

VIEWPOINTS

Discussion of topical issues
in urban morphology

Understanding place?

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'Understanding place' is central to the concerns of urban morphologists, so a publication with that title is likely to be of interest to readers of this journal. In June this year English Heritage issued *Understanding place: historic area assessments – principles and practice* (English Heritage, 2010a), which is intended to offer 'advice on how to undertake assessments of historic areas – for a number of purposes and in a number of circumstances, but always with the objective of defining and explaining the character of a place and defining its significance' (English Heritage, 2010a, p. 3).

This is an important document since English Heritage is the British Government's statutory adviser on the historic environment within England. The broad aims of English Heritage, as set out on its web site (www.english-heritage.org.uk), are to work in partnership with central government departments, local authorities, voluntary bodies and the private sector to:

- Conserve and enhance the historic environment
- Broaden public access to the heritage
- Increase people's understanding of the past

This 35-page document is the latest in a series of general guidance publications and character studies of localities issued by English Heritage and summarized in *Understanding place: an introduction* (English Heritage, 2010b). It is admirable in its intentions. These include aiming historical assessments at a wide range of actors in the planning and development process (from local authority planners to housing growth agencies and

developers), providing an evidence base for plan making and monitoring, and bringing together expert and community views to achieve an understanding of areas. It also endorses the importance of 'local and 'ordinary' heritage – what might be termed the buildings and spaces in-between monuments' (English Heritage, 2010a, p. 4).

In elaborating these intentions it notes that the 'developing study of historic areas has produced a number of distinct approaches' (English Heritage, 2010a, p. 7) and adds a footnote referring to Hoskins, M. R. G. Conzen, and Dyos. It is surprising that all the references to these scholars are to work half a century old, yet their work has been progressively developed and applied, including in the pages of *Urban Morphology* (see, for example, Kropf, 2009; Larkham, 2006; Maffei, 2009; Whitehand, 2009). To this neglect of more recent research in the field must be added the absence of those other seminal figures of the 1960s who were concerned with the qualities of place – Cullen (1961) and Lynch (1960). This is curious since some of the work positively referred to, for example on Oldham (Lathams, 2006), has been particularly successful in integrating townscape concepts with historical analysis.

Lynch's work and the way it has been developed in numerous applications, is of particular relevance when we consider the usefulness of historical studies in raising public awareness of the qualities of their locality. Again the document makes reference to the importance of this issue but no

further guidance is given even though work in Lincoln (partly supported by English Heritage) has shown the value of incorporating community consultation early on in a historical assessment (Samuels and Clark, 2009).

There is an even greater disappointment in that the intentions of the guidance are hardly captured in the only specific demonstrations in the document of the application of techniques. The only map, plan or diagram is a historical land-use map and we know that land use, when compared with street system and building form, is a relatively ephemeral contributor to the character of places (Conzen, 1981, p. 80). It is also probably the easiest to map – the opportunity to demonstrate a mapping of building types or plot series has been missed. The two sample field survey sheets with which the guide concludes can both best be described as building records since they are concerned with such matters as current use, and the material of walls and roofs. No reference is made to plot configuration, building type, or the surveyed building's relation to plot or to the public space system. These are matters that are raised in the text so one might have expected them to be included in a demonstration of a method. They are central to Conzen's work and that of his many followers (for example, Koster, 2006; Lilley *et al.*, 2005).

There is a quick-reference-guide version aimed at local authority planners and 'historic environment specialists' (English Heritage, 2010c), but it is no more specialized or operationally orientated than the longer version and is simply a summary covering the same material. It illustrates one of the sample field study forms from the longer document.

The main work is very densely written (with many references to other English Heritage documents) and far from ideal for a layperson readership – diagrams and some prioritization of issues might have helped in this respect. Nor is it of much help to professionals because of its lack of specific advice. Apart from the one land-use map, all the illustrations are photographs of places where the various types of study referred to have been carried out. While there is a discussion of the type of study that has been carried out, no indication is given of the methods used. In other words, there is much on what has been assessed in different localities and why, but nothing on *how* it has been assessed.

It would be useful to know what type of advice is given in other countries by equivalent agencies to English Heritage. ISUF would seem ideally placed to undertake such a comparison. It would not be easy because of legislative, cultural and linguistic

difficulties. But this type of comparison has proved fruitful in the past (the continuing discussion between the Conzenian and Cannigian schools is an example), and the legislation that introduced conservation areas into Britain in the 1960s was based on a French law. The UK might be able to learn something from the experience of other countries.

Underlying a number of shortcomings of this English Heritage publication are the difficulties of interdisciplinary communication. A high degree of exchange is taken for granted by ISUF members, whereas it is much less common in the world of practice. *Understanding place* seems to be a victim of a disciplinary and professional squint. This suspicion is reinforced by the preponderance of archaeological and historic building interest groups in its six endorsers: Institute of Historic Building Conservation, National Trust, Association of Local Government Archaeological Officers, Council for British Archaeology, Joint Committee of the National Amenity Societies, and Royal Town Planning Institute. In spite of its intentions, and the range of disciplines represented on the staff of English Heritage, it seems to have been driven from an architectural history position, while we know that the most useful applications of historical assessments have come from cross-professional and cross-disciplinary collaborations. It is not a technical problem – the concepts and techniques are demonstrably relevant and transferable. It is a question of the sociology of professions and disciplines which has to be addressed.

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Bridging the gap between urban morphology and urban modelling

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During the last couple of decades, advances in the field of urban modelling have been linked with a shift from coarse representations of urban form based on macro-economic and social physics theories to the development of more fine-grained models capturing the dynamics of urban growth and change as a result of micro-scale transformations of the urban landscape. Indeed, the latest crop of urban models grounded in cellular automata (CA) and agent-based modelling (ABM) approaches exhibits notable similarities with the field of urban morphology in terms of its underlying conceptualization of urban form (see, for example, Batty, 2005; Parker *et al.*, 2003). Both fields consider the global patterns of urban form not to be so much a reflection of macro-scale structural forces as much as an outcome of the myriad individual transformations taking place at the level of the main building blocks composing the urban environment (individual parcels in the case of urban morphology and grid cells in the case of microsimulation).

The apparent similarity in the conceptualization of the processes of urban form generation and change shared by urban morphology and urban microsimulation highlights the prospects for an intellectual marriage between the two fields by which both parties can engage in a more direct exchange of ideas and knowledge. This opportunity for interdisciplinary cross-fertilization, however, remains underexplored, with the gap between the two fields fortified by existing and

seemingly insurmountable differences in traditional disciplinary approaches. The most obvious gap between the two fields is in the time horizon of their urban form investigations. While the bulk of research in urban morphology remains centred on explorations of the past, urban modelling is concerned almost exclusively with simulations of scenarios for the future. And while experimentations in both fields have tried to bridge the boundaries between the past and the future on both sides (with urban modelling venturing into 'back-casting' and urban morphology used as a guide for urban and architectural design), the main obstacle for a closer collaboration between the two fields is marked by the stark contrast in the representations of urban form dominating the two disciplines.

The highly restrictive assumptions about urban form characteristic of the early examples of urban modelling still remain a key challenge in contemporary urban microsimulation. While CA and ABM models have broken away from the aggregate zonal representation of the urban environment, the tessellation of space into abstract cells employed in microsimulation rarely matches the physical patterns of urban development. A basic recognition of the constituent elements of urban form (land ownership pattern, street networks, and building types), critical in the analysis of urban morphology, is all but absent from CA and ABM simulations. In this respect, urban morphology identifies proven and well-

trodden paths towards higher fidelity representation of the built environment, providing theoretical and empirical justification for the need to move away from the abstract representations of urban form dominating urban modelling systems today. Improving the level of realism in representing urban environments derived from the integration of urban morphological concepts in urban microsimulation can lead not only to an enhanced theoretical and empirical grounding of the models, but to a better comprehension of the model design and outcomes as well.

Conversely, urban modelling can aid urban morphological research in two ways quite significant for the development of the field. First, the knowledge derived from urban simulation can offer critical insights into understanding the dynamics of urban growth patterns, particularly in the area of land-use analysis. The study of land-use patterns, identified by M. R. G. Conzen (1960, pp. 3-10) as one of the three main components of the built environment along with the properties of the town plan and building typology, has become the neglected child of urban morphology, to a great extent due to the strong emphasis of the British and Italian schools on the analysis of the latter two urban form elements. The integration of knowledge on land-use dynamics derived from urban modelling with the understanding of the evolution of town plan and building typology gained from morphological analysis can be the critical step needed for a qualitative leap forward in our understanding of how cities grow and change. Secondly, linking urban modelling more tightly with urban morphology can highlight the importance of applying morphological concepts and knowledge in the area of urban planning and management. So far efforts to make morphological research relevant to the practice of urban planning have particularly focused on the use of

morphological analysis as an inspiration for the conservation of the built environment. Urban modelling, however, can become a more powerful medium for the integration of urban morphology in the practice of managing the built environment more widely, but remaining in tune with the inspirations of Conzen and Caniggia (1963).

This is a strong case for closer collaboration between the fields of urban modelling and urban morphology. Such a way forward could be beneficial for both fields of urban research and it could improve their effectiveness as tools for understanding and managing the urban environment. This argument needs to be tested by theoretical and applied research embracing such a methodological challenge. A recent study of the growth of West London carried out by K. Stanilov and M. Batty at the Centre for Advanced Spatial Analysis at University College London appears to be a very promising start along this way. We hope that we can publish the results of this project in forthcoming issues of *Urban Morphology*.

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Typomorphology and public participation in China

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The potential of typomorphology in planning practice has attracted attention in recent years. It has been suggested that typomorphological analysis of the historical development of urban form can

benefit urban landscape management (Whitehand and Gu, 2007), urban design (Chen, 2008; Chen and Romice, 2009; Samuels, 1999), urban conservation and regeneration (Bienstman, 2009;

Larkham, 1990; Whitehand, 2009). It is not a new idea that architectural and urban types can act as a design language and facilitate communications between designers and laymen (see, for example, Bandini, 1984). But this idea needs taking forward, and I suggest that typomorphology has great potential in promoting public participation in the design process. Typomorphological analysis is able to provide common ground for designers and the public, in particular stakeholders and local residents.

While participatory design has been widely practised in the West since the 1960s, it is particularly necessary in China, where top-down planning and designing is imposed in most design projects all over the country. The lack of democracy in the design process has been widely criticized by scholars, although there have been gradual improvements in this respect in the last 2 decades (Chen *et al.*, 2007; Huang and Long, 2003; Liu, 2004). The publication of urban planning and design proposals on the Internet, as well as open exhibitions of planning outcomes, have been adopted in many Chinese big cities, allowing the public to be aware of proposed changes around them. However, this one-way delivery of information is by no means ensuring that the voice of the public is being heard by local authorities and design bodies. Organizations representing various interest groups are largely absent in China. The new urban and rural planning law published by the Chinese central government in 2007 states that planning schemes should be made known to the general public at both the proposal and the implementation stages; public meetings should be held; and public opinion taken into account in the planning process (Central Government of the People's Republic of China, 2007). This is the first legal document providing the public with rights in the decision-making process. However, no detailed regulations have yet been provided.

It is widely acknowledged that public participation in the design process aids fairness, reduces conflict, raises the quality of decisions (since more information is added and alternative solutions are assessed by the public during the process), and helps build support in the implementation stage of planning and design (Coenen, 2009). Arnstein (1969) describes methods of public participation from the very low level of providing information to the highest level of making decisions. Although she gives preference to higher levels of participation, all levels and methods of public

participation need to contribute to the decision-making process. The fastest growing participatory medium is the Internet (del Rio and Levi, 2009; Dodd, 2008; Hanzl, 2007), which is used to conduct questionnaires of the public, publish design proposals, hold online forums and collect feedback. H. Sanoff (2000) argues that digital interactive games are powerful tools to stimulate design alternatives and facilitate participation. He also demonstrates other commonly used participation techniques, providing a number of examples ranging from housing projects to public building design. The methods include visioning (with both traditional and digital aids), design workshops, post-occupancy evaluation, visual preference and appraisal. Typomorphological mapping and the establishment of morphological databases can be incorporated in these methods. However, their practical application in China awaits confirmation.

An important outcome of public participation in the West is that participators need to be equipped with adequate knowledge of environmental and community-building procedures. In China, the lack of such knowledge is one of the reasons why the level of public participation is low in this field. This is a particular respect in which typomorphology can contribute. It can act as a medium for linking designers and the public by explicating site histories, the identification of types, and the transformation processes of urban form.

From the beginning of the design process, project sponsors and designers need to be aware of stakeholders' and local residents' expectations of the project. To establish an appropriate development brief, designers may provide a morphological analysis, while the relevant laymen provide information on site history and social changes. Linkages between designers and the public during the design process are suggested in Figure 1. With appropriately selected participation techniques, the interactive process between designers and non-professionals helps designers to make acceptable design decisions, and educates the public about the site history and aesthetic quality. Once the communication process has been established, negotiations on design issues other than urban form can be promoted. Samuels's (1999) paper on the design of the small French town of St Gervais implied such a participatory process. The type of interaction between participants posited in Figure 1 is particularly needed in China, with special attention paid to complications that arise from variations in the participatory process.

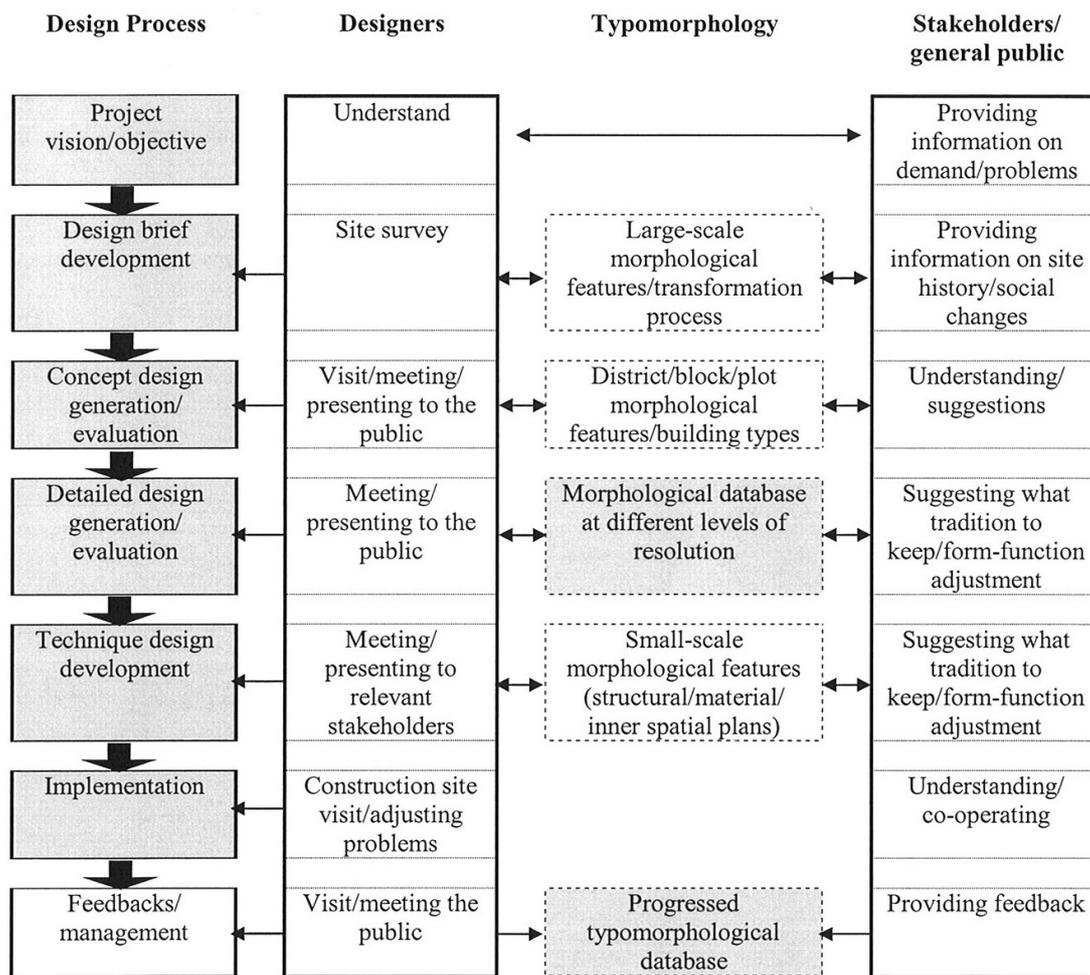


Figure 1. Typomorphological links between designers and the public during the design process

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The development of an urban atlas of Portland

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A web-based project, based at the Portland Urban Architecture Research Laboratory (PUARL) of the University of Oregon, is being developed to organize geographically-based information about urban history, current urban planning, architecture, buildings, open space and urban sustainability. It is intended to be a resource for architects, planners and urban designers in the city as well as students and researchers in the academy, and citizens of Portland. The resulting atlas will be freely available to everyone.

The City of Portland and its Metropolitan Area are well known for their planning achievements, including the urban growth boundary and progressive transportation and land-use policies. Portland is also the only major Metropolitan Region in the United States with an elected government with decision-making powers. But Portland lacks an overview of the city and metropolitan area with respect to issues of urban morphology, building typology and open space character, including ecological and sustainable features. The ongoing work on a new Portland Urban Plan by the City of Portland and the complementary work by the University of Oregon Portland makes this work more pertinent and relevant.

The atlas is one of the first projects that is being handled by the new Portland Urban Architecture Research Laboratory (PUARL). The intention is that the city as a whole, as well as areas

immediately outside the city that are part of the Portland Metropolitan Area, be represented through typical building configurations located at various places throughout the city. The representation will be through maps, drawings and historical and contemporary photographs.

The atlas deals with a range of scales, from the entire city, to individual neighbourhoods, street blocks and buildings. It will be possible, for example, to see distributions of particular building types over the entire city, relationships between street patterns and housing density, relationships between building permit applications and property values, and relationships between commercial activity and housing density. These sorts of correlations are normally not readily available, as information is contained in different kinds of sources. The atlas will bring different sources together within a common cartographic framework, allowing the user to readily visualize new relationships.

The data come from a range of sources, including historical and contemporary zoning, tax lot maps, insurance maps, contemporary planning and infrastructure maps and documents, historical photographs, oral histories, building permit applications and visual architectural documentation such as building plans and elevations. Having this variety of information in one place, and linked to particular geographical areas, will allow the user of the atlas to see and understand a particular place

from a number of different points of view, providing an understanding that is as holistic as possible.

A major innovation of the atlas is its open-source character. It is being developed with protocols that allow it to be continuously updated as information becomes available and as researchers are available to work on it. It is currently being prepared as a website helping to increase the understanding of urban structure in terms of physical urban structure, urban architecture, and sustainability issues and

improvement. An initial experimental website has been started that exhibits aspects of the urban block study and urban neighbourhood studies (<http://puarl.uoregon.edu>). Eventually the atlas will show the architecture of various urban blocks as they have changed over time, in detail, and in their overall urban context. It will also help to identify urban districts and areas, providing their densities and building typologies and their potential for modification and adjustment toward higher sustainability.

Revisiting *New towns of the Middle Ages*: a conference and field seminar in memory of Professor M. W. Beresford, Winchelsea, England, 21-23 May 2010

This conference took place in one of the most renowned examples of a medieval 'new town' in England. The aim was to examine how recent historical, geographical and archaeological research has changed and challenged views about 'New towns of the Middle Ages', particularly in the period since the publication of Maurice Beresford's important book on this subject, which appeared in 1967. The conference was also a celebration of Beresford's intellectual contribution to the study of medieval towns and urban planning.

Conference speakers explored the societies, landscapes and material cultures of medieval 'new towns', placing them in an international comparative context, and in their own local settings. To this end, Winchelsea provided an important case study, with papers exploring its history and archaeology, by specialists such as David Martin and Casper Johnson. There was also an attempt to revisit the historical connections between medieval new towns of Gascony and England, a thesis developed by Beresford, and one that Jean Loup Abbé (University of Toulouse) helped to reconsider through a paper based upon new research on *bastides* in south-west France. This was really the premise for subsequent papers. First, there were two given by geographers, concerning topography and morphology (Keith Lilley and Terry Slater), and questioning Beresford's tendency to separate out 'planned' and 'organic-growth' towns. They instead provided a Conzenian approach: a more complicated story of urban development, with wide morphological variations in medieval 'town planning'. Two archaeologists (Jeremy Haslam and Patrick Ottaway) then delved into the material culture of

medieval new towns. Since urban archaeology in the UK was largely in its infancy when Beresford wrote *New Towns*, there was much to add. They queried the distinctiveness of 'new towns' as a category since their archaeologies are not particularly unique. Then it was the turn of historians, led by Christopher Dyer, and helped by David Martin's appraisal of Winchelsea, to show how 'new towns' and 'old towns' actually had much in common, leading some to begin to question whether the term 'new town' should be abandoned altogether.

The use of discussants, including Neil Christie and Richard Goddard, provided the opportunity for the speakers' views to be questioned further by participants, and as was fitting for a conference commemorating Beresford – himself a great advocate of adult education – the audience covered a wide range of backgrounds, some specialists, some not, but all of whom enjoyed a compelling series of papers, and were treated after the conference to a field-trip around the impressive remains of 'New Winchelsea'. The event was convened by Winchelsea Archaeological Society, largely through the efforts of Richard Comotto, a local resident, with programming advice being provided by Keith Lilley. It demonstrated not only the continuing broad appeal of the subject matter, but also the importance of connecting academic and non-academic worlds, which Beresford would doubtless have approved.

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