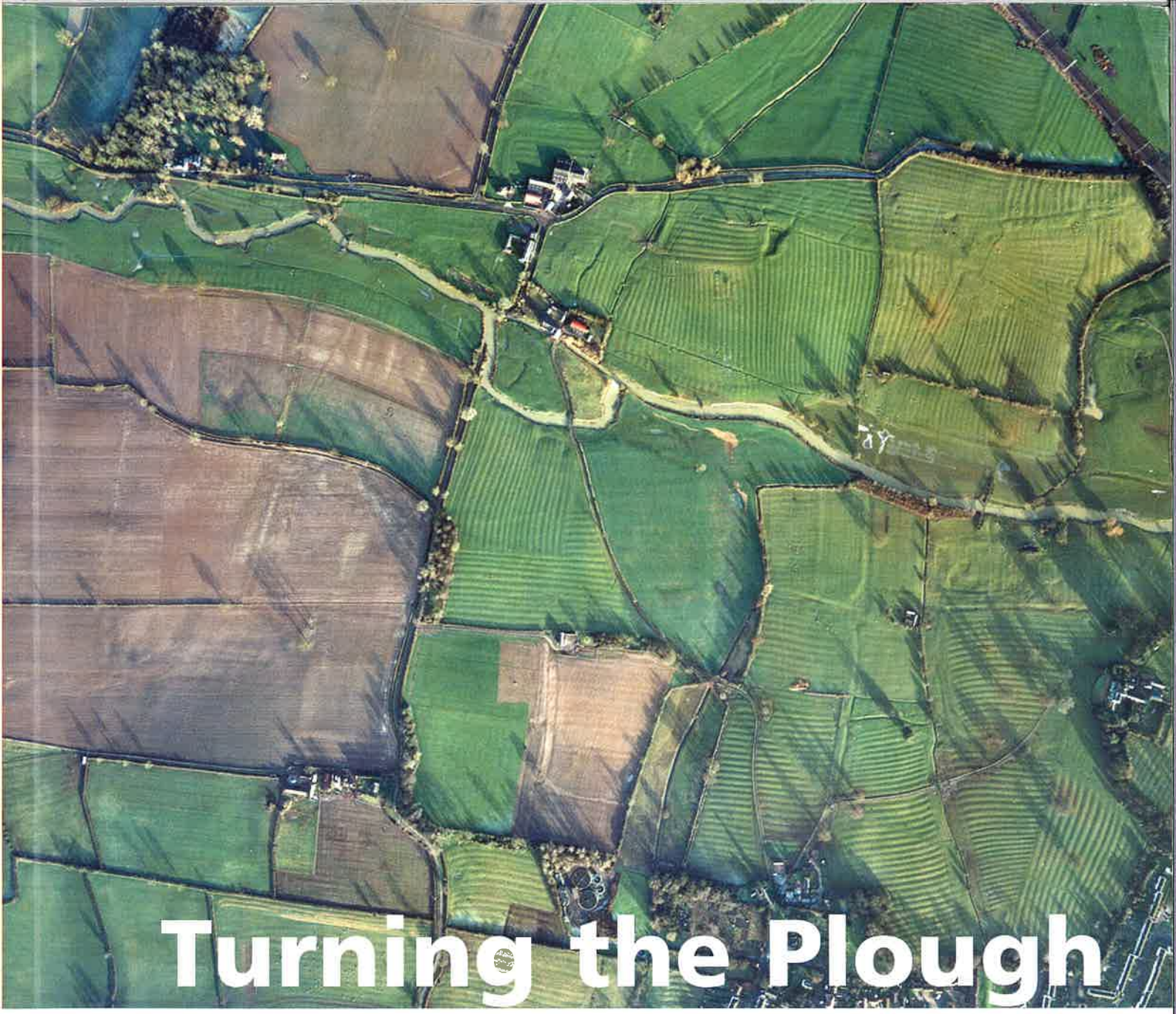

Turning the Plough

Midland open fields: landscape character and proposals for management

David Hall

ENGLISH HERITAGE

Northamptonshire County Council

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Photographs:

All photographs included in this report are by David Hall except those attributed to CUCAP.

Figures:

The figures included in this report were specifically produced for this project, with the exception of figure 11 on page 37, which is taken from the Proceedings of the Cambridge Antiquarian Society published by Kain and Mead in 1977. All other figures are based on information as sourced in the captions.

Contents

List of figures

This report, together with a Gazetteer with maps of each township examined, is also available online at: www.northamptonshire.gov.uk/goto/openfields

Summary

English Heritage's Monuments Protection Programme (MPP) previously commissioned work on the remains of open fields (principally ridge and furrow) in Northamptonshire to study parameters suitable for field classification and to provide a new Monument Class Description for open fields in the central and eastern Midlands. Following on from this, the whole of the (south) Midlands east of Birmingham had its ridge and furrow mapped and assessed within the context of each township, the extent of survival, and the quality of historical documentation. A Gazetteer lists 43 priority sites lying in 40 civil parishes, defined by the criteria of field system (township) completeness, compactness of sample, association with village earthworks, and the quality of the historical documentation. Each example is accompanied by maps, and recommendations are discussed for preservation by scheduling or by other methods, and for the detailed recording of significant examples that may be destroyed. In January 1999, new photography was commissioned for the 43 townships to provide an up to date assessment of their survival.

1 Foreword

"All cut up and done"

The gentley curving darksom bawks
That stript the Cornfields o'er
And prov'd the Shepherds daily walks
Now prove his walks no more
The plough has had them under hand
And over turnd 'em all
And now along the elting Land
Poor swains are forc'd to maul

And where yon furlong meets the lawn
To Ploughmen Oh! how sweet
When they had their long furrow drawn
Its Eddings to their feet
To rest 'em while they clan'd their plough
And light their Loaded Shoe
But ah - there's ne'er an Edding now
For neither them nor you

The bawks and Eddings are no more
The pastures too are gone
The greens the Meadows and the moors
Are all cut up and done ....

The Lamentation of Round-Oak Waters
composed 1818, first published 1935
John Clare

The loss of a local landscape legacy

When John Clare (1793-1864) wrote these lines, with their detailed and evocative description of the open field, ridge and furrow, agricultural landscape of his youth, he was commenting from a personal, almost daily, observation of the social effects of enclosure. In particular he lamented the loss to the plough of headlands and the grassed strips of the balks, and worried that all ridge and furrow would vanish. From our vantage point almost two centuries later, we can see that this did not happen, and that much ridge and furrow was not over-ploughed but laid down to pasture, thus surviving to become a characteristic feature of the 20th century English Midland landscape. We now live again, however, towards the end of a renewed period of major rural change, and now the surviving examples of Clare's curving bawks, eddings, furlongs and lawns are disappearing year by year.

Detail from the Northampton Map of 1632 (Northamptonshire Record Office, Map 4671)

This process of change is the background to this report by David Hall which has been jointly published by English Heritage and Northamptonshire Heritage on behalf of nine county archaeological services in the English Midlands. It describes a project funded by the Monuments Protection Programme (MPP) of English Heritage and carried out between 1995-98. The project set out to reconstruct the likely original extent of ridge and furrow in its proper context as part of medieval open field systems (within the framework provided by the MPP's national map of settlement diversity) and to discover how much of this still survives despite significant landscape and agricultural change in recent decades. The methodology of the project is fully described in the main body of the report. It used recent air photographic evidence to map the survival of ridge and furrow against the pattern (where it is known) of medieval townships, which were the building blocks of the medieval landscape, and the basic unit of community life and farming activity. Approximately 2,000 townships once existed in the study area. Virtually all will once have possessed large areas of ridge and furrow, in many cases covering 80-90% of their territory, but only 43 today retain it over significant areas. Comparison with maps of the 1950s shows that much of this loss has occurred in recent decades. Comparison with the date of enclosure shows that, in most of these townships, enclosure took place before 1800; in other words, our best surviving ridge and furrow was enclosed before the period of greater destruction which Clare was describing in 1818.

" our best surviving ridge and furrow was enclosed before the period of greater destruction which Clare was describing in 1818"

The results of the project confirm quantitatively what has been long suspected anecdotally - that ridge and furrow, which was once a most characteristic and commonplace sight in the East Midlands, is now very rare and becoming rarer year by year, and that where once this relic of medieval open field systems was ubiquitous, with large vistas of ridge and furrow stretching almost as far as the eye can see, it is now becoming steadily more unusual. This loss is principally a result of agricultural and land-use change over the last half-century. This is particularly significant because the area chosen for our study - the East Midlands - has always been regarded as the classic area for ridge and furrow in the whole of England, and has largely defined our view of ridge and furrow as a part of the national archaeological and landscape heritage. If ridge and furrow is rare and threatened in its primary area, then its survival as a significant component of the national heritage must be in some question.

There are, however, still a few places left where the landscape is filled with ridge and furrow at a scale which truly reflects its historical and archaeological importance. This report identifies where these are. In doing so, it firmly underlines the need for greater care in trying to keep and properly maintain the remnants that have survived. Their conservation and management will not be easily achieved however, and will require positive land management as well as legal protection; most importantly, it will require informed and sympathetic action on the part of those landowners who are the stewards of these survivals.

It is not simply a case of ridge and furrow itself being destroyed, however, though much has been ploughed since the 1950s and some townships already have none at all. What still survives has also been fragmented and broken into small pockets. There will sometimes be small corners of ridge and furrow to show to schoolchildren, for example, to explain to them what the open field systems of their core-curriculum history lessons actually meant to medieval people, but already there are very few areas where they could understand how the medieval countryside worked. Such an understanding can only be

Denchworth, Oxfordshire (formerly Berkshire), SU 321 925 (CUCAP ZknHM 0137, 1999)

revealed by the interlocking of separate furlongs sometimes separated by hollow ways (roads), the pattern of the two, three or four great fields, the relationship of arable to the precious areas of meadow and woodland, or the connection to settlements: in other words, by the survival of contiguous, related areas. Of the c.2,000 townships identified in the study area of this project, as few as 104 townships were identified in 1998 as having more than 18% of their original ridge and furrow, of which only 43 (in 40 parishes) were selected as outstanding examples.

There has been further loss since then: air photographs of the 43 townships newly taken for English Heritage in 1999 have shown that in one township the survival of ridge and furrow has fallen below 10%, and that only 20 townships (as opposed to 31 when the project was first carried out, using photographs taken between 1988-96) now enjoy more than 23% survival. Furthermore, in 1999, only 6 townships retained more than 40% of their ridge and furrow (as opposed to 9 in c.1996). Of the two townships which still have more than 50%, one has fallen since 1992-4 from 70% to 52%. Putting all this in very simple terms, a once commonplace and extensive archaeological monument type is now highly fragmented, and rapidly disappearing. Large contiguous areas of ridge and furrow which can give a true indication of the open field system survive in only a handful of places, and even these are no longer as extensive as might be imagined. In other words, what was once common and often unregarded is now rare and needs to be valued.

"... what was once common and often unregarded is now rare and needs to be valued."

Clipston, Northamptonshire, SP 710 820 (CUCAP ZknHM 0216, 1999)

The national importance of the East Midlands open fields

Our project has focused on the East Midlands, which has long been recognised as the classic area, the heartland, of the medieval open field systems of farming. Ridge and furrow has been particularly well-studied in this area, not least in David Hall's own work, both documentary and archaeological, over many years (Hall 1993, 1995). This long tradition of research was a principal reason for locating the MPP project in this area. Equally important in our choice, however, are the national patterns of historic settlement and land-use revealed in a separate English Heritage-supported project, the production by Professor Brian Roberts and Stuart Wrathmell of an Atlas to map settlement diversity (Roberts and Wrathmell 1998, 2000). In bold and clear terms, this Atlas has created a framework for both research and conservation that is firmly founded on significant and long-standing distinctions within the English landscape. The Atlas maps for us a broad swathe of England - the 'Central Province' - in which, since at least 1000AD, the landscape has (and continues to be) characterised by large nucleated settlements and distinctive field systems, in sharp contrast to other parts of England where much older enclosed field systems and dispersed patterns of farmstead and hamlet form the historical character of the landscape. In the Middle Ages, Central Province field systems generally took the form of open fields, farmed collectively by village communities. In the Midlands, open fields took a particular form, and are defined specifically by its use of farming methods that produced ridge and furrow of the classic type.

Official recognition of the archaeological and historic significance of open field systems, and their protection by scheduling or other means, has slightly lagged behind concern for other types of monuments. This is partly because of the perception that their remains were commonplace, but also partly through inadequate understanding and definition. Similar (but subtly different) types of field system involving ridged cultivation exist elsewhere in England, but attempts to define a national policy for preservation have failed in the absence of a rigorous definition of the different types. The Roberts and Wrathmell settlement map has now given us a geographical framework within which to conceptualise and define the monument type more clearly and usefully. The commissioning from David Hall of an MPP Monument Class Description (see Appendix 1) for 'Midland Open Fields' has provided us with both a typological and morphological framework; in particular putting ridge and furrow into its proper context, as the primary physical remains of medieval open fields, indeed as their principal surviving indicator in the landscape. This report now adds to these two frameworks a clear demonstration of the rarity of the monument class.

"The fragment that remains to us in the East Midlands ... is a reminder of a whole world"

The area chosen for the study covered two of the nationally defined settlement sub-Provinces. Both lay in the Central Province, which has for centuries been characterised by large numbers of nucleated settlements, with only low levels of dispersed settlements, which are mainly restricted to small woodland areas. In most areas, the nucleated settlements originally managed open fields and so were surrounded by extensive patterns of ridge and furrow. Other resources - woodland and meadow - were in the Middle Ages at a premium in this area, and the ridge and furrow constituted up to 90% or even more of the whole landscape. The fragment that remains to us in the East Midlands therefore is a reminder of a whole world, both socially and topographically.

The logic of focusing our project on the East Midlands, supported by the richness of past research and the resultant depth of understanding, has also been confirmed, albeit retrospectively, by a rapid survey whose results are in the report, carried out among all county archaeologists in England, who were asked to estimate the level of survival of ridge and furrow (or more accurately, perhaps, ridged cultivation) in their areas. Ridge and furrow exists elsewhere in England, and some of it is also a relic of open field agriculture. The survey shows a few areas where similar levels of survival to the East Midlands can be expected, but this is either in relatively small pockets (i.e. without the extensive character of the best townships in the East Midlands) or the ridge and furrow is evidence of different types of field system, as for instance on the South-Western Uplands, which therefore need both different approaches to understanding and distinctive definition of significance. On present knowledge, therefore, we are confident that the East Midlands project gives us an insight into the great majority of open field ridge and furrow which is still surviving and still articulated, and that survivals elsewhere in the country are more fragmentary.

The Monuments Protection Programme will address these other areas as part of its ongoing programme of assessment and designation of medieval settlement remains, into which ridge and furrow will fit as part of a settlement's context and group value. Within the East Midlands we will also consider, as part of our work on individual settlements, the scheduling of the mainly smaller areas of ridge and furrow that lie outside the 43 priority townships. There are well-tested and tried precedents for dealing with such areas, ranging from scheduling to management agreements for stewardship; it is simply more straightforward to protect small areas. The problem is much more difficult, however, when as much as 25% to 50% of a township is involved. In the East Midlands, therefore, where the 43 priority townships identified in this report must be regarded as the main representative sample of the whole national resource, the protection of only small areas is likely to be inadequate. A more sophisticated and integrated approach to management in the rapidly changing rural context will need to be identified and implemented. This new report gives us a starting point to meet this challenge.

Strategies for understanding and protection

The first, and perhaps most significant, result of the Midlands Open Fields project, therefore, as with all MPP work, is to increase understanding of the archaeological resource and to raise awareness of its significance and increasing rarity. It firmly establishes a need for considered and effective management of what little remains. It is important to ensure that a representative number of large areas of ridge and furrow is preserved for future generations to appreciate. This sample must include sufficiently large areas to allow a very broad understanding of the social and agricultural system of which they were part. Ridge and furrow is not simply a series of ridges; the layout, shape and inter-relationship of ridges all have a part to play in understanding the past. Nor is ridge and furrow merely evidence for past land-use. It is also an important part of the present-day character of landscape and of the countryside, giving depth and patina to the environment which constitutes one of the prime historic dimensions of Countryside Character as recently defined by the Countryside Agency and English Nature (Countryside Commission 1998, Countryside Agency 1999). It also has a significant and socially important visual and aesthetic value. There are modern day social values too. In eastern,

"Ridge and furrow ... is an important part of the present-day character of landscape and of the countryside"

lowland England, for example, permanent grassland is the land-use perhaps most able to provide community value such as access to the countryside. Ridge and furrow's preservation will also conserve old grassland with its own special ecological significance, and it will encourage the retention of the enclosure hedgerow landscape which replaced the open fields, and which in their own way are locally or regionally distinctive. Ridge and furrow also preserves below it, unseen, the archaeological remains of still older landscapes. Its role in protecting the prehistoric remains in the Midlands is another reason for it to be valued archaeologically, even if these remains are as yet difficult to assess.

"Ridge and furrow preserves below it ... the archaeological remains of still older landscapes"

It should not, however, be forgotten that the archaeological remains of the open field systems are not simply of importance for their educational and amenity value, as exemplars of a major system of agriculture that is now lost. These remains also have a research potential that needs to be defined and managed if that potential is to be realised in the long term. It will be important to use a range of archaeological techniques to recover, as far as possible, the complete pattern so that in each case the whole field system can be better understood. This is why account was taken in the assessment process of the documentary potential of each field system, as that evidence will be essential to understand the character, origins and development of this system of agriculture. There will also be other archaeological evidence in the form of pottery scatters from contemporary manuring practices, which are likely to vary both chronologically and spatially through each system. The recovery of this evidence may add significantly to the understanding of the functioning of the field system, as will environmental data that may exist within some townships in waterlogged deposits contemporary with the field system.

Other archaeological research potentials may also exist with regard to the study of the settlement pattern and land-use which preceded the laying out of the open field system. These matters need addressing by the preparation and implementation of a research framework for the study of open field systems. Then the potential of the resource can be realised as the evidence is lost to continuing cultivation, development and other land-use change. Without a research framework, the preserved examples of ridge and furrow, however extensive, will be severely devalued as an archaeological resource.

"This report's main achievement is to identify those areas ... which must be our priority for conservation and protection."

However, preservation of ridge and furrow is not an easy or straightforward matter. This new report enables us to start to get to grips with the issue, but it does not provide a full solution. Its main achievement is to identify those areas which are most significant at landscape scale, and which must be our priority for any programme of conservation and protection. The overall resources of ridge and furrow can now be crudely divided into two: first, smaller survivals, often close to surviving remains of contemporary villages, where we can hope to achieve conservation using established approaches, as mentioned above, through scheduling and agri-environmental schemes, and, second, the 43 'priority townships' where the scale of the remains requires new approaches. Even in these few townships of exceptional earthwork survival, a substantial percentage of the ridge and furrow has still been lost.

Simply defining these 43 priority areas is a constructive step, which allows existing methods and procedures to be harnessed. The majority, for example, lie wholly or mainly in areas of special landscape value defined in local authority development plans, or are

the subject of local plan policies or management proposals in landscape/countryside assessment projects, or lie within other designations such as conservation areas, Environmentally Sensitive Areas or Sites of Special Scientific Interest. Their identification as priorities for ridge and furrow conservation therefore act as a trigger for special consideration when landscape strategies are formulated, or development plan policies are defined, or when planning applications are considered during development control. This was, indeed, one of our aims when designing the project. The report and its supporting database is already embedded in the SMRs of the relevant county councils, and their archaeologists and planning officers can now take account of this new information. Any scheduling within the 43 townships will obviously strengthen protection, by adding Scheduled Monument Consent (SMC) controls to those of the planning system, but better management should be achievable even without such designation.

"Agriculture poses the single greatest threat to England's archaeological resource"

Improvement to the treatment of ridge and furrow in the planning process is only part, and not the larger part, of the challenge facing us. Agriculture poses the single greatest threat to any part of England's archaeological resource. Agricultural destruction, whether wholesale or piecemeal, as English Heritage's Monuments At Risk Survey report has recently confirmed, is the main cause of loss. Yet at the same time, agriculture is the least controlled of the major areas of change. Almost all agricultural operations - and certainly ploughing, even if *de novo* - do not constitute 'development' and therefore do not require planning permission. Almost the only relevant restrictions are the partial controls on hedgerow removal. The 1979 Ancient Monuments Act, which enables scheduling and imposes SMC controls, is associated with statutory permitted rights ('class consent') to allow existing cultivation to continue. SMC is needed for new ploughing, but refusal of consent carries the cost of compensation, as indeed would a removal of class consent. The UK has not yet introduced Environmental Assessment for new ploughing, even though this forms part of the potential European Union package for landscape conservation, and one which had been seen as a useful way forward for preserving ridge and furrow. Similarly, the Common Agricultural Policy (CAP) and market forces more generally conspire to persuade farmers to extend intensive cultivation into areas of old grassland.

The small sums available in the agri-environmental budgets such as Stewardship, particularly as they are limited to 10 year schemes and impose only moderate controls, are an inadequate counterbalance to the economic benefits available for arable, both in terms of cash-flow revenue stream and capital or annual profits. Ways of moderating the market, such as cross-compliance and related instruments, are under discussion, but again their countervailing influence may well be slight.

It is a great paradox of course that ridge and furrow, a relict of arable cultivation, has only survived into this century because it was managed as grassland by farmers, and is now threatened with destruction by a return to arable. The expansion of intensive arable cultivation is caused, or at least enabled, by changes in agriculture at macro-economic level which are hard to reverse. Even without the CAP, it is likely that in this area arable farming would be more economically attractive than pastoral, and the goal of any sustainable management for ridge and furrow must be to counterbalance those market forces which encourage its ploughing-up.

It is too easy, therefore, to see large-area scheduling and the restrictive protection which it imposes as the only effective instrument of protection that is available. Scheduling would have to be used sparingly, not least because of its potential expense in terms of compensation and its cost in terms of interfering with agricultural development. Scheduled status can however be a valuable and effective marker of government policy, indicating that government believes that an area of land needs particular care and long term preservation, and that this need might appropriately take precedence over other competing land uses. A management regime supported by scheduling however must also be sustainable in economic terms, because even scheduled ridge and furrow will need appropriate land management of some type, which will need to be financed, preferably as part of a self-sustaining but appropriate market-based economic activity. The countryside needs to be used - it cannot simply be kept unchanged and untouched, outside modern life. This is why the Countryside Stewardship scheme which helps farmers to find environmentally-friendly ways of working the land is held up by this report as one potential instrument for preservation, despite its current limitations, as described in paragraph 7.3.2.

"This new report will help ... to develop sustainable policies towards the protection of the remains of the medieval open fields"

The issues are, of course, very far-reaching and not confined to the management of ridge and furrow. The question of how the countryside is managed in the 21st century, by whom and for what reasons, continues to rise up the political agenda, and the historic rural environment needs to be seen as one aspect of this (Grenville 1999). In small measure, this report for MPP on ridge and furrow makes a contribution to this much wider debate. Ridge and furrow is a test case, as also, for instance, are hedgerows. It is not clear yet what will finally emerge from the reform of CAP, or from the debate on rural regeneration. The way forward for rural policy however must take account of the existing – in other words, the historically-derived – character and significance of the countryside (Fairclough et al 1999). One major aspect of this, among many, in the East Midlands at least, is the contribution that ridge and furrow makes to countryside character, local identity and sense of place. This new report will help English Heritage, landowners and local authorities to develop sustainable policies towards the protection of the remains of the medieval open fields which once characterised a large part of England. The first step is to draw the issue to a wider audience, as a contribution to the broader debate on the countryside and its place in modern society.

Graham Fairclough
Monuments and Countryside Protection Programmes,
English Heritage

2: Introduction

2.1 Context of the recent work

English Heritage's Monuments Protection Programme (MPP) commissioned work in 1993-95 to map the diversity of rural settlement and provide new national Monument Class Descriptions (MCDs) for medieval settlement remains. As a result of the study, England has been divided into three zones called 'Provinces', each of which is further divided into sub-Provinces and smaller local regions. Two sub-Provinces in the Central Region - Central Inner Midlands (CINMD) and Central East Midlands (CEMID) - formed the study area for this open field project. The methodology and preliminary results were published in 1998, followed by full publication in 2000 of *An Atlas of Rural Settlement in England* (Roberts and Wrathmell 1998, 2000).

Hungarton, Leicestershire, SK 695 060, 697 090 (CUCAP Zkn HM 0280, 1999)

Open fields have a date range from the late Saxon period to the 19th century and relate to settlements, normally being the major supporting economic component in most lowland townships. Fields, as well as settlements, need classifying and defining by an MCD since they form a monument class in their own right.

In response to the readily apparent rapid loss of open field ridge and furrow (the physical remains of open field strips found throughout the study area), Northamptonshire Heritage had already commissioned a report that highlighted destruction rates in Northamptonshire, caused mainly by ploughing. A list was prepared, based on rapid assessment and professional judgement, of those parts of the county where the best preserved examples of ridge and furrow with good research potential survive (Hall 1993).

Following on from the Northamptonshire Heritage report, English Heritage commissioned an MPP pilot study of Northamptonshire, chosen because its historical records are good and detailed mapping of field systems is well advanced. The study was used to determine parameters suitable for MPP monument classification in the Midland part of the Central Province. An MCD for Midland open fields was prepared (see Appendix 1).

2.2 Midland open fields

The land-use and resources available in medieval townships (the smallest unit containing a complete field system) can be broken down into four main types: arable, meadow, woodland and other 'waste' (heath, moor, fen). The amount of each particular resource varied in different parts of the country and varied through time. In hilly areas much of the terrain was unsuitable for arable which always remained a low percentage of the total. In the Midlands, many townships were characterised by having a large proportion of arable. In some areas arable reached 90% of a township and other resources were reduced to small areas.

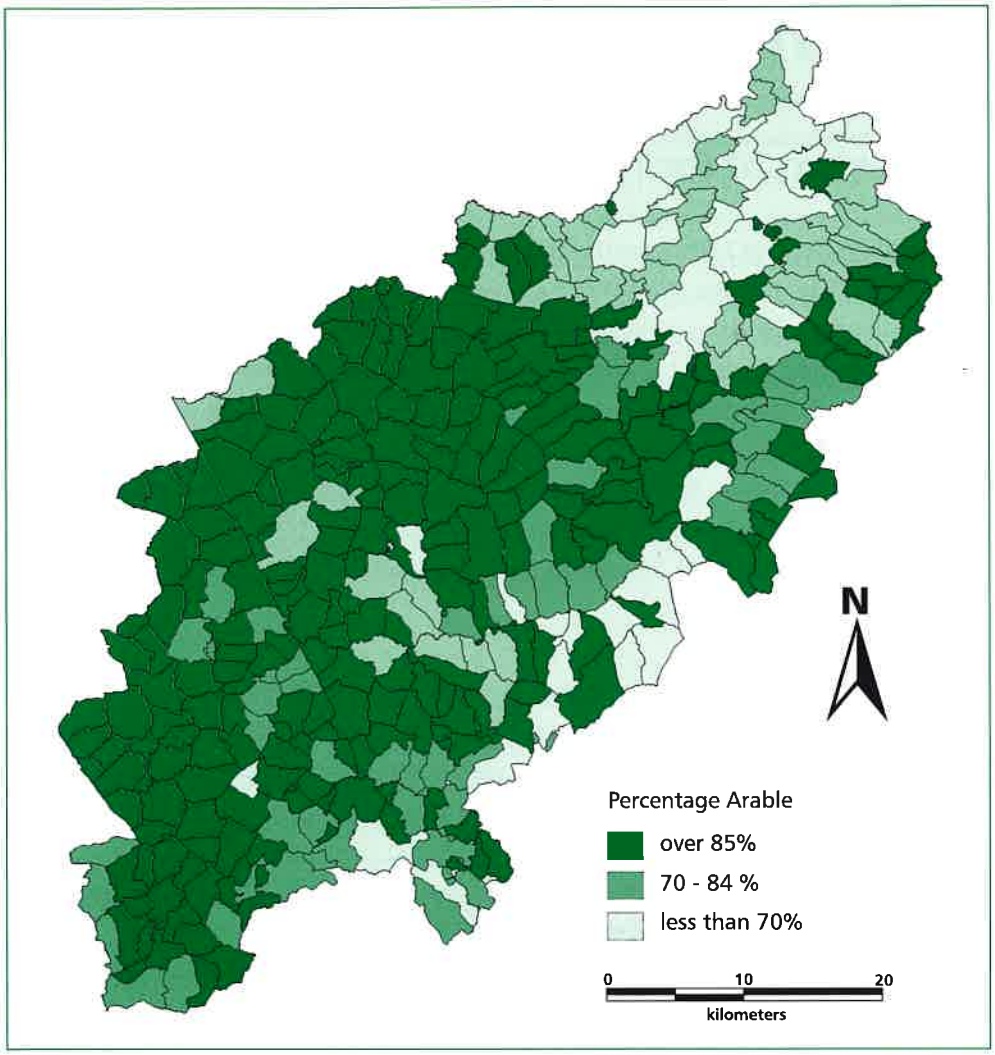

Figure 1: Open field arable in medieval Northamptonshire townships
From upublished fieldwork by David Hall

Land-use, therefore, marks a fundamental division of field economies between highland and lowland zones. Where there was a low proportion of arable, the economy was balanced with plenty of fodder for animals, and a pastoral regime was often dominant. Highly arable areas were able to produce much corn but developed a mixed farming system under strain. There was not enough meadow and pasture either for the daily grazing needs of animals or to provide winter hay. The solution was to allow animals to graze on fallow land which then had to be left in large blocks. A further consequence was that each holding had to be uniformly distributed over a township to ensure that part of it would produce crops and not all would lie fallow in a particular year.

The Midlands are an example of a lowland area with a high proportion of arable in most townships. The arable of former open field strips survives as earthworks in the area as well-known ridge and furrow. The present study of Midland open fields has been made within the same framework as the medieval settlement analysis. As well as giving the physical setting for a settlement and providing its main economic support, Midland fields relate to settlements in various subtle ways. Among the most important is the planned nature of many field systems, there being a regular tenurial cycle of strip ownership that is reflected in the physical structure of the fields which can be related to the Domesday fiscal assessments made in 1086.

The Northamptonshire pilot project found that there was a very high percentage of arable away from woodlands - figure 1. The relative proportions of resources of arable, wood and meadow are suitable parameters to define open field and predict where regular Midland fields are likely to occur. There was a widespread change from two to three fields from the early Middle Ages until the 17th century, by which time most townships had a three-course cultivation (even if there were more than three named fields) - figures 2 and 3. Within a township there was nearly always a single settlement. Townships vary in size but this seems to have no effect on the field system types. Only a few examples of multiple settlement occur within one township, some of which have very complex fields.

There was correlation between field types and the MPP settlement local regions that occur in Northamptonshire, especially in wooded districts, where multiple fields frequently occur. However the major boundary division between the CEMID (East Midlands) and CINMD (Inner Midlands) sub-Provinces was not reflected in field system types: settlement in both sub-Provinces was related to apparently similar field types, at least in terms of the MCD and surviving evidence.

It was recommended that examples of field systems for further study or preservation should be selected according to the available resources of woodland and meadow. Samples of all field system types should be chosen. Selection should also take account of the date of enclosure, historical documentation, visual quality, and association with medieval settlements of national importance already identified by the MPP study.

2.3 The present report and study area

Recognising the urgent need to identify surviving Midland ridge and furrow so that samples can be considered for preservation and appropriate agricultural management, English Heritage commissioned Northamptonshire Heritage to implement the recommendations of the pilot study. Northamptonshire Heritage sub-contracted Rog Palmer to record information from aerial photographs and David Hall to collect historical data and to undertake the overall assessment with Glenn Foard and working to a Steering Group of English Heritage staff and archaeological officers of the participating County Councils. This report describes the methodology and results of the study.

The area studied, the Midland Core of the Central Province, comprises two of the sub-Provinces defined by Roberts and Wrathmell in their work on rural settlement at a national scale (Roberts and Wrathmell 1998, 2000) called the Inner Midlands and the East Midlands (CINMD and CEMID). Together, they form a large block extending from the Trent Valley in the north to the chalk escarpment in the south, and from the edge of the Fens in the east to a less topographically-defined line in the west. Based upon mid-19th century settlement characteristics, these sub-Provinces cut across the frameworks provided by historic or modern counties, defining an area in which both natural and cultural landscape contrasts are subtle rather than accentuated. The division between the East Midlands and the Inner Midlands depends upon no more than slight variations in the densities of the

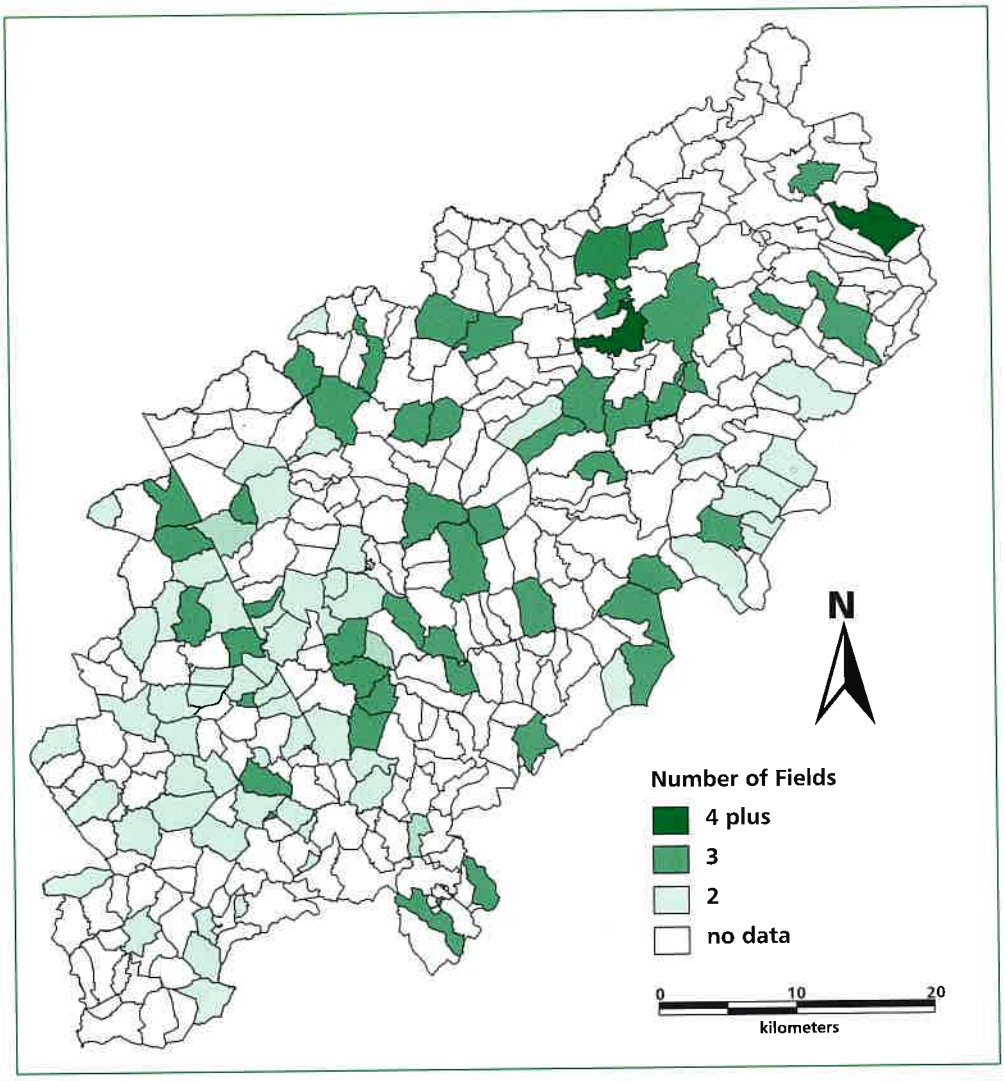

Figure 2: Northamptonshire field systems during the 14th century
From Hall 1995 with additions

dispersed farmsteads intercalated between nucleations. It is a 'boundary' that may be as much a product of subtle factors operating in the late 18th or early 19th-centuries as the result of any deeply structured and ancient historical forces. Both sub-Provinces have long been landscapes of villages and hamlets which were formerly characterised by organised field systems, with common, open and subdivided town fields surrounding and supporting each settlement until the associated networks of tenurial rights and obligations were finally extinguished by enclosure.

While the whole zone is a lowland agricultural plain, there are variations in altitude, rock, drift exposures, drainage conditions and soils, which have a bearing upon those complex and long-established negotiations between human societies and the land, and which generate local small scale regional differences in settlement, field and farming systems. In the Inner Midlands (CINMD) a broad division can be established on the basis of densities of nucleations. To the north-west, local region CINMD 1 has a nucleation count for a 25 by 25 km square of 62, while to the south and east, in CINMD 2, a count of 82 appears. In CEMID densities fall within this range but nucleations are less evident in Rockingham Forest (CEMID 2a), Rutland (CEMID 2b) and High Leicestershire (CEMID 2c), and in

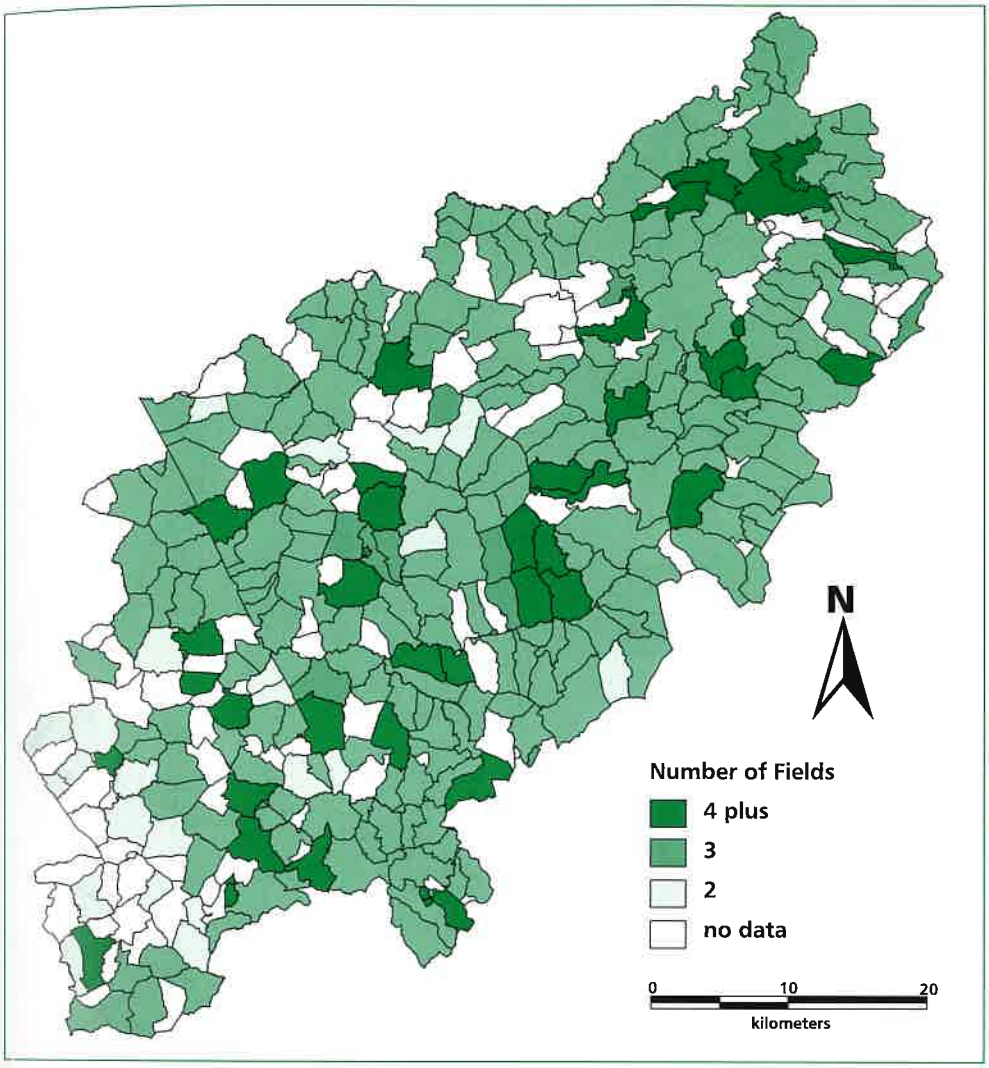

Figure 3: Northamptonshire field systems during the 17th century
From Hall 1995 with additions

other small southern local regions. The local variations are undoubtedly ancient, often being documented as wooded areas in Domesday Book.

The whole study area is characterised by low and very low densities of dispersion, and it is significant that with a few exceptions the 'wooded' local regions support densities of dispersion which differ but little from those found in the village-dominated portions. What do differ are the concentrations of nucleations present, the numbers of moated sites and the appearance of settlements bearing the affixes 'Green', 'Street' and 'End'. In origin, these local variations may reflect no more than slight differences resulting from the process of colonisation or even factors such as former management polices within ancient estates.

The study area is about 14,000 square km (3.9 million acres) and includes all or part of nine counties: Bedfordshire, Buckinghamshire, Cambridgeshire, Gloucestershire, Leicestershire, Lincolnshire, Northamptonshire, Oxfordshire and Warwickshire (figures 4 and 5). Small parts of Derbyshire, Hertfordshire, and Hereford and Worcester also belong to the two sub-Provinces, but were excluded from the study area.

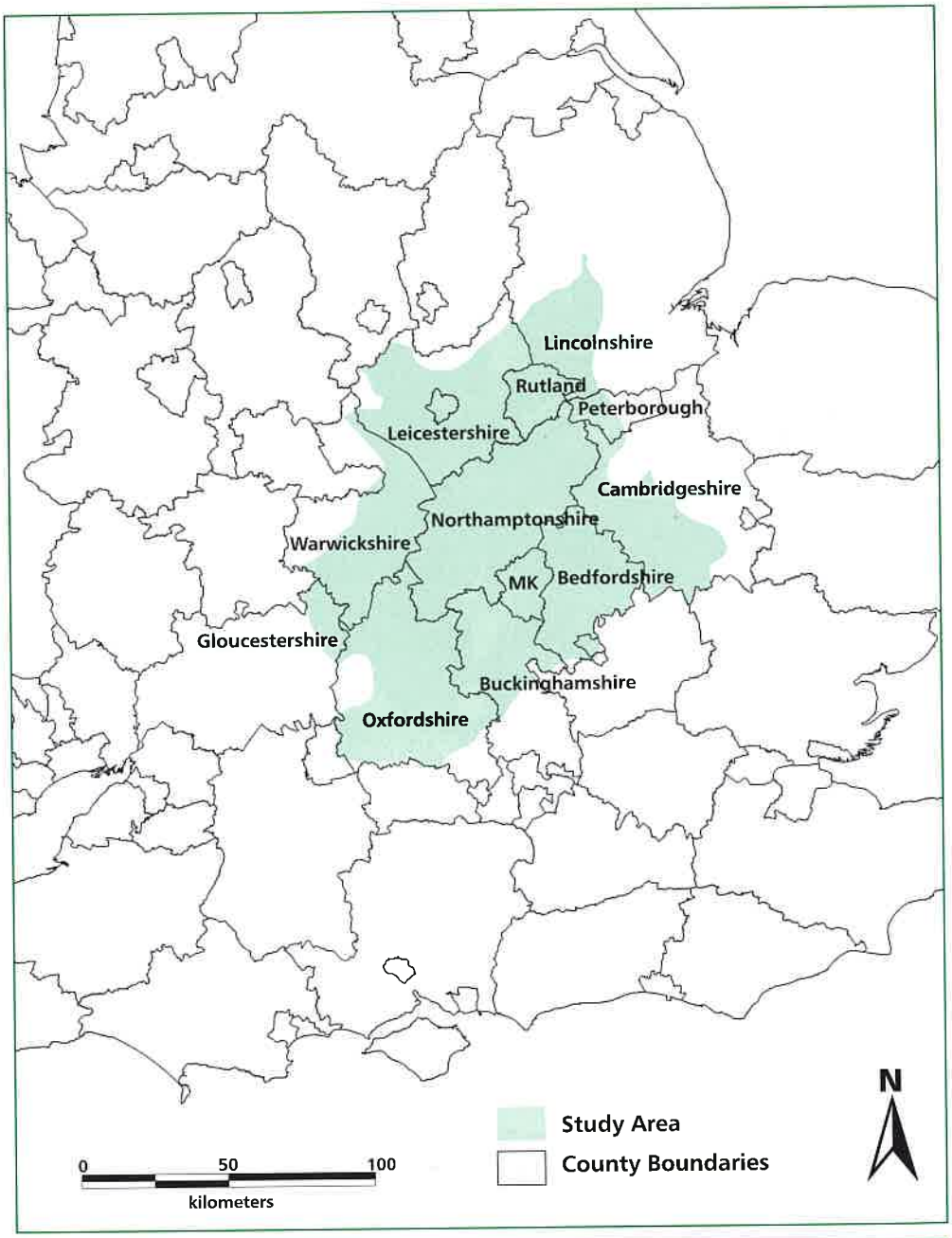

Figure 4: Location of study area

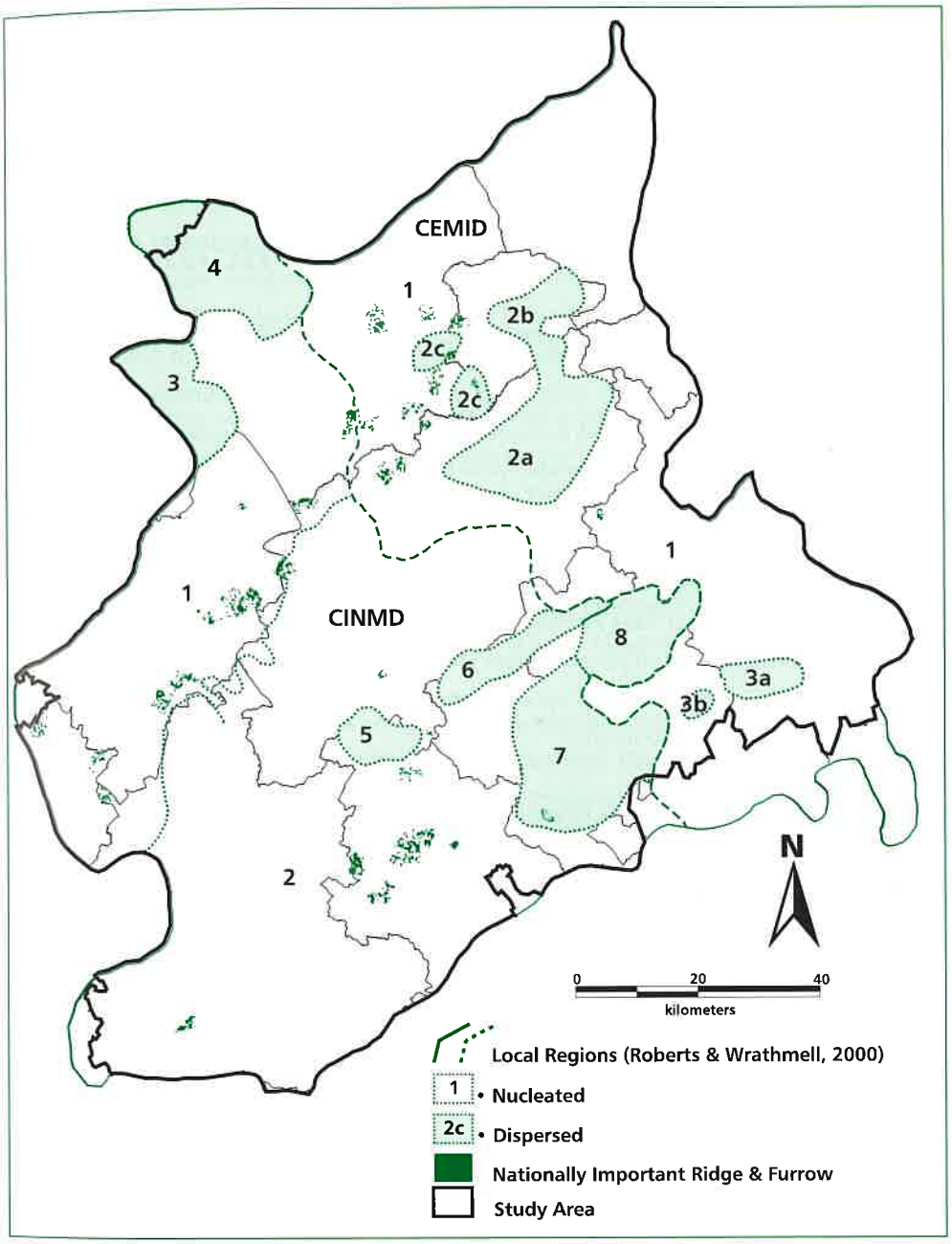

Figure 5: MPP settlement sub-Provinces and local regions in the study area

Ashby St Ledgers, Northamptonshire SP 564 682,

3: Objectives

Chastleton, Oxfordshire, SP 245 295 (CUCAP ZknHM 0145, 1999)

The overall objective of the project was to select 'priority townships' of nationally important examples suitable for preservation in order to restrict the use of conservation and management resource efforts. The selection was achieved by preparing a regional map of ridge and furrow surviving in the CEMID and CINMD regions, accompanied by information about its extent, context, and archaeological and historical importance. It should be made clear at this stage, that although the term 'open fields' is strictly an organisational and legal concept, in the area of the Midlands under consideration, lying east of Birmingham, fieldwork and documentary studies show conclusively that open field arable strips are precisely equatable with ridge and furrow, which can therefore be taken as the primary indicator, and the principal direct physical survival, of Midland Open Fields as defined by the MPP's MCD. It also is important not to confuse pre-enclosure ridges with 18th and 19th century straight ridges (both wide and narrow) ploughed within enclosed fields that have nothing to do with open fields and are not under consideration. The type of ridge and furrow studied here is typically a strip of 'wide-rig' 200m by 6-10m wide often slightly curved at the ends (formerly called a 'land'), and lies in blocks that were called furlongs.

The surviving ridge and furrow is related to its pre-enclosure land-use in so far as it could be reconstructed. It was also studied in the context of its township and for association with significant monuments, primarily the related village. The most important areas were assessed for their documentary potential. Lists were prepared, accompanied with maps of the priority townships, each example having a brief comment on the ridge and furrow, the presence of associated earthworks and the quality of available historical sources.

Four main areas of work were necessary:

(a) **General data collection over the area;**
(b) **Initial selection of potential sites;**
(c) **Site-specific data collection of significant sites;**
(d) **Final assessment of the priority sites.**

These are described fully in the next section.

4: Methodology of data collection

Acquisition of electronic data

4.1 Parish and township boundaries

Modern local authority civil parish boundaries were acquired electronically from digitised administrative boundaries available from the Ordnance Survey. The linear boundary data provided were converted to parish polygons by use of a programme made available in 1996. Polygons are necessary to link with a database consisting of parish names. The database allows numeric data to be transferred to the Geographical Information Systems (GIS). All data can then be presented in map form or printed as parish lists sorted in any order required.

Many modern civil parishes consist of more than one township and these have been identified and mapped for Northamptonshire. Elsewhere, modern Ordnance Survey civil parishes have been used. Some townships are shown on the Ordnance Survey First Edition 1:10,560 scale maps (1880s) and were used to prepare convenient county township maps by the English Place-Name Society (often called 'parishes'). Data from these latter maps were used manually, and not digitised, during ridge and furrow selection, since relatively few places were involved. Further information of township boundaries is available (Humphrey-Smith 1984; Kain and Oliver 1995).

There were still unknown township boundaries suspected in places that have more than one settlement in a parish. These were pursued for some of the civil parishes selected on the priority shortlist for full historical characterisation. Study of tithe and enclosure maps and the written documentation usually did (or could) establish the existence of two or more townships.

4.2 Scheduled Monuments (SMs)

The Records Department of English Heritage provided a database of SMs for each county containing simple basic information (SM number (old county or new national number), parish, site name, period and NGR). These data were made compatible with the GIS and added as a separate layer; the data set was as available on 30th November 1996.

Two lists of SM numbers were supplied; pre-MPP scheduling with old county numbering system, and MPP scheduling with the new five-figure national numbers. The last includes both newly scheduled sites and previously scheduled sites that have been reviewed. The two types were presented differently on the GIS maps.

Detail of Little Lawford, Warwickshire, SP 437 770 (CUCAP ZknHN 0183, 1999)

4.3 Medieval settlements identified by MPP

As a result of the MPP settlement study, Stuart Wrathmell has produced county lists of medieval settlement sites, selected to achieve a balanced national representation. These sites are undergoing further MPP assessment and, when appropriate, are recommended to the government for scheduling. The lists are on a database which was added as a layer to the GIS.

4.4 Further data manipulation

A programme was installed on the GIS to convert all of the mapped parameters into percentages of the township area (extents of ridge and furrow, alluvium, wood, urban development (ex-Ordnance Survey), and quarries (Northamptonshire only)). These, or any combination of them, can be printed out for each township, sorted into any desired order. The actual area of ridge and furrow was also made a required parameter (the percentage perhaps being a misleading item in very small townships).

Where wood or meadow occupied an appreciable proportion of a township, then the ridge and furrow survival would better be presented as a percentage of the original total arable area rather than the township area. The total arable is the township area less meadow, wood and vill. Corrected values were made on printed selection tables and in the gazetteer for the very few townships affected.

Data manually collected

4.5 Mapping of surviving ridge and furrow

The extent of surviving ridge and furrow was identified and mapped at the 1:25,000 scale from aerial photography (AP). A total regional plot was the only way to establish current survival and had the advantage of producing comprehensive regional base-line data that will have many uses for future management and planning control. A complete record was required because none of the county SMRs had a suitable record of current ridge and furrow survival.

The sources of information were the most recent complete vertical aerial surveys held by local authorities (Beds. 1996; Bucks. 1995; Cambs. 1988; Gloucs. 1993; Leics. 1991; Lincs. 1993-4; Northants. 1990; Oxford 1991; Warws. 1992-4). Most of the photographs were at the 1:10,000 scale.

Two levels of recording were felt necessary from the results of a preliminary plot of sheet SP 45, which straddles the Warwickshire-Northamptonshire border. The study showed the difficulties caused by photographs taken in late spring; crops and pasture fields have a similar shade of green and, with long vegetation photographed at midday, there are no shadows to emphasise ridge and furrow.

Care has to be taken to recognise and eliminate cropmark ridge and furrow. Fields confidently identified as earthwork ridge and furrow were outlined on the maps in green and those less certain in purple.

Rog Palmer mapped the AP data for all counties except Cambridgeshire, which had already been recorded. It was thought best to have one person record the whole area, as far as possible, to ensure consistency. All the mapped surviving areas of ridge and furrow were digitised onto the GIS. A report discussing the quality of the photographs, the use of a stereoscope and problems of interpretation has been submitted to the counties (by Rog Palmer). The use of photocopies of Ordnance maps causes displacement of some data. This can be rectified on the GIS for Northamptonshire which has a digitised Ordnance Survey (OS) base; the corrections can be made for other counties using their own OS digitised mapping.

From recent information for several townships where ridge and furrow is known to survive, it was apparent that the Palmer plots of 'certain' and 'less certain' examples were equally sound. That is, although the aerial photographs did not record all ridge and furrow clearly, most of that mapped was of good quality. It is likely that yet more will be added from ground survey which will be able to record very low-profile ancient ridge and furrow not visible on APs taken at an altitude of 1,500m. The two types were treated as a single database for all further work.

In discussion with county council archaeological staff, it was confirmed that some (probably only a low percentage) ridge and furrow had not been recorded. There was the possibility that (oblique) photographs in the county SMRs could be used to enhance the record. This was not pursued because only a random selection of sites would be involved and there was uncertainty whether the ridge and furrow still survived. The Palmer plots were therefore left unaltered, to maintain a uniform database.

4.6 Parliamentary enclosure dates added to the GIS database

Township enclosure dates were required to make a representative selection of ridge and furrow preserved at different times. As an approximation, it can be taken that the later an enclosure then the higher the profile of the ridges. Steep ridges are visually good, but examples of low-profile ridge and furrow in old enclosures are also needed in any samples selected for preservation.

Dates of Parliamentary enclosure are readily available from national published lists; parishes and townships missing from the lists are generally places that have earlier enclosure (but a few will be 18th or 19th century private agreements). Parliamentary enclosure dates were collected for the whole of the study area from the lists of Tate and Turner (1978). The dates were transferred to the GIS via the parish database. Figure 6 shows the regional distribution of Parliamentary enclosure. White areas are non-Parliamentary enclosures (mostly before c.1730).

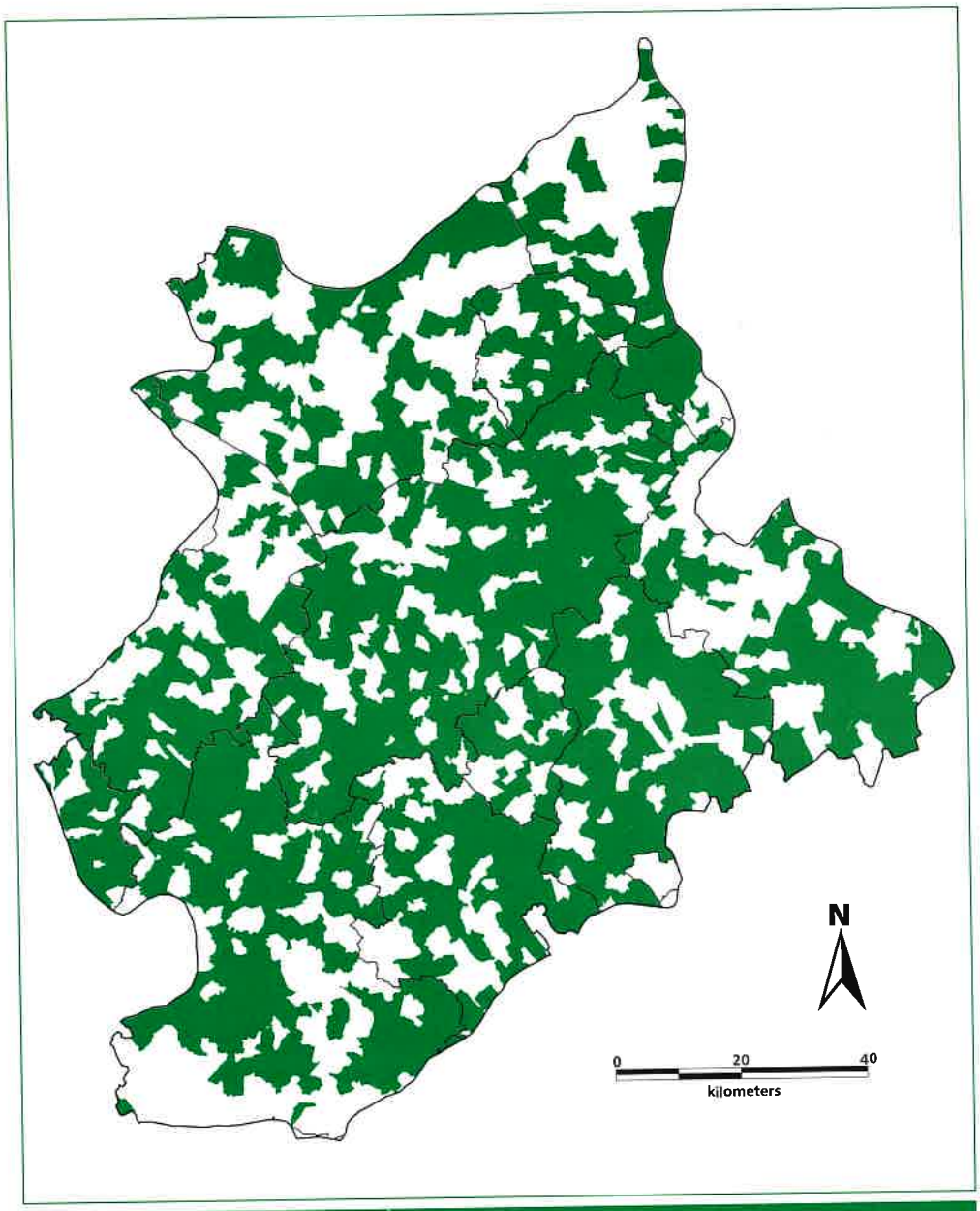

Figure 6: Parliamentary enclosure
From Tate and Turner 1978

No complete national or regional analysis of pre-Parliamentary enclosure has been published. The study area here is fairly uniform in terms of its Parliamentary enclosure history, and the earlier stages of enclosure are also likely to be similar regionally. It is therefore valid to take the published study of Northamptonshire as representative (Hall 1997), figure 7. Of the 390 townships in the historic county (pre-1964, including Peterborough) 64% were Parliamentary (1727-1901). The pre-Parliamentary enclosure profiles are:

15th century	3% (of 390),
16th century	13%,
17th century	15%,
1700-26	2%; a further 2% were enclosed privately after 1726.

See section 7.2 for the enclosure-date profile of the 43 priority townships.

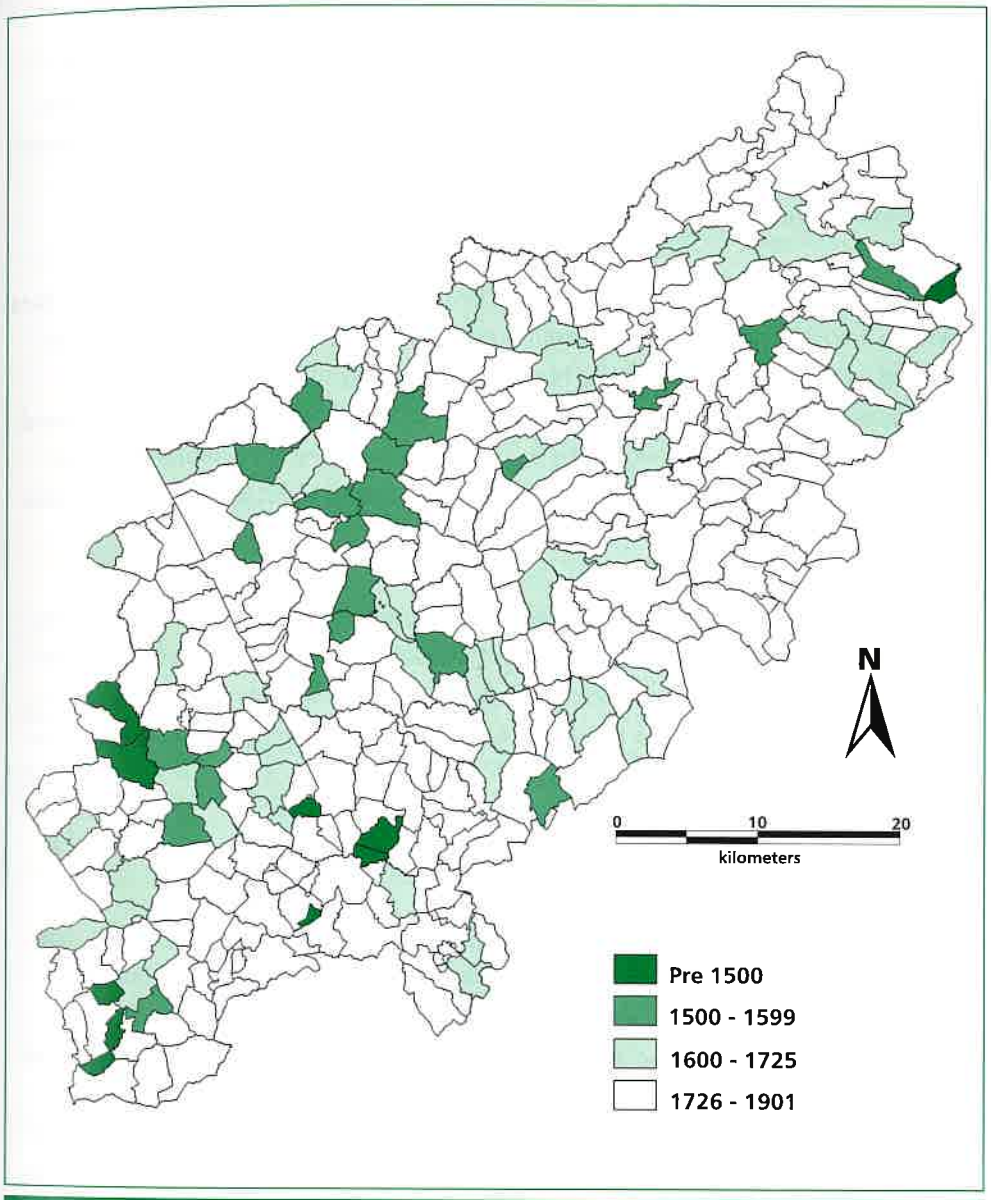

Figure 7: Northamptonshire enclosure dates grouped by century
From Hall 1997

4.7 Historic land-use

Ridge and furrow samples were to be selected from the main land-use types. That is, having some townships with high arable content and some with woodland etc. To provide the landscape background, a regional land-use map was prepared in terms of its main components of meadow, woodland and arable.

The most satisfactory information is available on large-scale parish enclosure, estate and tithe maps, mainly of 18th and early 19th century date. Some parts of the area have had data collected from these sources (Warwickshire, all the relevant part of Gloucestershire and some of North Oxfordshire (mapped at 1:50,000 by Della Hooke); much of Bedfordshire is similarly mapped by Steven Coleman).

However, the whole study area could not be covered in this kind of detail within the timescale of the present work.

Wood and heath

As an approximation, data for woodland were taken from the county one-inch series (produced by Greenwood and Bryant), which between them are complete for the area; they are dated 1823-7. Despite their late date, the maps record woodland that remained substantially unchanged since the Middle Ages. There will be omissions, since some deforestation occurred, for instance, during the Civil War, especially in royal parks.

The 1825 maps have the merit of being sufficiently accurate and detailed to transfer data rapidly to 1:50,000 maps. Care was taken not to include woodland in parks and linear belts that were associated with great houses and not likely to be of medieval origin. Inaccuracies will remain where large houses or parks are adjacent to medieval woodland, for it cannot be known what woodland has been planted in recent centuries (without fieldwork). The data on the 1:50,000 maps were transferred to 1:100,000 administrative Ordnance Survey maps.

Heaths did not occur extensively in the study area during the Middle Ages and are very difficult to map. Greenwood marks a few (in Oxfordshire), but most of them had been obliterated by enclosure before 1825. One of the largest heaths was Dunsmore, Warwickshire. Accurate data for heathland would require an extensive detailed study as has been made for Northamptonshire.

Meadow

By contrast it is a simple matter to map open field meadow. Fieldwork has shown that alluvium marked on British Geological Survey drift maps is usually exactly coterminous with the extent of open field flooding meadows. There are some exceptions; in a few cases ridge and furrow is found on alluvium, which must be older than the Middle Ages (at for example Hillmorton, Warws., Ludgershall and Shabbington, Bucks.). This was readily apparent during GIS interaction of data, when ridge and furrow was seen to lie on some of the upland 'alluvium'. This type of alluvium was omitted from consideration when selecting samples that were associated with meadow. A generalised alluvium plan was made on OS 1:100,000 Administrative Plans. Figure 8 shows the extent of woodland and meadow in the study area.

Landscape survival; urbanisation and quarrying

The degree of survival within a township also needs to be considered. As well as earthwork ridge and furrow, the adjacent modern arable land has research potential. Furlong boundaries can be mapped and details of many furrows will probably be available from aerial photographs. If the surrounding area is heavily urbanised or extensively quarried then there is little further research potential. It is therefore necessary to determine these two pieces of information as part of the selection process. Urbanisation data (the area built up) are available electronically from the Ordnance Survey.

Quarry data are held by the county SMRs or county minerals departments. Northamptonshire quarries are already mapped on the GIS; other counties will have to allow for quarries as part of the MPP discrimination scoring 'potential' value for any particular example.

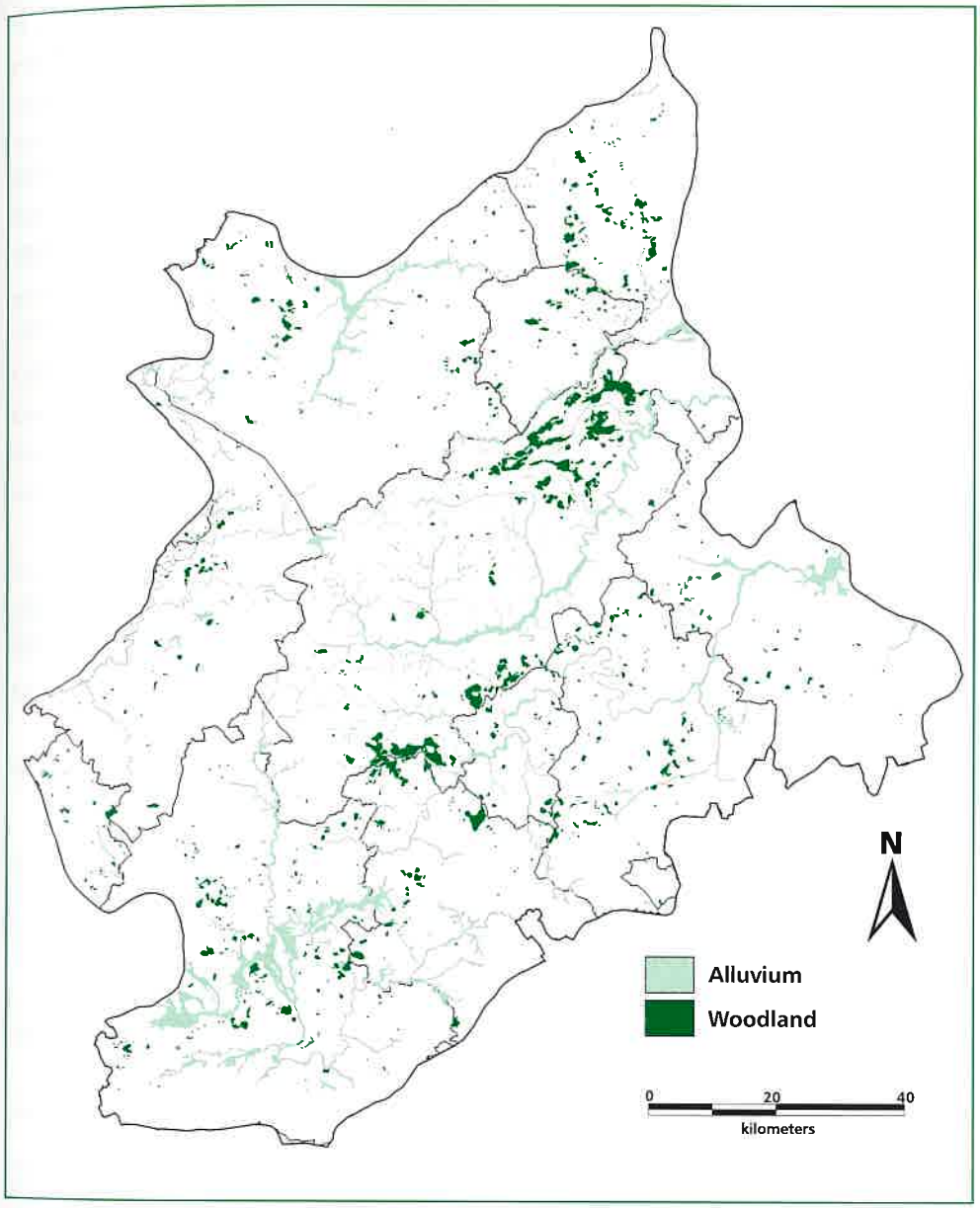

Figure 8: Distribution of woodland (c. 1825) and alluvium
From Greenwood's county maps and British Geological Survey mapping

Ashley, Northamptonshire, SP 795 910, February 1996

5: First shortlist preparation

The large amount of information collected was assembled for analysis on the GIS. A pilot was first run using the Northamptonshire data examined township by township. For each township, the boundary was fitted into the screen and within it were displayed the ridge and furrow, both types as one colour (green), alluvium (yellow), woodland (blue), SMs (red stars and triangles), and MPP settlement sites (black dots). A qualitative scoring was then made for each place jointly by Glenn Foard and David Hall. This took into account (qualitatively) the area of ridge and furrow, its consolidation or fragmentation, the association with MPP sites etc.

Enclosure dates were not used in the selection process at this stage. There was the possibility of interaction with the whole SMR which was done in a few instances, but was found unnecessary as a routine because the assessors were sufficiently familiar with each place to know if, say, there were important but unscheduled remains of abandoned medieval settlement adjacent to the ridge and furrow.

Each township in the whole county was scored on a four-point system. The scores were:

1. **Poor:** i.e. little or no ridge and furrow.
2. **Fair:** some ridge and furrow, with little association.
3. **Good:** fair quantity of ridge and furrow with vill and other associations.
4. **Outstanding:** a large area of ridge and furrow, usually with associations.

Although it was obvious on-screen when there was a large area of ridge and furrow, the assessors deliberately did not have the percentage figures available to prevent influencing the scoring. Samples of what were probably at the upper end of score 2 were occasionally assigned 3 to allow for associations or because there was special terrain value (e.g. Passenham, Northamptonshire, which is a rare example of ridge and furrow in a township that has both meadow and wood). Notes were made directly on-screen of any positive association or any devaluing item (like urbanisation reducing research potential).

A database table was then printed in order of decreasing percentage of surviving ridge and furrow along with all other data. Of particular interest was the percentage range of ridge and furrow that related to the assigned scores of 3 and 4. It was found that score 3 had the range 14-28% survival (16 townships) and score 4 fell in the range 22-49% (9).

The criteria and methodology for the other counties was then defined. It was felt that, since townships with the highest percentage of ridge and furrow were sought, no township with scores of 1 and 2 would be considered (partly because the survival is so low, and partly because the number of townships would be large and the process not selective). Other counties were each examined in turn on-screen as had been done for Northamptonshire, but only scoring townships with greater than 9% ridge and furrow survival (to ensure that all scores 3 and 4 would be found). At this first selection, maps and full tables of township data were printed for each county. They were sent to the officers of each county and to English Heritage for initial discussion.

A provisional township shortlist was made by selecting places with more than 18% total ridge and furrow survival, of which there were 104. Refinements were made to this first shortlist in several ways. Corrections were needed for the existence of unmapped townships. So where a modern civil parish that consisted of two townships had most of its ridge and furrow in just one township, then the correct percentage value for that township would be nearly double that of the civil parish. The percentages of survival for townships with meadow and woodland were also corrected in the few examples affected.

The initial shortlist was based on greatest survival of ridge and furrow without regard, in the first instance, to the Roberts and Wrathmell sub-Provinces and local regions. Most of the highest percentages fall in the large local regions of the study area, those with extreme settlement nucleation; that is, in CEMID 1 and CINMD 1 and 2.

Township samples were also required, in limited number, from some of the small local regions, even though most of them have less than 18% ridge and furrow survival. A second shortlist was prepared, selecting some of these local regions, the best of the MPP settlement sites, and places with woodland and meadow.

In all, 140 townships were involved in both shortlists.

Brixworth, Northamptonshire, SP 740 690, April 1974

6: Final assessment and shortlist

The provisional shortlists and maps were taken to each county archaeologist or SMR officer for discussion. Every township was jointly assessed, taking into account the degree of fragmentation of its ridge and furrow and, in particular, whether it was associated with village earthworks. The areas of earthworks were added to the ridge and furrow maps and later digitised. Any other relevant points were considered, like two Roman towns that are partly covered with ridge and furrow, giving important chronological value (Venonae and Alchester).

Record offices were visited and the documentation of all the places in the first shortlist briefly viewed in indexes and, occasionally, by production of an original map. For each township, references were found for maps, glebe terriers, deeds and estate papers.

A Gazetteer of all the places was made for each county, listing archaeological and historical data. It was referred back to the counties with recommendations for townships to be forwarded to the regional final list. The complete Gazetteer is presented in the online version of this report at www.northamptonshire.gov.uk/goto/openfields. It contains details of the 'best' (i.e. priority) townships in the first shortlist, those with more than 18% ridge and furrow. Places in the second shortlist are not named in this report, but they have been forwarded to each county; most of them will be dealt with as part of the MPP settlement programme where it is recommended that any significant ridge and furrow adjacent to village earthworks should be included in the preserved area.

A total of 43 townships lying in 40 civil parishes is detailed in the Gazetteer. Each is accompanied by a 1:25,000 map (in the online version) showing the whole township or parish and the surviving areas of ridge and furrow.

Ashby St Ledgers, Northamptonshire, SP 564 682, January 1979

7: Discussion and recommendations

7.1 The priority townships

The number of 'parishes' in the whole study area is 1,577. The total consists of modern OS civil parishes for all counties except Northamptonshire, counting each urban area as 'one'. Thus Wigston Magna is part of Leicester for this purpose and has not been counted in its own right. In Northamptonshire, townships have been used since they are mapped on the GIS. The number of parishes and townships so defined are distributed among the Roberts and Wrathmell local regions as shown in Table 1, below.

CEMID region	Parish or township number	CINMD Region	Parish or township number
1	483	1	253
2a	16	2	587
2b	47		
2c	9		
2c	7		
3a	10	3	18
3b	1		
		4	32
		5	18
		6	12
		7	64
		8	20
Totals	573		1004

Table 1: Distribution of parishes and townships among local MPP regions

The number of townships in the 1,577 places is not known. For historic Northamptonshire, there were 315 medieval parishes and 390 townships have been identified. A similar proportion is likely in the whole area, some of the civil parishes of Leicestershire and Warwickshire having as many as 4 or 5 vills in them. Thus, with the corrections for modern urban areas, a total of c.2000 townships is likely for the study area.

The detailed assessment of the 140 sites on the first selection led to a priority list of 43 townships lying in 40 modern civil parishes. These are arranged in various ways in Tables 2, 3 and 4 on the following three pages. Of the 40 parishes, 23 have more than one settlement, implying a maximum of 63 townships, but this has not been proved in all cases. Three of the 40 parishes have two townships selected for the present study. Only seven townships had more than 40% ridge and furrow survival. The total acreage of ridge and furrow (in c.1990) in the 43 townships was 18,879 (7,640 ha), but this includes many isolated fields not part of consolidated blocks. Sixteen of the townships had been previously identified as having important settlement remains in the MPP settlement analysis.

Place and Gazetteer reference	County	NGR	Easting	Northing	Local region	1990 R&F%	1990 area in acres	1999 R&F%	1999 area in acres	MPP sett.	Enclos. date	MPP score	Professional judgement correction	Final MPP score	Note: only the 1999 R&F has been added, MPP score needs update
Denchworth **10**	Oxon.	SU	321	925	CINMD2	39	306	53	428		1801	40	(-) ewk (-)disp	38	Better preserved than thought previously
Tysoe **37**	Warws.	SP	340	460	CINMD1	70	648	52	486		1796	40	(++%) (++) area	44	Serious loss for Lower Tysoe
Ludgershall **21**	Bucks.	SP	660	190	CINMD2	40	1090	42	1143		1777	40	(++) area	42	Survives
Warmington (Arlescote) **38**	Warws.	SP	385	490	CINMD1	41	253	41	250		1776	40	(-) hist (+) potential	40	Arlescote township survives
Ashendon (Pollicott) **1**	Bucks.	SP	705	130	CINMD2	52	492	40	378		1634	40	(+)% (+)hist	42	Loss
Marston, North **22**	Bucks.	SP	775	225	CINMD2	45	887	40	792		1778	25	(++) area	27	Some loss
Sutton Bassett **33**	Northants.	SP	770	900	CEMID1	49	365	39	287		1802	35	(+) meadow (+%)	37	Loss
Shuckburgh, Upper & Lower **31**	Warws.	SP	500	615	CINMD1	33	708	37	795	#	non P	40	(+) hist (+) area	42	Better preserved than thought previously
Belton in Rutland **2**	Leics.	SK	819	018	CEMID2c	36	367	35	356		1794	30		30	Survives
Little Lawford **19**	Warws.	SP	437	770	CINMD1	42	166	35	414	#	non P	32	(-) area (-) urban?	30	Some loss
Braunston in Rutland **4**	Leics.	SK	835	070	CEMID1	34	534	35	560		1801	35	(-) ewk (+) area	35	Survives
Creslow **9**	Bucks.	SP	815	215	CINMD2	37	328	33	285		1500	32	(+)%	33	Some loss
Hungarton (Quenby) **17**	Leics.	SK	695	060	CEMID1	39	482	32	400	#	non P	40	(+) ewks	41	Some loss
Easton Neston **12**	Northants.	SP	700	495	CINMD2	34	182	30	158	#	1499	40	(-) area (+) hist	40	Survives
Oxendon, Great **26**	Northants.	SP	730	835	CEMID1	29	391	28	382		1767	32	(+) area	33	Survives
Saddington **30**	Leics.	SP	650	920	CEMID1	37	646	27	480		1770	40	(-) hist	39	Loss
Braunston **3**	Northants.	SP	532	660	CINMD2	33	1071	27	867	#	1775	35	(-) disp (+) area	35	Survives
Hogshaw **16**	Bucks.	SP	750	220	CINMD2	25	306	26	310	#	1486	40		40	Survives
Lilbourne **20**	Northants.	SP	560	770	CINMD1	45	769	25	426	#	1671	35	(+) area	36	Serious loss
Gumley **13**	Leics.	SP	685	900	CEMID1	35	469	24	328	#	1772	35	(-) area	34	Loss
Radway **29**	Warws.	SP	370	475	CINMD1	22	320	23	334		1756	35		35	Survives
Quainton (Denham & Shipton) **28**	Bucks.	SP	745	210	CINMD2	26	700	23	600	#	non P	40	(+) hist (+) area	42	Some loss
Clipston & Nobold **7**	Northants.	SP	710	820	CEMID1	27	702	23	667	#	1776	35	(-) disp (+) area	35	Loss
Hallaton **14**	Leics.	SP	785	960	CEMID1	24	709	23	692		1770	35	(+) hist	36	Survives
Thorpe Langton **35**	Leics.	SP	740	928	CEMID1	29	301	22	232		1791	32	(-) area (-) ewk	32	Some loss
Chastleton **6**	Oxon.	SP	245	295	CINMD1	35	338	21	202	#	non P	40	(-) area	39	Loss
Clay Coton **8**	Northants.	SP	595	770	CINMD1	28	274	21	203		1672	40	(-) hist (-) disp	38	Loss
Weston Subedge **40**	Gloucs.	SP	130	410	CINMD1	19	422	21	300	#	1845	40		40	Some loss; value corrected for Norton
Napton on Hill **24**	Warws.	SP	468	605	CINMD1	21	842	21	842	#	1778	40	(+) area (+) hist	42	Some loss
Bythorn **5**	Cambs.	TL	058	755	CEMID1	24	285	20	242		1844	35	(-) disp	35	Loss, A14 bisection
Welham **39**	Leics.	SP	760	923	CEMID1	24	306	20	259		non P	35	(+) ewks	36	Loss
Stoke Dry **32**	Leics.	SP	857	965	CEMID2c	23	228	19	191		non P	32		32	Loss
Mowsley **23**	Leics.	SP	643	890	CINMD1	26	337	19	241		1788	35	(-) area	34	Loss
Dorton **11**	Bucks.	SP	680	130	CINMD2	33	533	19	285		non P	25	(+) area	26	Serious loss
Hockliffe **15**	Beds.	SP	966	270	CINMD7	19	240	18	231	#	non P	32	(-) area	31	Survives
Ladbroke **18**	Warws.	SP	421	584	CINMD1	20	393	18	352		1608	35	(+) area	36	Survives
Thornborough **34**	Bucks.	SP	737	338	CINMD2	22	536	18	440		1797	40	(+) hist	41	Loss
Owston **25**	Leics.	SK	777	075	CEMID1	17	332	17	342		non P	40	(-) area (+) wood	40	Survives
Todenham **36**	Gloucs.	SP	235	357	CINMD1	20	495	17	418	#	1777	40		40	Loss
Passenham **27**	Northants.	SP	780	395	CINMD2	15	126	9	109		1640	35	(+) hist (+) wood	37	Loss, but previous value included meadow
TOTAL							**18879**		**16707**						

Table 2: Priority townships in descending order of ridge and furrow

Place and Gazetteer reference	County	NGR	Easting	Northing	Local region	1990 R&F%	1990 area in acres	1999 R&F%	1999 area in acres	MPP sett.	Enclos. date	MPP score	Professional judgement correction	Final MPP score	Note: only the 1999 R&F has been added, MPP score needs update
Sutton Bassett **33**	Northants.	SP	770	900	CEMID1	49	365	39	287		1802	35	(+)meadow (+%)	37	Loss
Braunston in Rutland **4**	Leics.	SK	835	070	CEMID1	34	534	35	560		1801	35	(-)ewk (+)area	35	Survives
Hungarton (Quenby) **17**	Leics.	SK	695	060	CEMID1	39	482	32	400	#	non P	40	(+)ewks	41	Some loss
Oxendon, Great **26**	Northants.	SP	730	835	CEMID1	29	391	28	382		1767	32	(+)area	33	Survives
Saddington **30**	Leics.	SP	650	920	CEMID1	37	646	27	480		1770	40	(-)hist	39	Loss
Gumley **13**	Leics.	SP	685	900	CEMID1	35	469	24	328	#	1772	35	(-)area	34	Loss
Hallaton **14**	Leics.	SP	785	960	CEMID1	24	709	23	692		1770	35	(+)hist	36	Survives
Clipston & Nobold **7**	Northants.	SP	710	820	CEMID1	27	702	23	667	#	1776	35	(-)disp (+)area	35	Loss
Thorpe Langton **35**	Leics.	SP	740	928	CEMID1	29	301	22	232		1791	32	(-)area (-ewk)	32	Some loss
Bythorn **5**	Cambs.	TL	058	755	CEMID1	24	285	20	242		1844	35	(-)disp	35	Loss, A14 bisection
Welham **39**	Leics.	SP	760	923	CEMID1	24	306	20	259		non P	35	(+)ewks	36	Loss
Owston **25**	Leics.	SK	777	075	CEMID1	17	332	17	342		non P	40	(-)area (+)wood	40	Survives
Belton in Rutland **2**	Leics.	SK	819	018	CEMID2c	36	367	35	356		1794	30		30	Survives
Stoke Dry **32**	Leics.	SP	857	965	CEMID2c	23	228	19	191		non P	32		32	Loss
Tysoe **37**	Warws.	SP	340	460	CINMD1	70	648	52	486		1796	40	(++%) (++)area	44	Serious loss for Lower Tysoe
Warmington (Arlescote) **38**	Warws.	SP	385	490	CINMD1	41	253	41	250		1776	40	(-)hist (+)potential	40	Arlescote township survives
Shuckburgh, Upper & Lower **31**	Warws.	SP	500	615	CINMD1	33	708	37	795	#	non P	40	(+)hist (+)area	42	Better preserved than thought previously
Little Lawford **19**	Warws.	SP	437	770	CINMD1	42	166	35	414	#	non P	32	(-)area (-)urban?	30	Some loss
Lilbourne **20**	Northants.	SP	560	770	CINMD1	45	769	25	426	#	1671	35	(+)area	36	Serious loss
Radway **29**	Warws.	SP	370	475	CINMD1	22	320	23	334		1756	35		35	Survives
Weston Subedge **40**	Gloucs.	SP	130	410	CINMD1	19	422	21	300	#	1845	40		40	Some loss; value corrected for Norton
Clay Coton **8**	Northants.	SP	595	770	CINMD1	28	274	21	203		1672	40	(-)hist (-)disp	38	Loss
Chastelton **6**	Oxon.	SP	245	295	CINMD1	35	338	21	202		non P	40	(-)area	39	Loss
Napton on Hill **24**	Warws.	SP	468	605	CINMD1	21	842	21	842	#	1778	40	(+)area (+)hist	42	Some loss
Mowsley **23**	Leics.	SP	643	890	CINMD1	26	337	19	241		1788	35	(-)area	34	Loss
Ladbroke **18**	Warws.	SP	421	584	CINMD1	20	393	18	352		1608	35	(+)area	36	Survives
Todenham **36**	Gloucs.	SP	235	357	CINMD1	20	495	17	418	#	1777	40		40	Loss
Denchworth **10**	Oxon.	SU	321	925	CINMD2	39	306	53	428		1801	40	(-)ewk (-) disp	38	Better preserved than thought previously
Ludgershall **21**	Bucks.	SP	660	190	CINMD2	40	1090	42	1143		1777	40	(++) area	42	Survives
Ashendon (Pollicott) **1**	Bucks.	SP	705	130	CINMD2	52	492	40	378		1634	40	(+)% (+)hist	42	Loss
Marston, North **22**	Bucks.	SP	775	225	CINMD2	45	887	40	792		1778	25	(++)area	27	Some loss
Creslow **9**	Bucks.	SP	815	215	CINMD2	37	328	33	285		1500	32	(+)%	33	Some loss
Easton Neston **12**	Northants	SP	700	495	CINMD2	34	182	30	158	#	1499	40	(-)area (+)hist	40	Survives
Braunston **3**	Northants.	SP	532	660	CINMD2	33	1071	27	867	#	1775	35	(-)disp (+)area	35	Survives
Hogshaw **16**	Bucks.	SP	750	220	CINMD2	25	306	26	310	#	1486	40		40	Survives
Quainton (Denham & Shipton) **28**	Bucks.	SP	745	210	CINMD2	26	700	23	600	#	non P	40	(+)hist (+)area	42	Some loss
Dorton **11**	Bucks.	SP	680	130	CINMD2	33	533	19	285		non P	25	(+)area	26	Serious loss
Thornborough **34**	Bucks.	SP	737	338	CINMD2	22	536	18	440		1797	40	(+)hist	41	Loss
Passenham **27**	Northants.	SP	780	395	CINMD2	15	126	9	109		1640	35	(+)hist (+)wood	37	Loss, but previous value included meadow
Hockliffe **15**	Beds.	SP	966	270	CINMD7	19	240	18	231	#	non P	32	(-)area	31	Survives
TOTAL							**18879**		**16707**						

Table 3: Priority townships grouped by MPP local regions

Place and Gazetteer reference	County	NGR	Easting	Northing	Local region	1990 R&F%	1990 area in acres	1999 R&F%	1999 area in acres	MPP sett.	Enclos. date	MPP score	Professional judgement correction	Final MPP score	Note: only the 1999 R&F has been added, MPP score needs update
Hockliffe **15**	Beds.	SP	966	270	CINMD7	19	240	18	231	#	non P	32	(-)area	31	Survives
Ludgershall **21**	Bucks.	SP	660	190	CINMD2	40	1090	42	1143		1777	40	(++)area	42	Survives
Ashendon (Pollicott) **1**	Bucks.	SP	705	130	CINMD2	52	492	40	378		1634	40	(+)%(+)hist	42	Loss
Marston, North **22**	Bucks.	SP	775	225	CINMD2	45	887	40	792		1778	25	(++)area	27	Some loss
Creslow **9**	Bucks.	SP	815	215	CINMD2	37	328	33	285		1500	32	(+)%	33	Some loss
Hogshaw **16**	Bucks.	SP	750	220	CINMD2	25	306	26	310	#	1486	40		40	Survives
Quainton (Denham & Shipton) **28**	Bucks.	SP	745	210	CINMD2	26	700	23	600	#	non P	40	(+)hist (+) area	42	Some loss
Dorton **11**	Bucks.	SP	680	130	CINMD2	33	533	19	285		non P	25	(+)area	26	Serious loss
Thornborough **34**	Bucks.	SP	737	338	CINMD2	22	536	18	440		1797	40	(+)hist	41	Loss
Bythorn **5**	Cambs.	TL	058	755	CEMID1	24	285	20	242		1844	35	(-)disp	35	Loss, A14 bisection
Weston Subedge **40**	Gloucs.	SP	130	410	CINMD1	19	422	21	300	#	1845	40		40	Some loss; value corrected for Norton
Todenham **36**	Gloucs.	SP	235	357	CINMD1	20	495	17	418	#	1777	40		40	Loss
Braunston in Rutland **4**	Leics.	SK	835	070	CEMID1	34	534	35	560		1801	35	(-)ewk (+) area	35	Survives
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Mowsley **23**	Leics.	SP	643	890	CINMD1	26	337	19	241		1788	35	(-)area	34	Loss
Owston **25**	Leics.	SK	777	075	CEMID1	17	332	17	342		non P	40	(-)area (+) wood	40	Survives
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Braunston **3**	Northants.	SP	532	660	CINMD2	33	1071	27	867	#	1775	35	(-)disp (+) area	35	Survives
Lilbourne **20**	Northants.	SP	560	770	CINMD1	45	769	25	426	#	1671	35	(+)area	36	Serious loss
Clipston & Nobold **7**	Northants.	SP	710	820	CEMID1	27	702	23	667	#	1776	35	(-)disp (+)area	35	Loss
Clay Coton **8**	Northants.	SP	595	770	CINMD1	28	274	21	203		1672	40	(-)hist (-)disp	38	Loss
Passenham **27**	Northants.	SP	780	395	CINMD2	15	126	9	109		1640	35	(+)hist (+)wood	37	Loss, but previous value included meadow
Denchworth **10**	Oxon.	SU	321	925	CINMD2	39	306	53	428		1801	40	(-)ewk (-)disp	38	Better preserved than thought previously
Chastelton **6**	Oxon.	SP	245	295	CINMD1	35	338	21	202	#	non P	40	(-)area	39	Loss
Tysoe **37**	Warws.	SP	340	460	CINMD1	70	648	52	486		1796	40	(++%) (++)area	44	Serious loss for Lower Tysoe
Warmington (Arlescote) **38**	Warws.	SP	385	490	CINMD1	41	253	41	250		1776	40	(-)hist (+)potential	40	Arlescote township survives
Shuckburgh, Upper & Lower **31**	Warws.	SP	500	615	CINMD1	33	708	37	795	#	non P	40	(+)hist (+)area	42	Better preserved than thought previously
Little Lawford **19**	Warws.	SP	437	770	CINMD1	42	166	35	414	#	non P	32	(-)area (-)urban?	30	Some loss
Radway **29**	Warws.	SP	370	475	CINMD1	22	320	23	334		1756	35		35	Survives
Napton on Hill **24**	Warws.	SP	468	605	CINMD1	21	842	21	842	#	1778	40	(+)area (+)hist	42	Some loss
Ladbroke **18**	Warws.	SP	421	584	CINMD1	20	393	18	352		1608	35	(+)area	36	Survives
TOTAL							**18879**		**16707**						

Table 4: Priority townships arranged by county

The final three columns of Table 2 deal with MPP scoring following the Midland open field MCD. There are seven items used in the discrimination scoring procedure: Group Value (association), Survival, Potential, Documentation (archaeological), Documentation (historical), Diversity and Amenity Value. The last two cannot be assessed without a site visit but the others have been valued from the data assembled, the details appearing in the Gazetteer. The five items are all on a three-point system, i.e. with maxima of three, so when squared and summed, the maximum score is 45. The values are listed in Table 2 for each site. They are further corrected under the column 'professional judgement', points being taken off if the area involved is small, or the ridge and furrow dispersed, etc. The final score is shown in the last column; it is only a temporary score and will differ from the score determined after site visits by MPP officers.

The significance of the best townships cannot be over-emphasised. That only 43 townships can be identified as having high survival (and even this means less than 40% in most cases) out of 2,000 in the area is itself an important measure of significance. In addition there are probably few or none better elsewhere in England. Very little ridge and furrow survives in continental Europe and preservation of good English examples is urgent from a European perspective. One or two of the sites should perhaps be proposed for World Heritage sites because they represent the best examples of an agricultural system that dominated Northern Europe for a thousand years. Figure 9 shows locations of the 43 townships selected. The conservation options for these sites are discussed below in section 7.3.

"The significance of the best townships cannot be over-emphasised ... one or two of the sites should perhaps be proposed for World Heritage sites."

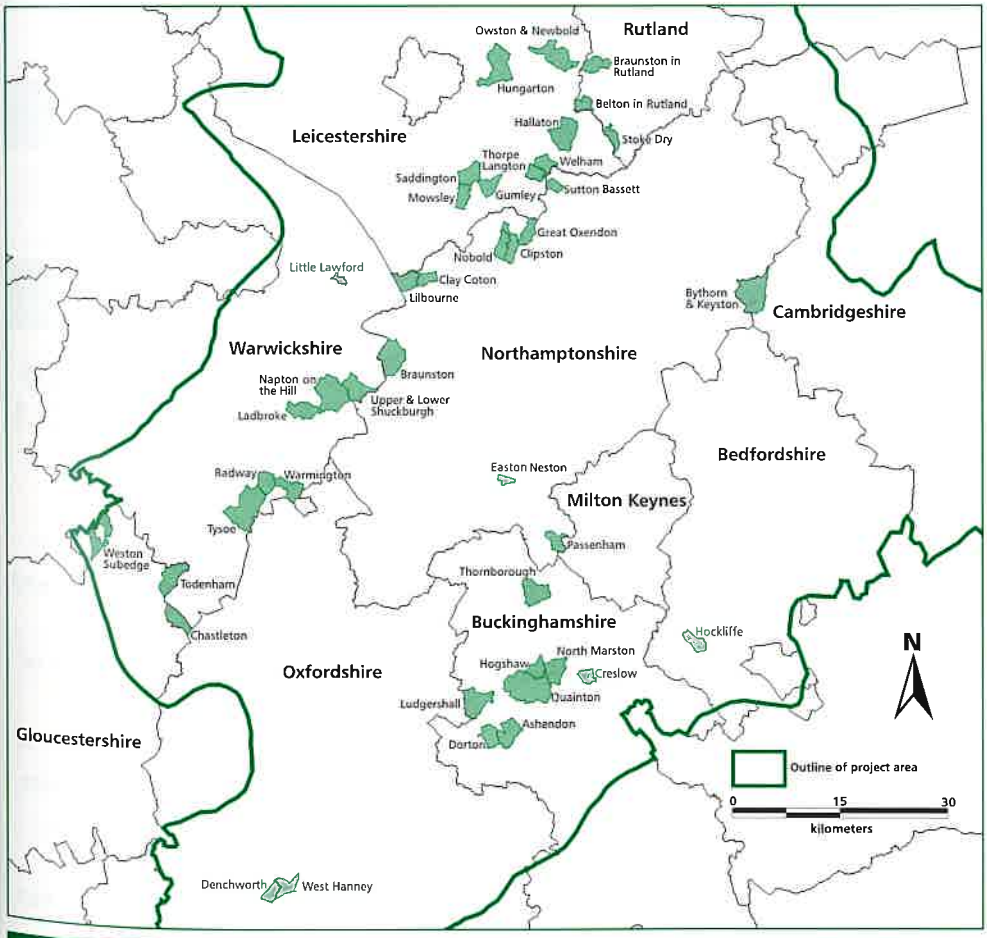


Figure 9: Location of priority townships

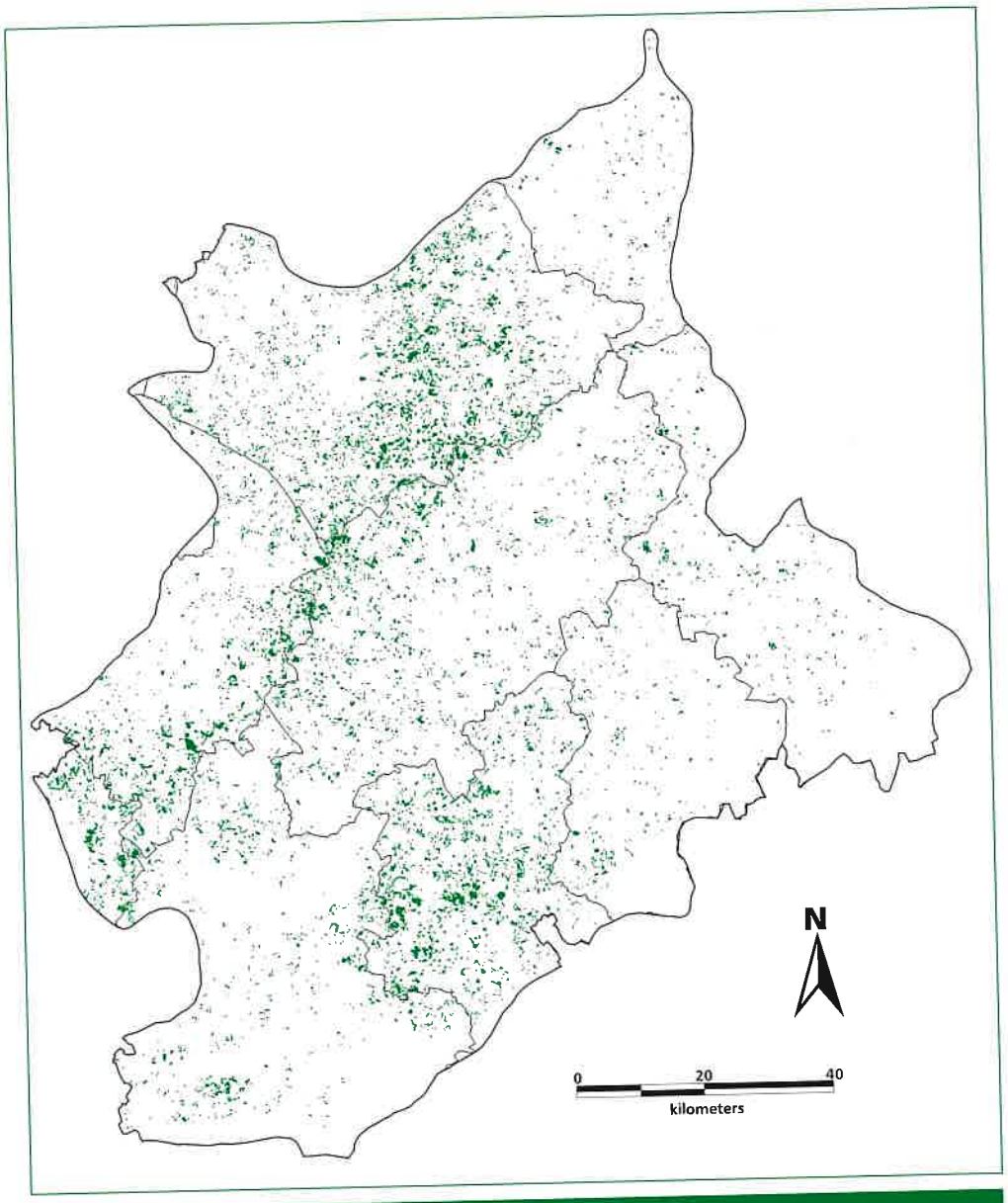


Figure 10: Ridge and furrow distribution c. 1990

7.2 Survival of ridge and furrow in priority townships lying in the large local regions (CEMID 1, CINMD 1 and 2)

Figure 10 shows the regional distribution of surviving ridge and furrow; the west having by far the most. It is extensive on the scarp between Northamptonshire and Warwickshire and Leicestershire, as well as in central Leicestershire and central Buckinghamshire. Although Leicestershire has the most ridge and furrow, much of it is fragmented or has few associated village earthworks. It should also be remembered that not all of this ridge and furrow survived in 1998 (the date of the project); some is known to have been ploughed since the aerial photographs were taken and destruction continues. Comparison of the relevant parts of Figure 10 with the maps published by Mead and his co-workers for Buckinghamshire, Cambridgeshire and Warwickshire showing ridge and furrow distribution in c.1947, demonstrates the immense destruction that has occurred during the last 50 years, principally due to ploughing and conversion of pasture to arable (Mead 1954,

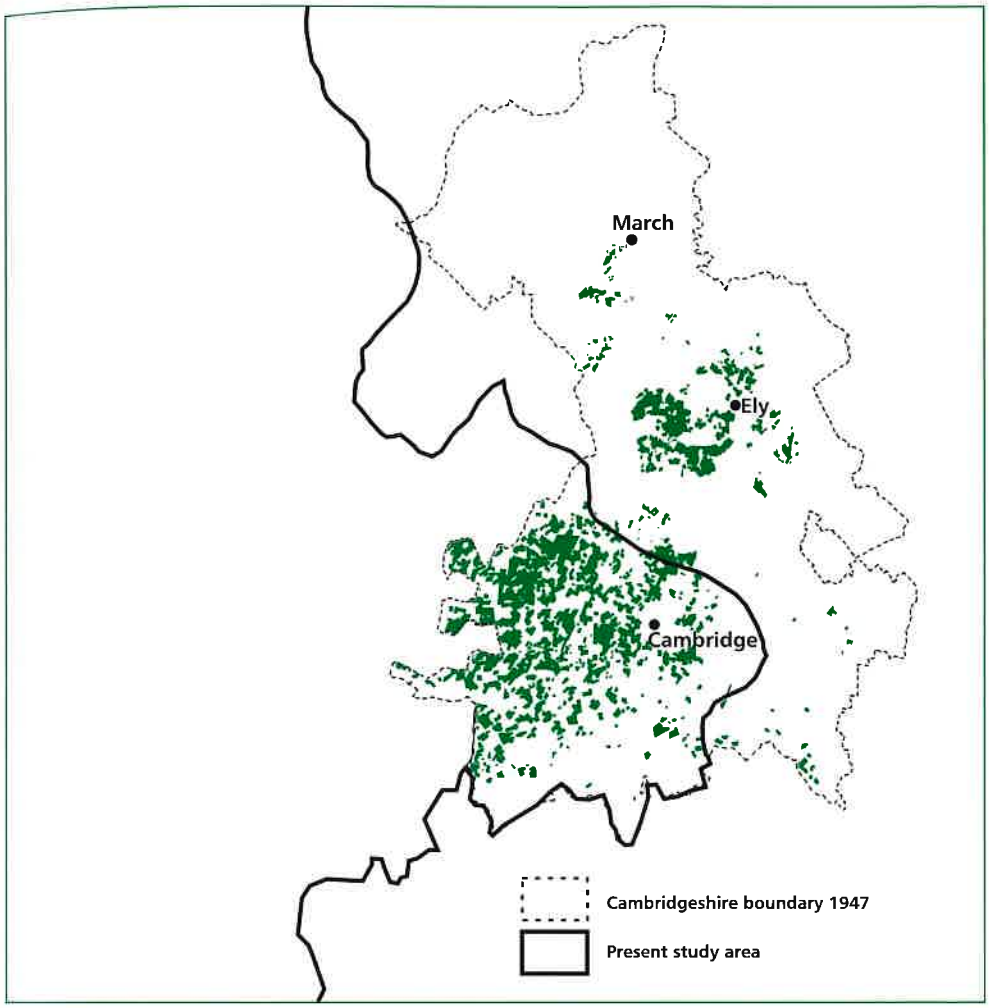


Figure 11: Cambridgeshire ridge and furrow in 1947
From Kain and Mead 1977

Harrison et al 1956, Kain and Mead 1977). The Cambridgeshire area published by Kain and Mead is shown in Figure 11 for comparison.

All except three of the priority townships (Belton in Rutland, Stoke Dry and Hockliffe) lie in the Roberts' local regions of extreme nucleation CEMID 1 (Soar Valley and Nene Plateau) 14 townships, CINMD 1 (Stour-Avon-Soar Clay Vales) 14 townships, and CINMD 2 (South Midlands) 13 townships. These three local regions comprise about 80% of the whole area and are therefore satisfactorily sampled. The provincial boundary between these sub-Provinces CEMID and CINMD, as suggested by the early 19th-century data, has been difficult to demonstrate in terms of field systems from the Northamptonshire studies. Further work on the priority townships may help establish its nature.

In the 43 samples selected there are relatively few with exceptionally large blocks of compact ridge and furrow. Among the largest are Ludgershall, North Marston and the Quainton townships, Bucks., Hungarton, Leics., Lower Tysoe and Shuckburgh, Warws. Only Lower Tysoe, Warws., has anywhere near a complete township survival among the large areas. Smaller townships have a high percentage survival, such as Pollicott in Ashendon, Bucks. and Sutton Bassett, Northants. Other townships with high overall totals, Braunston, Napton, Lilbourne and Hallaton, have a more fragmented survival.

The remaining townships have various merits as given in the Gazetteer, some associated with well preserved medieval settlement earthwork remains, or with good documentation. Many are likely to have more documents than indicated, especially if they have Oxford College ownership. It is difficult to get the full scope of open field records from general County Record Office indexes, they often being biased towards the records relating to the gentry, social and parish matters.

Parliamentary enclosure occurred in 23 townships or 53% of the sample. Most pre-Parliamentary enclosures are likely to be early. Of the 20 priority sites with non-Parliamentary enclosures, 10 are currently dated, of which 2 are late 15th century, 2 are 16th, and 6 are 17th century. There is therefore a good range of ridge and furrow dates from both types of enclosure. Open field maps are known for only 3 townships and a field book for only one. Several recommended places have copious medieval and later estate records.

All the townships in the Gazetteer have unusually large areas or high percentages of ridge and furrow and an attempt should be made to preserve the best. The data given provide some of the information required for MPP assessment according to the MCD. More detail will be required from SMRs to complete individual scores and, in particular, site visits need to be made.

7.3 Options for conservation

"Ridge and furrow owes its survival to a particular type of agricultural land-use, and positive support for its continuance might be more effective than restrictive controls inhibiting change."

7.3.1 Designation as scheduled monuments (i.e. scheduling and the resultant application of central government regulation of land-use through scheduled monument consent controls) of the ridge and furrow remains of open field systems appears at first glance to be the most obvious instrument of protection. It has to be recognised, however, that the application of SMC controls to large areas of agricultural land has its problems, not least a risk that it might inhibit rural regeneration. Ridge and furrow owes its survival to a particular type of agricultural land-use, and positive support for its continuance might be more effective than restrictive controls inhibiting change. Practical rural conservation requires us to manage a living, changing landscape, rather than only to protect static monuments.

7.3.2 Some areas are already in Countryside Stewardship schemes, managed by MAFF, and although useful, such schemes are in some cases only holding operations, as agreements can be dissolved and the schemes are only operational for 10 years. A recent development has been that, after 10 years duration, schemes can be further extended for another decade. More funds have been made available and more landowners are showing interest.

However, the inability of such schemes to preserve all the surviving remains of a well preserved field system can be seen from the assessment of the conservation initiatives taken by Northamptonshire Heritage since 1994, using as a basis the townships recommended for conservation in Hall 1993. The potential for the Stewardship scheme in this aspect of historic landscape management was recognised by the Countryside Commission, and ridge and furrow was included

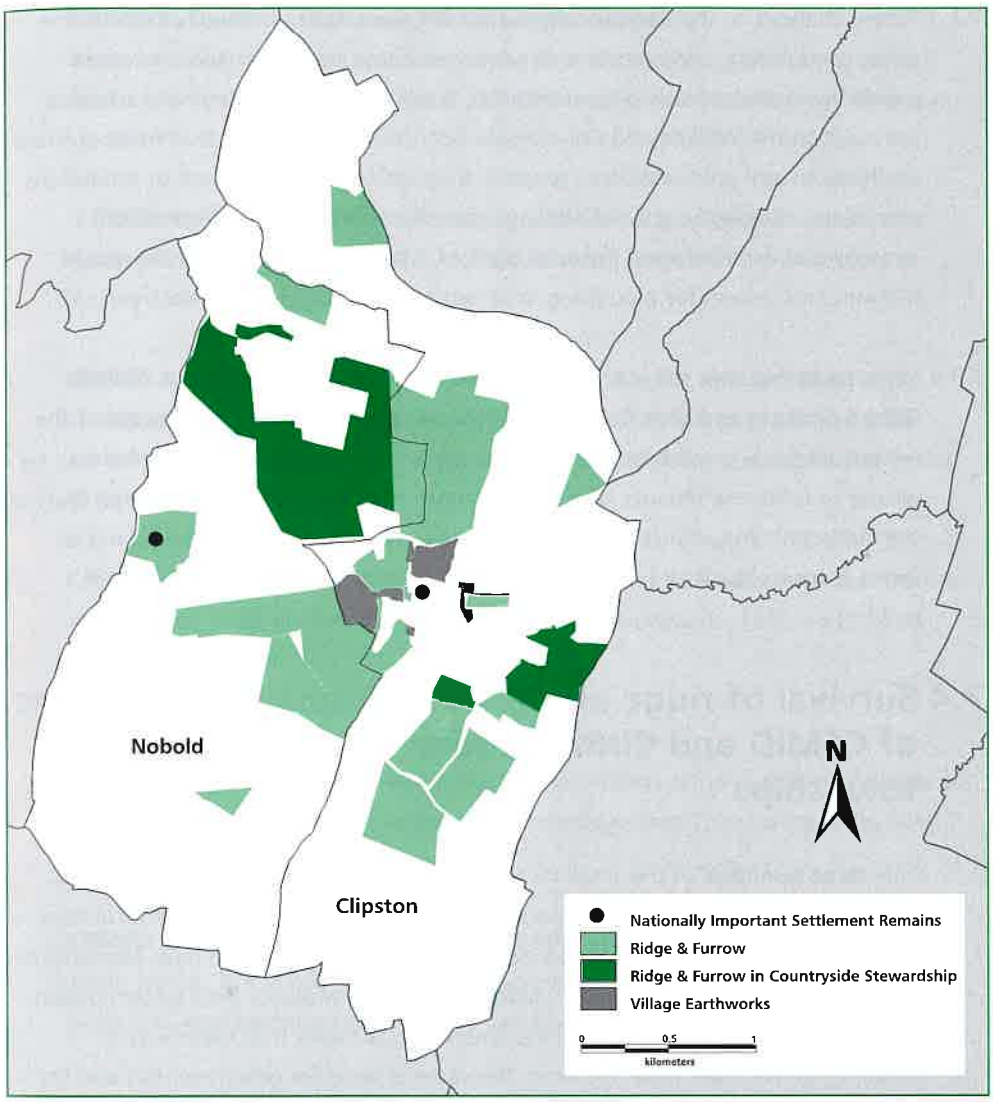


Figure 12: Surviving ridge and furrow in stewardship at Clipston
From Northamptonshire Heritage

from 1994 as a target for the scheme in the region. A proactive approach was then taken, working through a range of land agents, encouraging landowners to put forward land in the selected townships into the scheme. The limited success of such an approach can be seen at Clipston, Northants., a parish containing the additional township of Nobold, both of which are in the priority 43 townships. After six years, the amount of land within stewardship, although considerable, falls far short of including all the ridge and furrow (figure 12). The difficulty is that initiative has to come from farmers and if any particular one is not interested, then nothing can be done and large areas of the field system continue to have no protection from destruction by cultivation. In some townships identified in the 1993 report, such as Great Oxendon and Lilbourne, despite this intensive proactive approach, areas of ridge and furrow have been levelled since 1993. The experience over six years in Northamptonshire would suggest that, without the primary protection offered by scheduling, there is no effective way of securing the long term conservation of all of the remaining areas of ridge and furrow in any particular township. The various grant schemes are valuable, but only as a complement to, not an alternative for, the use of statutory protection through scheduling. Until this problem is resolved, the Stewardship Scheme cannot be a satisfactory alternative to scheduling.

"without the primary protection offered by scheduling ... there is no effective way of securing the long-term conservation of the remaining areas of ridge and furrow"

7.3.3 Future changes to the Common Agricultural Policy might, eventually, direct some European funding into retention of permanent pasture. This would operate in parallel with environmental requirements, Biodiversity Action Plans and schemes pursuant to the Wildlife and Countryside Act 1981. It is stressed that none of these methods ensure preservation at present; they are only enhancement or temporary procedures. Currently, only scheduling is an effective long-term preservation strategy and even here the financial costs of, for example, refusal of Scheduled Monument Consent for ploughing, may not be politically sustainable.

7.3.4 Some townships are still in the hands of family or institutional estates (such as Oxford Colleges and Eton College), and the owners should be made aware of the historic interest. It will be easier to negotiate with a single landowner who may be willing to influence tenants. Another approach may be to alert the National Trust of the landscape importance of ridge and furrow, with a view to purchase land as farms come up for sale.

7.4 Survival of ridge and furrow in small local regions of CEMID and CINMD and alluviated & wooded townships

Only three examples of the small local regions are represented in the priority list. Lower levels of ridge and furrow survival were considered, as the small local regions were of interest and should not be overlooked. Nearly all of them have elements of dispersed settlement and most are associated with woodland. Field system details are only known in Northamptonshire, where it was found that there was a tendency for multiple fields to occur. The same is likely for other counties and there may be several townships in a parish.

CEMID 2a and 2b: Rockingham Forest and Rutland

Only low percentages of ridge and furrow survive (4-17%). This is a woody area; 35 of the 54 townships in Northamptonshire have more than 9%, compared with the 100 townships in the three large local regions, of which only 7 have >2% and most 0% wood. The best place in this local region is Warkton, Northants., with 17% ridge and furrow, and excellent documentation including open field maps, a field book, medieval charters etc (not in the Gazetteer because it falls below the 19% threshold and has reduced potential because of quarrying).

CEMID 2c: High Leicestershire

This area lies in two separate small regions; 22 parishes, of which 9 have >2% wood. Of the 5 with >18% ridge and furrow, only Belton in Rutland, 36%, and Stoke Dry, 23%, are in the priority list.

CEMID 3a and 3b, in Beds. and Cambs.

The maximum ridge and furrow survival is 4%; none of these sites can be recommended and SM enhancement is not possible either, as none of them has an MPP settlement site.

CINMD 3, North-east Warwickshire (Anker Slope)

None has over 18% ridge and furrow; the best are Burbage, Leics. 11%, Shilton, Warws. 11%, Higham on Hill, Leics. 12%, Caldecote, Warws. 13%, and Witherley, Leics. 16%.

CINMD 4, Charnwood Forest and Swadlincote, North-west Leics.

Some places have woodland; the highest surviving ridge and furrow occurs at Anstey 10% and Ratby 11%.

CINMD 5, Newport Pagnell-Bedford Hills, in Bucks. and Northants.

A very woody region. In all, there are 18 townships, 7 having more than 20% wood. Foscott, Bucks. has 21% ridge and furrow and 7% wood (but is not in the priority list).

CINMD 6, Salcey Forest & Yardley Chase, in Bucks., Beds., and Northants.

A woodland area; the best townships are Horton, Northants. 12%, and Clifton Reynes, Bucks. 13%.

CINMD 7, Ousel-Ouse Divide, in Beds. and Bucks.

Rather woody; all the Bedfordshire highest percentage ridge and furrow places are in this local region, Hockliffe appearing in the Gazetteer. The recently scheduled Potsgrove has 11% ridge and furrow.

CINMD 8, Thurleigh Low Plateau, in Beds. and Cambs.

Fairly woody, but almost no ridge and furrow survives. The best two are Renhold, Beds. 6%, and Southhoe and Midloe, Cambs. 4%.

Since few of the places in the small local regions have much ridge and furrow, it is not suggested that any of them receive attention at this stage, outside the MPP settlement programme. This programme is assessing nationally important medieval settlement sites in order to suggest appropriate management approaches. Where this involves scheduling, it will be possible to incorporate significant areas of well-preserved ridge and furrow, if in clear relationship to the settlement site, to be included in scheduled areas. Such an approach is likely to be utilised in other areas of the country which do not possess extensive survival of ridge and furrow.

Meadow

Townships with appreciable meadow (measured by alluviation) and good ridge and furrow survival are not common. Only 13 places above 18% ridge and furrow have significant alluvium ranging from 16-42%. However, several of these have pre-medieval alluvium, and only 4 with open field alluvium are in the Gazetteer; Little Lawford, Warws., 16% alluvium, Weston by Welland, 31%, Easton Neston, 17%, and Ashley 21%, all in Northants. Passenham, Northants., has only 10% ridge and furrow and 14% alluvium, but it also had woodland (20%) which, with correction, raises the ridge and furrow to 15%.

Woodland

Only Foscott, Bucks. had high ridge and furrow and more than 5% wood (but not selected as a priority). The best two in the Gazetteer are Weston Subedge, Gloucs. (17% ridge and furrow (19% corrected), 9% wood) and Owston and Newbold, Leics. (15% ridge and furrow (18% corrected), 10% wood). Passenham has been added from the meadow selection, above.

7.5 Low levels of ridge and furrow survival

Lower levels of ridge and furrow survival have not been considered in detail in this regional project but it is essential that significant areas are added to sites that become SMs. The exact area of ridge and furrow is recorded on the 1:25,000 scale maps used for this project.

Many of the MPP settlement sites lie next to ridge and furrow, often where the total survival does not merit a place in the Gazetteer. Such fields should normally be added to any scheduled area that is created, because ridge and furrow provides an important aspect of the setting of the monument and also represents an essential context. There is high potential, shown for example by research in the Raunds Area Project, for Saxon antecedent settlements to extend beyond the medieval earthworks. Most of the MPP sites are abandoned medieval settlements that had early enclosure and so all the ridge and furrow is significant as a sample of 'old', and often genuine, medieval ridges. MPP officers can check that the mapping is correct and that ridge and furrow survives when completing the scoring process.

Moderately large areas of ridge and furrow, not in the Gazetteer, lie in the parks of great houses, as at Elton and Croxton, Cambs. These could be regarded as 'safe' and not under agricultural threat, but this is not always the case. There will also be some protection, or at least knowledge of their importance to owners and planning authorities, via the English Heritage Registered Parks and Gardens Scheme, recently under revision. The owners should be made aware of the importance of the ridge and furrow (and any settlement remains), and planning authorities need to ensure that public car parks or entertainment areas avoid archaeological areas. Often the country house will have good documentation, as at Burghley, Peterborough, which has a field book of 1410 and much other material.

At the bottom of the ridge and furrow survival scale, where there is only a single or a few fields left, it may be possible to alert parish councils and trusts to the historical interest. This has happened at Molesworth, Cambs., where a field within the village envelope with ridge and furrow and earthworks has been purchased as a parish public area. Curatorial advice has been given to ensure that car parks and sports grounds avoid sensitive areas. These sites can often be of great local value.

Left outside of the above classes, are those places not in parks with moderately large areas of ridge and furrow. Some of these should be considered for preservation by record, although fragmented pieces away from villages and without

any other association cannot justify such action. Significant areas that lie in an unusually large block (Stewkley, Bucks.), or next to earthworks could be added as constraints to planning control maps and dealt with, when threatened, by the funding available from PPG16 procedures. It may be possible to move a destructive activity to another site, or take the opportunity to make detailed recording by survey and photography before destruction. This latter has been done for ridge and furrow, dated 1499, at Easton Neston, Northants., by RCHM(E).

7.6 Survey requirement

The possibility of an appreciable amount of survey should be considered, since there is likely to be a survey requirement for most of the places listed in the Gazetteer. Few of them will be preserved by scheduling for various reasons. Plans therefore need to be made for extensive recording.

Criteria for survey may need to be established for some sites not in the Gazetteer, that is, those with low amounts of ridge and furrow. They will include such items as the quality and setting of related village earthworks, the quality of associated features (such as an historic park), the quality of documentation (especially the survival of an open field map or fieldbook) and the research potential of the surrounding landscape.

Clipston, Northamptonshire. SP 710 820 (CUCAP Zkn HM 0216, 1999)

7.7 Recommendations for action

a: The project described in this report has demonstrated that ridge and furrow is now an increasingly rare survival in the East Midlands. Measures to protect what survives are urgently needed.

b: Preservation needs the support and co-operation of land owners and farmers whose sympathetic management is essential to the future survival of ridge and furrow. Possible measures to be pursued might be through Historic Park registration, National Trust purchase, or Countryside Stewardship, as well as the primary strategy of scheduling. Until any of these methods are in place and become effective as permanent preservation measures, sites are at risk of destruction.

c: The scope for scheduling areas of ridge and furrow needs to be examined further; notwithstanding the difficulties inherent in such an approach, scheduling currently offers the most certain method of preservation.

d: Other MPP village sites whose associated field systems may not be in the Gazetteer (which is aimed at the large sites) should have adjacent ridge and furrow included where they have good documentation or there are other considerations, such as the possibility of Saxon remains lying underneath (as explained more fully in the MCD).

e: The remainder of the 43 townships not scheduled need 'preservation by record', that is, detailed planning and photographic recording. This is necessary because the sites have no protection from agricultural ploughing; PPG16 procedures can be used to pay for recording development sites, but agriculture remains the main threat.

f: Some sites not in the Gazetteer, or in the MPP settlement lists with low overall ridge and furrow survival, need preservation by record. These will normally be those that have outstanding historical records, including an open field map or fieldbook. Only one of the sites in the Gazetteer is known to have a fieldbook.

In conclusion, some action is imperative, or ploughing and other destruction will continue and none of the large sites will survive.

8: The priority sites in a national context

8.1 National survival of ridge and furrow

The 43 examples of ridge and furrow selected above represent the best survival in the East Midlands, that is, the Central Province Sub-Provinces CEMID and CINMD. In order to assess how these samples relate to national survival and to discover whether there may be any similar large samples of ridge and furrow, a rapid 'desk-top' survey was made.

Figure 10 (page 36) was sent to all the county archaeologists in England seeking information about the approximate level of survival according the following scheme:

1: None or little, i.e. 0-4%.
2: A moderate amount, i.e. 5-19%.
3: A substantial amount, i.e. greater than 20% of what was there.

The replies were mostly a subjective view, few counties having much up to date quantitative information. The data probably lie too much on the high side in many cases. Some of the information was gathered over the telephone or was returned in a format differing from the questions asked. All the data have been reduced to paper as best possible, but perhaps introducing further subjectivity.

The results are shown in figure 13 on the next page. No allowance has been made for differences between lowland and upland. For instance, there is an area of high percentage of ridge and furrow survival in some upland areas, but the actual amount in hectares may be much less than in some of the best lowland townships since not more than, say, half the area of an upland township will ever have been ploughed.

Outside of the Midland area already studied, there may be significant amounts of ridge and furrow in parts of Derbyshire, Northumberland and Nottinghamshire, although these have only been indicated as a 'moderate amount' on the national map. These, and smaller pockets of ridge and furrow surviving elsewhere, may be dealt with as adjuncts to the MPP settlement-scheduling programmes. According to figure 13, it seems that the Midland region already studied contains most of the best nationally surviving examples.

8.2 Survival of ridge and furrow in the 43 samples in 1999

Before considering which samples might be further studied, it was necessary to confirm that they continued to survive in good condition. In early 1999, a small project was commissioned to take vertical aerial photographs of all 43 townships at the 1:10,000 scale (undertaken by Cambridge University Committee for Aerial

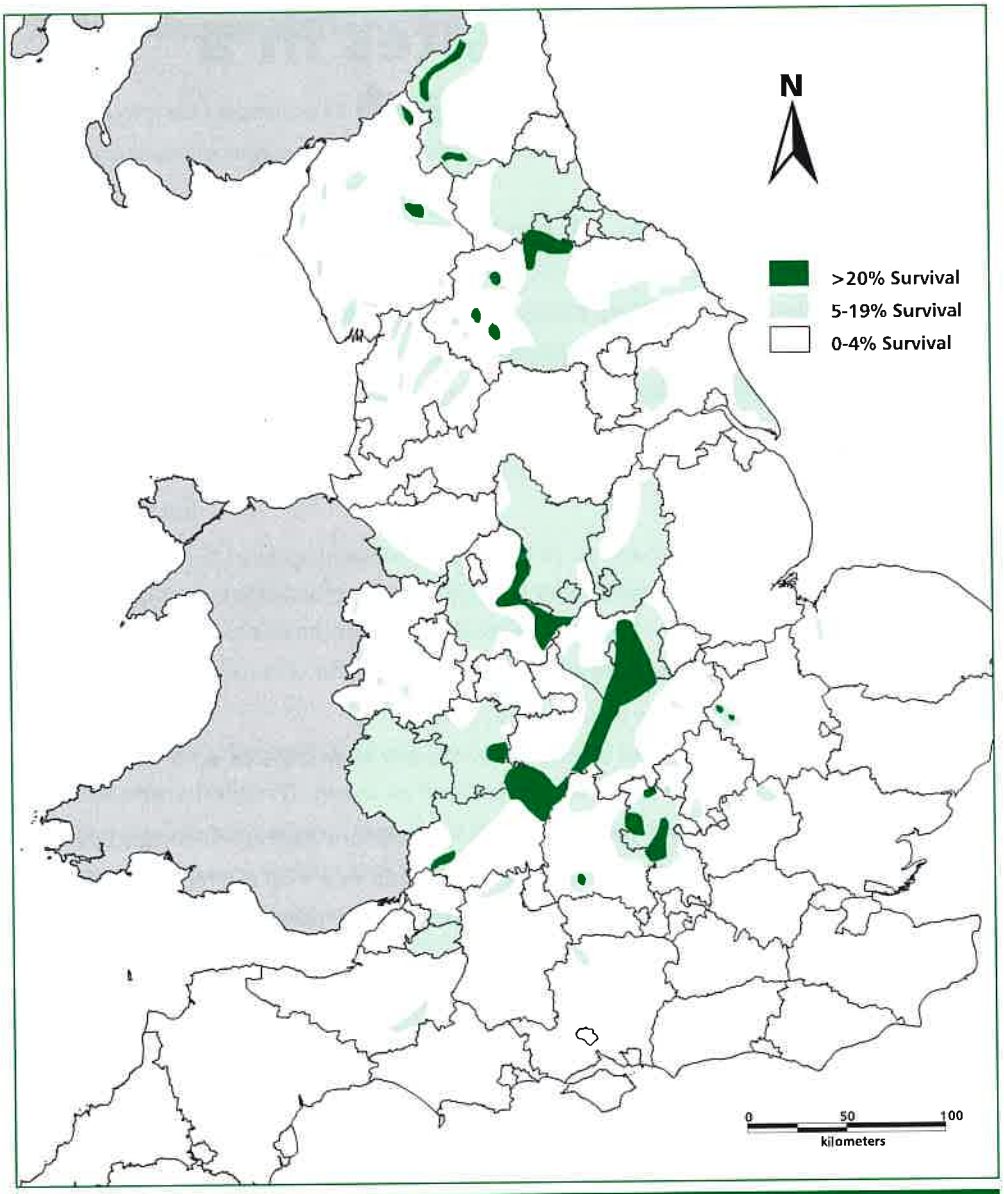


Figure 13: Survival of ridge and furrow in England, 1998
Based on data supplied by county SMR officers

Photography - CUCAP). Winter flying ensured that good quality photographs were obtained and the results were plotted at the 1:10,000 scale and digitised.

It was found that three townships (Denchworth and the Shuckburghs) were better preserved than previously thought. Some townships survived unchanged from their previous record, many had loss of ridge and furrow and two of those formerly among the best (Lilbourne and Lower Tysoe) had serious loss. Overall, the total amount of recorded ridge and furrow in the 43 townships fell from 18,879 acres (7,640 ha) in c.1990 to 16,707 (6,761 ha) in 1999. This loss highlights the continued vulnerability of the monument class.

The 1999 values of ridge and furrow area and percentage of survival have been added to the Gazetteer, and the partial MPP scores recalculated accordingly. Township maps show both the c.1990 and 1999 ridge and furrow extent. Tables 2-4 have incorporated the 1999 results and are ordered according to the 1999 values, to provide up to date summary statements.

Appendix 1:
Monument Class Description for Midland ridge and furrow

1: Introduction

This Appendix summarises previous work used and undertaken for the main report and to develop a Monument Class Description for Midland open fields.

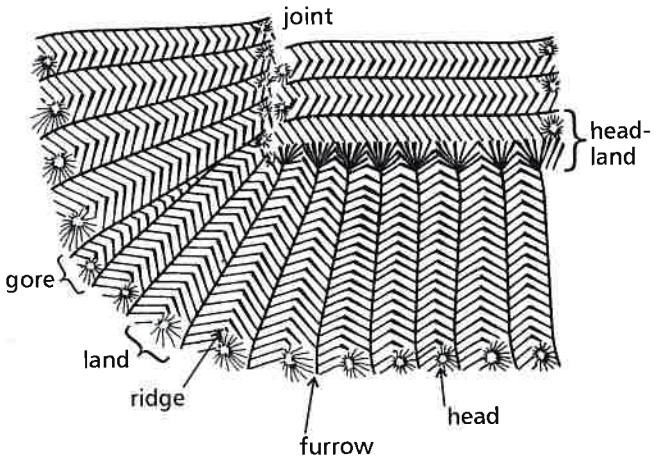
As explained in the introduction to the text above, Northamptonshire Heritage commissioned a report in 1993 that highlighted destruction rates in Northamptonshire. The physical remains and documentary sources available for the study of open fields were described, and the significance of open fields as a monument class was discussed along with the 1993 state of survival. It was found that in 1990 there was only about 12% of the ridge and furrow that had survived in 1940. Criteria for sample selection were discussed and lists of sites given, based on rapid assessment and professional judgement, of those parts of the county where the best examples of ridge and furrow with good historical records and research potential were preserved. Recommendations were given for recording field systems and a summary of the action required for Northamptonshire and elsewhere was presented (Hall 1993).

Following the Northamptonshire Heritage report, English Heritage commissioned an MPP pilot study of Northamptonshire. The study determined parameters suitable for MPP monument classification in the Midland part of the Central Province. Methodologies were developed and the parameters useful for classification were established. A Monument Class Description for Midland open fields was prepared as a result of this study. A summary of the report and the Monument Class Description (MCD) are given below.

2: Chief characteristics of Midland open fields

Arable

The wide open expanse of arable was subdivided into many small, narrow strips called **lands**, that were grouped into blocks called **furlongs**. The furlongs were grouped into a few large areas called **fields**, which were open and hedgeless. The fields occupied most of the available area and were often cultivated in a two- or three-year rotation, one year being fallow. There were common grazing rights over the fallow at certain times. In the Middle Ages a farm, called a **yardland**, consisted of about 25 acres (10 ha) of land (but the amount varied greatly from village to village), lying not in a block, but scattered in strips throughout the township, no two strips lying together.



Schematic plan of parts of two furlongs

A headland, Castle Ashby, Northamptonshire, SP 869 604, March 1970

Individual strips were probably first marked out as a quarter or half an acre, but later often had average dimensions of about 7m by 180m, which is near to a third of an acre. Lands became ridged by the ploughing technique of going around in a clockwise motion, beginning at the middle and finishing at the outside leaving a furrow. An anti-clockwise motion was adopted in the fallow season to take some of the soil back and maintain a low ridge. The purpose of ridging was for soil drainage; the furrow acted as an open drain and also as an ownership demarcation between lands.

The ends of most lands are curved, so that the whole land took the shape of a very elongated, mirror-image of an **'S'**. This seems to have developed over the years, resulting from a tendency to draw out to the left when performing a turning circle to the right (Eyre 1955).

Meadow, pasture and woodland

Although the arable lands of the open fields were the most dominant part of the system, meadow and pasture were economically important too. Meadow, like the arable, was owned in narrow strips and was used for common grazing; part was marked out into strips with stakes and cut for hay before being used for common grazing. Meadow strips are not visible on the ground because they were unploughed and no ridges or furrows developed to leave a physical record. Subsections of the meadows were subdivided by stone markers.

A joint, Great Houghton, Northamptonshire, SP 793 595, 1985

Pasture was unploughable grassy ground lying by the side of springs and small upland valleys and on steep slopes. It also included woodland pasture, unploughed grounds lying next to and among medieval forests. After the 14th century, pasture included leys (arable lands grassed down) and larger pieces of arable converted to common, the cow pastures.

Woodland was a limited resource in many parts of the Midlands, but was often part of the overall economy of those townships where it occurred, and some of it was subject to common grazing rights as well as being used for woodland products. There are townships that had woodland adjacent, those that shared wood, and those that had their own wood lying detached at some distance. Nearly all townships located near to medieval woods had tongues of land reaching to them so as to obtain a share of the resources.

The physical remains

Regular ploughing of strips in a repetitive manner gave rise to characteristic groups of ridged lands, the furlongs. The pattern of furlongs varies. On gentle slopes furlongs can be well over a kilometre long, made up of hundreds of lands lying side by side. In contrast, high undulating ground can have very complex patterns of small furlongs, with lands orientated in many directions. Lands became visibly ridged by the 13th century and the height of the ridges increased with time, lands ploughed until the 18th and 19th centuries having the most pronounced profiles. It seems from the comments of contemporary authors (Plot 1705, 244-5), that it was fashionable to plough lands into high ridges to create a well-drained seed bed. The steepness has nothing to do with any technical developments of ploughs.

A balk (the narrow strip in centre of photograph), Wollaston, Northamptonshire, SP 901 633, January 1970

As well as moving soil towards the centre of the land, ploughing moved some earth in the direction of motion, towards the ends. It was left when the plough was lifted to turn, and over the years small soil heaps accumulated at each end, lying on the left-hand side as viewed from the centre. They were called **heads** and were first noted in records of the 13th century. Where two furlongs had lands meeting at right angles the heads of all the lands in one furlong were piled on the first land of the next. The heads were ploughed over and smoothed becoming part of the first land, which was called the **headland**. Headlands are larger than the adjacent lands because of the extra soil moved

onto them. Where two furlongs have lands lying in the same orientation, the boundary is marked by a double row of heads, forming an irregular 'knuckle-like' bank. This, too, lies higher than the tops of the nearby ridges because of soil transfer; the boundary was properly called a **joint**, but the term headland was also used.

Narrow strips of grass, sometimes used as access routes, were called **balks** and were formed by ploughing a few furrows away from a particular land, leaving them to grass over. Balks are commonly recorded during the 15th century and later, but there are occasional references to them in field orders of the 14th century (Hall 1995, 23-6). They were used to mark out particularly significant groups of lands, such as blocks of demesne (the manorial home farm), or major subdivisions of the fields.

From the 15th century, arable was converted to grass in various ways. In some cases parts of furlongs, or even whole furlongs, were set down, and called leys. Leys are not always immediately obvious in a modern field, because all the grassed strips are technically 'leys'. Provided a sufficiently large area survives, it is possible to identify leys as blocks of ridges of lower profile than the rest, because ploughing ceased before the most of the township was enclosed.

By the 17th century many places introduced balks between every land, the width of the balk being proportional to the width of the land. This type of balk was referred to as **greensward** or green furrows. Another late introduction of grass was by foreshortening lengths of arable lands against a headland or joint. Instead of ploughing the full length of a land, several metres were left at the end, which would rapidly grass over. Many references to **grass ends** can be found in court orders from the 16th century. When all the headlands and joints were treated in this manner, the net result was that every furlong became surrounded by a band of grass.

Small grass areas called **rick places** occurred in some open fields. They were used as platforms for stacks or ricks, and were formed at the end of a group of lands by flattening the ridges. The original course of the furrows may be discernible within the square. At the edge away from the furlong boundary the foreshortened lands developed new heads.

Grass ends (humps in centre of photograph), Ashby St Ledgers, Northamptonshire, SP 564 682, January 1979

A rick place (in centre of photograph), Brixworth, Northamptonshire, SP 741 689, April 1974

Green furrows, Crimscote, Warwickshire (from Orwin and Orwin 1938, plate 11)

3: Monument Characterisation and Monument Class Description

3.1 Characterisation criteria

Each Single Monument Class is scored on four criteria which are designed to help define its importance in terms of its contribution to an understanding of the country's history (Class Importance Value, CIV). The CIV takes account of the field structure and the regional variation of field systems as well as their physical attributes. The criteria and scores for the physical characteristics of Midland dispersed fields are as follows:

Period (currency): Long-lived. Midland fields are believed to originate at the end of the Middle Saxon period, say in the 9th century. They continued in many areas well into the 19th century. Since the fields were continuously used and modified none of them can be said to date from the late Saxon period. Nevertheless, the fields as a whole have a great antiquity and furlongs did not change much in general layout after the 12th century. It is believed that furlongs were created by subdividing a simple system of long strips. This will now only be apparent where large blocks of furlongs lie in an axial alignment. Enclosure and removal of lands from the arable system has preserved examples of all dates from the 13th century.

Rarity: Fairly common but threatened. Fields are now a diminishing monument type. Although abundant in 1940, with many Midland townships having more than 60% of undisturbed fields surviving as pasture ridge and furrow within enclosed landscapes, there has been much destruction, especially by ploughing during 1965-75. Many parts of the region had only a single field left in 1995, but some have significantly more.

Enclosure of a particular township preserved fields in the form then in operation. Substantial examples of fields enclosed in the 15th century are rare; there were not many Midland enclosures of that date and there has been a long time for later agricultural techniques to obliterate ridges. Later enclosures are more common, the most frequent being those of the 18th century.

Diversity (form): High. Physical diversities occur in several ways. Regions with undulating topography have small furlongs and lands change direction frequently to maintain natural drainage across the contours. In flatter landscapes, furlongs are large and lie with lands lying in the same orientation.

From the 15th century, there are features left by modifying the open field economy to encompass more grass: leys, cow pasture, grass ends, green furrows and balks. Superimposed upon these overall variations are features preserved when an example was enclosed: hedges, ditches, ponds etc.

Period (representativity): Moderate to good. Enclosure has preserved examples of whole townships as they were from the 15th to 19th centuries. Smaller areas of 12th to 14th century open field were preserved by smaller scale enclosures, made for parks or demesnes.

Assigning numerical values (squared) to the preceding four items, a CIV of 43 results, being near two-thirds of the maximum score (64). This high value illustrates the importance and longevity of fields as a monument class.

3.2 Sources of information

Part of Muscott field book, 1433 (Northamptonshire Record Office, Th 183)

Information sources vary from county to county. Some SMRs are fairly complete with ridge and furrow sketch-plotted from vertical APs taken during the 1940s and later. Most SMRs have access to APs even if little quantitative data have been plotted. None has a full record of what survives in a whole county at any particular date. For the East Midland counties of the Central Province described in this report, the digitised database provides a plot of ridge and furrow extant in c.1990 (section 4.5).

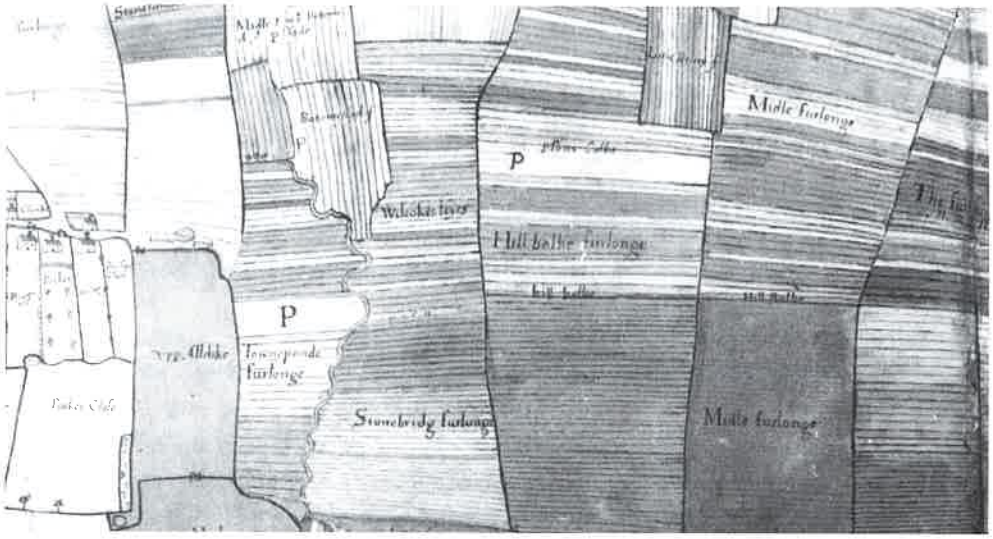
Most township boundaries are recorded on the Ordnance Survey First Edition 1:10560 scale maps (1880s) and were used to prepare county township maps by the English Place-Name Society (often called 'parishes'). Tithe apportionments, made in the 1840s and 1850s, were often processed by the township and hence the accompanying maps provide boundary information (Kain and Oliver 1995). Further information of township boundaries is available from Humphrey-Smith (1984). County Record Offices hold information on enclosure dates but there may be difficulties with pre-Parliamentary enclosures. Parliamentary enclosure dates can be obtained from Tate and Turner (1978).

A range of historical information survives relating to the operation and ownership of the fields (more detail is given in Hall 1985, 1-7). In summary, the most useful are complete surveys of a township describing every field, furlong strip by strip, called a field book. Other types of records, such as charters and deeds, describe individual farms (yardlands) or smaller dispersed holdings within a township. The description is called a terrier and usually refers to every land, naming the furlongs and fields.

For Midland counties, where enclosure was late, descriptions of glebe, the land given to the church of each parish, is a particularly useful source. Most parishes had glebe land and nearly all have a series of terriers made from the early 17th century until 1851.

For parishes without glebe, or where glebe terriers are uninformative, other sources have to be sought. County Record Office place-name indexes will give references to deeds of sale (5% of which are likely to have a terrier) and hold detailed lists and calendars of family collections. These can be used to select documents likely to provide field information. Data for the Middle Ages are frequently found in charters and monastic cartularies.

Contemporary open field maps are an important source of open field data, but their coverage is far from complete. However, when only the great field numbers are required, enclosure maps are also useful, since many of them indicate the boundaries and names of the great open fields at the time of their obliteration.



Strixton, Northamptonshire, SP 90 61. Part of the 1583 open field map (courtesy of the late W. W. S. Gibbard)

3.3 Monument Class Description

Discrimination criteria

Each example of a field requires evaluation to distinguish sites of national importance from those of regional or local importance only. The discrimination criteria determine Monument Importance Value (MIV). The MIV of open fields is primarily determined by physical attributes, although selection of a sample will be followed by structural and land-use matters. The discrimination criteria are as follows:

Group Value (Association)

The importance of a field system is enhanced by association with archaeological features (including other Monuments) which lie within the township. The group value derives from diachronic relationships with nearby monuments. Thus fields may be seen to post-date a prehistoric ringwork, to overlie cropmarks of a Roman town, or to predate a windmill mound that was constructed over them.

By far the most important related monuments are the earthworks of all or part of the parent settlement of the field system. When fields and earthworks lie together, highly significant physical relationships can be seen between them. The ridges abut and interlock with the banks of individual house plots or the larger boundary ditches of a manor-house. A settlement often encroached on its open fields by means of enclosures. Enclosures can survive as hedges or hedge banks surrounding ridge and furrow of lower profile than that used until total enclosure. A variety of other related features may be present. Roads and access routes to the fields can sometimes be seen as hollow ways, or there may be a quarry or the mound of a windmill, located in an exposed position. Occasionally there may be an isolated church shared between two settlements and surrounded by ridge and furrow.

A sample of ridge and furrow lying away from the settlement will also be enhanced by the presence of any of the above items. Two or more well preserved townships in proximity will also have group value. The range of scores is:

1. **Low:** with a single monument or feature (excluding the settlement), or none at all.
2. **Medium:** two or three associated features, (excluding the settlement).
3. **High:** settlement earthworks and any other feature associated with the fields.

Survival

The extent of a field system is a major part of its importance. A single modern field with ridge and furrow is normally of limited significance unless there are particularly rare features, or unless it lies next to a settlement.

Ideally a whole township is required so that all details can be studied. The average size of a Northamptonshire township is 550 ha, but many are smaller (down to 100 ha), the average being high because there are many 1200 ha townships. No single whole township of intact fields survives. The range of scores is:

1. **Poor:**	field systems extending to less than 0-10% of the township and/or having some post-enclosure plough damage.
2. **Medium:**	field systems extending to 11-18% and/or having some post-enclosure plough damage.
3. **Good:**	field systems extending to more than 18% of the township with no later plough damage.

The surviving ridge and furrow should be expressed as a percentage of the original field system rather than that of the township. For those townships with significant amounts of wood, meadow, fen or heath, corrections may be necessary.

Potential

The potential of surviving ridge and furrow normally lies with its extent, physical detail, historical documentation and relationship to the settlement as outlined above.

The condition of ridge and furrow should be very high, i.e. it has never been ploughed since it ceased to be part of an open field system, normally when it was enclosed. Ridge and furrow that has been ploughed just once or twice may still be considered worthy of preservation, especially where it forms part of a large extent of undisturbed fields and so completes the visual pattern. A single ploughing would usually leave the main features, primarily the ridges and furlong boundaries, still plainly visible.

In order to assess ridge and furrow condition, it is essential to view it when grazed low. This enables distinction to be made between ridges that have slight ploughing-reduced profile from those that have low-profile because they are very old. It is also necessary to eliminate post-enclosure ridges, both wide and narrow, that have no relevance to the open fields, being merely a later agricultural technique.

There may be hidden potential in that field systems overlie earlier Saxon antecedents of the settlement. Such sites will not normally be identifiable, but known sites are often on the edge of a medieval settlement, or on light soil near to a water supply. Fields in such locations have enhanced potential. There is also archaeological potential provided by the proximity of ponds or marshy places where waterlogged remains may preserve environmental evidence about the crops grown etc. Similar evidence is preserved in soils buried beneath the turf of the ridges.

The creation of Midland checker-board furlong patterns from early long strips by subdivision, and in some cases re-ploughing at right angles, can be tested. Excavation would determine whether furrows continue under joints or lie under some furlongs at right angles to the furrows apparent on the surface. Where several furlongs have ridges lying in a similar orientation, the precise alignment of the lands can be measured. There is also potential for sites of any age preserved under ridge and furrow, for although furrows will have cut into occupation levels, the shallow soil under the ridges will preserve archaeological levels much better than a modern ploughed field.

A township with significant amounts of urban area or quarrying has less potential than an unspoilt rural one: in undisturbed townships there is potential for reconstructing the furlong pattern for those areas under modern ploughing. The scores are:

1. Low: divorced from wet features and not lying on light soil. Has a significant proportion of urbanisation and quarrying.

2. Medium: lies on light soil or has wet features adjacent; remainder of the township is intact.

3. High: lies next to settlement earthworks, preferably with nearby wet features and light soil and the remainder of the township intact.

Documentation (archaeological)

The most important elements of archaeological documentation are aerial photographs, both vertical and oblique, and plans. If there are old photographs, then it is possible to relate the surviving amount to the earlier extent.

Photographs, taken under good light conditions (preferably on a winter's day with low, bright sunlight), should show fine detail and be good enough to allow features to be plotted. Photographs are important because they often record ridge and furrow in old enclosures that are not mapped on post-medieval estate maps.

Plans should, as a minimum, be sketch-plots of furlong boundaries at the 1:10,000 scale

Grendon, Northamptonshire, SP 875 604, February 1988

with the direction and curvature of the strips marked. Ideally all fields should have large scale plans (1:2,500 or larger) showing details of furrow curvature, balks etc, accompanied by levelled profiles. The range of scores is:

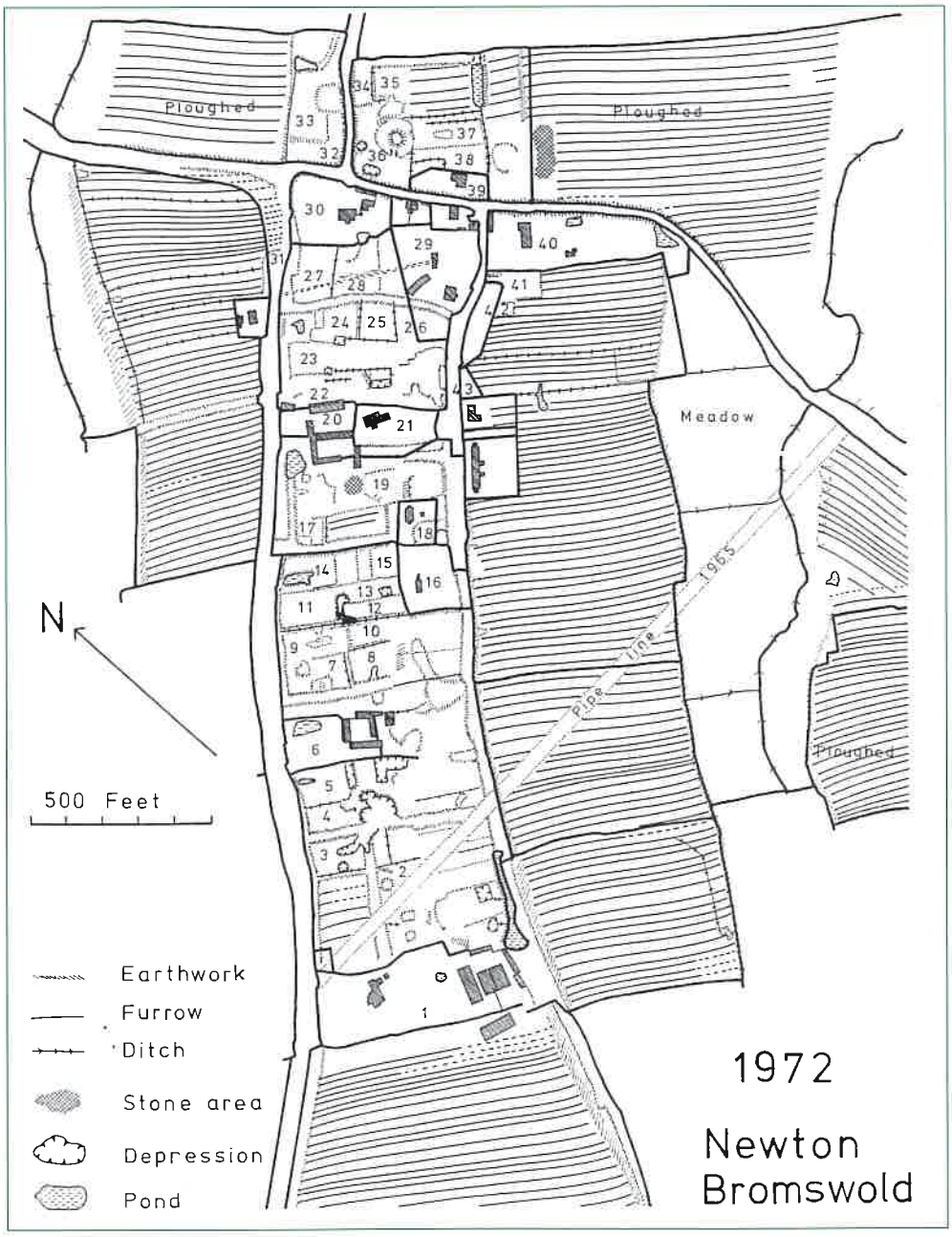
1. Low: no plans or only poor photographs.
2. Medium: good photographs, or adequate plans.
3. High: good photographs and plans with profiles.

Documentation (historical)

There are various records that describe open field land in sufficient detail to provide information about the fields and the township structure. Contemporary maps are one of the most important sources, although they are not common. Almost equally useful are complete written surveys of a township describing every field and furlong strip by strip, called a field book. The range of scores is:

1. Low: no open field records other than a late terrier
2. Medium: map or terrier plus any of the other items next listed
3. High: map with field book, terriers, court rolls, accounts, estate records and medieval information

Plan of Newton Bromswold village earthworks, SP 997 657



Diversity (features)

The features of a field system have been described above. The items are: furlongs of different sizes and orientations, headlands, joints, balks, grass ends, green furrows, rick places and variable ridge profiles. The range of scores is:

1. **Low:** examples with 0-2 of the features
2. **Medium:** examples with 3-4 features
3. **High:** over 4 features

Amenity value

Field systems have an immediate and exceptional appeal to the visitor and so have a good amenity value, often enhanced by other features not directly related to the fields, such as old hedges and trees, that have additional visual and botanical interest. The range of scores is:

1. **Low:** an inaccessible and small area of fields
2. **Medium:** some access is available; or the fields are enhanced by the additional interest of later features
3. **High:** good access to extensive clear samples of fields with additional interest

3.4 Professional judgement

The scores achieved by the MIV process will need to be set in a framework that makes allowance for regional variation, chronology, influence of settlement type and any other special cases.

There is a regional variation in the profile of ridges. The MIV score for low-profile ridging on the south-eastern fringes should be balanced against scores for the centre, where ridging tends to be higher, even when comparing examples of similar date.

The age of samples should be considered carefully. While this will still be unknown for early examples, their antiquity will generally be apparent from the low profile of the ridges and the absence of the earthworks of grass ends, which are not recorded before 1570. The scoring system above would lead to low values for low-profile ridging and for the absence of the late features described in the section on Diversity. The MIV needs to be considerably upgraded for chronology and rarity. Old examples can be expected in ancient enclosures next to village earthworks and in parks.

Ridge and furrow associated with dispersed settlement is potentially interesting. It is not likely that there will be any visible physical differences from that associated with nucleated settlement, although the pilot study showed that multiple great fields was a characteristic. Again, this will not necessarily be known. Information as to which townships contain dispersed settlement will have to be obtained from the SMR. There will not be many examples in some parts of the Central Province.

The actual area of surviving ridge and furrow needs to be balanced with the percentage value. A small percentage of a large township may be more important than a high percentage of a small township. Generally, a large area is preferred.

The context of the field sample should be allowed for. A small area of fields in a region that has other large areas may not be important. However, in a region with limited survival, a small area may be significant.

The pilot study showed that within a township there was nearly always a single settlement. Although townships vary in size, it seems to have no effect on the field types.

Only a few examples of multiple settlement occur within one township, some of which have very complex fields. Examples of field systems for further study or preservation should therefore be selected according to the available terrain of woodland, meadow and fen, and heathland.

3.5 Management Assessment

The final stage of assessment is to consider how sites suggested for preservation are to be managed. This needs to take into account **Condition**, **Fragility**, **Vulnerability** and **Conservation Value**.

The condition of field systems should be that they have no modern or very little ploughing since they were abandoned and that they continue under permanent pasture. They are very fragile since one ploughing could remove a significant part of their interest. They are vulnerable because of outside influences, such as the European Union agricultural policy, and often they are adjacent to modern settlements and farm buildings with consequent development threats. They are vulnerable from changes of ownership, when they may be incorporated into large all-arable farms. The conservation value is enhanced by association with other monuments, especially the vill, and with later features such as enclosure hedges or hedgebanks and parks. Conservation value is also increased where flora and fauna are diverse or the site has other ecological value.

The practicalities of management will depend on the area involved and the numbers of owners.

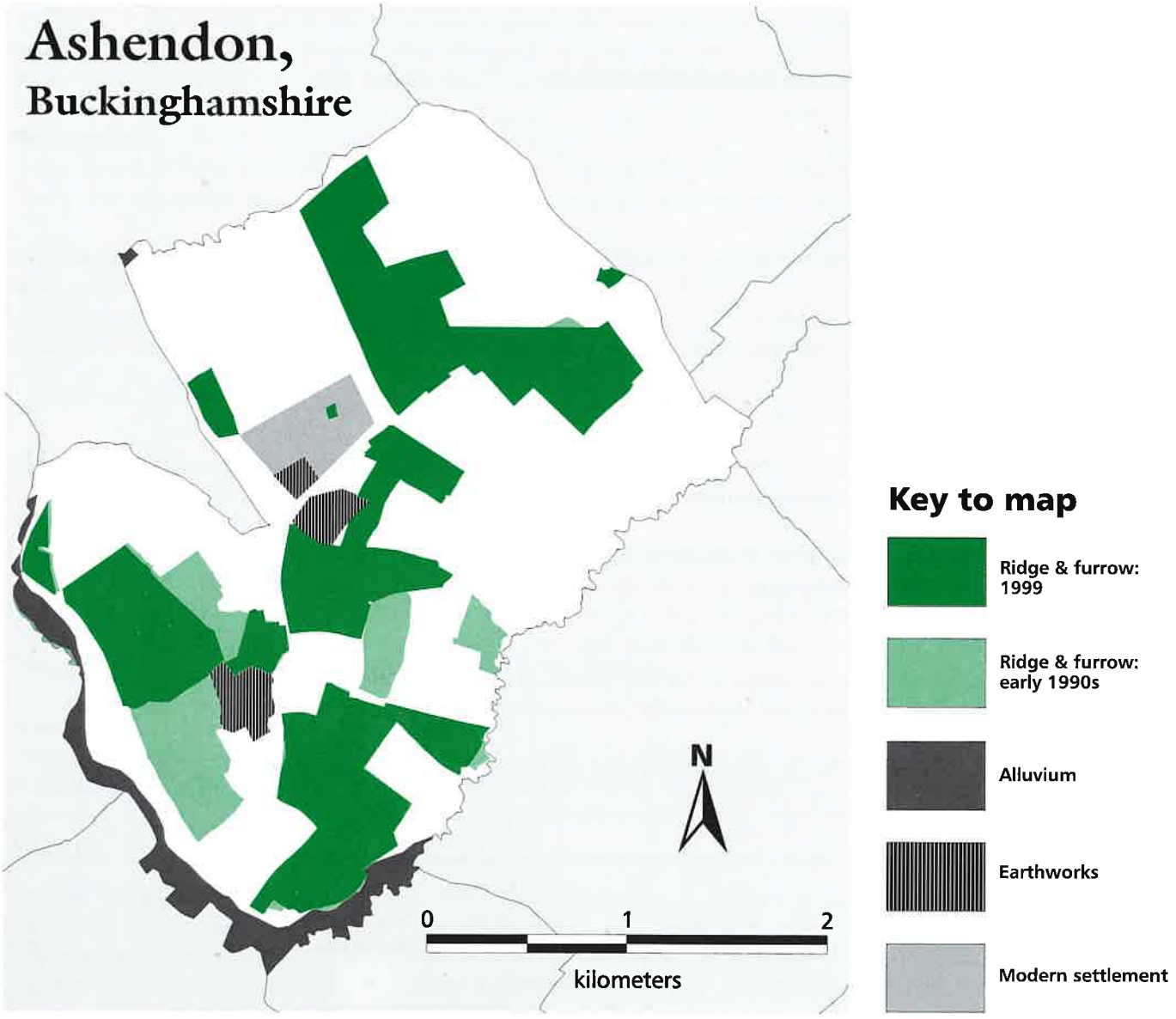
Braunston, Northamptonshire. SP 532 660 (CUCAP Zkn HN 0175, 1999)

Appendix 2: Gazetteer

The gazetteer is arranged in parish or township alphabetical order. Maps are included in the online version: www.northamptonshire.gov.uk/goto/openfields. The map for Ashendon in Buckinghamshire is shown below, as an example. Original documentary references are at the respective county record office unless stated otherwise. Each entry is in the following format:

- **Place-name, with county and national grid reference**
- **Total survival of ridge and furrow (percentage and acres as in c.1990)**
- **Total survival of ridge and furrow (1999)**
- **Name of MPP medieval settlement site (if any); Parliamentary enclosure date**

A short text outlines the quality of the ridge and furrow and historical documentation. A partial MPP discrimination scoring is placed at the end. The criteria, seven in all, are **Group Value (association)**, **Survival**, **Potential**, **Documentation (archaeological)**, **Documentation (historical)**, **Diversity**, and **Amenity**. The last two have not been assessed, as they require a site visit for evaluation. The first five items are scored on a three-point system, each score being squared before adding up; the maximum is therefore 45.



1: Ashendon, Buckinghamshire

SP 705 130

31% (52%) 657a 1738 (Pollicott 1634)
1999: 40% 378a (Pollicott)

The parish contains two townships , Ashendon and Pollicott. A few earthworks lie N of Ashendon (SMR 2245). The main monument is Pollicott shrunken village (SMR 1027). Most of the R&F at the S is associated with Pollicott and since it was a separate township the percentage survival is 52% and the area 492 acres.

Documents:
Ashendon Maps: a 1641 open-field map of Ashendon township shows furlongs (not strips) grouped into three fields (Buckinghamshire Estate Maps, Bucks. Rec. Soc. 1964 no. 9). It marks the boundary with Pollicott. 1739 estate map BAS 103/47. Manor Farm deeds of 4 yardlands, D104/4 (1689-1730).

Pollicott Manors of Great & Little Pollicott 1624, BAS 98/48 and BAS 99/47 (then mainly open; enclosure in 1624,BAS 4/59). 1837 map, BAS 100/47 and tithe (1837) MaR/6/2.T. Lincoln College, Oxford, ownership; court papers, correspondence and manorial D104/2-4, 76 (1609-1754). Glebe D/A/GT 1/5 (1639).

Overall comment: documents good, MPP vill, high percentage survival.
MPP discrimination score (Pollicott)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

2: Belton in Rutland, Leicestershire

SK 819 018

36% 367a 1794
1999: 35 356a

R&F lies on all sides next to the vill, but there are no surviving earthworks. Lies in small local region CEMID 2c.

Documents: Maps: c.1850, DE 2158/16. Deeds 1735-58, DE1022. Rentals 1768-1824, DG7/1/14, 74. Survey of fields 1786, DG7/1/79, 95.

Overall comment: documents fair, no earthworks, moderate amount of R&F.
MPP discrimination score:

Group Value (association) 2	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

3: Braunston, Northamptonshire

SP 532 660

33% 1071a MPP Braunstonbury 1775
1999: 27% 867a

The R&F is associated with the deserted village of Falcliffe, the grange site of Braunstonbury (SM), a block demesne and abandoned canal. There is group value with Wolframcote deserted village in Warwickshire.

Documents: Maps: 1842 tithe, T294 for demesne (described in 1581, D1094). Glebe terriers from 1633; deeds & field orders in Warwick RO, (1491 and later).

Overall comment: documents fair-good, very good deserted village earthworks, fair R&F at west, remainder fragmented.
MPP discrimination score:

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

4: Braunston in Rutland, Leicestershire

SK 835 070

34% 534a **1801**
1999: 35% 560a

A large block of R&F lies next to the vill on the N with some on the W & S; village earthworks lie on the SW. The northern R&F block is 120 ha (330a).

Documents:
Maps: enclosure 1807, EN/MA/R8/1. Glebe MF 494 (1727-98). DE2429, Noel family papers 1617-1858. Deeds 1726-1888, DE783/14. Deeds 1778, DE201.

Overall comment: Documents fair, not much R&F next to the vill.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

5: Bythorn, Cambridgeshire

TL 058 755

10%, (24%) 350a **1845**
1999: 20% 242a (Bythorn)

The modern civil parish of Bythorn and Keyston has nearly all its R&F in Bythorn township which is about one third of the total area. The R&F survival is therefore 24% (285 acres), and within the regional level under consideration. It is visual on a slope with a wide drove to the south. Some R&F lies next to the vill where there are good earthworks.

Documents:
Maps: open field 1839, Hunts RO, 2196/6. Enclosure map HRO, PM 1/15. Medieval charters, court rolls, surveys (Ramsey Abbey) and later surveys and deeds.

Overall comment: Documents excellent, R&F and earthworks fair, but R&F spoilt by the A14 cutting through.
MPP discrimination score:

Group Value (association) 3	Survival 2	Potential 2
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 30**

6: Chastelton, Oxfordshire

SP 245 295

24% (35%) 422a **MPP Chastelton and Brook End** **Non-Parliamentary (16th?)**
1999: 21% 202a (Chastelton)

Chastelton has earthworks near the vill, PRN 5916. It is almost surrounded by several fields of R&F lying on slopes that should be included in any scheduling, 100 ha (250a; Gloucestershire APs show more than Oxon). If Chastelton is a separate township then it has 35% R&F. Brookend, presumably a separate township, has shrunken village earthworks, PRN 863. R&F lies to the NE and should be included with the MPP site, SP 245 310.

Documents:
Maps: Tithe 1845. Glebe 1635, Archd. Oxon. Papers, b.40.f90; c.141.f518; Bodley MS. Top. Oxon. c.55.f204.
Historical notes Bodley MS Top. Oxon. d.244. Large estate collection, E24, 1492-1955. Deeds describe manors of Chastleton and Brookend and their lands, with surveys, rentals etc. Chastelton was enclosed before 1607 (E24/1/3D/4) and Brook End before 1625 (E24/1/2D/11).

Overall comment: Documents good, small site, preserve with MPP.
MPP discrimination score (Chastelton)

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

7: Clipston and Newbold, Northamptonshire

SP 710 820

27% 367a; 22% 335a Nobold 1776 (both)
1999: 23% 667a (both)

Clipston parish has two townships, Nobold vill (SM) being deserted. A Country Stewardship Scheme applies for some of the R&F.

Documents:
Maps; 1807, estate (part). Glebe 1633 and later. Charter 14th, court rolls 15th, LB 57. Deeds 17th-18th.

Overall comment: Documents fair-good, good earthworks, large blocks of R&F.
MPP discrimination score (both townships)

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

8: Clay Coton, Northamptonshire

SP 595 770

28% 274a 1672
1999: 21% 203a

A few earthworks, fairly extensive R&F; group value with Lilbourne.

Documents: Maps; tithe 1839, T178. Survey 1525, PRO E 179; terrier 1580 (EY 1); survey 1605 Th 1872. Collection EY.

Overall comment: Documents good, a few earthworks, R&F fairly extensive although split; group value with Lilbourne.
MPP discrimination score:

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

9: Creslow, Buckinghamshire

SP 815 215

37% 328a early enclosed (non-Parliamentary), 1486-1554
1999: 33% 285a

A small parish with Creslow medieval village (SM, SMR 0511) as the main monument. More earthworks exist than are currently protected; manor church etc. R&F lies in a block next to the vill.

Documents:
VCH Bucks 3, 365, refers to early enclosure; few documents held locally.

Overall comment: Good block of R&F, documents poor.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score: 32**

10: Denchworth, Oxfordshire

SU 380 925

31% (39%) 321a 1801
1999: 53% 428a (Denchworth and Hyde)

A large area of R&F lies next to the village and stretches to the separate township of Hyde to the N, now Hyde Farm, and a moat (PRN 2614). At Denchworth a manor complex lies on the E (PRN 9610). To the S lies the separate township of Southcote, now 'Circourt'. This is the only good example of R&F surviving in south Oxfordshire. Since almost none of it lies in Circourt, the percentage of survival in Denchworth and Hyde is 39 (306 acres).

Denchworth was formerly called South Denchworth, Little or North Denchworth was a detached part of East Hanney parish, now in West Hanney (and so added to the plan). North Denchworth would appear an alternative name for Hyde and may be split between present day (South) Denchworth and West Hanney. More documents will be at Berks. Record Office and in the muniments of Magdalen and Worcester Colleges, Oxford.

Documents:
Maps; enclosure c.1803, Photo 143 (original at Berks R.O., D/P 46/26). The map shows the two enclosed townships, marked by old enclosure, as well as Denchworth. Glebe; terrier 1634, MS Archd Papers Berks c.185.f70.

The SMR has a plot of historic R&F from 1961 APs. The layout suggests there was originally a large-scale planned field system.

Overall comment: Good documents likely, small site.
MPP discrimination score (Denchworth and Hyde together)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

11: Dorton, Buckinghamshire

SP 680 130

33% 553a **non-Parliamentary**
1999: 19% 285a

Some earthworks lie on the W, SMR 4209, 4187, but not next to the R&F. There is post-medieval parkland. The main R&F is a large area, very visual on hill slopes at the S and SE, some being lynchets.

Documents:
Tithe map 1839 MaR/3/4.T; Christ Church College, Oxford, ownership. Glebe D/A/GT 3/21 (1639; no details). Manorial and deeds 1688-1786, D/AF 25, 57; D/BASM/6/1.

Overall comment: Documents probably good, no related earthworks, large area of R&F.
MPP discrimination score

Group Value (association) 2	Survival 2	Potential 2
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 20**

12: Easton Neston, Northamptonshire

SP 700 495

34% 182a **1499**
1999: 30% 158a

Park & Great House with low-profile R&F and partly filled, but intact, medieval village earthworks. Alluvium 17%. The parish also contains the shrunken village of Hulcote.

Documents:
Maps; tithe 1849, T188. Full estate records with many medieval charters and deeds of the medieval village in the Fermor-Hesketh Collection.

Overall comment: excellent documents, medieval village with 1499 enclosure, small but important site.
MPP discrimination score:

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

13: Gumley, Leicestershire

SP 685 900

35% 469a **MPP (Gumley)** **1772**
1999: 24% 328a

Gumley has some vill earthworks, SMR 69SE AW. R&F lies all around the vill with an apparent gap in parkland on the SW.

Documents:
Maps: enclosure EN/A/133/2. Glebe ID 41/2/171 A-C (1638-79); M4 258 (1703). Deeds of Gumley Hall 17 - 20th, DE13/6 & DG50. Deeds 17th, 9D33/9/39 & 42D31/145-55.

Overall comment: documents fair, smallish site, preserve with MPP settlement.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

14: Hallaton, Leicestershire

SP 785 960

24% 709a **1770**
1999: 23% 692a

Motte & bailey earthworks on the W (SMR 79NE A (a SM)). R&F on E is cut by a railway; largest block lies at the S and includes Hare Pie Bank, an earthwork windmill mound (SMR 79NE AY), 120 ha (325a).

Documents:
Maps: 1770, field names Ma/134/1; estate 1842, 3D40/73/12. Glebe ID 41/2/279A7B (1675-1709); MF259 (1606-1780). Court rolls 1585-1615, DE40/37/4-6. DG26, Bewick MSS. Dent estate papers 1572-20th, 9D53/1-104. Deeds 17 - 19th, DG2101/103-114; 9D40/6,7; 9D33/7.

Overall comment: Documents fair, small area of earthworks, R&F rather fragmented.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

15: Hockliffe, Bedfordshire

SP 966 270

19%, 240a **MPP Church End** **Non-Parliamentary (1595-1607)**
1999 18% 231a

The vill has shifted from its earlier centre at Church End (SMR 3279) to the Watling Street leaving a shrunken site, mostly in earthwork condition, and partly surrounded by R&F. This is the only Bedfordshire township in the regional list and the only one in the small local region CEMID 7. As elsewhere, not all the R&F in the parish lies around the vill. Some of that near the site has grass ends adjacent to meadow which should be included.

Documents:
A report outlines the history, and shows aerial photographs of the site in 1954 and 1976; 1946 AP, RAF CPE 1897 no.4199. Map 2 has full R&F plot from APs; Map 3, field names. Map 4 is the tithe map transcript (Coleman, S. R., 1983, Beds Parish Surveys 1: Hockliffe). Terrier 1562, P IC3/28/1; 1589, CRO T7/1. Enclosed 1595-1607 by agreement and Chancery Decree (E. M. Leonard, Trans. Royal Hist. Soc. NS 19 (1905) 59-108).

Overall comment: documents fair, small site; preserve as an MPP site enhancement.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score: 27**

Another Bedfordshire site with 11% R&F is Potsgrove, which has had 60 ha of R&F and a moat scheduled.

16: Hogshaw, Buckinghamshire

SP 750 220

25% 306a MPP Hogshaw & Fulbrook Non-Parliamentary (1486)
1999: 26% 310

There are two medieval villages; Fulbrook SP 750 225 (SMR 0341) and Hogshaw at the W (SMR 0345) SP 738 224, which may be two townships. All the R&F lies near the medieval villages and links them; there is group value with Quainton Hill at the S.

Documents:
Hogshaw had de-populating enclosure in 1486 (Leadam 1897, 192). Estate map 1761, MaR/45. Sale Catalogue 7 (1877) for both places. Collection D/P has many documents (for both) , 1509-1624, including settlement of intermixed lands in 1509 (D/P 306a).

Overall comment: documents good, R&F rather linear, preserve with MPP settlement.
MPP discrimination score (both)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

17: Hungarton, Leicestershire

SK 695 060; 697 090

31% (39%) 1,111a MPP Baggrave & Ingarsby 1762
1999: 32% 400a (Quenby)

Probably four townships; Hungarton, Baggrave, Ingarsby and Quenby, the last three being deserted villages.

Baggrave is almost surrounded by R&F which should be included in MPP scheduling (SMR SK60NE BF, CB (park)). Ingarsby has good earthworks but little associated R&F. Extensive R&F lies around the deserted village of Quenby (SMR 70NW V, AP), which has 39% survival (482 acres).

Documents:
Hungarton Maps: enclosure EN/MA/153/1; 19th, Ma/153/3; 1825, Ma/153/4&5; c.1837, 8D55/4. Glebe MF 259 (1605-1709). Estate maps DE173/6-8. Deeds 17 - 18th, 17D44/14; 3E42/20/1-9; 2D31/159/160; & 18D32/38.

Baggrave Maps: 1752 Ma/153/6 and late 18th, OS38 (closes); 1838, BE/1/1. Glebe ID 41/2/336-8 (1675-1700). Burneby estate 1715-1865, 3D42/53/35-69. Survey 1835 with plans, 39'30. Rothley Temple Collection, 44'38 (1582 deeds).

Quenby: Particulars of lordship of Ingarsby and manor of Hungarton and tithes of Quenby, 35'29/340 (17th). Estate plans 1871, 8D33/2.

Overall comment: three remarkable deserted villages, Quenby with extensive R&F; Baggrave and Quenby should be preserved with the MPP settlement work; documents good.
MPP discrimination score (Quenby)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

18: Ladbroke, Warwickshire

SP 421 584

20% 393a Non-Parliamentary (c.1608)
1999: 18% 352a

Some Earthworks lie on the W and in the park of Ladbroke Hall (SMR WA 925, 924, 926-8, 930). A large area of R&F lies SE of the vill with some adjacent to the earthworks on the W.

Documents:
Maps: 1638, Z358. Tithe 1838, DR615. Estate 1775, CR 972/1. Glebe: 1612-1832, DR 72A. Some 17th-century deeds.

Overall comment: documents and earthworks fair, R&F compact.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

19: Little Lawford, Warwickshire

SP 473 770

40% (42%) 166 a **MPP Little Lawford** **Non-Parliamentary**
1999: 35% 143a

A small township with alluvium (16%). Contains the deserted village of Little Lawford (SMR WA 3475) with earthworks and a block of R&F associated with them, mostly on the E & S, 80 ha (150a).

Documents:
Part of Newbold on Avon parish and records may be mixed with adjacent Long Lawford; Cosford is also in the parish. Map: 1779, CR 1747/5. Tithe 1846 CR569/174. Glebe: 1635-1836, DR 72A.
Overall comment: documents sparse, small site.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score: 32**

20: Lilbourne, Northamptonshire

SP 560 770

45% 769a **1671**
1999: 25% 426a

Alluvium, 42%, is not all medieval. Extensive R&F, some next to a spectacular double motte (SM) and vill earthworks. Other R&F is rather dispersed.

Documents:
Glebe has enclosure agreement; 17th deeds. Some medieval monastic records, British Library Add. Ch. 22,082; Cott Galba E iii ff152-3.

Overall comment: documents fair, some vill earthworks, lot of R&F, group value with Clay Coton. Cut by A14 and M1.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

21: Ludgershall, Buckinghamshire

SP 660 190

40% 1090a **1777**
1999: 42% 1143a

Lot of earthworks in the village, SMR 2336, 2133, others to the N (SMR 2331-2), and S (SMR 0033), some of them scheduled. The village morphology is of interest. Very large area of R&F to the N; some of that on the W is cut by a railway. The northern half of the parish falls into part of the Upper Thames Tributaries Environmentally Sensitive Area (MAFF Map 12). Techworth at the NE may be a separate township.

Documents:
Maps, estate 1564-86 MaR/7T; 1629, MaR/14.T, possibly open-field; enclosure map 1780, IR/109.R (use IR/36). 1838 estate, MaR/9/1.T. Glebe D/A/GT 6/15 (1674; also 1625 at Lincoln). Messuage & yardland 1396, D/X 671/2. Manor of Ludgershall 1557-1775, D/LE3/1, 68, 71, 137. Many deeds 1693-1901, D/T collection. Terrier of rectorial land 1637-1740, D46/145-152. Enclosure papers D46/124.

Overall comment: documents very good, earthworks good, extraordinary large area of R&F.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

22: Marston, North, Buckinghamshire

SP 775 225

45% 887a **1778**
1999: 40% 792a

There are no earthworks at the village; a Roman Road forms the western parish boundary. Manor Farm and S John's Manor lie at W, SMR 2937-8. A large area of R&F almost surrounds the vill, especially at the S which runs to Pitchcott.

Documents:
Glebe D/A/GT 7/13 (1703; no details). Reconstructed enclosure map from 1778 award, Ma/279.R. Farm deeds 1661-1768, ST12O; deeds 1747-1914, D/X 913.

Overall comment: documents fair, no earthworks, the survival of so large an area of R&F is unusual.
MPP discrimination score

Group Value (association) 2	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

23: Mowsley, Leicestershire

SP 643 890

26% 337a **1788**
1999: 19% 241a

Earthworks lie at the N (SMR SP68NW N, E). Some R&F lies next to them on the W, 40 ha (100a). Another block of R&F is slightly detached at the N, running to Saddington.

Documents:
Glebe ID 41/2/455-60 (1638-99); /555 is a titheing book, with Knaptoft. See also Shearsby /595B. Glebe terrier, 39'30/44 and MF 260 (1703, 1745). Terriers & deeds 1603-1768, DE66/Box 2209. Deeds 17-18th, DE1034, DG39/347-8. Notes on earthworks 1933, DE2101/132.

Overall comment: documents fair, small site.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 30**

24: Napton on the Hill, Warwickshire

SP 468 605

21% 842 **MPP Napton** **1778**
1999: 27% 1094a

A large parish with earthworks at Chapel Green (SMR WA 6212, 6214-5, 744, 740) where there was a medieval chapel.

More earthworks lie in other parts of the vill (SMR APs).
A large area of R&F lies on SE, some at the NE, the remainder being fragmented. Group value with Shuckburgh.

Documents:
Maps: none complete. Glebe: 1612-1832, DR 72A. Excellent and voluminous medieval and later Shuckburgh estate records, 12th-19th, CR 1248. Charity deeds 1639-1946, DR 149. Deeds 1676-1812, CR556/784. Deeds 13th-18th CR 611/475-9. Deeds 17th-19th CR 188/ bundles 9-16. Deeds 1581-1619, D16.

Overall comment: documents excellent, good earthworks relating to compact R&F.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

25: Owston and Newbold, Leicestershire

SK 777 075

15% (17%) 459a **MPP Newbold Saucey** **Non-Parliamentary**
1999: 17% 342a (Owston)

The parish contains the deserted villages of Marefield (now a separate civil parish) and Newbold Saucey that have very little R&F in association; any relevant R&F should be included in the MPP scheduled areas. Nearly all the R&F lies at Owston vill mainly at the S & E. There are earthworks (SMR 70NE AA, L & Q), the last two being SMs, one a moat lying E of the vill. The large block of R&F should be added to the SMs. Good APs in SMR.

The corrected percentage of R&F survival for Owston is 17% (342 acres), allowing for the wood. It is the only township in the region with near 18% R&F that has woodland (Owston Wood), being 10% for the civil parish.

Documents:
Maps; Palmer estate 1795, DG4/606. Former monastic site. Deeds 1582-1759, DE27/1-7. Deeds 1707-1820, DE593. Surveys 1786, 1796, DG7/1/78-90L.

Overall comment: mainly important for its high R&F percentage and woodland association.
MPP discrimination score (Owston)

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

26: Oxendon, Great, Northamptonshire

SP 730 835

29% 391a **1767**
1999: 28% 382

Fairly large area of R&F but few earthworks. Deserted village of Little Oxendon (SM) nearby.

Documents:
Glebe 1628-1851; terrier 1618, YZ 1156.

Overall comment: documents poor, few earthworks, moderate R&F.
MPP discrimination score

Group Value (association) 2	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score: 27**

27: Passenham, Northamptonshire

SP 780 396

10% (15%) 126a **1640**
1999: 9% 109a

Wood and alluvium association raises the R&F percentage to 15%. Fair earthworks (not mapped) and much meadowland next to a compact block of R&F. Saxon estate centre.

Documents:
Map: 1608 Map 4210; Duchy of Lancaster records, field book 1565, PRO DL 43/6a, survey 1590, DL 42/115.

Overall comment: documents very good, fair earthworks with compact R&F and meadow.
MPP discrimination score

Group Value (association) 3	Survival 1	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 32**

28: Quainton, Buckinghamshire

SP 745 210

26% 1,410a **MPP Shipton Lee & Denham** **1840 (Quainton)**
1999: 23% 600a (Shipton Lee & Denham)

Probably four townships. Quainton is the largest modern vill with R&F mainly at the N and a little at the S, but no earthworks. To the W is deserted village of Shipton Lee (SMR 0763) with earthworks, a chapel site etc. To the E is a deserted village at Denham Lodge with earthworks (SMR 0340). A large area of R&F unites all three on the N and runs without a break to Hogshaw and North Marston, c.350 ha (975a) on the N. The North Bucks Way crosses the parish. Doddershall House lies on the site of the vill of Dodereshull that has medieval charters referring to houses and its own fields (D/P 2-7, etc); earthworks survive (including a moat and pond dam) but there is little R&F adjacent to them. Group value with Hogshaw.

Documents:
Quainton enclosure map, 1841, IR/73.R. Lee Wood estate in Shipton Lee, 1836, PR169/3/4; Shipton Lee tithe, T 312. These maps should establish all the township boundaries. Quainton terrier D/X 2/25/22; lands 1614-1745 D/X276/42, 44. Glebe D/A/GT 8/1 (1674; also 1625 at Lincoln; vii/274). Shipton Lee 1624, ST1. Doddershall Pigott collection (D/P, 13th - 18th), estate deeds describing medieval open-field lands and the later enclosed properties.

Overall comment: documents excellent, earthworks good, large area of R&F - include with MPP.
MPP discrimination score (Denham & Shipton Lee)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

29: Radway, Warwickshire

SP 370 475

22% 320a **1756**
1999: 23% 334a

Radway lies under Edge Hill and between Westcote (in Tysoe) and Arlescote (in Warmington). There are rather vague earthworks of ponds associated with a monastic grange at the SE (SMR WA 752, 699) and good earthworks at the W of the vill (WA SMR 7328).
Radway is partly surrounded by R&F with a block at the SE running to Westcote that includes the grange and medieval church site (SMR WA 694, 698); 60 ha (150a). There is group value with Westcote and Arlescote (both MPP sites).

Documents:
Maps: open-field and enclosure, c.1756, CR1596/197. Glebe: 1612-1836, DR72A. Deeds 1445, L4/36. Deeds 1637-1824, CR556/575. Radway Grange estate 1746-1916, CR658. Many deeds CR 1052/ bundles 2-6. Deeds 1559-1737, D23/646-55.

Overall comment: fair/good documents, earthworks fair and R&F compact, small site.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

30: Saddington, Leicestershire

SP 650 920

37% 646a **1770**
1999: 27% 480a

Earthworks lie on the S, and a large block of R&F on the W.

Documents:
Glebe ID 41/2/550-2 (1674-1700); MF 261 (1724-1822). Deeds 1230-1473, DG 2242/6/41-67. Deed 1403, DG21/24. Manor 1685-8, 6D43/9.

Overall comment: documents fair-good, earthworks fair, R&F substantial.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

31: Shuckburgh, Upper & Lower, Warwickshire

SP 500 615, 493 625

33% 708 a **MPP Upper Shuckburgh** **Non-Parliamentary**
1999: 37% 795a

There are two townships. Upper Shuckburgh deserted village lies in a park with earthworks, some parts very good at the SE (SMR WA 858). Lower Shuckburgh has appreciable shrunken earthworks (SMR WA 861) and a medieval mill in R&F (SMR WA 860). An extensive area of R&F in both townships, lying on undulating landscape, is associated with their earthworks. Probably yet more R&F lies in the woods, raising the total potential and filling gaps in what would be a very large block.

Documents:
Map: 1834, CR885 (and earlier maps may be available through WCRO). Glebe: 1685-1836, DR 72A. Excellent and voluminous medieval and later Shuckburgh estate records, 12th-19th, CR 1248.

Overall comment: excellent records, good earthworks and large area of R&F.
MPP discrimination score (both)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

32: Stoke Dry, Leicestershire

SP 857 965

23% 228a **Non-Parliamentary**
1999: 19% 191a

A few earthworks lie at the SE and NE (SMR 89NE AB, AC) of this small parish. The vill is almost surrounded by R&F with main block to the SE running to Lyddington,. The township lies in the small local region CEMID 2c.

Documents:
Map; tithe 1842, Northants. RO, Map 270. Glebe MF series, 1634-1783.

Overall comment: documents poor, small site.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score: 27**

33: Sutton Bassett, Northamptonshire

SP 770 900

49% 365a **1802**
1999: 39% 287a

Alluvium 8%, but land left as meadow seems to be much more than this on the ground, group value with Welham. Fairly good earthworks.

Documents:
Maps: enclosure 1802, Map 2999. Deeds 17-18th, include a terrier, XYZ 901-44.

Overall comment: documents fair, earthworks fair-good, very high R&F percentage survival.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

34: Thornborough, Buckinghamshire

SP 737 338

22% 536a **1797**
1999: 18% 440a

Good village earthworks lie at Weston Green (SMR 0545) with R&F running from them along the S side of the existing vill. Additional features are two spectacular Roman tumuli (SMR 0782, SM) a Roman road, medieval bridge (SMR 1672) and a mill mound (SMR 0543).

Documents:
Thornborough has an open-field map of 1613 (published, Buckinghamshire Estate Maps, Bucks. Rec. Soc. 1964 no. 5). Magdalen College, Oxford ownership (with records). Glebe D/A/GT 9/2 (1639). Deeds, 17th, BAS 108/41, D13/2. Satire on enclosure 1803-08, D22/23/1.

Overall comment: documents very good, earthworks fair, small area of R&F.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

35: Thorpe Langton, Leicestershire

SP 740 928

29% 301a **1791**
1999: 22% 232a

A few earthworks lie at the SW, SMR 79SW C. Most R&F lies around the village, c.100ha (250a).

Documents:
Maps: enclosure. Marriage settlement 1754, 81'30/2.

Overall comment: documents poor, small area of earthworks, R&F forms vill envelope; small site.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 1	**Total score 27**

36: Todenham, Gloucestershire

SP 235 357

20% 495a **MPP Lower Lemington** **1777**
1999: 17% 418a

The large parish (2,475a) contains the vill of Todenham with shrunken earthworks at the S, SMR 7446, and the deserted village of Upper Lemington. Most R&F lies around Todenham, but it is rather fragmented. If Todenham is half the area, then the total percentage R&F will be higher.
Upper Lemington deserted village has excellent earthworks, SMR 2746, SP 220 343, partly lying in Batsford parish. Only a small amount of R&F lies near Lower Lemington; it should be included in any scheduling.

Documents:
Maps; (part) 1593 D1099/81; Photocopy 364. Glebe: GDR V5/309T, 1677, 1679, 1683, 1704, 1807. Deeds: 12th - 18th, collection D1099, including manorial D1099/M 51-63. Charters etc 1341-1565, D5358/10-13.

Overall comment: documents good, R&F and earthworks fair, small site.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 2
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

37: Tysoe, Warwickshire

SP 340 460

27% (70%) 1,292a **MPP Westcote** **1796**
1999: 52% 486a

The large parish, 4,785 acres, presumably comprises several townships and contains the five vills of Upper, Middle and Lower Tysoe and the deserted villages of Westcote and Kites Hardwick.

Westcote deserted village, SP 366 469, NE of Lower Tysoe (SMR WA 2060, with sketch plan), is on the 1490 list of deserted sites prepared by Rous. There is associated R&F on the scarp next to Radway; group value with Radway.
Kites Hardwick deserted village lies at SP 342 475 (SMR WA 2067), but has no adjacent R&F.
A very large area of R&F lies to the N of Lower Tysoe, 200 ha (500a) centred SP 340 460. There are some associated earthworks on the N and W of the vill (SMR 2076, and from APs). Possible earthworks lie detached at SP 335 456 (SMR WA 2086). This is one of the largest blocks of R&F in the whole region and comprises the greater part of Lower Tysoe township. The northern township boundary has been identified by Della Hooke. The corrected surviving R&F for Lower Tysoe township will be 70% (648 acres), making it easily the best preserved place in all the Midlands.

Documents:
Maps (Lower Tysoe): enclosure award and plan 1798, QS 75/121 (or CR 504). Estate 1774, Z202 & Z275; 1819, Z86. Wescott 1769, Z142; 1778 Willoughby de Brooke MSS map 9. Glebe: 1585-1714m DR72 119-121. Court roll 1479-1483, M1 283. Deeds at Magdalen College, Oxford, 12 - 15th. CR 2778. Deeds CR 1620. Terrier, 18th, CR 1960. Large collection of Compton estate records (at Castle Ashby, Northants.).

Overall comment: documents likely to be very good, few earthworks, very large area of compact R&F.
MPP discrimination score (Lower Tysoe)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 40**

38: Warmington, Warwickshire

SP 385 490

27% (41%) 487a **1776**
1999: 41% 250a (Arlescote)

Probably two townships. ***Arlescote,*** at the west is of interest in that documentation suggests that it was once larger. Some earthworks lie on the W of Arlescote (APs in SMR). There is the possibility of Saxon remains being covered by R&F east of

Arlescote, in a field called Old Town in c.1722 and now Goosebanks, at SP 413 479 (SMR WA 4865). The identification is not certain. Very little R&F survives at ***Warmington*** but a large amount lies around Arlescote (SMR WA 3912). If Arlescote was a separate township then its R&F would be a very high percentage (c.41%, 253 acres). Historic R&F map made from APs by N. Palmer and A. Isham.

Documents:
Map, Arlescote 1798, Z532. Tithe 1842, CR 569/251. Various 19th -century estate maps. Glebe: 1612-1832, DR 72A. Beachamp cartulary, M1 177. Deeds CR 173/391, 404, 566, 649, 667, 1338.

Overall comment: documents likely to be good, earthworks fair (but possible important Saxon site?), R&F compact.
MPP discrimination score (Arlescote)

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

39 Welham, Leicestershire

SP 760 923

24% 306a **Non-Parliamentary**
1999: 20% 259a

Very good earthworks lie around the village (SMR 79SE P, CE, BS, O). Some R&F next to the earthworks, but much of it is fragmented elsewhere in the township. The village block has group value with Weston by Welland, Northants..

Documents:
Maps; Tithe map 1845, DE76 Ti/349/1. Glebe ID 41/2/742-3 (1698-1700); MF 262 (1601-1821). Manorial deeds 1671, 1758, DG24/330-2, 584. Deeds 16-19th; DE 1754, DE53/242, 250; DE1022, DE 1754, DE 2217/28-30, 32-36.

Overall comment: documents fair, small site.
MPP discrimination score

Group Value (association) 3	Survival 3	Potential 3
Documentation (archaeological) 2	Documentation (historical) 2	**Total score: 35**

40: Weston Subedge, Gloucestershire

SP 130 410

17% (19%) 422a **MPP Norton Subedge** **1845**
1999: 21% 300a (Weston)

The civil parish lies either side of Aston Subedge; it has 9% woodland that increases the overall percentage of R&F to 19%. Norton Subedge is a northerly and equal-sized detached township containing Norton Hall. The deserted village of Norton near lies near White Farm, SP 138 431, SMR 370, but unfortunately has no adjacent R&F. The remaining R&F is fragmented to the SE of Norton.

Most R&F lies around Weston, thus raising the overall percentage survival. Weston has good manorial and village earthworks at its southern end, SP 128 406, SMR 372. On the E 100ha (250a) of R&F have group value with Aston, and another block of 60 ha (140a) in both parishes lies on the scarp.

Documents:
Maps; Tithe 1840-44 (showing open fields), P360a.SD2/1.
Glebe: GDR V5/333T, 1584, 1614, 1683-4, 1698. Deeds: Graves-Hamilton estate collection D2957; estate papers EL 317; 1609-1716, D1395 III/54. Lower Norton 1699, D5042/T10. Estate papers D5626.

Overall comment: documents very good, small area of earthworks, high percentage of R&F.
MPP discrimination score

Group Value (association) 3	Survival 2	Potential 3
Documentation (archaeological) 2	Documentation (historical) 3	**Total score: 35**

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All cut up and done

The gentley curving darksom bawks
That stript the Cornfields o'er
And prov'd the Shepherds daily walks
Now prove his walks no more
The plough has had them under hand
And over turnd 'em all
And now along the elting Land
Poor swains are forc'd to maul

And where yon furlong meets the lawn
To Ploughmen Oh! how sweet
When they had their long furrow drawn
Its Eddings to their feet
To rest 'em while they clan'd their plough
And light their Loaded Shoe
But ah - there's ne'er an Edding now
For neither them nor you

The bawks and Eddings are no more
The pastures too are gone
The greens the Meadows and the moors
Are all cut up and done ....

John Clare

In 1818, when John Clare wrote these lines, with their evocative description of the open field, ridge and furrow agricultural landscape of his youth, he was commenting on the social effects of enclosure. In particular, he lamented the loss to the plough of headlands and the grassed strips of the balks, and worried that all ridge and furrow would vanish.

From our vantage point almost two centuries later, we can see that this did not happen, and much ridge and furrow survived to become a characteristic feature of the 20th century English Midland landscape.

We now live again, however, towards the end of a renewed period of major rural change, and now the surviving examples of Clare's curving bawks, eddings, furlongs and lawns are disappearing year by year.

This process of change is the background to this report by David Hall which has been jointly published by English Heritage and Northamptonshire Heritage on behalf of nine county archaeological services in the English Midlands.

Graham Fairclough
Monuments and Countryside Protection Programmes
English Heritage