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A new lens to illuminate and elucidate urban form?

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The Sixteenth International Seminar on Urban Form in Guangzhou brought to the fore numerous matters associated with comprehending urbanization and urban morphology within a country, China, which is experiencing rapid economic and cultural change. Presentations on contemporary Chinese urbanism revealed two points of fundamental interest to morphologists. First. China was shown to be a nation that in less than 30 years has fabricated means to rewrite fundamentally its urban design rules. What now comprises 'good' urban form in China differs from just a few decades ago. Evidence for this was shown by numerous scholars highlighting the multiplicity of design forms now employed for particular building types, the visual contrast between modern Chinese settlements and how they once appeared, and the rejection of historical architectural and spatial forms. Secondly, of note was the deepening intellectual consciousness amongst seminar participants surrounding the status of Chinese cities as sites that best articulate urban conditions typical of our age. With this awareness arose discussion as to how best to clarify presentday urban expressions in China and rapidlytransforming cities elsewhere in the world given the nature of urban morphological theories and methodologies.

Papers offered in Guangzhou and site visits to cities such as Beijing, Hong Kong, Shanghai and Shenzhen demonstrated that cities produced under the forces of globalization are striking to the eye and hugely impressive in terms of their scale and sense of modernity. Yet for researchers interested in the configuration and transformation of spaces and buildings within modern-age settlements, rapid urban growth in China has provoked a number of deep-seated questions about the arrangement and meaning of urban environments, the cultures entrenched within them, and the influences acting upon their forms. Accordingly it might be pertinent to ask whether post-reform China, in light of its economic, cultural and urban restructuring since the 1970s, offers an excellent platform upon which to explore, both empirically and theoretically, questions regarding the design of contemporary urban form, its meaning and the agents shaping it.

A multitude of recent urban studies on China have recognized such factors as ideological changes and the actions of public authorities in physically remodelling cities post-1978 - the date of Deng Xiaoping's momentous 'four modernizations' decree. However, historians such as David Buck (1987) have argued that a more open analytical approach is needed to appreciate fully modern city development owing to the plethora and complexity of influences moulding settlements. Indeed, as debate at the Guangzhou seminar revealed, fundamental differences exist in the standpoints of those engaged in Chinese urban form investigations, reflecting differences of training, technical skills and personal interests. Some scholars, such as those with an architectural education, were inclined to adopt the shortest of chronological perspectives to explain why the Chinese metropolis is currently formed in the way that it is. In contrast, those trained in the field of history employed not only a lengthier chronological approach but were more engaged with social, economic and cultural dynamics in order to illuminate the character of the Chinese urban fabric.

Whilst the existence of dissonance amongst ISUF members led to healthy debate and respect for what scholars from different backgrounds bring to the intellectual entrepôt that is the field of urban morphology, it is imperative not to neglect the fact that these differences and the tensions that come with them can impinge on our 'reading' of urban developments. In turn this may, for example, shape our students' conceptual grasp of how cities should be built. In addition it might affect how they assess, both positively and negatively, ideas and practices used in producing urban forms, which in turn can have an impact upon their ability, in the case of architects and planners in particular, to create buildings and spaces that make sense in a changing urban world. Likewise it could influence the next generation of academics who, like us today, will have a remit to devise approaches that build upon our cultural understanding of how urban forms are created and interact with the wider world.

In view of this, and with regard to the convoluted realities of recent developments within Chinese society and their bearing upon the advancement of the nation's urban system and city designing processes, is a dual methodology needed: one that combines both historical and morphological methods? Is a new, more versatile theoretical and methodological approach necessary so that the cities of China, quite possibly the most striking built expressions of the late twentieth- and early twenty-first centuries, can be comprehensively understood?

In explicating why urban environments are shaped in the way they are, it is worth emphasizing that morphogenetic research relies upon historical investigation. Historical thinking has proved to be extremely useful to morphologists seeking to dissect components of urban transformation. As Moudon (1997, p. 7) highlighted, time, resolution and form constitute fundamental elements upon which urban morphological research is built, and the value of historical research methods has been acknowledged by the three traditional schools of urban morphological study (in Britain, France and Italy) in clarifying the role of social, economic and cultural forces within settlements. But contemporary Chinese cities have societies and built-environments markedly different from those examined by an earlier generation of urban morphologists, such as M. R. G. Conzen, Saverio Muratori and Gianfranco Caniggia. The presentday megacities of Beijing, Chongqing, Guangzhou, Shanghai, Shenzhen and Tianjin that so typify modern Chinese urban development, with their vast sprawls, grandiose public architecture, hugely impressive vertical scales and rapid rates of urban growth, bear little resemblance to the built fabrics of Alnwick, Cairo, Como, Venice and Versailles places examined by an earlier cohort of morphologists.

The accelerating urban scenario in China poses a new intellectual challenge for those investigating urban environments, one of practical and theoretical implication for future morphological enquiry. The keynote paper by Dong Wang (2009) at the Guangzhou seminar revealed that Guangzhou's sprawl took approximately 2 millennia to grow to 500 km² in extent, yet in just 8 years between 2000 and 2008 the city expanded by almost 400 km². Such a rate of urban growth, replicated throughout much of China, provides an urban reality quite possibly unimagined by scholars studying urban environments in the past. If to this are added the complex means by which China produces built forms, the adoption throughout the country of urban models unrelated to indigenous artistic and spatial traditions, and the manner in which social, cultural, economic and aesthetic contexts now operate and overlap, China's cities challenge the thinking process of morphologists both conceptually and methodologically.

These views are not intended as a critique of time-honoured methodologies that comprise the bedrock of the discipline of urban morphology. As Whitehand and Gu (2007) and Gu et al. (2008) have shown, plan analysis and typologicallycentred methods are appropriate in understanding historical urban development in China. However, I would argue that the most recent development of the city in China has created a new scholarly need. If we follow Roland Barthes's notion that the city is 'a discourse and this discourse is truly a distinct language' (Barthes, 1975, p. 92), then I suggest that morphologists studying rapidly growing and very large cities have to be receptive to new linguistic grammars and new ideas to bolster our existing intellectual framework. Furthermore, if the common language of urban morphological study is to permit the 'reading' of environmental elements such as plots, buildings and spaces, then clearly we also need to appreciate the dynamics that forge them. If urban development in China since the 1970s is to be thoroughly understood, then endeavours to clarify theoretical and methodological issues surrounding Chinese urban design are a priority.

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A traditional English street village in America

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The partial survival of the layout of a nearmedieval street in North America may be of little more than passing interest to European morphologists since survivals of medieval features are common in settlements over much of that continent. However, Plymouth, Massachusetts, USA has a long and hallowed history of reference as the first English church-founded town in New England, and the oldest continuously occupied English urban settlement in the United States (Deetz and Deetz, 2000, pp. 66-7; Reps, 1965, pp. 115-17). Founded as New Plimouth Plantation in late December 1620 by English Puritans, Plymouth remains today a small court-house town of Plymouth County, noted for its tourist economy and the museum village of Plimoth Plantation which recreates the original settlement plan of 1620 (Deetz and Deetz, 2000, pp. 274-7). While the original 'First Street' remains as Leyden Street, lined with old houses, no systematic analysis of the original plan or its surviving 'burgages' has been made since the nineteenth century when local historians took an interest in the problem (Davis, 1883; Goodwin, 1879). Thus, a summary of recent survey work on Plymouth's street plan is in order in light of advances in town-plan analysis.

It is well known that the founders of the Pilgrim church of Plymouth were originally based in Scrooby, Nottinghamshire, a single street village of medieval origin on the Great North Road (Brewster, 1970, pp. 8-17; Gill, 1970, pp. 22-3). Stephen Rippon has recently shown that this area was within the original region of the 'townfield' system of early nucleated villages in the English Midlands with roots dated to the eighth century (Rippon, 2008, pp. 194-5, Fig. 1.3). Long-term familiarity with the street-village plan probably served as a working model for New Plimouth. It is also recently conjectured by Nathaniel Philbrick that the civil engineer for the Plymouth plan was most likely John Standish, the military adviser with experience in the Lowlands and the plantations of Ulster (Philbrick, 2006, p. 84). Standish is known to have prescribed the wooden palisade around the town, several configurations of which have been postulated, notably by Deetz and Baker (Hartmann, 2009). The only contemporary record of the town plan is a crude diagram by William Bradford, dated 1620, showing the owners of the meersteads (garden plots) on the south side of 'the Street' along Town Brook. These lots (plots in English terminology) were divided by a cross 'high way', which is the present Main Street (Bradford, 1912, p. 209).

The measurement and number of the original lots is open to conjecture. In 1879 Goodwin offered a complete street plan (Figure 1) containing the seven Bradford names of 1620 and a second group of five lot names on the north side of the Street (Goodwin, 1879, p. 106). There is also a question of whether the original 1620 Bradford plan represents the first home lots granted on 28 December 1620, and the second Goodwin group on the north side a later grant from January 1621. Moreover, it is known that 48 eligible adult men were offered lots, but only nineteen families were granted meersteads, leaving in doubt how the twelve names on the Bradford-Goodwin plans relate to the nineteen families (Davis, 1883, p. 22). A further debate arises on the size of the house lots, stated to be 0.5 x 3 poles (Reps, 1965, p. 117). With a pole measuring 16.5 feet, this would mean that each lot was 8.25 x 49.5 feet. These lots combined among the 48 eligible men formed 12 house lots of sizes comparable to those analysed by Conzen (1960), Slater (1981) and Lilley (2000).

Given the doubts about the original lots and their sizes, the reconstruction of the 1620-21 Plymouth street plan is obviously a matter of some conjecture. Nevertheless, using current assessors' maps of house lots (Town of Plymouth, 2003) with a base of Sanborn Insurance maps (1927-1961) and earlier historical atlases (Beers, 1874), a proposed reconstruction of the original Plymouth town plan