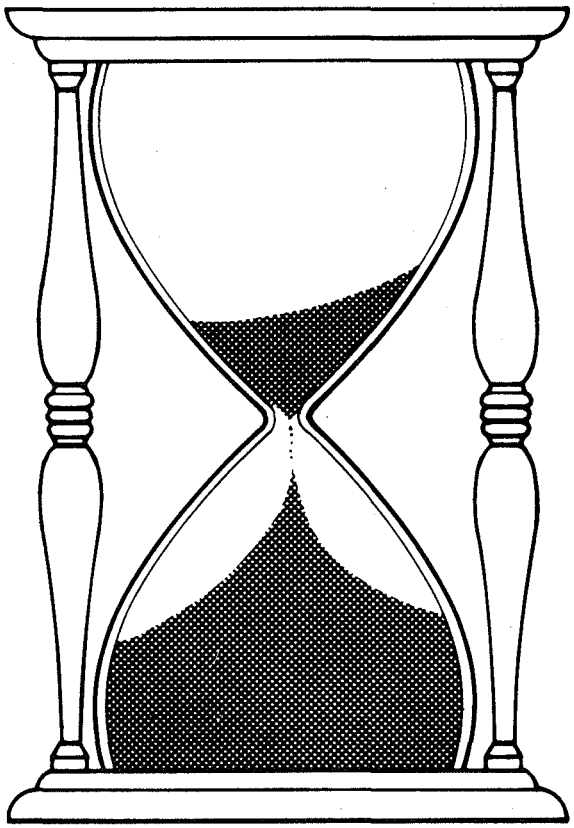
# Historical Geography Research Series

## Rural Settlement: An Historical Perspective

Brian K. Roberts



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*HISTORICAL GEOGRAPHY RESEARCH SERIES*

*No. 9*

# RURAL SETTLEMENT: AN HISTORICAL PERSPECTIVE

by

Brian K. Roberts

(University of Durham)

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# INTRODUCTION

The study of rural settlement presents geographers with a peculiar problem: the present characteristics and functions can be examined, described, classified and explained, but no contemporary study can ignore the fact that the basic structures, forms and patterns, are often many centuries old. In an 'old country' like Britain the geography of rural settlements is very much the historical geography of rural settlement.[1]

In any historical geographical study we are faced with three distinct categories of problem: the first involves the nature of the questions we wish to ask concerning the origins and development of the settlements and in what order of importance we place these;[2] the second is concerned with the sources available, the evidence found in landscape, in documents and by means of archaeology, for not only have the forces of destruction and preservation acted capriciously, but such imperfect evidence provides a filter through which former situations must be viewed;[3] thirdly, there are those problems arising from the integration of varied scales of enquiry and evidence and of creating generalisations and models from particular case-studies.[4]

Differing assumptions underline two basic approaches detectable in contemporary studies of rural settlement: on the one hand there is a set of techniques presented by geographers of the locational school drawing heavily on concepts derived from science and mathematics and having a central concern for location and distribution. This approach is essentially concerned with assessing the extent of contrasts between actual patterns and their theoretical counterparts. Most of these techniques and models are often highly descriptive in character, and while explanation and description are closely linked, the exclusion of all but a few selected criteria from locational models often divorces them from reality. Furthermore, the fundamental dimension of time is often ignored. These criticisms do not necessarily make these techniques and models of little use; they merely emphasise that they should be applied with a consideration of settlement realities.[5]

A second approach has been less popular amongst geographers in recent decades and is more 'traditional' in character, drawing upon the work of the landscape school of geography but having strong links with economic history, anthropology and archaeology.[6] No single term is perhaps satisfactory for the loose assemblage of studies which can legitimately be included, but the heading 'structural functional' has certain advantages, avoiding the undoubted limitations of 'settlement morphology' while emphasising the way in which settlement forms and patterns are a product of interactions between the natural environment and all aspects of society. Ultimately forms and patterns are a product of choices made by individuals and societies: the areal differences which these manifest lie at the heart of a geographical perspective.

There is another important distinction between the two forementioned approaches: functional interactions and structural patterns are normally peculiar to limited areas and it is difficult, if not impossible, to generalise from a series of such particular studies. On the other hand, locational analysis is more concerned with general tendencies and the creation of models, a necessary process if we are to communicate, to formulate and test hypotheses, and debate the similarities and differences between individual cases. Undoubtedly, attempts to generalise remain valuable tools for getting to grips with reality, and in the conflict between the need to generalise on one hand and the intricacies of particular case studies on the other there can be a stimulating and rewarding tension, productive of ideas and questions.[7] To these three problems - the tensions between locational studies and more traditional approaches, the integration of particular cases within a more general perspective, and the way in which the evidence can provide a filter to our perception of past reality - must be added a fourth, the idea of continuity. In a discussion to be concerned with the British Isles great time spans are involved and contemporary settlement has roots which extend back to and beyond the arrival of the first farming communities during the fifth millennium BC.[8] This is not merely a thin layer of the past, although the human mind tends to condense it to such; it is a vast distance or depth of time.[9] 'Periods', 'phases' and 'stages' can only represent attempts to grasp what is involved, but in essence time is a continuum where 'new beginnings' are rare, and continuity, in the sense of an uninterrupted succession of events, is inherently more probable.[10] However, 'continuity and cataclysm' are not necessarily in opposition, for the complex processes generating and affecting settlement did not happen simultaneously, nor did they happen everywhere. The deep well of time, as Thomas Mann termed it, offers a context for a multitude of possibilities at all of the varied scales at which settlement geographers work.

The mainspring of this study has been the author's need to place studies of individual places, examined both in the field and in documents, within a wider framework, but a secondary stimulus is to be found in the need for a set of teaching models occupying one level in the hierarchy of sophistication described by Haggett and Chorley in 1965. By responding to such stimuli, the study will inevitably embrace the tension between locational analysis and the structural functional approach.[12] It is a short step from this to both problems of evidence and questions of continuity.

## SCALE VARIATIONS AND DEFINITIONS

The problems examined in this section can the better be appreciated if the reader has on the table alongside half a dozen or so small objects of the size of a matchbox: the contents of a child's play-box produces useful items and the author has a set of mahogany house shapes, the relic of a teaching exercise!

Place three of these on a table-top five or so centimetres apart: what shape do they form? Basically two shapes will emerge, three in a line, a row, and three in a triangle, an agglomeration. Try to create a non-row/non-agglomeration. Each of these items can represent a farmstead, complete with house, barns, byres, stables, pig-sties etc. and it is argued that these two shapes represent the beginnings of a logical way of classifying settlement forms. Take the three and arrange them, five centimetres apart, in an undisputed triangle. Probably you will arrange them radially around an interior open space, another distinctive form, but the three still create a basic cluster. It is by no stretch of imagination a village, merely a small cluster of farms, and three is the smallest number which can really create a definite plan. Visualise the centre of the group, and move each individual outwards, about ten centimetres from the centre: suddenly the cluster breaks to become not a nucleation but a pattern of dispersed farms.

This exercise neatly demonstrates the problem of really getting to grips with settlement description: with each move of the same basic elements, the farmsteads, new forms materialise, and forms can grade easily into patterns, so that even the distinction between 'nucleation' and 'dispersion' becomes blurred. There has, indeed, always been the troublesome question of whether or not to consider an eccentric farm to be part of an adjacent village, and European scholars have adopted the 'hailing distance' of 150 m as a convenient threshold: this appears satisfactory until it is noted that in sixteenth-century Northumberland stoutly defended 'bastle' houses were deliberately placed at just this hailing distance apart to facilitate communications in times of raids![13] If the reader returns to the three farmsteads, as they lie about 10 cms apart, probably 200 m in a real situation, then we may postulate that not only may they share rights of grazing on nearby rough pastures, they may also share a core arable area on whose perimeter they are placed. Although in no sense nucleated such a settlement has, nevertheless, functional unity, and examples of such girdle settlements are documented in Wales.[14] In converse, to return to a tight cluster of three farmsteads, it will be appreciated that each farm could operate independently, each possessing an individual wedge-shaped but ring-fenced holding.

This simple exercise suggests two things: first, that the variety of forms and patterns are not necessarily infinite; second, that considerable problems of classification arise, in which particular thresholds must be defined in the continuum of reality. To these must be added a third point, that form and function, while being closely related in many respects, particularly in primitive settlements, need to be clearly separated because form and function become, in time, independent variables. Thus, a modern commuter village may lack even a single working farmstead while retaining much of the morphology of an antecedent whose primary function was to house a farming community.[15]

The author would go as far as suggesting that while in functional terms the generalisation which identifies hierarchical steps is useful, as in Central Place Theory, in historical and morphological terms it is helpful to recognise that thresholds are difficult to define in the real world and that in practice even the words 'village' and 'hamlet' are difficult to apply with real consistency. This has practical implications: the Durham 'villages' described by Thorpe and the author are often notably smaller than the villages of the English midlands. Indeed, as most lack churches the term 'hamlet' might appear semantically correct, but this is to fly in the face of common usage. Nevertheless, the point must be made: in spite of Uhlig's attempts to standardise European practice, and in spite of the present author's adoption of 'rural clusters' as a neutral term, basic terminological questions arising out of scale continue to bedevil comparative work.[16]

PATTERNS AND FORMS

These ideas can be developed with reference to Figure 1 which serves as a reminder that the work of settlement geographers concerned with the rural scene extends from the arrangement of the individual farmstead, through clusters of varying size, upward to association within patterns and finally to a consideration of the patterns themselves. This involves different scales of study.

(i) Patterns. Fig. 1 is designed to emphasise the varied scales at which rural settlement can be studied: beginning with the top bar, patterns can be defined on the basis of observed or measured characteristics. Basically these can be random or regular, but in practice the distribution of the entities of which each pattern is composed, be these single-farms or villages, can be organised in space in a variety of ways and one possible terminology is suggested here.[17] All of the cases shown in the diagram have exemplars in the real world and, without digressing into the thorny problems of precise terminology, such patterns beg questions. Why do such variations appear and what forces mould such contrasts? In these stylised point patterns we see the essence of any distribution map of rural settlements. Of course, one level of explanation is commonly sought in variations in land-quality: villages need arable, meadow, fuel, grazing lands, and therefore tend to be spaced in such a way as to achieve access to sufficient supply of each of these. This is apt to produce regularly-spaced clusters with hexagon-like territories on level plains, strip territories with lines of settlements, particularly where scarp and vales or other marked terrain contrasts appear, and with clusters highly concentrated on the best valley lands in upland country.[18]

Stop and ask *how* and *when* such arrangements appeared, and the waters become very deep indeed. Turn to any chalkland parish in the south of England (unhelpfully the Ordnance Survey have missed parish boundaries off their second edition 1:50,000 sheets, so use a first edition, a 1:63,360 or a 1:25,000 map):

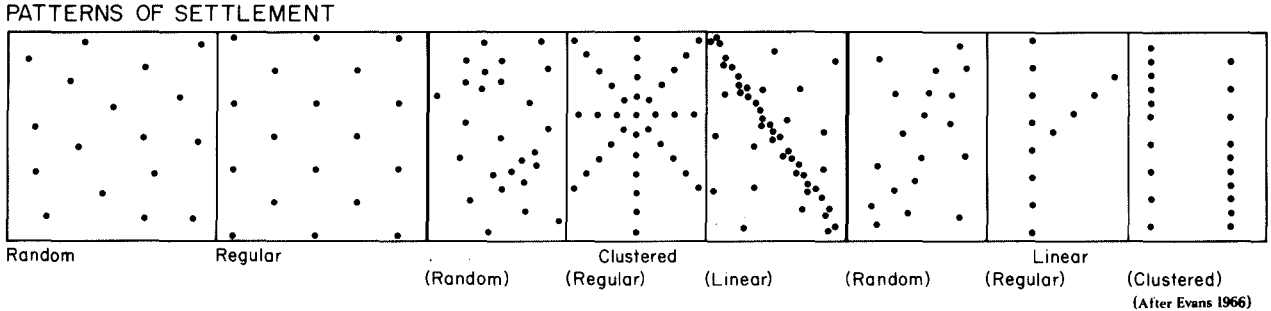



Figure 1. Settlement patterns and forms: a schematic diagram showing the varied scales at which settlement studies are undertaken.

the deserted Roman and prehistoric settlements shown *must* represent, even if some lie undiscovered beneath modern settlements, a differing way of exploiting the same lands, arable, meadow and pasture, as their medieval and modern successors. Increasingly the view of Anglo-Saxon colonists moving into a wholly depopulated landscape is untenable. How then did one arrangement, involving single-farmsteads and hamlet-clusters, develop into another based upon hamlets and even single villages?[19] The answer, of course, is 'gradually', with local and regional tendencies for settlement arrangements and farming systems tending to converge towards those most suitable for a given area, a given society, a given technology and at a given time. There were always exceptions, odd men out, the seed beds for change in the future.[20] In summary then, the varied patterns represented schematically in Fig. 1 represent one way of describing and classifying an observable reality, but they fail to deal with time; explanation of their presence, within a temporal framework, is a very different matter and although, for instance, nearest neighbour analysis can help description, it explains nothing.

(ii) Forms within patterns. The second bar of Fig. 1 carries the discussion swiftly to questions of defining forms. In Northumberland in the early seventeenth century a small village might possess four, six, seven or eight farms, a medium-sized village ten, twelve, fourteen or sixteen farms, a large village twenty, twenty-one farms, and the largest non-urban clusters, 'great townes', twenty-eight or thirty-five farms. In every case each single farmstead might also have a dependent cottage, and it will be noted that regularities occur, regular numbers of taxable farms, 10, 20; 4, 8, 16; 6, 12, 24, or even 7, 14, 21, 28 and 35! The origins of these size regularities are unknown, but they can hardly be accidental, and the 'great townes' were so large that by the late-sixteenth century cost-distance factors were encouraging the farmers to split their great field systems into two, one worked from one end of a village, the other from the other![21] All were farming villages, literally villages of farms, with no variations of function relating to size, indeed most did not even contain a church. The word *hamlet* has, of course, traditionally been applied to a smaller but dependent cluster, a settlement legally attached to another place, often miles away. In practice most medieval documents neatly bypass the whole issue referring to the *villa de Preston*, the 'township of Preston', leaving open the precise question of the character of settlement. A *township* was a basic unit of group exploitation of an area of land, containing the vital life-supportative arable, meadow and pasture etc. One or more of these units could create the more familiar church-supporting *parish*.

The question of definition remains: beginning at the top of the hierarchy, towns are technically distinguishable from large villages because they possess distinctive legal rights, but markets and fairs were sometimes attached to purely rural settlements, originating either by ancient prescription or by legal grant after the Norman Conquest. Many 'villages' of the present

landscape were once in essence small towns, founded or developed from a rural antecedent during the Middle Ages, but which failed to develop. These can normally be traced using the check-list compiled by Beresford and Finberg.[22] The thresholds between towns, villages and hamlets can be measured in a variety of ways: size, assessed in terms of actual population, the number of households, the number of fiscal farms, the number of homesteads, the number of holdings, or the physical extent of the settlement and its degree of concentration. Nevertheless, it is only in the last hundred and fifty or so years that data has become available to achieve this consistently over large areas. Functions measured in terms of services provided, give similar difficulties: thus many true villages, particularly in the north of England, contain no church, and the presence of shops, smithy, public houses etc. are only documented recently. In historical terms, consistency of definition is virtually impossible. Even at the lowest threshold a single-farm is not easy to define; a farmstead may be worked in close collaboration with an adjacent farm, belonging to a member of the same family, or it may be wholly separate and independent.[23] In the context of such problems mathematical formulae can be applied only with great caution. At best they can measure only that which has been observed (and much may be missed) and describe it objectively: at worst they conceal reality beneath pseudo-statistical precision. The reality of settlement still presents geographers with fundamental challenges.[24]

(iii) Settlement forms. The third or bottom bar of Fig. 1 will not be examined here as settlement forms are discussed in a later section but the scale change, from the regional pattern to the particular case is a fundamental one, associated with critical changes in the character of the evidence available. Nowhere is the tension between generalisation and detail, between locational and structural functional studies more apparent, and Fig. 8, the subject of later discussion, represents a model bridging this scale threshold.

## THE SETTLEMENT PATTERN - TIME SERIES MAPS

Returning to settlement patterns, a discussion of their evolution in Britain can begin with reference to the simple model in Fig. 2. It shows three stages in the development of a very simple imaginary landscape. Such a map, of course, be it a model or part of the real world, depicts physical objects diagrammatically. This point is emphasised because physical structures form only one aspect of settlement, its visible manifestation. There is, in addition, a complete functional dimension, not visible on the map or model, and this will exist for each period depicted. It is possible to talk of a settlement system, with the physical structures and the uses to which these are put forming an integrated whole. Add to both the physical structures and functions a great time depth - for both exist within time and move through time and are subjected to change, either gradual or

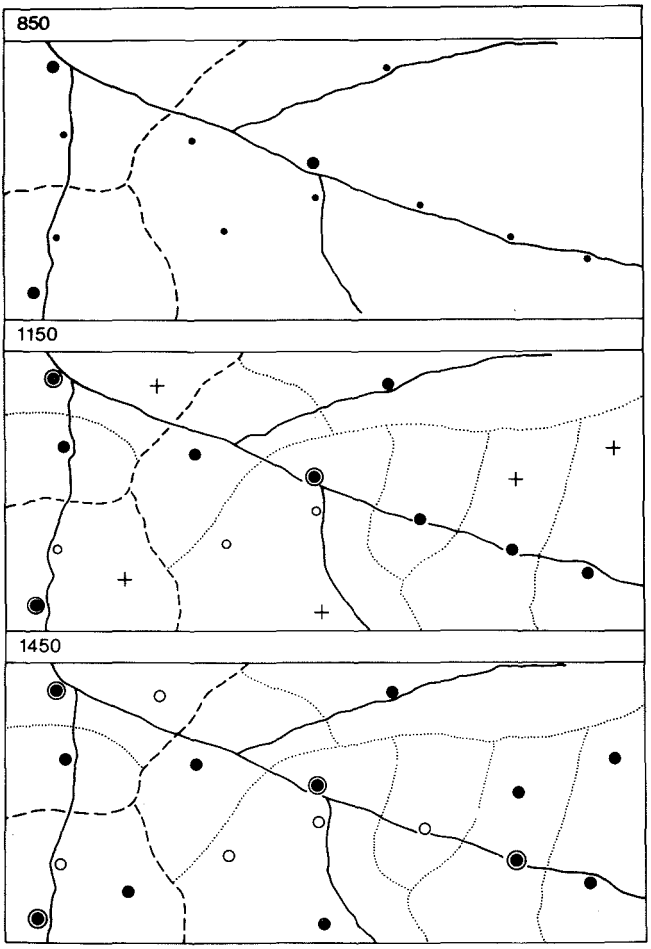



Figure 2. Changing settlement patterns: three stages in the evolution of a simple imaginary settlement pattern.

rapid - and the difficulties of understanding what is really happening grow tremendously. In short, the pattern shown diagrammatically in the final section of Fig. 2 has a past and this affects both its present and future.

The first task facing the historical geographer concerned with rural settlement is to take the present and then reconstruct a series of past states and problems very quickly arise because of the variable quality of the evidence available. In practice the author believes that it is helpful to recognise that the

evidence for the study of the historical development of rural settlement channels our perceptions into four chronological frameworks and that it is essential to distinguish between these:

i) the first comprises an *absolute chronology*, and is largely a theoretical concept. Maps showing the date of the first known occupation of each settlement can indeed be constructed for very small localities, but in practice time, costs and data deficiencies prevent these being made on a regional basis. Nevertheless, the idea is a useful one, a reminder of how little we really know, and difficulties only arise when we confuse absolute chronologies with others based upon inadequate evidence.[25]

ii) a *hierarchical chronology* is best understood in terms of the familiar maps of place-names: a map showing the actual date when a place first appears in the written record only tells us when it was first *important* enough to warrant mention and nothing more. This conclusion excludes of course, other difficulties of the varied survival of records. Even a plot of the semantic interpretations of the elements making up place-names, *-ton*, *-worth* and *-ley*, is closely related to status, and may tell us little of the real chronology of events. Place-names can change, and just as villages in Cambridgeshire and Norfolk which bear Anglo-Saxon place-names produce scatters of Romano-British pottery, implying the presence of earlier settlements, the appearance of an apparently Anglo-Saxon place-name is no indisputable indicator of a settlement presence on that site at that time.[26]

iii) a third chronology is even more complex, for places had attached to them in earlier centuries a range of rents, services, renders and dues, payments in cash, labour and goods; some of these were undoubtedly exceedingly ancient while others are demonstrably newer. If a place pays an older rent is it indeed, in terms of the absolute chronology, an older settlement than one which does not? One example will suffice: in Durham cornage is generally felt to be an ancient rent, possibly pre-Anglo-Saxon. Why then does Wolsingham, a place whose terminal element *-ingham* ('the estate belonging to x', in this case *Wulfsige*) appears to indicate an older, well-established settlement (pre-seventh century?) *not* pay cornage (a cash rent, but originally rendered in cattle, from *cornu* Latin, a horn) while Newton, a much later settlement, pays this render? Myopic as such points may seem they are directly relevant to a real understanding of the chronology of settlement.[27]

iv) finally, what can be visible today as 'settlement', the farmstead, village or hamlet, tangible structures and the associated archaeological layers on and around the site, may or may not relate to the settlement mentioned in the early documents, the settlement to which the place-name originally applied, nor indeed to the settlement paying the render. All could have been remodelled, re-developed, re-sited, in the remote past or only a century or so ago. We simply cannot assume that the settlement we see today and that named in Domesday Book, are necessarily one and the same. This conclusion has enormous

repercussions, of course, when settlement sites are being considered.[28]

With this glimpse of the real world in mind, let us return to Fig. 2: it shows three theoretical phases of development to which dates have been appended to suggest an absolute chronology. The first map of the series shows a settlement situation with three clusters of some importance; they control territories (and these are indicated) within which there are a number of smaller and administratively less important places. The reasons for the greater importance of the three key places are partly topographical (the presence of fords) and partly cultural (the selection of strategic sites with defensive properties, proximity to excellent arable and meadow lands, or the revelation of their secret qualities with the help of appropriate magico-religious ceremonies) for man is by no means always economically rational![29] By the date of the first map, settlement on these sites was already ancient and a date of 850 may be appended.

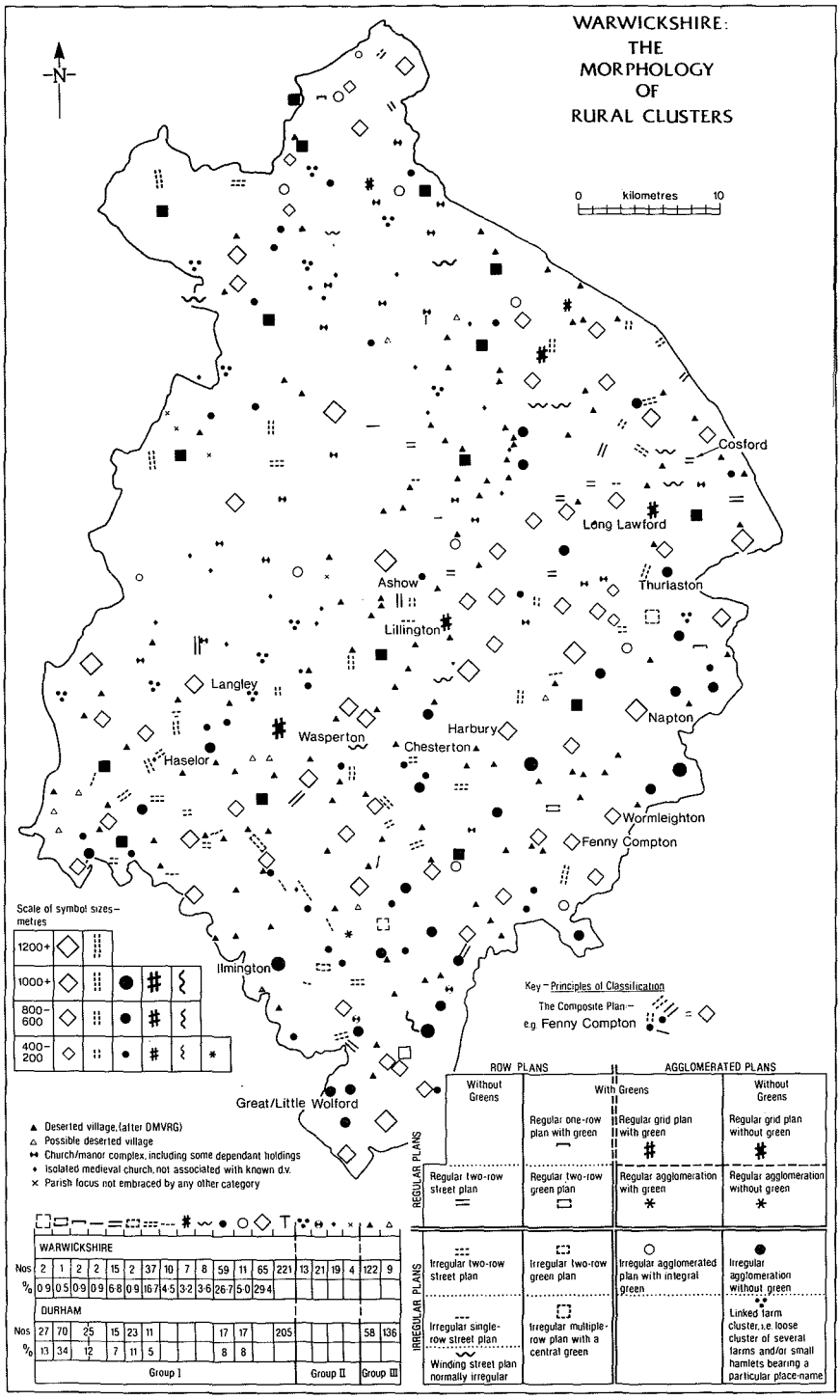
The next period, represented by the second map, dated 1150, reveals several developments in the interim: the important settlements of the first period remain important, indeed the development of their territories increases their power, and diversifies the activities within them so that they are all potential towns (although in this model towns are not created). The dependent settlements have sustained themselves, and some clearer definition of local territories has taken place, although this could be the products of better evidence rather than real change. Three settlements have disappeared, (the open circles), but new settlements appear (the crosses).

Stage three sees the appearance of a fourth important settlement, the disappearance of more smaller settlements, but no new foundations since the pattern is already sufficiently dense to exploit the entire territory. If the third map is examined carefully it will be found to contain:

(i) two generations of more important settlements;
(ii) two generations of surviving settlements;
(iii) two sets of deserted settlements, some of the first generation and some of the second.

Nevertheless, the symbols on the final map only distinguish three types of settlement, important, ordinary and deserted and if the final map represented a real situation the problem would be, with often inadequate evidence, to reconstruct the earlier phases. This simple generalised model gives a glimpse of the complexity of the real world, and raises many questions. How can this exercise be done in a real situation, what chronologies of

Figure 3. Warwickshire: the morphology of rural clusters. This map records the presence of rural clusters, hamlets, villages, deserted villages and parochial centres, indicates their character, and scales villages according to their physical size.


WARWICKSHIRE: THE MORPHOLOGY OF RURAL CLUSTERS
N
0 kilometres 10
Cosford
Long Lawford
Thurlaston
Ashow
Lillington
Langley
Napton
Harbury
Wasperton
Chesterton
Haselor
Wormleighton
Fenny Compton
Ilmington
Great/Little Wolford
Scale of symbol sizes – metres
1200+
1000+
800–600
400–200
▲ Deserted village, (after DMVRG)
△ Possible deserted village
Church/manor complex, including some dependant holdings
• Isolated medieval church, not associated with known d.v.
× Parish focus not embraced by any other category
Key – Principles of Classification
The Composite Plan –
e.g. Fenny Compton
ROW PLANS
AGGLOMERATED PLANS
REGULAR PLANS
IRREGULAR PLANS
Without Greens
With Greens
Without Greens
Regular one-row plan with green
Regular grid plan with green
Regular grid plan without green
Regular two-row street plan
Regular two-row green plan
Regular agglomeration with green
Regular agglomeration without green
Irregular two-row street plan
Irregular two-row green plan
Irregular agglomerated plan with integral green
Irregular agglomeration without green
Irregular single-row street plan
Irregular multiple-row plan with a central green
Linked farm cluster, i.e. loose cluster of several farms and/or small hamlets bearing a particular place-name
Winding street plan normally irregular
WARWICKSHIRE
Nos 2 1 2 2 15 2 37 10 7 8 59 11 65 221 13 21 19 4 122 9
% 0·9 0·5 0·9 0·9 6·8 0·9 16·7 4·5 3·2 3·6 26·7 5·0 29·4
DURHAM
Nos 27 70 25 15 23 11 17 17 205 58 136
% 13 34 12 7 11 5 8 8
Group I
Group II
Group III

foundation, expansion and depopulation can be established, and what control factors encourage expansion, contraction and equilibrium within the matrix of time? What relevance are such studies to the contemporary scene? How far can this type of analysis reveal the forces underlying the regularity of patterns and the organised hierarchies such as are described by Christaller? Will we ever be able to create a graph showing, for a given region, change in the nearest neighbour statistic *through* time, as the total pattern is subjected to constant adjustments as individual settlements change? If this could be done we would be moving towards 'process settlement geography'.

A key problem concerns evidence, for in a historical perspective, involving in the long term several thousand years of activity, it is only within the last two centuries that adequate data has become widely available. The problem can be illustrated with a question and two examples; the question is apparently simple: for most of Britain, a land of villages and hamlets, with areas of single-farm settlement, how old are the arrangements we see today in the contrast between east and west Somerset, between Essex and Northamptonshire or north and south Warwickshire? A qualified answer might be that the contrasts we observe today and in recent nineteenth and eighteenth century past were often present some seven-hundred years ago, in say 1250, and may be very much older. Two examples will suffice. Fig. 3, to be discussed in another context, shows the distribution of villages in Warwickshire in the 1880s. Each symbol shows one type of village plan and they are size-graded. This reveals a contrast between the south and the east on the one hand and the north and the west on the other. How old is this contrast? Places recorded in 1086 and place-name evidence (the distinction between *-ing*, *-ingaham*, *-ham* and *-tun* names, and *-leah* or *-ley*, names being in part a reflection of chronology but in part hierarchical) tell us that the regional division between the cleared lands of the Feldon of the south and east and the woods and heaths of Arden in the north and west is ancient, perhaps very ancient, but while such maps may reveal something of the regional patterns of occupation they tell us nothing of earlier settlement realities. In fact a detailed comparison of population data in 1881 and 1279 for a group of villages in south Warwickshire where the latter are available suggests that the large villages of 1881 were the large villages of 1279, the intermediate villages of 1881 were of comparable rank in 1279, and the small villages were small. Exceptions did occur, largely explicable in terms of village depopulation in the period between 1450 and 1520. That the villages of 1279 were the *same* (i.e. with clusters of farmsteads occupying the same sites) as those of 1881 cannot easily be proved: they probably were, though significantly the rank-size comparison using $\chi^2$ test done between the 1881 and 1279 data could not be undertaken using data from 1086 as it was not possible to produce a tabulation which had any reasonable certainty of comparing like with like. This implies that the period between 1086 and 1279 may have seen radical changes in the settlement scene, perhaps with smaller hamlet clusters tending to aggregate into larger villages, a conclusion in accord with work in Cambridgeshire and Nottinghamshire.[30]

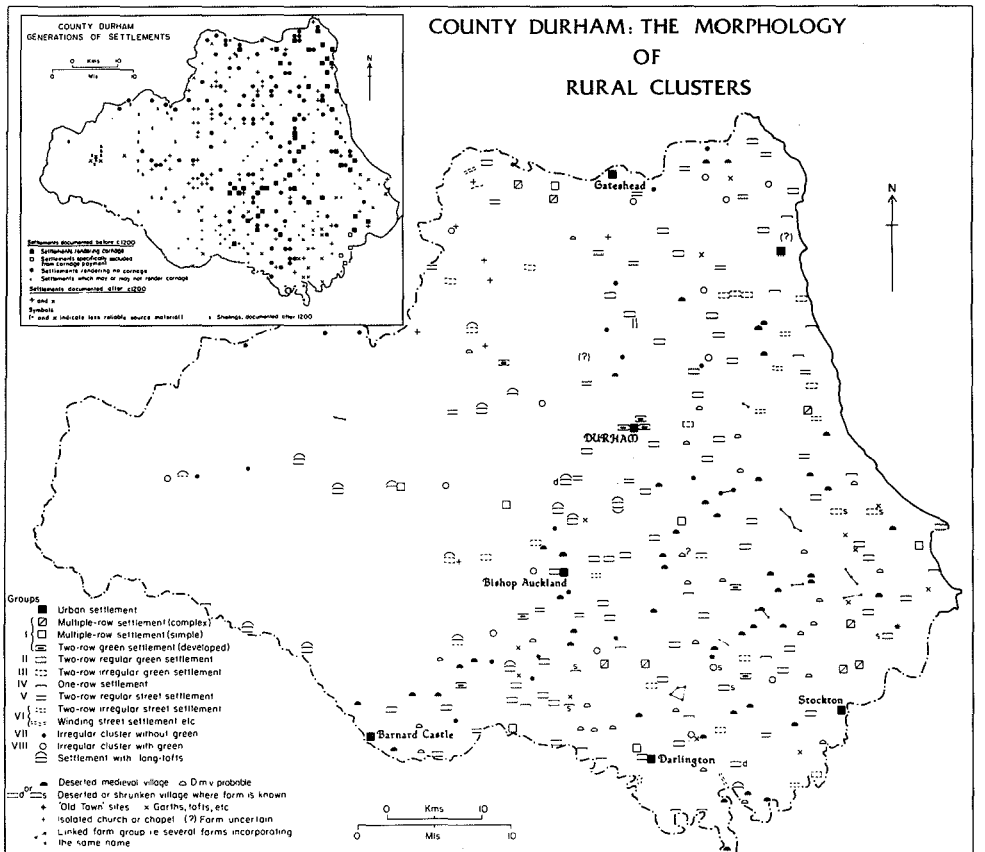



Figure 4. County Durham: the morphology of rural clusters. Comparison between this map and Figure 3 reveals the contrasting types of settlement visible within each county.

Turning to Durham, Fig. 4 shows the distribution of village plan-types in the mid-nineteenth century. The contrasts and similarities with the Warwickshire distribution may be noted and in this case the increasing physical harshness of the western hills provides an apparent explanation for the contrasts visible in the distribution of villages. Once again time-series maps suggest that this rural pattern is ancient and Fig. 4 (inset) is based on the earliest documentary reference (an unreliable indicator) and the presence of an ancient render. Nevertheless, Fig. 4 (inset) merely speaks of long-established regional contrasts: it says nothing about the real antiquity of the villages making up the pattern. In fact there is good evidence in Durham that the rural villages visible today were indeed present by 1250, indeed an origin before 1200 is probable (below, p. ). Once again, however, a question mark hangs over the earlier arrangements, for radical changes in the region's settlement and economic life were introduced after the Norman Conquest of the area in the period between 1068 and 1080 and while preserving a more ancient pattern of regional occupation, it probably substantially altered the actual forms and patterns of settlement within those regions.[31] The increasing volume of evidence for radical changes in both forms and patterns of settlement during the late Anglo-Saxon and Norman periods leading towards the emergence, in some areas at least, of a system based on large villages, has implications for our understanding of any regulations observed within this latter system.

The troubled problem of evidence cuts across all our attempts to create and interpret time-series maps, and the settlement forms and patterns visible on late map sources can in no way be assumed to have been present during the phases represented by surveys such as Domesday Book, place-name evidence or the presence of ancient rent forms. Nevertheless, the general antiquity of visible settlement regions is often substantiated. From the two examples considered some interesting questions emerge: in both counties marked regional divisions appear and these are not, on closer inspection, easily explicable in terms of physical conditions. Their origins lie in the remote past, a phase deliberately chosen to be imprecise! They and the settlement divide associated with them, remain a part of modern geography and contemporary planning questions. Work in Nottinghamshire suggests equally ancient roots for similar key regional divisions.[32] The presence of these regional differences, before the appearance of the system based on villages, raises further questions concerning territorality and continuity, for it is increasingly clear that the townships and parish areas with which villages are normally associated are often older than the villages themselves. The nature of these ancient frameworks must now be considered.

## FRAMEWORKS AND ESTATES

There is a clear need, given the complex research problems involved in rural settlement studies, for a framework within which the basic facts concerning the evolution of settlement can be described and explained. During the past three decades Glanville Jones has produced a stimulating series of articles in which he argues, with the golden tongue of a Celt, that many aspects of the evolution of British rural settlement can be understood by using estates, owned blocks of land.[33] His arguments are by no means universally accepted, or indeed understood, but the debate is proving fruitful. The model presented in Fig. 5 borrows heavily from Jones. The essence of his argument is that man is a territorial animal and that once, in an agricultural community, patterns of exploitation are adjusted to environmental opportunities then these tend to acquire stability, needing a major stimulus, perhaps a catastrophe to change significantly. Furthermore, as society in Western Europe has been arranged hierarchically for several thousand years, then this will be reflected in a similar hierarchical system of gaining the fruits of agriculture, with those at the top holding large estates and the lesser men forming their tenants. Jones argues for the presence of what he terms *multiple estates*, areas of land involving many settlements, united by a network of obligations and rents which support the lord. Many of these, particularly those in royal or church hands can be very old indeed. It is at this point that debate begins, for the fortunes of landed estates are very fickle, and complex questions concerning inheritance practices, the degree to which parallel development is involved and basic difficulties of definition are legitimate areas of discussion and disagreement.

Be that as it may, Britain has indeed been a land of estates for a thousand years and more, and there are general lessons here. Fig. 5 shows settlements in a hypothetical rural estate in about 1200, and Fig. 9 summarises the internal physical contrasts and the postulated situation in 650, 1500 and 1800. Two sets of assumptions are involved:

A. that rural settlement in Britain has developed within a framework of owned territories, or *estates*; that these estates could either survive for very long periods or be relatively ephemeral, emerging and disappearing within two or three generations; these estates could either be unitary and compact, or made up of scattered fragments, the latter type either originating from the break-up of a larger unit or by the accretion of new pieces to an existing core; finally, that these estates were large enough to belong to important men and embrace a variety of terrain types, a provision ensuring varied economic potentialities.

There are corollaries to this, two being particularly important: first, the geographical imprint of an estate of long duration will normally be greater than that of an estate of short duration, although exceptions will occur; second, settlement is

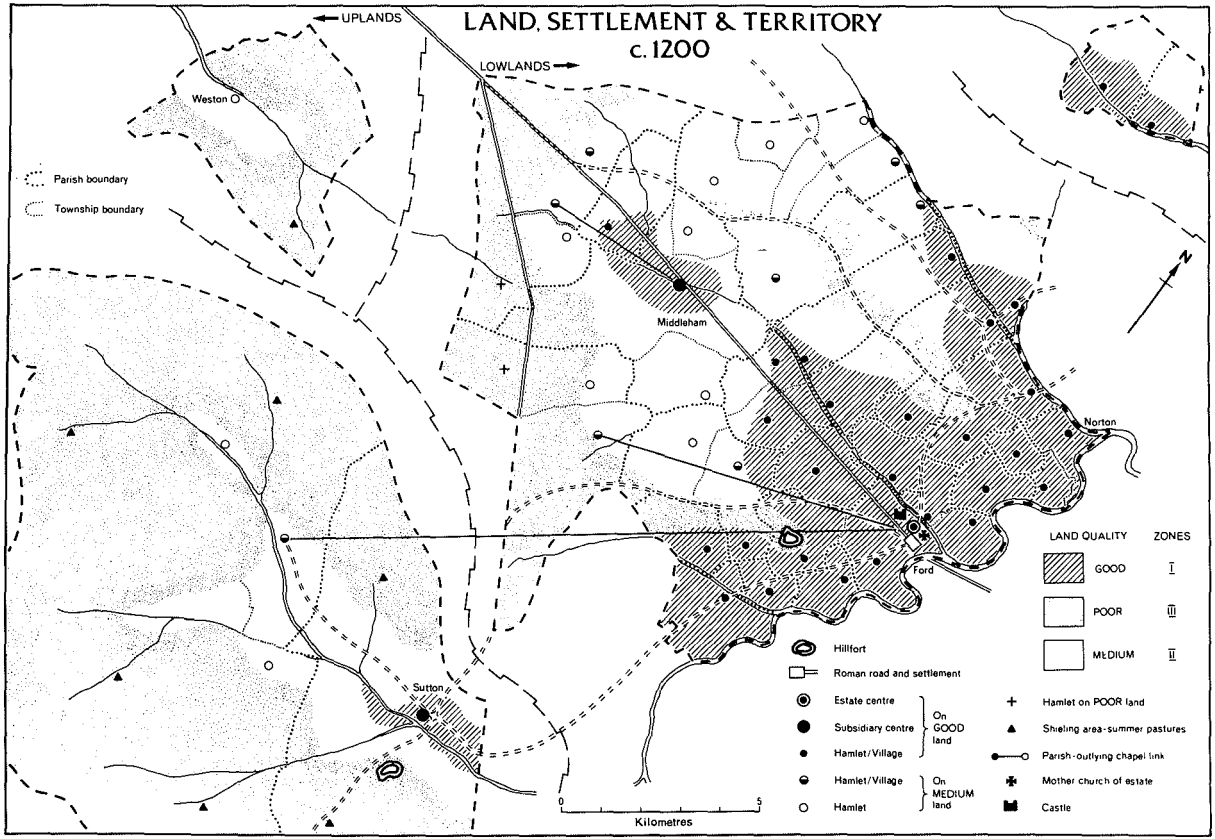



Figure 5. Territory, land quality and settlement: this model, drawing upon the work of G.R.J. Jones, provides one framework within which to generalise concerning settlement development.

a function of the presence of an estate, and can be rationalised with reference to the estate as both a bundle of rights and as a defined block of land.

B. that the uniform plain of many models, is wholly divorced from the real world, and that all rural estates normally comprised of varied amounts of several types of land; in practice it is useful to identify four types,

(i) good land, with few physical limitations to agricultural use;

(ii) intermediate land, with moderate limitations to use because of soils, relief or climate or a combination of these;

(iii) poor lowlands, with severe limitations such as very heavy or very light soils;

(iv) poor uplands, with severe limitations because of height, climate or soils.[34]

The proportions of each type of land will vary according to the size and location of each estate, and finally the presence of these types reflects not only physical circumstances, but also human activity since prehistoric times, degrading or up-grading soils. Between each of these types there exist frontiers; that between intermediate and poor land is characteristically seen round upland margins or on the edge of zones such as the Brecklands, but that between good and intermediate land is also present, one possible explanation of the regional divides seen in Warwickshire and County Durham. Both frontiers can advance and retreat in response to management skills, technology and historical accidents.

These assumptions and their associated corollaries set the scene for the discussion of the estate shown in the model (Fig. 5): it consists of several parts, and these may either occupy the geographical relationship as shown, or the discrete portions may, as suggested by the Z-shaped symbols, lie further apart, yet, nevertheless, all be part of the same estate and administered from the main centre. In this case, it will also be assumed that the estate shown is already old by 1086, the date of Domesday Book, and it is depicted as it might have appeared at the beginning of the thirteenth century. Many such estates broke up rapidly in the twelfth and thirteenth centuries as the new Norman land-owners gradually granted smaller estates to their followers and as new farming practices, a rising population and pioneering activity in the poorer lands increased agricultural output. The settlement zones identified can be defined largely in terms of land quality.

Zone I (Figs. 5 and 9) is dominated by good quality agricultural land, and by 1200 was occupied by numerous cluster settlements, each surrounded and supported by communally organised townfields. The place-names of these settlements will suggest that they were well established, by Anglo-Saxon or

Scandinavian folk, long before 1086. Most contain churches and are parish centres, the exceptions being the occasional parish comprising two settlements with associated territories (townships) while the chief settlement of the estate dominates some adjacent clusters. At this stage nothing can be said about settlement forms other than they are probably nucleated. The high agricultural potential is demonstrated by the frequency of the single village - single township - single parish relationship: furthermore, where the good land is extensive, polygonal parishes tend to be present, the equivalent of the hexagons of some models, while parallel bands of varied land types result in the appearance of strip parishes or townships (in the north-eastern section of the main block of the estate). In post-Conquest times there is a tendency for each township to represent a lesser lord's small estate, a *manor*, but further land transactions eventually result in a complex mosaic of proprietary rights. In theory each manor comprised a home farm or demesne, supporting the lord and his household, worked by the labour services of a dependent peasantry who owed work, cash payments and a variety of renders in kind in payment for their holdings, and in practice a single manor may involve land from several townships or parishes.[35]

In this zone visible traces of prehistoric activity are few, largely eradicated by centuries of ploughing, but air photographs may be expected to reveal many sites. A Roman road uses a major fording point and Roman remains are to be found in or near the estate centre, the market town for the region by 1200. The Roman road cuts across the township and parish boundaries; when later railways do the same, the implication is obvious, the boundaries must be older.[36] Nevertheless, the presence of sites of all periods before 1200 reveals that settlement within a good soil zone already had a long and complex history before that date and no simple generalisations concerning the continuity or discontinuity of settlement are possible. Higher ridges, with poorer quality land, often reveal the visible traces of prehistoric activity - and a hill-fort is shown in the model. This could represent an estate centre preceding the Roman focus and the Anglo-Saxon royal vill which followed. It is of course within this latter that the earliest church would have been established, near the ruler's dwelling, and by 1200 this would often be represented by a deanery church.[37]

Zone III, the poor lowlands and poor uplands, will be considered next. During the twelfth century the poorest lands were traditionally used by the village communities for rough grazings, cutting fuel, and quarrying building materials, although they also provided wild-life havens, and by the mid-thirteenth century were the sites of forests (in the legal not the botanical sense) chases and parks, (areas set aside for the hunting of larger game) and warrens, (used for husbanding the rabbit, introduced by the Normans into Britain).[38] Here township and parish centres tend to be peripheral, on better land, and their territories are large. The non-intensive land-use was, and still is, often reflected in the visible survival of prehistoric remains, indeed

soil degradation initiated by prehistoric communities is a feature of these terrains.[39] Their peripheries of course, grading towards intermediate lands provided a colonisable reserve.

Poor uplands were also grazing reserves for beasts moved up from the surrounding lowland settlements during the period between April and September, when the shielings provided a focus for milking, cheese and butter-making and sowing wild oats, for the beasts were accompanied by the younger members of each community![40] Such movements may have prehistoric antecedents, but the twelfth and thirteenth centuries saw permanent occupation of the localised areas where soils had been dunged and trampled to create rich hay-lands. Thus, in 1200 the head-dyke, the frontier of improvement and permanent enclosure between intermediate land and poor uplands was advancing, thrusting tillage to remarkable heights of 300m or more, but today the frontier is a complex palimpsest, a mixture of monuments from remote prehistory, the Roman and medieval periods, and agricultural improvements of the eighteenth and nineteenth centuries.[41] Large parishes, valley villages on the limited good and intermediate soil areas, and scatters of hamlets and single-farms speak of limited tillage potential except under the most favourable climatic or economic conditions. In the last two-hundred or so years, however, the presence of mineral resources and domestic industries have often brought large populations to marginal uplands (Fig. 9).[42]

Zone II, on intermediate land, often presents fascinating variety; delimited by two 'frontiers', it contains internal differences to which the human response may be very varied. At the time of the compilation of Domesday Book these zones often carried smaller populations, fewer plough-teams, and had correspondingly more unimproved areas, many of which still carried woodland. These conditions gave the owner, the lord of the manor, a wide choice: villages and arable fields could be developed, based on earlier hamlets; the woodland resources of game, timber, grazing and fuel could be encouraged giving complex land-use mosaics, involving parks, enclosed woods, scrub and heath where the plough did not run; such lands could be retained for the lord's own use or manors, comprising whole townships and parishes, be granted to both lay lords and monastic houses, sustaining a changing kaleidoscope of estate patterns. At all levels lords responded to the growing need for peasant farms and granted land piecemeal to peasant colonists who established new single-farms and hamlets.[43]

In both zones II and III, parish and township boundaries were often not finalised until the twelfth or even the thirteenth century, but even when the enclosing estate territory had begun to dissolve under the pressures of a rising population and economic development, place-names such as Middleham, Sutton, Weston and Norton, together with detached portions of parishes, miles from their mother church, bore witness to the former unity (Fig. 5). Of course, and this is an important point, none of the processes touched upon here occurred at the same time throughout the entire country. In Durham such estates are still clearly

visible in late fourteenth century records, but in Warwickshire, although traces remain, their dissolution was under way long before the arrival of the Normans. With this temporal caveat, it is suggested that the model in Fig. 5 has a wide application.[44]

## CONTINUITY AND CHANGE

A number of general lessons emerge from the model. It is not helpful to envisage either a 'clean slate', or a flat plain, when dealing with the realities of early settlement patterns, and when examining the evolution of rural settlement in Britain two interlocking threads emerge, first, continuity and second, the adjustment of settlement to the resources of the physical environment. These two points are more complex than they at first appear and are best considered as two questions: what is meant by continuity, and what factors are involved in the process of adjusting to the resources of the physical environment?

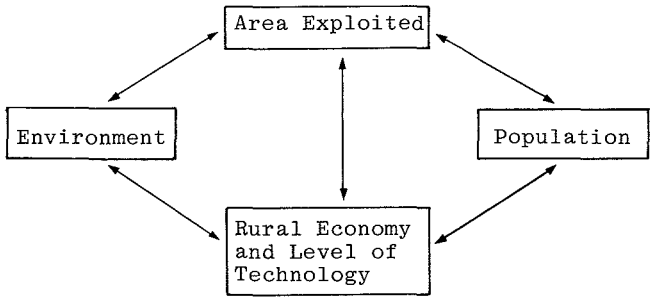
Continuity implies the presence of an uninterrupted succession, but of what? Continuity of population must to some degree have occurred during even the Romano-British to Anglo-Saxon transition - a point much debated - but that the Norman-owned estates of Domesday Book were stocked by Anglo-Saxon (or sometimes British) peasants can hardly be disputed; however, continuity of population need not be linked with the continuity of occupation on given sites, for settlements can move within the framework of a township. Some continuity of population may be compatible with a lack of continuity of language, particularly when a bi-lingual phase occurred and in this respect it is notable how few Celtic words have found their way into basic English. However, the appearance of British words to describe rents and services in areas indisputably dominated by the Anglo-Saxons is a hint, and no more, for the issue is much debated, of a measure of administrative continuity, while if Glanville Jones is indeed correct in arguing that estates made up of functionally discrete components can survive from remote antiquity to be recorded in medieval documents then a continuity of territorial organisation must occur.[45]

More pragmatically, the physical structures and alterations of the environment by earlier generations certainly continued in use. Many of our existing farmlands were cleared and tilled in the prehistoric period, and their soils altered, while our administrative boundaries, institutions, towns, communication patterns, rural settlements and vegetation are all inherited from former generations. All subsequent developments must take account of what has gone before, and the effects of man's interaction with the environment are cumulative. The author's garden sited on former moorland on the edge of Durham city has half a metre of fine black soil, reflecting the presence of long defunct earth closets in the wall abutting a neighbour's garden, once bounding a public house, but deeper digging produces a spectrum of pottery ranging backward from the nineteenth century to the

late thirteenth. It is an incentive to dig the garden, but to term this 'continuity' requires qualification. Continuity of what? A continuity of human occupation? Continuity rarely implies an uninterrupted succession of use without change.[46]

Nevertheless, continuity, together with adaptation, are themes which are fundamental to understanding the way in which, through long centuries, man has moved into a condition of adjustment to the resources of the physical environment. Before asking what control factors are involved in this relationship, the importance of time must be stressed. Prehistoric settlement in Britain, by spreading widely and occupying all environments except the highest mountains (and these were no doubt explored!), created a vast number of footholds and all subsequent occupation, even when following the total abandonment of earlier activity, utilised man-altered landscapes. More often than not increasing population numbers generated a process of intensification of settlement and farming, involving more farms and more acres of man-managed land where there had once been few, and leading to an increasing definition of boundaries of all types, both natural, created by soil and relief contrasts, and man-made. The ultimate age of the major and minor administrative boundaries of Britain is an open question (the simple answer is 'many ages'!) but cogent arguments have been put forward to suggest that some are prehistoric. This great 'time-depth' is vital in grasping how refined relationships have merged, and every archaeological site found beneath farmland or moorland today, where it reveals settlement as opposed to burial, is a testimonial to earlier patterns of settlement and land-exploitation.[47]

The complex interactions involved in man-land-settlement relationships are not susceptible to summary within a few paragraphs, but one question is of recurrent importance - how many people? The problem can be diagrammatically defined as follows:[48]




The chief necessities of the human race, nourishment (food and drink), clothing and shelter are drawn from the environment. This is one key control factor affecting settlement and although the conditions of the environment, terrain, climate, soils and

vegetation may be seen as relatively constant all but terrain are demonstrably altered by human activity, particularly soils and vegetation. Nevertheless, the basic division between lowlands, intermediate lands and uplands noted above has probably always been part of man's appraisal of the land, and there are indications of a sympathetic adjustment to cull the varied resources of these environments since the Mesolithic period.[49] The ease with which the necessities can be wrung from the environment is dependent upon three other control factors: the level of population, the actual area exploited at any one time and the nature of the rural economy, which involves the group's farming technique and transmitted skills and technology. In any environment, at any time before the advent of modern communication systems and levels of regional economic differentiation, a balance emerged between supply and demand: environment and to some extent the area exploited were relatively constant and tended to adjust more rapidly and easily than population.

In practical terms this means that given a basic mixed farming economy, involving both grain crops and livestock production, then lands of good and intermediate quality have inherent possibilities of carrying more folk than lands of poorer quality. In the evolution of rural settlement in each land zone a threshold may be considered to exist for each type of rural economy and when this has been reached and colonisable reserves are not available to support an increased population, then improvements in the technology are needed such as new rotations or improved crops. If more land is not available then population numbers cannot increase and an actual decline may take place.[50] Nevertheless, the area exploited is by no means a simple component, being dependent upon an equation involving livestock numbers and manure availability, because sustained crop yields depend upon manuring.[51] These arguments exclude the question of the penetration of rural areas by a money economy and the use of non-agrarian populations and productions, but these have had the general effect of emphasising the basic environmental contrasts by stimulating increased agrarian production and improved yields and, more particularly, the use of each region for what it was best suited rather than the production of a range of basic subsistence products.[52]

Settlement is closely related to the type of rural economy and the level of technology, and while other social factors are undoubtedly involved, their impact is more difficult to assess and evaluate. *Within* each environmental zone and *between* each environmental zone there are thresholds and frontiers. Returning to Fig. 5, clusters on good, naturally more productive land, have the potential to become, in general, larger than those on intermediate or poor lands, providing they organise themselves to best advantage. Cost distance factors will always tend to limit the area which can possibly be tilled from any one settlement: these will be the same on good or poor lands, but the higher yields of good land will be able to support more people. Furthermore the presence of better quality land will probably promote circumstances in which growth is both earlier and more

rapid than in zones II and III, and it is on the good land areas of zone I that estate centres are located, a circumstance reflected in the traditional evidence used to determine the chronology of settlement, place-names and references in documents. Settlements in zones II and III are as likely to be equally old in terms of an absolute chronology, but they were used differently, being peripheral to estates.[53] When villages do appear in these regions they will develop at locations having maximum growth potential (where centuries of grazing and dunging may earmark sites) and they will emerge as large as those of zone I.[54] Zones I, II and III will, however, differ in the absolute numbers of villages and probably, although this has yet to be proved, in the degree of regularity discernible in the overall pattern: zone I may be expected to produce Rn statistics falling between random and uniform whereas zones II and III may produce Rn statistics falling between clustered and random.

In summary, continuity, in all its aspects, and the process of adjusting to the resources of the physical environment are inextricably bonded together: as George Ewart Evans has written, rural society's first concern has always been and can only be with continuity. The adjustment of settlement to an underlying pattern of varied environmental resources is the product of millennia of accumulated experience in which change, adaption and, not least, continuity have played a part: that which had gone before could rarely be ignored or cast aside.[55]

## THE STUDY OF FORMS

Changing patterns of settlement are one manifestation of changing forms, for the processes affecting patterns act upon specific places. In urban geography, the study of form has long been recognised as important and while the study of forms without function lacks vitality and indeed can degenerate into a mere exercise in classification, in the historical dimension the study of forms is essential because along with documentary and archaeological evidence they constitute a basic source material.[56] In the discussion which follows the emphasis will be upon village plans, but in practice, the distinction between village and hamlet becomes blurred when working with a historical perspective; they can be best differentiated in terms of modern function, but as an earlier section pointed out in practical terms all clusters of three farms or more have an identifiable form, while small towns are similar to large villages in their layout.

A village form is most characteristically viewed on a map or an air photograph, and comprises the buildings, streets, paths, open spaces and enclosures associated with the buildings. The minimum scale of map showing significant details of forms is the old six-inch to one-mile map (1:10,560) or the modern metric six-inch map (1:10,000), but the 1:2500 map is vital for in-depth analyses. Nineteenth-century Ordnance Survey map series provide a sound foundation from which to move retrogressively to earlier

manuscript sources. In most parts of the country additions to the edges of villages then present are features of the last hundred and fifty or so years, the result of the rise of industries such as coal-mining, the spread of commuters or the building of council estates: before about 1850, developments took place within the framework of 'traditional' forms, forms which can be traced back in time using eighteenth-, seventeenth- or more rarely sixteenth-century maps created by landed estates. This is not to say that radical changes do not occur; the Duke of Northumberland substantially re-planned many of his villages in the early nineteenth century, remodelling the older forms *in situ*, and cases such as Milton Abbas, a completely replanned Dorset village are well known. Minor alterations by landlords are frequent, characteristically destroying part of a village nearest to the great house in order to create a small park or enlarged garden, but common as this was, the vast majority of villages present in the 1850s still preserved plans which had already been present at least two or three centuries before.[57] The study of rural settlement forms must begin with classification. This classification must be based upon simple criteria, and above all, must depend upon observable and not inferred characteristics. Suppose we examine a settlement and decide to call it a 'square Anglo-Saxon commuter village': 'commuter' must be abandoned quickly for a hundred or more years ago most villages were farming villages and indeed function must be seen as a qualification true only at a given time. 'Anglo-Saxon', based perhaps on the indisputable origin of the name, infers that no settlement existed before that date and, more dangerously, that there has been little change subsequently. 'Square' alone retains any meaning; it describes the arrangement of buildings visible today or on earlier maps, and relates directly to the *morphology* of the settlement. The reader who followed the exercise described earlier, with the wooden blocks, already has the means of classifying and hence describing village forms. The buildings, dwellings, stables, byres, storage areas and workplaces, are the most fundamental physical ingredients of any village, but they are surrounded by land, gardens, yards, other enclosures, roads, open spaces etc. A distinction exists between *public space*, where everyone has the right to go, i.e. highways, lanes and paths, together with open grazing areas integral to the village (greens), and *private space*, i.e. the enclosures and buildings in private hands. The church and churchyard have a certain ambiguity, for they are both public and private!

In essence every village plan results from a distinctive arrangement of public and private space: identical arrangements or similar arrangements create identical or similar plans; in this way plan-families can be identified, and Fig. 6 shows a grid which the author has used to classify and analyse settlement forms. It does three things: first, in three sections it picks out three key characteristics of settlement forms, their *shape*, their degree of *regularity* and the *presence* or *absence* of a *green*; it gives some examples, not necessarily of perfect cases, and thirdly it shows the origins of a series of shorthand symbols which can be used to create distribution maps, stepping-stones

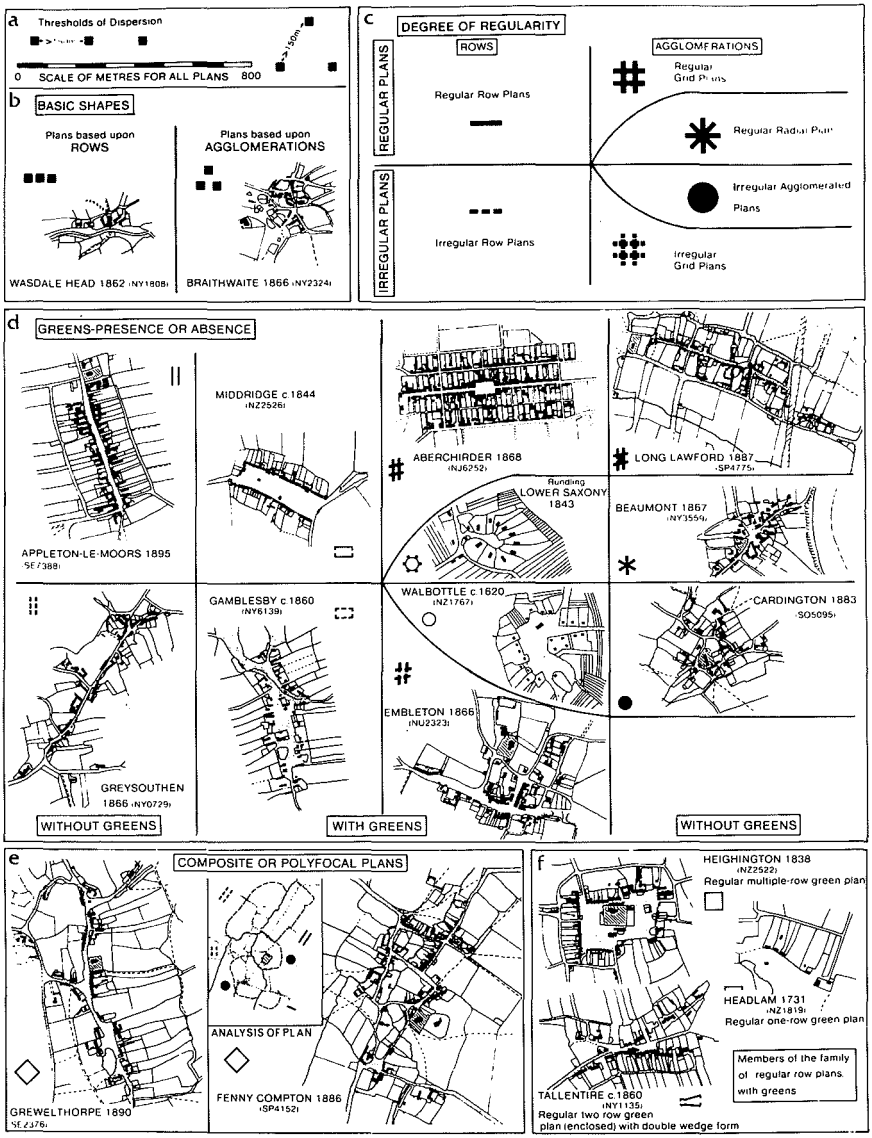



Figure 6. Village forms: principles of classification. This grid is based upon purely morphological criteria; it provides a means of placing particular settlements within a context and is the basis of the maps appearing as Figures 3 and 4.

to further questions and further analysis. Returning to the three wooden blocks of an earlier section: three in a line creates a row, three in a triangle creates an agglomeration (Fig. 6b). The nature of this arrangement, particularly when more farmsteads and their associated house plots, or *tofts* are considered, can be geometrically regular or irregular, a regular agglomeration being either a grid or a radial plan, while all types of plan may or may not have an integral green. The distinction between regular and irregular (Fig. 6c) is the most difficult to assess, but this is where the arrangement of the grid helps.[58] Take Middridge (Fig. 6d) a regular row plan with a green and Gamblesby, an irregular row plan with a green: settlements are found which are more regular than Middridge, more irregular than Gamblesby or which fall between the two! Pursuing the analogy with soils, a 'catena' exists and settlement types grade into each other across both axes of the grid.[59] Looking at Middridge and Appleton le Moors what really separates an unsurfaced street from a true green? There are of course legal distinctions, but in practice these are very difficult to particularise for a single place: 'if the villagers believe it is a green then it probably is' may not be wholly satisfactory, but it works![60] Similarly, a plan like that of Walbottle grades through variants until the green disappears and a plan like Cardington emerges. Of course, such mutations can also be temporal, relating to changes in a single plan.

This grid defines ten basic families, but it can be extended: move the rows of buildings apart at Middridge, extend the green, add rows each side and you have a square plan, a *multiple row type*, and so on (Fig. 6f). Furthermore, work in the Midlands and south of England, (for this grid was originally devised for the North), is showing that plans made up of two, three or even more basic plan types are common, i.e. the *composite plan*, or as Chris Taylor terms it, the *polyfocal plan* (Fig. 6e).[61]

It is not proposed to extend this description of the grid, which may be compared to learning about basic soil profile types. It allows plans to be examined, and their morphological characteristics to be described, classified and mapped, and an acid test must surely be to ask if it then produces useful results, foundations on which to build. Only time will tell. It allows what is visible today or on recent cartographic sources to be converted into distribution maps. The morphographic definitions derived from the grid say nothing about origins or functions, and this separation is useful. Two distribution maps based on the grid are reproduced in this study, one of Warwickshire and one of County Durham. The Warwickshire map is the more sophisticated, incorporating an assessment of the physical size of each settlement by using the circle which circumscribes the village buildings as a measure (but ignoring the problem of the numbers of buildings *within* this circle, i.e. the degree of concentration), while the other map generalises from more detailed studies.[62] A study of these maps leads in several directions:

(i) towards questions concerning the antiquity of these visible plans and the processes which create, sustain or destroy them;

(ii) towards questions concerning the county distribution patterns of which they are a part and the local regional differences which appear;

(iii) towards the broader national scene, for each county plan is part of this and the marked differences visible in the two counties used in this study hint at major regional variations detectable at a national scale.[63]

Following these lines of enquiry the argument returns full circle from patterns, to forms and back to patterns and, the final section of this study returns to the complex question of the links between forms and patterns and the processes affecting these.

## ORIGINS AND PROCESSES

The only sure way to trace the origins of a village is to excavate a depopulated settlement. For over twenty-five years work on the village of Wharram Percy, East Riding, Yorkshire has been revealing a complex story.[64] The medieval village owes much of its plan to the Romano-British fields beneath, and the site and immediate surroundings have produced clear evidence for Romano-British and Anglo-Saxon settlement, but actual continuity, although it is probable, is difficult to demonstrate. By the time of the Norman Conquest the settlement appears to have comprised two hamlets, each the estate of a different lord, and during the early thirteenth century the addition of a long row of peasant tofts between the two brought the substance of the final form into being. The medieval village possessed a regular *composite* plan. It is clear that while total reorganisation of some parts of the settlement did occur there was a strong measure of plan-stability between the early thirteenth century and the depopulation in the fifteenth; minute examination of the church has revealed how an Anglo-Saxon wooden building was reconstructed in stone during the Norman period, reaching a maximum size in the fourteenth century, to contract substantially thereafter, a pattern reflecting both social and economic circumstances and population trends. This complex evolution of village and church can hardly be atypical, complexity being more probable in settlement development than simplicity, and we must beware of the superficiality of generalisations based upon less detailed surface evidence.

The work at Wharram Percy provides an exceptionally detailed picture. For most villages the fundamental problem is one of how to project our view backwards into the Middle Ages without the guidance of excavation, using only such late map evidence as is available and a sequence of reasoned argument.[65] In this respect the north of England is fortunate; its village plans are

relatively simple, the vast composite plans of Warwickshire are absent, and row plans, with or without greens, predominate; furthermore, there survive numerous documents which describe the locations of farms in these villages, stating that this or that farm lies 'on the west row' or 'the east row' etc. and in all cases the description in the document corresponds with the orientation of the visible village on the ground, indeed in some cases the four rows of a multiple-row plan are described! The presumption is that the village plans of the later map sources were in substance, but not necessarily detail, present when the medieval documents were compiled. The date of each document gives a date before which the village plans originated, remembering that this could have been one year or five hundred years earlier! Thus a rent roll of Guisborough priory provides descriptions in 1300 or earlier, various Durham and Northumberland descriptions fall between 1200 and 1300, while one group of Durham villages are described in a document originating before 1200, possibly as early as 1130![66]

Cutting a long argument short, it seems that the repetitious regularity seen in dozens of northern villages, in Yorkshire, Durham, Northumberland and probably Cumberland is the result of devastation and reorganisation following the Norman take-over between the 1060s and the 1130s, although it is probably correct to see plan-development extending from this half century well into the thirteenth century or even later. In detail there must be many nuances: in Fig. 4 it will be noted that the dominant Durham type of row plan had short rectangular tofts, less than 150 m in length from the street frontage. In west Durham the plots attached to the houses ('long tofts') are often two-hundred metres long, and detailed studies, together with a general study of their context suggests that this latter is a form of colonising village, established during the twelfth or early thirteenth century.[67] Short-tofted settlements appear on better lands, either where re-development took place after devastation or where the reorganisation of existing settlements occurred. Cumberland, in contrast, is dominated by forms with long plots attached to the houses, some in excess of 300 m! It would be reasonable to assume that the distinctive plans of north-west Cumberland (Gilsland), follow the Norman take-over of 1156, but those around Carlisle could be earlier, for in the Anglo-Saxon Chronicle under the year 1092 we are told 'In this year King William (Rufus) went north to Carlisle with great levies, and restored the town and built the castle. He drove out Dolfin who had formerly ruled that district ... sending very many peasants thither with their wives and live-stock to settle there and till the soil'.[68]

But this cannot be proven. It remains an attractive hypothesis until more work is done. However, the conclusions concerning the general antiquity of northern village plans seem valid, and setting aside the fascinating research problem of the preceding forms, which can be called *antecedent types*, there remains the question of what happened to these plans subsequently. Northern plans can be documented in maps between the 1630s and mid-nineteenth century and while some suffered only minor

changes, the replacement of buildings, the enclosure of the green and the destruction of addition of a few boundaries, others experienced more radical changes.[69] Generalising from these observations it is possible to postulate five types of process which can be identified in the development of village plans:

(i) *plan stability*, equilibrium or continuity, should be seen as one of the five, for while processes are normally only identifiable in terms of changes they bring, a situation in which stability occurs, demands explanation and analysis as much as complete plan-reconstruction.[70]

(ii) *expansion*, ranging from the subdivision of existing plots to fit in many more buildings and the infilling of the green with cottages, to the addition of entirely new plan types.[71]

(iii) *contraction*, extending from plot amalgamation, through sectoral shrinkage (the disappearance of one major row or half of the settlement), piecemeal shrinkage (the disappearance of farms on a random basis, weeding out individuals) to complete depopulation, leaving either a single farmstead or nothing at all except a grassy field of earthworks. Nearly two and a half thousand deserted villages are now listed on the national scale and while these range in date from the pre-Conquest period to the nineteenth century, (and in County Durham twentieth-century depopulations of mining villages were common during the 1950s and 1960s), there is in general a peak in depopulations during the period between the fifteenth and the early sixteenth century. These were the result of complex economic pressures causing the conversion of former arable lands to pastures, and were notably common in what John Rous called *umbelico regni*, 'the navel of the kingdom', the English midlands (Fig. 3). In Durham many depopulations occurred gradually, and many were indeed only finalised during the early nineteenth century.[72]

(iv) *in situ reorganisation*, where the older village is completely remodelled using the same site and perhaps the same road pattern, but replacing most of the buildings and property boundaries. This can be documented in nineteenth-century Northumberland.[73]

(v) *site movement*, a fourth category of change involves several facets; work in East Anglia suggests that pre-Conquest villages experienced short-distance movements, all within the radius of between 1000 and 1500 m.[74] This is proved by pottery scatters, but how general was this process and what causal factors were involved is uncertain. Site movements are archaeologically attested in post-Conquest times: at Wawne in the East Riding an irregular agglomeration of the twelfth to the fourteenth century was succeeded by a completely new regular row layout some fifty metres away during the fourteenth and fifteenth century, while numerous examples are known from the sixteenth to the nineteenth century of landlords moving villages to new, less visible

or more scenically appropriate sites during emparking or estate development. Chris Taylor, working in Cambridgeshire and Northamptonshire has identified what he calls 'flip-over' villages, settlements which migrate amoeba-like over their own fields, as is suggested by fossil field ridges within tofts, but this is difficult at first sight to distinguish from sectoral shrinkage.[75]

Taylor's work carries the problem of evolving forms further; in a brief paper defining the 'polyfocal' or *composite* village he defines the circumstances which could produce such cellular structures:

(i) they could result from the 'organic' growth from a single nucleus, simply adding new plan units as the need arose.

(ii) they could result from the creation of separate estates, either before or after the Norman Conquest, and many examples of multi-manor villages are known.

(iii) they could result from new foundations placed alongside more normal unitary settlements, perhaps in the Anglo-Saxon period, the result of differences in ownership, land tenure or social structure.

(iv) they could originate in an Anglo-Saxon settlement pattern made up not of large clusters but of scattered single farms and hamlets.

(v) they could originate in Romano-British or even earlier times.[76]

There is a general lesson here, that our understanding of even visible settlement forms remains superficial and much more work is needed. On balance, the present author favours a combination of causes (iv), (ii) and (i) but the only safe prediction is that settlement will prove to be infinitely more complex than our models indicate. A clear tendency is emerging to suggest that the big villages so familiar to the English landscape are the result of aggregation, the drawing together of smaller nuclei of settlement, in the eleventh and twelfth centuries, perhaps associated with changes in lordship and the reorganisation of field systems. There are numerous examples of townships and parishes, throughout the country, where archaeological fieldwork is producing pottery scatters suggesting dispersal during middle and late Saxon times.[77]

Changes through time in some rural settlement forms, and indeed in their actual locations, have implications concerning the possibilities for site studies, at once closing and opening doors. Retrospective inferences drawn from settlements appearing on seventeenth, eighteenth or nineteenth century maps should be treated with the greatest caution, indeed the varied quality of geological maps showing drift has always made site studies based upon them of questionable value, for drift cover of less than three feet in thickness is not recorded. The problems are very quickly revealed where six inch to the mile (1:10,560) maps are

available, together with ample evidence of careful borings, i.e. on coalfields![78] It is not uncommon to find several feet of drift recorded in shaft data where there is no generally recorded drift cover! These two factors, the problem of deciding where the 'original' settlement lay and the demonstrable inadequacy of the available drift maps for the purposes of making detailed site analyses, have so far discouraged the author from attempting county-wide studies of settlement sites. There is a very simple point made to the author by Axel Steensberg, once soils have been occupied it is the warmed, manured soils of previous generations which have the highest value. The question is not simply one of the best 'natural' soils; complex circumstances involving improvement and continuity are involved.

It is in practice important to make a distinction between the site of a settlement and its *situation*: the former is the actual area of land occupied by the settlement, (i.e. its buildings, associated enclosures and open spaces), while the latter involves the land adjacent which, in former centuries represented the life support system of arable, meadow and pasture land. However, even the most avid hay-producers do not live on a water-meadow, and the land qualities sought for sites and situations differ substantially. Settlement sites require a freely draining subsoil, some flat land (a lot if a village is to be deliberately founded), shelter from the most chilling winds, a southern aspect (especially important before even candles were commonly available), access to the surrounding terrain, and access to a water supply, either within the area of the site or closely adjacent to it. All of these qualities were desirable, but none were absolutely necessary, with the possible exception of water supply. Nevertheless, it is amazing how many village sites do, upon close examination, exhibit a combination of desirable qualities, although observations are difficult: even if one ignores the problems of establishing the location of an 'original' site, how many years of residence are needed to discover that a given site escapes the worst of the winter snows, which may only be bad four years out of ten? It is clear that considerable 'land cunning' was involved, and even the most detailed modern field study is no substitute for decades or even centuries of accumulated experience.

## PROCESSES OF CHANGE

This study is biased towards the evolution of settlement forms and patterns in the pre-Industrial centuries, a justifiable tendency in view of their importance in establishing the framework within which all subsequent changes, accretions and subtractions, took place. The word 'framework' needs definition: what is really involved? The centuries before 1500, indeed those before 1200 saw the foundation of the regional systems with which the modern world is equipped. Peter Haggett sees the build up of such a system in terms of movements, networks, the channels along which movement occurs, the nodes on that network, their

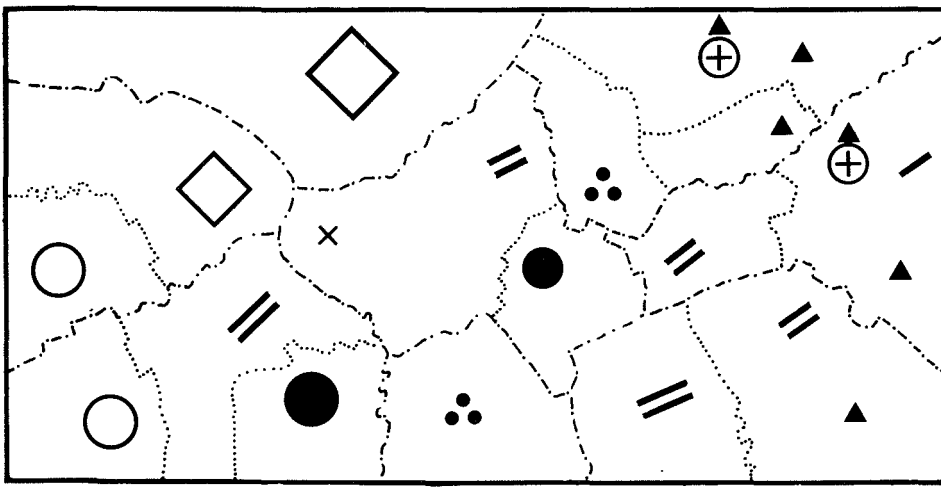


Figure 7. A model settlement pattern: the stylised symbols can be interpreted using Figure 6.

organisation as a hierarchy, with a final integration of the areas between the network's structures as surfaces.[79] Nevertheless, within any such system there is constant tension caused by processes of change operating unevenly, in time as well as in space. There is always a tendency for a temporal lag between present needs and the inherited physical structures, for society and economy are more flexible than the landscape foundations. This study, in addition to showing the deep well of the past involved in an understanding of rural settlement has placed some emphasis upon critical control factors, forces which create and sustain change, although these cannot, for reasons of space, be fully considered here: thus the economic and social factors leading to village depopulation or industrialisation necessarily lie outside the scope of a brief study. What remains is to draw together the view of changes in patterns and forms presented above and to consider these in relation to the general model of settlement within an estate put forward earlier.

Fig. 7 is a section of a settled landscape with the settlements coded according to the key on the Warwickshire map (Fig. 3). The reader will recognise the general meaning of the basic symbols (Figs. 6, and 3): regular two row villages appear, agglomerations (some with and others without greens), two substantial composite plans, a single row plan, two substantial halls with adjacent traces of deserted villages, four other desertions and an ambiguous trace of a former settlement represented by the small cross. The triangles of dots refer to 'linked farm clusters', townships with no village, but merely a scatter of dispersed farms with traces of former communal farming. The villages to the west are noticeably larger, while

the east has suffered extensive depopulation, the area shown could thus be a section of southern Warwickshire, except that there is a higher proportion of regular two-row plans than is normal for that county. In fact the pattern in Fig. 7 is simulated and is devised from a model seen in Fig. 8 which brings together changes in patterns and forms. The vertical axis of the diagram represents time and the horizontal axis represents space. An understanding of the model depends upon two assumptions:

The first is that the processes which operate upon settlement are diverse in their detailed manifestations and complex in character but nevertheless have relatively limited range of overall effects; i.e. settlements either remain relatively stable, expand, contract, move, aggregate or are re-developed *in situ*.

The second is that the diverse manifestations of these processes, which vary in their impact in both time and space, means that within a given settlement pattern there can be settlements representative of many periods of development: to put it another way, a settlement pattern can be made up of a variety of genetic layers. Even in Durham and Northumberland, the one dominated by medieval plan survivals and the other (where villages do survive) by *in situ* reorganisations, plans older or newer than the county norm appear. To generalise, a settlement pattern will comprise forms which date from a variety of developmental phases, some very old, some very new, indeed patterns lacking this heterogeneity may be unusual rather than the reverse. Fig. 8 represents a heterogeneous pattern. Looking at each phase in turn:

Phase a: the artificiality of the model is most visible at this level, which in real terms reflects late Anglo-Saxon settlement. Each black square represents a farmstead, and this group of *antecedent types* comprises a single farmstead, a twin-farm cluster, a basic row and a basic agglomeration. Excavation of Anglo-Saxon sites reveals them to be more complex than this, but it will be appreciated that the greater the complexity in the model at this level the greater the complexity at the later stages (unmanageable complexity in fact), and on balance these simplified antecedent types have a value and serve as a starting point for the argument.[80] There are, nevertheless, possibilities inherent in these four simple types which cannot be explored at length in this discussion.

Phase b: post-Conquest settlement in Britain continues to develop in the context of a rising population and defined lordly power: new farms appear (the open squares) and in this case the lord's farm (the larger black square) and the church have been associated with a somewhat more regular plan - as early as the late seventh century a law of Ine of Wessex forbids a landlord to exact labour-services for working the lord's own farm unless the tenant has been provided with a dwelling - so the assumption may not be unreasonable, but of course, church and lord's farm or demesne might equally well appear in an irregular nucleation.[81] Nevertheless, by phase b a variety of forms is

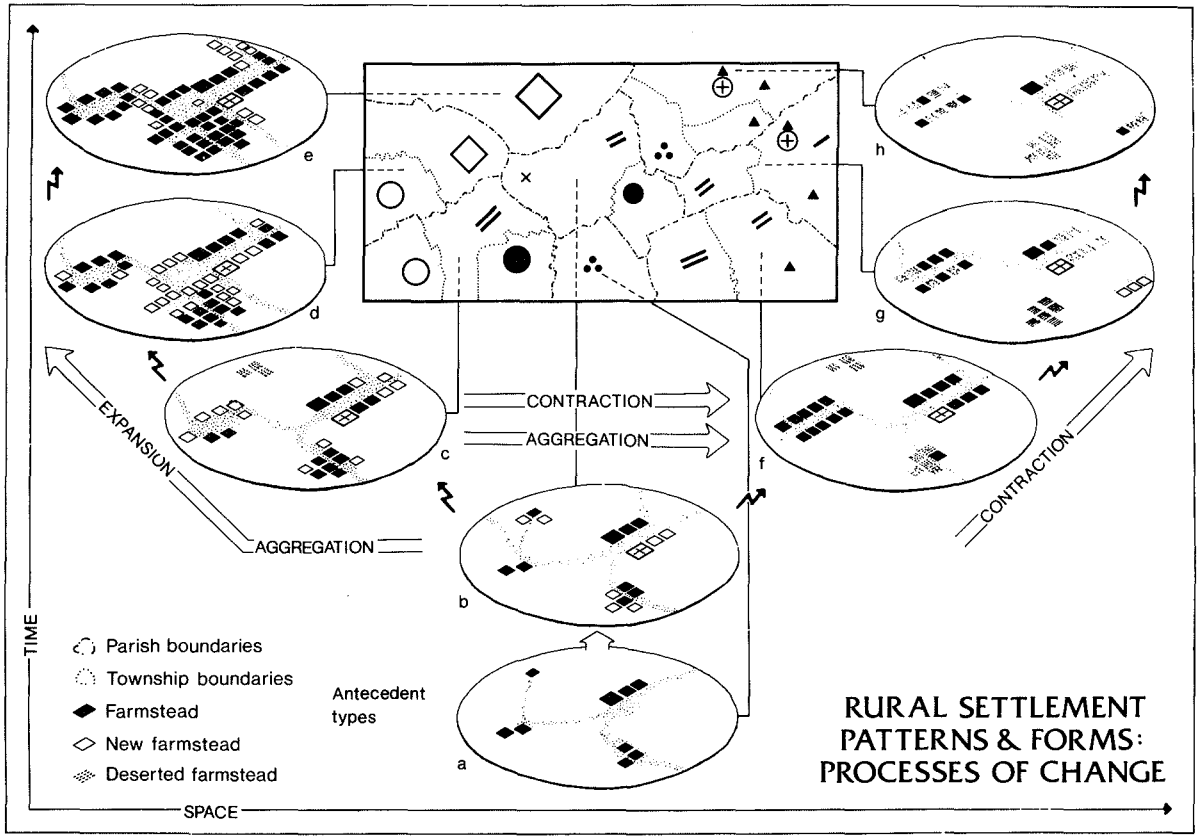



Figure 8. Rural settlement: patterns and forms - processes of change. This model draws together in one framework the evolution of particular forms and the development of patterns. It cannot show processes operating, but it provides a structure for discussions concerning processes.

present, for not all antecedent types have been equally affected by the population rise or lordly control.

Phases b-c-f: this spatial divergence is based upon observations already discussed. The villages of the north of England have a marked tendency to be obviously regular, those of the midlands and south are less obviously ordered, indeed are often composite. Thus, phase c is representative of the midlands, phase f of the north. The reasons for this divergence are important.

Phase f: all national maps of medieval prosperity and population numbers reveal a 'distance decay' between south-eastern and eastern England, the most densely populated and most wealthy in terms of agricultural production, and the north and west. The north of England had suffered terribly during the years of conquest, for the Harrying of the North of 1069-70 was but one phase of 'government by punitive expedition' and in such circumstances the destruction of economic life and existing settlements was widespread. The author has argued that these circumstances led to the widespread adoption of regular settlements, laid out by the lords or their agents as part of a policy of economic revitalisation. This has advantages for the peasantry as well because they held the newly laid out farms for carefully defined services.[82]

Phases g and h: post-medieval developments saw marked contrasts emerging between those villages which retained their farms and those where the tenancies were gradually accumulated into the hands of a few farmers or the lord himself, a process leading to widespread depopulation. In Durham the contrast is seen most sharply between conservative church estates which retain their villages, and the more flexible lay estates, where shrunken and depopulated settlements are usual.[83]

Phases b, f, g and h are seen as the result of some increase of population, associated with aggregation, the drawing of population together into fewer clusters, followed by the actual depopulation of some clusters. The model of course excludes the urban-industrial factors, which in some instances become relevant in phases g and h.

Phases c, d and e demonstrate the way in which a continuously rising population and, in the later stages, the emergence of craft industries can enlarge and aggregate settlements and create enormous composite plans characteristic of a county like Warwickshire.

Quite obviously this model could be expanded, for even as it stands, beginning with four simple antecedent types, it fails to explore all the possibilities for the development of later forms. It will be noted that threads of continuity are sustained throughout, but this does not exclude (phase g) the destruction of one village to enlarge parkland, thus isolating the church, with the creation of a new village nearby. The model is

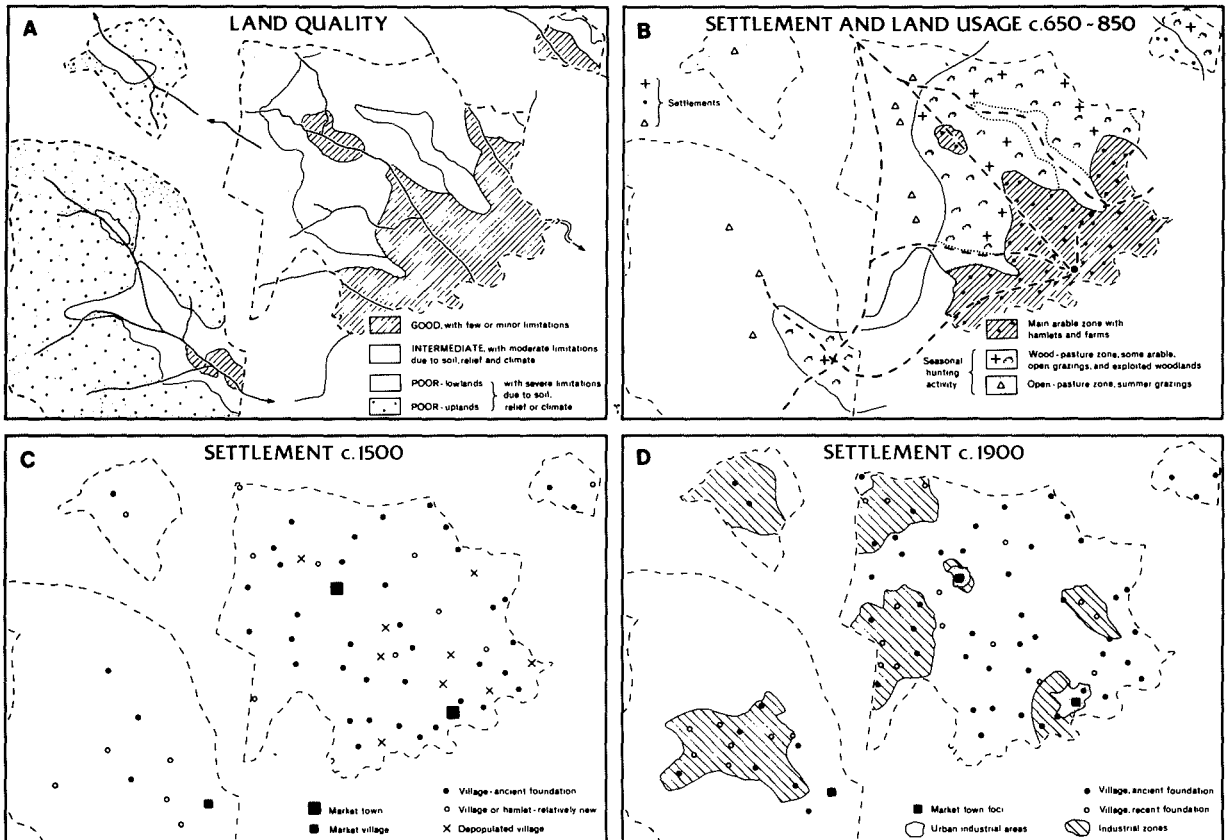



Figure 9. Territory, land quality and settlement: these time-series maps demonstrate the extent to which the cross-section visible in Figure 5 represents only one view of a continuum.

sufficiently complex but flexible enough to be adapted to many local circumstances.

The model demonstrates the close links between changing forms and patterns in a zone of good quality land and Fig. 9 returns to the estate model of an earlier section to demonstrate three further stages. In a measure these are self-explanatory but it will be noted that nineteenth-century industrialisation is envisaged in three areas, close to the towns, in the intermediate and poor lands of the lowlands and in the poor uplands. Work by Joan Thirsk has shown the links, during the sixteenth and seventeenth centuries, between the rise of craft industries dependent upon mineral wealth and agricultural or woodland produce in such zones, described by her as 'wood-pasture' and 'open-pasture' regions. Close links exist between the varied seasonal labour demands of the agricultural year, inheritance practices, the availability of a reserve of pasture and relative over-population, all of which result in a reserve of hands able to engage in non-agricultural activities, whether it be lead-mining, weaving, coal-mining or the production of charcoal or chair-legs![84] The early estates had long decayed by this time, but the basic variations in land-quality and settlement remained, constants and fossils within changing socio-economic circumstances.

## CONCLUSIONS

The arguments presented in this review of the historical perspective of rural settlement have made much of changes within space and time, and it is fair to ask if these have a discernible direction? The rank-size rule is normally discussed with reference to the urban hierarchy and Haggett was probably correct when he suggested that the reason for the general lack of studies of rural settlement hierarchies is primarily due to problems concerning data availability. The same problems have inhibited similar studies of the historical perspectives involved in the evolution of rank-size relationships.[85] The essential nature of the rank-size rule is that there is a constant relationship between the largest urban settlement and the remainder, a straight line emerging when size and rank order are plotted on log-log paper. The same relationship emerges when size and frequency of occurrence are also plotted on log-log paper. What this means in practical terms is that the second ranked settlement in terms of population has half the population of the largest settlement, and the tenth ranked is one tenth of the size, and so on, while there will only tend to be one largest settlement and ten of the tenth largest and so on. Quite fascinating, but this is an observation not a theory and the causal processes have never been explained! They must operate within time, and be in a broad sense, historical. Christaller's model of settlement hierarchies, admittedly concerned with service provisions rather than settlement size, has an uncomfortable discordance with this rule, for his work suggests not a smooth curve relationship but a series of steps, with settlements at each

level of the hierarchy being of essentially the same size, although within the system settlements of a large size are less frequent than small settlements. Berry's suggestion that these steps are ironed out because of random variations in the settlements of each level is probably valid but has repercussions. On the one hand it lifts the whole problem into the field of theoretical statistics, for, as Zipf has pointed out, many phenomena, including the frequency distribution of words in a book, produce rank-size distributions similar to those found in cities. On the other hand it moves the question sharply back to the particular in geography, the variable fortunes and locations of individual places which prosper or decline relative to their neighbours and equals.[86]

However, urban and rural settlement are part of the same system, are quite inseparable in fact, although this and most studies are apt to sever them! Work in a number of areas, Ceylon, France, and in England, Nottinghamshire, is suggesting that while the rank-size rule remains true throughout much of the rural hierarchy, at the lowest levels there is a 'reversal', i.e. in terms of rank-size numerous small settlements are rank equal, while there is a reversal in the frequency-size relationship, with very small settlements being less numerous than might be expected, and moderately small settlements very much more numerous.[87] This reversal appears as a distinctive upwards concave curve when size and rank are plotted on log-log paper, and as a marked downward curve at the lower end of the range when frequency and size are plotted on log-log paper. In Nottinghamshire, Tim Unwin has been able to argue that this situation occurs in all rank-size curves he has been able to construct for the period 1086 to 1700, but the Domesday data is that most closely approaching a straight line, i.e. where the smallest settlements appear to occur in the greatest numbers. There are, at this level of analysis, tremendous problems of definition. Logically, a rank size distribution of rural settlements which results in a straight line distribution ought to involve a marked component of dispersed settlements, but a pattern involving nucleation would result in the 'reversal' described above. It may be significant that by 1292 the Nottinghamshire data suggests a rural rank size curve with the end moving sharply downwards, i.e. a more nucleated pattern than was present in 1086. This observation, in part substantiated by his detailed arguments, suggests a process of post-Conquest settlement aggregation, a conclusion supported by recent more traditional studies. Furthermore, Unwin's work shows that between 1100 and 1700 the overall rank-size structure of rural settlement patterns remained similar, although some individual settlements changed rank, some falling as the result of depopulations or shrinkage, others leaping upwards above their fellows as a result of becoming urban.

These observations, if proved correct, have repercussions: the origins of the rural component of present settlement system do indeed lie in the centuries before 1100, a period of limited and intractable documentary evidence.

## RETROSPECT

It was not the aim of this paper to present a series of specific conclusions but the two models appearing as Figures 5 and 8 are central to the themes discussed. The former integrates the perceptive but controversial work of Glanville Jones with arguments evolved by many scholars and forms one framework within which teaching and discussion concerning the linkages between land, settlement and territoriality can take place. The latter is an attempt to gain a picture of the complex processes of change involved in the development of rural settlement forms and patterns. Such generalisations can only be a shadow of the reality they represent, but do provide one step towards more sophisticated successors.

## NOTES

[1] R. Lennard, *Rural England 1086-1135* (Oxford 1959), 1-21.

[2] A.R.H. Baker, *Progress in Historical Geography* (Newton Abbot 1972); A.R.H. Baker, Historical Geography: understanding and experiencing the past, *Progress in Human Geography*, 2 no.1 (London 1978), 497-504; H. Prince, Historical Geography in 1980, in E.H. Brown (Ed.), *Geography Yesterday and Tomorrow* (Oxford 1980), 229-250. Berkhofer's questions cited by Baker (1972), 16-17 are particularly pertinent to the present discussion.

[3] A.R.H. Baker, J.D. Hamshere and J. Langton, *Geographical Interpretations of Historical Sources*, (Newton Abbott 1970), introduction and *passim*; M.W. Beresford and J.M.S. St. Joseph, *Medieval England: an Aerial Survey* (2nd ed. Cambridge 1979).

[4] Baker, Hamshere and Langton, *op. cit.* 19-20; H. Prince, Real, imagined and abstract worlds of the past, *Progress in Geography*, 3 (London 1971), 1-86, in particular 44-5.

[5] This criticism is equally valid at a school and university level; in the former by recent works such as V. Tidswell, *Pattern and Process in Human Geography* (London 1976) 170-206; M.C. Bradford and W.A. Kent, *Human Geography* (Oxford 1977) 6-27, 58-69; P. Daniel and M. Hopkinson, *The Geography of Settlement* (Edinburgh 1979) 13-48; I.R. Meyer and R.J. Huggett, *Settlements* (London 1979) *passim*; C. Whynne-Hammond, *Elements of Human Geography*, (London 1979) 143-156; and P. McBride, *Human Geography* (Glasgow 1980), 42-87. The gap is visible even in the excellent treatment by Daniel and Hopkinson, which incorporates both 'modern' and 'traditional' material. P. Hagget, A.D. Cliff and A. Frey, *Locational Models* (London 1977) summarise much material and the conclusions to Chapters 4, 5 and 7 contain some frank appraisals. With notable exceptions models of settlement diffusion and the appearance of regularities and hierarchies rely on data derived from the U.S.A. and Sweden, not the anciently settled European heartlands.

[6] Beresford and St. Joseph, *op.cit.* (1979) remains pre-eminent, but see also M. Aston and T. Rowley, *Landscape Archaeology* (Newton Abbot 1974); J. Sheppard, Pre-Enclosure field and settlement patterns in a Yorkshire township, *Geografiska Annaler*, 48B, 59-77. It is not in practice easy to identify the particular discipline of each author and the new journal *Landscape History* adopts an avowedly interdisciplinary approach.

[7] This is clearly manifest in work by D.L. Clarke, an archaeologist.

[8] P.J. Fowler, Lowland landscapes: culture, time and personality, in S. Limbrey and J.G. Evans (eds.), *The Effect of Man on the Landscape: the Lowland Zone* (Council for British Archaeology, Research Report no.21, London 1978), 1-12.

[9] P. Teilhard de Chardin, *The Phenomenon of Man* (Fontana, London 1965), 38.

[10] D. Harvey, *Explanation in Geography* (London 1969), 422-5.

[11] H.P.R. Finberg, *Lucerna* (Leicester 1964), 1-20.

[12] P. Haggett and R.J. Chorley, Frontier movements and the geographical tradition, in R.J. Chorley and P. Haggett (eds.), *Frontiers in Geographical Teaching* (London 1965), 358-78.

[13] H. Uhlig, *Die Siedlungen des Landlichen Raumes: Materialien zur Terminologie der Agrarlandschaft* (Giessen 1972) texts in German, English and French; H.G. Ramm, R.W. McDowall, E. Mercer, *Shielings and Bastles* (H.M.S.O. 1970) 64.

[14] G.R.J. Jones, Some modern rural settlements in North Wales, *Transactions and Papers of the Institute of British Geographers* 19 (1953) 55,65.

[15] In Denmark the retention of farmsteads within the village after enclosure was encouraged by the adoption of a *stellate* pattern of consolidated farms; F. Hastrup, *Danske Landsbytyper* (Skrifter Fra Geografisk Institut, 14, Arhus 1964).

[16] H. Thorpe, The green villages of County Durham, *Transactions of the Institute of British Geographers*, 15 (London 1951), 155-180; Uhlig, Rural settlement, *op.cit.*, contains a full discussion of terminological problems.

[17] I.S. Evans, The properties of patterns of points, measured by space filling angular relationships, *Geographical Articles* 8 (Cambridge, 1967) 63-77.

[18] Haggett, Cliff and Frey, Locational models, *op.cit.* 105; D. Bonney, Early boundaries and estates in Southern England, in P.H. Sawyer, (ed.) *Medieval Settlement* (London 1976), 72-82.

[19] T. Rowley (ed.), *Anglo-Saxon Settlement and Landscape*, British Archaeological Reports, 6 (1974); P.J. Casey, *The End of Roman Britain*, *Ibid* 71 (1979); J. Morris, *The Age of Arthur* (London 1973); L. Alcock, *Arthur's Britain* (Penguin 1971); D.M. Wilson, *The Archaeology of Anglo-Saxon England* (London 1976), 23-48.

[20] B.H. Slicher van Bath, Accounts and diaries of farmers before 1800 as a source for agricultural history, *Afdeling Agrarische Geschiedenis Bijdragen*, 8 (Wageningen 1962), 5-33.

[21] F.W.L. Dendy, The ancient farms of Northumberland, *Archaeologia Aeliana* XVI (1894), 121-56; The Earl Percy, The ancient farms of Northumberland, *Archaeologia Aeliana* XVII (1896), 1-39; R.A. Dodgshon, *The Origin of British Field Systems* (London 1980).

[22] M. Beresford and H.P.R. Finberg, *English Medieval Boroughs: a Handlist* (Newton Abbot 1973).

[23] B.K. Roberts, *Rural Settlements in Britain* (London 1977), 159-168.

[24] P. Cloke, *Key Settlements in Rural Areas* (London 1979) illustrates what can be done within the contemporary scene, but J.M. Houston's conclusion, in *A Social Geography of Europe* (London 1963) remains valid.

[25] A corollary of this point is that the terms 'primary' and 'secondary' often used by Continental scholars to describe original settlement forms and developed forms tend to assume a level of knowledge we can rarely achieve; Uhlig, Rural settlements, *op.cit.* 86.

[26] P.H. Sawyer, *Medieval Settlement* (London 1976), 1-7; P. Wade-Martins, The origins of rural settlement in East Anglia, in P. Fowler (ed.) *Recent Work in Rural Archaeology*, Bradford on Avon (1975), 137-157.

[27] B.K. Roberts, *The Green Villages of County Durham*, Durham County Library Local History Publication No.12 (1977), 15-16; G.W.S. Barrow, *The Kingdom of the Scots* (London 1973), 7-68.

[28] B.K. Roberts, Site and situation: a discussion, *Nomina*, 2 (1978) 34-37; Wade-Martins, *op.cit.*; C. Taylor in Rowley, *op.cit.* 5-15.

[29] The whole question of magico-religious beliefs and their role in man-environment relations is fascinating: Yi-Fu Tuan, in *Topophilia* (New Jersey 1974) and in *Space and Place* (London 1977) deals with such bonds between people and places. How though does one evaluate the fact that in Friesland until recently funeral processions regularly took the coffin round a churchyard three times in a sunwise or right handed circle, a practice exactly the same being followed in a village near Hartlepool in about 1850! If this ritual was necessary in the belief patterns of a community then a morphological manifestation could be expected.

[30] B.K. Roberts, Village forms in Warwickshire: a preliminary discussion, in T. Slater and J. Harvis (eds.) *Field and Forest* (Norwich 1982)
P.T.H. Unwin, *Patterns and Hierarchies of Rural Settlement in Nottinghamshire before 1700* (unpubl. Ph.D. thesis, University of Durham 1979).

[31] Roberts, Green Villages, *op.cit.*; W.E. Kapelle, *The Norman Conquest of the North* (London 1979) 158-190.

[32] B.K. Roberts, Townsfield origins: the case of Cockfield, County Durham, in T. Rowley (ed.), *The Origins of Open Field Agriculture* (London 1981) 145-161; Unwin, Patterns and Hierarchies, *op.cit.*

[33] Sawyer, Medieval Settlement, *op.cit.* 333, contains a list of the more important works by G.R.J. Jones, with a chapter on *Multiple Estates and Early Settlement* 15-40.

[34] L.F. Curtis, F.M. Courtney and S. Trudgill, *Soils in the British Isles* (London 1976) 260-268.

[35] M.M. Postan, *The Medieval Economy and Society* (Penguin 1972), 73-110.

[36] D. Bonney, Early boundaries in Wessex, in P.J. Fowler (ed.) *Archaeology and the landscape* (London 1972) 168-186.

[37] Jones in Sawyer, Medieval Settlement, *op.cit.*; Barrow, Kingdom of the Scots, *op.cit.*

[38] J. Thirsk, *The Agrarian History of England and Wales 1500-1640*, IV (1967) 1-112, documents broad regional contrasts, while A.R.H. Baker in *Man Made the Land* (Newton Abbot 1973) draws attention to the relevance of Thirsk's work to the medieval scene (66-7); H.E. Hallam, *Rural England 1066-1348* (Fontana, London 1981) synthesises and documents regional contrasts.

[39] R.T. Smith, Early agricultural and soil degradation, in J.G. Evans, S. Limbrey and H. Cleeve, *The Effect of Man on the Landscape: the Highland Zone* (Council for British Archaeology, Research Report 11, London 1975), 27-39.

[40] Ramm, Shielings and Bastles, *op.cit.* 3-6; R. Bradley, *The Prehistoric Settlement of Britain* (London 1978), 59-61.

[41] B.K. Roberts, Landscapes which are recorded upon landscapes, *Geographical Magazine*, March 1981, 388-392.

[42] Thirsk, Agrarian History, *op.cit.*

[43] B.K. Roberts, Medieval colonisation in the Forest of Arden, *Agricultural History Review* XVI (1968), 101-13; Postan, Medieval society, *op.cit.* 15-26.

[44] The model owes much to the work of Glanville Jones; Sawyer, Medieval Settlement, *op.cit.* provides a broad background.

[45] Roberts, Green Villages, *op.cit.* 9-18; Sawyer, Medieval Settlement, *op.cit.* 274-288.

[46] See note 19 *supra*: H.P.R. Finberg, *The Agrarian History of England and Wales* (Cambridge 1972), 385-401.

[47] Fowler, Lowland Zone, *op.cit.*

[48] B.H. Slicher van Bath, *The Agrarian History of Western Europe, 500-1850*, (London 1963), 7-18.

[49] D.A. Spratt and I.G. Simmons, Prehistoric activity and environment on the North Yorkshire Moors, *Journal of Archaeological Science* 3 (1976) 193-210.

[50] This point is examined by J.B. Harley in Baker, Hamshere and Langton, Geographical Interpretations, *op.cit.* 60.

[51] Recent discoveries at Wharram Percy, East Riding, Yorkshire, that the fields were substantially manured - as indicated by pottery scatters - shows that regular fallowing was not the only method of sustaining fertility.

[52] Van Bath, Agrarian History, *op.cit.* 12-18.

[53] Thus the Arden of Warwickshire was divided amongst estates based upon the good lands of southern Warwickshire; Ford, in Sawyer, Medieval Settlement, *op.cit.* 274-288 discusses this point.

[54] Roberts, Warwickshire Villages, *op.cit.*

[55] G.E. Evans, *The Pattern under the Plough* (London 1966).

[56] M.R.G. Conzen, The use of town plans, in H.J. Dyos, *The Study of Urban History* (London 1968) 113-130.

[57] Beresford and St. Joseph, Medieval England, *op.cit.*

[58] Roberts, Rural Settlement, *op.cit.* 122-128.

[59] Curtis, Courtney and Trudgill, *op.cit.* 15-16.

[60] D.R. Denman, R.A. Roberts and H.J.F. Smith, *Commons and Village Greens* (London 1967), 202-212.

[61] C.C. Taylor, Polyfocal settlement and the English village, *Medieval Archaeology* XXI (1977), 189-193.

[62] Roberts, Warwickshire Villages, *op.cit.*

[63] B.K. Roberts, Village plans in Britain, *Recherches de Geographie Rurale* (Liege 1979), 33-49.

[64] M.W. Beresford and J.G. Hurst, *Deserted Medieval Villages* (London 1971) contains much material on Wharram Percy. Reports of new discoveries appear in *Medieval Archaeology*. See also J.G. Hurst (ed.) *Wharram: A Study of Settlement on the Yorkshire Wolds* (Society for Medieval Archaeology, Monograph Series, No.8, London 1979).

[65] J.A. Sheppard, *op.cit.*; P.D.A. Harvey, *A Medieval Oxfordshire Village* (Oxford 1965), 25-29, 122; J.R. Ravensdale, *Liable to Floods* (Cambridge 1974), 121-150.

[66] Roberts, Green Villages, *op.cit.*

[67] Roberts, Townfeld Origins, *op.cit.*

[68] See also W.E. Kapelle, *The Norman Conquest of the North* (London 1980) 120-157.

[69] Roberts, Rural Settlement, *op.cit.* 153.

[70] Like 'continuity', 'plan stability' demands qualifications; buildings change in character and location even in 'stable' villages.

[71] Such additions are of course a common feature of the contemporary scene: what cannot yet be done is to generalise concerning their occurrence in the last thousand years.

[72] M.W. Beresford and J.G. Hurst, *Deserted Medieval Villages* (London 1971): the Durham evidence is to be found in R.J. Hodgson, *Demographic Trends in County Durham, 1560-1801* (University of Manchester School of Geography, Research Paper No.5, 1978), Figs. 4, 5 and 6.

[73] B.K. Roberts, *Village Plans* (Shire Publications, forthcoming).

[74] Wade-Martins, *op.cit.*

[75] Beresford and Hurst, *op.cit.* 124-7.

[76] Taylor, Polyfocal, *op.cit.*

[77] Work by David Hall, Fenland Archaeological Officer.

[78] Roberts, Site and Situation, *op.cit.*

[79] Haggett, Cliff and Frey, *op.cit.* 6-8.

[80] Wilson, *op.cit.* 58-63.

[81] Finberg, Agrarian History, *op.cit.* 440.

[82] Kapelle, *op.cit.* emphasises the changes brought by this devastation.

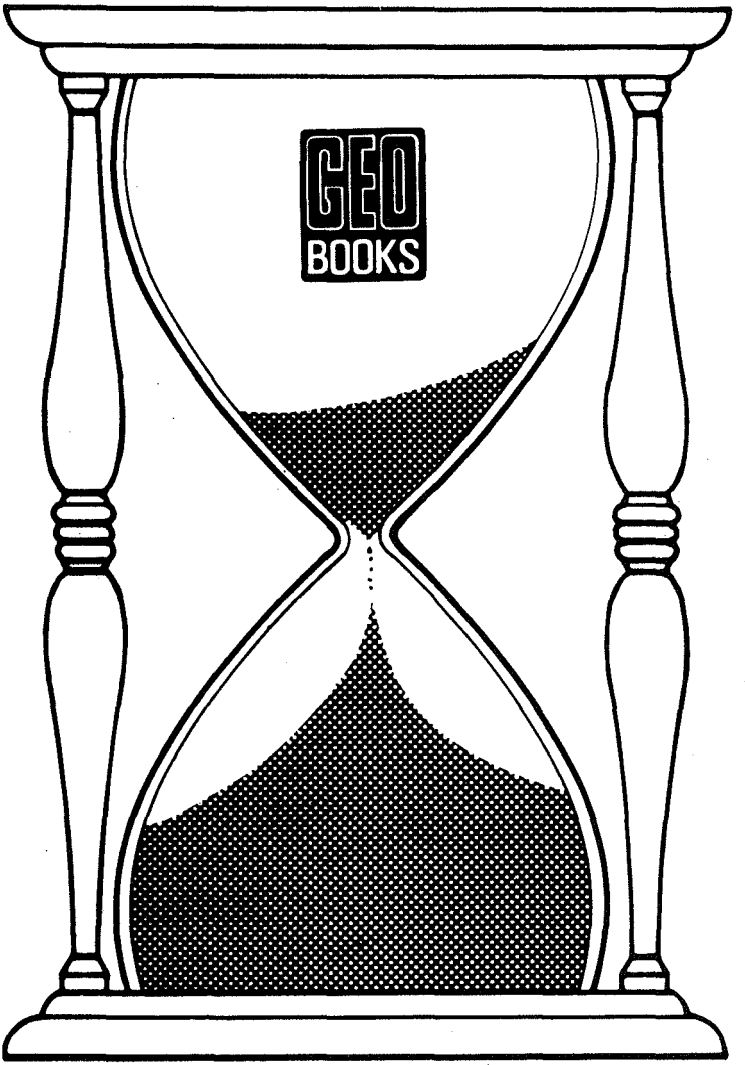
[83] B.K. Roberts, Rural settlement in County Durham: Forms, pattern and system, in D. Green, C. Haselgrove and M. Spriggs, *Social Organisation and Settlement*, British Archaeological Reports, International Series 47 (ii) (1978) 303-305.

[84] Thirsk, *op.cit.*

[85] Cited in Unwin, *op.cit.* 81-82.

[86] Unwin, *op.cit.* 80-81.

[87] Unwin, *op.cit.* 82.



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