

# TURNING THE PLOUGH

## Loss of a landscape legacy

*Between 1995 and 1999, Northamptonshire County Council and English Heritage quantified the survival of medieval open fields in the east Midlands. The results of this research have now been published in Turning the Plough and confirm that the loss of these ridge and furrow landscapes is extreme. English Heritage, DEFRA and other agencies are now faced with an urgent task – to combine our efforts in order to create a sustainable future for what little remains*

Ridge and furrow earthworks, the corrugated fields produced by medieval cultivation that were once a familiar sight across many parts of England, are now a rare archaeological resource and becoming more so as each year passes. This loss is not entirely a recent phenomenon. As early as 1818, the poet John Clare in 'The Lamentation of Round-Oak Waters' wrote about the loss of 'gently curving darksom bawks' following the wholesale division of the open farming landscape into the separate fields we know today. The need to maintain individual narrow cultivation strips was banished by such enclosures; in Clare's words, 'the plough has turned them underhand, and over turnd 'em all'.

Despite Clare's worst fears, many areas of ridge and furrow weathered the storm of private and Parliamentary enclosure and remained, preserved under pasture, to form part of the characteristic landscape of the English Midlands in the 20th century. This last century, however, saw further major rural changes, spurred on by wartime pressures and economic incentives. The impact of modern agriculture on the last of the medieval cultivation patterns has been severe.

### Process of creation

The vestiges of ridge and furrow we see today are the shadows of the past – the scant remains of extensive and contiguous systems of cultivation that once covered most of the Eastern Midlands and existed in a less developed form across many other parts of the country.

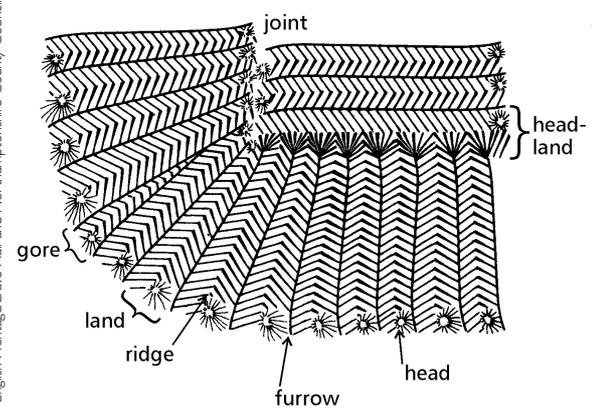
The origins of ridge and furrow cultivation can be traced to the 10th century or before. By the 13th century, the countryside had acquired a widespread corrugated appearance as settlement developed into a pattern of 'townships' (basic units of community life and farming activity). The cultivated ridges, individual strips known as 'lands', were incorporated into similarly aligned blocks known as 'furlongs'; which, in turn, were grouped into two, three or sometimes four large unenclosed 'Great Fields'. These fields occupied much of the available land in each township (covering 80–90% of many Midland examples), but around the fringes lay areas of meadow, pasture (normally unploughable land on steep slopes or near water) and woodland – a limited

resource, therefore highly valued and closely managed in the medieval period.

The characteristic pattern of ridge and furrow was created through clockwise-motion ploughing. By ploughing from the middle of the 'land' and finishing at the outside, flanking furrows were created. An anti-clockwise ploughing motion, adopted during the fallow period, then ensured that soil was brought back into the ridge. The maintenance of the furrows in this fashion had two specific functions. First, the furrows acted as open drains. Second, and more significant, they served as demarcations of individual plots, or units of production, a number of which, scattered throughout the Great Fields, lay in the hands of each landowner or tenant. This pattern of holdings allowed each farmer to take a share of the various growing conditions. The lands are therefore powerful indicators of social structure, particularly so where late medieval or post-medieval field books survive to detail the allocations. The earthworks alone tell fascinating stories – superimposed, advancing or retreating patterns mark changes in agricultural requirements and even the success or failure of the community which the fields supported.

*Schematic plan of two furlongs*

© English Heritage/Dave Hall and Northamptonshire County Council



### The survey

Widespread changes in agricultural practices, such as the enclosure of open fields between the 17th and 19th century, and more particularly the intensification of agriculture following World War II, have left us with a limited picture of the original grandeur of the open field system. Anyone interested in the countryside will be



© English Heritage/Dave Hall and Northamptonshire County Council

Location of the study area

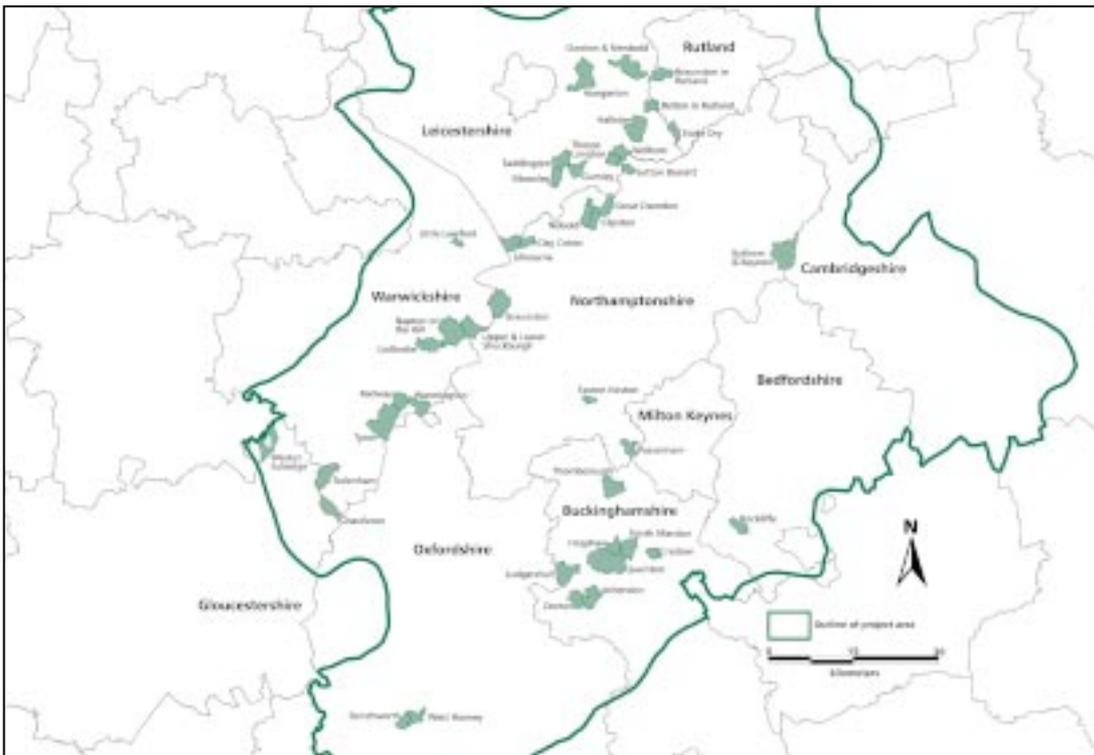
Protection Programme (MPP), set out to reconstruct the likely extent of ridge and furrow within the context of individual field systems that served the medieval settlements of the East Midlands. This area has long been recognised as the heartland of the open field system of farming – a product of the intense nucleation of medieval settlements which characterised this ‘Central Province’, as defined in *An Atlas of Rural Settlement in England*, published in 2000 by English Heritage.

The project combined two areas of research. Historic maps and documents were used to define the original extent of individual townships (the basic building blocks of settlement and farmland) and to reconstruct, using historical evidence and terrain modeling, the likely extent of their Great Fields at the height of production. Aerial photographic evidence was then used to map the extent of surviving ridge and furrow within each township (which could be expressed as a percentage of the likely original coverage) and to chart the rate of destruction.

aware of scattered pockets of well-preserved earthworks. But how rare nowadays are those places in the landscape where ridge and furrow still exists at a scale which truly allows us to appreciate how the medieval countryside worked?

It was precisely this concern which prompted research by David Hall and the report, *Turning the Plough*, recently published by English Heritage and Northamptonshire Heritage on behalf of the nine county archaeological services in the English Midlands. The Midlands Open Field project, funded by the Monuments

A disturbing picture emerged, confirming what has long been suspected – that ridge and furrow, once ubiquitous in the East Midlands, with vistas stretching as far as the eye could see, is now very rare and becoming rarer year by year. Ridge and furrow, a relic of arable cultivation, survived into the 20th century through management as



Location of Priority Townships

© English Heritage/Dave Hall and Northamptonshire County Council

## *Turning the plough*

grassland by farmers; modern farming economics, however, favour the reversion of this grassland to arable and represent the single greatest cause of its destruction.

By using aerial evidence up to 1996, the report confirmed that of the 2000 townships identified within the study area, as few as 104 retained more than 18% of their original coverage of ridge and furrow. Of these few, only 43 townships retained significant areas of ridge and furrow – areas which could be considered as outstanding examples.

Comparisons with maps of the 1950s indicated that most of the destruction had taken place in recent decades and, in order to test the rate of this destruction, a further aerial reconnaissance of the 43 best examples was arranged in 1999. The situation had deteriorated still further. Only 20 townships (as opposed to 31) now enjoyed more than 23% survival, and only 6 townships (compared to 9) retained more than 40% of their original coverage. Of the two townships previously thought to have more than 50% survival, one area of concern had fallen from 70% to 52%.

Put simply, the results show that a once commonplace and extensive archaeological monument type is now highly fragmented and disappearing at an alarming rate. Large contiguous areas of ridge and furrow that provide a true indication of the open field system survive in only a handful of places, and even these are under threat. What was once common and often unregarded is now rare and in urgent need of protection.

### **Preserving medieval field systems**

As with all MPP work, the Midlands Open Field project's first objective was to increase understanding of the archaeological resource and to raise awareness of its importance and increasing rarity. This has clearly been achieved, and we now have quantifiable data for the scarce survival of contiguous fields of ridge and furrow in the East Midlands. A further rapid survey of county data sets demonstrates that similar earthworks can be found, in pockets, across other parts of the country, but rarely on the scale of the last remaining areas of articulated field systems in the study area.

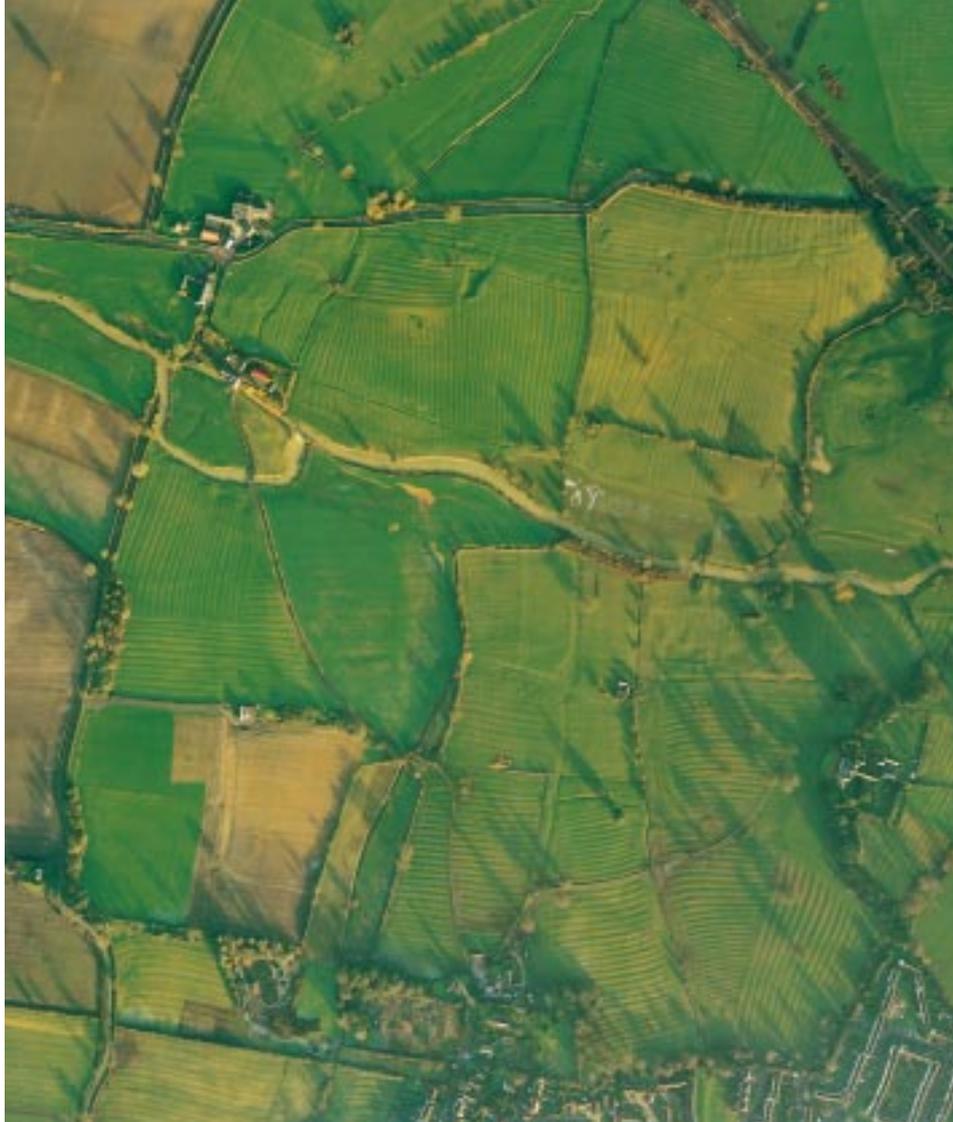
So how important are these last representative field systems? At a regional level, they contribute to the character of the landscape, to local identity and to a 'sense of place', and their survival affords a 'key sustainability indicator' for the regional historic environment (see Humble and Barnatt, 48–51). At the national level, these few sites are the last definitive representations of an agricultural system that reached a unique scale of development in the midlands. Taken a stage further, it can be argued, given that very little ridge and furrow survives in continental Europe, that these sites have international significance as the last best examples of an agricultural regime that dominated Northern Europe for a thousand years.

The task now faced by English Heritage and other agencies is to formulate effective means to preserve this vanishing legacy. To a certain extent, the MPP is already addressing this problem by designating samples of ridge and furrow as scheduled monuments (under the 1979 Ancient Monuments Act) where they form integral parts of contemporary settlements, such as medieval village earthworks and motte and bailey castles. While scheduling is the only protective measure with the weight to ensure that any changes – including agricultural change – are considered against the archaeological importance of the site, it is not a universal panacea for the problems of open field preservation. While it will ensure that a consent is required for new ploughing, refusal to grant consent may trigger compensation, which would be prohibitively expensive over the wide areas represented by the 43 priority townships and still might not secure positive management. Nor indeed, might it be appropriate to impose this restrictive form of protection on such a large expanse of countryside – land which needs economic use in order to be effectively maintained – unless it is accompanied by viable management regimes.

Clearly, finding a sustainable future for these precious remains will not be an easy task. Having defined the rarity and value of the remaining open fields, our next step will be to pursue a constructive dialogue with a range of agencies, local and national, who have a part to play in the preservation of this legacy. Open fields under pasture are already valued for many reasons (for public access, landscape character or species diversity) and they are sometimes, in part or whole, recognised by Local Authorities in

landscape plans or conservation areas, or protected within landscape-scale designations such as Sites of Special Scientific Interest. While these designations have objectives other than archaeology, they nevertheless help to encourage (or occasionally enforce) environmentally sensitive farming regimes that benefit ridge and furrow. Potentially, agri-environment schemes, such as Countryside Stewardship and Environmentally Sensitive Areas (managed by DEFRA) could also be more actively used to encourage farmers to manage these earthwork monuments in a sensitive manner. However, as the large majority of the surviving earthworks are within improved pasture of low nature conservation value, these open field systems have not previously been recognised as a high priority for the schemes. For similar reasons, the recent introduction of regulations requiring Environmental Impact Assessments prior to intensive farming in areas of previously uncultivated land appears to offer only limited protection for open field remains. Unfortunately, by definition under the current scheme, areas of ridge and furrow will rarely qualify for EIA unless abandoned to pasture many years ago, subsequently unimproved and now rich in natural plant species.

© Cambridge University Collection of Air Photographs: copyright reserved (CUCAP ZlnHN 02.16 1999)



*Turning the Plough* therefore challenges English Heritage and partner agencies to combine efforts and focus resources on policies for the preservation of these nationally or indeed internationally important remains. In the coming months, English Heritage and DEFRA will discuss approaches to providing a sustainable future for this legacy – one which will have the support of landowners as well as conservation bodies and will benefit the whole community. □

**Mike Anderton**

**RDS Regional Archaeological Adviser  
Department for the Environment, Food and  
Rural Affairs**

**Dave Went**

**Inspector of Ancient Monuments  
Monuments Protection Programme  
English Heritage**

*An Atlas of Rural Settlement in England*, by Brian K Roberts and Stuart Wrathmell, may be ordered from English Heritage, c/o Gillards, Trident Works, Temple Cloud, Bristol BS39 5AZ; Tel 01761 452966; Fax 10761 453408; [ehsales@gillards.com](mailto:ehsales@gillards.com). Cheques should be made payable to Gillards; Price £25; Product Code 50201. A companion volume by the authors, *Region and Place: A study of English rural settlement*, will be published in Summer 2002; Price to be announced; Product Code 50203

*Aerial photograph of Little Lawford, Warwickshire, 1999. The arrangement of medieval furlongs within the Great Fields is still plainly evident, together with trackways and settlement remains, sometimes superimposed and reflecting changes over time*

## References

Clare, J, 'The Lamentation of Round-Oak Water' (composed 1818, first published 1935)

Darvil, T and Fulton, A 1995. *The Monuments at Risk Survey of England 1995*. Bournemouth University and English Heritage

Hall, D 2001. *Turning the Plough. Midland open fields: landscape character and proposals for management*. English Heritage and Northamptonshire County Council

Roberts, B K and Wrathmell, S 2000. *An Atlas of Rural Settlement in England*. English Heritage.