

## Selected Papers of Beijing Forum 2007

## Conserving Urban Landscape Heritage: a Geographical Approach

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The conservation of cultural heritage in urban physical form has until very recently been almost entirely concerned with individual structures, often notable buildings and monuments, and special areas. Policy-and practice-orientated bodies tend to treat historic features in geographical isolation from the wider landscapes of which they are an integral part. Yet realizing the full potential of the landscape as a cultural, educational, intellectual and economic resource requires appreciation of how individual features are connected historically and geographically: how they fit into the wider historical landscape. Greater recognition of this is belatedly, and sporadically, beginning to become evident. For example, in its World Heritage Cities Programme, UNESCO is broadening its perspective explicitly to consider historic urban landscapes as ensembles, having for long been concerned essentially with individual sites and monuments. And at a national level, English Heritage is undertaking rapid, ‘broad-brush’ characterizations of extensive areas of urban landscape, including those that came into existence as recently as the twentieth century.<sup>i</sup>

In welcoming this nascent broadening of perspective into a more integrated approach by policy makers and practitioners, it is important to underline the need for attention to be given to the substantial body of fundamental research that has accumulated over many years on historical urban landscapes. Of especial relevance is research within the field of urban morphology. This is germane not only to understanding the heritage embodied in urban landscapes but also to incorporating this knowledge in future landscape planning and management.

An important contribution can be made to the conservation and management of historical urban landscapes by employing the approach to urban morphology that became known in the later twentieth century as ‘Conzenian’, after its principal originator and proponent, the geographer M. R. G. Conzen. This paper illustrates that contribution. After referring to concepts that are central to the approach, a method of historic-geographical mapping of urban landscapes as a basis for conservation planning is discussed.

### Classic concepts

Conzen put forward a tripartite division of urban form into first, the town plan, or ground plan (comprising the site, streets, plots and block plans of the buildings); secondly, building fabric (the 3-dimensional form); and thirdly, land and building utilization.<sup>ii</sup> More important than this division of urban form are the concepts he developed about the process of urban development. One of these concepts was the burgrave cycle, a burgrave being the strip-plot held by an enfranchised member of a medieval borough. The cycle consisted of the progressive filling-in with buildings of the backland of burgraves and terminated in the clearing of buildings and a period of ‘urban fallow’ prior to the initiation of a redevelopment cycle. It is a particular variant of a more general phenomenon of building repletion where plots are subject to increasing pressure, often associated with changed functional requirements, in a growing urban area.

An aspect of burgages, and of plots more generally, that particularly attracted Conzen's attention, and subsequently the attention of others, was their dimensions. These can be subjected to metrological analysis, which affords an important means of reconstructing the histories of plot boundaries.<sup>iii</sup> For example, by analysing measurements of plot widths in the English town of Ludlow, Slater was able to detect regularities, speculate about the intentions of the medieval surveyor when the town was laid out, and infer the original plot widths and how they were subsequently subdivided.<sup>iv</sup>

### **The historical grain of cities**

Like the majority of residential plots, burgages lend themselves to such analyses because of the systematic way in which they have generally been laid out in regular series. However, many parts of towns and cities lack such regularities. This is particularly true of fringe belts.

Seventy years ago the German geographer, Herbert Louis, one of Conzen's mentors, recognized that the outward growth of an urban area was very uneven in its progress: the growth of a city was made up of a series of outward expansions of the residential area separated by marked pauses. A fringe belt tended to form at the urban fringe during a period when the built-up area was either not growing or growing only very slowly. It included within it many relatively open areas, often vegetated, such as parks, sports grounds, public utilities and land attached to various institutions. A key factor in the case of each of the two oldest of Berlin's fringe belts was the restriction on the growth of the city by a city wall,<sup>v</sup> which acted as what Conzen subsequently called a 'fixation line'.<sup>vi</sup>

The plots that make up fringe belts are of a great variety of shapes and sizes. Their boundaries often follow a field boundary, perhaps a rural property boundary. They are unlikely to have been created as a series of rectangular shapes, which is the norm for plots in a housing area. Compared with residential areas, fringe belts have considerably larger average plot sizes, less hard surface and fewer road crossings: they are less permeable to traffic.<sup>vii</sup>

Changes over time in the amount of housebuilding and associated fluctuations in land values are major influences on the formation of fringe belts. Whereas high-density housing is characteristic of housebuilding booms, when land values are high, fringe belts tend to form during housebuilding slumps, when land values are low. Whitehand depicts a simple model of one quadrant of a British city showing the alternate zones of housing and fringe belts that result from these relationships.<sup>viii</sup> A more complex model needs to take into account the timing of the adoption of innovations.<sup>ix</sup>

When fluctuations in housebuilding are being considered there is a tendency to think of the great urban growth periods. But periods of little or no growth also left indelible marks in the landscape. The fringe-belt model emphasizes the historical grain of the city, especially the very different zones that tend to be created during periods when the outward growth of the residential area has been arrested owing to a slump in housebuilding or some other obstacle to residential development such as a physical barrier.

Fringe belts are not only relevant to understanding the morphological structure of towns and cities but they are also pertinent to urban planning. To appreciate their full significance they need to be seen in relation to a wider framework of relationships, including building cycles, land values and the adoption of innovations. Once the structure of the city is understood in these historic-geographical terms it becomes apparent how relevant it is to the appreciation of variations in some basic characteristics of our environment, such as the density and pattern of roads, the amount of vegetated land, building coverage and the sizes and shapes of plots.

### **Historical grain and conservation**

Facts such as these should have implications for the way we think about cities, but frequently planners, including those with responsibility for conservation, show little appreciation of how the form taken by the urban landscape is connected to the historical grain of the city. This is despite investigation of this topic by several generations of researchers: in short, there is a large gap between research, on the one hand, and policy and practice, on the other.

A problem practically worldwide, and affecting policy-making bodies from supranational organizations to local governments, is poorly-developed awareness of cities as mosaics of interrelated forms. Awareness of the existence of historic features is not enough. How they fit together is critical. Historical awareness in planning all too often remains at the level of dating and describing individual features. Historic features tend to be treated as disconnected

patches. In most countries management of historical urban landscapes goes no further than conservation of individual buildings, monuments and special areas that are architecturally or historically significant or both. There is little sense of how these relate to one another and are part of a process of change: awareness of historic-geographical processes is poorly developed. One aspect of this problem is that administrative boundaries, to which planning decisions tend to relate, often cut across the units in the urban landscape that are products of the city's historical development.

There is then a mismatch between the inherently historic-geographical character of urban landscapes and the poorly integrated and often a historical approach to the way decisions about those landscapes are taken. How is this problem to be resolved?

### **Urban morphology and the problem of sectional thinking**

There are a number of ways in which urban morphology can help answer this question. And they follow from the approaches that have already been outlined. They involve articulating, in various ways, how urban landscapes have developed historically, and doing this in a manner that can be incorporated into the various processes of decision-making about conservation and development. Two of these ways are first, by sharper analysis, and secondly, by greater integration. Both can be illustrated by enlarging upon the work of Conzen.

In the case of analysis, we can with advantage return to the remarkable town-plan analysis of the English town of Alnwick that Conzen undertook half a century ago.<sup>x</sup> The analysis was at various resolutions down to the level of individual plots and buildings. Unlike in the majority of conservation documents, the maps he produced were not concerned with showing the location of historically and architecturally notable buildings or special areas for conservation. Instead they showed how the layout of the town had come into existence and changed over time, and how the various components of that layout fitted together.

Conzen was interested not just in the layout of towns and cities but also in their other 'form complexes', as he called them. He disaggregated the urban landscape into its component parts. One of the places in which he did this was the English market town of Ludlow. Like Alnwick, Ludlow retains many medieval features, including a historic castle. Based on field surveys and archival research, Conzen mapped three form complexes.<sup>xi</sup> The maps were of first, plan type areas (that is areas delimited according to their ground plan); secondly, building type areas (focusing on the 3-dimensional physical form of the buildings); and thirdly, land and building utilization areas. In each map a hierarchy of areas, or units, was recognized that articulated the development of that particular form complex, in the first two cases historical development being integral to the patterns delineated. Not surprisingly, the patterns were by no means the same for the different form complexes.

However, Conzen was interested in much more than sharply-focused analysis, and he wanted to do more than establish unitary areas of each form complex. He was well aware that this alone was not enough. But he was working at a time when progress in many fields was being achieved by increasing specialization. Academic disciplines had become strikingly discrete. Sharply-focused, penetrating views were the basis of great scientific progress but at a cost.

The Swedish geographer Torsten Hägerstrand reminded us of this most effectively in his view of landscape, recollecting how the problems inherent in the narrow, sharply-focused view were depicted in the portrayal of 'the scientific points of view' by the Swiss philosopher and geologist C. E. Wegmann.<sup>xii</sup> Like Conzen, Hägerstrand was acutely aware of the need to *integrate* the various components that for analytical purposes are distinguished in the landscape. He identified a major problem facing societies worldwide that relates to the fact that science and technology are not concerned with how the various phenomena on the Earth's surface connect with one another to create the environments in which people live: the emphasis is on specialization rather than integration. But both specialization and integration are needed, particularly in seeking to understand and manage historical landscapes.

### **Historicity and urban landscape units**

In his pursuit of this line of thought, Conzen needed a method to integrate the results of his analyses of the individual urban form complexes. The argument by which he underpinned this and thence advocated its prescriptive use contains a number of elements of which two are especially important.

The first relates to the particular significance he attached to the historicity of the urban landscape: its historical expressiveness. The city is viewed as a long-term asset whose importance extends far beyond its contemporary functional value. The urban landscape is seen as an invaluable source of experience, the more so because it constitutes the predominant environment of such a large proportion of the world's population. The fact that the urban landscape is a visual and, for many people, practically omnipresent experience gives it an advantage over many other sources of knowledge. However, realizing its potential requires appreciating societal activities and processes in what can be observed on the ground, and an important part of this appreciation is the uncovering of historical and geographical order. Fundamental to this is the intellectual activity of regionalization.

Conzen was deeply imbued with a sense of the intrinsic importance of regionalization within geography and, being essentially a historical geographer and historical urban morphologist, the second element in his argument relates to what he referred to as the 'morphogenetic priority' of the different form complexes as contributors to the landscape. This priority reflects the persistence or lifespan of the elements that comprise each form complex. In the case of the ground plan these elements tend to have high resistance to change: many very old street systems, for example, are still recognizable in the landscape today. Land and building utilization, in contrast, tends to be much more ephemeral. Buildings are, on average, intermediate in their resistance to change.

These relative resistances to change are important in the way in which Conzen integrated the form complexes to delineate morphological regions or landscape units. He explained this in the form of a table.<sup>xiii</sup> Like the delineation of the individual form complexes, the resulting map depicts a hierarchy of units. In the case of Ludlow there are five levels in the hierarchy, ranging from the entire 'Old Town' (essentially the medieval town) at the top of the hierarchy to the 'smallest coherent form associations' at the bottom of the hierarchy.<sup>xiv</sup>

## Practical applications

The uncovering of the process of urban landscape formation and change in this way was seen by Conzen, and those who have followed in his footsteps, as an important part of the activity of discovering possibilities for the future. The majority of this activity hitherto has related to the contribution that urban morphology can make to conservation and the incorporation of new forms in old landscapes,<sup>xv</sup> but there is also the contribution to the creation of totally new landscapes.<sup>xvi</sup>

Since Conzen published his ideas on morphological regions, they have been explored by a number of other researchers.<sup>xvii</sup> One of the issues that has been addressed is the practical application of this type of thinking, for example in conservation. The method that Conzen expounded in Ludlow is not straightforward to apply: it requires historical urban morphological research that is time-consuming by the standards of planning authorities, and the necessary procedures are not readily reduced to rules of thumb. However, two applications serve to illustrate the practicability and potential of the approach in markedly different areas.

One of these applications was undertaken close to Beijing's Forbidden City as part of an investigation into urban conservation in China.<sup>xviii</sup> The procedure was similar to that demonstrated by Conzen in Ludlow. A two-tier hierarchy of urban landscape units was identified from the integration of the maps of each form complex. The boundaries of these units differed considerably from those in the City's conservation and redevelopment plan, which had not been based on systematic analysis of the physiognomy of the area.

The other application formed part of the plan for one of the bottom tier of administrative units in the UK, the parish. The procedure was again similar to that employed in Ludlow but, since the settlement surveyed, Barnt Green, in the English Midlands, was essentially suburban, vegetation was added to the attributes (form complexes) taken into consideration. Since the procedure for approval of the plan included public consultation, the use of technical terms was reduced to a minimum. This entailed the substitution of terms that in purely research publications would be unsatisfactory. For example, 'urban landscape unit' became 'character area'. 'Fringe belt' became 'community spaces and utilities' -a potentially misleading term in certain respects, but more likely to evoke roughly apposite images amongst the general public. Again a hierarchy of units (character areas) was recognized and mapped, with most of the main character areas containing subdivisions. In this case most of those subdivisions had further subdivisions within them.

These maps of very small areas in China and the UK capture stages in the unfolding of particular urban landscapes. But they are not simply static portrayals of landscapes at moments in time. The units of which they are made up embody processes of change and they reflect the kinds of decision-making that underlie those processes.

## Conclusion

If one of the aims is to manage change or conserve, then being able to capture cartographically the historical geography of what it is that is being managed or conserved is fundamental. Maps of landscape units, or character areas, in conjunction with photographs, drawings and a written explanation for each unit or area, provide those wishing to conserve or make changes with an important part of the context for preparing management plans. Geographical boundaries are almost invariably given great emphasis by planning authorities. It is ironical that the basis of those boundaries has generally been inadequately researched. The method described here provides a more rigorous basis.

This is not to suggest that the problems of articulating historical grain and utilizing the results in planning practice have been resolved. On the contrary, this is a subject that is alive with challenges to both researchers and practitioners. Much needs to be done, for example, on the concepts of unity and unit as in 'urban landscape unit', and on from where in the landscape, and by whom, unity is perceived. Treating unity as if it were merely a function of homogeneity is far too simple. Some unified areas derive their unity from admixtures: unity in heterogeneity is not uncommon in very old landscapes, such as those in the core areas of traditional European cities. In some areas heterogeneity is contrived, as in some of the creations of postmodernism. Fringe belts are unified by their role in the historic-geographical grain of the city and by certain aspects of their form referred to earlier, but in some respects they are highly heterogeneous.

Research in urban morphology generally, and on the aspects outlined in this presentation in particular, is benefiting from the coming together of Conzenian urban morphology and a school of thought within architectural urban morphology.<sup>xix</sup> For example, the idea of the morphological region is benefiting from research on the architectural concept of 'tissue'.<sup>xx</sup> It has become evident, over the last<sup>xx</sup> years or so, that the work that Conzen carried out during the middle decades of the twentieth century shares major common ground with work carried out by the Italian architects Saverio Muratori and Gianfranco Caniggia.<sup>xxi</sup> Recognition of this has been one of the stimuli for the formalization of an international movement in urban morphology (the International Seminar on Urban Form-ISUF). The contents of the burgeoning literature associated with the coming together of these two schools of thought, and others, have significant implications for the management of urban landscapes. The immediate prospect is that some of the strongest developments arising out of this comparatively recent integration will be based on the type of thinking of which a soup-on has been provided in this paper.

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