

New Urbanism

An Approach to Solve the Problem of Ghost Towns in China

Lim Chu Hsien, Yale-NUS College, Class of 2018

Besides facing increasing international pressure for sustainability, China is gradually heading towards a more sustainable framework of urban development due to the negative externalities produced by its own urbanization strategies. Coined as an urban pathology, ghost towns are one of the manifestations of such externalities that can no longer be ignored. Constructed on an unprecedented scale in terms of spatial size and quantity, these ghost towns remain extremely underutilized and contribute significantly towards China's generation of waste products. Through the case study of Chenggong New Town in Kunming, I will seek to uncover crucial factors underlying the formation of such ghost towns and consequently, elucidate the pitfalls in China's post-socialist urbanization strategies. I will proceed to examine China's recent attempts of adapting New Urbanism, a popular Western urban design approach with a human-centric focus, to prevent the formation of ghost towns. This paper ultimately argues that although New Urbanism manages to introduce some features that promote liveability in urban spaces, its effectiveness in preventing the formation of ghost towns remains limited. For China to effectively address this predicament of ghost towns, New Urbanism must instead be complemented with strategic urban planning policies that take into account the heterogeneity of communities and the feasibility of implementation across various stakeholders.

Introduction

In recent years, one of the key questions that has occupied many urban planners, both international and local alike, is how should the formation of ghost towns in China be prevented¹. Although multiple solutions have been put forth through serious attempts at reforming urban policies, decreasing housing prices and improving infrastructure, questions of socio-spatial urban design have remained relatively unexamined². This is due in part to the lack of attention paid to the community aspect of ghost towns in relation to other factors such as affordability and infrastructure developments, which have largely dominated the discourse of ghost towns.

Using the case study of Chenggong New Town, I seek to highlight that social community is an underrated cause that is intricately connected with formation of ghost towns, and thus deserves more attention. I will proceed to examine the attempts of New Urbanism, a popular urban planning and development approach, in addressing the root cause concerning the formation of ghost towns. With its focus on designing human-scaled urban features that are suitable for an average person, New Urbanism is a model that essentially promotes concepts such as walkability of streets, accessibility of public spaces, as well as sustainability of infrastructures.

¹“New Ghost Cities Typify out-of-Control Planning.”

Chinadialogue. Oct 15, 2015. Accessed Oct 22, 2015.

<https://www.chinadialogue.net/article/show/single/en/8239-New-ghost-cities-typify-out-of-control-planning>

² Robert Putnam and Lewis Feldstein. “Creating Common Spaces, Urban Planning, Local Media and Technology.” In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008.

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Ultimately, my overall aim of writing this paper is to investigate the potential of New Urbanism in rebuilding social capital and reviving the currently deserted Chenggong New Town. My analysis is by no means discounting the importance of dominant factors as solutions to the problem of ghost towns, but to rethink the importance accorded to tangible physical structures in creating an intangible sense of community.

Ghost Towns

Any attempt to describe or encapsulate China’s urban transformation seem to inevitably fall short of its actual magnitude. Words like “revolutionary”, “explosion” or “unprecedented” can only hint at what China is currently experiencing following its economic developmental policies³. One of the most common barometers used to gauge China’s development is through the use of statistics. For example, the amount of land space devoted to urban development in China has increased from 8,800 km² in 1984 to 41,000 km² in 2010⁴. Some find a comparative approach better; China has used more concrete for urban development between 2011 and 2013 than what the United States of America has used in the entire 20th century⁵. A third measure of China’s transformation is through looking at the extent of negative externalities. As China’s urban development contains many loopholes in terms of resource

³ Wade Shepard. *Ghost Cities of China*. London: Zed Books, 2015.

⁴ “Data Mining Reveals the Extent of China’s Ghost Cities.” Accessed November 28, 2015. MIT Technology Review. <http://www.technologyreview.com/view/543121/data-mining-reveals-the-extent-of-chinas-ghost-cities/>.

⁵ Ibid.

management and sustainability, it is not difficult to identify massive wastage of resources and manifestations of various urban pathologies⁶.

The formation of ghost towns is one such pathology that has come to be a visual manifestation of the nation's unregulated urban planning alongside its frantic economic developments.⁷ Typically ranging from 50 to 350 km², most ghost towns occupy areas that are larger than cities such as Manhattan, Paris or Las Vegas⁸. There is also currently a surplus of 2 billion housing units in China, which suggests that there are huge amounts of new urban compounds that remain unused⁹. Situated in Kunming, Yunnan, Chenggong New Town is a typical example of such new towns in China that have been categorized as a ghost town. Planned for 1.5 million inhabitants, it similarly contains many unused spaces, such as 100,000 uninhabited new apartments, a huge empty stadium, and

abandoned shopping malls¹⁰.

Despite countless discourses surrounding ghost towns, the definition of such towns remains elusive. A group of researchers from the Big Data Lab at Baidu has recently attempted to provide a qualitative definition to ghost towns through location data tracking services through machine-learning algorithms and predictive analytical applications¹¹. By collecting the locations of hundreds of millions of Baidu users across different towns throughout the nation, the researchers are gradually starting to comprehend the scale of such ghost towns¹². Some universal characteristics of ghost towns include scores of inhabited apartments, deserted mega malls and regions with incomplete infrastructure developments, such as those found in Dongguan district in Guangdong and the Kangbashi district of Inner Mongolia¹³. Despite these similarities, China's ghost towns differ in how they come into being. While ghost towns have been traditionally and generally understood as places that have died by becoming economically defunct and unsuitable for living, ghost towns in China take on a

⁶ Journeyman Pictures. "China's Empty Cities House 64 Million Empty Apartments." Online video clip. YouTube. Apr 18, 2011. Accessed Oct 22, 2015.

⁷ Christian Sorace, and William Hurst. "China's Phantom Urbanization and The Pathology of Ghost Cities." 2015. Accessed Oct 22, 2015. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2557626

⁸ Wade Shepard. "During Its Long Boom, Chinese Cities Demolished an Area the Size of Mauritius Every Year." CityMetric. Sept 22, 2015. Accessed Oct 22, 2015. <http://www.citymetric.com/skylines/during-its-long-boom-chinese-cities-demolished-area-size-mauritius-every-year-1414>

⁹ "New Ghost Cities Typify out-of-Control Planning." Chinadialogue. Oct 15, 2015. Accessed Oct 22, 2015. <https://www.chinadialogue.net/article/show/single/en/8239-New-ghost-cities-typify-out-of-control-planning>

¹⁰ Peter Calthorpe. "The Real Problem with China's Ghost Towns." Last modified Sep 1, 2013. Accessed 15 Oct 2015. <http://www.metropolismag.com/Point-of-View/August-2013/The-Real-Problem-with-Chinas-Ghost-Towns/Congress-of-the-New-Urbanism>.

¹¹ Data Mining Reveals the Extent of China's Ghost Cities." Accessed November 28, 2015. MIT Technology Review. <http://www.technologyreview.com/view/543121/data-mining-reveals-the-extent-of-chinas-ghost-cities/>

¹² Ibid.

¹³ Courtney Subramanian. March 4, 2013. 'How the World's Biggest Mall Became a Chinese "Ghost Town"'. Time. Accessed May 27, 2016. <http://newsfeed.time.com/2013/03/04/how-the-worlds-biggest-mall-became-a-chinese-ghost-town/>.

somewhat opposite meaning as *unborn cities*¹⁴. This means that ghost towns in China, instead of being deserted places that were once alive with activities, ghost towns in China are places that have yet to come alive and most of them are still in the process of being built¹⁵. Nevertheless, both the conventional and China's concepts of ghost towns similarly point to places that are lacking in population and economic vitality.

Although factors such as prices, regulations surrounding hukou - the national Chinese household registration policy - and the availability of infrastructures have been attributed as causes of the formation of ghost towns, I argue that they are merely superficial factors of a deep-rooted problem. To determine the truthfulness of this argument, it is useful to examine the significance of such factors in reviving the ghost town of Chenggong. First, although it has scores of high rise buildings, mega malls, highways and other infrastructures, there is still a lack of incentive for people to move in. Secondly, despite costing approximately SGD 3233-7500/m², a rate that is far more attractive than that of Kunming city (\geq SGD 6000/m²), many of the apartments in Chenggong New Town remain unsellable and hence unoccupied¹⁶. The recent move in relaxing urban hukou regulations also do not seem to be a major pull factor for

people to move in to Chenggong New Town¹⁷. At the very least, these three examples show that housing affordability, hukou policies and the availability of infrastructures are not necessarily the determinant factors in solving the problem of ghost town in Chenggong New Town. Hence, the question that must be asked is: Given the affordability, hukou reforms and infrastructures in such towns, why is Chenggong New Town still unattractive to people?

I argue that there are two main reasons. First, people are unwilling to leave their living communities. Secondly, even if there are, they are unable to see the prospects of establishing similar living communities in the ghost towns. The first cause suggests that people perceive ghost towns as less attractive than their current residential compounds. Lin- a 21-year-old businessman, who once owned a travel inn in Chenggong New Town, expresses his personal reluctance for moving in to the town¹⁸. He asserts that he will not find it enjoyable to live there, as he will not experience the sense of belonging that he has in his hometown. His opinions are shared by many other businessmen who are put off by the notion of living in such isolated towns¹⁹. When asked if he were to consider living there for free, he reveals his immediate reservations by defending the intangible and priceless merits of his current living spaces. Satisfied with his established social

¹⁴ Wade Shepard. *Ghost Cities of China*. London: Zed Books, 2015. 39.

¹⁵ Geoff Manaugh. "How Technology Reveals the Ghost Cities in China and the West | New Scientist." *New Scientist*. Nov 26, 2015. Accessed Nov 28, 2015. <https://www.newscientist.com/article/2066897-how-technology-reveals-the-ghost-cities-in-china-and-the-west/>

¹⁶ Huang. "Re: Changing Landscapes of Kunming." Message. 2015. E-mail.

¹⁷ Peter Calthorpe. "The Real Problem with China's Ghost Towns." Last modified Sep 1, 2013. Accessed 15 Oct 2015. <http://www.metropolismag.com/Point-of-View/August-2013/The-Real-Problem-with-Chinas-Ghost-Towns/Congress-of-the-New-Urbanism>.

¹⁸ Lin. Personal interview. 16 October 2015.

¹⁹ Wade Shepard. *Ghost Cities of China*. London: Zed Books, 2015.

networks of friends and family, he does not see a reason to move into a new compound when he is happily living in his current one. His account highlights the importance of a shared identity within a certain socio-spatial landscape, in which its members have a mutual sense of familiarity and ownership of each other and the place. It is thus not surprising to observe that people are less inclined to move to new towns. Not only will they lose their social networks, they will also feel a sense of cultural alienation due to the newer developments in ghost towns. This is because such newer developments lack the familiar traditional architectural elements that have been associated with the individuals' notion of identity²⁰.

Secondly, they do not see a vibrant future for community building in these ghost towns. In my interview with Lin, he mentioned that people living in Chenggong New Town are currently only university students, government officials and workers who are building the infrastructures of the town. His account is unsurprising as it echoes prevalent observations from other sources regarding Chenggong New Town and other ghost towns in general²¹. The implicit suggestion underlying his statement is that although the town has basic functions such as education, administrative purposes and transportation facilities, there is no real coherent sense of social belonging. Members of this town are not perceived to be residents, friends or family members but merely as functional entities with detached

interpersonal interactions. This account shows that a community goes beyond the simple combination of people and space; other elements are needed for concocting a healthy social-spatial tapestry. Cohabitants of a particular space must be able to contribute to something larger than the sum of their respective private worlds²². In other words, they have to be integrated through various forms of interaction to create an authentic culture and community of diversity.

Based on these two reasons, what is striking here is that the formation of ghost towns is not primarily caused by issues such as housing affordability or the lack of infrastructures. On the contrary, this problem is fundamentally engendered by a lack of social capital; I draw upon Leyden and Michelbach's notion of "social capital", defined as the "social networks and the norms of reciprocity and trustworthiness that arise from them"²³. Thus, to transform and transfer the potential energy of these empty spaces to pragmatic use, threads of social capital have to be interlaced into the spaces such that a rich and diverse communal tapestry can be created.

New Urbanism: A Human-scaled Urban Design

In the year 2010, Chenggong New Town

²⁰ Robin Visser. *Cities Surround the Countryside: Urban Aesthetics in Postsocialist China*. Durham, NC: Duke University Press, 2010.

²¹ Robin Banerji, and Patrick Jackson BBC News. 2016. 'Five Ghost Projects of China'. BBC News. Accessed May 27, 2016. <http://www.bbc.co.uk/news/magazine-19049254>.

²² Douglas Kelbaugh. "Three Urbanisms, New, Everyday, and Post." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 42.

²³ Kevin Leyden, and Philip Michelbach. "Democracy and Neighborly Communities: Some Theoretical Considerations on the Built Environment." In *New Urbanism and Beyond* *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 238.

welcomed the framework of New Urbanism through a collaboration between by Energy Foundation China, a grant-making charity organization registered under the Ministry of Civil Affairs, Calthorpe Associates and Gehl Architects in the hope that such a framework will revive its dead town²⁴. Having originated in America, New Urbanism is an organised movement within the Congress for the New Urbanism to promote and defend its tenets²⁵. Some of its tenets are to create a diverse community by including people of all races, age and ethnicity from a myriad of socio-economic backgrounds; to create a public space in which the citizens have a sense of belonging and pride; and to weave an intricate urban network that is based on mixed-use communities²⁶. Such tenets are essentially an amalgamation of ideas that champion a human-centric approach, and the power of physical designs in effecting positive changes to the built environment and the social community²⁷.

²⁴ China Sustainable Cities Program of the Energy Foundation, China Sustainable Transportation Center, Calthorpe Associates, and Gehl Architects. "Building China's Sustainable Cities Future." 2015. Accessed November 28, 2015.

[http://www.efchina.org/Attachments/Publication/CSCPint_r02013zh/构建中国可持续城市发展的未来\(英文\).pdf](http://www.efchina.org/Attachments/Publication/CSCPint_r02013zh/构建中国可持续城市发展的未来(英文).pdf)

²⁵ Douglas Kelbaugh. "Three Urbanisms, New, Everyday, and Post." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 42.

²⁶ "Charter of the New Urbanism." *Bulletin of Science, Technology & Society*, Vol. 20, No.4 (2000): 339-341. Sage Publications, Inc. Accessed May 23, 2016. doi:10.1177/027046760002000417

²⁷ Tigran Haas. *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, Inc., 2008.2

Based on New Urbanism, Chenggong New Town has thus been designed with principles, such as a hierarchy of mixed-use centres, human-scaled blocks designed with features suitable for the average person, transit-oriented developments and common spaces (Appendix A). On this note, to determine the success of New Urbanism in achieving its aim, it is essential to assess the effectiveness of such principles in increasing the social capital of Chenggong New Town.

The transit-oriented development system fundamentally acts as a safety net that ensures the maintenance and promotion of social ties by establishing physical modes of interactions. As a whole, Chenggong New Town is designed on the basis of this system that entails the construction of compact residential and commercial hubs based on transport opportunities²⁸. Such hubs are strategically located according to the ease of access by both automobiles and public transit for efficient mobility. This system is complemented with a robust public transit network, which consists of a Bus Rapid Transit, an underground Metro as well as a High Speed Rail hub²⁹. As these public transportations have an estimated daily capacity of 200,000 passengers, dependence on automobiles

²⁸ China Sustainable Cities Program of the Energy Foundation, China Sustainable Transportation Center, Calthorpe Associates, and Gehl Architects. "Building China's Sustainable Cities Future." 2015. Accessed November 28, 2015.

[http://www.efchina.org/Attachments/Publication/CSCPint_r02013zh/构建中国可持续城市发展的未来\(英文\).pdf](http://www.efchina.org/Attachments/Publication/CSCPint_r02013zh/构建中国可持续城市发展的未来(英文).pdf)

²⁹ Peter Calthorpe. "The Real Problem with China's Ghost Towns." Last modified Sep 1, 2013. Accessed 15 Oct 2015. <http://www.metropolismag.com/Point-of-View/August-2013/The-Real-Problem-with-Chinas-Ghost-Towns/Congress-of-the-New-Urbanism>.

is significantly reduced³⁰. Besides promoting a low-carbon the environment, they also improve access and mobility throughout the entire region of Chenggong and Kunming. According to Huang³¹, the commuting time from the first station of Chenggong to Kunming takes only about an hour via the railway system. Due to this convenience, he appreciates the usefulness of such a public transit in facilitating physical mobility, both within and outside of Chenggong New Town. Besides highlighting the importance of transportation in decreasing the spatial distances of individuals, this example also illustrates how integral a robust transit network is in contributing to the building of a social community. By increasing the convenience of commuting, face-to-face interactions are enhanced, be it between the inhabitants within Chenggong or between them and individuals outside of Chenggong. Such personal interactions contribute to building a community as the socio-spatial distance between the inhabitants of Chenggong and their family and friends is greatly reduced. Therefore, the possibility of losing contact with networks outside of Chenggong is also reduced. In other words, people will be more incentivized to move into Chenggong New Town, knowing that they can conveniently return to their original community anytime.

Besides that, features such as human-scaled blocks, a hierarchy of mixed-use

centres and open spaces promote the inhabitants' sense of belonging. Instead of giant road networks and the standard Superblock System, human-scaled streets and blocks have been implemented to create a more intimate and approachable living condition (Appendix B). As the larger scale infrastructures diminish the role of the human being in the urban environment, the human-centric urban design that is integral in promoting a more inclusive sense of belonging that motivates the human to be a co- curator of the environment that he is in. As a result, inhabitants of Chenggong New Town will feel more empowered to create meaning out of the space that they occupy, thereby strengthening their sense of ownership for the living environment. The replacement of highways and superblocks with narrower streets and smaller blocks does not only increases the efficiency of land management, it also puts the traditional essence of Chinese cities and villagers back into the living environment³². Such human-scaled streets and spaces are important in serving as visual markers of the common past and establishing a feeling of shared history amongst its inhabitants, which undoubtedly creates their sense of belonging to this new town. However, critics have argued that such a reconstruction heavily emphasizes urban aesthetic and staging, which are more performative in nature rather than serving

³⁰ Climate Works Foundation, The China Sustainable Energy Program, and Calthorpe Associates. "China Design Manual Pamphlet." 2015. Accessed November 28, 2015. <http://www.calthorpe.com/publications/china-designmanual>.

³¹ Huang. "Re: Changing Landscapes of Kunming." Message. 2015. E-mail.

³² China Sustainable Cities Program of the Energy Foundation, China Sustainable Transportation Center, Calthorpe Associates, and Gehl Architects. "Building China's Sustainable Cities Future." 2015. Accessed November 28, 2015. [http://www.efchina.org/Attachments/Publication/CSCPintor2013zh/构建中国可持续城市发展的未来\(英文\).pdf](http://www.efchina.org/Attachments/Publication/CSCPintor2013zh/构建中国可持续城市发展的未来(英文).pdf)

any real function³³. Nevertheless, research has shown that given time, aesthetic appreciation towards the living environment will eventually contribute to fostering one's sense of belonging towards it³⁴.

This sense of belonging is further perpetuated and amplified through a comprehensive open space system that connects common spaces like prominent green belts, parks and playground, with residential and commercial areas³⁵. Such common spaces are integral in fostering commonplace encounters and conversations, forming intersecting networks and overlapping social circles that reinforce a sense of reciprocal obligation and broaden the boundaries of empathy³⁶. As privatization of life and the desiccation of public sphere have produced alienation within communities, there is a pressing

³³ Christian Sorace, and William Hurst. "China's Phantom Urbanization and The Pathology of Ghost Cities." 2015. Accessed Oct 22, 2015.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2557626

³⁴ Christopher Alexander., Schmidt, R., Alexander MM., Hanson, B and Michael Mehaffy. "Generative Codes, The Path to Building Welcoming, Beautiful, Sustainable Neighborhoods." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008, 14.

³⁵ Climate Works Foundation, The China Sustainable Energy Program, and Calthorpe Associates. "China Design Manual Pamphlet." 2015. Accessed November 28, 2015. <http://www.calthorpe.com/publications/china-designmanual>

³⁶ Robert Putnam, and Lewis Feldstein. "Creating Common Spaces, Urban Planning, Local Media and Technology." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 232.

need for such places in actualizing a sense of community, in which people meet to relax, converse and enjoy one other's company³⁷. Such spaces that provide opportunities for social interaction and discourse without formal pressure, are thus essential for the health of a community. As Jane Jacobs notes, spaces like these that promote spontaneous contacts between neighbours lead to social trust³⁸. This feeling of trust is hence catalysed through these common spaces, as they provide opportunities for the entire community to share the responsibility of ensuring collective security³⁹. The hierarchy of mixed-use urban, town and village centres also reinforces such a sense of camaraderie, as different aspects of the community are spatially integrated into a coherent whole. The physical decrease in the displacement between residential and commercial centres translates to an increase in social interaction between people of different lifestyles.

However, while mixing creates venues for social interaction that promotes mutual understanding and appreciation for each other's diversity⁴⁰, it assumes that the shaping of spatial

³⁷ Douglas Kelbaugh. "Three Urbanisms, New, Everyday, and Post." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 42.

³⁸ Kevin Leyden, and Philip Michelbach. "Democracy and Neighborly Communities: Some Theoretical Considerations on the Built Environment." In *New Urbanism and Beyond New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 238.

³⁹ Andres Duany and Elizabeth Plater-Zyberk. "The Traditional Neighborhood and Urban Sprawl." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 64.

⁴⁰ Jill Grant. *Planning the Good Community: New*

order will take care of the different social inequalities that pressure the livelihoods of each inhabitant⁴¹. On this note, it is crucial to bear in mind that there are process and inherent difficulties involved in applying the general concepts of New Urbanism in successfully planning for community. Thus, there is a crucial necessity of systematic and meticulous planning when adopting features of New Urbanism into designing a neighbourhood as each community has its own distinct elements of social diversity and unique set of demographics⁴². For example, while New Urbanist neighbourhoods aim for social diversity, most of them fail to stay diverse due to gentrification pressures. As a matter of fact, despite bringing about many pragmatic outcomes in countering suburban sprawl in America over the past sixty years, the charter of New Urbanism has been challenged to have almost utopian aspirations⁴³. The universality of New Urbanism, specifically the claim that this movement is good for all, has similarly been charged to be overly idealistic.

Conclusion

Urbanism in Theory and Practice. Routledge, 2005.

CrossRef. Accessed Oct 22, 2015.

https://libres.uncg.edu/ir/uncg/f/S_Sultana_Planning_2009.pdf

⁴¹ Tigran Haas. *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, Inc., 2008. 2.

⁴² Kristen Day. "New Urbanism and the Challenges of Designing for Diversity." *Journal of Planning Education and Research* 23.1 (2003): 83-95.

⁴³ Douglas Kelbaugh. "Three Urbanisms, New, Everyday, and Post." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 42.

Therefore, while New Urbanism might solve the dysfunctional automobile-oriented and super-grid developmental patterns, it still has a long way to go in realising its ideal of building a human-oriented, liveable and sustainable community. New Urbanism can support these noble goals and work towards providing a good quality of life for all-but it alone is not and cannot be concerned with devising the means to do so. As a resolution, what is paramount is the cultural, political and structural conduits set in place by local governments, which serve to facilitate and catalyst the implementation of New Urbanism⁴⁴. In essence, a healthy community within the framework of New Urbanism requires a localised, proactive and pragmatic response, which can only be achieved through merging good design with good policy⁴⁵.

In this regard, Shepard's belief that Chenggong New Town will revive from its current state as a ghost town into a vibrant liveable and multi-functional hub, remains questionable⁴⁶. Although New Urbanism has served as an arena that fosters a plethora of contemporary and future ideas to discourage the formation of ghost towns

⁴⁴ Peter Katz. Blog. "New Urbanism at 20: A Critical Assessment." *Better Cities & Towns*. May 23, 2013. Accessed Oct 22, 2015.

<http://bettercities.net/news-opinion/blogs/peter-katz/2012/new-urbanism-20-critical-assessment>

⁴⁵ Emily Talen. "The Unbearable Lightness of New Urbanism." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 77.

⁴⁶ Wade Shepard. "Ghost Cities of China: A discussion with Wade Shepard." Interview by Chengdu Living. *Chengdu Living*. Chengdu Living, 2015. Accessed Oct 22, 2015. <http://www.chengduliving.com/ghost-cities-with-wade-shepard/>

in the future, what is certain for now is that New Urbanism is neither an immediate solution nor panacea⁴⁷. As Lin⁴⁸ rightly puts it, notwithstanding the aspirations of New Urbanism in moulding Chenggong into a promising future hub of social, economic and political life in Kunming, only time can determine its results. At the very least, New Urbanism can be said to have spearheaded a methodological way that takes into account socio-spatial elements in tackling this predicament of ghost towns.

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Works Cited

Huang. "Re: Changing Landscapes of Kunming." Message. 2015. E-mail.

Lin. Personal interview. 16 October 2015.

Alexander, Christopher., Schmidt, R., Alexander MM., Hanson, B and Michael Mehaffy. "Generative Codes, The Path to Building Welcoming, Beautiful, Sustainable Neighbourhoods." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008, 14.

Banerji, Robin, and Patrick Jackson BBC News.

⁴⁷ Tigran Haas. *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, Inc., 2008. 2.

⁴⁸ Lin. Personal interview. 16 October 2015.

2016. 'Five Ghost Projects of China'. *BBC News*. Accessed May 27, 2016. <http://www.bbc.co.uk/news/magazine-19049254>.

Calthorpe, Peter. "The Real Problem with China's Ghost Towns." Last modified Sep 1, 2013. Accessed 15 Oct 2015. <http://www.metropolismag.com/Point-of-View/August-2013/The-Real-Problem-with-Chinas-Ghost-Towns/Congress-of-the-New-Urbanism>.

"Charter of the New Urbanism." *Bulletin of Science, Technology & Society*, Vol. 20, No.4 (2000): 339-341. *Sage Publications, Inc*. Accessed May 23, 2016.

China Sustainable Cities Program of the Energy Foundation, China Sustainable Transportation Centre, Calthorpe Associates, and Gehl Architects. "Building China's Sustainable Cities Future." 2015. Accessed November 28, 2015. [http://www.efchina.org/Attachments/Publication/CSCPintro2013zh/构建中国可持续发展城市的未来\(英文\).pdf](http://www.efchina.org/Attachments/Publication/CSCPintro2013zh/构建中国可持续发展城市的未来(英文).pdf)

Climate Works Foundation, The China Sustainable Energy Program, and Calthorpe Associates. "China Design Manual Pamphlet." 2015. Accessed November 28, 2015. <http://www.calthorpe.com/publications/china-design-manual>. "Data Mining Reveals the Extent of China's Ghost Cities." Accessed November 28, 2015.

MIT Technology Review. <http://www.technologyreview.com/view/543121/data-mining-reveals-the-extent-of-chinas-ghost-cities/>.

Day, Kristen. "New Urbanism and the Challenges of Designing for Diversity." *Journal of Planning Education and Research* 23.1 (2003):

- 83-95.
- Duany, Andres and Elizabeth Plater-Zyberk. "The Traditional Neighbourhood and Urban Sprawl." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 64.
- Grant, Jill. *Planning the Good Community: New Urbanism in Theory and Practice*. Routledge, 2005. CrossRef. Accessed Oct 22, 2015. https://libres.uncg.edu/ir/uncg/f/S_Sultana_Planning_2009.pdf
- Haas, Tigran. *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, Inc., 2008.
- Journeyman Pictures. "China's Empty Cities House 64 Million Empty Apartments." Online video clip. *YouTube*. Apr 18, 2011. Accessed Oct 22, 2015.
- Katz, Peter Blog. "New Urbanism at 20: A Critical Assessment." *Better Cities & Towns*. May 23, 2013. Accessed Oct 22, 2015. <http://bettercities.net/news-opinion/blogs/peter-katz/20202/new-urbanism-20-critical-assessment>
- Kelbaugh, Douglas. "Three Urbanisms, New, Everyday, and Post." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 42.
- Leyden, Kevin, and Philip Michelbach. "Democracy and Neighbourly Communities: Some Theoretical Considerations on the Built Environment." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 238.
- Manaugh, Geoff. "How Technology Reveals the Ghost Cities in China and the West." *New Scientist*. Nov 26, 2015. Accessed Nov 28, 2015. <https://www.newscientist.com/article/2066897-how-technology-reveals-the-ghost-cities-in-china-and-the-west/>
- "New Ghost Cities Typify out-of-Control Planning." *Chinadialogue*. Oct 15, 2015. Accessed. Oct 22, 2015. <https://www.chinadialogue.net/article/show/single/en/8239-New-ghost-cities-typify-out-of-control-planning>
- "People, Not Paving." *The Economist* Apr 19, 2014. *The Economist*. Accessed Oct 22, 2015. <http://www.economist.com/news/special-report/21600802-chinas-largest-cities-can-mostly-cope-population-growth-spread-concrete>
- Putnam, Robert, and Lewis Feldstein. "Creating Common Spaces, Urban Planning, Local Media and Technology." In *New Urbanism and Beyond, Designing Cities for the Future*. New York and London: Rizzoli Publishers, 2008. 232.
- Shepard, Wade. "During Its Long Boom, Chinese Cities Demolished an Area the Size of Mauritius Every Year." *CityMetric*. Sept 22, 2015. Accessed Oct 22, 2015. <http://www.citymetric.com/skylines/during-its-long-boom-chinese-cities-demolished-are-a-size-mauritius-every-year-1414>
- Shepard, Wade. *Ghost Cities of China*. London: Zed Books, 2015.
- Shepard, Wade. "Ghost Cities of China: A discussion with Wade Shepard." Interview by Chengdu Living. *Chengdu Living*. Chengdu Living, 2015. Accessed Oct 22, 2015. <http://www.chengduliving.com/ghost-cities-with-wade-shepard/>
- Sorace, Christian, and William Hurst. "China's Phantom Urbanization and The Pathology of Ghost Cities." 2015. Accessed Oct 22, 2015.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2557626

Subramanian, Courtney. March 4, 2013. 'How the World's Biggest Mall Became a Chinese "Ghost Town"'. *Time*. Accessed May 27, 2016. <http://newsfeed.time.com/2013/03/04/how-the-worlds-biggest-mall-became-a-chinese-ghost-town/>.

Talen, Emily. "The Unbearable Lightness of New Urbanism." In *New Urbanism and Beyond, Designing Cities for the Future*. New York

Visser, Robin. *Cities Surround the Countryside: Urban Aesthetics in Postsocialist China*. Durham, NC: Duke University Press, 2010.