



Briefing Paper 1

Historico-Geographical Approach to Urban Morphology

Urban morphology is the study of urban form and of the agents and processes shaping it.

M R G Conzen was born in 1907 in Berlin. Between 1926 and 1932 he studied geography history and philosophy at the University of Berlin. Among his teachers were Albrecht Penck and Herbert Louis. After the rise of the Nazi Party in 1933, Conzen emigrated to Great Britain. Between 1934 and 1936 he studied Town and Country Planning at the Victoria University of Manchester. He then started a consultancy activity in regional and town planning in Macclesfield, Cheshire. Simultaneously, he engaged in a postgraduate research in historical geography at the Victoria University of Manchester. The beginning of the Second World War introduced profound changes in the life of Conzen, who was a German émigré living in England. In this period, Conzen lost his work in planning and eventually went back to geography, teaching, first in University of Manchester (1940-46), then in the University of Durham (1946-61), and finally in the University of Newcastle upon Tyne (1961-72). Conzen died in Newcastle upon Tyne in 2000.

Conzen has published few, but quite important, texts. Among these, 'Alnwick, Northumberland – a study in

town-plan analysis' stands as one of the most important books on urban morphology published so far (Conzen MRG, 1960). The work of Conzen as a whole offers a comprehensive framework for the study and design of the physical form of cities. One of the key aspects of this framework is the tripartite division of the urban landscape, including the town-plan (or ground plan), the building fabric and land and building utilization. The town-plan is defined as the topographical arrangement of an urban built-up area in all its man-made features, containing three distinct complexes of plan elements: i) streets and their arrangement in a street-system; ii) plots and their aggregation in street blocks; and iii) block plans of buildings.

In the last four decades, the morphological approach established by Conzen has been consistently developed by the Urban Morphology Research Group (UMRG) in the University of Birmingham. The UMRG was funded in 1974 by Jeremy Whitehand who had always been a central figure in the development and consolidation of the group and in the promotion of the Conzenian tradition. The group, which is the principal centre in the United Kingdom for the study of historico-geographical aspects of urban form, gathers a number of notable researchers in the field including Karl Kropf, Keith Lilley, Ivor Samuels, Peter Larkham, Susan Whitehand, Terry Slater and Tony

Key ideas

- The analysis of the urban landscape can be framed by a tripartite division including the town-plan, the building fabric and the land and building utilization.
- The process of development of an urban landscape can be structured around some key concepts, notably the fringe belt, the morphological region and the burgage cycle.

Briefing Paper 1

Historico-Geographical Approach to Urban Morphology

Hall. The group has a significant set of international linkages, including with M P Conzen in the University of Chicago. The UMRG plays a major role in the organization and development of the 'International Seminar on Urban Form', including its annual conferences and its journal 'Urban Morphology' edited by Jeremy Whitehand.

Key Concepts in Historical-Geographical Approach to Urban Morphology

Fringe belts

In his study on Alnwick, Conzen identified three distinct belts – an inner and a middle fringe belt, embedded within the built up area, and an outer fringe belt at the present edge of the town (figure 1). The Inner Fringe Belt developed around the 'fixation line' (another concept developed by

The fringe belt concept was first identified in Berlin in 1936 by Louis, but was developed to a far greater degree of sophistication by Conzen in his studies on Alnwick and Newcastle upon Tyne. The fringe belt concept draws on the acknowledgement that the outward growth of an urban area is very uneven in its progress. Indeed, the growth of a city is made up of a series of outward expansions of the residential area separated by marked pauses. A fringe belt tends to form at the urban fringe during a period when the built-up area is either not growing or growing only very slowly. It includes within it many relatively open areas, often vegetated, such as parks, sports grounds, public utilities and land attached to various institutions (Whitehand, 2007).

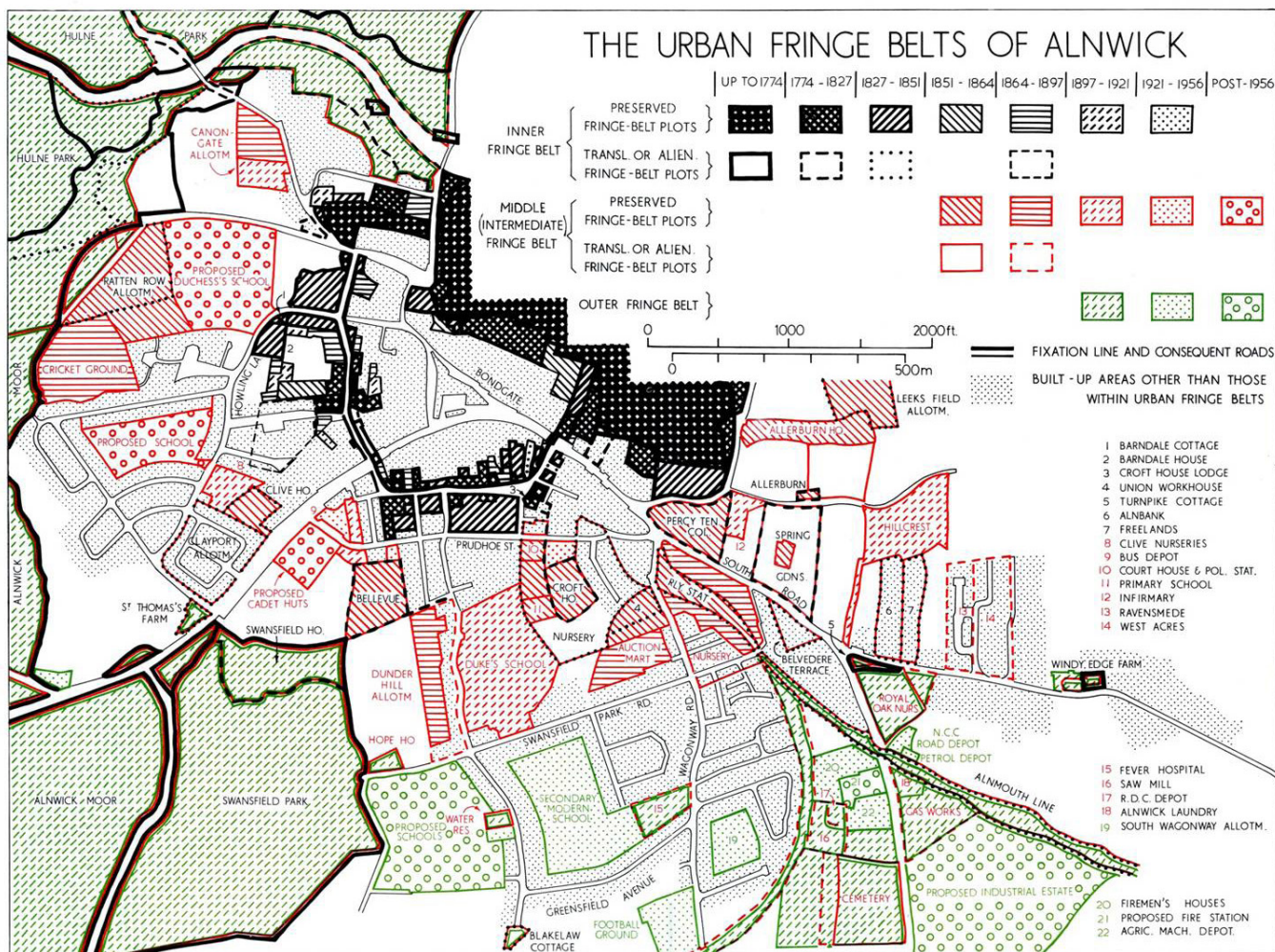


Figure 1. The urban fringe belts of Alnwick (Conzen 1960).

Briefing Paper 1

Historico-Geographical Approach to Urban Morphology

Conzen) of the medieval town wall. Conzen's fundamental contribution was to incorporate fringe belt patterns within the city into an elaborated morphological theory of interactions between formative and transformative spatial processes of all kinds as evidenced in the detailed cartographic record of a city's physical evolution. As part of this, he developed an intricate classification of processes in fringe-belt formation and subsequent modification in Alnwick and, later, in Newcastle upon Tyne. Conzen continued to apply the concept in several other British areas including Ludlow, Conway and metropolitan Manchester (Conzen MP, 2009b).

Research on fringe belts has been mainly developed by Whitehand. In the 1970s Whitehand explored the relationship between fringe belts and pulsations in urban construction cycles demonstrating also the link to the urban economy (Whitehand, 1987). More recently, he developed an explicit concern for agency in the fringe-belt process, undertaking studies that probed the interactions of landowners, developers, financiers and planners in the land use and development processes. In terms of scale of application, Whitehand extended the application of the concept from towns and cities to large urban settings, such as Tyneside conurbation, Glasgow and Birmingham.

In terms of the variety of contexts, he also extended the application to cities in France, Russia and Zambia. In 2009, M P Conzen published a comparative assessment of the concept's performance in the different cultural settings in which it has been applied, reflecting on the efficacy and limits of the concept itself to identify and account for variations in the texture of urban form across urban areas in these diverse cultural contexts (Conzen MP, 2009).

Morphological regions

For Conzen the climax of the exploration of the physical development of an urban area was the division of that area into morphological regions, or landscape units (Whitehand, 2001). A morphological region is an area that has a unit in respect of its form that distinguished it from surrounding areas.

Between the late 1950s and the late 1980s Conzen demonstrated in traditional British cities how the way in which the urban landscape is traditionally stratified, reflecting the distinctive residues of last periods, and giving rise to a hierarchy of morphological regions – that can be represented in a composite map including regions of different order. While in Alnwick, Conzen has identified a four-tier hierarchy of regions mainly based on the town plan, in Ludlow he identified a five-tier hierarchy based not only on the town plan, but also on the building fabric and on the land and building utilization. In the last decades there have been applications and adaptations of the concept of morphological region and the method of morphological regionalization in all continents, and demonstrations of their potential in conservation and heritage planning. One important study was developed by Nigel Baker and Terry Slater in the beginning of the 1990s (Baker and Slater, 1992). Taking the core of Worcester as a case study, these authors provide evidence for interpreting some plan units as planned extensions created within a short period and others as products of piecemeal development. The level of detail in explaining the application of the method is rather unusual. In a comprehensive review of Conzen's method of regionalization and of its developments over two decades, Whitehand (2009) states the need for a much greater clarity in the methods of characterizing and delimitating these units, and for wider appreciation of their role in planning. The plan for Barnt Green, by Jeremy and Susan Whitehand, stands out as notable example of this potential of application (figure 2).

Burgage cycle

One of the distinctive characteristics of Conzen's work is the detail of the analysis. In this context, the relationship between plots and the block plans of buildings assumed a fundamental role. This relationship was conceptualized in the 'burgage cycle': the burgage being the landholding of an enfranchised member of a medieval borough; the cycle consisting of the progressive filling-in with buildings of the backland of burgages, terminating in the clearing of buildings and in a period of urban fallow prior to the initiation of a redevelopment cycle.

Briefing Paper 1

Historico-Geographical Approach to Urban Morphology

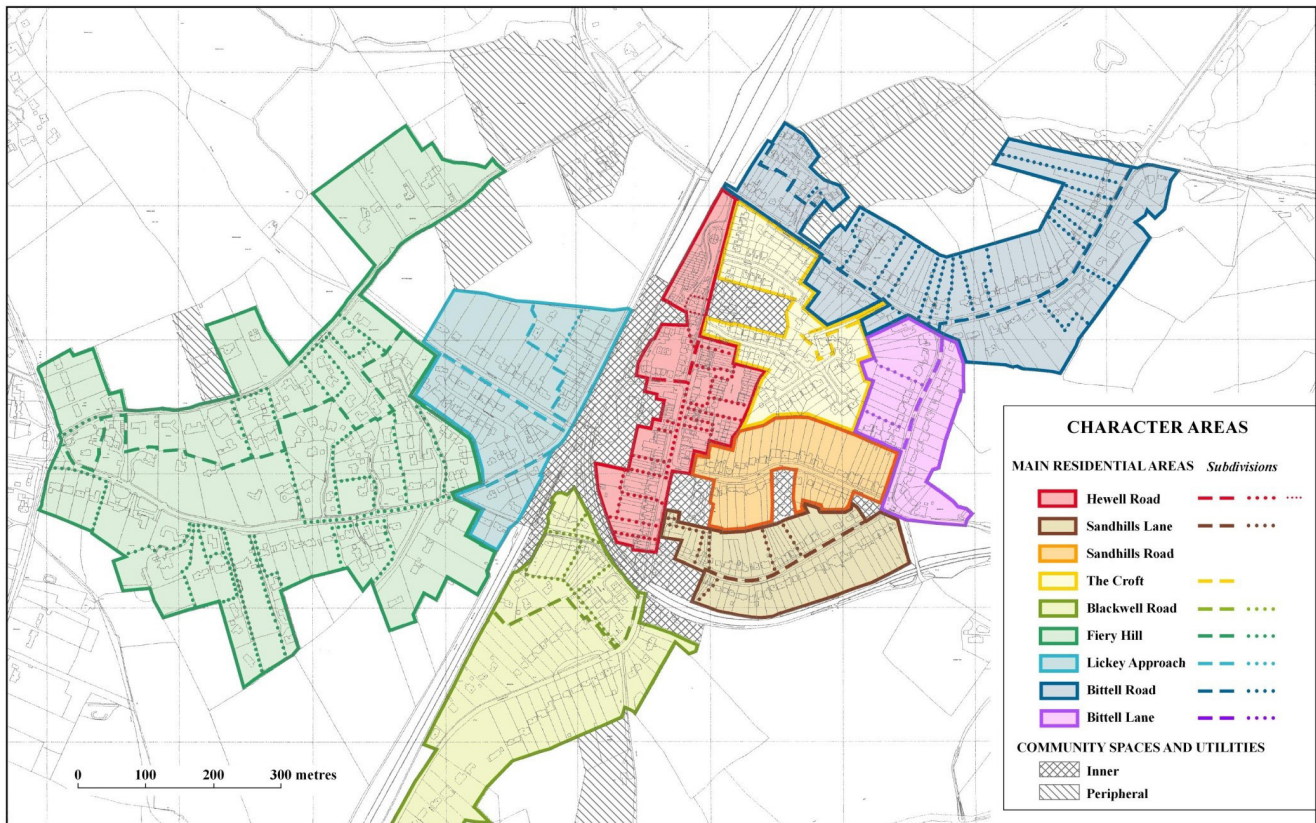


Figure 2. The application of the concept of morphological region in a plan for Barnt Green (Whitehand, 2009).

In Alnwick, the burgage cycle is illustrated with the evolution of the Teasdale's Yard, in Fenkle Street, between 1774 and 1956. This cycle 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 (Whitehand, 2007).

Terry Slater continued the line of research on plots – particularly on the boundaries and dimensions of plots – showing how metrological analysis could be used to reconstruct the histories of plot boundaries. By analyzing measurements of plot widths in Ludlow, Slater was able to speculate about what was in mind of the medieval surveyor when the area was first laid out for development and infer both the original plot widths and how they were subsequently subdivided (Slater, 1990).

Methodology

Town plan analysis

Town-plan analysis' developed to account for those portions of the intricate patterns of spatial organisation and visual character of towns and cities that can be retrieved from a study of the chief elements of their ground plan. It investigates the configurations of streets, plots, and buildings created over time as cities have grown from unpretentious beginnings or bold designs into complex territorial compositions of built environment (Conzen MP, 2018).

Morphological regionalization

Morphological regionalization is the process of identifying and mapping morphological regions. The starting point for such a regionalization is the historico-geographical structuring of the landscape. There are patterns in

Briefing Paper 1

Historico-Geographical Approach to Urban Morphology

this structuring that express the histories of the various parts of the landscape. It is these that morphological regionalization seeks to capture. To understand these geographical patterns within an urban area it is necessary to appreciate how the various urban landscape components relate to both the underlying agencies and activities and to one another. The ground plan provides the framework for the building forms and pattern of land utilization, and the buildings contain the covered part of the land utilization (Whitehand, 2009).

Metrological analysis

Analysis of settlement plans by detailed measurement of plot sizes, preferably using existing surviving plot boundaries but which may also be carried out using old large-scale plans; analysis of regularities in plots in terms of fractions or multiples of old units of measurement such as perches or rods (in standards or local forms) to suggest phases of planning (Larkham and Jones, 1991).

Further reading

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EPUM is an international research project which aims at the integration of different urban form research and teaching approaches through pedagogic innovation and Information and Communication Technology (ICT). The activities of this 28 months project (2017-2020) are funded by Erasmus+ and focus on the development of an innovative, open and inclusive system of teaching and training in urban form from a multidisciplinary perspective, capable of enabling the current and future generation of planning and design professionals to address comprehensively and effectively the variety of issues and challenges faced by contemporary cities. This website provides information about the project activities to partners and to other parties interested in the work of the project.
