

Beijing Office, and Lushan Scenic and Historic Area Administration Bureau, 2013).

Reconciling theory and practice calls for efforts on both sides. To support the conservation of HUL, practitioners should pay more attention to the academic heritage and recent progress of urban morphological research. Meanwhile in developing and testing theories, urban morphologists need to be more aware of the practice that attempts to shape the landscapes that they research.

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The *li* concept and its potential use in urban planning in China

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China is undergoing rapid urbanization and is creating urban landscapes that lack regional identity. The benefits of the country's rich urban history and planning concepts are being overlooked (Chen, 2008; He and Henwood, 2012; Sorkin, 2008). One such planning concept is that of the *li*, a traditional distance unit that was initially applied as part of the official *Jingtian*, the method of farmland distribution in the late Western Zhou dynasty (1046–770 BC) (Qiao, 2013, pp. 141–2). The *li* has also been used as a basic unit in the household management system of China's main urban centres, and has developed a deeper meaning associated with human settlement. Today *li* can also mean a small village, a home town, or a dwelling in a neighbourhood (Zhao, 2004). The link between the *li* as a unit and as a concept of urban organization is also shown in the heritage watertowns, and in Shanghai's *lilong* developments from 1870 to the

1940s, in the Jiangnan region of the Yangtze River Delta. It provides a valuable concept for consideration by decision makers involved in residential developments in China's urban centres, especially since the recently issued Thirteenth Five-Year Plan favours smaller scale residential developments, and better proportions for street blocks and road widths (Central Committee and State Council of the Communist Party, 2016).

The typomorphology of the surviving historical Jiangnan watertowns can be hypothesized using Conzenian plan analysis, but there is little support from limited surviving historical records (Whitehand and Gu, 2007). The heritage towns of Wuzhen and Zhouzhuang are worthy examples for investigation and show two different applications of the *li* concept. The use of regular dimensions based on a 416 m *li* for both of these watertowns suggests they were laid out prior to 618 AD (He

and Henwood, 2015), because the *li* had been defined as 416 m as early as the Eastern Zhou Dynasty (770–256 BC), but was later reduced during the Tang Dynasty (618–907 AD) (Dubs, 1938).

The western portion of the politically significant centre of Wuzhen has developed in a linear manner along the Xishi River, connecting the older town centre in the east with the Grand Canal between Beijing and Hangzhou that was completed in the seventh century (Ruan, 2009). The layout of this portion of the town follows a consistent width of a half-*li* (approximately 200 m) each side of the river over a distance of approximately 1.8 km. The river and Xizha Dajie lane (approximately 3–5 m wide) along its northern bank, provides the town's defining *plan element* and *fixation line*, in Conzenian

terminology (Conzen, 1969, pp. 125, 128). The importance of the river for transport is shown by the numerous small-scale spaces and public moorings, which link the river to the street system.

In contrast, the watertown of Zhouzhuang has developed around a well-defined kernel with a network of narrow waterways of 10 to 20 m in width, with 3–4 m wide pedestrian lanes along the waterfronts (Pan, 2003), which can be defined as both *plan elements* and *fixation lines*. The town follows a loose grid using a base dimension of a half-*li* to position bridges and primary pedestrian lanes. The town grew slowly in a series of morphological periods, but each followed the earlier half-*li* layout reflecting the successful and enduring character of the earlier urban structure.

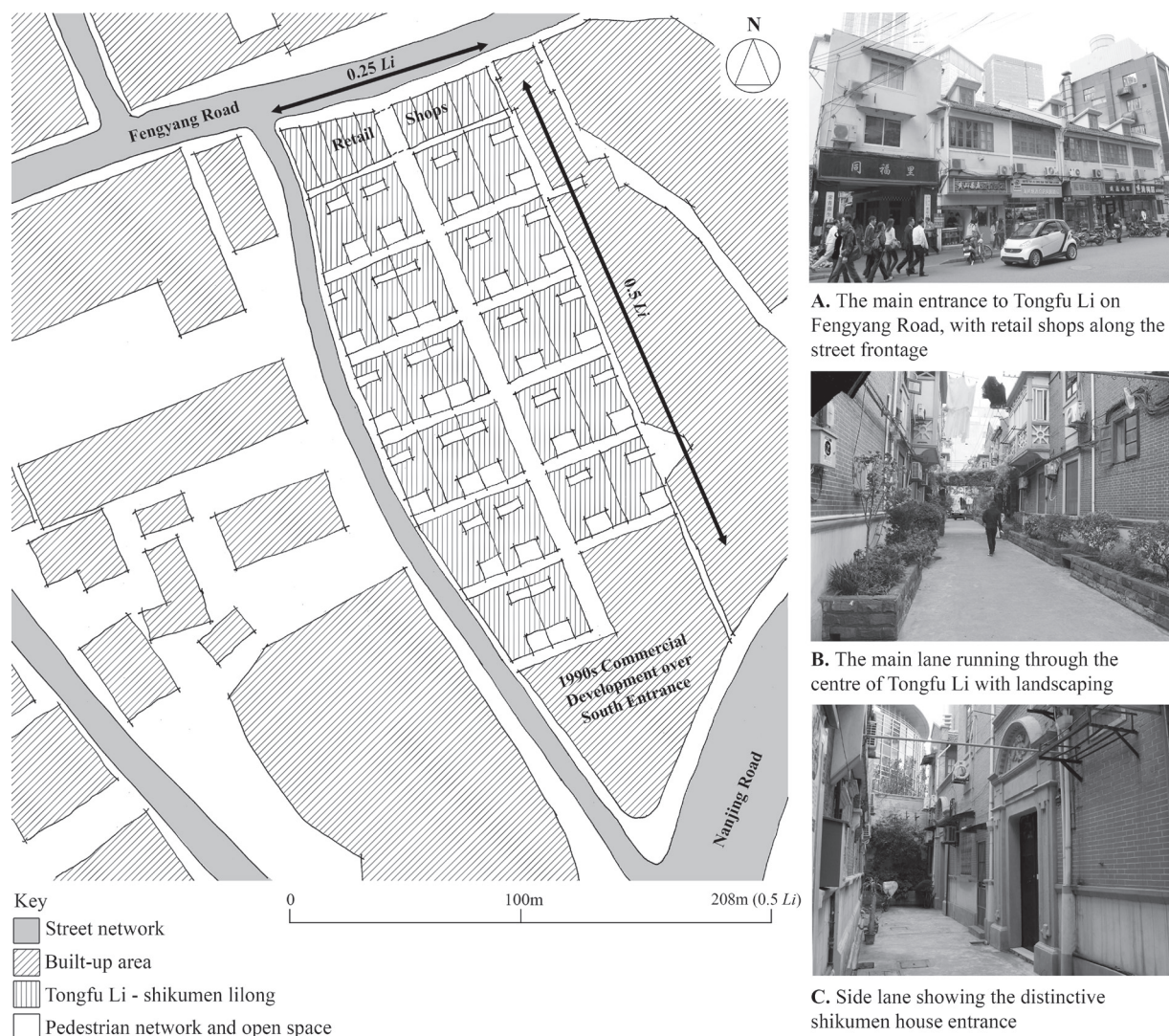


Figure 1. Tongfu Li, a shikumen lilong near the centre of Shanghai. The main lane (5 m wide) and branching side lanes (3 m wide) still show a relationship to the *li*.

Both of these watertowns have developed with a pedestrian lane and alley system providing circulation, and small *pocket spaces* that display the concept of *conversion*, a term that refers to the conversions that occur within spaces – for example, converting what are retail spaces during the day into restaurants and food stalls in the evening, or accommodating special events such as weddings or funerals, public performances, and religious and traditional festivals (He, 2008; He and Henwood, 2015).

Shanghai's lilong neighbourhoods emerged in the 1870s as housing for migrants seeking the security and opportunities of the prospering city, and remained the dominant form of housing for more than a century (Whitehand *et al.*, 2014). It is the early shikumen lilong neighbourhoods of the 1870s to 1930s that have the strongest links to the Jiangnan watertowns (Guan, 1996; Hammond, 2006; Tsai, 2008; Zhao, 2004). The shikumen lilongs were developed as high density, low-rise housing, with a commercial street frontage of small retailers to support the daily needs of the community, described as 'waipu-neili', which roughly translates as 'shops outside, neighbourhood inside' (Zhao, 2004). The perimeter of retail shops protected the neighbourhoods from the noise and bustle of the streets and also provided interior security by limiting access to a few entrance gates. The public space network inside the neighbourhood was similar to that in the watertowns in that communal space was defined by pedestrian lanes with smaller side alleys, which became valued space with multiple functions and further developing the *conversion* concept. The research of the past 2 decades suggests that in spite of poor facilities and overcrowding, the ageing lilong still created strong communities that the occupants valued and have not found in contemporary high-rise apartment buildings (Guan, 1996; Hammond, 2006; Morris, 1994; Tsai, 2008). The lilongs are rapidly being replaced by high-rise developments, but some small remnants of shikumen lilong remain, such as Tongfu Li (Figure 1). Tongfu Li has many similarities to the watertowns and was laid out on a site of approximately a quarter-*li* by a half-*li*, with a 5 m wide central lane and smaller 3 m wide side lanes, and still displays the concept of *conversion* in the communal lanes. Further research is needed, but much could be gained by understanding the reasons for the success of lilong neighbourhoods in developing strong communities within such a large urban centre (Sorkin, 2008).

The application of urban morphology in China offers both designers and decision makers involved in urban projects significant information, particularly concerning traditional Chinese urban planning concepts, such as the *li*. The *li* concept has shaped an enduring and economically viable urban form in the Jiangnan watertowns and Shanghai lilongs, and generated an urban culture of strong communities, which contemporary developments are struggling to achieve. Further typomorphological investigation of the characteristics of the heritage watertowns and lilongs will improve understanding of the urban culture of the Jiangnan region, and may improve future development by providing urban continuity, which seems to be an aim promoted by China's central government.

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The normative impulse

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Cities exert an enormous pull on our imagination. We invest in our cities in any number of ways – mentally, physically and financially. Settlements are the product of an enormous amount of human energy and are part of us as a species – essential to our survival. Yet they also seem to remain something 'out of our control'. One way or the other we tend to show a strong sense of territory and drive to create places for our own needs. This comes out in the fascinating diversity of places, reflecting the different ways people choose to express that drive to create environments conducive to life.

One of the consequences of the deep rooted connection we have with the places where we live is a *normative impulse* in our perceptions and interpretations of buildings and cities. When we talk about places, we tend to start with what we like, or not: beautiful, ugly, fascinating, good neighbourhood, bad neighbourhood, 'not the sort of place you'd want to live'. We view places in terms of preferences and social judgements. Professionals are paid to have preferences, to say what is good or bad and what is worth the money to build.

At a broader level, the normative impulse is an expression of the fundamentally political nature of creating and changing the built environment and is rooted in our territoriality. Occupying land and putting up buildings (and tearing them down) are political acts, whether by an external power or an internal group. The preferences of those in control are the ones that are acted upon and expressed.

So if there is this almost irresistible, headlong rush toward the normative, how do we deal with the sense that cities seem out of our control, as if they have a mind of 'their' own? How do we work out who is in control if some things emerge not because of deliberate choice but as a consequence of a number of individuals' choices about something else?

The desire to understand this apparent paradox lies at the heart of urban morphology. Part of that desire is the conviction that the normative impulse, while ultimately irresistible, can at least be slowed down. We can, with effort and the right tools, temporarily suspend the impulse long enough to examine what is really going on in the built environment. Yes, it is political, but it is not only political.