



Peter G. Rowe Ann Forsyth Har Ye Kan

# CHINA'S URBAN COMMUNITIES

Concepts, Contexts, and Well-Being

BIRKHÄUSER

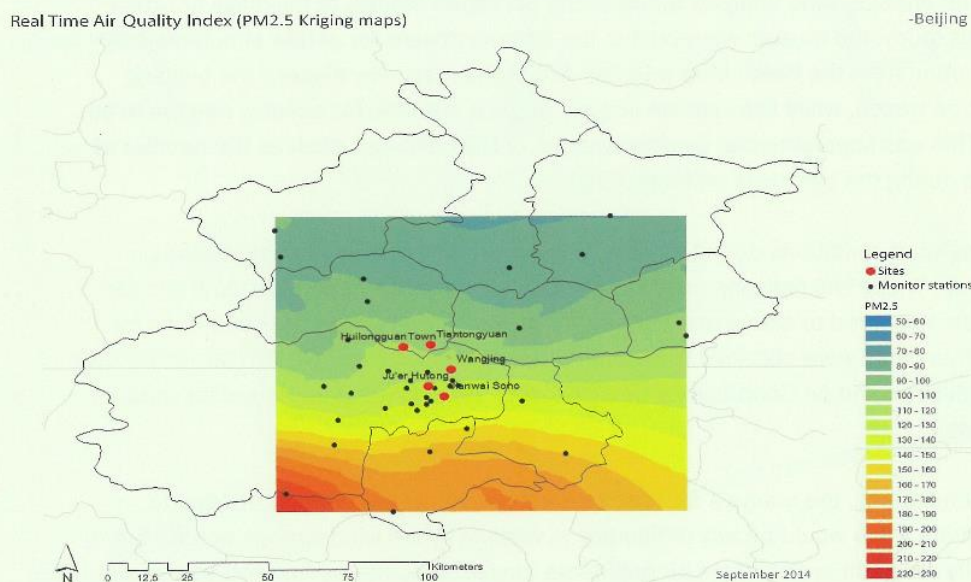


## WALKABILITY

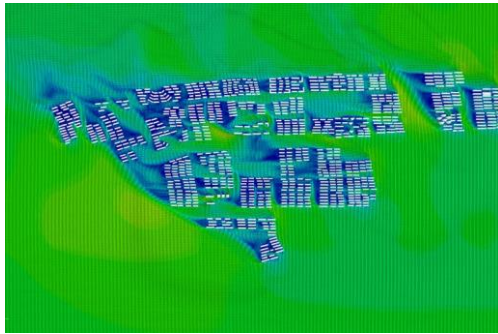
To gauge the walkability as a means of determining how friendly the area is to pedestrians, a Walk Score<sup>3</sup> was calculated by mapping the walking distance to different amenities in and around the community. This score focuses on walking to get to services rather than walking to work or for recreation. The walking routes include sidewalks and the pedestrian paths through the residential community. The distance to a location, counts, and weights determine a base result for an address—typically for every apartment building within each case—which was then normalized to a score ranging from 0 to 100. Apart from walking distance, the calculation also took into consideration block sizes and intersection densities as penalties.

In this study, the Walk Scores were simulated with the Urban Modeling Interface (UMI),<sup>4</sup> a tool developed by the MIT Sustainable Design Lab that adapted the web-based tool “Walk Score” to be used in the Rhino software design environment. Models for each case study were first generated by creating a database of the street networks, amenities, and green spaces. For this, the street maps and satellite images from Baidu Map were used as references. As the amenities from the website are updated based on user input, it is likely that there are more amenities in and around the case study communities than what have been recorded online. Nevertheless, Baidu Map was the best available reference source that still yielded comparable results across the cases.

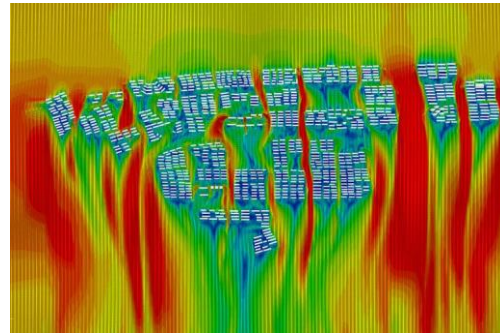
The calculations in the UMI simulation are composed of two parts: (i) the case study community and (ii) the surroundings within a 400-meter distance from the community boundary. The 400-meter distance was used as a reference because it is generally regarded as one that most people can walk with ease. For the case study community, the calculations were made based on every pedestrian path in addition to the road network within the community. For the surroundings within a 400-meter distance from the edge of the community, the road network and the major pedestrian paths were used to calculate the Walk Scores. As a result of these parameters, the Walk Scores are likely to be more conservative than what might be the case in reality.



### 1. Huilongguan Cultural Residential District, Beijing

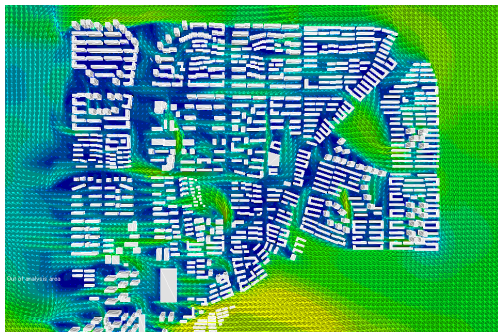


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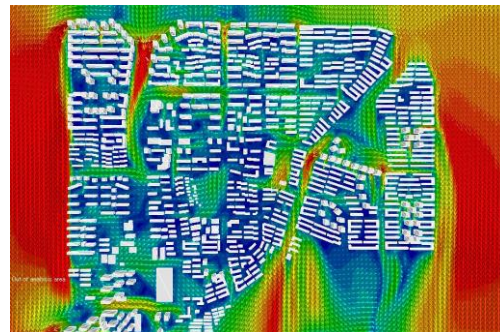


Winter

### 2. Tiantongyuan Residential District, Beijing

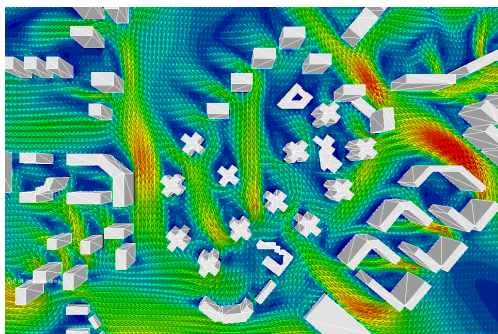


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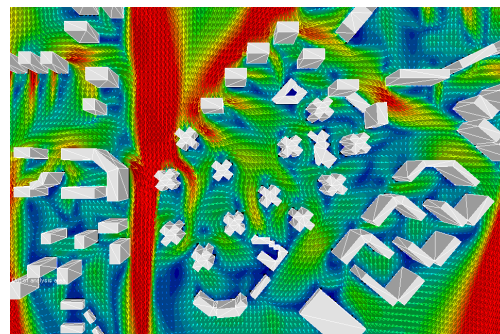


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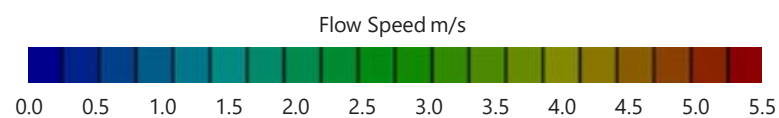
### 3. Wangjing (Wangjing West Gardens District 4), Beijing



Summer

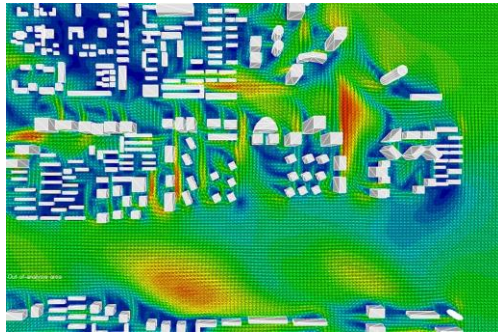


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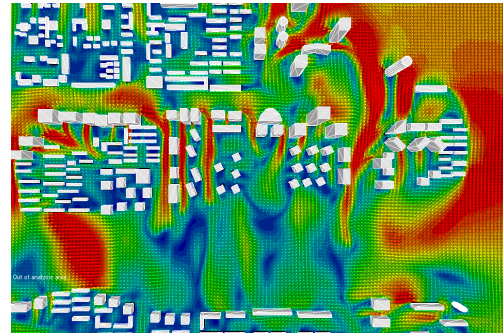




#### 4. Jian Wai SOHO, Beijing

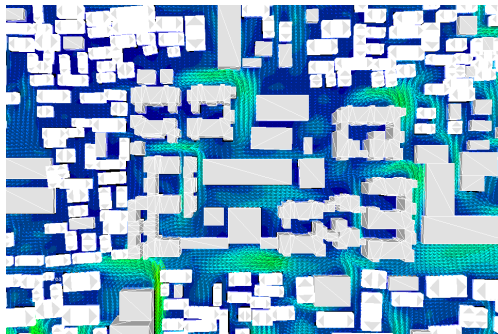


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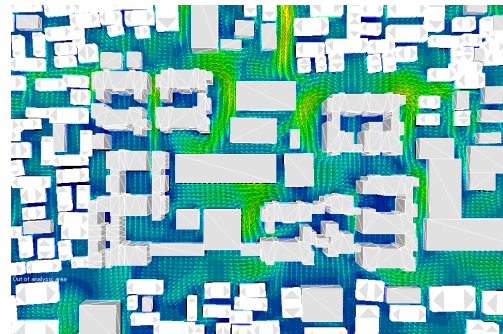


Winter

#### 5. Ju'er Hutong, Beijing

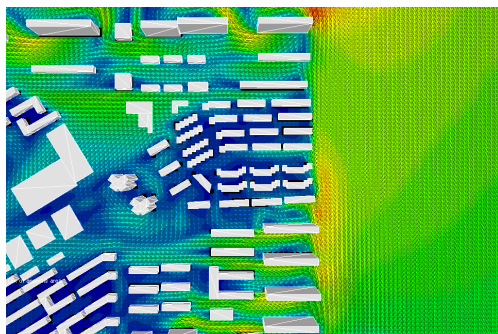


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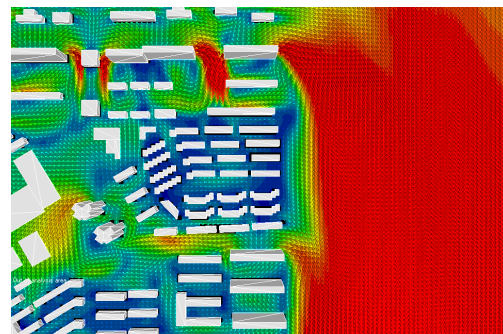


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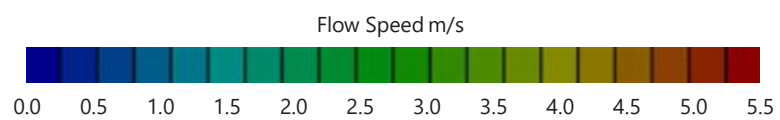
#### 6. Yilin Jiayuan, Beijing



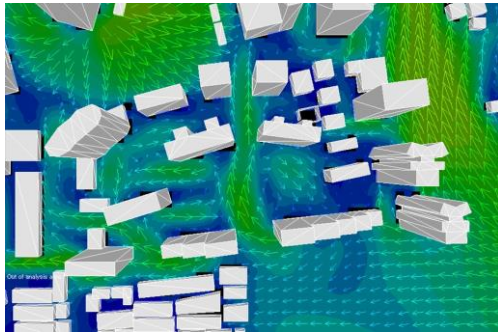
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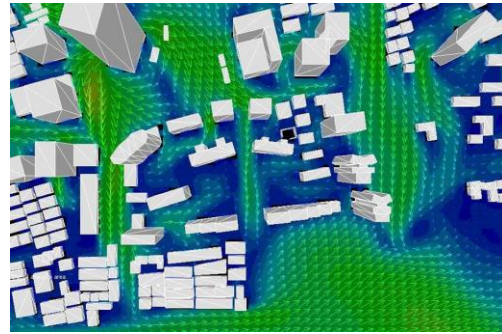
Winter



## 7. Top of the City I, Shanghai



Summer



Winter

## 8. Sanlinyuan, Shanghai

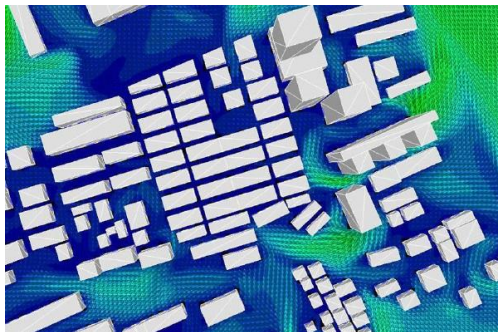


Summer



Winter

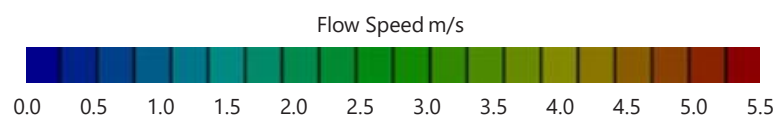
## 9. Model Linong + Siming Village, Shanghai



Summer

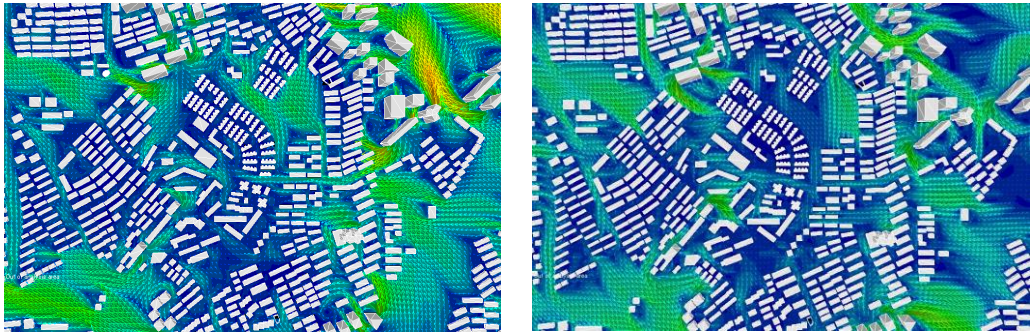


Winter





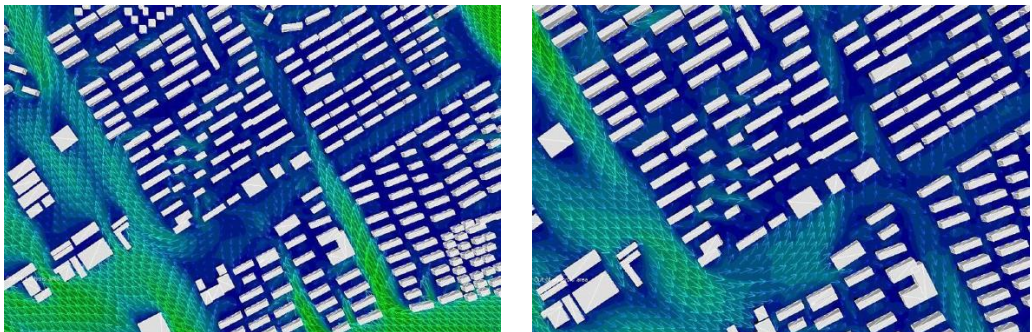
10. Caoyang Xincun, Shanghai



Summer

Winter

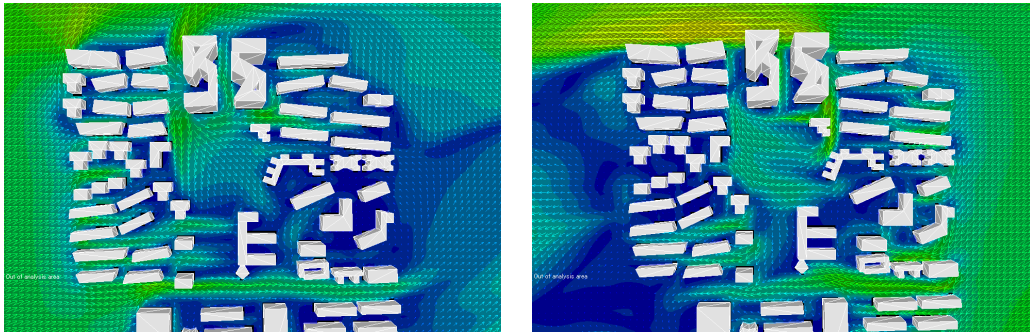
11. Langrun Gardens, Shanghai



Summer

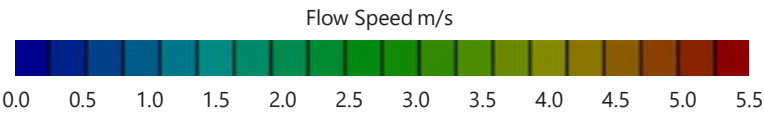
Winter

12. Lianhua Yicun, Shenzhen

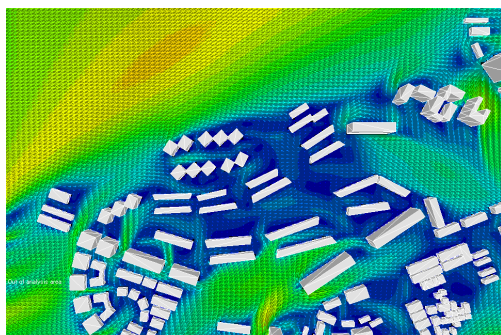


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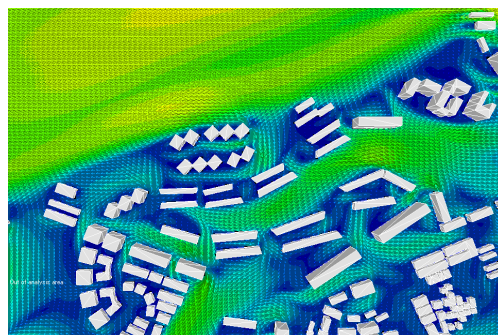
Winter



### 13. Meilin Yicun, Shenzhen

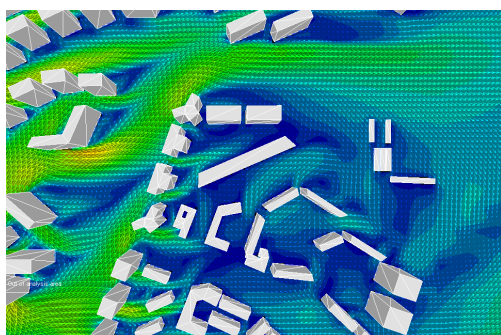


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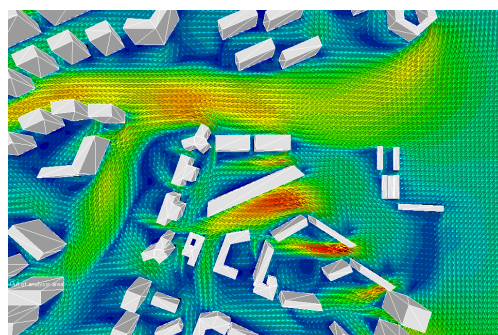


Winter

### 14. Cuihai Huayuan (Gardens), Shenzhen

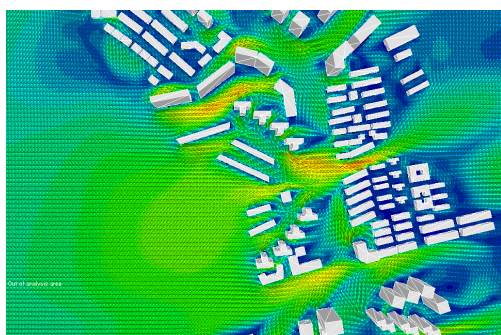


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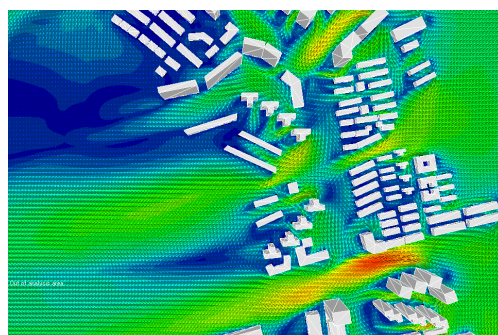


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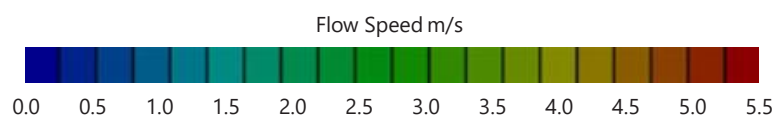
### 15. Shuixie Huadu, Shenzhen



Summer

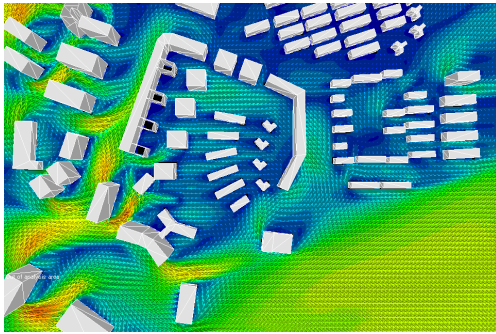


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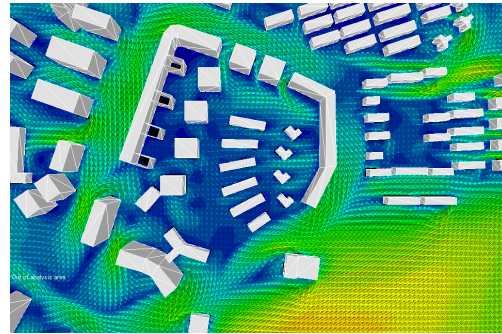




## 16. Cuizhuyuan, Shenzhen

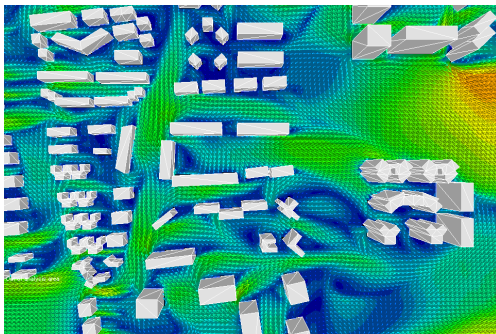


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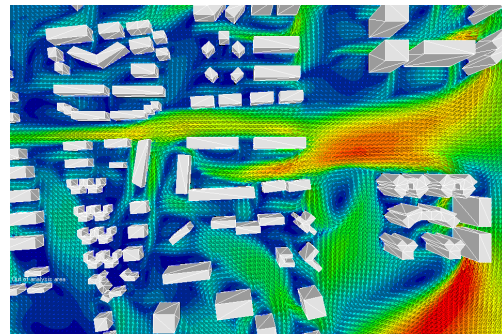


Winter

## 17. Tianjiao Huating, Shenzhen

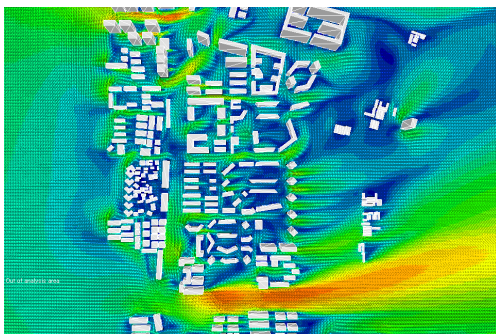


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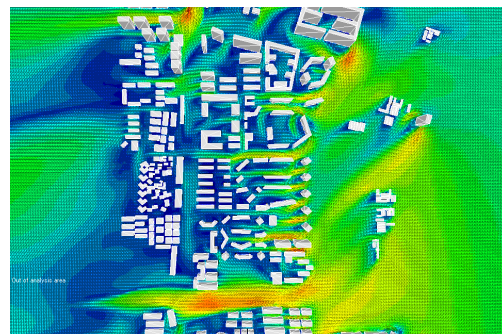


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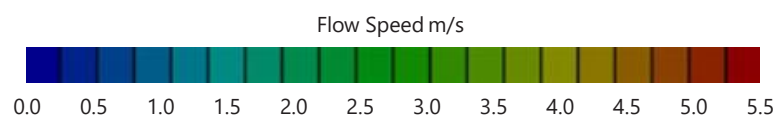
## 18. Weilan Hai'an (Côte de Azur), Shenzhen



Summer

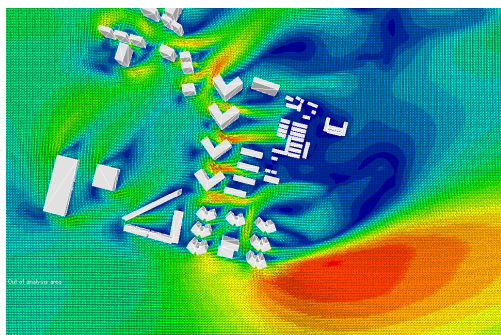


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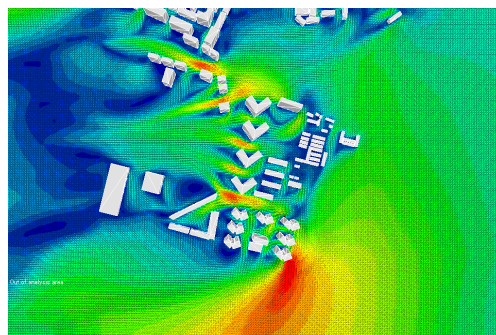




### 19. Bandao Chengbang (The Peninsula), Shenzhen

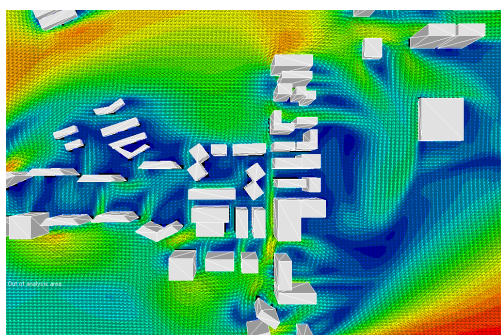


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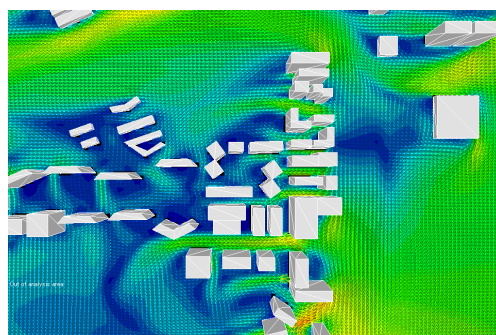


Winter

### 20. Changcheng Shengshi, Shenzhen

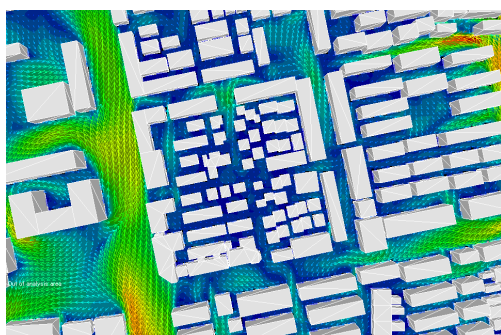


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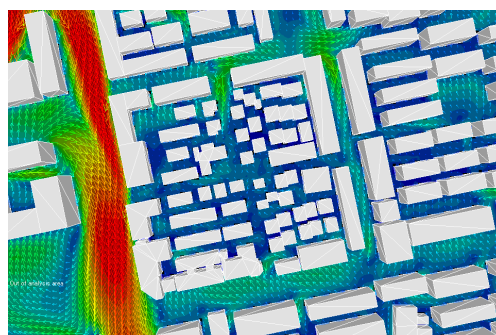


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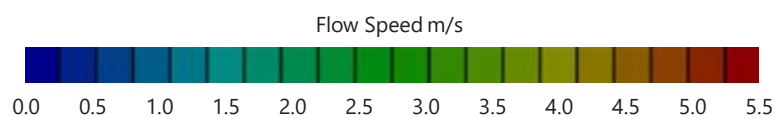
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Summer

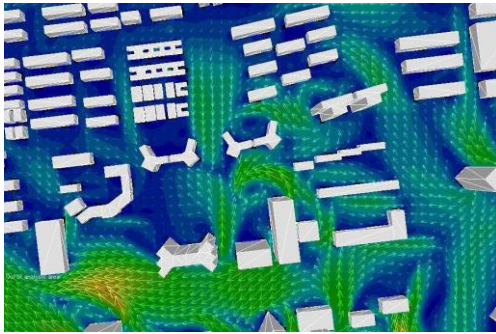


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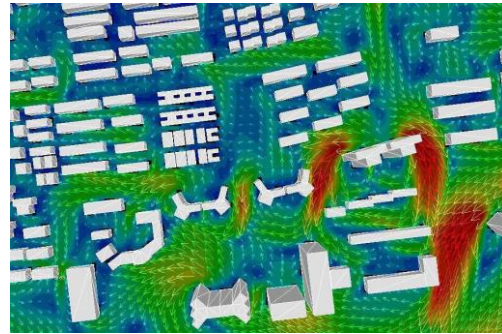




## 22. Suzhou Garden Villas (Jinhuayuan), Suzhou

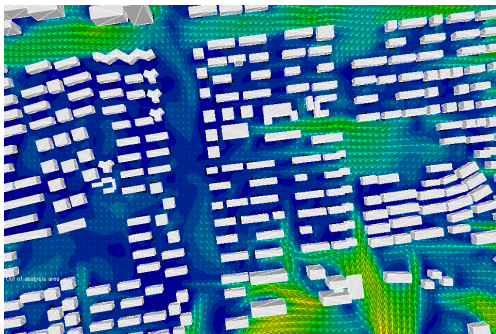


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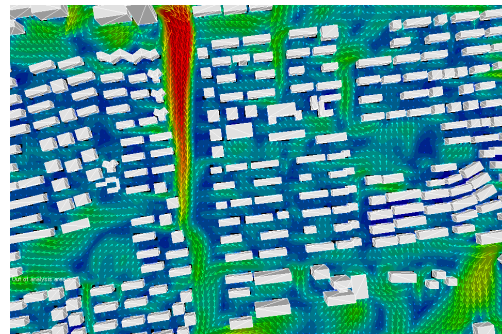


Winter

## 23. Caixiang Xincun, Suzhou

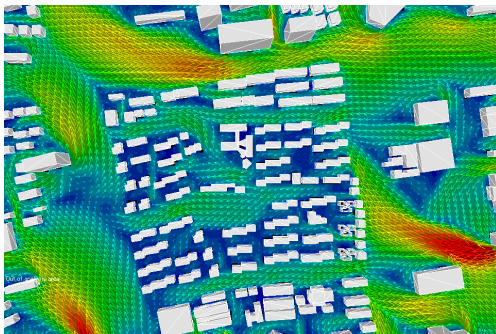


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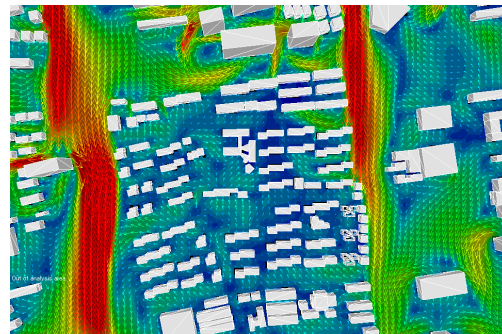


Winter

## 24. Sanyuan Yicun, Suzhou

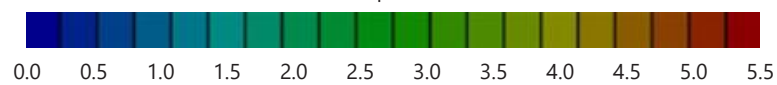


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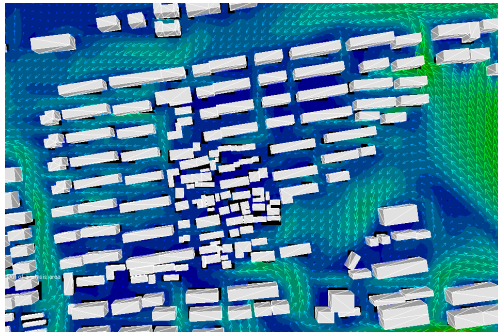
Flow Speed m/s



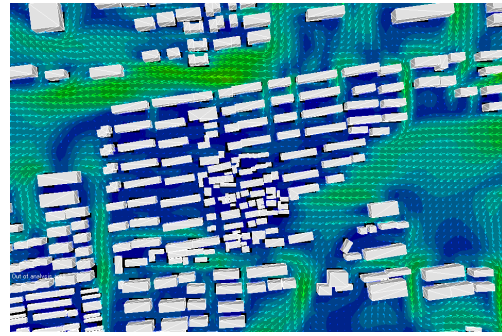


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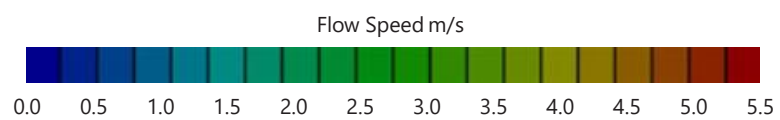
## 25. Sanxiang Xincun, Suzhou



Summer



Winter





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- CHAPTER 5**
- 1** Peter G. Rowe, "On Shaping the Space of Time in Urban Circumstances", *Chengshi Sheji [Urban Design]* 1 (2014): 27.
- 2** Peter G. Rowe, "Urban Residential District Making", in *The People's Republic of China at 60: An International Assessment*, ed. William C. Kirby (Cambridge, Mass.: Harvard University Asia Center, 2011), 169–171.
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- 18** "Hallway House/NL Architects"
- 19** "Standardarchitecture: Social Theatre Housing", *Design Boom*, accessed December 10, 2015, <http://www.designboom.com/architects/standardarchitecture-social-theatre-housing/>
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- 26** Lara, Alejandro and Dima Rachid, "A Life Aquatic" (Options Studio under the direction of Leire Asensio and David Ma at the Graduate School of Design, Harvard University, 2015).
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- CONCLUSION**
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- METHODS APENDIX**
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- 3** "Walk Score", accessed November 25, 2015, <https://www.walkscore.com/> and <https://www.walkscore.com/methodology.shtml>
- 4** "Urban Modeling Interface [v.2.0]", accessed November 25, 2015, <http://urbanmodellinginterface.ning.com/>



# ILLUSTRATION CREDITS

All photographs and illustrations, unless credited otherwise, are by Ann Forsyth, Yingying Lü, Peter G. Rowe, and the team of students from the Harvard University Graduate School of Design, as listed in the Acknowledgements.

## CHAPTER 2 CONCEPTS OF COMMUNITY IN CHINA

- Page 31, Fig. 2:** David Keightley, 1999, p. 270  
**33, Fig. 4:** Adapted after Yeju He, 1996, p. 191  
**37, Fig. 7:** Yeju He, 1996, p. 605  
**37, Fig. 8:** Jingshi Wucheng Fangxiang Hutong Ji [Fangxiang Hutong Records of Beijing's Five Districts], 16th Century, 1982 reprint  
**37, Fig. 9:** Adapted after Qianlong Beijing Map, 1736  
**41, Fig. 10:** Hankou Shan-Shaanxi Huiguan Gazetteer, 1896  
**41, Fig. 11:** Public Domain  
**42, Fig. 13:** "Produce Plant," *Architectural Journal*, 1958, Vol. 4, pp. 28-29.  
**42, Fig. 14:** Public Domain  
**45, Fig. 15:** Henderson and Cohen, 1984  
**45, Fig. 16:** Adapted after Wang, *Architectural Journal*, 1962, Vol. 2, pp. 8-9  
**47, Fig. 17:** chinese posters.net, from the IHS-Landsberger Collection  
**47, Fig. 18:** *Architectural Journal*, 1958, Vol. 5, p. 3  
**49, Fig. 19 & 20:** Adapted after Google Earth & Baidu Maps

## CHAPTER 3 URBAN TYPES AND PROJECTS

- 54, Fig. 1 (left):** Khan-Magomedov, 1983, plate 817  
**54, Fig. 1 (right):** Architecture Construction Science and Research Institute, 1959, plan 98a  
**54, Fig. 2:** Architecture Construction Science and Research Institute, 1959, plate 265  
**57, Fig. 4:** Adapted after Lü, Rowe, and Zhang, 2001, various  
**58, Fig. 5:** Architecture Construction Science and Research Institute, 1959, plate 95

- 58, Fig. 6:** Shanghai People's Publishing House, *Great Changes: Shanghai's Real Estate Towns* 150, 2004, plate 281  
**60, Fig. 8:** Adapted after Lü, Rowe, and Zhang, 2001, various  
**63, Fig. 9 (top):** Architecture Construction Science and Research Institute, 1959, plate 155  
**63, Fig. 9 (bottom):** Adapted after Lü, Rowe, and Zhang, 2001, various  
**65, Fig. 12:** Public Domain

## CHAPTER 5 NEW PATHWAYS FORWARD

- 122, Fig. 1, 2 & 3:** Nan Cao, 2009  
**123, Fig. 4 (top):** Shinkenchiku-Sha  
**123, Fig. 4 (bottom):** Adapted after Rowe and Kan, 2014, p. 67  
**124, Fig. 5:** BAU Brearley Architects+Urbanists, 2014  
**125, Fig. 6:** Brearley and Qun, 2010, p. 65  
**127, Fig. 7:** Shinkenchiku-Sha  
**128, Fig. 8:** WOHA, 2015  
**129, Fig. 12:** Patrick Bingham-Hall, 2015  
**130, Fig. 13, 14, 15 & 16:** WSP Architects, 2007  
**133, Fig. 17 & 18:** NL Architects, 2011  
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**144, Fig. 38:** David Chipperfield Architects, 2015  
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