

diffusion of morphological knowledge is unsystematic and slow. While this is a problem that should be carefully considered, it does not differ much from the situation in other social sciences or even from the relationship between theory and practice within planning itself. Urban morphologists should continue to make efforts to bridge the gap between research and practice, developing systematic surveys in various planning contexts, trying to understand planning practitioners' needs and aspirations, and testing the relevance and diffusion potential of their research.

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Typomorphological ideas and the development of public places: the case of China's Jiangnan watertowns

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China is a country with a long and rich urban history but today's rapid urbanization process is posing major problems for decision-makers seeking to retain the unique character of historical cities. A particularly challenging area is the Yangtze River Delta. With its dense network of rivers and canals, it has been home to the distinctive Jiangnan watertowns for several thousand years. Unfortunately, recent urban growth in these towns has occurred with little consideration having been given to the traditional characteristics of public space. On the contrary, overseas models have been imitated that have little relevance to Chinese urban planning. We should like to offer here a few observations on how the problem can be tackled by using a typomorphological approach.

According to Chen and Gu (2009) the typomorphological method employs an integrated framework for understanding urban physical structure and its formative process. Although exploration of the Jiangnan watertowns using this method is only just beginning, some preliminary work is already providing valuable experience about spatial typologies. The spatial typologies referred to here are derived from several field studies of traditional watertowns over the past 3 years, and provide valuable cultural elements to consider in the design of public places within urban developments taking place both in and around

traditional watertowns and more widely.

Songjiang, a watertown with more than 2000 years of history, is currently developing in accord with the 'One city and nine towns' urbanization plan for Shanghai (*Shanghaishi renmin zhengfu gongbao*, 2002). The plan accommodates the rapid growth of Shanghai by developing the surrounding towns into one much larger city, and attempts to introduce Western design ideas, but reflecting Shanghai's history, in each of the nine towns. Songjiang has many important watertown features even after industrialization during the middle of the twentieth century, but unfortunately recent development includes overly large public spaces, such as People's Square, and parks with little or no relationship to the waterways. The large parks of the new Green Belt are forbidding after dark, have raised concerns about public safety, and have taken up valuable farmland. The Western contribution to Songjiang is a 'Thames town' with replicas of English architecture along the main lakefront, limiting public access to the water. Such public places fail to engender consciousness of identity, and play a lesser role in the cultural aspects of urban life than the traditional watertown spaces. Development of this type risks losing the watertown's soul by importing clusters of eccentric architectural buildings from overseas and creating oversized urban spaces.

Table 1. Spatial typologies observed in the Jiangnan watertowns

Public spaces	Characteristics	Uses
Lanes	Narrow (2-6 m wide) Along waterfront, may have roof covering Stone pavement	Pedestrians (possibly bicycles) Mixed use: small-scale retail and restaurants, hotels, small galleries and museums, some residential
Alleys	Very narrow (< 2 m wide) Stone pavement	Pedestrians Lead to residences (often ending in small courts that provide access to more than one residence) Provide some fire separation
Bridges	Stone construction Sense of openness Seating to each side and may also have roof covering	Valuable public space for social interaction Traditionally used by merchants for making business deals
Pocket spaces	Leftover spaces between buildings along waterfront or prominent lanes Often with Chinese garden elements (seating and planting) Intimate, small-scale spaces	Valuable public space for social interaction Traditionally used for family clan events
Religious spaces	Located at Buddhist or Taoist temples along waterfront or prominent lanes Temple compounds containing courtyards and Chinese gardens May also contain pagodas and towers Intimate, small-scale spaces	Religious spaces for the worship of local deities Traditionally used by scholars for teaching students Valuable public space for social interaction

Gu (2001) introduced the benefits of ‘morphologic analysis’ in spatial typological studies. The public spaces in the traditional watertowns have characteristic traditional features (Table 1). In contrast to the blank and vacant spaces of the recent development in Songjiang, the public spaces in the Jiangnan watertowns bustle with the daily life of the townspeople and inquisitive tourists, and are strongly rooted in the cultural and spiritual aspects of the people. The principles of both *Taoism* and *fengshui* contain ideas of water as a powerful element that is capable of directing positive energy within the town to enrich the community. The natural and man-made waterways define the landscape in a fluid and organic manner. The watertowns are intensively developed with one- or two-storey buildings to make the best use of the limited land, but despite the dense development there are numerous public open spaces along the waterways and lanes. The waterways historically provided economic transport, but there are also pedestrian lanes only a few metres wide, some less

than 1 m wide, that criss-cross the built-up area, with bridges at significant locations. The elegant stone bridges are among the most evocative features. They contrast with the enclosed narrow lanes and alleys and are spaces for social interaction, sometimes even having roofs and seating. The public open spaces are small scale, intimate, and incorporated into the built environment, with a strong sense of community. They are also characterized by a variety of uses from daily functions to significant religious, family and cultural events.

Chen and Romice (2009) discuss the value of a typomorphological approach in maintaining cultural identity in historical Chinese cities, and certainly these traditional space typologies are worthy of consideration in the design of contemporary public places in traditional watertowns. A good example of the benefit of traditional spatial concepts is the design for the Fangta Park by Professor Feng Jizhong in Songjiang. The park design was widely debated on its completion and has recently become

a topic of discussion again. It combines China's rich history with recent urban planning ideas, including those from the West (Wu, 1996). The 12.8 ha park was designed around a pagoda and bridge from the Song dynasty (960-1279 AD), some intricately carved screen walls from the Ming dynasty (1368-1644 AD), and a Ming dynasty temple that was relocated to the site. The historical relics were left in their original locations, and a series of planted screens, walls and earth mounds were used to control viewpoints through the park. The ground around the pagoda is lower than the surrounding park and the main entry paths step down to a new sunken square, which allows viewing of the pagoda (using the 65 degree viewing angle observed in traditional pagoda spaces). The sunken square has no view of the surrounding park and contains no new planting, so that attention is focused on the pagoda and an ambience is created for moral and religious thinking. According to Zhao *et al.* (2007), this design captures the essence of Chinese landscape design for modern people in a modern society.

In 2001-2, the Italian architects Gregotti Associati International won a design competition for a new town at Pujiang. The design is based on Italian urban design principles, but it also has resemblances to traditional Chinese watertowns. The design employs two orthogonal axes and a grid pattern to organize the spaces of the town (Gregotti Associati International, 2002). Although the canals are largely used to distinguish different neighbourhood blocks, there are some street-facing residences that back onto canals. This arrangement provides a link to the waterways similar to that in the traditional watertowns.

The application of typomorphological method to explore the Jiangnan watertowns is only in its very early stages, and more in-depth research, including plan analysis (Whitehand and Gu, 2007), is necessary. However, these preliminary observations on spatial typology in a particular Chinese context offer food for thought for those designing new public places in traditional watertowns. These new places should be designed to reflect the existing spatial typology in such a way that continuity is maintained with traditional spaces. This will give a strong sense of place and identity, reflecting watertown origins. Further investigation will both improve understanding of the watertowns and allow typomorphology to be further developed

as a decision-making tool to be used more widely in influencing contemporary urban growth in historical Chinese cities.

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