



VIEWPOINTS

Discussion of topical issues
in urban morphology

Typomorphology and the crisis of Chinese cities

Fei Chen, Department of Architecture, University of Strathclyde, 131 Rottenrow, Glasgow G4 0NG, UK. E-mail: fei.chen@strath.ac.uk

Chinese cities are at serious risk of becoming placeless and losing their cultural identity in a wave of urbanization and globalization. At present, Chinese urban morphological approaches lack an adequate theoretical basis to deal with the problem. However, Western-derived typomorphology, though lacking a widely acknowledged definition hitherto, is attracting increasing interest in China and offers a solution. The treating of existing urban artefacts as 'operative history' and the establishment of a solid information database for the transformation of urban forms over time are approaches that Chinese scholars can learn from their Western counterparts. The merits of typomorphology, which is based largely on the typological theory of the Italian School and the urban morphological theory of the British Conzenian School, relate particularly to three aspects: cultural representation and symbolism, morphological references or design language, and effective communication.

A type is usually defined as the structural principle of a form (see, for example, Krier, 1998, p. 42). It allows a form to express meanings that are understood by and favourable to local people, because the structural rules of forms are closely related to local topography, ecology, technology, building resources, lifestyle and aesthetic preferences. Cultural conventions are, of course, constantly changing: types and forms in each period of time are modified to accommodate such changes, and form a typological process. In addition, new types are invented when dramatic changes occur. The image of a form embodies people's personal

and social identity (Watson and Bentley, 2007, p. 4). Unfortunately typology has become devalued: rather than being a basis for resisting commoditized architecture and urbanism, it has become subservient to the dictates of the market. This can be observed in America (Goode, 1992) and China.

Converting a type into a physical form, in order to represent local cultural and social value, leads to the second advantage of typomorphology – the morphological reference or design language. Typomorphological design can produce a socially acceptable, suitable form to fit into the existing urban fabric through coding a relevant type. The application of such design codes makes it easier for designers to 'develop and maintain successful practices because they will be less likely to make idiosyncratic, frivolous, or simply unworkable design choices' (Francescato, 1994, p. 269). However, a type merely provides a design framework rather than a detailed design. It allows flexibility and diversity within constraints. Examples of practical design can be found in the design projects of the Krier brothers, the New Urbanists and the followers of the Muratorian School.

The communicative merit of typomorphology in China lies in the unconscious typological thinking among both domestic designers and common people. Traditional Chinese architectural form and urban setting were fundamentally influenced by Chinese cosmology and social hierarchy, which were embodied in the well-known Confucianism, Daoism and *fengshui*. These can be thought of as

'typological thinking'. They maintained the continuity of Chinese urban architecture over a great many generations. For instance, a courtyard house type exists in the spontaneous consciousness of every Chinese. The common understanding of Chinese traditional types, represented by appropriate terminology, facilitates communication between designers, clients and the general public, and also benefits Chinese architectural education.

Typomorphological study of Chinese urban architecture is largely absent in the current literature, even though typological and morphological theories have been introduced into China since the late 1980s (see for example, Gu, 2001; Shen, 1988). However, typological design and morphological study of Chinese urban form have been conducted by both Chinese and foreign scholars during the last two decades. One of the earliest design projects using typology was the regeneration of Ju'er Hutong in Beijing between 1987 and the late 1990s (Ghirardo, 1996; Su, 2004). The chief designer, Wu Liangyong, employed the traditional courtyard house type, but with modern amenities, as a model for house design. The relationships between courtyard houses and *hutongs* (neighbourhood alleys) were also distilled and formed the basis for new designs. However, the design project fell victim to the superficialities of the 'culture industry': this led to gentrification because the new houses merely followed the unchanged historical courtyard house type rather than the updated type that had gone through a typological process. The latter was adapted to the increases that had taken place in land value, which required a much denser form than the historical type. It is therefore important to consider the typological process of traditional houses and undertake morphological analysis of the surrounding urban form.

Another example is the Xin Tian Di project in Shanghai. Here a traditional neighbourhood has been converted into an up-market commercial and entertainment region based on preserved traditional houses. The project achieved great success in terms of profit-earning, but the houses became divorced from history and the culture from which they originated: the dictates of international capitalism prevailed (Qian, 2006). The social network in the neighbourhood was completely erased. Similar projects labelled as 'tradition renaissance', but in fact lacking awareness of the original social complexity have been widely adopted in China: the 'Nanjing 1912' project is an example (Qi and Yang, 2006).

Attempts to apply urban morphological theory to

Chinese urban form are also occurring: the morphological analysis of the city of Pingyao is an example (Whitehand and Gu, 2007). Such explorations are evidence of a more satisfying Chinese urban morphology. But they are only a beginning. What is needed in China is an integrated typomorphology, grounded in both Italian typology and British Conzenian morphology. This needs to be explored so that it provides a future for Chinese urban development based on cultural continuity. Such an exploration – of the Chinese cities of Nanjing and Suzhou – is being undertaken by the author. It aims first, to enrich the typomorphological study of specific Chinese cities; and secondly, provide practical prescriptions for domestic urban design.

Acknowledgement

The author wishes to thank Dr. Ombretta Romice of the University of Strathclyde for her valuable comments.

References

- Francescato, G. (1994) 'Type and the possibility of an architectural scholarship', in Franck, K. A. S. and Lynda, H. (eds) *Ordering space: types in architecture and design* (Van Nostrand Reinhold, New York) 253-70.
- Ghirardo, D. (1996) *Architecture after modernism* (Thames and Hudson, Singapore).
- Goode, T. (1992) 'Typology theory in the United States: the consumption of architectural 'authenticity'', *Journal of Architectural Education* 46, 2-13.
- Gu, K. (2001) 'Chengshi xingtai de lilun yu fangfa: tansuo quanmian yu lixing de yanjiu kuangjia' ('Urban morphology: an introduction and evaluation of theories and methods'), *Chengshi Guihua (City Planning Review)* 25 (12), 36-41.
- Krier, L. (1998) *Architecture: choice or fate* (Andreas Papadakis, Windsor).
- Qi, K. and Yang, Z. J. (2006) 'Minguo wenhua de zuobiao' ('The cultural coordinates of the Republic of China'), *Jianzhu Xuebao (Architectural Journal)* 1, 14-18.
- Qian, F. (2006) 'Old buildings, new landscape: redeveloping historic neighbourhoods: a case study of Xin Tian Di, Shanghai, China', *Traditional Dwellings and Settlements* 18, 843-58.
- Shen, K. (1988) 'Yi da li jianzhu shi a'er duo luoxi' ('Italian architect: Aldo Rossi'), *Shijie Jianzhu (World Architecture)* 8, 50-7.
- Su, J. and Wei, Q. (2004) 'Ju'er hutong zhuzhai gaizao

- gongcheng de leixing xue fenxi' ('Typological analysis of the house renovation project of Ju'er Hutong'), *Hefei Gongye Daxue Xuebao (Journal of Hefei University of Technology)* 27, 372-5.
- Watson, G. B. and Bentley, I. (2007) *Identity by design* (Elsevier, Oxford).
- Whitehand, J. W. R. and Gu, K. (2007) 'Extending the compass of plan analysis: a Chinese exploration', *Urban Morphology* 11, 91-109.

M. R. G. Conzen and Japanese castle towns

Shigeru Satoh, Department of Architecture, Urban Design and Planning, Waseda University, 55N-7F-10, Okubo 3-4-1, Shinjuku-ku, Tokyo 169-8555, Japan. E-mail: gerusato@waseda.jp

My only meeting with M. R. G. Conzen was at the ISUF conference in Birmingham, UK in 1997. He listened to my paper on Japanese castle towns and afterwards eagerly discussed it with me, especially the significance of a geographical approach. He also presented me with a copy of the second edition of his book on the English castle town of Alnwick (Conzen, 1969). Following the conference, I spent a fortnight visiting castle towns in England and Scotland, and was very conscious of some of their similarities to Japanese castle towns that Conzen had drawn to my attention at the conference. Some years later, after Conzen's death, I was intrigued to read a paper, written by him in 1980, that compared Japanese and British castle towns. My reflections that follow here were stimulated by that paper, which was part of a collection of his posthumously published writings (Conzen, 2004).

Conzen's remarkable insights into Japanese castle towns are founded on highly perceptive field study, an exceptional collection of maps and plans acquired during his travels in Japan, and his ability to view Japanese history and society both in terms of their commonalities with other parts of the world and their distinctive features. In light of his comparison of British and Japanese castle towns, I should like to add a few thoughts of my own.

British castle towns were constructed during the Middle Ages: they have undergone a long process of transformation, and each town contains vestiges of development, if not planning, that has taken place in various periods. Japanese castle towns, in contrast, were established within a short time span, between the late-sixteenth and early-seventeenth century. This was the beginning of the 'early modern' or 'Edo' period, which lasted until the mid-nineteenth century, when a centralized government was established in Japan and the

process of industrialization began.

The model of the early modern castle town in Japan was developed under strong rulers, Nobunaga Oda and Hideyoshi Toyotomi, who had played an important role in the unification of the country in the late-sixteenth century. In the Edo period, castle towns were constructed by feudal lords as centres for their land governance. During this period, a number of rulers, such as Kiyomasa Kato, Cagetora Todo and Enshu Kobori, built fine castles and undertook the successful planning of towns. Sometimes they were ordered by Shogun Tokugawa to help construct other castle towns. Thus the practice of castle town construction spread through-out Japan within a short span of time. The head of each castle town, delegated by Tokugawa, was the sovereign of his territory as well as the governor. He was in charge of the administration of the castle town and its neighbouring areas during the peaceful period of the 'Pax Tokugawa' from the beginning of the seventeenth century to the middle of the nineteenth century.

Japanese castle towns are symbols of regional integration: they were designed in relation to the surrounding topography. They embody rationality, functionality, and aesthetic sensibility. The whole town was made up of a grid pattern of street blocks. The land zoning based on social class that accompanied the feudal system in Japan also served as a means of functional zoning. This zoning system was restored during the modernization period after the nineteenth century. Most of the former samurai areas were maintained as residential areas, and the former *machiya* areas (townhouses with shops and storehouses) remained as commercial areas. Most of these planning arrangements and associated building styles continued at least until about 1960, unless there was a major fire