Town-plan analysis and the limits of inference: the cases of Bridgnorth and Ludlow, Shropshire

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Abstract

Significant contributions to the development of town plan analysis in the last half century or more have been made through the study of Ludlow and Bridgnorth, Shropshire, two towns of Norman origin built around 11th century castles. Both the evidence and the methodology underlying the work of M R G Conzen and others on Ludlow, and of T Slater and other commentators on Bridgnorth, is critically examined to test ideas about spatial and temporal developments of elements of the townscape. Conclusions are drawn concerning the early stages of the layout and development of both these places which differ fundamentally from current paradigms of interpretation. This has allowed new historical narratives of urban development in the 12th century to be formulated and tested against both the physical evidence embodied in the town plans themselves, as well as other documentary and archaeological evidence.

Introduction

The two Norman composite planned towns of Bridgnorth and Ludlow, Shropshire, have provided significant exemplars of the methodology of town plan analysis, in part because they represent places with considerable economic and strategic importance in the 12th century and later, and because they were developed on a sufficiently generous scale to exhibit regularities from which a range of inferences can be made about town-planning processes at this early stage. Where detailed documentary evidence is lacking for the early development of a town, the deciphering of the relationships between the various physical elements of the townscape has provided the principle evidential basis for making inferences about processes involved in urban planning and development in real time in the past, and from these to making yet further inferences about functionality and the operation of human agents and behaviours on a wider canvas.

A beginning was made in relation to Ludlow by M R G Conzen (Conzen 1968), following on from other studies of for instance Alnwick, where his methodology was developed (Conzen 1960). Conzen produced a further paper on Ludlow in 1988 (Conzen 1988), which was amplified in the same volume of essays by further analysis by Terry Slater (Slater 1988a). The first detailed study of Bridgnorth was made by Slater (Slater 1988b), with further comments in another paper dealing with composite town plans in general - of which Bridgnorth and Ludlow were considered as prime examples (Slater 1990). This was followed by another study by Jane Croom...
Meanwhile, Slater offered a somewhat low-key critique of Conzen’s conclusions about the development of Ludlow in the same paper (Slater 1990) in which he put forward a reinterpretation of the development of the town. This was also reflected in the views of Paul Hindle (Hindle 1990) and Ron Shoesmith (Shoesmith 2000). Both places have been set in their wider contexts through the work of Keith Lilley, who has put forward further reinterpretations of the sequences of development within the town plans (Lilley 1999). Valuable contributions, based on detailed local studies, have been made of Ludlow’s layout by Chris Train and David Lloyd (Train 1999; Lloyd 2008), the latter providing the important evidential basis for the primary layouts of burgage plots.

It is the intention here both to reassess the evidence which has been brought into play in these analyses, and to take a critical look at the methodology which underlies the discussions by these various commentators. This will apply the principles of ‘landscape stratigraphy’ to the analysis of the town plans, in such a way as to determine sequences of events in real time from the spatial conjunctions and relationships of elements of the townscape. This methodology is shown in its simplest form in instances in which landscape features of known date, such as Roman roads or mid-Saxon earthworks, cut transgressively across other features, allowing inferences to be drawn from spatial relationships about temporal sequences (e.g. Bonney 1976; Rodwell 1993, 57-8 & Fig. 36). Such a methodology has been applied with some success to the recent analyses of the historic development of the townscapes of for instance Worcester, Gloucester, Hereford and Shrewsbury by various commentators (Baker and Slater 1992; Baker and Holt 2004; Baker 2010a; Baker 2010b), by means of what has been described as the ‘disaggregation process of urban analysis’ (Baker and Holt 2004, 151). As a result, it is possible to take a new view of the wider historical narratives which have been based on the analyses of the town plans of the two places considered in this paper.

It is however argued that the development of ideas relating to these towns has followed a trajectory of interpretation which in many cases has pushed the boundaries of - and in a number of ways significantly exceeded - the limits of what can be legitimately inferred from the evidence of these spatial relationships. One of the most noticeable features of these studies is how particular paradigms of interpretation which have been put forward by both Conzen and Slater in relation to Ludlow, and by Slater in relation to Bridgnorth (though these are in reality are no more than hypotheses or models) have become fixed and unquestioned baselines of interpretation in all subsequent discussions with little attempt at examining their underlying premises or assumptions.

**BRIDGNORTH** (Fig. 1)

At Bridgnorth (as with Ludlow) the castle, sited on the precipitous spur to the south of the town, forms a clear and distinctive element of the town plan as a whole. With this was associated a new Norman borough within a large outer bailey, comprising the area occupied by
West Castle Street and East Castle Street. (Slater 1988b, 7-9; Slater 1990, 63; Croom 1992; Lilley 1999, 12-13. The antecedents of this late 11th century borough, both at Quatford and at Bridgnorth itself (and in particular the location of the Aethelredian burh of Quatford of the early 10th century) is a complex question, not related to the theme of this paper, and will be discussed at a later date by the writer. See on this Gelling 1990; Mason 1966.) The subject of the reassessment in this paper is the origin, layout and development of the planned system of streets and other topographical elements of the townscape to the north of this primary borough, which represent a secondary development to it.

Fig. 1.

Plan of Bridgnorth, showing streets and other features mentioned in the text. (Low res image).
The initial examination of the topographical pattern was made by Terry Slater, who proposed the consecutive development of the two main plan units of the town to the north of the Norman Castle, as represented by the High Street plan unit and the single plan unit formed by the three streets to its west (Whitburn Street, St Mary’s Street and Listley Street) (Fig. 1). Slater’s analysis of the pattern of burgage plots has led him to two principle conclusions. The first is that the development of the High Street was essentially unplanned, with development occurring in piecemeal fashion in a way which involved the layout of irregularly sized plots from north to south as the town grew. The second is that three new streets to the west of the High Street represent a planning episode which was later than the development of the High Street, with these streets being inserted into an already established layout. This is characterised as having been laid out with straight boundaries to the rear of the ‘irregular’ plots facing the High Street, which then provided the line and the alignment for the development of plots of regular dimensions along the new streets to the west. The space in between the plots facing the High Street and the new development was then filled in by more irregular plots. (Slater 1988b, 13-16; Slater 1990, 68-70). The underlying reason for the separation of these plan units in time appears to lie in the analogy of this arrangement to Conzen’s characterisation of the development of Ludlow, in which he proposes a sequential development between the High Street market area, the streets and burgages to its east, and the streets to its south (analysed below) (Slater 1988b, 13). Having been proposed, however, this interpretation - which in reality is no more than a hypothesis - has turned into an immutable paradigm which has determined the interpretation of subsequent work on the origins of the town without subsequently examination or discussion.

Slater’s initial interpretation, elaborated to some extent soon after (Slater 1990, 66-71), was taken up by Jane Croom, who added other refinements to this postulated course of development, such as the suggestion that the original plots fronting the west side of the High Street - as on the east - would have been of equal length. (Croom 1992, 24 Fig. 2). These plan units are depicted as having separate existences in space with no organic connections; the problem of how they interconnected is somewhat unresolved. However, her depiction of units of burgage plots of equal length both to the west and the east of the High Street has no basis in the detailed evidence of the OS 1:500 plan, and appears to be predicated solely on the underlying assumption that this line of burgage plots on the western side is primary.

Keith Lilley’s analysis of the town plan, while proposing new historical and political contexts for its development, follows the paradigm of the consecutive development of the two plan units set by Slater and Croom, once again without analysing their spatial relationship in detail and ignoring the relationship of these to the town wall and its ditch. [Lilley 1999, 12-14]. Work for the Extended Urban Survey of Shropshire, completed in the mid 1990s, combined with various comments in the Shropshire SMR, have however together presented a more analytical interpretation of the town plan which more closely reflects historical processes. However, these sources still hold to the paradigm of the later development of the three western streets, drawing a line between the High Street plan unit and the western plan unit which is based on that depicted
by Slater, with no detailed examination of its evidential basis. \textit{[Buteux V et al 1996, plan of Medieval Urban Form]} 

While all these commentators extend the parameters of interpretation of the medieval townscape in different ways, there are three crucial aspects of the plan analysis of the town as a whole which remain unresolved, and where a re-examination of the stratigraphic interrelationships between the plan units as proposed by Slater, Croom, Buteux and Lilley suggest a somewhat different interpretation. The first is the nature of the supposedly unplanned development along the High Street. The second is the hypothesis that the two plan units of the High Street and the so-styled ‘extension’ of the three streets to the west represent consecutive developments. The third is the relationship of the town wall and its ditch to all the other topographic elements of the townscape, which is only briefly mentioned in Slater’s analysis.

In the analyses of both Slater and Croom, the primary hypothesis is of the later addition of the western streets and their associated plots to the primary High Street. All the detailed evidence of the layout and inter-relationships of the physical elements of the townscape is interpreted with this assumption in mind, and discussed without reference to the possibility of other interpretations. No consideration is given to the hypothesis that all these streets might well represent different elements of a contemporary development. This clearly forms the basic premise behind Slater’s assertion that the pattern of the layout of plots along the High Street ‘reveals that it developed by piecemeal development along its length from south to north as the town grew. Since there was no planning of the plots they are of variable length on both sides of the road, those on the east being generally longer since they extend to the edge of the cliff top’ \textit{(Slater 1990, 68).} This may, however, be questioned, in partly on the basis that this conclusion is only one of several possible interpretations of the evidence, and in part because of its tendentious nature. The characterisation of the evidence - the ‘irregular’ layout of the burgage plots - is itself defined by reference to the pre-determined conclusion. This supposed absence of planning, shown by the ‘irregularity’ of the burgage plots facing the High Street, is contrasted with the more ‘regular’ layout of the streets and burgage plots to the west which are therefore ‘planned’. This disparity thereby forms the basis for the conclusion that the layouts of the two plan units are consecutive.

However, a detailed look at the primary evidence - here the town plan as depicted in the 1:500 OS plan of 1884 - allows a different set of inferences to be drawn. The layout of the plots on the eastern side of the High Street (Fig. 2) can arguably be more easily interpreted as a regular development of plots of similar (but not equal) width, laid out as a single planned unit. The lengths of these plots were determined firstly by their position in relation to the sharp break of slope to the east and south-east which possibly marks the line of the town’s medieval defences (if present in this quarter), and secondly, by having to accommodate earlier patterns of occupation around St Leonard’s church (Fig.2).
There are also considerable difficulties with Slater’s interpretation about the pattern of plots on the western side of High Street (Fig. 3). His basic hypothesis is of the development of plots of irregular length, which were then added to by the infilling of plots facing the side streets on the occasion of the ‘insertion’ of these new streets. It may be asked, however, why the lengths of the plots facing this side of the High Street directly reflect their position in relation to the side streets, being longest at the centres of the spaces in between the side streets and shortest at the corners. In Croom’s analysis, this problem is just ignored; no explanation is given as to how this problem of the layout of the burgage plots was resolved. In the analysis of the SMR, these streets are taken as having been simply ‘pushed through a burgage’ fronting the High Street, without, apparently, any close examination of the evidence, or any further discussion [SMR SA-05641].
These solutions are, however, ultimately untenable, in terms of both the stratigraphic interrelationships between these plots and the streets, as well as the processes and agencies of which it can be inferred they are the outcome. It is argued here that the spatial relationships between the burgage plots are more easily interpreted on the premise that the main High Street ‘plan unit’, and the ‘plan unit’ represented by the three western streets (Whitburn Street, St Mary’s Street and Listley Street) (Lilley’s plan units II and III) are not consecutive developments, as has been generally held, but were laid out at the same time. This is demonstrated in the spatial relationships which are exhibited by the disposition of the burgage plots at the eastern ends of the three east-west aligned streets at their junction with the High Street, as depicted in the OS 1:500 plan of 1884 (Fig. 3). These interlock with the burgage plots fronting the western side of the High Street in such a way that the plots facing each street decrease in length alternately towards the street corners, their rear ends interlocking in a step-like fashion with those fronting the adjacent street. This arrangement cannot be explained in terms either of the prior development of a row of equal-length burgage plots fronting the High Street being truncated to accommodate the later insertion of new streets with burgage plots at right angles to them (which process, as Slater has already noted - Slater 1990, **- would assume the maximum degree of disruption to existing patterns), or of the pre-existence of plots facing the High Street of lengths which coincidentally reflect the positions of the 'inserted' streets. If, however, the High Street and streets to its west were laid out at the same time, this arrangement of burgage plots at the corners of the streets would be the expected outcome, providing a solution to the problem of accommodating plots of roughly equal width, with the same frontage onto all the streets, to fill the increasingly constricted space towards the corners of the streets. Although allowances have to be made for plot fission as well as fusion (both of which have introduced irregularities in this primary layout), the pattern is sufficiently clear to show that this arrangement was repeated on five of the street corners. This pattern is, therefore, arguably more consistent with the development of these western streets, together with the High Street, as a single and contemporaneous act of urban planning, a process which would have led directly to the establishment of the observed pattern. This is emphasised in the detail of the area to the north of Listley Street and west of High Street, where a probably pre-existing feature has skewed the layout of the back ends of some of the adjacent burgage plots facing both streets, which are followed by the parish boundary (Fig. 2). This conclusion is by no means invalidated by the probability that Whitburn Street, which is not parallel to the other two, arguably represents a pre-existing routeway from the west towards an earlier pre-Conquest settlement around St Leonard’s church. [Croom 1992, 27.]
This conclusion has implications for any discussion not only about the relationship of the town wall to the layout of the town as a whole, but also about its sequence in relation to the historical development of the urban landscape. To the north, north-west and west of the town the ‘town wall’, as marked on the OS 1:500 plan, is associated with a strip of land along its outer edge which must be interpreted as a zone formerly occupied by the defensive ditch or moat (Fig. 4). There is no indication of the former existence of this ditch on the south-west side, where the wall ran along the crest of a relatively steep slope to the south until it met the earlier wall of the castle at its eastern end (Fig. 1). [This interpretation of the topography differs from that of Buteux, who shows the town wall running alongside the southern edge of Listley Street. See Buteux 1996, plan of Medieval Urban Form.] The wall and its ditch (where present) comprises a discrete morphogenic unit within the town plan which exhibits stratigraphic relationships with its neighbouring plan units which are diagnostic of sequential development. Of particular
importance is its relationship to the burgage plots to the north and north-east of Whitburn Street, whose boundaries and general alignment are continued beyond the defences to the north-west, where they end at a common boundary which runs from one end of the street to the other (Fig. 3). As Terry Slater has noted, this is the clearest indication in the town plan itself that the wall and its ditch were cut through the line of these burgage plots, showing that it was constructed after the layout of the burgage plots and, therefore, the street. (Slater 1990, 77. This situation is also noted in the comments in the SMR entries SA-05646 and SA05645, though the implications of this are not explored.)

Fig. 4.
Bridgnorth - area N and NW of Whitburn Street, showing evidence of burgage plots extending beyond the town wall and truncated by it. Extract from OS 1:500 map of 1884. North to top. (Low res image)

The presence of several burgage plots facing the High Street beyond the northern gate which was inserted as part of this operation suggests that these became a 'suburbium' as a result (SMR SA-05645, SA-05646). The building of the defences has also clearly caused the diversion of an earlier 'pre-urban' road which approaches the church of St Leonard’s from the north (Love Lane) to join the line of the High Street outside the new defences (Cliff Road) (This is noted in
This same relationship is shown on the south side of the defences, where the west end of Listley Street has been continued around the inside of the wall subsequent to its construction (Fig. 5). This arrangement is analogous to the pattern at Hereford, where two streets (Maylord Street and Gaol Street), which were laid out in the 1070s in the new Norman extension to the north of the Anglo-Saxon town, were truncated by the new defences of the late 12th century and diverted around their inner edge (Baker 2010, 16-19). An alternative and perhaps more probable interpretation would be to suggest that the curved western end of the street existed before the defences. The former runs along the crest of the steeply-sloping scarp of the hillside at this point - see Fig. 1., and appears to have formed the morphological frame for burgage plots which would have been part of the series which backed onto the common line between Listley Street and St Mary's Street. The defences at this point would naturally have been placed along the same alignment.
Another suburbium was created around the western ends of Whitburn Street and St Mary’s Street, where the imposition of the town walls appears to have cut at an oblique and unconformable angle through a unitary estate which occupied an area bounded on the east by a common line marking the ends of the series of burgage plots of these two streets (Fig. 5). [This is reconstructed by Buteux 1996 (map of Medieval Urban Form), and in SA05681, SA06052, SA06053, SA5682; Slater 1988b]. The estate was given to the de Pitchford family in 1102, with the western part outside the walls being called Little Brugg after the defences were built. [Eyton 1854, 354-9; SMR SA06052] The stratigraphic relationship of this estate to the burgage plots to its east is crucial to the interpretation of the pattern of the townscape as a whole. The formation
of this estate must be either contemporary with or later than the layout of the streets to its east with their regular systems of burgage plots. While the burgage plots along St Mary’s Street in particular could conceivably have been built up to a boundary of this estate which was already in existence, the situation of this estate at the far western ends of these streets, with no organic connection to anything else in the townscape, suggests however that the formation of this estate either post-dated, or was contemporary with, the layout of the three streets and their associated burgage plots. The layouts of these streets have been demonstrated above to have been contemporary with the layout of the High Street, from which it follows that the whole of the townscape north of the castle was laid out as a single undefended planned unit. The dating of the acquisition of this estate to 1102 shows, therefore, that this planned town to its east must have been laid out at very nearly the same time, very shortly after the castle was secured by King Henry I in 1102.

**LUDLOW**

The interpretation of the town plan of Ludlow has been established through the work of Conzen and successive commentators in what must be one of the classic case studies in urban morphological analysis in England. [St John Hope 1909; Conzen 1968; Lloyd 1979; Conzen 1988. Slater 1988; 1990; Hindle 1981, 1990; Lilley 1997, 1999; Train 1999; Shoesmith 2000; Lloyd 2008. Lloyd 2008, 7-22 gives a useful overview of work over the last century on Ludlow’s town plan]. It is not the intention here to recapitulate the substance of these papers; rather, to demonstrate ways in which the underlying assumptions of their various authors can be scrutinised and analysed against the actual evidence of the stratigraphic relationships within the details of the town plan. Without offering a general critique of Conzen’s overall contribution to the study of urban morphology (which in its widest sense has been seminal), there are nevertheless some aspects of his interpretation of the town plan of Ludlow which require reassessment.
Conzen’s initial model for the development of Ludlow rests heavily on an underlying methodological paradigm that different plan units (as defined by himself), insofar as they show differences in their physical characteristics, reflect different growth stages in the town. In his highly influential paper of 1968, in which he analysed the composite town plan for the first time, Conzen tends towards the argument that since the growth of a town results in both functional and spatial differentiation, the identification of plan units is in itself an indication of successive development, which is seen in terms of ‘growth stages’ which exhibit different ‘styles’ or
‘characteristic period traits’, and which themselves act as a ‘period index’. (Conzen 1968, 117 - 21; see also Conzen 1988, 260, 266.) The concept of ‘growth’ is thus built in to the way Conzen views the ‘stratification’ of the urban core, which is shown in the way in which ‘a hierarchy of morphological regions, individual streets and specialised precincts . . . form the units of successive urban growth, each with its own street system . . .’

Based on this series of assumptions, Conzen recognises 5 such ‘distinct developmental units’ or ‘genetic plan units’, besides that of Dinham to the south of the castle, each subdivided into distinct morphological regions. (Conzen 1988, 256-8, Figs 17.1 & 17.2) The differentiation between the High Street plan unit (including the church), the Bull Ring Unit and the Broad Street - Mill Street Unit is thus inevitably seen as a progressive development in time. [Conzen 1968, 122-7; Conzen 1988, 263, 266-9.] This has become an enduring paradigm which has provided the foundation for all subsequent work on the history of the town. In its relationship to the Bull Ring plan unit to its east, for example, the Broad Street - Mill Street plan unit is described as having a ‘more advanced style of planning catering for more developed functional needs’, and dated to the 13th century by reference to its ‘general style and differentiated plan detail’ and to its supposed similarity to the layouts of some of the French bastides of Edward I. [Conzen 1968, 126] This conclusion is reinforced in his later paper of 1988. [Conzen 1988, 266-9.]

The application of this paradigm is extended to the treatment of the town wall. As with the treatment of Bridgnorth by other commentators, the town wall (which with its ditch forms a highly significant plan unit in itself) gets short shrift in this story, even to the extent that the ditch around the eastern side of the wall is written out of the pattern. This is described, without further discussion, as a later addition - ‘the last major formal undertaking in the shaping of Ludlow’s medieval townscape’ - which is seen, for instance, as displacing various topographical elements in the townscape in the Bull Ring area. [Conzen 1968, 126; Conzen 1988, 269.] This again has created an enduring paradigm which has been followed without question by all subsequent commentators.

Although for Conzen this way of looking at the town plan of Ludlow was taken as being unequivocally demonstrated by the detailed analysis of the ‘evidence’ of the town plan, this is in reality a ‘model’, in the sense of today’s meaning as a conceptual construction put forward to explain evidence. Its anchorage points to objective criteria or testable evidence are therefore susceptible to re-examination and reassessment. Like all models, its veracity can be tested by whether or not it can be falsified. One fundamental criticism of Conzen’s methodology, alluded to above, is that the evidence of the town plan, for all its detailed and minute characterisation, is always described and interpreted with the idea of progressive development of elements within the townscape in mind. As demonstrated above, this basic premise has influenced the interpretation of the town plan of Bridgnorth by Terry Slater and others. The subjectivity of some of his interpretations is also an issue. His observation, for instance, that the pattern of ‘archaic-looking burgages’ to the north of the High Street contrasts with the pattern on the south, with its
‘remnant sets of stunted and deformed burgages’, carries a whole raft of implicit and tendentious assumptions which are based on opinion alone. [Conzen 1988, 265.] The concepts of ‘style’, ‘functional needs’ and ‘differentiation’, and others in his quite extensive vocabulary, carry a range of meanings and interpretations, none of which anchors the development of these plan units in actual historical processes in the past, or demonstrates successive development. It might be asked, for instance, how the functional attributes of the inhabitants of the so-styled 13th century Broad Street / Mill Street plan unit would have been any different from the inhabitants of the 12th century plan unit around the High Street axis, and, even if these could be defined or determined, how these would necessarily have become manifested in differences in the urban layout. An element of self-validating circularity seems to be built into these arguments from the start.

In his second paper on Ludlow Conzen states bluntly that ‘Ludlow’s High Street [Plan] Unit is the earliest urban component in such a pattern of growth’, as though this was self evident (Conzen 1988, 265). The most explicit reference to stratigraphical relationships as understood in this paper (as contrasted with his use of the term ‘stratification’, which is just a loosely-applied synonym for differentiation) is that relating to the junction between the High Street Unit and the Broad Street - Mill Street Unit to its south. Concerning this, Conzen remarks that ‘The whole [High Street] plan unit is likely to have had two equal burgage series originally, one on either side of the street market and uninterrupted by the subsequent cross streets’, which was then subsequently altered by ‘the planned southward extension of the town which, conceivably though somewhat unusually, defaced a considerable part of the southern burgage series in a reorientation of plots towards the newly designed additional thoroughfares.’ (Conzen 1968, 124.) These arguments rest entirely on the underlying assumption that the two plan units are of different dates. No independent evidence is given to substantiate this pattern, or to demonstrate that there was in fact originally a series of burgage plots facing the whole length of the southern side of High Street, or that these were once of equal length, or that these plots were indeed modified in the way he suggests.

The actual evidence of the disposition of the burgage plots along the southern side of the High Street is, however, somewhat equivocal, and is rather less clear than the pattern shown in the junction of the western streets with the High Street at Bridgnorth, analysed above. Terry Slater’s subsequent work on the metrological analysis of burgage series of Ludlow, as well as that by David Lloyd and others through an analysis of the burgage rentals of the 17th and 16th centuries, has considerably illuminated the early pattern. [Slater 1988a, 98-101; Speight & Lloyd 1978; Lloyd 1979; Lloyd 2008, 47-74.] The several burgage plots facing north onto the south side of Castle Street between Mill Street and Raven Lane present a different pattern to those plots on either side of Broad Street which face east and west (Fig. 7). [Lloyd 2008, 61 Fig. 21] There appear to be only slight indications of the arrangement of right-angled step-like interlocking of burgage plots at the corners of the streets which is so clear at Bridgnorth. In this area, therefore, the pattern is equally consistent with the two hypotheses - that the so-styled Mill Street / Broad Street plan unit is either secondary to, or contemporary with, the ‘primary’ High Street.
plan unit. It is certainly not an unequivocal demonstration of the former. Terry Slater has, however, pointed to the tenurial and other problems which would have been occasioned by the sort of rejigging of plot layouts envisaged by Conzen. On this basis he has drawn the conclusion that Conzen has misinterpreted this part of the plan, and that the layouts of the High Street and the Broad Street / Mill Street plan units were contemporary. (Slater 1990, 70-1). Conzen's overall model for the development of the town has also been questioned by Terry Slater, who has put forward a new interpretation of its development (Slater 1990, 77-9), in which urban development was concentrated along an earlier route along Corve Street, with the streets to the east of the castle developed in relation to this in a later episode of town planning. However, this 'revisionist' model can itself be questioned. Slater's model is reflected in interpretations by Brian Hindle and Ron Shoesmith (Hindle 1990; Shoesmith 2000), and, in a further development, in that of David Lloyd (Lloyd, 2008, 75-81), though Lilley's model still holds to the basic Conzenian scheme (Lilley 1999).

There are, however, a number of considerations, drawn from a stratigraphic analysis of the relationships of the various elements which comprise the town plan, which combine to articulate a rather different interpretive model for the development of the townscape of Ludlow. It is argued that all the elements to the east of the castle can best be interpreted as having been conceived as a single episode of town planning and probably laid out at the same time. Furthermore, it will be argued that the relationship of elements of the townscape to the line of the defences shows that this has acted as a key morphological frame for the layout of the streets and burgage plots both inside and outside it. The town defences must be considered, therefore, as a primary element in the town as originally laid out. This interpretation, in both these aspects, is at variance with the model of a progressive development of the various elements of the town plan and of the secondary nature of the town wall, which has underpinned the models developed by both Conzen and Slater, as well as other interpretations by subsequent commentators which are all, in one way or another, based on their analyses. As with the re-evaluation of the date of the town plan of Bridgnorth, this has implications for any discussion of the wider context (Lilley 1997, 1999. The SMR states bluntly that ‘The town defences follow the same alignments as property boundaries and clearly post-date the layout of the properties', which is as clear a case as any of the sort of back-to-front stratigraphic reasoning which is questioned in this paper - see SMR CCS:MSA885).

An analysis of this hypothesis must, however, be preceded by a discussion of the relationship of Dinham, occupying the area to the south of the castle, to the castle itself (Fig. 6A & B). For Conzen, this was merely an 'agricultural settlement', occupying an uncertain position, both in function and space, in relation to both the castle and the town to its east. (Conzen 1988, 263). For Slater, too, this was no more than an enclave 'to house the people more concerned with servicing the castle'. (Slater 1990, 78). The more recent analysis of Keith Lilley, however, has shown clearly that this is the remnant of a new urban foundation - in effect a new Norman borough - within an outer bailey of the Norman castle, focussed on the south entrance to the
inner bailey, and occupying the same spatial and functional relationship to the castle as the primary borough at Bridgnorth. Its layout as a new urban foundation is most likely to have been contemporary with the creation of the first Norman castle in c.1075. This was subsumed in part at a later date by an extension of the castle bailey itself and the creation of the new planned urban foundation to its east, the latter arguably predating the former. [Lilley 1999, 15; Train 1999; Lloyd 2008, 49-53. For the dating of the castle and borough, see Renn 1987, 58-9 and Renn 2000, 125.] The new market street to the east is usually seen as being set out in relation to the new east gate of this enlarged bailey. However, the strong indications of the transgressive form of the present outer bailey onto and over the town plan would suggest that the street - and, as argued here, therefore the whole town - was laid out prior to the latest extension of the bailey. The layout of burgage plots within this area has been elucidated by David Lloyd, and Chris Train has shown that the distinct area within the town plan to the east of this original borough at Dinham, known later as Christcroft, was described as a 'fossatum' in medieval documents (Fig. 6A). (Lloyd 2008, 50 Fig. 14; Train 1999, 23-5; cf Conzen 1988, 268). Although Conzen interprets this as being contemporary with the layout of the Broad Street / Mill street unit, [Conzen 1988, 268; an interpretation followed in Slater 1990, 76] a more natural interpretation would see this as the eastern ditch of this primary unit or borough which would have been associated with a bank to its west, and therefore anterior in time to the development of the town to its east. This is shown by the fact that all adjacent burgage plots on both its sides back onto it, rather than face it - see Figs. 6 & 7. Its continuation northwards through the later extension of the castle bailey (Fig. 1) is suggested by the structural failure and collapse of part of the bailey wall in 1990. [Renn and Shoesmith 2000, 192-3. The SMR interprets this feature as a relict street. For reasons given above, this is untenable.] It is possible therefore that this is the survival of a bank and ditch which acted as a primary cross-promontory defence from north to south.
A case can also be made that a bridge across the Teme to the west was built at the same time as the layout of the new borough of the 1070s. A new bridge ‘of stone and lime’ is recorded in the Romance of FitzWaryn as having been built in the 1120s or earlier by Joce de Dinan ‘below the town of Dynan’ on the ‘High road between Chester and Bristol’. [Hathaway et al 1975, 4; Train 1999, 3-4]. Keith Lilley interprets this as referring to the original Ludford Bridge at the south end of Broad Street [Lilley 1999, 20 n.21]. This would, however, place this at an earlier date than the development of the town in the mid 12th century, with which it is topographically and arguably functionally contiguous. [This point has been made strongly by Slater - 1990, 78.] The documented association of this bridge with ‘the town of Dynan’ suggests, rather, that it is more likely to have been Dinham bridge itself, which at this time probably represented the rebuilding of a primary bridge of timber with one of stone. This conclusion is supported by indications of a well-developed routeway system to the south and west of the river which is focussed on Dinham Bridge (indicated in Figs. 1 & 6A), which was succeeded at a later date by other routes heading towards Ludford Bridge. [This will be described and analysed by the writer elsewhere.]

The key to the interpretation of the development of the new town to the east of the enlarged castle lies in the stratigraphical relationships of the various plan elements, in particular the burgage plots seen either individually or as parts of series, to the line of the town wall, as well as to the streets themselves. The plan units defined by Conzen, and followed by Slater and Lilley, are unhelpful. As is discussed above, these tend to impose interpretations of function and development on the townscape which obscure rather than illuminate these crucial stratigraphical relationships. The town wall with its extra-mural ditch or moat forms one of the most obvious, yet most ignored, topographic elements in the townscape, in particular as depicted in the OS 1:500 plan of 1884. It should, indeed, rightfully be considered as being a separate plan unit in itself. As will be shown below, these stratigraphical relationships demonstrate - in the writer’s view quite unequivocally - that the disposition of all the burgage plots laid out both within it and immediately outside it have been determined by its alignment. The exception, at its south-east corner, discussed below, is the one which proves the rule. This needs to be stressed, in view of the persistence of the contrary paradigm that the wall and ditch are a later insertion into an already developed urban landscape. This view was first introduced by Conzen, but is not based on any clear stratigraphical relationships. [Conzen 1968, 126; Lloyd 1979, 8-11; Faraday 1991, 104; Train 1999, 27-30; Shoesmith 2000, 13-4; Lloyd 2009, 71-4. Slater 1991, 76-7. This paradigm seems to have arisen through the assumption that the town walls date to the 1230s and no earlier. Train is, however, somewhat equivocal concerning this paradigm, though Slater has
argued that the town walls, and the High Street and Broad Street / Mill Street plan units were laid out together (Slater 1990, 79). Lilley ignores the town walls entirely, except insofar as they define his plan units - Lilley 1999, 16 Fig. 4. This paradigm is perpetuated in Dalwood 1996, and in the Shropshire SMR, and in Lloyd 2008]

The stratigraphic or spatial relationships between the town wall and the various topographical elements of the townscape can be analysed in clockwise order from the north. On the northern side, the town wall is clearly placed at the crest of a well-defined spur of rock which defines the northern line of the relatively flat platform on which the High Street complex is laid out, and which then slopes to the south towards the river to the south of Castle Street / High Street. The east-west wall on this stretch defines the back ends of the original burgage plots which fronted onto the northern side of Castle Street and High Street (Fig.8B). [Lloyd 2008, 55, Fig. 17.] Terry Slater has, indeed, interpreted this set of relationships as indicating that the High Street and the development of the wall are contemporaneous, though has not applied the logic of this observation to other parts of the town wall and adjacent features (Slater 1990, 70-1).

The easternmost burgage plots in this area, however, interlock with those facing east onto College Street, lying to the west of the churchyard and leading to Linney Gate, which gave access to foot traffic to the medieval fields to the north of the walls. [Lloyd 2008, 55 Fig.17; for the development of the burgage series in Linney Fields, see Slater 1988, 101 Fig. 8.2; Lloyd 2008, 67-9 & Fig. 24]. This pattern shows that College Street belongs to the same phase of town layout as the High Street, rather than being added to it at a later date. Since the position of this street is dependent on the existence of Linney Gate in the town walls, the defences at this point (and therefore by inference over its whole length) are demonstrated to be contemporary with the layout of the High Street.

To the east, College Street defines the western edge of the church and its precinct, with the town wall defining its northern edge. This is consistent with the premise that this complex, with the church itself, belongs to the same phase of the layout of the town. To the east of the church, burgage plots are ranged along both sides of Bull Ring, which there is no reason to doubt was part of an earlier north-south routeway of probable Roman origin comprising Old Street, Bull Ring and Corve Street, crossing the Teme at a ford below the weir of the present mill. [Shoesmith 2000, 5-8. The finding of **** of the 8th century on the site of the ford demonstrates its antiquity.] These burgage plots are of approximately equal lengths on both sides of the street, and their layouts are clearly constrained and defined by the presence of the churchyard to the west (whose eastern edge they delimit), and the town wall on both the north and east (Fig. 8). This pattern can only have arisen by an act of planning in which these burgages were laid out along the pre-existing street within the space defined by the line of the town defences. It is not consistent with any process in which the town wall and its ditch, as well as Corve Gate itself, have been cut through or truncated these burgage plots. Conzen states that these plots, of late 12th century origin, have been 'curtailed' by the insertion of the town wall. [Conzen 1988, 256 Fig 17.1. This conclusion is repeated in Dalwood 1996, SA 06256 and SA 06245.] This conclusion is not based
on any stratigraphic evidence of such curtailment or truncation, such as the survival of remnants of these burgage plots outside the wall (as at Bridgnorth), but is predicated solely on his assumption that the wall is of 13th century date and no earlier. In short, it must be accepted that the town defences have here, as elsewhere, have acted as the primary morphological frame for all subsequent development, and are therefore contemporary with or earlier than the layout of the burgage plots within the space they enclose.

A similar pattern is shown by the burgage plots around Tower Street inside (to the west of) Galdeford Gate (Fig. 9). On the northern side of Tower Street at its corner with Bull Ring to its north, the burgage plots interlock in the manner described above for College Street and High Street, showing that the creation of Tower Street is likely to have been contemporary with the layout of these burgage plots, rather than an insertion into it. Its clear function as the egress route from the town through a gate in the town wall demonstrates that all these features of the townscape - the town defences, the gates in the north (Corve Gate) and the east (Galdeford Gate), Tower Street, and the burgage plots on each side of Bull Ring and Tower Street - were laid out in a single episode of town planning. The spatial and functional inter-relationships between all these elements demonstrate that the town wall cannot have been laid over a pattern of burgage development along Old Street / Bull Ring which was already in existence, as Conzen and others so readily assume, and Tower Street cannot have been cut through a burgage series which was already in place.
An analysis of the stratigraphical and spatial relationships of the streets and burgage plots outside (to the north of) Corve Gate and outside (to the east of) Galdeford Gate provides important support for this series of deductions. Galdeford Gate is approached from the east by two roads, Upper Galdeford from the north-east and Lower Galdeford from the south-east (Fig. 9). The centres of these two streets are aligned more-or-less exactly at the eastern end of the expected position of a drawbridge over the moat on the outside of the wall at the position of the gate. It follows that these roads have been laid out to head straight towards the gateway. The burgage plots on both the northern and southern sides of the two streets at their western ends
are aligned to the orientation of the wall and ditch, at right angles to the alignment of the burgage plots inside the walls. These were therefore laid out with the wall and ditch as their pre-existing morphological frame, and therefore either at the same time as, or later than, the construction of the wall and Galdeford Gate. [Archaeological evidence suggests that these were developed (as might be expected) sequentially from west to east - Lloyd 2008, 22. It is significant that the extent of the development of these burgage plots was limited by the parish boundary. ] Another essentially unevidenced paradigm is that both Upper and Lower Galdeford represent pre-urban routeways which headed for a tumulus to the west of the church, indicating 'a long history of procession' to this sacred site. [Conzen 1966, 126; Lloyd 2008, 25]. Whether or not there was such a Bronze-Age tumulus at this point (which may well have been reused in the Saxon period), there is absolutely no evidence in the town plan to even suggest that roads originally led towards it before the development of the town, and every indication, as argued above, that these roads were first developed as routes heading for the eastern gate in the defended enceinte. It might be that there was a primary approach to the castle or this barrow along the ridge to the east and northeast, of which upper Galdeford is the natural successor, but on the evidence of the town plan this has had little effect on later developments, and whether or not it existed is on present evidence unknowable. To suppose that there was such a road (however reasonable a surmise) is not in itself of any evidential value in unravelling the town plan.
Burgages on the eastern side of Ludlow. A - extract from OS plan of 188*; B - as defined in the 17th century and earlier (from Lloyd 2008, 66 Fig. 23). North to top. (Low res image)

The same pattern of relationships is shown by the burgage series along both sides of Corve Street outside (to the north of) Corve Gate (Fig. 9). [See also Conzen 1988, Fig. 17.1C; Slater 1988a, Fig. 8.2]. These have been laid out in a remarkably even series, on the eastern side of the road extending some 500 metres or more northwards from the gate, forming a homogeneous series exactly 18 perches deep (Slater 1988a, 100). As is clear from the plans, they do not in any aspect match the series on either side of Bull Ring inside the gate. The southern burgage plots on the eastern side even begin to wrap around the north-eastern corner of the ditch on the outside of the wall, and are clearly defined by the latter's alignment. The back lane of the series along the eastern side of Corve Street has a southern extension which appears to be conformable, and therefore contemporary, with the layouts of the burgages on the northern side of Upper Galdeford. The town wall, as well as Corve Gate itself, thus forms a distinct morphological frame for the layout of the burgage plots both to the north and to the south, and cannot therefore have been cut through the series.

The dating of this series of burgage plots is important in determining the date of the origin of the town plan. The *terminus ante quem* for the development of these burgages is given by the
gift of 12 burgages, lying some distance north of Corve Gate, to the Knights Hospitallers of Dinmore by Hugh de Lacy II in 1186 (by which time the whole series of burgage plots to the north of Corve Gate must have been developed), and by archaeological evidence for the development of buildings fronting Corve Street whose dating spans 'the greater part of the 12th and 13th centuries.' [Lloyd 2008, 42; Klein & Roe 1987, 29.] This is consistent with the development of the town walls and gates in the mid 12th century, suggested below, at a period which has to be anterior to the development of this series of burgages.
Fig. 9.
Burgages along Corve Street to the north of the town wall (extract from OS 1:500 plan of 1884). North to top. (Low res image)
The same arguments are applicable to the burgage plots further south, to the east of Old Street (Fig. **). The wall here lies on the eastern side of Old Street (though not parallel to it), in such a way as to leave space for the layout of burgage plots inside the wall to face onto the east side of the street. These have clearly been laid out up to the line of the defences (overlying, as elsewhere, a probable primary bank on the inside of the secondary stone wall), and therefore after the line of the defences was determined. Lloyd postulates that some of these burgages may have extended to the east of the line of the wall and ditch, which conclusion appears to have been influenced by Conzen’s assertion that these formed a ‘deep burgage ribbon’ which was ‘curtailed and transformed later’ by the insertion of the town wall. [Lloyd 2008, 73; Conzen 1988, 256 Fig 17.1.] However, supposition is not evidence, and there is none for the former existence of any of these burgage plots outside of the wall to its east which would indicate that the wall has truncated burgage plots previously aligned on Old Street (as is the case at Bridgnorth). The most natural interpretation of this pattern, without recourse to unevidenced assertions, would suggest that the line of the defences here has provided the primary morphological frame for the development of the whole area, apart from the existence and alignment of Old Street itself.

The only exceptions are the burgage plots immediately outside (south of) Old Gate itself, where the wall and its ditch appear to have cut across the line of one or two burgages on the western side of Old Street, perhaps indicating limited development along the street before the planned town was laid out, a development which may well have included the ‘four large plots east of Holdgate Fee’ noted by Lloyd (Lloyd 2008, 73, 61 Fig. 21). However, from this scrap of somewhat equivocal evidence a picture has been constructed of the complete development of the whole of Old Street as a ‘linear market’ or ‘trading settlement’ from the ford over the Teme in the south to Corve Bridge in the north – a distance of more than a kilometre – before the development of the main town, an idea which forms the basis for Terry Slater’s revised model for the development of the town plan. (Slater 1990, **; see also Hindle 1990, 29-30 & Fig 8; Shoesmith 2000, 10 Fig 2, 12; Lloyd 2008, 59, 77.) This idea seems to have originated, at least in part, in Conzen’s model of the development of the burgages to the north of Corve Gate in the later 12\textsuperscript{th} century after the development of the market street in the mid 12\textsuperscript{th}, which in his view were ‘allowed to occur spontaneously along the ancient routeway’ (a notion rendered untenable by their regular width and length), as well as by his interpretation of the burgages along Old Street noted above [Conzen 1988, 266.]. Slater’s re-interpretation of the sequence of development has associated the parish church of St Lawrence, as well as the eastern end of the main market street, with this development, an idea also elaborated by Ron Shoesmith, (Slater 1990; Shoesmith 2000, 12) while Keith Lilley refers to the ‘pre-Conquest settlement core of Old Street’, a supposition for which there is neither archaeological nor documentary evidence. (Lilley 1999, 15).

Although Slater differentiates between the various components of the town plan in this area, it is clear that most commentators have tended to conflate several sets of morphologically distinct burgage plots of different origins, creating, in the eyes of both Hindle and Shoesmith, a
single contemporary mega-development. There is, however, no way in which the lord of the castle in the 12th century would have allowed the unregulated development of a market so close at hand, and within his own fee. The rationale of castle and town development in the Marches of western England and Wales, as well as in Ireland, in the period after the Norman Conquest, explored in detail by Keith Lilley, suggests that towns would have been developed at this time in close physical association with the castles and their baileys as a reflection of the control of territory sought by the marcher lords. (Lilley 1999). The regularity of the layout of the burgage plots to the north of Corve gate up to Corve Bridge (Fig. 9) shows that these would have been laid out by a controlling authority which could have been none other than the lord of the castle, a conclusion confirmed by the gift of 12 of these burgages to the Knights Hospitallers by Hugh de Lacy II in or before 1186, noted above. Furthermore, the parish of St Lawrence covers the area of the whole of the town, not just the area of this supposed ‘linear market’. [See Fig. *; Lloyd 2008, 4 Fig. 1] The concept of the primary development of this linear market along the Old Street / Corve Street corridor is thus inconsistent with both topographical and historical evidence. These ideas can best be described as inspired flights of creative fantasy, of a kind which has, quite rightly, given rise to doubts amongst historians of the medieval period about the value of the study of urban topography as an evidence-based discipline. [Keene 1990; Roffe 2007, 132-3, esp n.110].

The burgage plots on the west side of Old Street also appear to mesh with those on the east side of Broad Street in such a way as to suggest contemporaneity. This is particularly noticeable to the south of Pepper Lane, as well as at its junction with Brand Lane, where burgages on the northern corner formed by its junction with Old Street exhibit the characteristic interlocking pattern noted elsewhere in the town (Fig. 9). Lloyd postulates the existence of a former north-south street in between these burgages, on the basis that it would have been a continuation northwards of St John’s Lane to the south of the defences, and thus evidence that the defences cut through a pre-existing pattern. [Lloyd 2008, 71; cf Shoesmith 2000, 13.] There is no evidence for this. It is just one example of the development of an enduring paradigm in which perceived patterns are seen as validating, and being validated by, a pre-conceived hypothesis, with little regard for the actual evidence of stratigraphic relationships on the ground. Lloyd has pointed out other instances on the south side of the defences where the supposed continuity between features inside and outside of the wall indicate its secondary nature (Lloyd 2008, 71-4 & esp. Fig. 26). However, reference to Lloyd’s own detailed analysis of the layout of the burgage plots shows that in none of these instances are any topographical elements (apart from the streets) continued from one side of the wall to the other, as Lloyd asserts. (Lloyd 2008, 61 Fig.21 - see Fig 7 above). The only exception is the continuation of the line of the eastern edge of Christcroft to the river, which might support the suggestion (above) that this was an earlier cross-promontory defensive feature.

These relationships have been described in some detail in order to bring out the stratigraphical evidence which arguably demonstrates that the town defences, including the ditch,
have provided the morphological frame which has determined the disposition and the alignments of all the identifiable burgage plots and street alignments (apart from the line of Old Street itself) both inside and outside wall on its north and east sides, and which is therefore anterior to them in time. It is necessary to emphasise this conclusion in the face of the persistent paradigm, already noted, that the wall is a later insertion into the town plan. The spatial and stratigraphical relationships of the burgage plots within the walls to both the streets and the wall itself are such as to demonstrate that the whole of the intra-mural area was conceived and developed as a single planned unit within a short period of time, and that this was set out within a system of defences which enclosed the whole area, which was distinct from the late 11th century borough at Dinham to its south-west. This appears to be reflected in the results of the detailed burgage analysis carried out by Terry Slater, which has demonstrated the wide variation in plot widths over all parts of the planned town. [Slater 1988, 98-101.] This would seem to be more consistent with the original existence of built-in variations in all the plan units, none of which shows the individual characteristics which appear to be the mainstay of Conzen’s hypothesis of the sequential development of these plan units, each with its own distinct morphological characteristics which provide a ‘period index’. [Conzen 1988, 266-9.] The conclusion that the defences are a primary feature of the townscape, furthermore, requires a reassessment of the nature of the documentary evidence for their construction, as providing a *terminus ante quem* for their existence rather than an indicator of their origin, as is so readily assumed.

**Conclusion**

The emphasis in this paper has been on methodology, rather than on historical reconstruction. It is hoped that the conclusions drawn here demonstrate how spatial reconstructions which are built on the analysis of the landscape stratigraphy of the townscape, and which can be tested and verified on the ground, can generate new hypotheses about the early development of both Bridgnorth and Ludlow. It is only on the basis of hard evidence of these stratigraphic relationships that sound and realistic inferences can be made about processes and developments which took place - or indeed did not take place - in the past. When combined with crucial historical or archaeological dating evidence, this methodology arguably provides an important means of generating inferences which are not based on subjective judgements and unverifiable assertions, and are not skewed by preconceived notions of the way development took place in the past. It also avoids the pitfalls inherent in the way interpretative plan units, once proposed, have themselves tended to determine inferences and hypotheses about spatial developments in real time.

**Historical development of Bridgnorth and Ludlow**

In very broad terms, the evidence discussed above allows the development of Bridgnorth to be characterised as being a large planned town of the very early 12th century, probably as a royal foundation, laid out in relationship to an earlier borough of the late 11th century which was situated within defences which would have been contiguous with those of the castle. The
enlarged town defences have been dated on both archaeological and historical grounds to the early 13th century, with the provision of a clay bank, a berm 3-5m in width, and a ditch over 8m in width, the bank later fronted with a stone wall. [The evidence is summarised in the Shropshire SMR, PRN 00374 - MSA278 and associated records. See also Phillpots 1995; Hannaford 1998; Dalwood 2007. A course for the line of the defences is suggested in Bond 1987, 105; Slater 1988; Slater 1990. There is however considerable divergence of opinion as to the exact course of the defences. There are various objections to the course suggested in Buteux et al 1996, which cannot be discussed here. ] This does not, however, rule out the possibility of an earlier origin for earth and palisade defences during, for instance, the Anarchy period, or perhaps in Hugh Mortimer's tenure of the castle in the 1140s or early 1150s.

On the other hand, the development of Ludlow is argued here to have been a new defended planned town laid out within new defences as a unitary development. The dating evidence for this - in particular the gift to the Knight's Hospitallers of Dinmore by Hugh de Lacy of a group of burgages well to the north of Corve Gate before 1186 (by which time the whole of the pattern would have been in place), the documented rebuild of the church in the late 12th century, and the existence of the communal status of the burgesses by 1169 and the signs of considerable economic activity in the town after this date - is consistent with the creation of the new town in the middle years of the 12th century, though the dating will continue to be debated and refined [For the historical details, see Faraday 1991, 20-1; Lloyd 2008, 43-4, 57, 74.]. Derek Renn and Ron Shoesmith have argued that the outer bailey of the castle was extended in or before the 1170s. [Renn & Shoesmith 2000, 194. ] Since this cut across the corner of the new town to the east, as well as a good part of the borough of Dynan to the south, this gives another terminus ante quem for its development. Lilley reasonably suggests an initial development of the market area in the mid 12th century, though is on uncertain ground (for reasons given above) in placing the development of the southern part of the town as an ‘extension’ in the 1170s. [Lilley 1998a, 83; 1999, 15-16. ] As has been brought out above, the dating of the town walls to the early 13th century from historical evidence has clearly played a large part in the development of paradigms of interpretation, particularly in relation to Ludlow. [Conzen 1968; Conzen 1988, 264-9; Train 1999. ] However, historical references to the provision of defences, and in particular murage grants, represent only a terminus ante quem for their construction. It is suggested that this historical ‘evidence’ needs to be interpreted and reassessed in relation to the logic of stratigraphic evidence, rather than as an absolute datum in all its aspects.

This overall model is also consistent with the idea of the functional complementarity of these elements, in the sense that each would have been necessary for the realisation of the full functionality of the place as whole as a defended market town which was dependent upon the lordship of a strong castle within a crucial situation in the marches of Norman influence, in both time and space. In this way all the various elements in the townscape - the walls with their gates, the layouts of the streets and central market area, the layouts of the many burgage plots within this framework, the creation very probably at the same time of a new bridge over the river Teme
replacing an earlier bridge at Dinham (above), and the establishment of the new church in close association with the new market street - cannot be seen as developing (or, more accurately, being developed) in isolation. The presence of each of these elements, in all their spatial and functional aspects, are more comprehensible as having been formed as a result of an initiative of the lord of the castle to create a new urban space in which all these elements in combination would have functioned as a single unit which was greater than the sum of its parts, in that this arrangement would have been more effective in realising his aims. This is equally applicable to the case of Bridgnorth. [This concept of the functional complementarity of different elements in the townscape has been used by the writer in relation to the analysis of the development of late 9th century London by King Alfred - see Haslam 2010. A not unrelated call to recognise features of the urban landscape as an ‘integrated entity’ and as an ‘ensemble’ is made by Jeremy Whitehand - Whitehand 2010, 3].

In summary form, the various strands of evidence and inference examined and put forward above it can be summarised as a succession of distinct phases of urban creation and layout:

Phase 1 - (1070s)

- Construction of castle, with possibly a small bailey to its E;
- layout of a new borough to the S with its own defences to W, E and S, its E defences contiguous with a cross-promontory bank and ditch (the precursor to Christcroft);
- provision of a church for the borough;
- construction of a probable bridge on site of Dinham bridge (later replaced with a bridge of stone), and the diversion of the routeway crossing the ford N of Ludford and the creation of a new roadway from Ludford cut into the cliff face to the S of the river.

Phase 2 - (mid 12th c. onwards)

- Creation of new borough, involving the layout of a new planned town, to the E of the castle within earth and timber defences, incorporating the pre-existing routeway along the Old St / Corve St axis; this is provided with a church, two separate markets (one adjacent to the church, the other outside the E gate of the castle (possibly differentiated functionally), and planned residential streets, with gates at their egress points; the development (or realignment) of approach road(s) from the E; the realignment of the access from Ludford and the S over a new stone bridge on the line of the principle street (Broad St).
- Development of extra-mural burgages to the N (along Corve St), to the E (outside Galdeford Gate, and to the S (along Broad St and Mill St outside the walls.
- Take-up of most if not all the burgages inside the walls.

Phase 3 - (1160s or 1170s)
\begin{itemize}
\item Extension of castle bailey to S and E, enveloping some of the W end of the market St and the N part of the primary borough of Dinham.
\end{itemize}

**Phase 4 (e.13\textsuperscript{th} c onwards)**

\begin{itemize}
\item The phased replacement of original timber and earth defences with a stone wall and stone gates; concurrent removal of earth bank to allow burgage plots to expand to the line of the wall.
\end{itemize}

These conclusions also directly challenge those views, originated by Conzen and developed in one way or another by subsequent commentators, which see the development of both Ludlow (east of the castle) and Bridgnorth (north of the castle) being effected by processes of staged growth in the 12\textsuperscript{th} century and into the 13\textsuperscript{th}. While Conzen’s views concerning the development of the Broad Street / Mill Street plan unit at Ludlow in the 13\textsuperscript{th} century are no longer accepted [Slater 1990; Lilley 1998, 83; 1999, 15-16], the paradigm of the growth of the town in stages still forms the basis for all discussion of the town plan. [See for instance Lilley 1999, 15; Lloyd 2008, 75-81.] Furthermore, the dating of the orthogonal layout of Bridgnorth to c.1102 calls in question the neat correspondence between the rise of theoretical knowledge of geometry from the mid 12\textsuperscript{th} century and the development of orthogonal town planning argued by Keith Lilley [Lilley 1998a; 1998b; 1999, 17].

If, as Lilley suggests, town plans can be regarded as ‘texts to provide historical narratives which may be compared to the discourses offered by other sources and approaches’ [Lilley 1999, 7], then the application of the methodology presented here generates a somewhat different historical narrative to that which has hitherto been accepted, in relation to the development of both the street systems and the defences of the two towns discussed. It also introduces an objective evidential reference point to the self-validating circularity built in to the ways that the Conzenian ‘period indexes’ have determined the interpretation of the variation of morphological regions as indicating growth or development. This in turn opens up the possibilities of articulating a rather different ‘situation theory’, or ‘dialectic between urban space and medieval society’ which Lilley presents, especially in terms of linking the ‘changing urban designs’ of supposedly successive ‘form complexes’ with ‘wider socio-political changes in Anglo-Norman England’. [Lilley 1999, 17-18.] The approach using techniques derived from landscape stratigraphy advocated and illustrated here enables such historical narratives to be based on inferences which are derived from sound evidence that can be tested on the ground, and which are able to be changed if the evidence is re-evaluated.

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Understanding urban morphogenesis starts with recognizing that the plans of towns are made up of different stages of development, of growth and decline, of formation and transformation, and that the plans of medieval (and modern) towns are frequently ‘composite’ in form. – Lilley 2001, 3