Agenda; Wu Liangyong

**Citation:** MAO Q. Theory and practice of the science of human settlements in China[J]. Urban planning international, 2019(4): 54-63. DOI: 10.22217/upi.2019.198.

## From "Passive Receiver" to "Co-creator": A Developing Framework of Smart City Theory from the Evolving View

Chu Jinhua

**Abstract:** Taking into account the diversification, ambiguous context and lack of knowledge of citizen participation in smart theory research area, this paper analyzes the evolution of typical attitudes on smart city theory from the view of "roles the citizens play during the smart city construction". Then, it puts forward an integrative framework of smart city theory based on the "ICT maturity-urban development needs-tasks" dimension, based on which it proposes that (1) human recognition is the source of driving force for smart city construction; (2) smart city is a system of systems; (3) smart city construction is a continuously deepening continuum; (4) the construction contents should experience three stages which include infrastructure construction, institution transformation and citizen innovation; (5) the market-based business model is a strong support for the healthy and sustainable development of smart cities. Next, according to the above evolution analysis and research proposals, this paper advances the developing directions as well as puts forward some related suggestions: (1) the researchers should keep an active contact with the practitioners in order to promote the theories' guiding roles on practices; (2) innovative research perspective, constructing a smart city theoretical system according to the "bottom-up" construction model; (3) innovate the method of acquiring data; (4) focus on the citizen participation field; (5) pay more attention to innovate the business models of smart cities construction.

**Keywords:** Smart City; Data; Citizen Participation; Bottom-Up; Citizen-sourcing

**Citation:** CHU J. From “passive receiver” to “co-creator”: a developing framework of smart city theory from the evolving view[J]. *Urban planning international*, 2019(4): 64-71. DOI: 10.22217/upi.2018.237.

### **Research Progress and Prospects of Street Connectivity Measurements: A Study on How to Popularize Block System in China from the Prospective of Regulations**

*Fang Bin, Shi Fei*

**Abstract:** The popularization of block system in China was aimed at improving the street connectivity, with the method of breaking through the branches of streets. Grasping the overall situation of measurements is the precondition of improving the street connectivity in the process of construction. In order to fully understand the research progress of the street connectivity worldwide, this paper summarizes the frequently-used measurements of evaluating the street connectivity by sorting out and analyzing relevant literatures. We also point out some existing shortcomings and outlook the future research trend. Block section measurement is considered as an adaptive and feasible way to help popularize block system. Following the original intention of popularizing block system and realizing the difficulties of practice, this paper emphasizes the necessity of introducing related regulations and setting a threshold value. Two blocks of Nanjing, Jiangsu Province, are selected to verify the feasibility of the block section measurement. This paper further discusses how to effectively guarantee the connectivity of block system by using a threshold value in the process of transformation and construction.

**Keywords:** Street Connectivity; Block System; Measurements; Block Section; Regulation Establishment; Threshold Value

**Citation:** FANG B, SHI F. Research progress and prospects of street connectivity measurements: a study on how to popularize block system in China from the prospective of regulations[J]. *Urban planning international*, 2019(4): 72-78. DOI: 10.22217/upi.2017.544.

### **Crisis Response: The Third Perspective to Understand China’s Urbanization and Planning**

*Yang Yuzhen*

**Abstract:** It is necessary to examine China’s urban transition within the context of the changing and dynamic relationships between the developing nation states and the globe, China’s urban and rural evolution through a long historical period. *China’s Urban Transition* by John Friedmann and *Reviewing China’s Three Decades of Urban Planning* by Huang Luxin et al. are critically reviewed and discussed. It is argued and explained carefully that it is a critical method through analyzing the economic competition and crisis to understand the development of Chinese cities and their paths. It is also argued that China is now transforming into an over-accumulation society, which will clearly lead to a new planning paradigm. The theoretical and practical innovations are initiative measures to deal with the crisis through the transition process.

**Keywords:** John Friedmann; Huang Luxin; Crisis and China’s Urban Planning; Innovation of Planning Theory; China’s Urbanization



**Citation:** YANG Y. Crisis response: the third perspective to understand China's urbanization and planning[J]. Urban planning international, 2019(4): 79-85. DOI: 10.22217/upi.2017.351.

### **Research on British Planning Evaluation System and Its Reference to China**

*Wang Jun, Chen Xi*

**Abstract:** Along with the adoption of planning evaluation in China, research on the evaluation of theoretical methods and implementation mechanisms has received more and more attention. This paper systematically introduces the evolution of the British planning evaluation system, and analyzes the characteristics of the ideas and methods adopted at different stages. Through the study of the British planning evaluation system, this paper points out that it has obvious characteristics in the establishment and function of the evaluation institution, the power and responsibility of the evaluation subject, and in the field of typical evaluation guidance policy documents. It has significant reference for the comprehensive establishment of the planning evaluation system in China. Based on these discussions, this paper proposes that China should take efforts in terms of responsibility mechanism, technical guidance, guarantee framework, and use of results to establish a sound planning evaluation system.

**Keywords:** The UK; Planning Evaluation; Systematic Research; Evaluation Institution; Evaluation Subject; Evaluation Guidance

**Citation:** WANG J, CHEN X. Research on British planning evaluation system and its reference to China[J]. Urban planning international, 2019(4): 86-91. DOI: 10.22217/upi.2017.228.

### **View Planning Management Between Mountain and Sea of Coastal Cities: The Experience of Japan**

*Liu Quan, Pan Yi, Lai Yani*

**Abstract:** View planning problem between mountain and sea is very important for shaping the seaside space characteristics of coastal cities. In contemporary urban development process, seaside urban landscape is facing various challenges such as view barriers, landscape chaos, reduction of green space, and exposure of bare cliffs. As an island country, Japan has accumulated rich experience on view planning management between mountain and sea. Based on the cases of Japanese cities, this study summarizes the elements and main types of views. Moreover, it investigates view planning methods, which have great potential to be applied in the Chinese landscape planning practices. There are five main points regarding the view planning methods between mountain and sea as follows: range defining according to the boundary of view object, subdivision control according to view distance, building height control for view conservation, construction control combining with landscape planning, and implementation via the action plan. These methods are of great significance to the research and practical applications in China.

**Keywords:** Coastal City; Urban Landscape; View Planning; Urban Design; Planning Management

**Citation:** LIU Q, PAN Y, LAI Y. View planning management between mountain and sea of coastal cities: the experience of Japan[J]. Urban planning international, 2019(4): 92-101. DOI: 10.22217/upi.2016.416.

## **People-Place Emotion Mapping as the Instrumental Tool for Decision-making and Approach to Public Participation in Planning: An Introduction**

*Wang Yang, Yu Li*

**Abstract:** Research on people-place emotion grows in recent years. One noticeable point is the mapping research carried out by some western researchers. Through operationalising the concept of people-place emotion, psychological data collected from social surveys are transformed into spatial attributes which attach to the geographic information of places and displayed on maps by conducting GIS-based analysis. In this way, the practical applications of people-place emotion in the field of planning, such as land-use planning and natural resource management which have been frequently discussed, win an opportunity to move beyond hypothetical. Meanwhile, through using PPGIS survey technique, the mapping research also provides us an alternative perspective to realising its applications in public participation in planning-related decision-making. Finally, future research of people-place emotion mapping in terms of its theories and applications, and particularly its crosspollination with public participation is also proposed.

**Keywords:** People-Place Emotion; Mapping; Planning; Decision-making; Public Participation

**Citation:** WANG Y, YU L. People-place emotion mapping as the instrumental tool for decision-making and approach to public participation in planning: an introduction[J]. *Urban planning international*, 2019(4): 102-110. DOI: 10.22217/upi.2017.091.

## **Towards Continuing Professional Development of Urban Design: The Experience of Urban Design London and Its Reference to China**

*Wang Yaowu, Xu Linfeng, Dai Donghui*

**Abstract:** Urban Design London (UDL) had been effective and was playing a significant role in increasing practitioner skills around London during the latest 15 years. Under the background of skills deficit at the beginning of the 21st century in Britain before the UDL founded, the paper finds that the skills gap had accelerated the growth of Continuing Professional Development on urban design. It also analyzes the operating mode, working framework, and service content and form of UDL. At the end, this paper summarizes UDL's experience in four aspects including the government-led and user priority "government-user-industry-university-research" collaborative model, the timely and effective content, the continual improving process delivered by monitoring and evaluating, and the training form based on extensive communication and consensus. The experience of UDL provides reference to continuing professional development of urban design in the "new normal".

**Keywords:** Urban Design; Continuing Professional Development; Training; Urban Design London; Operation Mechanism

**Citation:** WANG Y, XU L, DAI D. Towards continuing professional development of urban design: the experience of urban design London and its reference to China[J]. *Urban planning international*, 2019(4): 111-119. DOI: 10.22217/upi.2017.296.

## **The Intervention of Semi-formal Institution in Britain's Urban Design Process: An Empirical Study of Design Governance Based on CAFE**

*Zhu He, Tang Yan*

**Abstract:** As a merging concept of urban design, design governance has been proposed in Britain and used to guide the development of many urban design practices in recent years. Taking governments as the core, the idea encourages establishing a multi-role decision-making and action system involving experts, investors, citizen and other parts, so as to optimize the process of urban design implementation through formal and informal governance tools. This paper takes CAFE, a British non-departmental public body, as an empirical example, to review its involvement and contribution in the field of urban design with government's support over the past 20 years. Through analyzing the organization structure, work duties, design governance toolbox, and sample practical cases of CAFE, it reveals the influence and experience of CAFE on urban design operation in Britain in order to provide a reference for government and relevant researchers, and considerations for China's formal and informal urban design institutional reform in the future.

**Keywords:** Urban Design Operation; Design Governance; Informal Institution; Non-departmental Public Body; Britain

**Citation:** ZHU H, TANG Y. The intervention of semi-formal institution in Britain's urban design process: an empirical study of design governance based on CAFE[J]. *Urban planning international*, 2019(4): 120-126. DOI: 10.22217/upi.2018.156.

## **Development Process and Mechanism of Transnational Cultural Consumption Space in World City: Case Study on Kreuzberg in Berlin**

*Tan Peishan, Huang Xu, Xue Desheng*

**Abstract:** "Culture" could act as an important driving force of World City. Along with the intense competition of urban culture, various kinds of cultural space have emerged in cities. Bottom-up transnational cultural consumption space performs a spatial representation of unique urban culture. Based on the case study of the "poor but sexy" district, Kreuzberg in Berlin, this paper analyses the process and mechanism of cultural consumption space with diverse transnational subculture. Although the formulation of transnational culture in Kreuzberg is historically contingent to a certain extent, the coupling of the transitions of the economy in Berlin and the post-modern cultural consumption since the 21st century somehow produce the transnational cultural consumption space inevitably. The global consumer trend emphasizing personal cultural experience guides the spatial development in Kreuzberg. Involving multi-level governments, domestic (or oversea) investors and local neighborhoods, the coordination of stakeholders stimulates the economic, cultural and social vitality in Kreuzberg. It therefore has become an urban cultural hotspot, serving Berlin – as a World Creative City. This research enriches the understanding of the cultural dynamic for world cities, and can also be a reference for the sustainable development of transnational-or translocal-cultural neighborhoods.

**Keywords:** Transnational Culture; Subculture; Cultural Consumption Space; Community Participation; Berlin; World City

**Citation:** TAN P, HUANG X, XUE D. Development process and mechanism of transnational cultural consumption space in world city: case study on Kreuzberg in Berlin[J]. *Urban planning*

international, 2019(4): 127-133. DOI: 10.22217/upi.2017.170.

### **Exploring the Path Based on Poverty Reduction and Inclusive Growth: A Case Study on Regional Development Corridor Strategy, Mozambique**

*Liu Cheng*

**Abstract:** Poverty reduction is an important socio-economic problem in front of the world. It is even more prominent in the East African country Mozambique, one of the poorest countries in the world. Although Mozambique has achieved sustained high-speed economic growth by continuously attracting external investment during the past 20 years, this model is out of step with local economic growth and does not bring about universally fair and sustainable residents' income growth opportunities. In order to reduce poverty and achieve inclusive growth, Mozambique has established several regional development corridors based on major domestic transportation corridors as a macro-economic development strategy at the spatial level in order to maximize the linkage between external investment and local economies, to ensure that the corridor region has sufficient capabilities and opportunities to share the fruits of economic growth. This paper conducts in-depth analysis and research on the status quo of poverty reduction in Mozambique and the Regional Development Corridor Strategy. It is of certain reference value for China's academia to understand Mozambique's regional development, and also for further academic and practical cooperation between China and Mozambique under the broad prospect of China-Africa friendly collaboration.

**Keywords:** Poverty Reduction; Inclusive Growth; Regional Development Corridor; Special Economic Zone; Mozambique

**Citation:** LIU C. Exploring the path based on poverty reduction and inclusive growth: a case study on regional development corridor strategy, Mozambique[J]. Urban planning international, 2019(4): 134-141. DOI: 10.22217/upi.2018.221.

# EXCLUSIVE

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LENG H, ZHENG C, LU Y. / Walkability of public space in winter cities from a perspective of travelling to physical activity by elder people

YANG J, WU H, ZHENG Y. / Research on Characteristics and interactive mechanism of street walkability through multi-source big data: Nanjing Central District as a case study

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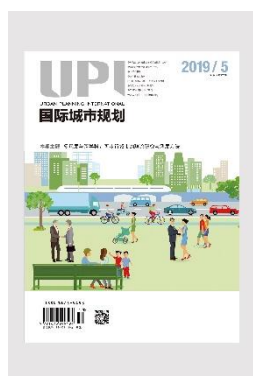
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## **Paradigm Shift from West to Soviet: Investigation and Enlightenment on the Origin of Chinese Modern Urban Planning**

*Xu Hao, Li Baihao*

**Abstract:** International urban planning theory in the 20th century has remarkable characteristics of cross-cultural communication. After 1949, the “Soviet Model” of urban planning came to China through top-down promotion. At the same time, the “European and American Experience” of modern urban planning did not be withdrawn. By collecting historical texts and archives, this paper reveals the opposition of planning theory and practice between the Soviet Model and the European and American Experience from 1949 to 1952, and investigates the deep logic of paradigm transformation. Looking back on this period of history can reflect the initial settings of many levels of modern urban planning in China, and it is easier to understand the internal factors of success or failure of today’s urban planning. This subversive paradigm shift and its rich historical information can also provide the historical dimension of concern for the current land and space planning reform.

**Keywords:** Chinese Modern Urban Planning; Soviet Model; European and American Experience; Paradigm Shift; Planning History

**Citation:** XU H, LI B. Paradigm shift from West to Soviet: investigation and enlightenment on the origin of Chinese modern urban planning[J]. *Urban planning international*, 2019(5): 1-8. DOI: 10.22217/upi.2019.449.

## **Designing Walkable Cities and Neighborhoods in the Era of Urban Big Data**

*Guan Chenghe, Michael Keith, Andy Hong*

**Abstract:** In this paper, we discuss walkable cities from the perspective of urban planning and design in the era of digitalization and urban big data. We start with a brief review on historical walkable cities schemes; followed by a deliberation on what a walkable city is and what the spatial elements of a walkable city are; and a discussion on the emerging themes and empirical methods to measure the spatial and urban design features of a walkable city. The first part of this paper looks at key urban design propositions and how they were proposed to promote walkability. The second part of this paper discusses the concept of walkability, which is fundamental to designing a walkable city. We emphasize both the physical (walkways, adjacent uses, space) and the perceived aspects (safety, comfort, enjoyment), and then we look at the variety of spatial elements constituting a walkable city. The third part of this paper looks at the emerging themes for designing walkable cities and neighborhoods. We discuss the application of urban big data enabled by growing computational powers and related empirical methods and interdisciplinary approaches including spatial planning, urban design, urban ecology, and public health. This paper aims to provide a holistic approach toward understanding of urban design and walkability, re-evaluate the spatial elements to build walkable cities, and discuss future policy interventions.

**Keywords:** Walkable Cities; Walkable Neighborhoods; Spatial Temporal Scale and Indicators; Computational Power; Urban Big Data

**Citation:** GUAN C, KEITH M, HONG A. Designing walkable cities and neighborhoods in the era of urban big data[J]. *Urban planning international*, 2019(5): 9-15. DOI: 10.22217/upi.2019.389.

### **Correlation, Mechanism, Control: Research on High-density Urban Pedestrian Suitability Environment Construction Based on Micro-climate Assessment**

*Simon Marvin, Yang Junyan, Zheng Yi, Jonathan Rutherford*

**Abstract:** Walkable urban environment not only contains continuous, beautiful and pleasant walking space, but also has a profound impact on people's walking experience in the city due to the appropriate temperature and wind speed. In recent years, under the influence of global climate change, unsuited urban microclimate including too hot or too cold weather or strong wind has seriously affected outdoor activities in European cities with high density, such as London, Paris, Brussels, Barcelona, which forced people to reduce or avoid activities including walking in related urban spaces with harsh microclimate environment. Simultaneously, a large number of existing studies in walkable research field are focusing on the analysis of the physical elements in the urban pedestrian environment, such as landscape, pedestrian path width, recreation facilities, and their internal mechanisms. However, there are few studies on the urban microclimate elements, such as temperature and wind speed, which affect people's physiological feelings in outdoor activities. Therefore, it is worthwhile to explore whether there is a microclimate governance logic in the specific discussion and measurement of people's walking experience and the improvement of walking suitability in cities. Based on this issue, this paper analyses the interaction between urban material space and urban microclimate, and summarizes the correlation mechanism between urban material environment and microclimate. Then, pedestrian-scaled and pedestrian-oriented urban microclimate control strategy and governance logic are proposed to improve pedestrians' physiological feelings during the walking process in high-density urban built environment. In addition, this is to optimize walking suitability in high-density cities and to promote the development of human-oriented city from another view.

**Keywords:** Walkability; Urban Microclimate; High-density Built Environment; Urban Planning; Control Strategy

**Citation:** MARVIN S, YANG J, ZHENG Y, et al. Correlation, mechanism, control: research on high-density urban pedestrian suitability environment construction based on micro-climate assessment[J]. Urban planning international, 2019(5): 16-26. DOI: 10.22217/upi.2019.387

### **Walkability of Public Space in Winter Cities from a Perspective of Travelling to Physical Activity by Elder People**

*Leng Hong, Zheng Chunyu, Lu Yuwen*

**Abstract:** As China gradually enters an aging society, health issues of elder people grab the attention of whole society. Doing adequate physical activity is beneficial for health of elder people. Better accessibility could increase the utilization of public space, encourage urban residents to participate in physical activity. However, the climate characteristic is a domain factor for winter cities. Although there is a growing number of researches concerning elder people and walkability. However, knowledge gap regarding to climate context exists, especially in winter climate characteristics in cold region. This paper takes Harbin, a typical winter city of China, as research site, analyzes the current situation of public space walkability according to the physical activity behaviors and travel behaviors of elder people. Based on it, combined with the experience of cold cities in North America such as Ottawa and with the walkability status of winter cities in China, strategies including

reallocating spatial distribution of public spaces, constructing comprehensive walking system and creating enjoyable walking environment to improve and optimize the walkability of urban public space are proposed.

**Keywords:** Walkability; Winter City; Elder People; Public Space; Travel to Physical Activity

**Citation:** LENG H, ZHENG C, LU Y. Walkability of public space in winter cities from a perspective of travelling to physical activity by elder people[J]. *Urban planning international*, 2019(5): 27-32. DOI: 10.22217/upi.2019.396.

### **Research on Characteristics and Interactive Mechanism of Street Walkability Through Multi-source Big Data: Nanjing Central District as a Case Study**

*Yang Junyan, Wu Hao, Zheng Yi*

**Abstract:** Street is believed as one of most important public spaces in a city, which carries the commuting, shopping, recreation, and communication functions of citizens' daily life. However, during the rapid urban expansions, street spaces in cities have also encountered many troubles, such as decreased street space quality, diminished suitability for street-walking, insufficient street security, and low street vitality. Therefore, how to enhance the street walkability through human scale and how to build a healthy and sustainable city development model become core arguments in the relevant fields. Most of the previous research usually focuses on the transportation aspect of streets, addressing their accessibility and permeability, whereas the human-scale aspects of street space quality has been largely ignored. Therefore, this article selects street walkability as the research object, looking into a city's central district area in specific. A multi-source database is established, based on urban 3D morphology big data, POIs data, and street image data for the quantitative analysis of this research. The results depict a fan-shaped circular distribution pattern for the street walkability—measured into accessibility, convenience, comfort, and safety—in the central area of Nanjing city, consisting of a multi-core connected central area and scattered fringe areas. In addition, the interactive mechanism between street walkability and the influencers, such as urban 3D morphology, natural environment, landscape, and urban function distribution and POIs is found. Based on that, strategies with an aim of walkability optimization are further provided.

**Keywords:** Street Space; Street Walkability; Big Data; Quantitative Research; Urban Design

**Citation:** YANG J, WU H, ZHENG Y. Research on Characteristics and interactive mechanism of street walkability through multi-source big data: Nanjing Central District as a case study[J]. *Urban planning international*, 2019(5): 33-42. DOI: 10.22217/upi.2019.388.

### **Improvement of Walk Score from the Perspective of Public Health: Jing'an District of Shanghai as a Case Study**

*Gu Hao, Zhou Kaichen, Wang Lan*

**Abstract:** Walkability presents the level of pedestrian-friendliness in a city, which is a significant aspect in healthy city planning. Walk score is one of the most popular indicators to measure walkability nowadays. With a consideration of human health, this paper explores a method to improve the measurement of walk score from both environmental and social aspects. It is proposed



that the impact of air pollution and population configuration on walkability should be considered. This paper proposes adding traffic pollution, population density and population age structure as key variables in the calculation of walk score. Based on this revision of methodology, Jing'an District of Shanghai is chosen as the study site to measure walk score for its road system. The paper compares the results of the original and proposed calculation methods. Through discovering the necessity and significance of the new method, this paper analyzes walkability of streets in order to promote physical activity and public health.

**Keywords:** Walkability; Walk Score; Traffic Pollution; Population Configuration; Public Health

**Citation:** GU H, ZHOU K, WANG L. Improvement of walk score from the perspective of public health: Jing'an District of Shanghai as a case study[J]. *Urban planning international*, 2019(5): 43-49. DOI: 10.22217/upi.2019.382.

### **The Internal Logic of Space Production in China's Development Zones from the Perspective of New Marxism**

*Li Kai, Wang Kai*

**Abstract:** Based on new Marxist spatial production and capital three cycles theory, the article puts forward critical thinking under the Chinese context. Combined with the actual development history of Beijing Economic-Technological Development Area, it empirically analyzes the three-stage cycle of industrial production, built environmental production, science and technology production in the development zone. From the interactive game relationship between the central and local governments, the government and the market, the theoretical analysis framework of space production in China's development zones is proposed. In the "second half" of urbanization, which is gradually transformed from incremental development to stock update, the interest game of the central government, local governments, capital markets and original rights holders in the process of space redevelopment in the development zone will be more complicated. How to better coordinate the land benefit distribution pattern and reconstruct the spatial order of the development zone by the planning and governance system is the key to achieve efficient, orderly and innovative development of the development zone in the future.

**Keywords:** Development Zone; New Marxism; Spatial Production; Capital Three Cycles Theory; Beijing Economic-Technological Development Area

**Citation:** LI K, WANG K. The internal logic of space production in China's Development Zones from the Perspective of New Marxism[J]. *Urban planning international*, 2019(5): 50-58. DOI: 10.22217/upi.2019.285.

### **Discussions on the Dilemmas, Causes and Conservation Suggestions of Rural Landscape in China Based on the Field Studies**

*Zhang Li, Wang Lijuan, Li Renxi*

**Abstract:** Rural landscape conservation is one important issue of Chinese Rural Revitalization strategy, but fast urbanization has affected rural landscapes in the last four decades. This paper, based on the field works in 480 villages of 13 provinces and many local villages in the last few years

in China and abroad, analyzes the landscape conservation challenges of regional characteristics, spatial landscape, agricultural context and social cultural landscapes, and advances that rural landscape is facing forces of diversities disappearing, architecture-urbanization, built-up landscape-disordering and artificializing, agricultural landscape-deecologizing and de-countrysiding and rural community destructuring. Some genetic factors are explored including urban and industry culture invading, improper government intervening, shortage of rural value cognition, lack of public participation and lagging of rural theory. Finally, some conservation agendas, mainly based on Korean, Japanese and European experience, are put forward including reconstructing cultural confidence, fusion of the time and the past, emphasizing villagers dominant role, playing social organizations' role, reuniting scattered resources, supporting systematically, being based on national conditions, legislating, strengthen theoretical studies and propping up rural landscape maintaining.

**Keywords:** Chinese Countryside; Landscape Dilemmas; Analysis of Causations; Legislation; Conservation Suggestions

**Citation:** ZHANG L, WANG L, LI R. Discussions on the dilemmas, causes and conservation suggestions of rural landscape in China based on the field studies[J]. *Urban planning international*, 2019(5): 59-68. DOI: 10.22217/upi.2018.408.

### **An Overview of the School District Pattern Formation in the US with Its Planning Enlightenment to China**

*Bi Bo, Lin Wenqi, Xu Junping*

**Abstract:** Considering the criteria of school districting in China's school district system reform, it is necessary to study how a school district pattern formed from the perspective of geography. Taking the US as example, this paper briefly describes the prototype of American school district, the expansion and consolidation of school districts since the 18th century, and the characteristics of contemporary system with its national pattern. It summarizes the driving forces forming American school district pattern from four aspects: property taxation, school system reform, population distribution and the history of racial segregation. It is concluded that American school district system originated from the tradition of bottom-up local autonomy, not a top-down product of state system. The formation of the school district pattern is a political geographical process under the decentralized system, rather than an administrative division, reflecting the pattern of socio-economic segregation simultaneously. Except the racial segregation factor, the dominant role of scale economy based on property taxation is also reflected. In terms of China, planning study needs to extend discussions at the policy level to clarify the connotation of school district and adapt it to local conditions, and to demonstrate the feasibility of school district construction comprehensively.

**Keywords:** School District; Pattern; Decentralization; Bottom-Up; The US

**Citation:** BI B, LIN W, XU J. An overview of the school district pattern formation in the US with its planning enlightenment to China[J]. *Urban planning international*, 2019(5): 69-76. DOI: 10.22217/upi.2017.344.

## **German Housing Rental System and Its Enlightenment to the Cultivation of Housing Rental Market in China**

*Wang Yang*

**Abstract:** The German rental housing market is mature and with perfect systems. Relying on market mechanism, the rent is set by “Rent Mirror” which can reflect the regional rents level, and the rent increases is strictly controlled according to laws and regulations around “Rent Mirror”. Based on win-win situation for both tenant and landlord, rental regulations are stipulated clearly and specifically to details on “duration of contracts”, “justified reasons for tenant eviction”, “eviction notification requirements”, “deposit requirements”, etc. The related systems such as “household registration”, “finance systems”, and “social housing systems”, ensure the rights of tenants and private householders equally, make renting and purchasing a house have their respective advantages. The learning from German rental systems is valuable to the development of Chinese housing rental market. Aiming for balance between rent and sale, the first step is to decouple private household property rights from household registration and social welfare, and make equal rights for living in rental or purchased home; secondly, rent control tools should be created to stabilize the rent increases and the rental return, and to promote financial institutions obtain credit funds profit from rental sector; thirdly, in order to refine the management of rental sector, related laws and regulations should be improved.

**Keywords:** Germany; Housing Rental System; Rent Control; Equal Rights for Living in Rental or Purchased Home; Balance Between Housing Rent and Sale

**Citation:** WANG Y. German housing rental system and its enlightenment to the cultivation of housing rental market in China[J]. *Urban planning international*, 2019(5): 77-85. DOI: 10.22217/upi.2018.373.

## **Coexistence and Conflict Between Archaeological Site Preservation and City Development: The Study of Rome Monumental Zone’s 100-Year History of Preservation**

*Du Qian*

**Abstract:** The archaeological site is extremely fragile in the face of fast urbanization. How to protect the archaeological site during the urbanization is not only an issue for China nowadays, but also a problem for Western countries before. The preservation of the “Archaeological Zone” in Rome began since the early 19th century. The conservation zone was officially settled in the late 19th century but fell into fragmentation due to the impact of the two world wars and urbanization. This process was alleviated since the second half of the 20th century. The study case fully embodies the conflict between archaeological site protection and city development, which can provide China’s current site protection planning with great value.

**Keywords:** Archaeological Site; Urbanization; Planning of Conservation; Conservation and Use of Archaeological Site; Rome

**Citation:** DU Q. Coexistence and conflict between archaeological site preservation and city development: the study of Rome Monumental Zone’s 100-year history of preservation[J]. *Urban planning international*, 2019(5): 86-93. DOI: 10.22217/upi.2017.571.

## **Review and Prospect of International Common Development Indicator Framework**

*Huang Jingnan, Ao Ningqian, Xie Yuhang*

**Abstract:** Development index has been used more widely in the fields of environmental quality, city development, social justice and progress, etc. The construction of indicator system reflects not only the integrity of indicator elements, but also their interactions and the dynamic process. Different indicator framework has various effects on evaluation results. This paper introduces five popular development indicator frameworks including pressure-state-response, issue-or theme-based framework, capital-accounting based framework, stocks and flows and human wellbeing, including their background, generation process, content, applicable condition and problems. The paper also concludes the general trends of development indicator evolution, including increasing interest in developing composite indices, core indicators, goal-oriented indicators, and emphasis on performance indicators and more bottom up approaches. Finally, the enlightenment to China's urban planning is proposed.

**Keywords:** PSR; DPSIR; Human Well-being; Sustainable Development; Indicator System

**Citation:** HUANG J, AO N, XIE Y. Review and prospect of international common development indicator framework[J]. *Urban planning international*, 2019(5): 94-101. DOI: 10.22217/upi.2017.290.

## **Functional Integration and Strategic Planning: A Review of Studies on High-speed Rail Station and Urban Development**

*Yang Yuelong, Han Sunsheng*

**Abstract:** In parallel with the rapid development of High-speed Rail networks around the world, High-speed Rail stations have begun to play an increasingly active role in cities. Experiences from Europe, Japan and China demonstrate that High-speed Rail stations shape the land use, urban quality, economic development and spatial layout of cities where they sit. By emphasising functional integration and a participatory planning process, strategic planning helps maximize the positive influence of high-speed rail stations on urban development.

**Keywords:** High-speed Rail Station; Urban Development; Urban Spatial Change; Strategic Planning; Station Function

**Citation:** YANG Y, HAN S. Functional integration and strategic planning: a review of studies on high-speed rail station and urban development[J]. *Urban planning international*, 2019(5): 102-108. DOI: 10.22217/upi.2017.235.

## **From “5D” to “5D+N”: Research Published in English on the Factors Influencing TOD Performance**

*Xia Zhengwei, Zhang Ye*

**Abstract:** The “5D” indicators which were developed based on the impact of built environments on travel behavior in the US proposed by Cervero et al. have become an important basis in TOD (Transit-oriented Development) research and practice. As more studies on the evaluation of TOD performance have been carried out in more countries, we need to verify the applicability of “5D”

by the results of more empirical case studies, so as to better guide the construction and research of TOD. This paper systematically reviews the relevant research on TOD performance published in English. Using the social network analysis method and cluster analysis method, the built environment factors influencing the performance of TOD and their correlation characteristics have been identified. This paper proposes a “5D+N” framework including six dimensions and 37 indicators for TOD to focus on. Furthermore, the paper recommends the strategies for TOD practice based on the “5D+N” dimensions and indicators.

**Keywords:** 5D; Transit-oriented Development; Performance; Built Environment Indicators; Literature Review

**Citation:** XIA Z, ZHANG Y. From “5D” to “5D+N”: research published in English on the factors influencing TOD performance[J]. *Urban planning international*, 2019(5): 109-116. DOI: 10.22217/upi.2018.256.

### **Strategies Coping with Shrinkage of Small Towns in Japan: Case Study of Kamishihoro in Hokkaido, Japan**

*Lu Feng, Yang Lijing*

**Abstract:** How to develop small towns in underdeveloped areas has been a key problem in the process of urbanization in China, more and more small towns are facing shrinking problems, with population declining and vitality losing. This article tries to clarify the specific strategies and significance through case study on a small town in Hokkaido, which has been undergoing such problems for a long time. In a planning era of population decline, the local government carried out a series of measures including the relocation of public housing from the suburbs to the center to inducing population migration, reduction and utilization of vacant housing strategy, compact city strategies attempting to “smart shrink” the spread city. This adaptive way of coping with shrinkage has some enlightenment for the optimization of the stock of underdeveloped small towns in China. Small towns should pay attention to the integration of urban and rural development, improve the compactness of the city, and improve the city’s livability.

**Keywords:** Small Towns; Population Decline; Public Housing of Japan; Urban-Rural Integration; Inventory Optimization

**Citation:** LU F, YANG L. Strategies coping with shrinkage of small towns in Japan: case study of Kamishihoro in Hokkaido, Japan[J]. *Urban planning international*, 2019(5): 117-124. DOI: 10.22217/upi.2017.258.

### **Research on the NPO-run Model of American Urban Public Spaces**

*Huang Linlin, Wang Yi*

**Abstract:** Urban public space is one of the most important public goods supplied by the local government. Most of urban public spaces are managed by local administration department and rely on annual public expenditure. Once the local government runs into fiscal crisis, some of the public spaces will be impacted by the unreliable management and maintenance, and ruined till they lose basic public service function and become danger zones dragging down the local social and economic

development. This paper takes American urban public spaces run by nonprofit organization (NPO) as examples to illustrate how the NPO-run model acting as one of the important supplements to the government-run model, improving the comprehensive quality of public spaces and promoting the downtown revitalization of American cities. With the intention of enriching management models for public space in China, this paper provides deep knowledge of two influential NPO-run models: business improvement district model and urban park conservancy model, with two typical cases for each model: Bryant Park in New York and Forest Park in St. Louis. After giving a brief introduction of public goods theory and social background study, the adaptability and management objectives of the two different models are analyzed in detail, and it provides reference to the differentiated public space management in the related district renewal in China.

**Keywords:** Non-profit Organization; Urban Public Space; Business Improvement District; Urban Park Conservancy; American Cities

**Citation:** HUANG L, WANG Y. Research on the NPO-run model of American urban public spaces[J]. *Urban planning international*, 2019(5): 125-131. DOI: 10.22217/upi.2018.278.

### **The Experiences of Urban Planning Management in Singapore and NYC Identity Areas, and Enlightenment for Shenzhen**

*Liu Bingbing, Wang Zejian*

**Abstract:** The unique culture and urban features are necessary to be a famous city. It is significant to maintain the city's local identity under the trend of the convergence of globalization. And it benefits to improve the competitiveness of the city. Singapore and New York are two typical international cities with diverse cultures and unique features. It should be attributed to the urban planning guidance such as effective technical methods, programmed management and different policy for the identity areas during the process of redevelopment. At the moment, Shenzhen is in full access to the redevelopment period. The lack of protection oriented management, regional and the imperfect technology method in the valued area has really influenced the urban features. So this article summarizes the successful experience of Singapore and New York, which can provide useful reference for Shenzhen to set up the identity area conservation system and urban planning management strategy.

**Keywords:** Urban Features; Identity Area; Urban Planning Management; Experiences; New York; Singapore; Shenzhen

**Citation:** LIU B, WANG Z. The experiences of urban planning management in Singapore and NYC identity areas, and enlightenment for Shenzhen[J]. *Urban planning international*, 2019(5): 132-138. DOI: 10.22217/upi.2017.267.

### **The Institutional Difference Between Chinese and Australian Planning Policies from the Perspective of Urban-Rural Integration, and What Can It Tell Us?**

*Qiu Lianfeng*

**Abstract:** Responding to current impetus for urban-rural integration in China, planning has been regarded as an effective approach to achieve this goal, and advanced experiences from abroad are

favoured among scholars. This paper establishes a conceptual model underpinned by institutional theory. By comparing China with Australia in terms of planning policies, the paper explores the main similitudes and distinctive divergences with respect to definitions of urban and rural areas, developments, local authority operation, planning system and financial support for infrastructure construction. The contribution of this paper is, first of all, to make up for vacancies in relevant domestic literature to a certain extent; secondly, to clarify the institutional differences in planning administration between China and Australia and even the Commonwealth countries, which can help us to avoid cognitive mistakes and deepen understanding of foreign construction achievements. Finally and more importantly, urban-rural equivalence doctrine demonstrated by this paper implies an optional path for China's integrational urbanization.

**Keywords:** Urban-Rural Integration; Planning Policies; Institutional Differences; Cognitive Mistake; Urban-Rural Equivalence

**Citation:** QIU L. The institutional difference between Chinese and Australian planning policies from the perspective of urban-rural integration, and what can it tell us?[J]. *Urban planning international*, 2019(5): 139-144. DOI: 10.22217/upi.2018.487.

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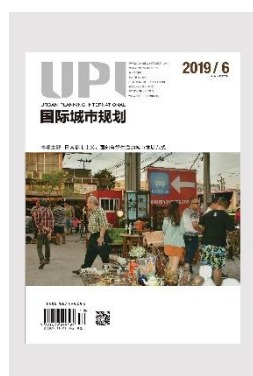
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## **The Current State of Everyday Urbanism**

*Margret Crawford*

**Abstract:** Everyday Urbanism, the concept originally emerged from a specific context, our own daily experience of the endlessly fascinating urban landscape of Los Angeles. Continually being re-inhabited in new ways and reinvented by its residents, the city challenged us, as design professionals and academics, to engage with it in a productive way. The liveliness of the urban life around us heightened our dissatisfaction with the limits of prevailing urban design discourse. Whether engaged in normative professional practice or avant-grade speculation, urban designers often seemed unable to appreciate the city around them and displayed little interest in the people who lived in it. Instead, they approached the city in primarily abstract and normative terms. We conceived of Everyday Urbanism as an alternative urban design concept, a new way to reconnect urban research and design with ordinary human and social meanings. The special issue selected a variety of articles and project practice summaries, hope to open a space where discussions can be held in China. Everyday Urbanism embraces the diversity of life, in contrast to other schools of urban design that target a particular ethos and then create an approach to further this world view.

**Citation:** Crawford M. The current state of everyday urbanism[J]. *Urban planning international*, 2019(6): 1. DOI: 10.22217/upi.2019.506.

## **On the Induction of Everyday Life**

*Long Yuan*

**Abstract:** There are two interactive worlds in city: daily and non-daily. The balance between them collapsed as non-daily is gradually taking the precedence over daily, which constitutes a big threat to urban everyday life and its place, the city became a group of closed islands too. Everyday life is actually complicated and diversified, closer to the essence of the world; and there is no distinction between daily and non-daily. In the context of modern pluralistic society, it is necessary to build sharing and connection through daily induction and design to re-establish urban sociality and publicity.

**Keywords:** Space; Everyday Life; Essence; Share; Urban Design

**Citation:** LONG Y. On the induction of everyday life[J]. *Urban planning international*, 2019(6): 2-5. DOI: 10.22217/upi.2019.507.

## **Development of Everyday Urbanism and Its Challenges to Contemporary Chinese Urban Design**

*Chen Xuan, Margaret Crawford*

**Abstract:** Urban design in reality is gradual and is the form presented in the process of urban economic and social activities. The technical rational framework of contemporary Chinese urban design originated from the early Western urban morphology theory. Recently, Chinese urban design has achieved impressive results in the theoretical and methodological management. However, different from technical rationality, the meaning expression and creation of humanistic connotation in Western urban design has not been able to receive substantial attention. They have neglected some

fundamental dimensions of urbanism such as China's rich civic and social life and its regional cultural characteristics. The design pursues the rational pursuit of pure abstract concepts, and the everyday life is highly specific and diverse, which has become a basic contradiction in Chinese urban design. In response to this, the words "everyday" and "urbanism" that one common and the other difficult to understand, create a new starting point for urban design through urban life. This study combines literature to analyze the contextual map of daily urbanism generated and developed in the United States, and combines field research into the current state of urban design in China, trying to link Western theory with the daily life practices of Chinese cities. The conclusion points out that China contains a large amount of everyday practice knowledge, which is worthy of appreciation and analysis. Everyday urbanism is a complement to current Chinese urban design, providing inspiration for existing urban design, while also presenting new challenges.

**Keywords:** Everyday Urbanism; Urban Design; Humanities; Everyday Life; Public Space

**Citation:** CHEN X, CRAWFORD M. Development of everyday urbanism and its challenges to contemporary Chinese urban design[J]. *Urban planning international*, 2019(6): 6-12. DOI: 10.22217/upi.2019.508.

### **From the Ground Up: Mapping at the Human Scale**

*Jason Ho*

**Abstract:** Map is a site inventory without speculation that does not have much influence on the final outcome. Instead of replicating what is already known, mapping unearths hidden aspects of a place and articulates the space we live in. In this paper, the author summarises some critical questions of mapping and suggests two different types of bottom-up mapping techniques (close observation and following) through reflecting upon some scholars and artists' works. These mapping techniques will help construct new relationships and connections across site and a systematic understanding of space/place may emerge.

**Keywords:** Mapping; Human Scale; Everyday Life; Bottom-Up; Close Observation; Following

**Citation:** HO J. From the ground up: mapping at the human scale[J]. *Urban planning international*, 2019(6): 13-20. DOI: 10.22217/upi.2019.509.

### **Community Empowerment in Quanzhou: An Experiment of Grassroots Pathways for Humanist Urbanization Paradigm**

*Liu Chaoyin*

**Abstract:** Being a proactive practitioner and a researcher, the author attempts to theorize community empowerment in the context of paradigm shift of urbanization through research-in-practice. Compared to the capitalist or state-commanded paradigms of urbanization, the author defines that community empowerment is a way of humanist urbanization characterized by a grassroots pathway, which generates and reproduces warm-and-responsible citizenship. Enlightened by T. S. Kuhn, P. Bourdieu and C. Alexander, the author argues that community empowerment emerges from the crisis of the existing mainstream of top-down paradigm and calls for bottom-up subjectivity. However, the true challenge to the bottom-up paradigm comes from the existing habit

rather than conscious awareness. Therefore, the very beginning process needs to be designed in order to incubate the new citizenship habit which needs to be repetitively practiced via later institutionalization of empowerment. From a social experiment to a candidate for new urbanization paradigms, community empowerment brings challenges to the field of urban planning. The author proposes grassroots empowerment to be the core contents for the new urban planning. Also, grassroots empowerment may be a way of reducing the inner contradict of a paradigm.

**Keywords:** Community Empowerment; Paradigm; Practice; Habit; Grassroots Pathway

**Citation:** LIU C. Community empowerment in Quanzhou: an experiment of grassroots pathways for humanist urbanization paradigm[J]. *Urban planning international*, 2019(6): 21-26. DOI: 10.22217/upi.2019.511.

### **Negative Planning: Everyday Life with Increased Urban Density**

*Wu Wenyan*

**Abstract:** Urban planning is current intervention, even the renewal of the built-up area. We should realize the relationship between people and land accumulated in the daily state of the past when facing the urbanization process of agricultural land or wasteland. And it is necessary to be aware of the intervention on future daily use by current impacts. Based on this, the “negative planning” is proposed through the comparative study of urban practice cases, looks back on the realm of transcendental principles leading by the method of “active planning” under the rapid urbanization background in China in the past few decades, and replaces the vision orientation with the realization of starting point orientation. This paper summaries “negative planning” should be re-examined and considered as the planning and technical method of resource allocation. The increasing urban density during the process of achieving the planning blueprint should be confronted, which is formed by daily social cultural and economic activities. This research rethinks when planning is needed, and the specific practice can be completed through four operational principles: existence priority, maintenance cost priority, origin solution priority and flexible in existence priority. At its root, “negative planning” advocates to face two unavoidable themes with the spirit of seeking truth from facts: the relationship between man and nature, social differences and consensus.

**Keywords:** Active Planning; Negative Planning; Existence Priority; Source Orientation; Urban Density; Social Connection

**Citation:** WU W. Negative planning: everyday life with increased urban density[J]. *Urban planning international*, 2019(6): 27-33. DOI: 10.22217/upi.2019.514.

### **Multi-objective Cooperative Planning Governance of Street Market: A Case Study of Street Market Construction in Portland, the US**

*Chen Xuan, Yuan Tao, Yang Jie*

**Abstract:** Street Market is flooded in every country in the world as a basically similar temporary mobility form. Since the Spring and Autumn Period and the Warring States Period (770 BC-221 BC) in China, there have been recorded about the management of the street vendors in “Zhou L”. Its specific space and community continues to have its own unique form and content, but its living

condition is worrying for a long time. Especially after implementing the single-objective management and the policy of “banning, expelling and monitoring”, many social conflicts have occurred frequently and repeated backtracking of street vendors has been plaguing local governments and relevant authorities. The study focuses on the multi-objective collaborative planning governance that implemented in street market managed in Portland, and the urban life culture formed by it. Tracing back to the origin of Portland’s market governance reflects the Portland government’s open and inclusive values. The conclusion calls for more flexibility and inclusiveness in urban public space management policies, re-evaluating existing implementation effects in China need to affirm the value of street market in the process of urban development, and seeking a systematic integration method of multi-department management for local governments, calls on the public to pay attention to grassroots market culture.

**Keywords:** Street Market; Portland; Vendor; Cooperative Planning Governance; Grassroots Culture; Food Cart

**Citation:** CHEN X, YUAN T, YANG J. Multi-objective cooperative planning governance of street market: a case study of street market construction in Portland, the US[J]. *Urban planning international*, 2019(6): 34-40. DOI: 10.22217/upi.2019.515.

### **Urban Revolution: The Evolution of a Concept**

*Li Limei*

**Abstract:** The term of urban revolution, one of the core concepts of urban studies, has been developed by international scholars from multiple disciplines since the early 20th century. It was first coined by V. Gordon Childe, an Australian archeologist, in the 1930s. French philosopher and sociologist Henri Lefebvre’s *The Urban Revolution* was published in 1970, prophetically stating that society has been completely urbanized and the planetary urbanization is on the horizon. Geographer David Harvey further formulates urban revolution as a means to realize the right to the city under the global capitalism. The popularity of urban revolution does not wane in the 21st century, when urbanization has truly become a planetary phenomenon. This study critically traces the origin and the evolving meanings of urban revolution. It also discusses the implications of China’s phenomenal urban transformation in the past four decades to the theory of urban revolution.

**Keywords:** Urban Revolution; Neo-Marxism; Childe; Lefebvre; Harvey; Critical Urban Theory

**Citation:** LI L. Urban revolution: The evolution of a concept[J]. *Urban planning international*, 2019(6): 41-48. DOI: 10.22217/upi.2019.016.

### **Development and Research of Interim Use: An Innovative Perspective for Urban Study**

*Yang Shan*

Currently, Chinese cities are entering into a new phase of inventory regeneration. In terms of multiple land-use, inventory regeneration study, urban crisis management, etc., this research on “interim use” can offer new ideas and open up a new frontier. The paper firstly describes its development and studies on European countries exemplified by Germany. Compared with the European studies, the paper enumerates the development state of “interim use” in urban China

exemplified by Shanghai, and also briefly examines the relevant research in China. On the basis of the preceding work, it explores the concept, characteristics, and mechanism of “interim use”. It is defined as a kind of use-mode which exists in the transitional period from an original use-mode imposed on a space to a new one. Its activities have not been stipulated and coded and are not necessarily related with the original or new mode. With provisionality, instability, spatial vacancy as its characteristics, its mechanism depends on the value contrast between the one created by the interim use and the one by the anticipated use. Finally, the paper summarizes the meaning and necessity to make such research on “interim use” in the context of urban China.

**Keywords:** Interim Use; Concept; Characteristics; Mechanism; Urban Design; Urban Planning; Methodology

**Citation:** YANG S. Development and research of interim use: an innovative perspective for urban study[J]. *Urban planning international*, 2019(6): 49-55. DOI: 10.22217/upi.2018.094.

### **Review of Overseas Researches on Studentification and Its Implication for China**

*Sun Jie, Gu Hao, Yu Siqi*

**Abstract:** Studentification has become a new research topic of western urban geography along with the increase of student population and its impacts on urban change. This paper firstly introduces the concept of studentification. Secondly, it concludes the main research contents, including the types and spatial layout of studentification, the background and mechanism of studentification, and the diverse impacts of studentification on local communities and cities as well as policies responses. It argues that these researches contribute to the exploration of residential segregation and class inequality in the process of urban restructuring, from the unique perspective of higher education students and their spatial consumption. At last, based on the former researches on Chinese studentification, this paper points out the importance of studentification research in China and some directions of future research.

**Keywords:** Studentification; Student Area; Urban Renewal; Residential Segregation; Class Inequality

**Citation:** SUN J, GU H, YU S. Review of overseas researches on studentification and its implication for China[J]. *Urban planning international*, 2019(6): 56-62. DOI: 10.22217/upi.2018.453.

### **Towards Sustainable Parking Management in Cities: International Comparison and Implications**

*Liu Qian, Wang Jixian, Li Yun*

**Abstract:** Parking management has become an effective and widely accepted measure to limit car use worldwide. This paper compares the characteristics of parking policies imposed in different world regions (or cities), in consideration of their historical and urban contexts. The study summarizes three major types including passive constraint, proactive management and comprehensive management, and introduces parking management measures in New York, London and Hong Kong from the perspectives of “supply constraint” and “context-specific management”.

In the consideration of international practices and the characteristics of Chinese cities, part three of this paper discusses the possible path of parking reforms in China from three aspects of parking sharing, pricing mechanism and parking-land use integration. The paper is of significance in pushing forward sustainability-oriented parking reforms and promoting sustainable transport in China.

**Keywords:** Parking Management; Transport Demand Management; Transit Accessibility; Parking Sharing; Pricing Mechanism; Sustainable Transportation

**Citation:** LIU Q, WANG J, LI Y. Towards sustainable parking management in cities: international comparison and implications[J]. *Urban planning international*, 2019(6): 63-69. DOI: 10.22217/upi.2017.466.

### **From Regulation to Market: Literature Review on Market-oriented Parking Policies**

*Xu Hong, Li Yutao, Guo Zhan*

**Abstract:** When it comes to parking problems, government allocation of parking resources is the most wide-spread tool used globally. In fact, the market-allocation can be most efficient but has always been ignored. From reviewing the century-long history, this paper finds that the US parking policies have evolved “from government regulation to market allocation”. Since very few Chinese literature has studied US parking policies from the perspective of market-allocation, this paper seeks to stress this viewpoint and to explain the market-oriented parking policies proposed by Donald Shoup through literature review, while analyzing the disadvantages of government-oriented parking policies, based on economics research methods. This paper aims to contribute to relevant domestic literatures and provides inspirations on solving parking issues in China.

**Keywords:** Government-oriented Parking Policy; Market-oriented Parking Policy; Choice; Equity; Autonomy

**Citation:** XU H, LI Y, GUO Z. From regulation to market: literature review on market-oriented parking policies[J]. *Urban planning international*, 2019(6): 70-78. DOI: 10.22217/upi.2019.008.

### **International Experience of Mixed Land Use: Models, Measures and Effects**

*Wang De, Yin Zhenxuan, Yu Xiaotian*

**Abstract:** Mixed land use has been considered as an important tool to strength urban vitality and to achieve sustainable development. At present, China’s related research mainly focuses on policy guidance for mixed land use in planning practice, while the discussion on the models, measures and effects of mixed land use is insufficient. This paper sorts out concept, types, measures and effects of mixed land use abroad in order to fully grasp the international research fronts. In terms of concept, a multi-level, multi-type, multi-scale research framework formed. In terms of measures, researchers have proposed different methods and compared their advantages and disadvantages. In terms of effects, firstly, mixed land use has significant positive effects on non-motorized transportation and health; secondly, the effects of mixed land use on safety and housing price are affected by other conditions; thirdly, the impact on vitality needs further empirical research.

**Keywords:** Mixed Land Use; Model; Measure; Effect; Abroad

**Citation:** WANG D, YIN Z, YU X. International experience of mixed land use: models, measures

and effects[J]. *Urban planning international*, 2019(6): 79-85. DOI: 10.22217/upi.2018.312.

### **Design Guidelines for Active Living: Western Experience**

*Sun Peijin, Lu Wei, Liu Lianlian*

**Abstract:** Active living is a way of life that integrates physical activity into daily routines. Physical inactivity is a primary cause of most chronic diseases since the twentieth century. History has shown that environmental design can play a crucial role in improving public health. Planning and design guidelines have become an increasingly common approach for promoting physical activity. This paper aims to analyze comparatively various guidelines proposed by different institutions and designed for different groups by summarizing more than 30 current design guidelines in western countries. This paper also explores urban design suggestions for Chinese cities through practical cases study, with the hope of providing a practical basis for healthy city design.

**Keywords:** Active Living; Healthy City; Design Guidelines; Urban Design; Western Experience

**Citation:** SUN P, LU W, LIU L. Design guidelines for active living: western experience[J]. *Urban planning international*, 2019(6): 86-91. DOI: 10.22217/upi.2017.332.

### **Disaster Characteristics and Development Trends in Comprehensive Disaster Prevention Plan of Global Cities**

*He Lei, Dai Shenzhi, Xie Zi'ang, Chen Qi, Hu Qunfang, Liu Feiping*

**Abstract:** The security and comprehensive disaster prevention of global cities are the basis and the bottom line of urban sustainable development, which have attracted the continuous attention of the whole society. This paper focuses on the master plan texts of 10 global cities. By using the methods of statistical analysis and text mining, this paper summarizes 23 major disaster problems and their influencing factors, and tries to explore the development trend of urban disaster prevention in the future. Through the study, it is found that there is a trend of diversification in the types of disasters in global cities; new-type disasters are getting increasing attention; traditional disasters are aggravated by climate change and other factors. Through this study, we hope to provide reference for the compilation of urban security and comprehensive disaster prevention plan in the new round of urban master plan revision in China.

**Keywords:** Global City; Comprehensive Disaster Prevention Plan; Disaster Selection; Disaster Characteristics; Development Trend; Disaster Environment; Influencing Factors

**Citation:** HE L, DAI S, XIE Z, et al. Disaster characteristics and development trends in comprehensive disaster prevention plan of global cities[J]. *Urban planning international*, 2019(6): 92-99. DOI: 10.22217/upi.2018.437.

## **Application and Development of Affordance Theory in Western Environmental Planning and Design**

*Qi Jun, Dong Yuping, Tim Townshend*

**Abstract:** Affordance theory is an ecological psychology approach to implement the evidence-based planning and design in environmental discipline. After a comprehensive demonstration for the notion of affordance, this paper reviews the applications and development of affordance theory in western environment planning and design studies since 1980s. Result reveals the contemporary environmental affordance research mainly followed the environmental users' paradigm and the environmental features paradigm. On the aspect of research perspective, current studies respectively adopted four term: behaviour, experience, personality, and (environmental) attribute, as agential concepts for the measurement of environmental affordance. Referring to the theoretical framework of affordance theory, previous studies have underestimated the sociocultural affordance, negative affordance and potential affordance as three different dimensions. The analysis made in this paper provides an academic reference and suggestion to the implement of affordance theory in Chinese environmental constructions.

**Keywords:** Affordance; Ecological Psychology; Environment and Behaviour; Human-Environment Interaction; Planning and Design

**Citation:** QI J, DONG Y, TOWNSHEND T. Application and development of affordance theory in western environmental planning and design[J]. *Urban planning international*, 2019(6): 100-107, 114. DOI: 10.22217/upi.2017.435.

## **The Impacts of Autonomous Vehicle on the Cities and Planning Responses: A Literature Review Based on Ripple Effect Model**

*Qin Bo, Chen Xiaoxuan, Qu Shen*

**Abstract:** Recently the autonomous driving technology has achieved breakthrough, which will affect our travel behaviors, and thus bring changes to socio-economic systems. By using Ripple Effect Model, this paper conducts a systematic literature review on the impacts of autonomous vehicle on the cities and planning responses. After introducing the development of autonomous driving technology, the paper summarizes the impacts of autonomous vehicle on urban transportation, land use, and socio-economic system, and proposes potential responses for planners. By the literature review, it is suggested that the impacts of autonomous driving technology to the cities contain both positive and negative sides. For urban planners it is necessary to keep update with and even participate in the technical advancement, and to adjust the existing planning principles and techniques accordingly.

**Keywords:** Autonomous Vehicle; Ripple Effect Model; Urban System; Transport Planning; Spatial Form; Social Equity; Planning Response; Literature Review

**Citation:** QIN B, CHEN X, QU S. The impacts of autonomous vehicle on the cities and planning responses: a literature review based on ripple effect model[J]. *Urban planning international*, 2019(6): 108-114. DOI: 10.22217/upi.2018.387.



## **Freedom and Rules in the “Freeland”: An Investigation on Nomocratic Planning Based on the Case of Oosterwold, the Netherlands**

*Zhu Jingyi*

**Abstract:** The paper uses the example of “Oosterwold Freeland” to illustrate the idea of nomocratic planning. Nomocratic planning is different from the rational model of urban planning centered around land use plan, in that it emphasizes the use of dispersed and practical knowledge, the organization of the inherent spontaneity of urban development, and the use of a set of framework intending to regulate the development process with patterning instrument. This mode of planning is based on the critiques of rational and comprehensive planning, and aims to control the development process rather than the final product, which is more effective in dealing with urban uncertainties. In the case study, crucial elements and land development processes of “Oosterwold Freeland” is analyzed to unveil how the ideas of nomocratic planning and private planning can stimulate controlled spontaneity, which is inspiring in view of the declining of the traditional idea of land use planning and a demand for more flexible planning tools.

**Keywords:** Governance; Planning Ideology; Nomocratic Planning; Complexity; Controlled Spontaneity; Framework Instrument; Oosterwold

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