

# MEDIEVAL RURAL SETTLEMENT IN THE EAST MIDLANDS

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## Introduction

The study of medieval rural settlement in England has both its genesis and some of its finest sites in the east midlands, here defined as comprising the historic counties of Bedfordshire, Buckinghamshire, Northamptonshire and Leicestershire (*Fig. 1*). This region occupies an area 80 kilometres wide by 150 kilometres long in the central eastern part of England north of London. It is a region predominantly of gently rolling countryside, intersected by wide river valleys such as the Great Ouse, the Nene, the Welland and the Soar. This forms part of the central English 'village belt' of classic champion landscape characterised by nucleated villages and open fields (*Williamson 1988*). The east of the region abuts the flat expanses of the Fens, now reclaimed from the sea by drainage but mostly occupied by peaty marshland in the medieval period. By contrast, in the south of the region the high chalk escarpment of the Chilterns sustains a woodland landscape and likewise in north west Leicestershire, the elevated igneous rocks of Charnwood are, even today, extensively wooded and under-populated.

It was in Leicestershire, in the north of our region, that W. G. Hoskins in the 1940s first discovered that the remains of many former medieval villages could be traced as earthworks in pasture fields now occupied only by sheep. As Maurice Beresford worked on similar sites in nearby Warwickshire, and because so many deserted medieval villages do survive as startlingly well-preserved earthwork sites in this region, much research in the following years focused on the midlands. This included field survey by the Royal Commission on the Historical Monuments of England (*R.C.H.M.E. 1975; 1979; 1981; 1982*) and the Leicestershire Museums Archaeology Unit (*Hartley 1987; 1989*); excavation at numerous sites including long-term projects at Raunds in Northamptonshire (*Cadman 1983; Cadman - Foard 1984*) and around Milton Keynes in Buckinghamshire (*Croft - Mynard 1993; Mynard 1994*); sustained field walking campaigns which identified many new early medieval (410-1066 AD) deserted settlements in parishes in Northamptonshire and Bedfordshire (*Foard 1978; Hall - Martin 1979; Shaw 1993/4*); and even extended to studies of the medieval field systems (*Hall 1995*). Over the decades, the study of English medieval rural settlement developed from the initial campaign to enumerate and record deserted villages and explain their abandonment, to the study of the wider medieval landscape and other forms of settlement (including dispersed hamlets and farms), and then to focus on the origins of villages. Throughout, the midlands has been a region which has continued to be intensively recorded and studied.

The east midlands project was funded by the Leverhulme Trust and carried out in the School of History at Birmingham University by an archaeologist and an historian under the direction of Professor Christopher Dyer. This paper is a summary of the results of the project, which will be published in 1996 (*Lewis - Mitchell-Fox - Dyer forthcoming*). The main aim of the project was to review and synthesise all the available evidence for medieval settlement in all four counties in a systematic manner. [Medieval is here defined as the whole of the period between the end of the Roman era and the Reformation (circa 410-1540 AD). It is divided into early medieval or Anglo-Saxon (410-1066 AD) and late medieval (1066-1540 AD)]. One of the aims of the project was to review the evidence to try and clarify and explain the development of the settlement pattern in this period. In particular it was hoped that the study might throw some light on the origins of the medieval nucleated village. It is generally acknowledged that the long-held assumption that the nucleated

village was introduced to England by Anglo-Saxon settlers in the early post-Roman period has not been borne out by archaeological investigation. This has revealed a lack of evidence for pre-twelfth century occupation in many nucleated villages, and has also established that Anglo-Saxon settlement in the fifth to ninth centuries in many areas which later supported nucleated villages was in fact characterised by small dispersed settlements, such as those found by field-walking in Northamptonshire and Leicestershire, or excavated at Maxey (formerly in Northamptonshire, now in Cambridgeshire). It seems that nucleated settlement appeared in much of central England sometime between the ninth and twelfth centuries but, even in an area as well-studied as the east midlands, providing an explanation for this still proves difficult.

The four counties of the east midlands were chosen for this project for a number of reasons. They provided an area which contains both nucleated and dispersed settlements and a variety of natural landscapes. The region is one where the remains of deserted and shrunken medieval settlements commonly survive as earthworks and, even where destroyed, can often still be seen from the air as crop or soil marks. Detailed research (archaeological and documentary) has been carried out on many medieval settlements and the state of knowledge is thus already good. The region also has good datable series of pottery, both for the later medieval and, more importantly, for the critical early medieval period. Historical sources, while rarely exceptional,

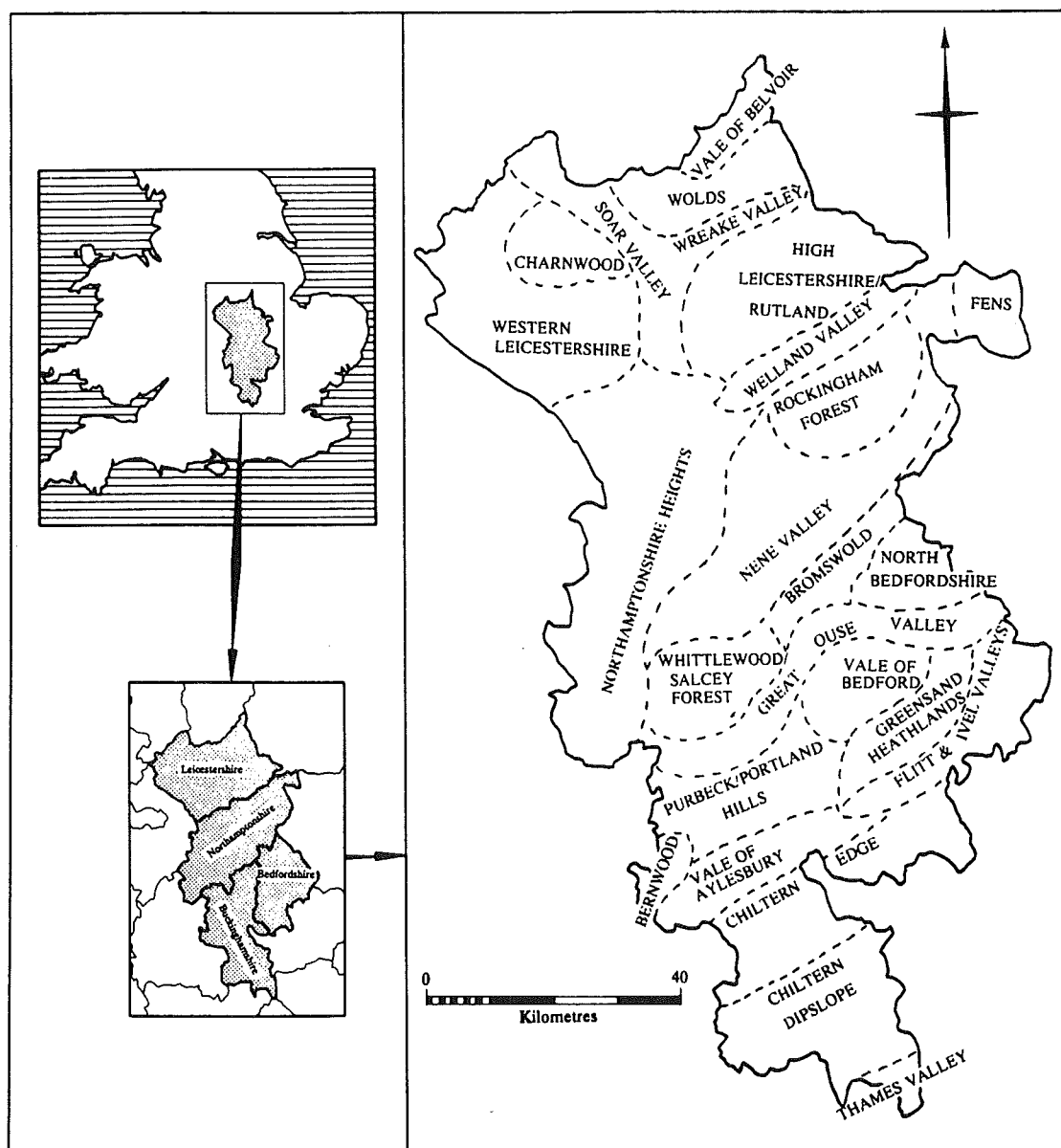


Fig. 1. Topography of the research area.

are found in relative abundance in both public records and private archives. The east midlands thus provided a region where the varying factors which might have affected the development of nucleated villages could be assessed using a range of good archaeological and historical evidence for medieval settlement.

## Methodology

The project involved the assembling, mapping and computerising of as much historical, archaeological and topographical information as possible, over a period of three months for each county. The resulting maps and

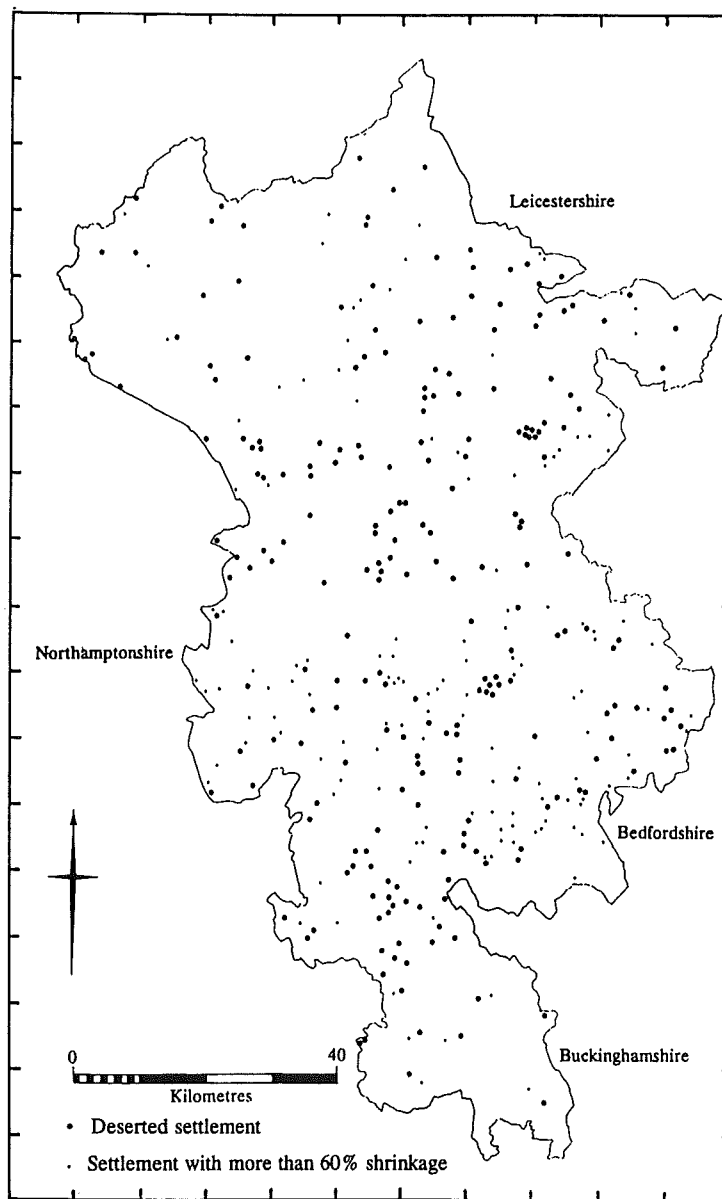


Fig. 2. Distribution of the deserted settlements and settlements with more than 60 % shrinkage.

computer database formed the primary research tools for subsequent observation and analysis. Sources used for the archaeological evidence included the National Monuments Record (held and maintained by the Royal Commission on the Historical Monuments of England), the county Sites and Monuments Records (held and maintained by each of the four counties), the archives of the Medieval Village Research Group or MVRG (set up in the 1950s to promote the study of medieval rural settlements), and various published excavation and fieldwork reports as available. These provided information ranging from the extent of earthworks at deserted and shrunken settlements to the date of any medieval pottery found.

Published historical sources used included pre-Conquest (ie late Anglo-Saxon) wills and charters, many of which record land grants and some of which actually describe the boundaries of late Anglo-Saxon estates; the Domesday Book of 1086, which systematically records a large amount of economic and tenorial information about eleventh century English manors, including their value, population and even the number of ploughs within each manor; later medieval legal documents such as the Hundred rolls and court rolls, which record disputes and often reveal telling details of everyday rural life; Inquisitions Post Mortem which record details of estates including land, houses and even furniture, often in considerable depth; and lay subsidies which record the sums paid in tax by settlements or even by named individuals from the early fourteenth century onwards.

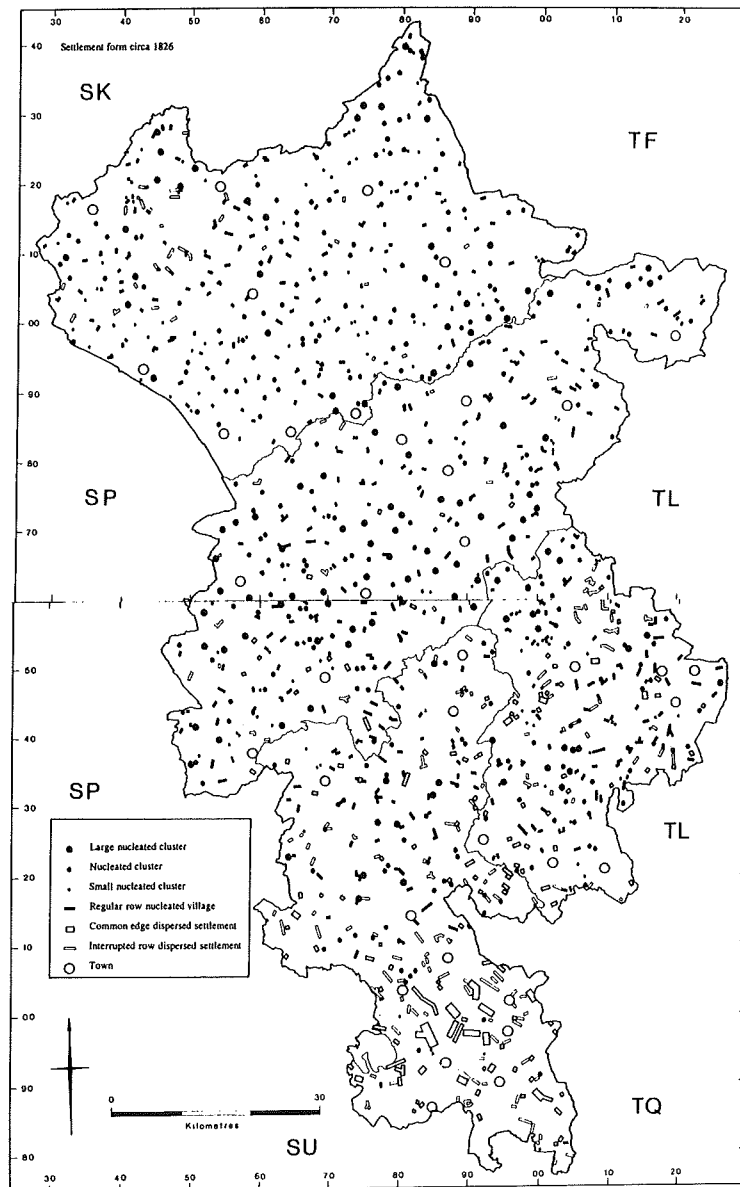


Fig. 3. Settlement form circa 1826.

Each of the east midland counties also has a published historic place-name survey which records (among other toponymical information) the earliest date at which each settlement is historically documented. These were our starting point: they were used to compile a list of all settlements which were documented in the middle ages - for many of these, no other evidence of medieval date has yet been found. Geological maps at a scale of 1:50,000 were used to identify the underlying geology of each settlement, and early maps including John Bryant's county maps (drawn in 1826) of Bedfordshire, Buckinghamshire and Northamptonshire, and the first edition Ordnance Survey map of Leicestershire (circa 1810-1850) were used to identify the plan of each settlement in the early nineteenth century. Comparison of this information with archaeological evidence confirmed that in most cases those settlements which were nucleated in the early nineteenth century were also nucleated in the later medieval period, and identified those sites or regions where the form of the settlement had changed in the intervening period.

Following the assembling of this information, a number of maps were drawn up for each county, at a scale of 1:50,000 for archaeological maps and 1:250,000 for historical maps. These included one showing the distribution of all settlements indicating the extent to which each was deserted, shrunken or remained intact (*Fig. 2*). The distribution of all evidence of pre-Conquest (ie pre-1066) date was depicted on another map, indicating whether the evidence comprised a pottery scatter, firm evidence for a building or settlement, or merely a documentary reference. Another map showed all moated sites, indicating for each whether the site was still occupied by a farmstead, whether it lay within a village, or whether it was entirely deserted. Another map depicted all settlements according to their morphological layout in the early nineteenth century (*Fig. 3*), indicating whether each was arranged as a nucleated cluster or regular row, or as a dispersed farmstead, interrupted row or common-fringe settlement: some, of course, comprise combinations of two or more of plan types. Other maps showed the distribution of all known Roman archaeological sites and finds; the geology of the region; and its relief and drainage, which all provided background information against which the archaeological and historical information could be compared.

Some of the historical evidence was depicted on distribution maps, including those showing all sites of high status in the pre-Conquest period, such as minsters, assembly sites and royal estate centres; the location of markets and boroughs (*Fig. 4*); and the distribution of two- and three-field systems. Other information was depicted differently: because in many records the recorded figures pertain to a manor or even an entire parish which may contain a number of settlements, certain categories of information were totalled for each historic parish and mapped at 1:250,000. Using this approach, Domesday Book was used to create maps showing the varying densities per square mile of recorded population and of ploughs (indicating the extent of arable land) (*Fig. 5*) across each county, and also to show the type of lord (royal, ecclesiastical, single or multiple lay) in each parish; the lay subsidies were used to show densities of later medieval population and wealth. Once completed, each of these maps could be scaled up or down by photographing or photocopying and compared one with another, either side by side or by overlaying one or more on top of another. This spatial presentation of information over a large area revealed a huge number of interesting correlations and contrasts in the evidence. The maps showed, for example, that settlement desertion was generally uncommon in river valleys but seems to increase in proximity to large towns; that dispersed settlements predominate in areas of very heavy (Oxford clay) or very light (chalk) soils; and that nucleated settlements generally occur in areas with large numbers of ploughs (by implication, with extensive arable land) in 1086.

Allied to this visual examination of the assembled evidence pertaining to medieval settlement was the use of a computerised database (using Dbase 4) into which much of the information was entered. A separate record was created for each known medieval settlement. The first stage in the creation of this database involved inputting details of the names, parishes, grid references and earliest documented dates of all medieval settlements named in historical sources. The published place-name surveys proved to be the most convenient source for this, as even in areas such as the east midlands where the county Sites and Monuments Records are generally very good, medieval settlements are generally only included if they have actually produced archaeological evidence. (This stems from the origins of these records simply as lists of archaeological sites rather than lists of historic sites or places of significant archaeological potential). Grid references were taken from the Ordnance Survey 1:50,000 series and usually indicate the centre of the modern settlement.

Once the place-name and locational information had been input to the database, the archaeological evidence was supplemented from the county (Sites and Monuments) and national (Royal Commission and MVRG) records. Evidence of earthworks, excavation, surface finds, or air photographic features were all added to the records for each known settlement. Of course, a number of sites, particularly moats or deserted pre-Conquest sites are known only from archaeological evidence, and these were added as new records to the project database at this stage. Following this, most sites could be classified on the database as shrunken (subdivided into very shrunken, moderately shrunken or slightly shrunken), deserted or not shrunken by

comparing the extent of the known archaeology with any surviving settlement. The next stage was the classification of each site according to its physical layout in the early nineteenth century, using early county maps, and the addition of details of geology and altitude to the database, using modern maps at a scale of 1:50,000. Topographical information which was then input to the database included the type of geology and altitude of each settlement.

Historical information was input in the database record of the settlement under which it was recorded in the middle ages, although it was acknowledged that, particularly in areas of dispersed settlement, some figures might represent composite totals for a number of smaller nearby settlements. Data input included the size of the recorded population in 1086; the number of ploughs in 1086; the type of lord in 1086; the sum paid in tax in 1334; the number of taxed individuals in 1377 and the number of recorded medieval fields. Information indicative of the status of the settlement including (for example) whether it was the site of an Anglo-Saxon minster, a borough, or a market was also input to the database.

Once all this information was entered into the database, it was possible to interrogate it to establish patterns of association between the different types of evidence. It was notable, for example that, even in 1086, (at least three centuries before most of these settlements were actually deserted) the average population of deserted settlements was half the size of those which showed no signs of shrinkage. This confirmed that it was generally those settlements which had always been smaller and weaker which were prone to abandonment. More significant for the problem of the origins of nucleated villages was the observation that the names of nucleated villages are invariably recorded in Domesday Book, whereas many dispersed settlements are omitted: in nucleated regions, Domesday Book appears to correlate very precisely with the late medieval village landscape, suggesting that it may be recording a nucleated landscape which was already established by 1086. It was also noted that more than 60% of known early medieval settlements in Northamptonshire and Leicestershire were deserted sometime around 850 AD. These counties are ones predominantly of nucleated settlement. However, in Buckinghamshire, where the settlement pattern is more mixed with extensive dispersed settlement in the south, little more than 30% of known early medieval sites are deserted in the later Anglo-Saxon period. This apparently suggests that there is a regional difference in the shift from small dispersed settlements to nucleated villages in the later Anglo-Saxon period. However, the database also points to a possible bias in the evidence for this, as the Northamptonshire and Leicestershire sites are mostly known from fieldwalking, and sites identified by this method are, naturally, deserted (otherwise they would not be available for fieldwalking). Buckinghamshire has seen little of this type of fieldwork, and most known early medieval sites have been revealed during investigations within existing settlements. This observation usefully indicates the need for further intensive field walking in Buckinghamshire as a way of resolving this problem.

The database can also be used to cross-check observations made from examining the maps. It can confirm, for example, that there is no significant difference in the proportions of dispersed and nucleated settlements in the manors of royal, ecclesiastical and single or multiple lay lords. Interrogation of the database confirmed the predominance of dispersed settlement on chalk and the heaviest clay soils, but highlighted the fact that some nucleated settlements occur even in these areas: further examination of the database revealed that most of these are market settlements. The questions that *can* be asked of the database are infinite in number and variety: the challenge is to decide what questions *should* be asked.

## *The settlement pattern*

Mapping of the early nineteenth century map evidence for settlement plan (*Fig. 2*) shows that nucleated settlement is predominant across the region, but shows distinct patterning in its distribution. In some regions, such as the Chilterns in south Buckinghamshire, nucleated villages are almost entirely absent. Here settlement is arranged as long, straggling chains, sometimes along lanes, sometimes around the perimeters of areas of common land. Many of the commons may be of post-medieval origin, but the dispersed pattern of settlement in the region is likely to be medieval: building surveys such as that carried out in Long Crendon have dated many of the houses in this straggling settlement to the twelfth or thirteenth centuries. There is no evidence in this area for medieval nucleation at all - not even as abandoned earthwork sites.

Nucleated settlements are similarly absent from much of central Bedfordshire, where there are expansive deposits of Oxford clay giving rise to very heavy soils. Archaeological investigation at sites such as Scald End in Thurleigh and Hobb's End in Odell, has confirmed that this long straggling interrupted row settlement had a similarly dispersed arrangement in the medieval period (*Brown - Taylor 1989*). As in the Chilterns, the absence of any evidence at all for the presence of nucleated settlement suggests that settlement in this area was indeed generally dispersed in the middle ages. Elsewhere, the forests of Whittlewood and Salcey in south Northamptonshire are also largely occupied by dispersed settlement, and the forest of Charnwood in western Leicestershire is almost exclusively so. The fenland in the extreme east of the study region also appears to have lacked nucleated villages in the medieval period, when settlement appears to have been limited to occasional farms, some moated, on patches of slightly higher ground.

Elsewhere in the east midlands, however, nucleated villages predominate. Indeed, in many areas they were even more common in the medieval period than is the case in the nineteenth century, as many medieval villages which today can be identified from their earthworks had been reduced to single farmsteads or even completely deserted by the early nineteenth century. Most villages adopt one of two basic plans. Many are arranged as a regular row, with tofts and crofts in an orderly line on one or both sides of a street - this is the

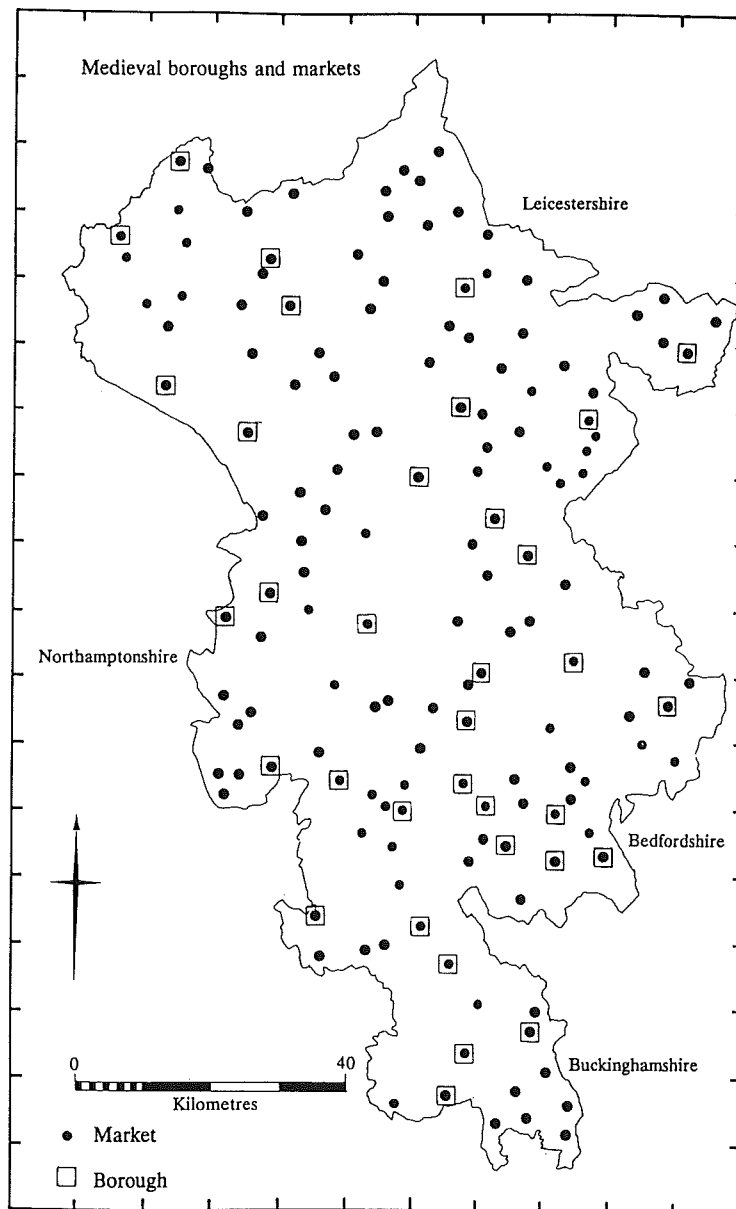


Fig. 4. Medieval boroughs and markets.

most common form of medieval village in the east midlands, particularly in river valleys. The second plan type is the clustered settlement, which commonly forms a gridded block and are particularly common in the limestone regions of the Northamptonshire Heights and eastern Leicestershire. These often appear disorganised, but this is generally the result of post-medieval alterations to the settlement: surveys of abandoned sites show considerable regularity of plan. Many nucleated settlements contain both plan types and other less regular elements as well - usually the result of several different phases of development.

Some parts of the east midlands have a mixture of dispersed and nucleated settlement types. In south Bedfordshire, for example, a number of small 'proto-nucleations' - small clustered earthwork sites - are found in an area of predominantly dispersed settlement. These are much smaller than the large villages further north, and rarely show any signs of regular planning. Much of central and northern Buckinghamshire is characterised by a mixed settlement pattern, with irregular villages displaying straggling plans more typical of dispersed settlements interspersed with small hamlets and farmsteads.

Farmsteads are found throughout the region, but in the nucleated regions they are mostly of post-medieval origin, often occupying the sites of abandoned nucleated villages. In other areas, by way of contrast, a greater number are of medieval origin, such as in central Bedfordshire where many are moated, and the Chil-

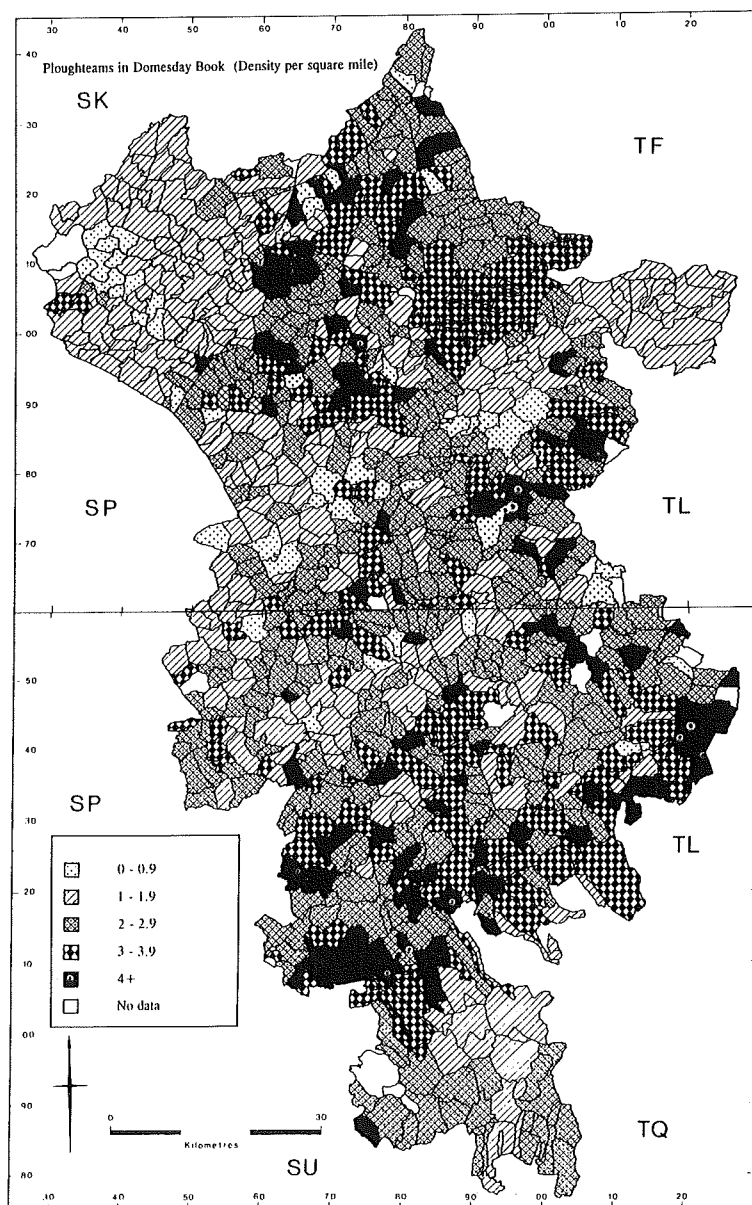


Fig. 5. Ploughteams in Domesday Book (Density per square mile).



terns, where many farms (which lack any evidence for more extensive medieval occupation) have names which are documented in the twelfth, thirteenth or fourteenth centuries.

Thus a combination of evidence from maps and from archaeological records identifies those regions which are nucleated and those which are dispersed. However, the simple bipartite division between nucleated and dispersed settlement is seen to be somewhat blurred in many areas: it is notable that in many parts of the region the settlement pattern is mixed. Even areas which can clearly be defined as 'dispersed' or 'nucleated' do not form two simple homogenous groups: the dispersed settlement pattern in the Chilterns where very long interrupted rows predominate is very different to that in central Bedfordshire, with its hamlets and dense distribution of moats. Similarly, the regular gridded nucleated villages of north-west Northamptonshire are very different to the long regular rows which dominate the main river valleys.

### *Nucleation - correlations and causes*

Having established the nature and distribution of the medieval settlement pattern it was possible to examine the maps and the database to try and identify (or exclude) causal factors which may have influenced the process of nucleation. A number of theories were tested, for the first time against a large body of evidence collected across a wide area.

Comparison of the maps of settlement with those for terrain (geology and drainage and relief) shows clearly that there is a geographical patterning to the distribution of nucleated and dispersed settlements which to some extent correlates with changes in natural terrain. We have already noted the riverine predominance of regular row nucleations compared with the limestone plateau distribution of clustered villages. Nucleated villages are generally absent or very uncommon in the highest (Charnwood and the Chilterns) and lowest (the fen edge) parts of the region, and absent also from the areas of heaviest and lightest soils (the Oxford Clay vales and the Chilterns respectively). They are most ubiquitous in the intervening undulating clay and limestone regions and concentrate particularly densely in the major river valleys even when, as in north Bedfordshire, the adjacent (Oxford clay) regions have highly dispersed settlement patterns. Some of the observed patterns are at least partly functional: moats are generally confined to low-lying clayland regions, and are absent from dry freely draining soils such as the Chilterns. This might hint at a similar functional explanation for the distribution of nucleated and dispersed settlements. However, there is clearly more to it than this - even in the relatively simple case of moats, the presence of water-retaining soils alone cannot explain the exceptionally high number of moats in central Bedfordshire. Here, the presence of ten or more moats in some settlements is in contrast to many of the river valley nucleations which contain only one (usually a manorial site), or western Leicestershire, where several parishes contain two moats, one in the village and the other far away, close to the parish boundary. Clearly there are also social factors which are determining the incidence, siting and perhaps even the function of moats. We can say that regionality (mitigated by other factors) is clearly an important factor in the evolution of settlement form, but this does not provide us with an explanation as to why nucleated settlements appeared in some areas and not others.

It is notable that areas of historic woodland generally display a less nucleated settlement pattern, but this is also not consistently the case across the whole of the east midlands: in Rockingham in eastern Northamptonshire the settlement pattern is highly nucleated with regularly planned row settlements, Charnwood in west Leicestershire is highly dispersed, while Whittlewood and Salcey in south Northamptonshire has a mixed settlement pattern. Other historical economic indicators show a greater degree of correlation: comparison of the maps of eleventh century ploughs and population show that those areas which were nucleated were generally the densely populated arable regions. This is confirmed by enquiry on the database, and suggests that economic factors are significant in the appearance of nucleated villages. There are exceptions even to this, however, as the regular nucleated landscape of the Northampton Heights had a relatively low population in 1086.

Population cannot itself be cited as the catalyst for nucleation, as the population of many dispersed regions rose in the centuries following Domesday Book to exceed that of the nucleated regions in 1086. The fact that nearly all nucleated villages in the region have names which are recorded in Domesday Book, and

that very few new villages appear after this date, suggests that nucleation had probably already taken place across much of the east midlands by the mid eleventh century. Growth in the twelfth century and later led to the multiplication of hamlets and farmsteads, but very few new nucleated villages were created in this period. The only exceptions are the new urban centres and market settlements such as Market Harborough in Leicestershire, which had no need for its own field systems. It seems that nucleated villages were the product of a particular period or 'village moment', following which the landscape was too full, or too rigidly organised, to allow the creation of new villages with their regular open field systems.

The link between nucleated villages and regular open field systems is confirmed by the east midlands data, which shows that most dispersed settlements have less regular field systems. The majority of nucleated villages are sited and planned within a formally laid out field system. Their genesis must have involved considerable upheaval, and we must remember that any explanation for nucleation must account for the reorganisation of the fields as well as that of the settlement. The fields were often laid out over earlier small dispersed settlements which must have been abandoned at (or before) that time. The intimate relationship between nucleated settlements and their regular field systems suggests that both were planned together as part of a major reorganisation of the rural landscape which resulted at least in part from economic imperatives.

The concept of the nucleated village as the product of reorganisation or imposition by the state is repudiated by the east midlands survey, despite the evidence for widespread uniformity of settlement plan in nucleated regions: the distribution of nucleated settlements does not correlate with the limits of the Danelaw as would be expected had the Danes been responsible for laying out the nucleated villages or, indeed, had the Wessex kings done so when the region was taken over by them at the 'Reconquest'.

The role of the market economy in the appearance of nucleated settlements appears to be significant: nearly all market villages have some degree of nucleation, even in otherwise highly dispersed regions such as the Chilterns. The period 800-1200 AD was one which saw considerable expansion in the market economy, as is demonstrated by the distribution of Saxo-Norman pottery which was widely traded. Clearly, the opportunities provided by a market could attract settlement to coalesce at a single point. Market villages are, however, exceptional cases and the majority of nucleated settlements did not, of course, have markets. In fact, markets are marginally more common in areas of mainly dispersed settlement than in nucleated areas. Moreover, the morphology of the market villages varies considerably - some are regular and compact planned settlements, others are diffuse, irregular, polyfocal settlements which seem to result from coalescence consequent upon growth rather than a single act of deliberate planning. While the presence of a market can explain the semi-nucleated plan of such settlements, particularly in generally more dispersed regions such as south Bedfordshire (and, of course, the regular plans of the new boroughs of the later middle ages), the expanding market economy cannot alone account for the appearance of regular planned villages across so much of the east midlands.

The similarity between the plans of the boroughs, founded by lords in the twelfth and thirteenth centuries, and many nucleated villages has led to speculation that the latter may have been founded by lords in a similar manner. The role of the lord in the creation of nucleated villages has been extensively debated: in the east midlands it is clear that no association can be identified. No single type of lord (royal, ecclesiastical or lay) can be consistently associated with nucleated settlement, and estates of the same lords such as the abbey of Ramsey commonly display different settlement patterns, depending on the region in which they were located. In areas such as eastern Leicestershire, many nucleated settlements are of a very similar plan but belonged to numerous different lords.

Careful analysis of the data collected and mapped in the east midlands project suggests that, although most of the above theories are to some extent supported by the evidence, no single factor can be identified as the single cause of nucleation. This apparently negative conclusion actually has a very much more positive corollary: this is that a number of different inter-related factors must be involved, and any explanation must accommodate all of these in a multi-causal framework which place the village and its fields within their wider social, economic and political context.

A number of fundamental points which must be accommodated in such an explanation have emerged from the east midlands survey. Nucleation occurred over a relatively short period of time, probably before the mid-eleventh century (although undateable precisely): this period has been termed the 'village moment'. This is in stark contrast to dispersed settlements, which appeared and disappeared throughout the whole of the middle ages. Population growth does not itself cause settlements to nucleate, but is likely to have been one factor. Generally, despite undergoing phases of replanning, growth and shrinkage, nucleated villages are highly conservative once established: dispersed settlements show more flexibility in their ability to both expand and particularly to contract. There is a strong relationship between nucleated settlements and the arable 'champion' landscape in which they occur, reflected also in the prevalence of regular open field systems as-

sociated with such settlements. The period of the 'village moment' seems to coincide with the so-called 'feudal transformation' around 1000 AD, a period of widespread economic and social expansion throughout Europe, which saw increasingly systematic law and government, considerable growth in the market economy, and the spread of institutions such as castles, monasteries or towns by example and emulation. It was also a period which was moving towards smaller, more localised units of government and administration.

These points can be combined to suggest a framework for the appearance of nucleated villages which accommodates and accords with the evidence collected and reviewed in the east midlands. The key lies in the link between villages and their fields: between nucleated village regions and an economy heavily dependent on arable production. This appears to be well-established by 1086, and must therefore have been the case for some time before. The origins of this lie in the presence of moderately light and fertile soils particularly well suited to arable production. In such regions, either a rising population or the growth of a specialised market economy (or both) could fuel demand for grain. Initially, this demand could have been met within a dispersed infield-outfield farming system by expanding the area taken up by arable, but eventually saturation point would have been reached: no more waste or woodland would remain to be converted, and to convert more pasture would have jeopardized the well-being of the animals whose manure would have propped up yields. Retaining a balance between control of, and access to, arable and pasture could have been a major source of friction between neighbours.

A peaceful solution would be to reorganise the dispersed landscape into a communal system which allowed animals to be collectively pastured and land to be rested in fallow years. The relocation of small homesteads to a central nucleated settlement conferred the benefit of allowing the new fields to be laid out in a regular manner, and also meant that everyone had the same stake in the new order, the same distance to travel to outlying fields. The reorganisation involved in nucleation would have required a coordinated effort by peasants and lords, while lords would have provided a focus for the new settlements by building manor houses and churches and perhaps by settling their slaves in nearby tofts. The nucleated model, once adopted, probably spread rapidly by emulation as its success in resolving the problems faced by arable-dependent, hitherto dispersed communities, became apparent. Clearly, it was successful: nucleated regions are consistently more 'wealthy' in terms of the amount of tax they paid from the eleventh century onward, and generally supported higher populations. Once established, most villages prospered and many are still occupied today. Only in times of hardship was their relative conservatism and their high level of communal interdependence a disadvantage, leading to contraction and sometimes desertion of the more vulnerable settlements.

In other regions, however, where arable production was less dominant, the point was never reached where the considerable upheaval of the change to a regular nucleated open field system was judged necessary or desirable. These areas were insulated from the factors which impelled communities towards nucleation by their more diverse economy, even when their populations rose sharply. By the thirteenth century the 'village moment' had passed, as settlement in the nucleated regions became too densely packed to allow for the creation of new nucleated settlements and their field systems, and the extension of established property rights in dispersed areas made wholesale reorganisation impossible.

## *Conclusion - the future*

The above framework has been suggested from our analysis of the data collected, mapped and computerised across the east midlands. It is intended to be a flexible model, which can be enlarged and adjusted to fit the evidence from other regions as others find appropriate. Inevitably, it will never provide the final word: it can never be 'proved'. However, the data collected, mapped and computerised can always be re-examined and re-evaluated; new questions can be asked of it, new theories tested against it. Whatever *our* conclusions, the greatest value of this work must be the information it provides for future work. Since the conference at which this paper was presented, similar work (revised slightly in the light of the east midlands project) has been carried out further south in Hampshire, creating a detailed record of all medieval settlements in that county. It is hoped that this approach can be extended to other English counties, providing an increasingly solid base for future investigations into the origins, development and nature of English rural medieval settlement.

## Acknowledgements

In a project such as this, when two researchers from different fields are working closely together, any paper produced stems from the work of both, and my greatest debt is to Patrick Mitchell-Fox, who was my colleague on the east midlands project and who carried out the historical side of the research. Chris Dyer, Professor of History at Birmingham University, directed the project with humanity and wisdom, and always gave it the full benefit of his considerable knowledge and vision. Numerous individuals and institutions contributed information and ideas to the project, in particular the county archaeological staff for Bedfordshire, Buckinghamshire, Northamptonshire and Leicestershire, and many colleagues at the Royal Commission on the Historical Monuments of England and University of Birmingham. Any errors and omissions in this paper remain, of course, my responsibility.

## References

- Brown, A. E. - Taylor, C. C. 1989: The origins of dispersed settlement: some results from fieldwork in Bedfordshire, *Landscape History* 11, 60-81.
- Cadman, G. 1983: Raunds, 1977-1983: an excavation summary, *Medieval Archaeology* 27, 107-22.
- Cadman, G. - Foard, G. 1984: Raunds, manorial and village origins. In: Faulkner, M. (ed.): *Studies in late Anglo-Saxon settlement*. Oxford, 81-100.
- Croft, R. A. - Mynard, D. C. 1993: The changing landscape of Milton Keynes. Aylesbury.
- Foard, G. 1978: Systematic fieldwalking and the investigation of Saxon settlement in Northamptonshire, *World Archaeology* 9, No. 3, 357-374.
- Hall, D. 1995: The open fields of Northamptonshire. Northampton.
- Hall, D. - Martin, P. W. 1979: Brixworth, Northamptonshire: and intensive archaeological survey, *Journal of the British Archaeological Association* 132, 1-6.
- Hartley, R. F. 1987: The medieval earthworks of north-east Leicestershire. Leicester.
- 1989: The medieval earthworks of central Leicestershire. Leicester.
- Lewis, C. R. - Mitchell-Fox, P. M. - Dyer, C. C. (forthcoming): *Village, hamlet and field*. Manchester.
- Mynard, D. C. 1994: *Excavation of medieval sites in Milton Keynes*. Aylesbury.
- R.C.H.M.E. 1975: *Archaeological sites in north-east Northamptonshire*. London.
- 1979: *Archaeological sites in central Northamptonshire*. London.
- 1981: *Archaeological sites in north-west Northamptonshire*. London.
- 1982: *Archaeological sites in south-west Northamptonshire*. London.
- Shaw, M. 1993/4: The discovery of Saxon sites below fieldwalking scatters: settlement evidence at Brixworth and Upton, Northamptonshire, *Northamptonshire Archaeology* 25, 77-92.
- Williamson, T. 1988: Explaining regional landscapes, *Landscape History* 10, 5-14.