

# Standing on the shoulders of giants: a critique of Haslam (2018)

Terry R. Slater

School of Geography, Earth and Environmental Sciences, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK. E-mail: t.r.slater@bham.ac.uk

*Revised version received 23 November 2018*

---

**Abstract.** *Town-plan analysis has evolved through detailed research in the course of well over half a century. Previous scholarship has provided a carefully defined, nested hierarchical terminology which has served the subject well. In this journal Jeremy Haslam has attempted to introduce a new term. His examples, which are meant to elucidate his new concept of 'ensemble' are marked by a failure to understand what large-scale maps do and do not show and a less than careful attitude to documentary sources. This paper provides a critique of Haslam's paper and suggests that 'ensemble', as he defines it, does not add anything to the methodologies and concepts of town-plan analysis.*

*Keywords: town-plan analysis, medieval planned towns, Bridgnorth, Ludlow, Conzen, ensemble*

---

Haslam's recent paper (Haslam, 2018) provides a critique of the methods of town-plan analysis and of its conclusions when applied to the development of particular English towns in the medieval period. His critique is centred on a self-defined notion of 'ensemble' which, he claims, overturns the principles and practices of town-plan analysis within urban morphology as it has been established over the past half century or more based on the careful topographical, plan analytical, archaeological and historical analysis of medieval towns (Baker and Slater, 1992; Conzen, 1960; Lilley, 2000; Slater, 1988, 1990).

## Defining 'ensemble'

Haslam uses a brief editorial comment by Whitehand (2010) on the idea of 'ensemble' to erect a whole new definition of the term for his own purposes. Whitehand's editorial was

to highlight a review article in the same issue of *Urban Morphology* by Samuels (2010). Samuels' article drew attention to the way in which the vast majority of modern architects were concerned only with the pristine finished object of their design. They were not interested in the context of the townscape where their buildings were located, nor in the temporal messiness of the evolution of their building once it was occupied by people undertaking the functions for which it had been built – the 'perfect' library was not soiled by books on the shelves or readers sitting in the chairs; it was to be photographed for the architect's hoped-for book in its pristine finished state. Whitehand widened this neglect of context to the fields of urban design and heritage conservation, as well as the writings of professional archaeologists and architectural historians (Whitehand, 2010). Neither Whitehand nor Samuels provided a definition of 'ensemble' as a distinctive technical term: it is used only

in its colloquial sense. It is also clear that both authors refer to the three dimensions of the built form of places, not just to their plan form.

Haslam provides his own definition of his proposed concept. He says that it 'refers to groups of features in town plans that are spatially related in such a way as to show an original functional unity or connectivity as a contemporary group' (Haslam, 2018, p. 141): perhaps a rather fuzzy 'plan unit' in the established terminology of town-plan analysis? But no, this is not so because, says Haslam, these 'ensembles' can show 'how different and sometimes apparently disparate elements of a townscape can be recognized as being related in both time and function, and thus in origin' (Haslam, 2018, p. 142). Clearly, if they are disparate, they cannot be plan units, the essence of which is their 'unity and/or homogeneity' (Conzen, 1969, p. 128).

Haslam attempts to show what he means by using the analogy of a house plan. His hypothetical house illustrates, he claims, his idea of a co-functional ensemble which interlocks spatially and therefore, he determines, must have been built at the same time. However, his example only works in the way that he wants because the use to which rooms are put, together with the position of doors and windows and some furnishing, enable its co-functional unity as a single-storey dwelling to become obvious. If these pieces of information were to be removed from the house plan its unity would be far from obvious and a number of evolutionary stories might be told about the structure which would not obviously even be a house. Haslam says that each room in the house could be 'construed as a single plan unit, or separate morphological region with the walls of the rooms forming the 'plan seams' (Haslam, 2018, p. 143). Unfortunately, Haslam has failed to understand the accepted definitions of those terms and their plan characteristics, which, it should also be noted, are not interchangeable since they are significantly different in scale. It is self-evident that a house plan is not the same as a town plan. Houses, consisting of rooms with different functions, not all of which are

necessarily domestic in character, are three-dimensional structures. If anything other than a single-floor dwelling is being shown in plan form then additional plans are required for each floor of the house and interpretation would be aided if elevations were provided as well. This is a case that can be well illustrated by delving into the archive of the building regulation plans of any European city from the late-nineteenth century onwards.

The rest of his paper provides in summary form, and therefore without any documentary references or archaeological evidence, case studies that he has published elsewhere over the past four years and which use detailed studies by others to form contradictory conclusions of his own and which support his definition of ensemble (Haslam, 2014, 2015, 2016, 2017). There is, of course, nothing wrong in building on the conclusions of others. 'Standing on the shoulders of giants' has been a recognized way of making progress in scientific research since at least the twelfth century but usually involves the provision of new evidence not previously considered.

### **Town-plan analysis in medieval towns**

In turning his critical faculties upon town-plan analysis, Haslam misinterprets its aims. Its purpose is not, as he states, to divide the town into smaller and smaller units in order to infer the development and growth of the town. M. R. G. Conzen's plan analysis of Alnwick (1960) (the founding text in English) does not conclude with a temporal summary of the town's development based on the differentiation of plan units. In fact, any reader of the Alnwick study would be hard pressed to discern the topographical history of the town in any detail, especially for the medieval period. Rather, Conzen's aim was to try to unravel more general conceptual processes of urban development that could be recognized in all towns over extended time periods and in different culture regions. Some of those initial concepts have, of course, proved to be richly rewarding in urban comparative studies over the past 50 years, most notably the concept

of the urban fringe belt (M. P. Conzen, 2009; Whitehand, 1972, 1987; Whitehand *et al.*, 2016). Similarly, Haslam's critique of what he calls 'the fissile tendency' in town-plan analysis completely misunderstands Conzen's later analysis of Ludlow (M. R. G. Conzen, 1988, 2004) with its terminological introduction of small-scale 'morphotopes'. These are not the basis for defining plan units; they are *subsidiary* to the frame provided by plan-unit bounds and are based on the built forms and land uses of the properties within particular morphotopes. Their elucidation was premised primarily to enhance urban conservation planning. They have, thus far, not been widely used. The Italian architectural school of urban morphologists provides further subdivision of town plans by considering the architectural elements of individual buildings (such as rooms and walls) with the same aim (Cannigia and Maffei, 2001), but this work does not feature in Haslam's critique. Haslam also seemingly has no knowledge of Kropf's long-term efforts to remove ambiguities in the definitions of plan forms and to unify the Conzenian and Caniggian terminologies into a single hierarchical structure (Kropf, 2014, 2017).

Town-plan analysis is an exercise in two-dimensional space. Its fundamental unit of assessment is therefore the plot. Historic urban plots have distinctive characteristics: they are basically rectangular, with their long axis roughly at right angles to the street; they occur in blocks ('plot series' in Conzenian terminology) where they front onto the street more or less in line with one another and they have a similar depth so that their rear boundaries back onto a narrow access lane, a rural field boundary, or the rear ends of a further series of plots oriented in the opposite direction. An urban plot series of this kind often faces a similar plot series on the opposite side of the street. Together, they would form a simple 'plan unit' which, in the smallest and simplest of medieval town plans, the one-street market town, might constitute the whole town (Palliser *et al.*, 2000).

In medieval towns, no less than in modern towns, plots were units of land ownership; the

plot boundaries delineated the rights of particular land owners and therefore took physical form in the shape of a wall, fence, hedge or ditch. Over time they could, and almost always were, subdivided to form new smaller units of land ownership during prosperous economic times, or they could be amalgamated in times of economic dearth. Any analysis of a medieval town should therefore include a thorough consideration of historical and archaeological evidence which might show whether either of these processes of plot division or amalgamation has taken place. It cannot be assumed that the pattern of plots on large-scale plans of the nineteenth century are necessarily reflective of the medieval pattern of plots. However, there is now a sufficient corpus of archaeological studies which show that medieval plot boundaries in both large and small towns are reflected in the boundaries mapped in the nineteenth century (Baker and Holt, 2004).

Plots carried other legal functions besides that of ownership: they were the units that determined who was liable to contribute to the *firma burgi* and who could vote in elections for the town's corporate body. Because of this, the earliest plot boundaries in particular were necessarily a conservative element of the plan and often survived throughout complex plot division and amalgamation. In London there are records of these early plot boundaries consisting of walls six feet (two metres) thick (Knowles and Pitt, 1972), so amalgamating properties across such boundaries was inherently more difficult. They form what I have termed 'primary boundaries' and are recognizable in the plan in that they run from front to back of the plot series without deviation in the boundary line. Such primary boundaries are often crucial in understanding the development of a medieval town plan using large-scale nineteenth-century plans as evidence. The complexity of assuring ownership, leasehold rights, lordship and electoral responsibilities meant that very quickly these things had to be written down in deeds. Such urban deed collections have provided a rich supporting stream of historical dating evidence in those towns where they have survived from an early time (Keene, 1985). Kropf has recently turned

his forensic eye onto the definition of plots and drawn attention to the fact that, today, some of the rights and responsibilities over land have no physical boundaries at all but can still have powerful effects over what happens in some urban spaces (Kropf, 2018).

Haslam is particularly critical of town-plan analysis for ‘making deductions about sequential development from the two-dimensional plan alone’. But that is not what plan analysis seeks to do. Fifty years of research has emphasized time and again that effective plan analysis needs to be undertaken integrating documentary and archaeological evidence wherever it is available to provide temporal evidence for plan-derived hypotheses. Many stories that are told are unashamedly hypotheses; they can be contradicted by new evidence or new ways of interpretation (Slater, 2000). A recently published example, utilizing archaeological evidence, but understanding the methodologies of town-plan analysis, is an analysis of medieval Bristol. Here, amongst other things, the four new-planned suburbs around the core of late-Saxon Bristol are distinguished, forming distinctive plan units within the overall medieval city plan. All four date from the middle years of the twelfth century but they were developed by different lords. South of the River Avon, Redcliffe fee was laid out in *c.* 1123–33, whilst to its west Temple fee dates from 1128–48 and was developed by the Knight’s Templar. North of the River Frome, Broadmead was developed by Robert of Gloucester between the 1150s and the 1180s and he was also responsible for the distinctive development of The Feria, to the east of the castle, where development was under way by *c.* 1165 (Baker *et al.*, 2018, pp. 101–7). These suburban developments seem to meet Haslam’s definition of an ‘ensemble’ since they have a ‘functional unity’ and are ‘a contemporary group’. However, is that really more helpful in understanding the plan development of Bristol than recognizing their different locations around the city centre, the different lordships responsible for their development, and their different form characteristics? I think not. A final point about town-plan analysis, and one emphasized by

M. R. G. Conzen from the beginning, is that such conclusions of temporal succession as are made about the sequential development of a town plan, are also based on comparative analysis using the widest possible set of examples (Baker and Slater, 1992; Simms, 2013; Simms and Clarke, 2015).

### The town plan of Bridgnorth

Haslam concludes his paper with an extended series of case studies (expounded at much greater length in earlier published articles elsewhere) which reinterpret the plan analyses of amongst other places Bridgnorth (Slater, 1990) and Ludlow (Conzen, 1968, 1988, 2004; Slater, 1990). Bridgnorth is a complex composite town extending across land on both sides of the River Severn (the early bridge linking the two gives name to the place). The western side is located high above the river on a sandstone promontory where there is an important medieval castle, an early borough in the castle bailey, a later borough outside the castle, together with suburbs and a river-side trading area of wharves and warehouses. I provided a detailed plan analysis of the medieval town (Slater, 1988, 1990) and my interpretations have been used by Croom (1992), Buteaux (2005) and Lilley (1999) in other work on medieval Bridgnorth.

Haslam is concerned only with the northern part of the medieval ‘High Town’ plan units of Bridgnorth in his revised story of the development of the town. His hypothesis is based on his interpretation of the plot pattern shown on the 1875 Ordnance Survey plan of the town; so was my own. Why are these interpretations so different? Because my studies of scores of medieval town plans in Britain and elsewhere in Europe, as well as archaeological excavations in some of those towns, tells me that when plots were first laid out, they were rectangular in form, were carefully specified in length and breadth, or in area, and when the blocks were laid out the plots were equal in size (Slater, 1988). Why should an owner pay his annual shilling to the *firma burgi* if his plot was only a quarter the size, or less,

of that of someone else? When first laid out, burgages in Bridgnorth, or in any other rectangularly planned town, did not nest into each other at corners as Haslam hypothesizes giving smaller and smaller plots towards street corners (Haslam, 2018, p. 147, Fig. 4). Such a pattern might develop in successful towns over time – sometimes quite a short time – as I have shown happened in Stratford-upon-Avon (Slater, 1987), but it was never the initial layout. Plots faced onto what the surveyor determined was to be the principal street; the plots along side streets were laid out at right angles to their rear (see, for example, the grid plan of New Winchelsea (Martin and Martin, 2004) or the bastide towns of Gascony (Lauret *et al.*, 1992)). This continued to be so into the eighteenth and nineteenth centuries as studies of the numerous grid-planned towns of the Americas and Australasia show (M. P. Conzen, 2006; Siksna, 1988).

Haslam's interpretation of this interlocking pattern at street corners also assumes that he can discern ownership units from the 1875 plan. That is not possible for 1875 patterns of ownership, let alone medieval patterns. The UK Ordnance Survey large-scale plans show buildings in block plan and physical divides such as fences and walls. It does not show how these were assembled into units of land ownership or occupation. Haslam's interlocking land-ownership units (plots) are thus entirely hypothetical and for 1875 are demonstrably incorrect. The plots on the southern corners of both Whitburn Street and St Mary's Street are the premises of two of the town's principal coaching inns, which had entrances onto both the side-street and High Street so almost all of the property in these areas was in single ownership and was not divided in the way in which Haslam hypothesizes. The plots on the west side of Bridgnorth's High Street were irregular in length and breadth; they are very different from the regular plot series, laid out along a new baseline, facing the three streets at right angles to the High Street (Slater, 1990). These plot series may have been laid out within a very short period of the development of the High Street, but they are later. Since there is neither documentary nor archaeological

evidence for either of these plot series their actual chronology must remain uncertain, but their relative chronology is clear. Using the pattern of plan units tells us much more about the development of Bridgnorth in the medieval period than calling the whole plan an 'ensemble'.

### The plans of Barnstaple and Worcester

The brief analysis of Barnstaple and Worcester (expounded at greater length in another journal paper (Haslam, 2017)) takes his analyses back into the early medieval period. There is historical and archaeological controversy as to whether the new *burhs* developed in the tenth century were laid out with the long narrow plots familiar from later medieval towns, or with much larger blocks of property which were only later subdivided. The small area of Barnstaple for which plans are provided certainly cannot carry the weight of evidence that Haslam places on them. The interlocking pattern of plots between High Street and Joy Street cannot be used as evidence of contemporary layout since that hypothesis relies on the hypothesis in the Bridgnorth case study, which has been shown to be flawed; neither is there archaeological evidence to provide even limited dating to any plot in this part of the town. The plot pattern may have origins in the Anglo-Saxon period, or it may date from post-Norman times, or the later medieval period. The mapped plots may reflect origins as long, narrow burgages of the characteristic medieval type, but they may equally reflect subdivision of large square blocks of land allocated in the early-tenth century such as those hypothesized in Worcester where there is a plethora of historical and archaeological evidence (Baker and Holt, 2004; Hooke, 1981).

Haslam's brief reference to the early development of Worcester in his paper cannot be properly subject to criticism since he provides only a sketch map of his hypothesis with no details of the full town plan or the relevant plot patterns, let alone evidence for his dating of the various components. His two shaded areas may represent two plan units of different

periods of development; the lighter shaded area may represent an area of contemporaneous development by the Bishop of Worcester. Haslam tells a story but without evidence. Since Worcester's town plan is the subject of a recent book-length study with copious plan, documentary and archaeological evidence (Baker and Holt, 2004), I prefer that story of Worcester's growth and development to Haslam's unsupported hypothesis.

### Research on the town plan of Ludlow

Haslam's analysis of Ludlow is unfortunately equally error strewn. Since Ludlow is probably the most intensively analysed small town in England, he might have checked his sources more carefully. First, the date of the town's defences is not 'indicated by the first references to murage grants' by either Conzen or Slater as he claims; that would, indeed, show only that they existed. In fact the start of the town wall is dated precisely by a royal licence granted in 1233 'to enclose the town of Ludlow' (Great Britain, 1906, p. 35), so we know when the process of building the walls began, but not how quickly it was completed. Building town walls was a time-consuming and expensive undertaking, and maintaining them more so, especially if there was no immediate external threat. The petition for the first murage grant comes 60 years later, in 1294, during the time of Edward I's campaigns against the Welsh, when the threat to those living in Ludlow became real. The petition related that 'the walls of the town are broken down and decayed' (Rees, 1975). Architectural assessment of the Broad Street gate suggests that it was built or rebuilt at this time, since its still impressive drum towers are characteristic of this Edwardian period of military architecture, as were the towers that once framed the Galdeford Gate. It cannot be argued therefore that Ludlow was 'a new defended town that was planned in its entirety in one phase as a unitary ensemble, in or around the middle of the twelfth century' (Haslam, 2018 p. 153) since the town walls were not built until 70 years after that date.

If we turn to Haslam's critique of the interpretation of the north-east part of the walled town at the Galdeford Gate, it must be said immediately that it was absolutely *not* one of Conzen's premises 'that the burgages in this area were cut into by the later insertion of the town wall' (Haslam, 2018 p. 150), nor was it mine. It was self-evident to both of us that the plots outside the Galdeford Gate developed as adjuncts of the two lanes Upper and Lower Galdeford (see Haslam, 2018, Fig. 6); they are of a rural character and have been divided from field closes, many of them probably dating from post-medieval times. They form a distinct suburban plan unit. The 'wrap around' plot that fronts onto Corve Street is obviously a later plot occupying the former ditch outside the wall, as do the two long plots immediately east of the wall south of the Galdeford Gate (see Haslam, 2018, Fig. 6). There are no signs of relict plot boundaries to the east of the wall in this area because it became part of the garden of a large Austin Friary located at the south-east end of Lower Galdeford and founded in 1254 (only 20 years after the walls were sanctioned).

Lower and Upper Galdeford are thus an adjunct to the early town which, as Haslam says, myself and others hypothesize was focused on the principal long distance north-south routeway. After fording the River Teme at the foot of Holdgate Fee, this route was to become Old Street and Corve Street (the eastern-most road on Fig. 5 of Haslam, 2018). This initial linear town had its market place on the narrow col at the highest point of the hill around the Bronze Age tumulus (which gave name to the town) and which was to be destroyed when the parish church of St Laurence was rebuilt and extended in 1199, itself evidence that the town was in existence and flourishing at that date (Slater, 1990). Lower and Upper Galdeford led from this market place, via Tower Street, out to the fields of the settlement to the east and therefore long predate the construction of the walls. The Corve Street plan unit, where according to Haslam 'the positions of the wall and gateway have determined the layout of the burgages on both its outside and inside' does no

such thing. Corve Street is regularly planned with plots 3 perches wide and 18 perches deep (Slater, 1988, pp. 100–101) and is the place with the earliest mention of burgages. Hugh Lacy granted his newly-founded Hospitallers of Dinmore 12 burgages at the northern end of Corve Street in *c.* 1185 (Klein and Roe, 1987). The Corve Street plan unit was therefore in existence at least 45 years before the walls were built and the common dimensions of the plots determines that they were planned by the lord of Ludlow as an economic speculation extending the earlier Old Street northwards down the steep slope.

Another of Haslam's unwarranted concerns is that the division of town plans into constituent plan units posits a story of steady growth over time. In actuality it does precisely the opposite, especially if chronology can be supported by archaeological or documentary dating. Plan unit boundaries mark periods of developmental standstill when the urban economy was not growing; when growth resumes another plan unit of properties can often be discerned in the composite town plan, such as the Corve Street unit in Ludlow. What is difficult to discern are periods of regression when the urban economy was shrinking and population declining. Such a period of decline was almost ubiquitous in the later medieval period across Europe. Then houses fell down, plots were amalgamated into pasture closes and towns got smaller in area, sometimes not recovering for several hundred years; Winchester is perhaps the best studied example of what happens to the town plan in these circumstances (Biddle and Keene, 2017; Keene, 1985) but similar processes can be discerned in Ludlow since burgages are documented on The Linney, land to the west of Corve Street, in 1185, which were later abandoned and not reoccupied until the nineteenth century.

M. R. G. Conzen's plan analysis of Ludlow was first published as an essay (Conzen, 1968) that derived from a conference presentation to urban historians at the University of Leicester 2 years previously. The section on Ludlow covered only the central core of the town in any detail and this part of the text

extends to only four pages and two full-page maps. It was intended to demonstrate to the assembled international audience of urban historians how a careful interpretation of a town plan could lead to insights in the town's development not available from documentary sources. Readers were asked to bear in mind that 'the recognition of plan units depends very much on seeing street spaces, plots and buildings in correlation' and that 'functionally and genetically street system and associated plot pattern belong together'. There is no 'fissile tendency' in seeing this composite town plan as anything other than a town which has developed over an indeterminate period in the high medieval period into a successful functioning social and economic unit, but it did develop in phases or pulses of development which left their imprint in the plan. This initial study was greatly expanded in a second book chapter by M. R. G. Conzen published in 1988 as a way of illustrating his theoretical framework for townscape analysis and 'demonstrating the reciprocal relations between evolving town morphology and the social decisions that shaped it' (M. P. Conzen, 2004, p. 8). As in all M. R. G. Conzen's writing, the case study was a means to the greater end of elucidating general principles of urban morphological analysis.

Haslam seems to want us to see Ludlow as having 'sprung up' (to use the sloppy language beloved of populist urban historians) or as an 'organic adjunct' to the castle, to use another term that I had hoped had been deleted from the vocabulary of those interested in the development of medieval towns; that it was a fully formed single entity, an 'ensemble', within a year or two of its foundation in the mid-twelfth century. Castle, church, streets, plots, domestic and commercial buildings, and bridge, all appeared as an 'ensemble' in a 'single act of land allocation' to which he assigns an exaggerated and pretentious significance. Clearly, the de Lacy family, prosperous though they were, could not have afforded the economic cost, let alone the bringing together of the necessary craftsmen, to rebuild their castle at Ludlow, provide a new bridge over the Teme, construct a mile or more of town walls with

their seven gates, rebuild the church, and lay out a complex pattern of new streets and plots, particularly since much of their energy was devoted to their Irish estates in Dublin and Meath. As I have written elsewhere (Slater, 1990), we must not confuse our own imposition of, or a medieval lord's conception of, an ideal layout for a town with the messy reality of the plan on the map, or the lived experience of its occupants. The core of Ludlow's exceptionally interesting town plan, the Broad Street – Mill Street plan unit, may have been conceived of as a single entity but it was developed in phases and those phases are apparent, as plan units, in both the modern and historical topography of the town (Slater, 1990). Haslam wants us to accept that the town wall had primacy in the development of the town and that 'the spatial evidence ... must take precedence over ... a literal reading of the documentary sources'. This is an extraordinary claim for any scholar working in the historical field, especially given that those documentary sources are from the state archives and tell us that the town wall dates from 1233, well after other parts of the town are documented. Of course, documentary sources need to be evaluated and contextualized but not removed from the argument altogether. Besides which we know that medieval towns are first and foremost economic speculations on the part of their lord; they were intended to provide money in the form of rents; no lord would begin such a speculation by expending large sums in building a mile of walls and gates around an, as yet, non-existent town.

## Conclusion

Haslam's 'ensemble' concept is ill-founded. It is superficially thought through and then dressed in language that suggests thorough and profound research to those unfamiliar with the literature and the complexities of analysing medieval town plans. It gives no new insights on the plan development of the towns chosen as examples and is simply not useful as an implement in the urban morphological toolbox. Above all it cannot be represented as

a fruitful theoretical approach and can safely be rejected as far as helping us to understand the physical development of medieval towns is concerned.

## References

- Baker, N. J. and Holt, R. (2004) *Urban growth and the medieval church: Gloucester and Worcester* (Ashgate, Aldershot).
- Baker, N. J. and Slater, T. R. (1992) 'Morphological regions in English medieval towns', in Whitehand, J. W. R. and Larkham, P. J. (eds) *Urban landscapes: international perspectives* (Routledge, London) 43–68.
- Baker, N., Brett, J. and Jones, R. (2018) *Bristol: an archaeological assessment* (Oxbow Books, Oxford).
- Biddle, M. and Keene, D. (2017) *The British historic towns atlas: Winchester* vol. 6 (Historic Towns Trust and The Winchester Excavations Committee, Oxford).
- Buteaux, V. (2005) 'Archaeological assessment of Bridgnorth Shropshire', in Dalwood, H. and Bryant, V. (eds) *The Central Marches Historic Towns Survey 1992–6* ([http://archaeologydata.service.ac.uk/archives/view/marches\\_eus\\_2005/](http://archaeologydata.service.ac.uk/archives/view/marches_eus_2005/)) accessed 6 June 2018.
- Caniggia, G. and Maffei, G. L. (2001) *Architectural composition and building typology: interpreting basic building* (Alinea Editrice, Firenze).
- Conzen, M. P. (2006) 'The non-Pennsylvania town: diffusion of urban plan forms in the American West', *Geographical Review* 96, 183–211.
- Conzen, M. P. (2009) 'How cities internalize their former urban fringes: a cross-cultural comparison', *Urban Morphology* 13, 29–54.
- Conzen, M. R. G. (1960) *Alnwick, Northumberland: a study in town-plan analysis* Institute of British Geographers Publication 27 (George Philip, London).
- Conzen, M. R. G. (1968) 'The use of town plans in the study of urban history', in Dyos, H. J. (ed.) *The study of urban history* (Leicester University Press, Leicester) 113–30.
- Conzen, M. R. G. (1969) *Alnwick, Northumberland: a study in town-plan analysis* Institute of British Geographers Publication 27 (Institute of British Geographers, London) 2nd edn.
- Conzen M. R. G. (1988) 'Morphogenesis, morphological regions and secular human agency in the historic townscape, as exemplified by

- Ludlow', in Denecke, D. and Shaw, G. (eds) *Urban historical geography: recent progress in Britain and Germany* (Cambridge University Press, Cambridge) 253–72.
- Conzen, M. R. G. (2004) 'Morphogenesis, morphological regions and secular human agency in the historic townscape, as exemplified by Ludlow (*original version*)', in Conzen, M. P. (ed.) *M. R. G. Conzen. Thinking about urban form. Papers on urban morphology 1932–1998* (Peter Lang, Oxford) 116–44.
- Croom, J. N. (1992) 'The topographical analysis of medieval town plans: the examples of Much Wenlock and Bridgnorth', *Midland History* 17, 16–38.
- Great Britain (1906) *Calendar of the Patent Rolls: Henry III 1232–47* (HMSO, London).
- Haslam, J. (2014) 'Planning in late Saxon Worcester', *Anglo-Saxon Studies in Archaeology and History* 19, 153–72.
- Haslam, J. (2015) 'The landscape of late Saxon burhs and the politics of urban foundation', in Heyer, M. C. and Owen-Crocker, G. R. (eds) *The material culture of the built environment in the Anglo-Saxon world* (Liverpool University Press, Liverpool) 181–215.
- Haslam, J. (2016) 'The articulation of burgages and streets in early medieval towns: part 1, the example of Bridgnorth, Shropshire', *Landscape History* 37, 51–68.
- Haslam, J. (2017) 'The articulation of burgages and streets in early medieval towns: part 2', *Landscape History* 38 (2), 5–27.
- Haslam, J. (2018) 'The idea of the 'ensemble' in urban morphology', *Urban Morphology* 22, 141–54.
- Hooke, D. (1981) *Anglo-Saxon landscapes of the West Midlands: the charter evidence* BAR British Series 95 (British Archaeological Reports, Oxford).
- Keene, D. (1985) *Winchester Studies 2. Survey of Medieval Winchester* (Clarendon Press, Oxford).
- Klein, P. and Roe, A. (1987) *The Carmelite Friary, Corve Street, Ludlow: its history and excavation* Historic Ludlow Research Paper 6 (Ludlow Historical Research Group and Birmingham University Field Archaeology Unit, Birmingham).
- Knowles, C. and Pitt, P. (1972) *The history of building regulation in London 1189–1972* (Architectural Press, London).
- Kropf, K. (2014) 'Ambiguity in the definition of built form', *Urban Morphology* 18, 41–57.
- Kropf, K. (2017) *The handbook of urban morphology* (Wiley, Chichester).
- Kropf, K. (2018) 'Plots, property and behaviour', *Urban Morphology* 22, 5–14.
- Lauret, A., Malebranche, R. and Serephin, G. (1992) *Bastides. Villes Nouvelles du Moyen Age* (Editions Milan, Toulouse).
- Lilley, K. D. (1999) 'Urban landscapes and the cultural politics of territorial control in Anglo-Norman England', *Landscape Research* 24, 5–23.
- Lilley, K. D. (2000) 'Mapping the medieval city: plan analysis and urban history', *Urban History* 27, 5–30.
- Martin, D. and Martin, B. (2004) *New Winchelsea, Sussex: a medieval port town* University College London Field Archaeology Unit Monograph (Heritage Publications, Kings Lynn).
- Palliser, D. M., Slater, T. R. and Dennison, E. P. (2000) 'The built environment 650–1300', in Palliser, D. M. (ed.) *The Cambridge Urban History of Britain I* (Cambridge University Press, Cambridge) 153–86.
- Rees, W. (1975) *Calendar of ancient petitions relating to Wales* (University of Wales Press, Cardiff) 524.
- Samuels, I. (2010) 'Palladio's children ... and Vitruvius's grandchildren?', *Urban Morphology* 14, 65–9.
- Siksna, A. (1988) 'City-centre blocks and their evolution: a comparative study of eight American and Australian CBDs', *Journal of Urban Design* 3, 253–83.
- Simms, A. (2013) 'Unity in diversity: a comparative analysis of thirteenth-century Kilkenny, Kalkar and Sopron', in Duffy, S. (ed.) *Princes, prelates and poets in medieval Ireland: essays in honour of Katherine Simms* (Dublin) 107–23.
- Simms, A. and Clarke, H. B. (2015) *Lords and towns in medieval Europe. The European Historic Towns Atlas project* (Ashgate, Aldershot).
- Slater, T. R. (1981) 'The analysis of burgage patterns in medieval towns', *Area* 13, 211–16.
- Slater, T. R. (1987) 'Ideal and reality in English episcopal medieval town planning', *Transactions of the Institute of British Geographers* NS12, 191–203.
- Slater, T. R. (1988) 'English medieval town planning', in Denecke, D. and Shaw, G. (eds) *Urban historical geography: recent progress in Britain and Germany* (Cambridge University Press, Cambridge) 93–105.

- Slater, T. R. (1990) 'English medieval new towns with composite plans: evidence from the Midlands', in Slater, T. R. (ed.) *The built form of Western cities. Essays for M. R. G. Conzen on the occasion of his eightieth birthday* (Leicester University Press, Leicester) 60–82.
- Slater, T. R. (2000) 'Medieval town planning: on facts and story-telling', *Urban Morphology* 4, 104–10.
- Whitehand, J. W. R. (1972) 'Building cycles and the spatial pattern of urban growth', *Transactions of the Institute of British Geographers* 56, 39–55.
- Whitehand, J. W. R. (1987) *The changing face of cities: a study of development cycles and urban form* Institute of British Geographers Special Publication 21 (Blackwell, Oxford) 76–94.
- Whitehand, J. W. R. (2010) 'Urban landscapes as ensembles', *Urban Morphology* 14, 3–4.
- Whitehand, J. W. R., Conzen, M. P. and Gu, K. (2016) 'Plan analysis of historical cities: a Sino-European comparison', *Urban Morphology* 20, 139–58.
-