Reflections on the gap between academic research in urban morphology and heritage conservation

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In his notable research on the English market town of Alnwick, M. R. G. Conzen successfully established basic morphological principles and recognized urban morphological phenomena of wide significance. However, as he made clear, 'a small service centre like Alnwick cannot be expected to show all the phenomena that characterize the morphology of town plans' (Conzen, 1960, p. 4). Hence the validity of the morphological theory derived from this study needs to be tested, amplified and amended through cross-cultural comparison.

Conzen (1969) had long been aware of the limitations of the analytical and explanatory system that he established. This is evident in a small addition to the second chapter of the second edition of the Alnwick study. Here he wrote: 'If, then, land use and building fabric differ significantly in this respect [resistance to change], the town plan does even more so and is the most conservative morphological complex', which was followed by the caveat 'except in large towns affected by revolutionary planning measures at present'. Conzen had recognized that the relative resistance to change of the three morphological components of the townscape was variable. The importance of this caveat was borne out by our own case study of the town of Kuling in Lushan where on average building fabric shows more resistance to change than town plan. One factor relevant to this was the major governmental changes in China in the twentieth century. Another was the social changes in Kuling. Not only was there revolutionary change in ownership from private to public but there was also the fact that after the establishment of the People's Republic the redistribution of land was influenced more by building distributions than by plot boundaries. For example, the newly created *danweis* contained many buildings that originally belonged to different households and new roads were cut through the original plots.

A distinction should also be noted between on the one hand the mass ruination brought about by war and large-scale destruction associated with urban renewal, and on the other a revolution in policy, system or regime. The latter would not generally create immediate physical upheaval, but would be likely to lead to change to existing physical features as a result of changes to the fundamental rules of operation (Wu *et al*., 2014). For example, the plot has long been regarded as a basic unit of townscape analysis, but this in part reflects the relative stability of private ownership in relevant countries. In countries in which public ownership prevails, the plot as an element of the town plan has less resistance to change. If we consider the contents of town plan and building fabric, it is not hard to recognize the overlaps. On the one hand, their stability derives from the inputs of human labour and resources in the process of human beings making use of and shaping space, while on other hand, it is underpinned by a political system that regulates the right of using space. In this sense, town plan and building fabric are not fundamentally different; rather, both of them are the means and physical outcome of human beings shaping space in order to fulfill their demands of organizing their working and living.

In China, the significance of the plot seems to have decreased. An example is the *Zhishanmen* area in Beijing, a historical area that is relatively well-preserved physically. Many of the original plot boundaries remain in the form of courtyard walls, but what used to belong to a household is now occupied by several families and what used to be a private courtyard is now a public right of way. A more extreme and now very common case is the *danwei*, which since 1949 has become the fundamental unit of organizing production and living. According to the definition of a plot in terms of ownership, the areas of production and living within a *danwei* belong to the same plot, and within it several land uses may exist.

Evidently the different influences on townscapes associated with different political systems pose questions for urban morphology.

The obstacle of language and terminology

Despite its importance, cross-cultural communication has encountered obstacles of several types,

a major one being language, as Whitehand has pointed out in various situations (for example, Whitehand, 2012). There is widespread ignorance of research from non-English-speaking countries. For example, Zhengzhi Zhao's work on Beijing City in the Yuan Dynasty was arguably the initiation of urban morphology in China, but few urban morphologists in other countries are aware of it. What is more, rather than being a neutral tool, language is deeply embedded in ways of thinking. Researchers from different parts of the world tend to have different terms for the same phenomenon and faithful translations may be difficult to achieve. The comparison of theories is therefore far from straightforward.

Reviewing the development of urban morphological research in China, it is easy to trace back to the work of the students of Jiatai Song and Kang Chi, based on geography and architecture respectively (Hu, 1995; Gu *et al*., 1995; Wu, 1990). Ignorance of the important work of Zhengzhi Zhao (1907–1962) within the discipline of archaeology, however, can be attributed partly to the fact that he did not use the term 'urban morphology'.

In his research on Beijing City, Zhao (1979) reconstructed the plan of the Yuan Dynasty by relating plans of the 1950s to historical records and field investigation. This was the first work in China to use this method to reconstruct the historical plan of cities that have survived as urban areas since the Tang or Song Dynasties. Zhao noted that some elements have been replaced by new ones in accordance with social and economic requirements of the time, but what once existed has tended to influence the pattern of later-developed elements. Thus historical information about the development of the townscape has been written into, and can be read from, its current plan (Song, 2012). Zhao took advantage of types of remains that are most resistant to change, notably the street (*hutong*) pattern in terms of its relationship with other morphological elements in time and space, to reconstruct the developmental process of the city. Based on the characteristics of current physical elements, specifically the linear shape of the *hutongs*, Zhao speculated on the existence and extent of physical elements that had been effaced, such as the moat and the gatehouse. Combining the analysis of street pattern and plot pattern, he identified from irregularities in the street pattern several large institutional plots. Through quantitative analysis of the *hutongs* and plots, Zhao established that the basic plot size of the Yuan Dynasty in Beijing City was based on the distance between *hutongs*.

The methodology of Zhengzhi Zhao is evidently similar to that of M .R. G. Conzen. It is really a significant loss to knowledge that Zhao died prematurely in 1962, leaving his morphological theory incomplete. His work on Beijing City was recorded by his student Pingfang Xu but was not published until 1979. The method he initiated had a major influence on urban archaeology in China (Su, 2001), and his contribution to urban morphology should receive wider cognition.

China is only a small part of the world and the development of urban morphology requires communication on a much wider scale. Only through cross-cultural comparison can we transcend individual theories and explore deeper into the nature of townscape formation and transformation, and thus provide a sounder basis for the practice of heritage conservation.

Non-academic factors in heritage conservation practice

Owing to the complexity of heritage conservation, the problems that need to be handled in practice are diverse. Morphological aspects need to be considered in the context of social and economic requirements (Conzen, 1981). To cope with the conflicts between conservation and development and between different interest groups calls for a broad approach in which morphological and other issues need to be brought together. It is informative to revisit two paragraphs in Conzen's study of Alnwick. On the one hand Alnwick 'is to be preserved in order to do for future generations what we have taken for granted in the enrichment of our own lives' (Conzen, 1969, p. 2), on the other hand, 'the congested townscape behind the front rows of plot dominants, though of great interest to the historical geographer, cannot claim the same intrinsic value as a physical environment for present-day living and working and is bound to disappear in time' (Conzen, 1960, p. 96). This is also central to the contradiction and complexity that current urban conservation faces.

The gap between landscape research and practice may also lie partly in the fact that landscape as collective memory has been utilized as a political tool. Henri Lefebvre (1977) pointed out that the protection of the natural environment is not only an issue of technology, epistemology and philosophy, but also a political issue.

The political connotation is even more evident in the world heritage conservation field, as can be seen from the listing of such heritage sites as the Historic

Centre of Warsaw which was rebuilt after the Second World War. By getting involved in world heritage, some countries prepared a case for the status of their governance – sometimes to enhance claims to sovereignty in controversial areas.

In the first half of the twentieth century, landscape was at the centre of German geography, but arguably owing in part to its history of use by the Nazis, it declined. David Harvey (1990) commented that 'Hartshorne, following Hettner, seems to want to expel any opening for the politicizing of academic geography in an era when geography was suffused with politics and when sentiments of place and of aesthetics were being actively mobilized in the Nazi cause. The difficulty, of course, is that avoiding the problem does not eliminate it, even in academic geography'. Perhaps the political connotation of landscape research and the idea of social Darwinism that are evident in the typological process may be faced with what Harvey regarded as 'difficulty'.

With over a century of history, urban morphology as an organized body of knowledge has witnessed widespread diffusion, especially linked to the efforts of ISUF in recent decades. Following in the wake of M. R. G. Conzen, are we ready for the challenges presented by newly-emerging urban morphological phenomena and the current gap between research and practice?

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