THE CHARACTER OF NOTTINGHAMSHIRE'S HISTORIC LANDSCAPE

REPORT ON

THE NOTTINGHAMSHIRE HISTORIC LANDSCAPE CHARACTERISATION PROJECT

INTRODUCTION

The landscape, both urban and rural, is the context of our daily lives. In work and in leisure it impinges upon our activities and our sensibilities; as individuals and as society we are responsible for its maintenance and development. Most people think of the landscape in the present tense, as the fields, woods, pastures, farms and settlements that they see from the car, train or footpath, and many engage with it largely in terms of nature, scenery, design and beauty. Many also recognise that the landscape is a cultural artefact, shaped by people not only now but in the past.

This historical dimension is the fundamental structure that underlies the ecological and visual aspects of today's landscapes. It explains the why and how of the present landscape. To the archaeologist, historian, historical geographer and others engaged in landscape studies, depth of history is a natural part of what is to be seen and understood in landscapes. It is the source of the local diversity in landscape character and "feel" that is evident to all of us, and for which Britain is justly renowned.

Landscape then, is an integral part of the historic environment, along with archaeological and historic sites, monuments, and historic buildings. This environment embraces all the physical elements from the past that exist in our surroundings. The historic environment is today's environment; historic landscapes are today's landscapes.

Traditionally, the conservation of the historic environment has been based upon the preservation and management of individual sites, buildings or specially designated areas, such as Conservation Areas or Areas of Natural Beauty. This approach is founded upon legislation, such as the Ancient Monuments and Archaeological Areas Act 1979, or non-statutory guidance, such as Planning Policy Guidance Notes 15 and 16. However, this is partial and selective, based upon judgements of importance, with the inevitable consequence that many aspects of the historic environment are under-recognised, under-appreciated and under-considered in the making of policies and decisions.

Historic Landscape Characterisation is a relatively new approach to the description of parts of the historic environment. Based upon the Landscape Assessment techniques put forward by the Countryside Commission (1993), and developed by English Heritage through a series of pilot projects, it gives expression to the varying degrees of historical depth which are visible in today's landscapes. By mapping the local characteristics of the current landscape

according to their known or likely functional origins and dates, it is possible to show the influence of cultural behaviour and change in the structure and appearance of our surroundings. The maps produced in this work explain and complement other maps or descriptions characterising the landscape from other perspectives. They provide the essential intellectual under-pinning to the recognition and rounded definition of local character and diversity in the landscape and they thereby permit statements that can guide decisions on how to sustain the historic environment now and into the future.

The Nottinghamshire Historic Landscape Characterisation Project was carried out between February 1998 and September 1999 by the Environment Department of Nottinghamshire County Council, in a partnership with English Heritage. By the latter date, it was one of six such studies that had been completed in England and several others were in progress. The project followed the County Council's initiative, supported by the Countryside Commission, in carrying out a Countryside Appraisal of Nottinghamshire. This work was the basis for the Nottinghamshire Landscape Guidelines, published by the County Council in 1997. This document defines character zones and gives guidelines for their management. It also contains a description of the evolution of the landscape in each zone since the end of the Ice Ages. These descriptions make up the first history specifically of the Nottinghamshire landscape to have been published. The Historic Landscape Character Map produced by this latest project, together with this report, extends and complements the Countryside Appraisal work by presenting the historic dimension of today's landscape in Nottinghamshire in a compatible form.

The primary objective of this project was the production of this Nottinghamshire Historic Landscape Character Map. This involves an overview of the county and necessarily has required generalisation and judgements that are valid, or acceptable, only at that scale or greater. This report describes these and the method by which the Map was compiled, together with some discussion and guidance on its meaning and use. Despite the difficulties encountered, the project has been outstandingly successful. All the objectives of the project were achieved.

The result is the first quantifiable oversight of the historic landscape of Nottinghamshire. It demonstrates the basic truth expressed above, that today's landscape is an historic landscape. Equally, it shows that much of the 19th century landscape of Nottinghamshire has been altered during the 20th century and that change has been, and continues to be, rapid. The project has shown that if the character of many localities is to be maintained, means of conserving their historic landscapes, and the elements that define these, must be found urgently. The Historic Landscape Character Map provides a basis for this and establishes a benchmark against which further change can be monitored. Beyond this, the statement that it makes about the county's historic landscape has a wide-ranging value and utility in landscape studies and management and provides a new basis for future research. The new perspectives and insights it provides can be expected to have significant influence in future decisions and actions in managing the countryside and heritage of Nottinghamshire.

THE NOTTINGHAMSHIRE HISTORIC LANDSCAPE CHARACTERISATION PROJECT

METHOD

BACKGROUND

Save for the open-fields of mediaeval origin in Laxton and the great fields created by hedgerow removal in the later 20th century, the Nottinghamshire landscape is one of enclosure. It is not of one date however, nor has it been created in a single manner.

In 1995 and 1996, research for the sections on "Human Influences" in the Nottinghamshire Landscape Guidelines revealed the lack of consolidated information about the depth of history contained in the modern landscape, and about its relationship to the geography of local character and diversity across the County. The general evolution of the landscape could be described on the basis of archaeological, historical and buildings data in the County Sites and Monuments Record (SMR) and previously published research in history and geography. These could be supplemented by a number of parish or more local studies and the use of historical descriptions and maps of the County, such as Lowe's report to the Board of Agriculture of 1798, Chapman's Map of 1774 and Sanderson's Map of 20 Miles around Mansfield of 1835. However, it was evident that much detailed research would be required to qualify that general understanding through local studies.

Neither time nor resources were likely to be available for such research to be seriously considered. Nevertheless, there was an obvious need to identify and address historic landscape issues in a comparable form to the Countryside Appraisal and the Nottinghamshire Landscape Guidelines, in order to develop and support approaches towards sustainable development. The Historic Landscape Characterisation technique offered a useful tool in this. Historic Landscape Characterisation had its origins in an English Heritage research and development project in 1993-94 (Fairclough 1999) and the Countryside Commission publication "Views from the Past" (1994,1996). By 1997, it was a well-established methodology. It had been applied already in projects that were completed or were in progress in several counties of a similar size to Nottinghamshire. The method includes the understanding and promoting of the wider historic landscape, in part through historic landscape assessments at county and regional levels. Consequently, discussions were opened with English Heritage and the culmination of these was this project.

PROJECT DESIGN AND AMENDMENTS

The original project design had the overall objective of producing a series of maps showing the location and distribution of the historical elements which make up the

modern landscapes of Nottinghamshire, together with basic commentaries to qualify, compare and contrast the categories of information mapped.

This was further qualified by 5 more specific objectives. These were:

1. Detailed characterisation of the Nottinghamshire landscape based upon Sanderson's Map of 1835 and the modern maps.

2. Comparison between the Nottinghamshire landscape of 1835 and today, in order to facilitate statements about the antiquity of landscape character and about changes in the landscape over the last 160 years.

3. Identification of the broad historical elements making up the modern landscape.

4. Comparison of the product from the preceding objectives with land use data, archaeological information from the SMR, and statutory and non-statutory designations, and other regional or national surveys, (including the Countryside Commission's (1996) Character of England Map and the work on the patterns and character of settlement undertaken for English Heritage by Roberts and Wrathmell (1995)), in order to make broad interpretative statements and to identify research issues in relation to the nature and management of the historic landscapes of Nottinghamshire.

5. A written report upon the project, describing its results and covering all the above objectives.

The overall philosophy of Historic Landscape Characterisation recognises that characterisation methods should be appropriate to local conditions. Historic Landscape Characterisation projects elsewhere had employed a variety of methods that reflected the extent and levels of prior study and knowledge, and the availability of resources (Fairclough 1999). In Nottinghamshire, historic landscapes have not been researched in any great detail. One reason for this is that there are no large collections of historic maps of any particular period before the 18th and 19th centuries. This is itself a reflection of the County's historical patterns of land ownership and considerable non-parliamentary enclosure. While maps for individual parishes or estates exist in many instances, there is a general lack in many more. The earliest overall maps that are of use in landscape studies date from the late 18th and early 19th centuries. These are Chapman's Map of Nottinghamshire 1774, which is valuable but limited by its scale and lack of detail, and Sanderson's Map of the Country 20 Miles around Mansfield 1835, which is circular and covers much of Nottinghamshire and parts of Derbyshire at a scale of 2 inches to 1 mile. The latter depicts the landscape, and particularly field boundaries, in considerable and accurate detail. A standard source for local history in Nottinghamshire, copies are available at the County Archives Office and most local studies libraries.

The first premise behind the methodology adopted for the Nottinghamshire project was therefore, that Sanderson's Map provided the key point of reference in time for much of the County. Sanderson was a noted surveyor who worked on enclosure and tithe awards, and for the Ordnance Survey. In making his map he

clearly drew on this work and other contemporary and earlier parish and estate maps. This map is directly comparable to modern mapping in scale, standards and to some degree conventions. Past experience of using it as a source in routine casework on planning issues and for a variety of research purposes, had shown that it is directly comparable to present-day Ordnance Survey 1:25,000 maps (2.5 inches to 1 mile).

In terms of date and landscape, Sanderson's Map was drawn up at a time when the process of enclosure in Nottinghamshire was nearly complete. This time represents the end of the last great phase of landscape development before the major changes of the late 20th century, a phase that equaled the clearance of primeval forest and woodland in prehistory, or the development and expansion of open fields in the early Middle Ages. Today's landscapes may be viewed as the product of this enclosure process. The preceding landscapes however, can still be read in the enclosed patterns for their major features, and often their details also, were frequently sublimated in the new arrangements. Identifying these from modern maps however, depends upon the degree to which enclosure field patterns have been modified by development and reorganisation in the later 19th and 20th centuries.

Overall then, it could be assumed that Sanderson's Map provided both a basis for regression analysis of the landscape, looking backwards to the decisions and processes by which the enclosed landscape was created, and a platform for identifying the changes since enclosure. It could function as an historical bridge that linked recent maps to earlier landscapes and land-use and provided a single uniform source at the level of the county upon which to base analysis and interpretation of the modern landscape.

Sanderson's Map is circular, however, and does not cover the northern, eastern and southern extremities of the county. For these areas, the earliest maps of a comparable standard of detail and depiction and at a manageable scale are the first edition 6-inch Ordnance Survey maps. Reduced down to 2 inches to 1 mile to match Sanderson, these were used as the historic map basis for those areas beyond his circumference. These Ordnance Survey maps date to 1880s and 1890s, but are reductions of the 1:2,500 (25 inch) survey carried out between 1876 and 1885 (Dickenson 1979). This means that the true currency of the combined map base for the whole of the county is 1835 to 1885. Fortunately, the areas for which the late coverage had to be used were rural, where there was little industrial development and it is reasonable to posit that field patterns were little altered since enclosure. The combined Sanderson-Ordnance Survey map base therefore can be taken to represent reasonably truthfully the landscape patterns of Nottinghamshire in the mid-19th century, and thereby to fulfil the role of historical datum line. Hereafter then, it will be described as the 19th Century Map (Fig. 2).

The second major predicate of the project was that it would be based entirely in a Geographical Information System (GIS). This would allow different elements and character types within the landscape to be mapped independently and to be brought together in any desired combination against different map bases at a variety of scales. In particular, it would permit the field shapes and patterns abstracted from Sanderson's Map to be brought into direct registration with

modern map bases, enabling this to be used as a primary information base, with immediate recognition of continuity and change since the mid-19th century. The GIS used was DataMap for Windows, conforming with the County Council's Environment Department policy, which also allowed data capture from the Countryside Assessment and compatibility with the GIS strategy for the Sites and Monuments and Historic Buildings Records.

DataMap had been in use in the Planning Specialists Team for some time. However, the application was under continual development, and a series of new versions were released that lacked the functionality the project required. It was not until September 1998 that a functional version of DataMap was delivered and installed. This compromised the conduct of the project and required considerable amendment to the method employed. It meant that the analysis and compilation of the 19th Century Map had to be carried out as a paper exercise and that the resulting colour coding could not be digitised without duplication of effort and extra time expenditure. The coloured map was scanned into the GIS as a raster background but because of its size, this was in the A4 sized extracts used in the primary analysis. The resulting 76 bitmaps then had to be individually geo-registered to allow vector maps to be overlaid.

The inability to create the 19th Century Map digitally at the beginning of the project undermined the principle of the historically led approach. The Historic Landscape Character Map was to have been produced by overlaying later development in the landscape onto the digitised classification of 19th century field patterns. With the time to consider the historical and functional origins behind the field shapes of differing dates and to manipulate the classification of these latter accordingly, it was anticipated that a Character Map could be drawn up with a subtlety that reflected depth in the historical process. In the event, the creation of the Character Map effectively became a separate exercise. In this, the categories to be digitised had to be defined on the basis of expectation, informed by the 19th Century Map rather than being derived from it as intended. Further, as landscape changes since the 19th century have resulted in a modern landscape in which historic enclosed field patterns have been substantially disrupted, smaller parcels of land had to be digitised. It was necessary therefore to create a greater number of polygons than had been anticipated originally, which, with the geo-registration of the bit-maps, increased the time and labour involved in the project.

Nevertheless, the Historic Landscape Character Map (Fig.1) is a valid statement and overview, as is demonstrated by its correspondence in important areas with other perspectives on landscape character, some of which are described below. The GIS based approach to the production of the Character Map has been successful. Over 7,000 lines and over 12,000 new polygons were digitised towards the creation of the Map. The raster bitmaps making up the 19th Century Map constitute a layer against which these can be seen. This material makes up an important resource for landscape study and is a foundation for future GIS development, including the refinement of existing categories of landscape and the addition of other, more detailed information. The project has amply demonstrated the usefulness of GIS in heritage information management, and much has been learnt about how to handle historical sources within this

environment. Although the method was altered, the quality and utility of the results is demonstrable and the project has succeeded in its objectives.

PERSONNEL AND PROGRAMME

The project began at the end of January 1998 with the arrival of John Roberts as the first project officer. In July, John left to take up a permanent post and it was not until late in September that Andrew Bowes was able to pick up the work as the second project officer. Andrew's contract ran out at the end of June 1999 and Mike Bishop, Principal Archaeological Officer completed the remaining digitising, over August and September. In August 2000 Andrew was employed with County Council funds to add into the GIS plots of woodland from the 19th Century Map, needed to analyse the Character Map. This report has been written by Mike Bishop over the period of October 1999 to October 2000.

The project programme naturally divided into 4 phases.

Phase 1, The 19th Century Map

The objective of this phase was to characterise the mid19th century landscape of Nottinghamshire by analysing the morphology of the fields shown on the 19th Century Map and plotting the field types identified.

This work was carried out by John Roberts, the first project officer. The base was black and white photocopies of Sanderson's coloured map (which is available only as library copies). As already mentioned, a second satisfactory historical map base was necessary to complete the county coverage beyond the circumference of Sanderson's map. This was the 1st edition of the Ordnance Survey at 6 inch scale, copies of which were reduced by photocopying to approximately 2 inches to 1 mile. These were then fitted to match the copies of Sanderson's map to create the base of the 19th Century Map. The difficulties of achieving this with exactitude, both on paper and in subsequent scanning as raster maps within the GIS, accounts for the gaps which are apparent on Fig.2. Nevertheless this provided a working base which was satisfactory for its purpose.

Because of the size of the 19th Century Map, analysis and plots were performed on individual A4 sections which correspond to the folds in the 4 sheets (of which two, and part of a third, are relevant to Nottinghamshire) of Sanderson's original boxed maps. This involved an iterative process of visual comparison of fields on the 19th century map bases and colour coding them accordingly. The completion of the creation of the paper version of the 19th Century Map ended the first phase of the project, and John left shortly afterwards in July 1998.

Phase 2, The Modern Landscape

Andrew Bowes took up the post of project officer in late September 1998, shortly after the delivery of a functional version of DataMap. During the interval the project had been reviewed and the decision made that there was insufficient time and resource to digitise the 19th Century Map as originally planned. An early task in the second phase therefore, was to scan the sections of the 19th Century Map

into the GIS and to geo-register them against the Ordnance Survey grid, permitting the reproduction of the map as a whole at varying scales.

This work was carried out in tandem with the capture and checking of existing data sets referring to the modern landscape from digital mapping carried out for the Countryside Appraisal by the Countryside Group in the County Council's Environment Department.

Then followed the digitisation direct into DataMap of the areas of existing and former airfields, Parks and Gardens, and the extents of settlements as shown on the 19th Century Map. Finally, boundary loss due to changes in agricultural practice since World War II was plotted by digitising rural boundaries which were present on the Ordnance Survey 1:25,000 (2.5 inches to 1 mile) scale maps of the 1970s, but absent on more recent maps. The reason for this particular exercise was a belief that it would map not only the modern "great fields" created by hedgerow removal but also lesser degrees of recent change in the countryside, together with some quantification of the lengths of boundaries (including hedgerows) lost. The data set thus created could be used to examine historical and geographical factors, such as field size and location, which might underlie decisions to remove boundaries. This is discussed fully in the Appendix under Modern Modified Field Patterns.

Phase 3, Fields

Most modern landscape elements were mapped in Phase 2, except for field systems. The third and final phase of mapping concentrated on these. The original intention was that this categorisation should be guided by the known or presumed land uses that preceded enclosure, on the assumption that these influenced field shapes and patterns. Consequently, the extents of the wastes and commons shown on Chapman's map of 1774 and Sanderson's map were plotted into the GIS, along with low-lying or river valley pastures as defined from pre-existing knowledge, place names and field names on immediately available maps, and assumption based on these. This demonstrated the general validity of the approach. However, it also showed that this involved examining the field patterns in too great a detail to complete the project within the timetable. Consequently, this approach was abandoned in favour of a predetermined categorisation of field types based upon their expected association with known or presumed historical developments. The plots of wastes and low-lying pastures were retained as background layers, for reference and use in later analysis and further work.

After some thought, recourse to literature and reports on Historic Landscape Characterisation projects elsewhere, and paper experimentation, 8 categories were adopted. These are described and discussed below. The plotting of these categories completed Phase 3 of the project and the effective completion of the Nottinghamshire Historic Landscape Character Map, which was the principal objective of the project.

Phase 4, Report and additional plotting of woodland

The completion of the remaining objectives of the project depended upon the comparison of the Historic Landscape Character Map with other data and consequent analysis and interpretation, and upon the writing of this report. As the Character Map was not finally completed until after the end of Andrew Bowes' contract, the Principal Archaeological Officer has carried out this work. In the course of this, it became clear that the complete plotting of 19th century woodland was necessary. This was achieved in August 2000, enabling the completion of this report, fulfilling the final objective of the project.

SOURCES

As already mentioned, a variety of sources exist for landscape studies in Nottinghamshire. However, the coverage of the county is not complete and most available sources are specific to particular parishes or areas and are of a variety of dates. Publication of maps in particular is limited and study from the landscape history perspective of even these has barely begun. The acquisition, translation to a common map base, and analysis of available sources is a major exercise in its own right.

A conscious decision was made at the outset of the project therefore, that no trawling of local sources would be undertaken. This is consistent with the general method of historic landscape characterisation at county or regional level. Character is identified by examining the modern landscape in terms of structure, form and attributions to origins in historical process. It is accepted that the generalisations involved are gross and possibly erroneous in detail, but they are taken nevertheless to be representative overall in wide-scale perspectives. The decision not to search local material also has the merit of treating all localities on the basis of common sources. It reduces the categorisation of the landscape across the county to a common level of interpretation, and effectively standardises error. A uniform countywide foundation is thereby created, from which to build more detailed local studies and historic landscape characterisations in the future.

The original project design anticipated that some readily available data would be used in defining landscape character through the relationships between structure and historical process (Objective 3). This lay behind the plotting of wastes and commons and low-lying pastures in Phase 3 of the project. As already described, this use of sources was not pursued further. This is clearly necessary for the continuing and future development of landscape research in Nottinghamshire.

LANDSCAPE MAPPING CATEGORIES

The 19th Century Map

Fifteen morphological categories were generated during coding of field patterns shown on Sanderson's Map. These were applied to the 1st Edition Ordnance Survey maps for the areas of the county beyond Sanderson's circumference. These categories and their definitions, together with the deductions and assumptions about the historical processes that they represent, are:

No.	Category	Definition	Possible Historical Implications
A1	Larger Organic (irregular) enclosures	Amorphous enclosures	Often found in vicinity of settlements (where they may reflect early domestic enclosures) and at edges of common land (wastes, pasture and meadow), where they may indicate piecemeal encroachment.
A 2	Smaller Organic (irregular) enclosures	Amorphous enclosures	Enclosure reflecting relict boundaries, such as limits of water meadow, woodland parkland etc.
B	Heterogeneous geometric enclosures	Square, short rectangular and sub rectangular fields. Grouped appearance has overall geometric grain that may be disrupted by: overlapping boundaries; occasional irregular sided or polygonal fields; protruding corners; patchworks of different sized and shaped fields.	Disrupted grain of layout implies piecemeal enclosure (inter relationships between different enclosures within group indicate chronological phasing). Enclosure which has taken place on an informal basis without parliamentary sanction (often at a date preceding the 'classic' period of parliamentary enclosure, mid C18th to mid C19th). There are a number of possible antecedent land uses: this type may represent piecemeal enclosure of open fields, common pasture, common meadow, and possibly in some cases, wastes (moor/heath).
C	Homogeneous geometric, small to large enclosures	Square and short rectangular. Type group may include areas of (geometric) polygonal enclosures, where field shapes have been influenced by local landscape features (i.e. adjacent to rivers, steep ground, woodland etc.) and extant boundaries and enclosure groups. Group appearance tends to have a cohesive geometric grain as a result of uniformity of enclosure size and shape. Where enclosure sizes do vary within a group, geometric grain is nevertheless retained (i.e. no 'overlapping'	Cohesive grain of layout implies organised/formal enclosure. Much single phase/organised enclosure occurred through parliamentary sanction, mostly mid C18th to mid C19th. Some enclosure categorised as type C may have been without parliamentary sanction, but was a result of formal planning (particularly where the majority of the land in a parish was held by a single landowner, or consensus could be reached on a local basis between a small number of landowners as at Church Marnham parish (Chambers 1966:170)). This type may represent formal enclosure of a number of different previous land use activities (i.e. open field, common pasture, common meadow, and waste). In some cases it may also represent areas of assorted woodland.

		boundaries or protruding corners).	
D	Homogeneous geometric, large and very large enclosures	Square and short-rectangular enclosures. Usually forming cohesive, tightly geometrical grids. Uniformity of enclosure size within this type.	Geometrical 'surveyor's landscapes'. Imposed grids that tend to display little regard for local variations in topography. Formal, single-phase layouts that mostly relate to parliamentary sanctioned enclosure of wastes (moor/heath). Some groups of this type represent enclosure of waste without parliamentary sanction by major landowners, but which probably occurred during the parliamentary enclosure 'period' (i.e. mid C18th to mid C19th). Enclosure of other substantial expanses of formerly open uncultivated land, such as parkland, may also be represented.
E	Sinuous strips and long, narrow rectangular enclosures	May also include sinuous or straight-sided alignments of small narrow rectangular fields, where rectangular forms are produced by cross-divisions within otherwise long, narrow enclosure pattern (co-axial form). Occurs particularly on areas of alluvial soils, Trent Valley (see for example Staythorpe township). Type E enclosures occasionally appear as isolated regular blocks in areas where they do not indicate location of former open fields.	Piecemeal/pre-parliamentary enclosure of open field sub-divisions. Sinuous strips reflect the reversed s-shaped sweep of ridge and furrow cultivation. It should be noted that Sanderson seems to have straightened out some of the less markedly sweeping curves when depicting them cartographically. Comparison with modern 1:10,000 maps sometimes reveals the curved (arateral) nature of these boundaries, and may also help to secure morphological interpretation of type F enclosures.
F	Sub-rectangular enclosures with curvilinear sides	Groups of curved sided enclosures.	Usually found in association with types B and E. Curved sides reflect reversed s-shaped sweep of ridge and furrow cultivation within open fields. Therefore blocks of type F represent piecemeal engrossment and enclosure of open field sub-divisions, or consolidation of type E enclosures. Where found individually, or in small groups which are not immediately adjacent to other 'open field types' (B and E), type F cannot be taken as a secure indication of former open field agriculture. Curved-rectangular enclosures are a feature of assarted/enclosed woodland (cf. type J and may also occasionally occur within groups of other enclosure types). There are some anomalous areas where type E and F fields do not represent piecemeal/non-parliamentary enclosure. Compare for example similar field patterns of

			Staythorpe and Upton parishes. Despite similarities, the former are predominantly piecemeal enclosure, the latter mainly parliamentary.
G	Stepped and 'dog-leg' enclosures	Stepped boundaries, L-shaped fields, irregularly shaped angular fields (spurs, protrusions, etc.).	Steps and doglegs within field shape often preserve the interlocking pattern of former open field sub-divisions and strips. Where found in association with enclosures of type E and F, G is a good indicator of former open field agriculture. Where found within other type groups, it must be interpreted with more caution, but it is useful for 'flagging up' possible former open fields where enclosure has not led to the creation of the step pattern seen in types E and F (for example within blocks of type B, piecemeal geometric, enclosure).
H	Blocks of squat rectangular strips	Parcels of short rectangular strips usually adjacent to watercourses. There is evidently much overlap between this type and type E as defined on the basis of morphology alone.	Probably indicative of piecemeal enclosure of divisions (doles) within common water meadow. This interpretation may be made more reliably when type H is found in association with type B enclosure (piecemeal geometric).
Ii	Smaller Polygonal geometric	Small areas of irregularly shaped angular fields.	Piecemeal enclosure (as suggested by small size of fields and by fact that clusters tend not to be very extensive). Probably enclosure of common pasture and waste, where no former sub-divisions were present to influence boundary creation. Either conducted pre-parliamentary enclosure period, or without parliamentary sanction from mid C18th onwards. In some cases, type Ii enclosures may occur within former open field areas and reflect need for polygonal enclosures at periphery, where local landscape features or pre- existing boundaries preclude creation of square or rectangular fields.
Iii	Larger Polygonal geometric	Usually grouped into large expanses of land. Large angular polygons.	In alluvial/low-lying areas, this type seems to reflect enclosure of meadows/holmes. On higher ground, often found in association with expanses of type D enclosures. In such instances, Iii probably represents enclosure of moor/heath or areas of former woodland.
J	Disparate enclosure types grouped into cohesive areas	This type consists of regular, square, sub-square, rectangular and sub-rectangular enclosures in association with more irregular, organic/curvilinear, enclosures.	Type J represents loose networks of differently shaped and sized enclosures which appear to have developed in a piecemeal fashion. Proximity to vestigial pockets of woodland suggests that this type represents piecemeal enclosure/assarting of woodland,

			although in some instances it may be reflecting piecemeal enclosure of waste (moor/heath) and more occasionally, common pasture.
K	Grouped geometric enclosures surrounded by curvilinear encapsulating boundary		As with J, this type is usually located within/adjacent to woodland. It probably represents single phase, planned enclosure of areas of woodland (curvilinear outer boundary reflects either former outer boundary, or antecedent internal division of woodland). May also represent areas of enclosed parkland.
L	Small geometric enclosures within settlement areas	This type does not include yards and garden plots next to farms and other buildings that are isolated.	Domestic enclosures. Tofts and crofts.
M	Medium width rectangular strips	Blocks of medium width strips.	Type devised to highlight ambiguous enclosure forms. Overlaps with type D to some extent. Type M is likely to reflect consolidated piecemeal enclosure of open fields where found in association with type B piecemeal enclosure. However, M is usually found in association with type C parliamentary type enclosure in locations that are more indicative of former moor/heath or common pasture.

These categories are shown on the paper original of the 19th Century Map by colour, thus:

No.	**Category**	**Colour**
A1	Larger Organic (irregular) enclosures	Sky Blue
A2	Smaller Organic (irregular) enclosures	Jade Green
B	Heterogeneous geometric enclosures	Light Green
C	Homogeneous geometric, small to large enclosures	Green
D	Homogeneous geometric, large and very large enclosures	Olive Green
E	Sinuous strips and long, narrow rectangular enclosures	Sienna Brown
F	Sub-rectangular enclosures with curvilinear sides	Golden Brown
G	Stepped and 'dog-leg' enclosures	Orange
H	Blocks of squat rectangular strips	Terracotta
Ii	Smaller Polygonal geometric	Dark Yellow
Iii	Larger Polygonal geometric	Light Yellow
J	Disparate enclosure types grouped into cohesive areas	Purple
K	Grouped geometric enclosures surrounded by curvilinear encapsulating boundary	Imperial Purple (dark purple)
L	Small geometric enclosures within settlement areas	Red
M	Medium width rectangular strips	Leaf Green

The Historic Landscape Character Map.

Twenty-one mapping categories were captured from existing data or were created by digitising directly into the GIS application. These and their definitions, together with the sources used to map them, are described below in two groups, those that appear on the Historic Landscape Character Map itself (Fig.1), and those that are held as supporting maps within the GIS. The categories shown on the Historic Landscape Character Map are:

No.	Category	Definition	Source
1	Urban	Modern built up areas, including industry	Captured from NCC. Landscape Appraisal
2	Major Historic Settlement	Extent of historic cores of settlement	Generated from 19th Century Map
3	Woodland	Current woodland	Captured from NCC. Landscape Appraisal
4	Parks and Gardens	Parks and gardens on English Heritage Register, identified in SMR, or otherwise known	Generated from SMR information
5	Minerals	Old and current gravel, clay and stone quarries, coal mines and tips	Captured from NCC. Landscape Appraisal
6	Military	Old and current Airfields (most if not all of military origins), Ordnance Depots.	Generated from SMR information, Defence of Britain Project, publications and O.S. 1:1,250 maps
7	Leisure	Golf Courses, Sporting and Holiday Centres	Generated from O.S. 1:1,250 maps, published lists
8	Unenclosed Open Fields	Extant open field system at Laxton	Generated from O.S. 1:1,250 maps
9	Patterns of Fossilised Open Fields	Field patterns with long narrow fields, often sinuous, which originate in enclosure of strips in open fields	Generated from O.S. 1:1,250 maps
10	Patterns Reflecting Open Fields	Field patterns with strong linear dominants, often sinuous, which demonstrably, or probably, originated in enclosure of strips, combinations of strips, or furlongs in open fields. Lacking the narrowness of fossilised open fields, these reflect the layouts of open fields.	Generated from O.S. 1:1,250 maps
11	Regularly laid out large geometric field patterns	Field Patterns involving large geometric enclosures of type commonly associated with Parliamentary Enclosures	Generated from O.S. 1:1,250 maps
12	Irregular geometric field patterns	Field patterns involving geometric layouts which are less regular (i.e. less linear or rectangular) than in 10. Again, may be associated frequently with Parliamentary Enclosures	Generated from O.S. 1:1,250 maps
13	Semi-regular field patterns	Field patterns which are loosely geometric in layout, involving linear, rectangular or square arrangements, but which are less sharply defined than in 10 (with field boundaries which may	Generated from O.S. 1:1,250 maps

		waver or be discontinuous over distance (short linear dominants)) and are usually smaller in scale.	
14	Unenclosed river valley meadows	Areas of open river-side pastures, meadows or commons which retain traditional boundaries and unenclosed character visible on the 19th Century Map	Generated from O.S. 1:1,250 maps and the 19th Century Map
15	Modern, Modified field patterns	Fields in which the earlier patterns shown on the 19th Century Map are no longer present, or no longer readable or have been radically reorganised. Frequently, but not entirely, associated with responses to post World War II agricultural policies and technology	Generated from O.S. 1:1,250 maps

The following categories are data sets that are held as supporting information within the GIS:

16	Boundary Loss	Boundaries present on 1970s O.S. 1:2,500 maps and not present on 1998 O.S. 1:1,250 maps	generated from 1970s O.S. 1:2,500 maps and 1998 O.S. 1:1,250 maps
17	Historic woods	Woodland extant on the 19th Century Map	generated from the 19th Century Map
18	Historic wastes and commons	Wastes and commons shown on Chapman's and Sanderson's maps	generated from Chapman and Sanderson
19	Low-lying or river valley pastures	Defined through pre-existing knowledge, place and field names on immediately available maps, and assumption based on these. Characterised by large or narrow enclosures between watercourses and parallel long linear boundaries.	generated from 19th Century Map
20	Communications	Roads & Railways	Captured from NCC. Landscape Appraisal
21	Water	Rivers and major water courses	Captured from NCC. Landscape Appraisal

The primary problems in categorisation centre on the validity of the criteria used. The degree of subjectivity in defining and applying criteria is high on the list of concerns in assessing this. It is undeniable that the characterisation method involves subjective processes. Both the 19th Century Map and the Historic Landscape Character Map are interpretations, not data, and should be treated as such. This does not mean that their relationship to the landscape is invalidated, for "landscape" is a perception, not reality, and there is more than one perspective upon "landscape", as the Countryside Agency's Landscape Character Assessment Guidance (Land Use Consultants1999) illustrates.

The sources used to categorise the historic landscapes of Nottinghamshire are largely the individual map bases, Sanderson's Map, 19th century and modern Ordnance Survey maps. These are qualified by interpretative assumptions or deductions derived from the general understanding of landscape history in the

county. The resulting categories are either quasi-objective, derived from the data observable in sources, or subjective, derived externally from the general understanding of historical processes and imposed upon the data.

The following examples may illustrate the difference between these. In plotting airfields, included under the category "military", the boundaries of an individual airfield can be observed and digitised directly from the Ordnance Survey map. These are objective or quasi-objective. On the other hand, a category such as "field patterns reflecting open fields" is derived from over-arching knowledge and expectation of field systems in the county. The criteria that distinguish the category from others are laid down before the map source is examined. The plotting of the extents of such fields then, is dependent upon judgements on the degree to which their patterns conform to these criteria and where the boundaries of the pattern lie. This is manifestly subjective.

In practice however, this distinction is not always clear cut and subjectivity may be present even where categories are derived directly from the map sources. On the 19th Century Map, categorisation is based on the shapes of fields shown on the source maps. However, this still involves decisions in discriminating between field shapes and consequently criteria are applied, consciously or sub-consciously. This is subjective and can result in inconsistency where differentiation in field shape, size and patterns is fine.

Further, the original map sources contain elements of subjectivity. For example, despite the overall quality of his map, Sanderson has a habit of depicting some curved field boundaries as straight. This has inevitably affected the identification of some types of field on the 19th Century Map and has influenced some of the categorisations made on the Character Map.

It is well recognised in archaeological and historical studies that all historical data is variable in quality, and all descriptions or classifications of that data are to a greater or lesser degree subjective. The extent to which such descriptions or classifications may be considered "reliable" depends upon a consensus of perception. This applies to historic landscapes no less than to any other area of historical study. It has to be accepted that describing landscape elements is more or less subjective and that there will be variation in the degree of consensus over those descriptions. It can be expected for example, that most students of historic landscapes would agree on the identification of "Patterns of Fossilised Open Fields", "regularly laid out large geometric field patterns" or "20th century field patterns". However, the identification of particular groups of fields under other categories, such as "semi-regular field patterns", might be debated.

The debate then, is not so much about the degree of subjectivity as about the variability in the expression of observation and interpretation from one category to another. Individual categories encapsulate varying degrees of supporting detail, may be directly derived from observation or imposed *a priori*, and vary in their subjectivity. Consequently, the real issue is that consensus may vary from category to category.

This is relevant to the *a priori* definition of many of the categories used in the Historic Landscape Character Map. Most of these are one-dimensional,

embracing everything that falls within the relevant criteria but, because of the changes forced upon the project, lack the supporting sub-divisions which justify the criteria and permit easy reassessment.

A look at the Urban category will illustrate this. Urban covers all modern built up areas, including industry. This includes development for housing of a variety of dates since the mid-19th century, with a variety of street and property layouts. These layouts may or may not use earlier boundaries or other features, and thereby retain historical depth to a greater or lesser extent. Those layouts are a product of the social philosophies, land markets, architectural and building skills, and of the influence of individuals, at different times. They are themselves landscape types within the whole urban category but individually formed out of the rural landscape, with no less historical depth and value than other types. It can be argued then, that this urban category should be further subdivided, at least to reflect the degree to which earlier field patterns are still present or have been integrated into the modern layouts. This would assist the identification of character within urban areas and provide a tool for mapping and studying historical processes in urban development.

From the perspective of the Character Map's countywide overview, this all-embracing categorisation is perhaps of no great consequence, for it states the basic contrast in character between rural and urban landscapes. However, from most other perspectives it introduces inconsistency, for the rural landscapes are characterised according to field patterns whilst the urban landscapes are not.

In practical use, this is not a problem. The historic cores of major settlements, identified from the 19th Century Map, can be brought forward to the Character Map to show settlement expansion since the mid-19th century (Fig.17). Analysis and statement about particular localities, concerning the field patterns before development and the degree to which these have survived in modern urban layouts, is possible by reference to the 19th Century Map. This is sufficient whilst we remain content to treat all late 19th century and 20th century urban development as a single phenomenon that otherwise only requires to be examined in detail at the very local level. However, this one-dimensional categorisation is insufficient once we need to consider patterns within this phenomenon and to further define its characteristics. Thus, while the categories employed on the Character Map are appropriate to the County or District overview of historic landscape character, care must be exercised in using this characterisation at local scales and the criteria of each individual category have to be taken fully into account.

The ultimate test of the validity of the categories is the degree to which their distributions match the patterns of differing land use and landscape as depicted on earlier historical maps. This was not examined as part of the project and is properly a subject for the future, in refining and developing the County Council's historic landscape information. However certain observations are relevant here.

Ad hoc comparisons with parishes shown on the Sherwood Forest Map of 1609 (Mastoris & Groves 1997), such as Calverton, Woodborough and Blidworth, show a basic correspondence between their patterns of landscape and the morphological classification of enclosures on the 19th Century Map. In other

parishes though, distinctions between land uses recorded on earlier maps, or between phases of enclosure known to be of different dates, do not stand out as might be expected in the colour coding of field shapes. For example, the two phases of the enclosure of the open fields of East Bridgford, mapped in 1601 and 1801, are largely indistinguishable as is, more importantly, the open common meadow (Samuels 1985).

There are many reasons why the patterns of field shape classifications may not always be as revealing as anticipated. Not least amongst these is that while much previous study shows that field shapes and patterns can be assumed to have been frequently influenced by the land uses prior to enclosure, this was not always the actual case. Where those laying out the fields decided, or were obliged, to take preceding land divisions in to account there may be a close and obvious correspondence between the shapes of earlier and later boundaries and fields. In other circumstances there may be no clear correspondence between new and old. There is no consistent one to one relationship between earlier land divisions and use on the one hand, and the size and shape of later enclosed fields on the other. When defining and applying criteria in characterisation, the effect of this real world process is that the highest degree of consensus over recognition and description of landscape elements will be where the historical relationships between new and old land division are most obvious.

It is no surprise then, that there should be much correspondence between the 19th Century Map and the Character Map where there is a close relationship between the shapes and patterns of fields and particular historical processes. It is to be expected, for example, that enclosure which fossilised the strips of open fields, or the large scale geometric parliamentary enclosure of forest and wastes, will appear on both Maps, since the field patterns are diagnostic of the relationship between the earlier and later land management. Therefore, despite the break in the methodological link between the 19th Century Map and the Character Map, both Maps reflect the common understanding of the major historical processes behind landscape development in their mapping criteria.

The limited sources used in compiling the two Maps have the advantage that there is a clear relationship between the criteria defining mapping units and the modern maps against which these have been plotted. The mapping units and the character assessments that may be drawn from them are capable of re-examination therefore. However their validity may be judged, the criteria have been applied across the whole of the county. The two Maps thus offer an overview that is based in every locality of Nottinghamshire. This contrasts with other earlier studies. Mostly, these draw upon documentary resources to develop models and cite examples. Valuable as these works are, there remains a sense of unease that statements and analyses are based on restricted data, not least because much information available in estate or enclosure maps has not been researched or published. While it may be true that the 19th Century Map and the Character Map also have been produced from limited data, this data is comprehensive in coverage.

DISCUSSION

The 19th Century Map

The 19th Century Map was compiled as a working document and this is essentially what it remains. Its great value though, is as a resource from which to qualify statements made on the basis of the Historic Landscape Character Map and as a research tool in its own right. The full exploration of this value lies in the future, beyond this report. The Map is presented in Figure 2 as a compilation of the 76 bitmaps held in the GIS. The number of these and difficulties of geo-registering them account for the gaps between the sheets making up the Map. Although this can be corrected, it has not been felt worth the investment in time to do this as the eye can readily accommodate the visual disruption, and because it is a working document presented at a small scale.

In theory, the 19th Century Map is a limited document since it refers only to the shapes of fields. Field shapes in themselves do not necessarily say anything about the date, purpose or context of their enclosure. They are only one factor amongst many in identifying historic landscapes, and the meaning and relationships of the fifteen categories of field shape have not been examined in detail. Nevertheless, field shapes are part of, indeed a dominant in, the recognition of character. Therefore, certain elements of character are expressed both explicitly and implicitly within the colour coding of shapes on the 19th Century Map and these can be attributed to general or particular historical origins and processes.

The 19th Century Map therefore, can be used as a basis for interpreted statements about the character of the landscape of Nottinghamshire in the mid-19th century. It shows clearly the progressing, near total, enclosure of fields in the county at that time. The lack of uniformity in the patterns of enclosure shows also that they were produced piecemeal, parish by parish, over an extended time frame. In their detail can be seen the variations in distribution across the county of the components that made up the landscape patterns that preceded enclosure, patterns of open fields with woodlands and wastes. Thus the concentrations of large geometric enclosures, of woodland and of other unenclosed land in the west along the Sherwood Sandstones reflects the preponderance of forest waste here during the Middle Ages and its transformation into the most forward agricultural area by the earlier 19th century. In places such as Calverton, Woodborough or Arnold, the contrast between former fields and forest is clear. By contrast, the variegated colours in the Coal Measures on one hand reflect the extensive field systems of a few major settlements and, on the other hand, the complicated and fragmented history of land ownership and land use in the areas around these.

The new or enhanced perspectives this Map gives can be startling. An example of this is the expanse of light colours around Southwell, indicating enclosure patterns that reflect former open fields (Fig.3). This contrasts strongly with the surrounding areas, and can only be the product of the central influence of the manor of Southwell Minster. This comprised not just Southwell but some dozen surrounding communities, the bounds of which were described in the charter by

which they were given to the Archbishop of York in 956 (Lyth 1982, Lyth and Davies 1992). That this area should so stand out through the morphology of its fields in the 19th century suggests a long term vitality and degree of cohesion amongst these communities and in manorial management which otherwise has not been claimed. It suggests early and maintained clearance of woodland for agriculture in contrast to a later clearance in surrounding areas. There is documentary, place-name and boundary evidence for this late clearance, and the distinctiveness of the Southwell estate has long been obvious. However, much enclosure within the parishes of this estate is late, dating to the 18th and 19th centuries (Lyth 1984), and there has been little reason to expect a landscape pattern which was radically different from their neighbours. The special character of the Southwell area, which may originate in a Roman estate, is strikingly revealed by the morphological colour coding.

Some of the patterns on the 19th Century Map then, in the Southwell area, the Coal Measures and elsewhere, reveal the presence of different historical processes and identify areas and avenues for future research. That these and other patterns should appear, in conformation with expectation and giving fresh insight to expectations, suggests that the premise that field shapes reflect historical processes is valid. Consequently, the method of morphological classification, as a contribution to the definition of character of both past and modern landscapes, appears to be justified.

Although needing interpretation, the 19th Century Map is a serviceable tool in describing the past character of Nottinghamshire's historic landscape. It fulfils the first objective of the project, to provide a statement about the landscape at the close of the enclosure movement in the 19th century. It thereby meets the second objective, to provide a base against which the modern landscape can be compared and to enable discussion of change over the last 160 years. Finally, as is evident from the paragraphs above, it will also serve the remaining objective, to provide a bridge between today's landscape and past landscapes and the historical processes involved in these.

The Nottinghamshire Historic Landscape Character Map

The Historic Landscape Character Map (Fig.1) describes the historic dimension of the current landscape of Nottinghamshire. Again, it will doubtless be some time before its potential for interpretation and use is fully realised. However, certain immediate observations can be made.

The first is the large degree of modernity in today's landscape. Modern settlement, modern modified field patterns, modern woodland and the more localised incidents of categories such as industry, military installations, or leisure facilities account for over 60% of the county's area. It must be emphasised that these are not devoid of historical depth, as has already been discussed above. Historic settlements and field patterns, for example, lie buried within the layouts of modern development, ancient field boundaries can be found amongst modern field patterns, and historic woods lie within more recent plantings. Nevertheless, these modern developments represent the areas of greatest change since the

mid 19th century, and in these areas the historic character has been either transformed or attenuated.

Areas that are relatively unchanged since the 19th century, which thereby may be loosely said to retain most historic character, are shown to be in a minority, accounting for less than 40% of the county's land surface. Again, this does not necessarily mean that they have not been subject to change or that their historic content is constant or invariable. Thus, Enclosure field systems on the Sherwood Sandstones may still have their 18th and 19th century boundary patterns, but are farmed and used no differently to those that have been modified into a modern pattern by the removal of hedgerows. Similarly, some areas may contain upstanding ridge and furrow, having been under pasture since enclosure, whilst others may be ploughed and without ridge and furrow. In this latter example then, the qualities or depths of historic character vary.

More revealing are the proportions of these more historic areas. The Extant Open Fields of Laxton are the rarest historic landscape type, of course, but it is a surprise to find that Fossilised Open Fields are now so uncommon, covering a mere 0.2% of the area of the county, less than twice the extent of Laxton's open fields. Field patterns that reflect the pattern of Open Fields are more numerous, but at 8.4 % of the county they can not be considered extensive. As might be expected, the Enclosure field patterns that were created extensively in the 18th and 19th centuries are still the most common, but this is with a total area of only a little over 14%. This illustrates clearly that the proportions of survival in historic character have been dictated in the major part by the forces of change since the 19th century.

The distribution of Modern Modified Field Patterns is widespread and extensive. Virtually no areas have been immune from change to their field patterns, and in some areas, such as the Trent Valley or parts of central or northern Nottinghamshire, this change approaches totality. Overall, the distribution of other types of field pattern is scattered, frequently appearing as isolated or dispersed against a background of Modern Modified Field Patterns. Only in a few areas are these other types dominant, notably along the southern margin of the county and in north Nottinghamshire. Contrary to popular perceptions, woodlands are now more extensive and widespread than in at least the early 19th century. South of the Trent there are now more woods than in the early Middle Ages and even, perhaps more than in the Roman period. However, these recent gains should not mask the loss of woods since the 19th century (Fig.20), many of which were of great antiquity, nor the place of forestry in this woodland gain, particularly on the Sherwood Sandstones, and the consequent changes in woodland character.

Not everything is changed however. Basic geographical characteristics (Fig.4) can be read in the Character Map, not only in major distinctions but also in the localised distributions of landscape types that reflect both topography and historic land use. The historic distinctiveness of the Sherwood Sandstones still stands out on the Character Map. Until the 18th century this area was characterised by low population, extensive heathlands and woods. Now it stands out by virtue of the extent of the woodland, the great estates of the Dukeries, and the Enclosure field systems, by which the area was first transformed in the 18th and 19th

centuries. The subsequent historic divide between the west of the county where industrial and urban development was concentrated in the 19th and 20th centuries, and the predominantly rural character of the remainder, is evident in the extent and distribution of the Urban and Industrial landscape types. Less obvious but nevertheless evident in closer examination, is the historic wooded character of the Mercia Mudstones. This character can be seen in the scale of woodland recorded in Domesday Book in 1086, and despite being much attenuated it remained a feature of this area into the 19th century. Now it is reflected in the size and distribution of Parks and Gardens and in the distribution of woodland. By contrast, Nottinghamshire south of the Trent exhibits more woodland than in 1086, although much appears to coincide with areas of waste and other marginal areas indicated by mediaeval and later documents or historic maps. This and the generally small size of these southern woods then, suggest that many are likely to have followed enclosure.

The Character Map says much about change and continuity in Nottinghamshire landscape and about the social, economic and geographical factors behind these. More subtly, it also reveals how the landscape has been, and continues to be, shaped by the decisions and activities of individuals and groups. For example, the origins of the patchwork distribution of historic landscape types, in the differing histories of land holding and enclosure between townships and parishes, is evident once parish boundaries are overlaid onto the Map (Fig.5). This also reveals how the creation of Modern Modified Field Patterns is dependent upon the policies and farming strategies of individuals and estates. Despite their widespread and undifferentiated distribution on the Character Map, these patterns also are shown to relate to historic land holding when seen in the context of the parishes and the farms within these. If lessons are to be sought or found in the Historic Landscape Character Map, the role of the individual in society in shaping the landscape and determining its character is perhaps the most important.

Relationship of the Nottinghamshire Historic Landscape Character Map to the National Character of England Map

The Character of England Map was produced by the Countryside Commission, English Nature and English Heritage in 1996. It sets out to express the natural and cultural dimensions of the landscape across England, by bringing together "broad divisions of landscape", that form "the basic units of cohesive countryside character", and Natural Areas, that are " biogeographic zones that reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England". 159 Character Areas are identified on the map.

Nottinghamshire is involved with seven of these Character Areas (Fig.6). These are:

- Humberhead Levels
- Sherwood
- Southern Magnesian Limestone Ridge
- Nottinghamshire, Derbyshire and Yorkshire Coalfield

- Trent Valley Wetlands
- Leicestershire and Nottinghamshire Wolds
- Trent and Belvoir Vales

Only the Sherwood area is unique to the county; all the others have a wider extent.

In broad terms there is a correspondence between the Nottinghamshire Historic Landscape Character Map and the areas of Sherwood, the Leicestershire and Nottinghamshire Wolds, and the Trent and Belvoir Vales. The latter is marked by the extent of modern, modified field patterns and the patchy survival of earlier field patterns. Conversely, the Wolds area has a high survival of earlier field patterns. The Sherwood area is distinctive in the extent of its woodland and the survival of parliamentary enclosures. The other areas are less identifiable on the Historic Landscape Character Map.

Relationship of the Nottinghamshire Historic Landscape Character Map to the Nottinghamshire Countryside Appraisal and Landscape Guidelines Zones & Map

The Nottinghamshire Countryside Appraisal and Landscape Guidelines, published in 1997, described the character and local distinctiveness in the county's landscape using methods that conformed to guidance from the Countryside Commission. Developed through field survey and desktop analysis, it identified 10 regional character areas where a sense of unity is created by common physical, historical, ecological and cultural associations (Fig.7). These are:

- Nottinghamshire Coalfield
- Magnesian Limestone Ridge
- Sherwood
- Idle Lowlands
- Mid-Nottinghamshire Farmlands
- Trent Washlands
- East Nottinghamshire Sandlands
- South Nottinghamshire Farmlands
- Nottinghamshire Wolds
- Vale of Belvoir

Although there are some variations in detail, the Nottinghamshire Coalfield, the Magnesian Limestone Ridge, Sherwood, the Idle Lowlands and the Nottinghamshire Wolds correspond to the similarly named character areas of the Character of England Map. The Trent and Belvoir Vale however, is divided into a further 5 regions by the inclusion of the whole of the Trent Valley in the Trent Washlands, and the definition of the Mid-Nottinghamshire Farmlands, the East Nottinghamshire Sandlands, the South Nottinghamshire Farmlands and the Vale of Belvoir.

The regional character areas are further divided into 35 landscape types where consistent patterns of characteristic features combine to identify more localised character. Thus, for example, Sherwood is divided between Forest Sandlands, Forest Estatelands, River Meadowlands, Settled Sandlands, Village Farmlands, and Sandstone Estatelands. Taken together, these regional character areas and landscape types provide finer grained definitions than those of the Character of England map.

The Countryside Appraisal also considers the historical dimension, primarily at the level of the regional character areas, where the sections on human influences at the head of each chapter constitute the first history of the Nottinghamshire landscape. At the level of landscape types historical origins were attributed to various features on the basis of these overviews, previous local research, and inference from a variety of sources including maps and fieldwork. The document also identifies factors influencing recent and future change in the landscape, and presents strategies, recommendations and guidelines for the conservation and strengthening of the local character and distinctiveness of each of the landscape types.

As might be expected, there is a correspondence between the Historic Landscape Character Map and the regional character areas defined by the Countryside Appraisal. This is no great surprise since some categories shown on the Character Map were captured from the Countryside Appraisal, and both projects were looking at the same modern landscape, albeit from different perspectives. However, as with the national Character of England Map, the degree of correspondence varies, being strongest in the Sherwood and Nottinghamshire Wolds and weakest in the Nottinghamshire Coalfield, the Magnesian Limestone Ridge, and the Idle Lowlands.

Variation in correspondence is even more marked at the level of the Countryside Appraisal's landscape types (Fig.8). A major factor in this is the abundance of modern modified field patterns and the consequently restricted distribution of other field patterns with a greater depth of history. If these distributions on the Character Map were the sole basis for drawing up landscape types, areas with different boundaries would be produced. The significance of this requires closer study and analysis than is appropriate or possible in this report. However, it appears likely that the relative proportions and types of surviving historic field patterns and other features, such as Parks and Gardens, will need to be given closer attention in future descriptions of landscape character and in strategies and policies for its conservation. In all events, it is possible now to amplify the landscape history of the county from the securely based description of the changes over the last 160 years provided by the Historic Landscape Character Map.

Relationship of the Nottinghamshire Historic Landscape Character Map to Natural Environment

The relationship between the Historic Environment and the Natural Environment may be examined by looking at important sites in nature conservation against the Historic Landscape Character Map.

Four types of designated site are relevant:

- **Sites of Special Scientific Interest (SSSI)** (Fig.9) are designated under the Wildlife and Countryside Act 1981. They cover floral and faunal habitats, geological exposures and physiographic features that are of national importance.

- **Ancient Woodlands** (Fig.10) are non-statutory designations made by English Nature, and cover woodlands that have been on record since 1600 or earlier.

- **Sites of Importance for Nature Conservation (SINC)** (Fig.11) are non-statutory designations made by Notttinghamshire County Council based on recommendations made by an independent panel of local experts and conservation organisations. They are adopted by District Councils in Local Plans. SINCs cover sites of ecological importance and regionally important geological sites.

- **Mature Landscape Areas (MLA)** (Fig.12) are non-statutory designations made by Nottinghamshire County Council in liaison with District Councils. They are adopted by District Councils in Local Plans. Originally identified in 1992 in the first phase of the County Council's Countryside Appraisal, they are currently being reviewed. MLAs are intended to identify and protect the parts of Nottinghamshire's landscape which have been least affected by adverse change, selected from a list drawn up through an assessment based upon a combination of land use, historical and physical features.

The correspondence between these and the Historic Landscape Character Map is high. Not surprisingly, given the basis of their selection, Mature Landscape areas have a high coincidence with the areas where landscape types of greater historic depth are found. These relationships are a useful confirmation of the general validity of the historic landscape characterisation in Nottinghamshire and illustrate how this may contribute to wider agenda of environmental assessment and conservation.

Relationship to English Heritage's Terrain and Rural Settlement Mapping Project

As part of its Monuments Protection Programme, English Heritage has commissioned a series of studies to map rural settlement diversity. Undertaken by Brian Roberts and Stuart Wrathmell, the first of these divided England into three "provinces", based upon the presence or absence, and density, of nucleated settlements. The second looked at the distribution of nucleated and

the dispersal of non-nucleated settlement in greater depth, and mapped terrains against which settlement data may be interpreted. The result of this was the definition of "sub-provinces" that subdivide the three provinces and of "local regions" that subdivide the sub-provinces. This work was published as a working paper in 1995 (Roberts and Wrathmell 1995). The third phase of study involves the reworking of the draft maps to a larger scale and higher quality of presentation, for a wider dissemination.

Nottinghamshire falls entirely within Roberts and Wrathmell's Central Province, which runs through eastern and central England, from the border with Scotland in Northumberland into Somerset and western Dorset. The county then straddles two sub-provinces, the Trent Valley and the Pennine Slope. The latter is divided into a number of local regions, of which two, covering Sherwood Forest (West and East) are contained wholly within Nottinghamshire, whilst the county boundary runs through another two, the Permian Limestone Ridge and part of the Coal Measures (Fig.13).

The Trent Valley is characterised as being rich in nucleated settlements with very low densities of dispersed settlements, with deserted villages and a scatter of moated sites throughout, and a virtual absence of settlements with greens. This character is attributed to the dominance of "townfield" (open field) agricultural systems from the Middle Ages down to the 19th century. The possibility of further sub-division on the distributions of settlements, deserted villages and moated sites is also indicated.

The Pennine Slope sub-province is transitional between the highland and lowland zones of England and consequently, there is more obvious variation in the characteristics of the local regions. Nucleated settlements are common; while dispersed settlement and "green" settlements increase as one goes northwards towards and into the Peak District. The western part of Sherwood Forest is an exception however, being characterised by a lack of either type of settlement. The Sherwood Forest region is also distinguished by the presence of deserted villages, which are largely absent in the rest of the sub-province. Overall, Roberts and Wrathmell point out that the character of settlement in the Pennine Slope sub-province has been influenced by an origin in a well wooded landscape, recorded in Domesday Book, and by post-mediaeval, industrially based development. Before this later development the pattern is likely to have involved nucleated settlements, of which a few will have been large villages while most were hamlets, and a lesser number of single farmsteads.

Roberts and Wrathmell's characterisation is based largely upon a categorisation of 19th century settlements, the distribution of certain types of monument, and landforms. While this reiterates and illustrates certain basic observations about the landscape of Nottinghamshire and its historical origins within a national overview, these observations can be refined from sources of evidence and perspectives appropriate to study at the scale of the county or more locally. Nottinghamshire County Council's survey of earthworks in Nottinghamshire villages for example, says much about the former sizes of settlements, the history of their development, and the relationships between "deserted" settlements and survivor communities (SMR and Challis and Bishop 1998). Again, a consideration of settlement distributions against geology and land-use,

as shown on historical maps and documents, indicates that agricultural resources exerted a strong influence upon the siting of villages along the Trent Valley and the periphery of Sherwood Forest. These areas in particular illustrate the general tendency for settlements to be sited around the junctions of differing types of geology and hence soils and drainage. In the Trent Valley such settlement positions may be interpreted as relating to agricultural management, particularly the need for convenient access to the arable land, meadow and pastures in the valley bottom and on its clay slopes, with woodland resources lying at a remove on the clay hinterland. A similar interpretation is possible to explain the pattern of larger settlements on both the west and east sides of Sherwood Forest, but with the added factor of the rough grazing and temporary agriculture in the wastes that were clearly an essential component of the economies of these communities.

Turning to the Nottinghamshire Historic Landscape Character Map, settlement is only one category amongst a number that have been mapped and its detailed characteristics have not been examined for this project. Nevertheless, the boundary between the two sub-provinces of the Trent Valley and the Pennine Slope is reflected in the Character Map, mainly by virtue of the prominence of the former Sherwood Forest. The distribution of settlement, with major towns and conurbations mainly on the west, north of the Trent, also reflects the post-mediaeval industrial development that is a characteristic of the Pennine Slope sub-province. However, the patterns of hamlets and isolated farms described by Roberts and Wrathmell, which can be seen on Sanderson's and other maps in relation to their field systems and equally characteristic commons, are lost against the background of a landscape that has changed extensively in the last 160 years.

As Roberts and Wrathmell recognised, other studies at scales below that of their national overview will further develop the distinctions and perceptions that their work provides. They have raised a number of questions and issues about the understanding and interpretation of settlement patterns and landscape in Nottinghamshire that must be considered in future research. Their settlement and terrain maps, together with the Nottinghamshire Historic Landscape Character Map, and other more locally specific sources, provide material for this research.

Relationship of the Nottinghamshire Historic Landscape Character Map to the Nottinghamshire Sites and Monuments Record and to Archaeological Landscapes

The perspective of the Historic Landscape Character Map differs from that of the usual presentation of archaeological and historic remains. Different objectives, intellectual frameworks, mapping criteria and time dimensions are involved in each. Consequently, archaeological remains are not included in the landscape types that are mapped on the Character Map. Nevertheless relationships do exist between archaeological sites and monuments and historic landscape character. Archaeological sites and landscapes speak about the origins of particular landscapes, and about the depth of history embodied within them. The presence of archaeological remains may contribute to the character of those

landscapes. Some landscape elements may be regarded as discrete archaeological or historic sites, and vice versa; Parks and Gardens or Historic Settlements are obvious examples of these. In the main however, these intimate links between archaeological remains and past landscapes and the historic character of today's landscape are most significant at the local level. As some of the descriptions of landscape types below illustrate, a full description of local character may need to address these.

At the general level of characterisation, a comparison between the distribution of archaeological sites and monuments should allow the asking of questions relevant to the future sustainability and management of both the archaeological resource and landscape. There are two principal questions. The first is about the degree to which archaeological remains are visible and contribute to the historic character of different landscape types. The second is the converse of the first, and is about how the evolution or creation of different landscape types has affected the survival and visibility of archaeological remains.

The common denominator in these questions is the basic character of the archaeological remains, whether they are visible as above ground features or whether they are leveled and invisible at ground level. The most numerous of the upstanding archaeological remains recorded in the Nottinghamshire Sites and Monuments Record are earthworks, whilst the most numerous leveled sites are cropmarks, which are visible in differential crop growth recorded on aerial photographs. It is to be expected that earthworks will contribute to the historic character of at least local landscapes and could be visibly affected by change, along with other determinants of character. Cropmarks on the other hand, while being important in the explanation of the origins of landscape character, do not contribute directly to current landscape character because they are not recognisable at ground level. However, change in the landscape may affect the degree to which the remains survive below ground, through ploughing or development, and at the same time make them visible or invisible through the growing of different crops. In theory then, historic landscape character may be regarded as a surrogate indicator of both the survival and form of archaeological remains. *A priori*, it may be expected that earthworks will be associated with areas where the historic dimension of the landscape has been least changed, whilst cropmarks will be associated with the areas of greatest change.

Examination of the distribution of cropmarks against the Nottinghamshire Historic Landscape Character Map shows that there is indeed a correspondence with Modern Modified Field Patterns in the Trent Valley (Fig.14). However, on the Sherwood Sandstones and in the south east of the county, cropmarks are also found in association with other historic landscape types. Further, they are absent from the extensive areas of Modern Modified Field Patterns on the clays of central and northern Nottinghamshire. These observations show that it is the causal association between drainage, geology, soils and types of crop that is important in the development and visibility of cropmarks. In the Trent Valley and the other locations where they have been recorded over the last 50 years, these factors are particularly favourable to the development of cropmarks. On the clays they are not favourable, and few cropmarks have been recorded on this geology, even though there is every reason to believe that archaeological sites exist in comparable numbers. The appearance of cropmarks within other

landscape types shows that it is not the historic character as defined by field pattern or other physical features that counts when dealing with cropmarks, but the type of land and crop. No definitive association between particular types of historic character and cropmarks is visible therefore.

By contrast, the distribution of earthworks shows them to be widely distributed, with a majority amongst landscape types that have remained unchanged since the 19th century (Fig.15). Few of the mapped earthworks are upstanding areas of ridge and furrow which, almost by definition, can be expected to survive in unchanged areas. There is only a background scatter of earthworks in areas of Modern Modified Field Patterns. So far as earthworks are concerned then, the premise that they will be associated generally with areas of greater historical depth appears to hold true and it becomes possible to use historic landscape character as an indicator of the likelihood of earthwork survival. Equally, the association of earthworks with particular landscape types may amplify the definitions of general historic character and the relevance of earthworks as a consideration in the definition of local historic character is emphasised.

The Use of the Historic Landscape Character Map

The purpose of this project was not only to describe the historic characteristics of the landscape of Nottinghamshire today, but also to provide a basis from which to build approaches to the future study and management of the historic landscape. The implications of the Historic Landscape Character Map need to be carefully considered beside those of other forms of countryside appraisal and characterisation. For this reason, no attempt has been made to define regional or more limited character zones. Consequently no time-depth matrices are offered in this report. Rather, in order to guide readers in understanding the Character Map and in their use of it, detailed comments about the definitions, depth of history and the historical processes involved in most of its categories are presented in the Appendix. The outstandingly valuable result from the project is that, for the first time, we have in the Historic Landscape Character Map a quantifiable measure of the historic dimension in the Nottinghamshire landscape. As intended, this is capable of use from a number of perspectives. While this report is not the place to expand upon these, a few comments on the use and development of the Map are appropriate.

The historic dimension of the current landscape has become recognised as a significant factor in decision making and Historic Landscape Characterisation has is recognised as an important tool in landscape appraisal. The utility of the Nottinghamshire Historic Landscape Character Map in this context has already been demonstrated by its deployment in reviews of the County Council's designations of Mature Landscape Areas, which are the subject of District Councils' Local Plan policies. It follows that the Nottinghamshire Historic Landscape Character Map is a document to which planning authorities and developers should refer, and that Environmental Assessments and other surveys describing or evaluating landscape will be deficient without such reference.

As has been mentioned, and as the work with the Mature Landscape Areas further demonstrated, there are dangers in applying this countywide

characterisation at the local level. While the landscape types shown on the Character Map provide a starting point in appraisal, to make statements about historic depth and character in detail requires that they be qualified by the use of other appropriate sources. This is particularly the case when Modern Modified Field Patterns and Urban Areas are under consideration. The descriptions of the mapped landscape types in the Appendix are in part intended to assist in the use of the Character Map at a variety of scales.

Policies will need to take the extents and distribution of landscape types into account. The sustainability of 19th century and earlier landscapes is clearly a matter of concern and the ability of these to absorb further change without loss of depth in character across the county has reached its limit. Indeed in many areas this has been exceeded already. The survival of the Extant Open Fields at Laxton (Fig.25) has long been a matter of concern, but it is now clear that Fossilised Open Field Patterns have become so rare that positive intervention is necessary to ensure their continuation (Fig.26). Nor is there room for any complacency over the other earlier landscape types, for they have individually become so limited and dispersed in area that any further loss will be significant at both local and county levels. Policies to promote the conservation of these landscape types are necessary therefore.

These may be most readily targeted at those areas where earlier landscape types predominate in the local landscape, but areas where pieces of earlier landscape survive amongst, and introduce variety into, modern modified patterns will also need to be included. One approach may be to direct change and development towards Modern Modified Field Patterns on the basis that the direct link with the historic origins of the landscape has been broken here and therefore, these have the ability to absorb change. Indeed, since change in the landscape need not be regarded negatively and today's changes can be seen as the latest phase in a history of change, these areas may be those best suited to the development of new landscapes. However, as the description of these patterns below should make clear, such an approach can not dispense with the need for the careful assessment of areas before making decisions, for despite their modern modified character they are not unvarying or without historic features.

The statement that the Historic Landscape Character Map makes about the county today also provides a yardstick against which both future change and the effectiveness of planning and management policies in the landscape can be monitored. This can be represented graphically, through the changes in the extents and distribution of landscape types visible in future re-mapping, and through the statistics about their areas that can be generated through the GIS. For this to be possible however, investment in reviews and continued mapping will be required.

Finally, reference has been made several times to the need for detailed local studies that will permit categories to be refined further and character to be articulated more meaningfully. Continued research and additional data capture is required therefore. Many questions occurred whilst the Map was being compiled, most of which could not be addressed through lack of information. Examples of these include the absence of a county-wide survey of upstanding ridge and

furrow or studies of the relationships between urban layouts and previous landscape patterns, both of which would bring additional dimensions to both the definition of character and approaches to its conservation.

Other questions relate to the need for research to better understand the historic origins and processes embodied within landscapes, and thereby to improve our management of landscapes. In particular, it is evident that attention needs to be given to the archaeology of early modern and modern landscapes, both urban and rural. There is a need to know about the physical characteristics of the enclosure boundaries that make up the patterns upon which the characterisation is based, how these may or may not vary from locality to locality, region to region, and what influenced these physical characteristics. From the broader historical perspective, a particular issue is how communities, estates and individuals translated plans and decisions about the division and occupation of land into physical reality, and then used and adapted those realities. The Character Map shows that the primary evidence for much of this in the rural landscape is much diminished, and other sources document the increasing rate of change in urban environments. In the mapping of landscape types it may also have identified areas where research may be most profitable. Overall however, it illustrates that the need for further survey, description and analysis of the 19th and 20th century landscape is urgent, lest it be deferred to a time when the physical evidence is so reduced as to limit its study. If the purpose of the study of the past is to inform our understanding of the present, it is no less true that the study of the present can inform our understanding of the past.

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APPENDIX

HISTORIC LANDSCAPE TYPES

To assist the reader in understanding and using the Historic Landscape Character Map most of the types of land use and historic field patterns shown on the Map, together with some of the categories held as supporting data within the GIS, are described on the following pages. This description is under three headings:

Definition – a discussion of what has, and has not, been included in the various categories and how the criteria described in the main text have been applied. The opportunities for sub-division and reclassification are also discussed, indicating possible agenda for future development.

Depth of History – a review of the chronological origins of the land use and field patterns represented on the Character Map, together with the variation in the presence of features from earlier patterns in today's landscape. This is intended to give guidance for the use of the map both as an overview and from the local perspective. The discussion provides a qualification of the definition and criteria used in categorising the landscape, and indicates the issues that may need to be considered in identifying and assessing the significance of the historic dimension in the character and distinctiveness of localities. It also contributes to possible agenda for the future development of landscape studies within Nottinghamshire.

Historical Processes – a brief commentary on the factors which influenced and conditioned the development of the particular land uses and field patterns shown on the Character Map. These range from national political, social and economic trends to the local responses to these, as seen in patterns of society, land owning and land management. The testament that historic landscapes provide about these varying circumstances and perceptions in the past is a major, often unstated, factor in the way in which people value and attribute importance to the character and diversity in their locality today. This commentary is intended to signal how the types of land use and historic field patterns shown on the Map may carry a depth and breadth of significance that is integral with wider perceptions and feelings about the historic, i.e. today's environment.

Some duplication may be found between the descriptions of related types. This is wholly intentional, in order to allow users of this report to read and consider each description independently of the others.

URBAN AREAS (Fig.16)

Definition

This classification covers the built-up areas of today. It embraces the historic cores of settlement together with the 19th and 20th century development of housing, industrial, commercial and leisure. It therefore covers towns, villages and hamlets, irrespective of their scale.

The character of these areas is very variable, both within each area and one from another, and is determined by their individual histories. By definition, the larger conglomerations incorporate a number of historic settlements and have built over their fields and other formerly rural features. Further sub-division of this classification would express more fully the history and character of these areas. So far as the Character Map is concerned however, this all-embracing category expresses the common character of concentrations of buildings and infrastructure for intensive living, working and moving within relatively confined areas. Equally, in both the conglomerations and most villages, it expresses a characteristic of modified or transformed landscapes. This change has occurred since 1850, and much of it belongs to the last 50 years.

Depth of History

These areas embrace over 1,000 years of history. While in general 19th and 20th century housing and industrial development may dominate, the depth of this history may still be read variably according to locality. Standing structures, street layouts and property boundaries in villages and historic settlement cores may go back to the 10th century or even earlier, while mediaeval or Enclosure field boundaries may be fossilised in the street layouts and development patterns of Victorian and Edwardian housing. Development or re-development of the last 25 years however, may completely ignore earlier land divisions and features, except in their peripheral boundaries. Reading this history depends upon local studies, without which sub-division of these areas into additional general character types is not possible.

The following list, which is by no means definitive, may give some indication of the potential for further sub-classification and of the historical elements that need to be considered in assessing “Urban” areas.

In villages and historic settlement cores:

- Site and date of church, manor houses, and other principal buildings or structures, whether extant or not
- Street layout, as identified from historical maps and on the ground, market places, back lanes, peripheral road junctions and open spaces
- Property boundaries, organisation of farm and dwelling plots
- Sites of industrial and “craft” activities
- Settlement and other activities peripheral to the core
- Distribution, character and dates of Listed and other historic buildings and other standing structures

Elsewhere:

- Major land divisions, such as former fields, meadows, commons, woods
- Former field boundaries, roads and footpaths and their junctions
- Street patterns, property boundaries, open spaces
- Development design, as expressed in housing styles and dates, street widths, verges and trees
- Location and character of industrial and municipal buildings, and facilities such as parks and grave-yards, shops, churches and chapels
- Re-use of industrial and other sites
- Locations of hedges and trees, the character of these and the species present

Historical Processes

Surviving earlier physical features, or their replication, in Urban areas speak of both continuity and discontinuity in the landscape and of changing social and economic contexts. Again, the influence and effects of these are specific to particular localities. As a general landscape type however, Urban areas reflect the following principal historical processes:

Population rises and decreases
Nucleation of settlement in the Late Saxon and Early Mediaeval periods
Land use and organisation from the early Middle Ages to the present
Industrialisation
Rural depopulation
The power and influence of government, local government, landowners, entrepreneurs, and individuals
The implementation of theories of urban architecture and design
Developments in transport
Availability of building and other raw materials
Developments in commerce
Changes in the economic bases of settlements and in their functions, and in social expectations and lifestyles of their inhabitants

MAJOR HISTORIC SETTLEMENT (Fig.17)

Definition

This category covers the extent of settlements as shown on Sanderson's Map of 20 Miles around Mansfield of 1835 and on early O.S. maps for the areas of the county beyond this. Although some communities were already expanding in the early 19th century as a result of industrial development, these extents may be taken to generally reflect the pre-industrial pattern of settlement. Farms beyond the village envelope and smaller hamlets shown on the 19th Century Map, have not been plotted. This character type then, represents the historic cores of the major communities discussed under "Urban".

Depth of History

Mapping Major Historic Settlement against Urban provides a perspective on the degree and location of change in the landscape since the 19th century. As has already been discussed under Urban, much of this change has involved expansion for housing and/or industry in the course of which fields and other formerly rural features have been built over or integrated into new landscapes. However, it must be noted that plotting this category in Figure 17 produces a distorted perspective. This could give the impression that *all* settlement in the wider countryside is a product of late 19th and 20th century expansion. *Such an interpretation would be wholly inaccurate*. The lack of comparability between the two data sets on Figure 17 might be good reason to exclude it from this report. It has been retained because it does illustrate the extent to which towns and many villages have indeed expanded, particularly in the 20th century. Nevertheless, it should be understood that Figure 17 must be read in terms of the *major* settlements only.

In the main, Major Historic Settlements are a landscape type with unbroken continuity over some 900 years. Many, if not most, settlements have origins in the nucleation of settlement which is currently thought to have been in progress in Nottinghamshire from at least the 10th century. While nucleated villages have long been typical of the county, in some areas, such as the Coal Measures of west Nottinghamshire, hamlets and isolated farms were also characteristic. The character of all these settlements is variable and is determined by their individual histories. Villages and hamlets grew and shrank, shifted in focus, their layouts were adapted or replanned, some disappeared and a few new ones appeared, according to their individual circumstances. The Major Historic Settlements on this Map then, are only those which were recorded as settlements in the 19th century. They represent the stage of settlement history reached after some 500 years of development from the mid 14th century, and before the expansion of the 19th and 20th centuries. As a landscape type though, they are relevant solely to the 19th century and after. To discuss earlier settlement patterns requires the addition of other data from the SMR about shrunken and deserted settlements.

Nevertheless the depth of settlement history may still be read variably in individual settlements and across the landscape type. Areas of planned and unplanned growth and other development of a variety of dates, some of which

may go back to the 10th century or even earlier, can be seen in the 19th century plan-forms of historic settlements. These are a fundamental source for the examination of settlement history. They also provide a basis for further categorisation and assessment of chronological depth within this landscape type. All or some of these elements survive in the modern town or village landscape in the form of standing structures, street layouts and property boundaries, whilst the historic margins may be indicated by the mediaeval or Enclosure field boundaries fossilised in the layouts of Victorian and later development. Many of these elements have been itemised in the discussion of "Urban" areas and are relevant to the future management of "Historic Settlement".

Historical Processes

Settlement is one of the major themes of social, economic and landscape history. Since the majority of Major Historic Settlements have an unbroken continuity of development from the Late Saxon period up to the present, this landscape type is a principal source for examining and understanding this theme. It is clear from Fig.17 for example, that 19th and 20th century expansion of settlement has been at the expense of fields and woods in the industrial areas of west Nottinghamshire and around towns. This contrasts with rural villages, where settlement has increased in internal density at the expense of closes. These and other observable changes in settlement and landscape over the last 160 years can not be understood without also understanding the processes which influenced settlements up to the mid 19th century. This category of Major Historic Settlement expresses those influences. Again, these have been itemised already in the discussion of "Urban" areas. They are not repeated here, but this does not diminish their relevance to the management of "Historic Settlement".

WOODLAND (Fig.18)

Definition

This category maps the woodland in today's landscape, using data from Nottinghamshire County Council's Landscape Appraisal. No differentiation is made between different types of woods or between woods of different dates. The category is clearly capable of being further refined on these bases and indeed the woodland shown on the 19th Century Map has been plotted on the GIS. Comparison of the distribution of this with the distribution of woodland today enables change since the 19th century to be examined and is an indicator of the depth of history of certain woodlands (Figs.19 & 20). It has to be said that apart from commentaries upon Sherwood Forest and particular ancient woods within it, the history of the woodlands of Nottinghamshire is not well researched. Consequently, while it is clear that there is variety in the functional origins and dates of creation of the county's woods, it is not possible to categorise them adequately at present. This must await further research, particularly a detailed consideration of their likely origins and date using historical maps and documentary sources.

Depth of History

No primaeval woodland survives in Nottinghamshire. The available archaeological and palaeoenvironmental evidence indicates that most, if not all, of the woods that grew up after the end of the Ice Ages were cleared by at least the Roman period. Indeed, it seems likely that Nottinghamshire was no better wooded in Roman times than it is now. The post-Roman "Dark Ages" however, saw much woodland re-growth, so that Nottinghamshire north and west of the Trent appears as well wooded in the records of Domesday Book in 1086. In the Trent Valley and the south of the county by contrast recorded woods were scarce.

During the Middle Ages and the early post mediaeval period the general story was one of continued attrition, with the woodland being gradually degraded by the grazing of animals, clearance for agriculture and felling for timber. Although the documentary emphasis on the exercise of Forest Law and on timber resources, as opposed to other woodland products, may have resulted in this having been overstated, it seems nevertheless, that woodland across Nottinghamshire was again severely depleted by the end of the 17th century.

From the 18th century woodland re-establishment was a conscious agricultural objective. This was led by the Ducal estates on the Sherwood Sandstones, who planted timber as a long term investment and to ornament their parks, and coppice to provide materials for fencing, hurdling and other uses on their lands. Lesser landowners and progressive farmers followed their example. By the end of the 18th century and in the 19th century, enclosure provided a context in which planting was easier. Single ownership and tenancies encouraged longer term investment, while the new fields provided convenient small blocks and corners for planting that also met the interest in game and field sports.

The 20th century (Fig.19) added two additional factors into this. The first was the introduction of national schemes to increase and maintain the supply of timber, engendered by the demands and consequences of the two World Wars. The second was the recognition towards the end of the century of the environmental benefits of woodland. This has given rise to planting schemes such as the County Council's Greenwood Forest and the Forestry Agency's small woodlands scheme. This century has not been wholly one of increased woodland though. Many woods visible on the 19th Century Map, some of which were of great antiquity, have been removed particularly during wartimes and in the latter half of the 20th century (Fig.20).

Interestingly, the distribution of woodland in the Nottinghamshire landscape of today continues to reflect that of 1086. In part this is because of the enduring effects of differences in population densities, economy and soils between the region north and west of the Trent and that of the Trent Valley and southwards. The soils and human history of the Sherwood Sandstones have played a particular role in this. But other factors are now at play, not least a conscious recognition of collateral benefits of the association between the opportunities for planting and the famed Sherwood Forest.

From this brief review, it can be seen that Woodland has a long history. The depth of this varies from location to location however. Although many woods may be considered to be relatively recent, associated particularly with Parks and Gardens and parliamentary enclosure or 20th century national schemes, there are some that have an ancestry in the Saxon period or Middle Ages. In considering the historical background of any individual wood therefore, it is important to consult historical maps and documents. Fieldwork is also recommended, for woodland may contain earthworks or other evidence of previous land use that can be of great antiquity. These may provide indications of the date at which the wood was planted or grew up, but equally if not more importantly, they impart added historical and management values to the woodland.

Historical Processes

From the depth of history that can be seen in Nottinghamshire's Woodland, it is evident that it expresses the same historical processes that influenced the development in general of the county's landscape. Specific influences include:

Land use and organisation from the early Middle Ages to the present
Continuity and change in settlement and population
Continuity and change in land ownership
Estate ownerships
The implementation of changing concepts in landscape design and garden architecture
Economic developments, in agriculture, industry and commerce
Changing philosophies and concepts behind agricultural practices
Technological change
The power and influence of individuals, landowners, entrepreneurs
Economic consequences of European wars on national policies

Environmental consciousness amongst the public and in the policies of national and local government

PARKS AND GARDENS (Fig.21)

Definition

This classification covers historic Parks and Gardens included in the English Heritage Register of Parks and Gardens, others that are also identified in the SMR, or that are otherwise known from historical documentation. A wide range of functions and scale is covered by the term Parks and Gardens, from deer parks to ornamental and designed landscapes, and from the extensive parks of the Dukeries to the smaller ornamental gardens and landscaping that are visible on historic and modern maps associated with large houses. Most parks and gardens shown on the Character Map are extant; some, like the royal hunting park at Clipstone are not. In these latter cases however, the boundaries are still evident on the map and in the landscape. These boundaries, together with their particular histories of ownership and management, have influenced the field patterns and land use within them.

The internal landscapes of Parks in particular are variable. Most parks had, and still have, a multiplicity of "agricultural" uses, including arable, animal husbandry, forestry, and game conservation. These uses may be concurrent. For example, an ornamental landscape may be also part of the farming economy of an estate, with the maintenance of the design of the landscape involving grazing or forestry that will also produce a crop. The management of such farming activities and their balance with the principal objectives of the park was, and is, determined by the economic and social circumstances of the landowners through time.

The agricultural economy, then, has been as equally influential within parks as elsewhere. Field patterns and land use, particularly within "lost" parks, often may be little, if at all, different from those of the surrounding areas. When viewed from the view point of land use or historical trends the designation and management of Parks and Gardens may be more an extra factor in describing character than a determinant of character.

In some cases therefore, this classification includes landscapes which would otherwise be characterised on the basis of field patterns or land use (such as enclosure field patterns or woodland). In others, where the influence of former parks in the modern landscape is now not immediately obvious, they may be subsumed and classified within those other categories. A clear example of this is the royal hunting park of Bestwood. While the boundaries of this have been influential in the development of the local landscape and can still be read on the map, it is now much changed internally and is very broken up between a variety of land uses and landscapes. It is not classified as a park on the Character Map, and nor are the mediaeval hunting parks at Annesley or Wollaton. The Parks at Annesley Hall and Newstead however, are classified as such, along with most of the other parks of the Dukeries. On the basis of these examples, the mapping of Clipstone Park under Parks and Gardens, as a component of the modern landscape, may be debatable. In general, continuity in boundaries, land use and ownership are implicit criteria in the definition of Parks and Gardens as a character classification.

Depth of History

Parks and Gardens have a history that goes back to at least the 11th century and possibly earlier. A number of extant parks have origins in mediaeval hunting parks belonging to the king, magnates or local aristocracy. Many such parks have disappeared, having been dissolved by the end of the Middle Ages or in the 16th or early 17th centuries. Those that survived were amplified by new parks built for ornament and utility in the post mediaeval period. These expressions of status were originally laid out, and subsequently re-developed or otherwise altered, according to the design concepts of various times. Many parks forming the core of this landscape type are the older or larger ones with mediaeval or earlier post mediaeval origins. By the 19th century, new parks or gardens appear, designed for the ornament and pleasure of the wealthy industrial and middle class, or as part of municipal provision for the ordinary public. While numerous, these are frequently small in extent.

Since many parks, in particular those created in the late Middle Ages or later, have been managed "conservatively" within constant spatial limits, they may have encapsulated and protected remains of earlier settlement, fields, ruins and other monuments, together with ancient landscape features such as ancient woodland or meadows. Such remains and features may be of any date, from prehistory through to recent times, and may be better preserved than comparable sites in other landscape areas where change and management regimes may have been less benign. Establishing the date and origin of archaeological remains and landscape features may be easier in these areas, because the documentary record for parks and gardens is often better than that for other forms of land use and development. Depending on individual circumstances then, Parks and Gardens may be further characterised as areas with a high potential for the survival of a better preserved archaeological resource.

Parks and Gardens then, may vary in their dates of creation, may represent one or more design concept according to their individual histories, and preserve a depth of readily intelligible history that is far older than themselves.

Historical Processes

As has already been described, Parks and Gardens present a range of social and economic ideas and activities. They are quintessentially artefacts, created by acts of will for purposes that transcend the economic necessities, and the organic responses to these, which lay behind much landscape development. They are acts of will in their design and in the balance between ornament and utility inherent in their use and maintenance. All that is required in addition is sufficient space and/or the wealth and power to control the activities of others. It is therefore, no surprise that those parks and gardens that are of sufficient scale to be recognised as components of landscape are associated with individuals and institutions of power, wealth or influence, and that they should be located where these could be exercised without too much hindrance.

Parks and gardens fulfilled a variety of social purposes, especially the expression of status, often in combination. These combinations varied with circumstances over time and according to the perspectives of the individuals or institutions

involved. They are not just an expression of personal or institutional power, but also of the relationship of this to changing social perceptions and expectations as a whole, particularly over the last 160 years.

Parks and Gardens reflect the following principal historical processes:

Land use and organisation from the early Middle Ages to the present
The power and influence of individuals, landowners, entrepreneurs, and local government
Settlement and population
Rural depopulation
Continuity and change in land ownership
The implementation of changing concepts in landscape design and garden architecture
Developments in agriculture, industry and commerce
Continuity in social and economic structures and expectations
Change in social and economic structures, and in the culture and lifestyles of the public

MINERALS SITES (Fig.22)

Definition

This category covers old and current gravel, clay and stone quarries, coal mines and tips. These are but one aspect of industrial landscapes, most of which are subsumed into other categories, particularly Urban. However, minerals can only be worked where they exist and are accessible and mineral extraction is an activity that is predominantly carried out in the countryside, in open spaces beyond the settlement areas. It is these areas in the countryside that are identified under this heading. As with other categories, it is not claimed that all sites of mineral extraction are represented on the Historic Landscape Character Map, as comprehensive information is surprisingly difficult to assemble. Further, many parishes had small quarries, usually towards their boundaries, that are not plotted. These were usually not much larger than a few acres and therefore have little influence in overall character as seen from a countywide perspective. Many disused local quarries are recorded in the Nottinghamshire SMR and this data can be used in studies of local character. Similarly early coal mining landscapes are known in parts of the exposed coalfield on the west of Nottinghamshire. Although these involve widespread patterns of upstanding remains of mine shafts, these occur either within pre-existing field patterns or are overlaid by later field patterns that generally do not appear to be influenced by them. These are also recorded in the SMR and, while undeniably part of the definition of local landscape character and relevant to the history and pattern of settlement in west Nottinghamshire, they have been treated as archaeological landscapes for the purposes of the project. It is the field patterns that have been used in categorising the landscape on the Historic Landscape Character Map, not the presence of the remains of mines within them.

Depth of History

Mineral extraction has a long history in Nottinghamshire, with coal mining having been claimed to go back into the Roman period. However, extraction on a large enough scale to register within the overall character of landscapes really begins only in the late 19th century and becomes an escalating feature during the progress of the 20th century.

Historical Processes

The need for large volumes of minerals is a concomitant of an industrialised society and the social and economic development of this since the late 19th century. Many factors are involved, including:

Government policies
Changes and cycles in national and regional economies
National and regional demands for housing and roads
Energy and power applications and development
Construction techniques and practices
Commercial development, policies and practices
Patterns of land owning

National and regional farming economies
Town and Country Planning
Social expectations and perceptions

MILITARY AREAS (Fig.23)

Definition

This category comprises the sites of World War I and especially World War II airfields, and other large-scale military installations that cover significant areas of land with a distinctive layout. However, it does not necessarily cover all such sites. Some, particularly ordnance depots, are subsumed within the Urban category and others have been "reclaimed" and put to other uses. World War I airfields were mainly grass fields and may have been subdivided upon their return to agriculture. Nevertheless, where information about their presence is available, they have been plotted on the premise that they may have an enduring influence in the landscape, be this in the localised disruption of field patterns or only as the origin of particular farm or place names. Many of the installations included are no longer in military hands and have been modified. They have still been included here because of their military origins and large-scale departure from earlier patterns of land use. Future development of the information base and the GIS will doubtless see an increase in the numbers of such sites, as information from the CBA's ongoing Defence of Britain project and other work is absorbed. This in no way affects the validity of the Historic Landscape Character Map as a county-wide overview, for the major areas of surviving military origins and character are well known and readily distinguishable from the map sources.

Depth of History

While military installations of a variety of earlier dates are known in Nottinghamshire, these are mainly categorised as particular monuments and are described in those terms in the Nottinghamshire SMR. The requirement for large areas of land, particularly for airfields, is a 20th century phenomenon. Apart from the limited number of World War I installations, most of the areas covered by the Military category belong to World War II and later. However, this relatively shallow depth of history should not detract from the fact that a number of phases of development, for both military and civilian purposes, may be present. In considering such areas it is necessary to ascertain and examine all the relevant details about their history, development and structures therefore, not least because they are increasingly valued from both national and local perspectives.

Historical Processes

Most military installations are the product of the intervention of the state in decisions about land use and ownership, in order to meet the particular requirements of war or peacetime national defence. Military areas then, are the physical testament of national history and events, of their effect upon localities and of the role that local communities played in those events. Transcending the mundane, their presence and their character is of more than local significance. Alongside this are other factors such as:

Communications
Energy and Labour sources
Technological development (for example, in aircraft or runway construction)

Military Strategy
Power of the state
Power of the individual

LEISURE AREAS (Fig.24)

Definition

This category essentially covers two types of area, those in which the landscape has been designed to meet leisure purposes, such as golf courses, and those which have been adopted or modified for leisure, such as country parks. In practice however, the plotting of the latter has not been rigorous because leisure can cover many uses that are not reflected on maps and the character of field patterns or landscape may be unchanged. Consequently some leisure sites or areas are subsumed under other categories. An example of this is Newark Showground which, despite the presence of purpose built structures, has only somewhat modified the landscape of the former World War II airfield within which it lies. On occasion the situation is reversed, as at Attenborough Nature Reserve. This might more appropriately be categorised under Minerals because it has been created from former gravel quarries. However, elements of the earlier landscape are still traceable within the quarries, whilst the recent and current management of the site is directed to a combination of public access and nature conservation. In the context of the countywide overview of the Historic Landscape Character Map, it has been easier to compromise by showing it as a Leisure area. Little or nothing is lost by this since this is an area that has changed in character since the 19th century.

Depth of History

Most landscapes that have been designed for Leisure are 20th century, and most of these were created in the last 40 years. In some cases these amount to new landscapes. However, elements of the earlier landscape may survive, not only around their perimeters but also within their interiors. This is highly likely to be the case where leisure use has involved the taking over and adaptation of areas used for other purposes. This may range from the retention of field boundaries, and water areas within them, in former gravel workings, to everything within the parkland and gardens of former great estates that are now country parks. In considering leisure areas therefore, the details of their individual history and development must be examined in order to describe and assess their individual characters.

Historical Processes

Many Leisure landscapes are the product of changes in economy and society, and in expectations amongst the population as a whole, during the latter half of the 20th century. This is not wholly new development however. Rather, it may be seen as the extension into the modern world of the historical processes that created Parks and Gardens. This continuum is expressed in several ways. Thus, on the one hand, physical continuity can be seen in the re-use of the privately created, and sometimes ancient, parks and gardens of the aristocracy and wealthy as modern country parks, now open to all. On the other hand, the creation of leisure landscapes can be seen as developing from the provision for public health and recreation made by local authorities and business that began in the 19th century, with the laying out of public parks and open spaces, and the

creation of sporting facilities. Factors involved with Leisure landscapes include therefore:

Social and economic development during the late 19th and 20th centuries
Changes in social expectation during the late 19th and 20th centuries
National policies and funding
The role and status of Local Authorities
Town and Country Planning policies and processes
Commercial enterprise
Theories and practice in Landscape design

UNENCLOSED OPEN FIELDS (Fig.25)

Definition

Only one area of open field system remains extant in Nottinghamshire. This is the internationally famous field system at Laxton, unique by virtue of the survival of both the fields and the Court Leet, along with the traditions and practices of agricultural management and organisation involving the farming community (Beckett 1989). The open fields of Laxton have been modified and adapted since they were first mapped in 1635, but nevertheless have survived substantially through accidents of fate and more recently by the conscious will of the community itself, supported by the international recognition of their historical importance and value. So far as this Map is concerned, it is the current area of the open fields that is shown.

Depth of History

The documented history of Laxton shows that the open fields were not laid out simultaneously but were developed over time during the Middle Ages, up to c.1300 A.D., as the community grew. The West Field and the East Field (subsequently enclosed) appear to have been the earliest. The creation of these probably has a context in the socio-economic conditions of the 10th and 11th centuries that resulted in the widespread nucleation of villages and reorganisation of farming to create open field systems.

The earliest map of Laxton and its accompanying terrier, dating to 1635, shows the open fields at a late stage of their development. At that time, the land holdings were clearly in a process of reorganisation, and there are indications that this had been preceded by an earlier phase of adaptation. There is every reason to believe that the arrangement of furlongs, strips and closes shown on the 1635 map was the product of a long history of major and minor development and alteration during the Middle Ages.

These Unenclosed Open Fields are far more than a reflection of an otherwise past historic agricultural practice. Despite the modifications of the last 160 years, their physical structure and the living tradition by which they are managed and cultivated are a direct link to the commonplace of Nottinghamshire and of much of Midland England during the Middle Ages. Physically, socially and conceptually they have an unbroken continuity of over 1,000 years.

Historical Processes

The date and circumstances of the creation of open fields have already been mentioned. Although there remains much room for debate about these, current wisdom is that the creation of the open fields at Laxton was part of a wholesale movement in the Late Saxon period to reorganise farming in order to maximise the production of cereals. This remained the dominant feature of the mediaeval agricultural economy until climatic change and population drops in the 14th and 15th centuries resulted in a swing towards animal husbandry and the beginnings of Enclosure.

Laxton lies in the centre of the Mercia Mudstones, north of the Trent. This area remained comparatively immune from wholesale enclosure until the later 18th and 19th centuries, partly because of the difficulties of land drainage but mainly because communities were able to adapt open field systems to accommodate mixed farming regimes. Laxton might have been enclosed at almost any time after the Middle Ages, indeed the map of 1635 seems to have been commissioned with this in mind. However, despite some enclosure around the peripheries of the parish, the core of the open fields remained largely untouched because there the cost of enclosure was unacceptable to the lord of the manor, even at those times when external economic pressures might have made it particularly desirable. This illustrates how it is not only great social or economic trends but also the decisions of individuals that have determined the pattern of the landscape.

In the 20th century widening appreciation of the past and of agricultural tradition in particular, together with a desire within society to conserve this unique survival, have added to these purely economic factors. The community in Laxton has long recognised and valued this heritage and has been prepared to accept poorer returns in order to maintain it. Nationally and internationally, the importance of the living tradition here has become well known and each change in estate ownership since World War II has provoked widespread concern about the possibilities of enclosure. A process involving a conscious objective to maintain the open fields and to find alternatives to enclosure has thus played a significant part in their survival during the recent past. Nevertheless, this survival remains dependent upon the will of the community that farms the fields and its ability to sustain that will. In this sense, if no other, the historical process that will determine the existence of these Unenclosed Open Fields in the 21st century is still in progress.

FOSSILISED OPEN FIELD PATTERNS (Fig.25)

Definition

This category covers field patterns with long narrow fields, often sinuous, which can be assumed to originate in the enclosure of strips in open fields. The most easily recognised of these fields are those with a reversed S profile, which preserve the physical shape of open field strips. This profile is most obvious where strips were lengthy, as in the case of the north field of Mansfield Woodhouse as shown on Sanderson's Map in 1835. However, such long strips and furlongs appear to have been comparatively uncommon in the developed open fields of Nottinghamshire in the late Middle Ages and the post-mediaeval period. Rather, the norm appears to have been short furlongs with relatively straight lands or selions and strips, in which the turning of the plough-team is exhibited by short curved "hooks" at either end. Therefore, while a sinuous quality is a primary (indeed almost instant) diagnostic feature, the majority of fossilised open field patterns are recognised on the map by the narrowness of the enclosures in proportion to their length. The identification may be confirmed by the geographical position, close to settlements, within former open fields, or amongst wider enclosed fields that may be assumed to similarly reflect former strips and furlongs (Fig.27).

This definition opens the possibility that former doles in meadowland along stream banks may have been included in this category, where these are adjacent to villages or open fields. Closes behind tofts in settlements with regulated plan forms may be included also where these fall outside the areas mapped as "Urban". These are of little consequence overall. Instances of the inclusion of doles are probably few in number and the holding and layouts of these appears to have been linked to, and to a degree replicated, the pattern of strip-holdings in open fields. In form therefore, both doles and enclosed fields laid out on the basis of doles may be considered as one with the open fields and enclosures fossilising their strips. Functionally however, they were different and it is necessary to take their combination in this category into account when considering local landscape character and its functional origins. Similarly, although separate, closes behind tofts may be considered as related to the open fields and their organisation, either because they replicated the strip arrangements in the primary layout of the settlement, or because they may have been in-takes from adjacent open fields with a layout based on former strips. This latter origin is essentially no different from that of other Fossilised Open Fields.

As has already been mentioned above, Fossilised Open Field Patterns account for only 0.2% of the area of Nottinghamshire. This apparently small survival brings into question the accuracy with which fields have been identified under this category. Indeed, it is entirely possible that some Fossilised Open Field Patterns may have been attributed to the closely related category of Patterns Reflecting Open Fields. However, this is not believed to be significant for, assuming the extents remained more or less constant, it would take an incredible five-fold increase to bring Fossilised Open Field Patterns up to even 1% of the county. It is also possible that these patterns were originally a relatively small

class amongst enclosed fields. However one looks at it, the implication is that Fossilised Open Field Patterns are now rare.

On the ground or on aerial photographs, the origin and relationship of fossilised open field patterns to open field arrangements may be evident in the presence of ridge and furrow. In the absence of a systematic survey of ridge and furrow in the county, this was not taken into account in compiling the Character Map. The exceptions to this were the occasional instances where personal knowledge of the presence of ridge and furrow was deployed as an informal check on the consistency and accuracy of categorisation. Further validation of fossilised open field patterns would be provided by the plotting of ridge and furrow visible on aerial photographs onto a layer within the GIS and the similar plotting of open field arrangements recorded on historical estate, enclosure and other maps.

Depth of History

Fossilised open field patterns were created by enclosure. Generally, they may be expected to be associated with piecemeal enclosure of particular strips or furlongs, or the enclosure of particular fields, rather than the wholesale enclosure of a community's open fields. Therefore, they can be expected to relate to areas marked as "ancient enclosures" on Parliamentary Enclosure Award Maps of the 18th and 19th centuries or to statements about unlocated "inclosures" that may be found in the documentary records of particular communities. However, in many instances there is no documentary record for the date at which these enclosures were laid out.

The replication of open field strips seen in this landscape type implies that open field organisation and concepts were still relevant at the time of their enclosures. This contrasts to the different concepts evident in the wholesale division and replanning of open fields and wastes across individual communities involved in most late 18th and 19th century parliamentary enclosures. Fossilised open field patterns are often to be associated with enclosures created piecemeal within the context of otherwise enduring open fields.

Consequently, fossilised open fields can be expected to fall within the date range of the late 15th century to the first half of the 18th century. Most are likely to belong to the 16th and 17th centuries. Regard also needs to be had of the fact that open field arrangements were not necessarily static before, as well as after, the late 14th and 15th century change in social and economic circumstances. It is possible therefore, that some fossilised open field patterns were created earlier than the late 15th century. Similarly, where closes to the rear of settlement tofts are involved, the date of the enclosure of these could go back to at least the 10th or 11th centuries (see Major Historic Settlement). Within these expectations, the date at which fossilised open field patterns were enclosed will vary from one parish or township to another.

Historical Processes

Fossilised open field patterns may be taken as representing a first step in the enclosure process. No matter what their date may be, they indicate the withdrawal and separation of certain land from the open fields and their

management, if not ownership, in severalty. They are the product of the social and economic changes that drove the earlier stages of the enclosure movement. Factors involved in this include:

Nucleation of villages from at least the 10th century
Expansion and Planning of villages and settlements from the 10th century
Population decline in the late 14th and 15th centuries
A growing swing towards animal husbandry in the agricultural economy from at least the mid 15th century
The re-organisation and engrossment of farms in the 15th and 16th centuries
New crop introductions
Economic sustainability of open field practice
Investment capabilities of landlords and tenants
Changing philosophies and concepts behind agricultural practices
Technically illegal status of enclosure until later 17th century
The need for all landowners to agree community wide enclosure until the adoption of private Acts of Parliament in 18th century

Because of their proportions and locations, fossilised open field patterns have been vulnerable to adaptation or erasure at almost any time subsequent to their creation. The Historic Character Map shows that relatively few are still extant. These must be regarded as being survivors of a once much larger character type and should be accorded a commensurate status in landscape management in Nottinghamshire.

PATTERNS REFLECTING OPEN FIELDS (Fig.26)

Definition

This category is closely related to Fossilised Open Field Patterns. It covers field patterns with strong linear dominants, often sinuous, which demonstrably or probably originated in enclosure of strips, combinations of strips, or whole furlongs in open fields. Lacking the narrowness of fossilised open fields, these reflect the layouts of open fields.

As with Fossilised Open Field Patterns, the most easily recognised of these fields are those with a reversed S profile which preserve the physical shape of open field strips. However, while a sinuous quality is a primary (indeed almost instant) diagnostic feature for reasons that are discussed under Fossilised Open Fields, the majority of patterns reflecting open fields are recognised on the map by the relative narrowness of enclosures in proportion to their length. The "straight edge" representation of field boundaries on some maps can result also in difficulties in distinguishing between patterns reflecting open fields with well spaced boundaries, and regular geometric field patterns. Again, the identification may be confirmed by the geographical position, being close to settlements, within identifiable areas of former open fields or being adjacent to areas of Fossilised Open Field pattern.

Patterns Reflecting Open Fields may be assumed to have two types of origin. Most may be assumed to have been the primary form of enclosure; others are the result of the removal of numbers of longitudinal boundaries from Fossilised Open Fields patterns. It is possible that former doles in meadowland along stream banks may be included in this category, where these are adjacent to villages or open fields. Closes behind tofts in settlements with regulated plan forms may be included also where these fall outside the areas mapped as "Urban". These may be of little consequence overall for the reasons discussed under Fossilised Open Fields.

On the ground or on aerial photographs, the relationship of the field patterns in this category to open field arrangements and fossilised open field patterns may be evident in the presence of ridge and furrow. In the absence of a systematic survey of ridge and furrow in the county, this was not taken into account in compiling the Character Map. The exceptions to this were the occasional instances where personal knowledge of the presence of ridge and furrow was deployed as an informal check on the consistency and accuracy of categorisation. Further validation of Patterns Reflecting Open Fields would be provided by the plotting of ridge and furrow visible on aerial photographs onto a layer within the GIS and the similar plotting of open field arrangements recorded on historical estate, enclosure and other maps.

Depth of History

Patterns Reflecting Open Fields were created by enclosure. The replication of open field arrangements seen in this landscape type implies that open field organisation and concepts were still relevant at the time of their enclosure. This

contrasts to the different concepts evident in the wholesale division and re-planning of open fields and wastes across individual communities involved in most late 18th and 19th century parliamentary enclosures. Where this field pattern is the original layout it may be expected to derive from the piecemeal enclosure of individual strips or groups of strips or, more usually from the enclosure of furlongs or whole fields. Such patterns can be expected to relate to areas marked as "ancient enclosures" on Parliamentary Enclosure Award Maps of the 18th and 19th centuries or to statements about unlocated "inclosures" that may be found in the documentary records of particular communities. However, in many instances there is no documentary record for the date at which these enclosures were laid out.

Patterns Reflecting Open Fields have the same date range as Fossilised Open Fields, from the late 15th century to the first half of the 18th century. Most however, are likely to belong to the period from the 16th century onwards. The date at which particular enclosures of this type were created will vary from one parish or township to another.

Where these patterns were created by the adaptation of fossilised open field strips, meadow doles or closes to the rear of toft holdings, the range of history exhibited is slightly different. Boundaries left by the removal of others date to the first enclosure, while the space between those boundaries is later. Consequently, field patterns that only reflect open field arrangements, because they were adapted, express a greater chronological depth that extends from their first creation up to the last date of boundary removal, which may be very recent.

Historical Processes

Patterns Reflecting Open Fields are generally a result of early enclosure, although there are exceptions such at Calverton which was enclosed in 1779. Where the pattern is original the areas enclosed were frequently more extensive and involved a greater degree of community consensus than in the smaller, piecemeal enclosures seen in fossilised open field strip patterns. With this addition, the factors involved in the social and economic changes that led to this pattern of enclosure are the same as for Fossilised Open Field Patterns.

Where the pattern is the product of adaptation by the removal of boundaries, a number of extra factors are involved. These are relevant to the need to adapt such as:

Changes in agricultural concepts and practice from the later 18th century onwards
Increasing mechanisation of farming in the 19th and 20th centuries
Increasing sizes of agricultural machinery in the later 20th century
Conversion of pasture to arable during war-time in 19th and 20th centuries
Post World War II national and European Community agricultural policies

REGULARLY LAID OUT LARGE GEOMETRIC FIELD PATTERNS
(Fig.27)

Definition

This category covers field patterns involving large geometric enclosures of the type commonly associated with the Parliamentary Enclosures of the 18th and 19th centuries. The predominant characteristic of large square and rectangular fields, frequently associated with new farms outside of the village, renders this the most instantly recognisable of all the field patterns visible on maps and aerial photographs.

However, the classic expression of this pattern is found only where there was sufficient unenclosed land to permit free use of the surveyors' "drawing board" approach, that is where wastes were being enclosed for the first time or where whole open fields were being re-organised. Even here, variations in field size and shape regularly occur around the peripheries, where existing fields or other landscape features (such as roads) created constraints, or internally where the lie of the land and other geographical influences (such as watercourses) had to be taken into account. Indeed, the degree to which fields in this pattern are, or were, "large" is variable, being dependent upon a number of factors, such as the parish, situation within the parish, the number of landowners involved, the particular surveyor and the date of enclosure. Actual size then, varies from locality to locality, and "large" should be taken as being relative to the overall field patterns of localities.

Other factors may also affect the allocation of field patterns to this category. Removal of boundaries within patterns reflecting open fields, where these are not markedly sinuous, or within semi-regular patterns, can create an impression of size and regular geometry which is neither original nor as artificial as is implied by the definition above. Similarly, the "straight edge" representation of field boundaries on some maps can result in difficulties in distinguishing between patterns reflecting open fields with well spaced boundaries, and regular geometric field patterns.

Enclosure Awards and their maps, and other documentary evidence, may be expected to resolve individual problems of categorisation. In some situations though, these sources may be deficient, not least because this kind of field pattern is not necessarily always the product of Parliamentary Enclosure. Further research into the types of field boundary associated with Parliamentary and other enclosures, and into the degree of variation between the drawn plans of Awards and the field layouts as constructed, is necessary.

Depth of History

As indicated in the definition above the majority of Regularly Laid Out Large Geometric Field Patterns were created in the 18th and 19th centuries and have remained in use ever since. Later modification is common and proportionally it takes the removal of fewer boundaries to transform this type into Modern Modified Field Patterns. Although regular geometric field patterns in themselves

may have been a new feature within a particular landscape, they often abut, or integrate, older boundaries and features. The landscape history involved in these patterns therefore, is not necessarily simple or of one phase.

Historical Processes

The Parliamentary Enclosures, with which most Regularly Laid Out Large Geometric Field Patterns may be associated, are the last phase in the process by which the open field landscapes of the Middle Ages were transformed into those of today. By the 18th century developments in social structure, estate management, crops and animal husbandry, and technology had resulted in the widespread belief that open fields were uneconomic and inefficient, an impediment to agricultural investment and development. It was now possible to use private acts of Parliament to overcome the objections of individual landowners, often the smaller ones, to enclosure. In this process, the award of the divisions of the land to be enclosed was placed in the hands of a surveyor appointed for the process, who also produced a map showing the boundaries between allocations. In most cases these were the field boundaries that were erected, although in some areas there may have been some private adjustments between neighbours.

It has been estimated that only some 65,000 acres, 12.2% of the area of Nottinghamshire were enclosed in 1700 (Chambers 1966). By 1800, a further 353,000 acres, 66.25% of the county was enclosed, 133,000 acres of which involved private acts of Parliament dating to the second half of the 18th century. Enclosure was not necessarily a single, parish-wide event. On the Sherwood Sandstones, the Magnesian Limestone and on the Coal Measures parliamentary enclosure often involved the taking in of open common or wastes. Otherwise, and particularly on the Coal Measures, much geometric enclosure is undocumented, presumably as a result of private agreements. On the Mercia Mudstones north of the Trent, Enclosure Awards refer to the division of both arable open fields and wastes. Despite being characterised by early enclosures, a significant proportion of the parishes south of the Trent also were not enclosed until after 1750, in whole or part. By 1850 all but a few parishes were entirely enclosed and the basis of the modern landscape of Nottinghamshire had been established.

Parliamentary Enclosure took place within a context of broad changes in economy, technology and society, such that it is often associated with concepts of Agrarian and Industrial Revolution. While these relationships can be debated, and certainly Parliamentary Enclosures may be properly viewed as the later manifestation of a trend which began, under different stimuli, in the 15th century, their relevance to the enclosure movement of the 18th and 19th centuries can not be denied, and vice-versa. Therefore, Regularly Laid Out Large Geometric Field Patterns are related to factors such as:

18th and 19th century advances in agricultural theory and practice
Estate ownership
The capacity of individuals to support financial investment
Abilities to improve land, particularly by drainage
Demand for animal feed

Landlord and tenant relationships
Pressure on smaller farmers, small holders and commoners
18th and 19th century industrial development
Economic consequences of European wars
Regional and national markets

IRREGULAR GEOMETRIC FIELD PATTERNS (Fig.28)

Definition

These field patterns involve geometric layouts which are less regular (i.e. less linear or rectangular) than Regularly Laid Out Large Geometric Field Patterns. Again, they are often part of Parliamentary Enclosures. They may occur on the periphery of Regularly Laid Out Large Geometric Field Patterns, or within them, in locations where constraints or topography make a formal rectilinear layout difficult or impossible. A frequent association is with the enclosure of waste, which can be subsequent in date to the enclosure of the remainder of the parish or located on the margins of the parish. As with Regularly Laid Out Large Geometric Field Patterns, the predominant characteristics of large size and geometric shape, sometimes associated with new farms outside of the village, renders this a very recognisable pattern of fields on maps and aerial photographs.
Their actual size however, varies from locality to locality and “large” should be taken as being relative to the overall field patterns of localities.

Effectively then, Irregular Geometric Field Patterns may be considered as part of the same phenomenon as Regularly Laid Out Large Geometric Field Patterns. On occasion however, their irregularity suggests that additional factors may have affected their layout.

Depth of History

As for Regularly Laid Out Large Geometric Field Patterns, above.

Historical Processes

As for Regularly Laid Out Large Geometric Field Patterns.

SEMI-REGULAR FIELD PATTERNS (Fig.29)

Definition

This category covers field patterns which are loosely geometric in layout, involving linear, rectangular or square arrangements, but which are less sharply defined than Irregular Geometric Field Patterns. In semi-regular field patterns, boundaries may waver or be discontinuous over distance, in other words the dominant linear features may be short, and the overall pattern is usually smaller in scale compared to those of geometric patterns.

As the above phrases reveal, this is a somewhat problematic categorisation since it embraces all enclosures that can not be allocated to other types of field pattern. Semi-regular field patterns then, are the product of various enclosing activities at a variety of dates, over some 500 or more years. The detailed characteristics of these field patterns vary from locality to locality, in part because of this variety in origin and in part because of local circumstances.

The category is undoubtedly capable of sub-division or re-classification, but this is dependent upon a detailed consideration of the likely origins and date of each of the areas involved using historical maps and documentary sources. Some form of statistical analysis may be profitable also, to distinguish between subtle differences in patterns that may assist in identifying functional origins and/or date.

Depth of History

Semi-regular field patterns are the product of enclosure, but are not of any one date or phase within the history of enclosure from the Middle Ages to the 19th century. As already stated, their date and origins vary from locality to locality. While there is a strong association with piecemeal or more extensive enclosure by agreement dating to the 16th, 17th and earlier 18th centuries before the Parliamentary enclosures, this is not universal. In some localities it is likely that they were created in assarting during the Middle Ages, in others they are the product of the formal enclosure of open fields in the 18th or 19th centuries.

In considering semi-regular field patterns therefore, it is necessary to bear in mind that this category embraces both some of the earliest and later enclosures in the county. Consequently, until further research has permitted reclassification, it is important that historical maps and documents are consulted in discussing the historical background of any one area.

Historical Processes

The potential chronological and functional range of Semi-Regular Field Patterns means that they are the product of almost all of the factors driving enclosure from the Middle Ages onwards. The historical processes generating this category therefore, are the same as those for Patterns Reflecting Open Fields and Regularly Laid Out Large Geometric Field Patterns, to which reference should be

made. Additional to these are the factors behind mediaeval assarting and the creation of other early fields. These include:

Population increase
Expansion of arable fields
Pressure on pasture
Clearance of woodland
Pressure on inter-common grazing rights
Maintenance or establishment of lands held in severalty
Later decline in arable farming and increases in animal husbandry
Changes in use of mediaeval hunting parks and “forest” hays
Changes in ownership or leasing of land

UNENCLOSED RIVER VALLEY MEADOWS (Fig.30)

Definition

These are areas of current or former open riverside pastures, meadows or commons that retain traditional boundaries and the unenclosed character visible on the 19th Century Map. On the modern map they are characterised by large or narrow enclosures between watercourses on one side and parallel long linear boundaries on the other. Although categorised as unenclosed, most could be regarded as technically enclosed for they may be divided by occasional field boundaries and have at least one perimeter boundary. These perimeters however, were created in enclosing the fields beside the meadows. Even if this involved (as it patently did) the incorporation of pre-existing, ancient perimeter boundaries, the purpose of these was not so much to enclose the river valley lands as to separate them from other land-uses. Therefore, because they were not enclosed in themselves and have remained relatively open in aspect or plan, these areas of meadow may be regarded as having retained their traditional unenclosed character.

Unenclosed River Valley Meadows then, have been identified by their geographical location and morphology rather than their current land-use. Many are still under grass because this is favoured by their riverside location. Others however, have been converted to arable. Without fieldwork or reference to aerial photographs, it has not been possible to distinguish between these. With such further research, it will be possible to refine this category into those where there is continuity in boundaries, land-use and organisation and those where there is continuity in boundaries only. Clearly, these are statements of different types of character. For now, Unenclosed River Valley Meadows reflect a judgement about the effects in the landscape of a presumed historical origin, irrespective of their agricultural function today.

It should be remembered that Unenclosed River Valley Meadows are not the sole expression of historic or former grassland. Much meadow, specifically, is included under Fossilised Open Field Patterns, which may include former doles in meadowland along stream banks, where these are adjacent to villages or open fields.

Depth of History

Domesday Book, compiled in 1086, provides the earliest documented record of meadow in Nottinghamshire. Meadow is a specialised grassland resource and is the only one to be specifically described. Other pastures are not mentioned, but must have been extensive in order to feed the numerous livestock of the period. Although the quantities were usually small, the records in Domesday Book refer mainly to communities along the Trent Valley and the tributaries of the Trent in the south of county and the Mercia Mudstones to the north and west of the river.

This pattern probably replicates that of earlier times. The remains of settlements and field systems along the Trent and Idle Valleys, and floral and faunal material from ancient river channels, indicate that pre-Roman and Roman arable was

located on the better draining gravel terraces. The pastures, on the other hand, were on the lower lying alluvial areas of the flood plain, particularly along the riverbanks.

This is a similar picture to that of the Middle Ages, after 1086, and of the post-mediaeval period, as we see it in historic documents and maps and in the physical evidence of ridge and furrow. The extent of the areas under grass grew and shrank with changes in population, climate and economy, but the prime relationship between lower, wetter, and seasonally flooded ground and grass remained constant. Although river management works and drainage grew increasingly extensive and sophisticated from the 18th century onwards, grass remained the predominant land-use in these locations until the second half of the 20th century. Since then, the conjunction of investment in river management and drainage and an agricultural emphasis on arable has resulted in much conversion to arable. Nevertheless, as has been discussed above, the boundaries have often been retained, doubtless because the areas enclosed were already relatively large.

Whether converted to arable or still under grass, Unenclosed River Valley Meadows have a long history. In terms of their boundaries, this history will go back to at least the date of the enclosure of the surrounding fields. But this is only the date at which the division between land-uses was formalised by the erection of physical barriers. In most cases, the division itself was much older and was established in the Middle Ages or earlier. Indeed, given the testament of archaeological and documentary sources, it may be asserted that some of the Unenclosed River Valley Meadows that have remained under grass down to today may have a continuity that stretches back over several thousand years. Unenclosed River Valley Meadows therefore, may be regarded as some of the oldest features and clearest statements of character in the modern landscape.

Historical Processes

The primary historical process involved in Unenclosed River Valley Meadows has been that of agricultural function, and an enduring association of grass and meadow with poorer drained soils and areas liable to over-bank flooding. The strength of this relationship has varied with economic and social factors over the centuries and, however much reduced, remains a factor in land-use and management in the river valleys of Nottinghamshire even now. These pastures and meadows have been managed in a variety of ways, according to local conditions. While this management did not over-ride the basic relationship between soils, water, and land-use, it did influence features such as boundaries and chances of survival in the modern age. For example, Unenclosed River Valley Meadows that are still commons are more likely to have survived undivided and under grass. The processes involved therefore, are both generic and local. Factors in these include:

Climatic conditions
River course development
Propensity of rivers to flood
Geographical and topographical situation
Population and Settlement patterns

Social and economic circumstances
Market demands
Concepts in agricultural management
Farming regimes
Land ownership
Financial capabilities of land owners
Technological capabilities and investment in water management
Post World War II national and European agricultural policies

MODERN MODIFIED FIELD PATTERNS (Fig.31)

Definition

This category covers areas in which the 19th century field patterns are no longer present, or are no longer readable or have been radically reorganised. In practice, this means most areas where more than 50% of the boundaries have been lost. This is not an absolute criterion however, for the real test is the degree to which the character of the field patterns has been altered since the 19th century. If boundary loss or reorganisation is such that it is not possible to attempt an interpretation of the historical origins of the present field patterns, within a reasonably limited set of options, then these are included in this category. Consequently, areas with less than 50% boundary loss may be also included if their present field patterns do not readily equate with those on the 19th century maps, and our ability to "read" their historical origins has been severely compromised. Equally, some areas with more than 50% boundary loss are not included, but are categorised with other field patterns (principally those which are geometric, originating in Parliamentary Enclosure) because their character and "readability" remains despite the level of loss.

Lost boundaries are not the sole consideration in this category. In some areas, which form a significant minority, there appear to be coherent field patterns that might be expected to have a depth of history. Comparison with the 19th century maps however, shows that these have been extensively remodeled, and now bear little or no relationship to the earlier patterns. Such areas fit the criteria for this classification in more absolute terms than many of those with boundary loss. Whatever the reasons behind the laying out anew of these fields, and there may be a variety of these, such patterns are modern and modifications of what went before. However much they may reflect their precursors, they may be read falsely unless reference is made to the historical maps.

This classification is an expression of change and survival in the modern landscape. Arguably it could, and perhaps should, be refined through the grading of the degree of modification. It should be possible to categorise areas according to the percentage of field boundaries lost, which would give a much more sensitive statement about the survival of earlier field patterns.

The plotting of lost boundaries, on the basis of a comparison between the O.S. 1:25,000 maps of the 1970s and current O.S. maps, was a step towards this. In theory, boundary loss in Nottinghamshire has been a continuous trend since at least the 1960s, with post-war maintenance of intensive food production policies and the introduction of larger machinery. Empirically, this trend has been observed to have several peaks in its progression, notably in the 1970s, the late 1980s and since the mid-1990s. Therefore, again in theory, the densities of lost boundaries coming from a comparison of these two map bases should provide at least visual statements about the locations of recent change in the landscape, and about the extent and rate of such change. The exercise was successful in producing a distribution map with apparently significant variations in density (Fig.32), and showed that it would indeed be possible to categorise those densities to provide quite subtle statements about change.

However, when the modern O.S. maps were scrutinised during the remainder of the characterisation process, it became evident that there is a misfit between this distribution map and the extents of Modern Modified Field Patterns shown on the modern maps. The reasons for this misfit are difficult to identify. The theory behind the plotting of boundary losses appears sound and the results appear to vindicate the theory. The modern O.S. maps used present an acceptable up to date statement of the real situation. The state of the revisions of the O.S. 1:25,000 maps ought not to be a factor, since lack of revision should understate the contemporary loss of boundaries and result in higher densities of plottings when these maps are compared to the current ones. Plotting error might be involved, but random checks suggest that this was accurate.

The only area left unassessed is the extent of boundary loss already present on the O.S. 1:25,000 maps. This was not systematically examined before the plotting exercise, but was assumed to be relatively low on the basis of previous local comparisons between Sanderson's Map of 1835 and the 1:25,000 maps and expectations about the temporal peaks in boundary removal. The conclusion suggested by this review is that this assumption was erroneous, and that more boundaries had been removed at an earlier date and had been excised from the 1:25,000 maps than were anticipated. Consequently the boundaries plotted in this exercise do not represent the totality of all those lost but only the most recent losses.

This observation does not negate or devalue the plotting of lost boundaries, but it does change the context of this plotting and qualifies the contribution of this approach to the overall mapping of general landscape character. It may show another technique by which the variation in the extent and rate of character change can be graded, through identifying the chronology that is implicit in map and other sources. In this project, rather than develop this approach as another methodology to express change and character in the landscape, it was decided to treat the plottings of lost boundaries as a data set that may be used to qualify statements about character at the local level. This data is also a resource that may enable the future re-classification of modern modified field patterns according to the degree and date of boundary loss within them.

Modern Modified Field Patterns are the most extensive historic landscape character type in Nottinghamshire. They are absent in only a few small areas; in many others they dominate. This character type then, is a benchmark against which the threat to the survival of older landscapes, and the rarity and value of these, can be assessed.

Depth of History

By definition, Modern Modified Field Patterns have a short chronological range. They are the product of change and development since the 19th century, and mostly since World War II. This does not mean that this character type is devoid of historical interest or value. Modification of field patterns is not a completed process however; it is still ongoing. According to locality, from farm to farm, there is variation in the age of these field patterns. As has been described, the modification of field patterns is frequently only partial. Individual boundaries or

groups of these may survive within modified patterns. Further, the boundaries of these modified patterns are shared with adjacent character types, and may be read either as belonging to these or as survivals with historical depth within modified patterns.

As a character type, Modern Modified Field Patterns illustrate the differences that are inherent in the characterisation process, between the general, county perspective and that required for local purposes. At the level of the Character Map, the definition of Modern Modified Field Patterns and the description of their depth of history is adequate. For the management of particular landscapes, the degree of survival in these patterns, and the extent to which much older historical origins and processes can be read and attributed with value, is crucial and requires further assessment.

Finally, it must be observed that in some places the modification of previous field patterns and the association of this with arable crops, together with the technology involved, has had the effect of removing the Enclosure and mediaeval landscape to reveal elements of even earlier landscapes. Where the underlying soils and geology and their drainage are suitable, differential crop growth over buried features results in “cropmarks” in which can be seen Roman and prehistoric field boundaries, settlements, ritual monuments and other remains. Such remains express landscapes that distantly influenced the development of subsequent ones, and thus that of today. Sometimes they demonstrate that some currently upstanding individual features have a great age. In terms of historical depth therefore, modern modified field patterns on occasion may contain a more visibly remote past than in other historic landscapes, and thereby permit the writing of a fuller history of the landscape.

These archaeological landscapes may contribute only a little to the modern character of the landscape; nevertheless the enhanced visibility of such remains within Modern Modified Field Patterns must be considered in the management of this type of landscape.

Historical Processes

Modern Modified Field Patterns are frequently, but not entirely, associated with responses to post World War II agricultural policies and technology. Modification of earlier field patterns is continuing and the processes driving this are not yet worked through. Amongst those that will be identified by future historians may be:

National Government and European Community Agricultural policies
Increased mechanisation and new technology in farming
Rural depopulation
Industrialisation
Changes in land ownership
Governmental fiscal and social policies
Change in the distribution and power of capital
Change in social and economic structures, and in the culture and lifestyles of the public

Attitudes to farming practices and individual decision making amongst the agricultural community

ILLUSTRATIONS

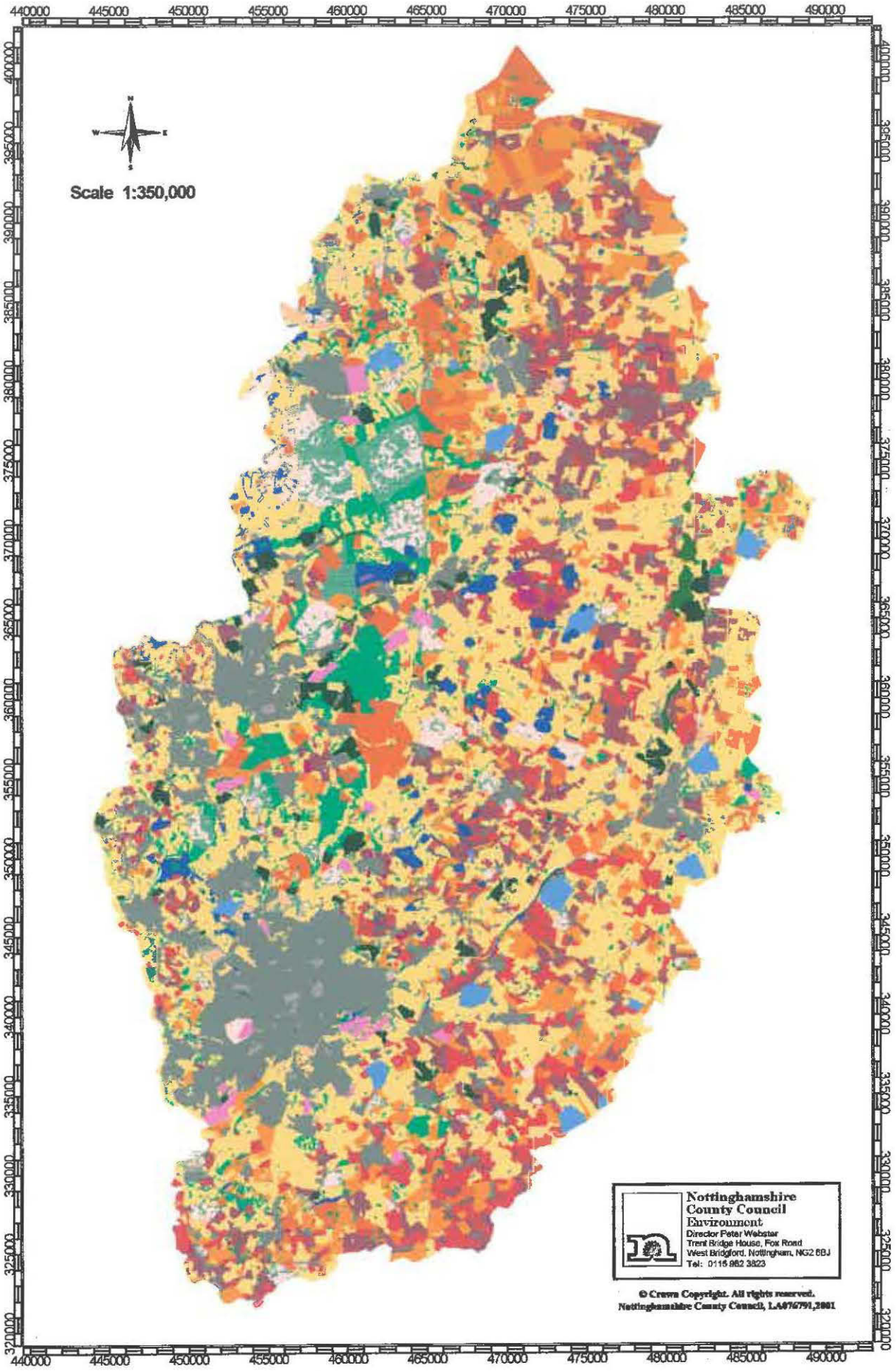

Figure 10 : Ancient Woodlands (dark blue) in Nottinghamshire

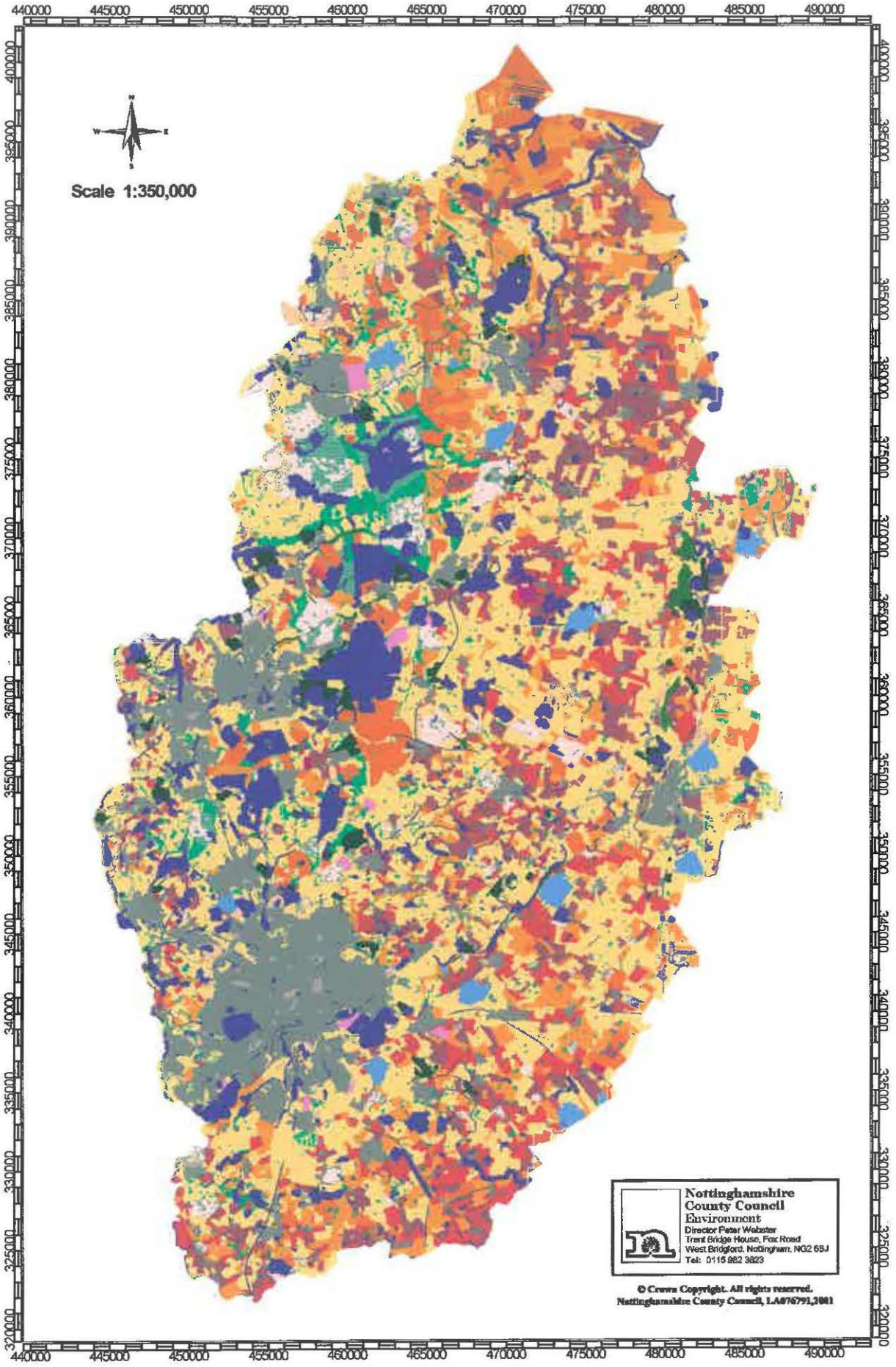

Figure 11 : Nottinghamshire Sites of Importance for Nature Conservation (dark blue)

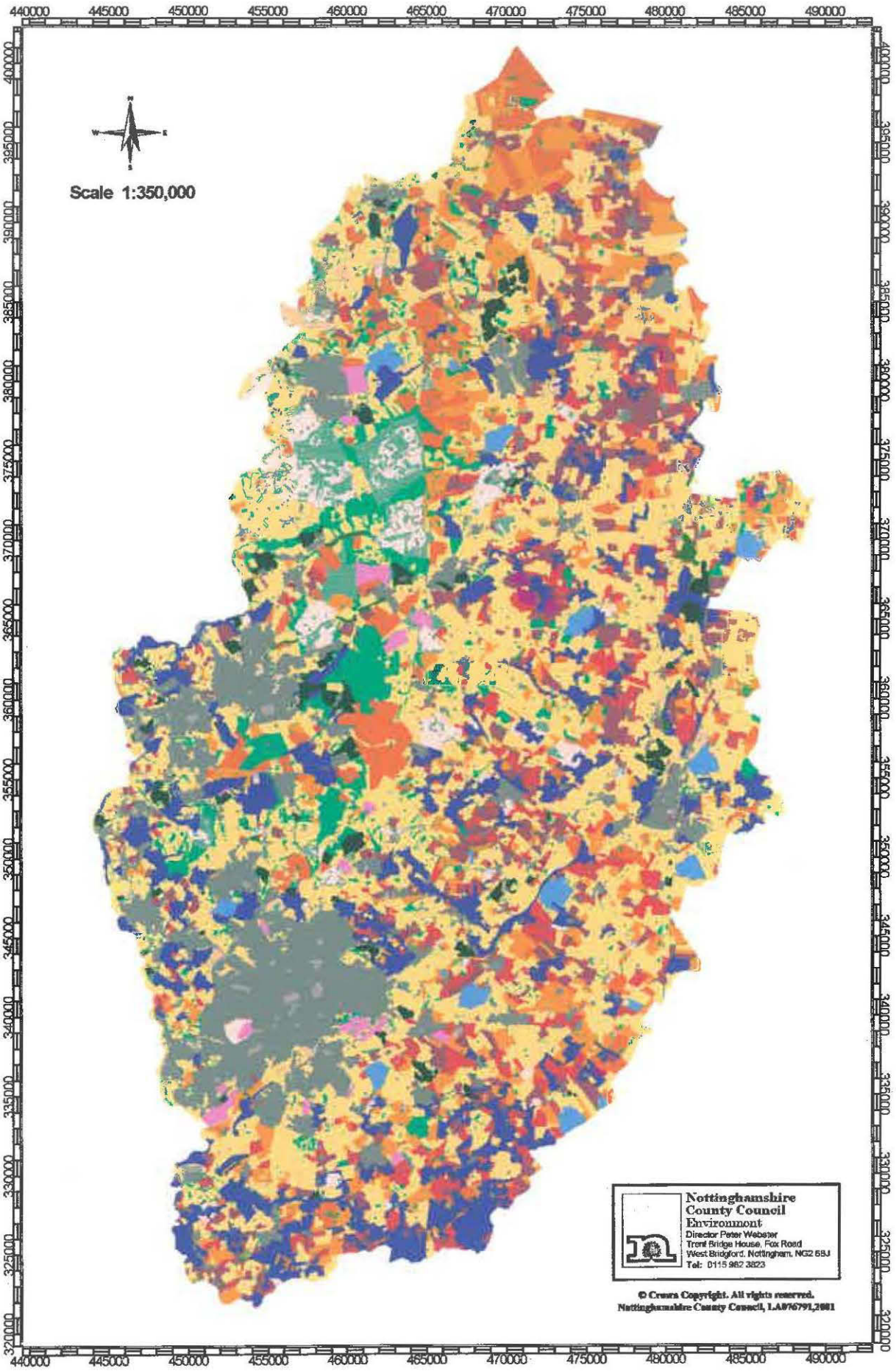

Figure 12 : Nottinghamshire Mature Landscapes (dark blue)

Figure 13: Divisions of Central Province within Nottinghamshire (From *Roberts and Wrathmell* 1995)

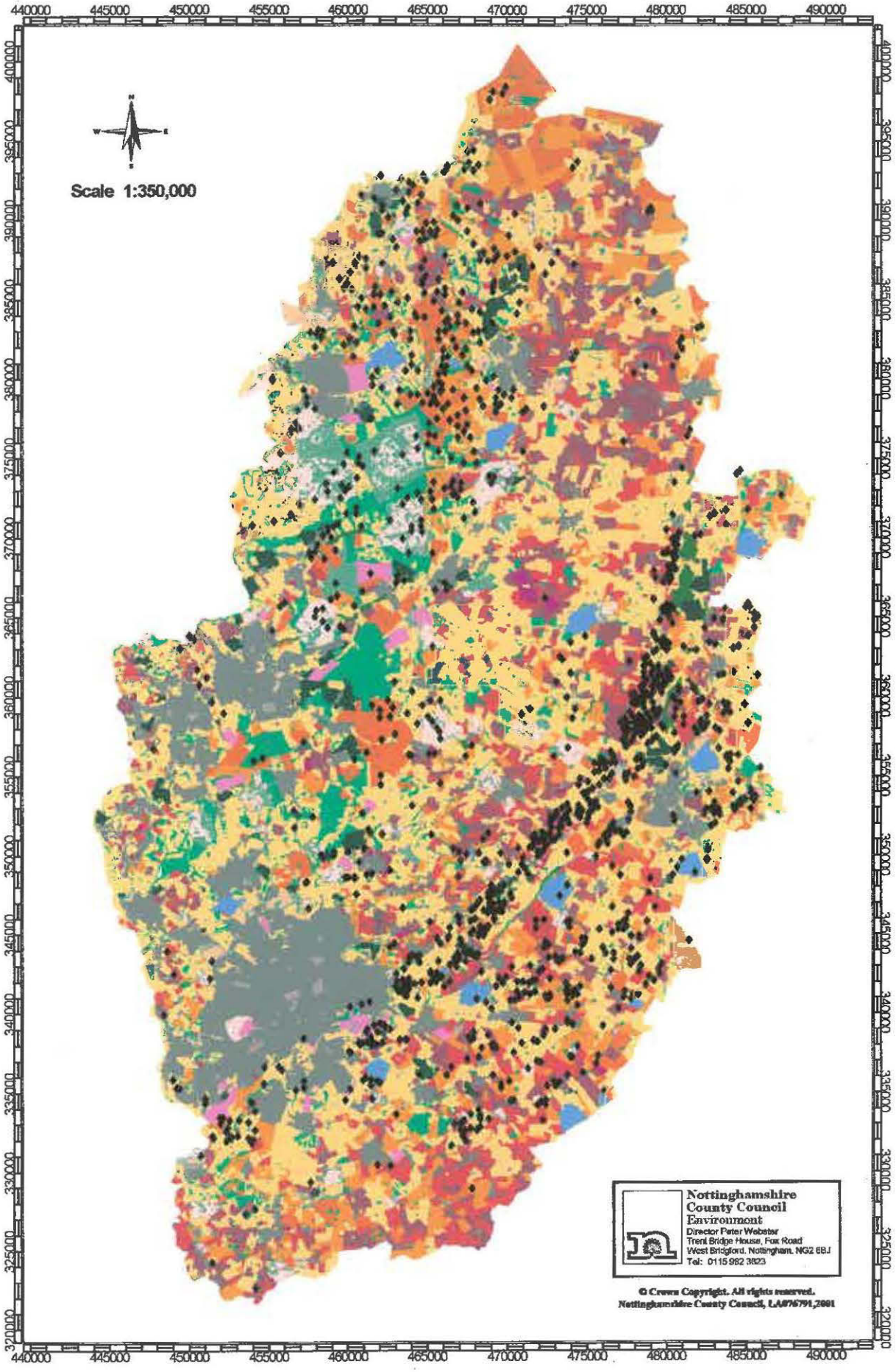

Figure 14 ; Cropmark Sites in Nottinghamshire

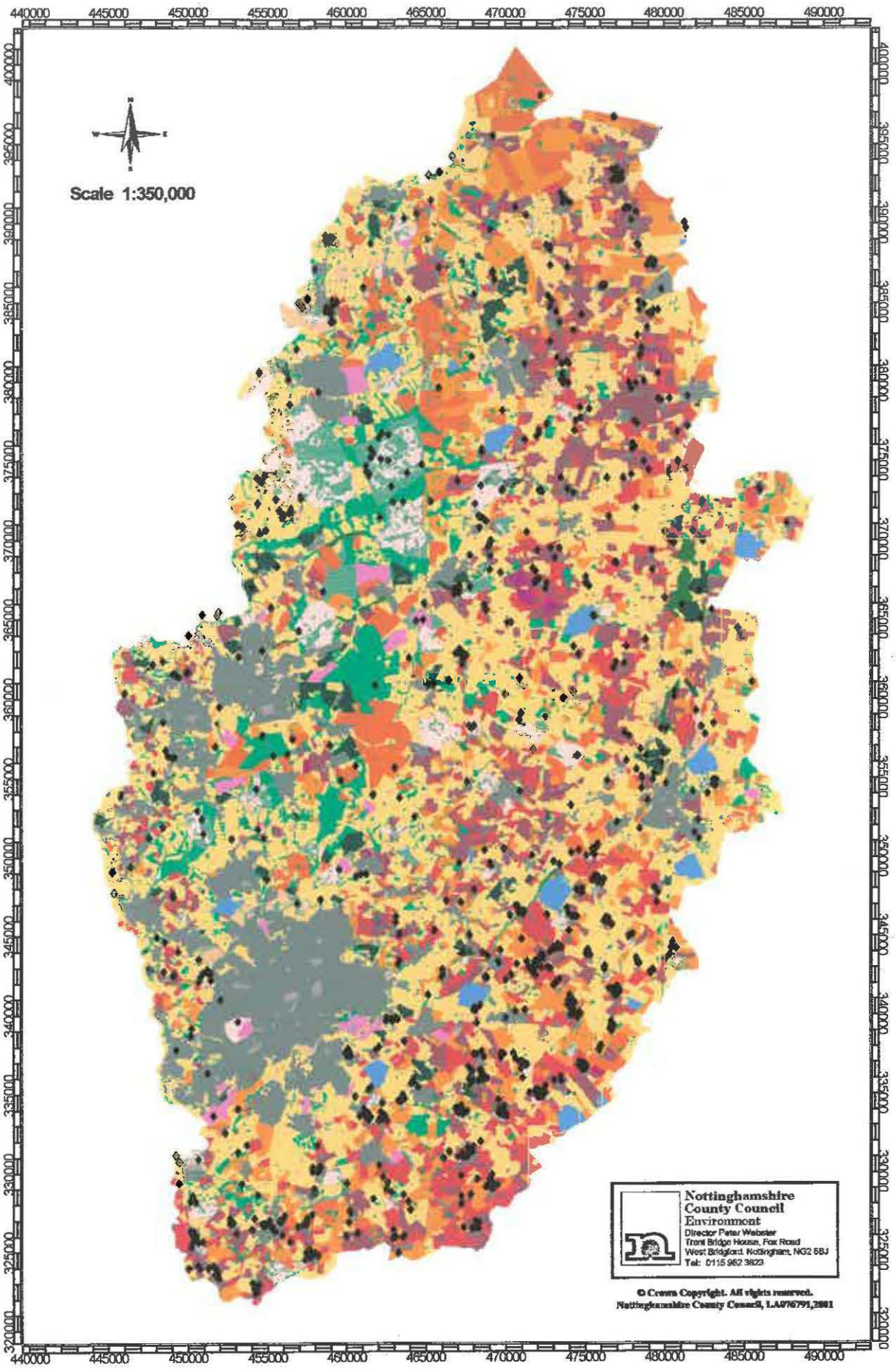

Figure 15 : Earthworks in Nottinghamshire

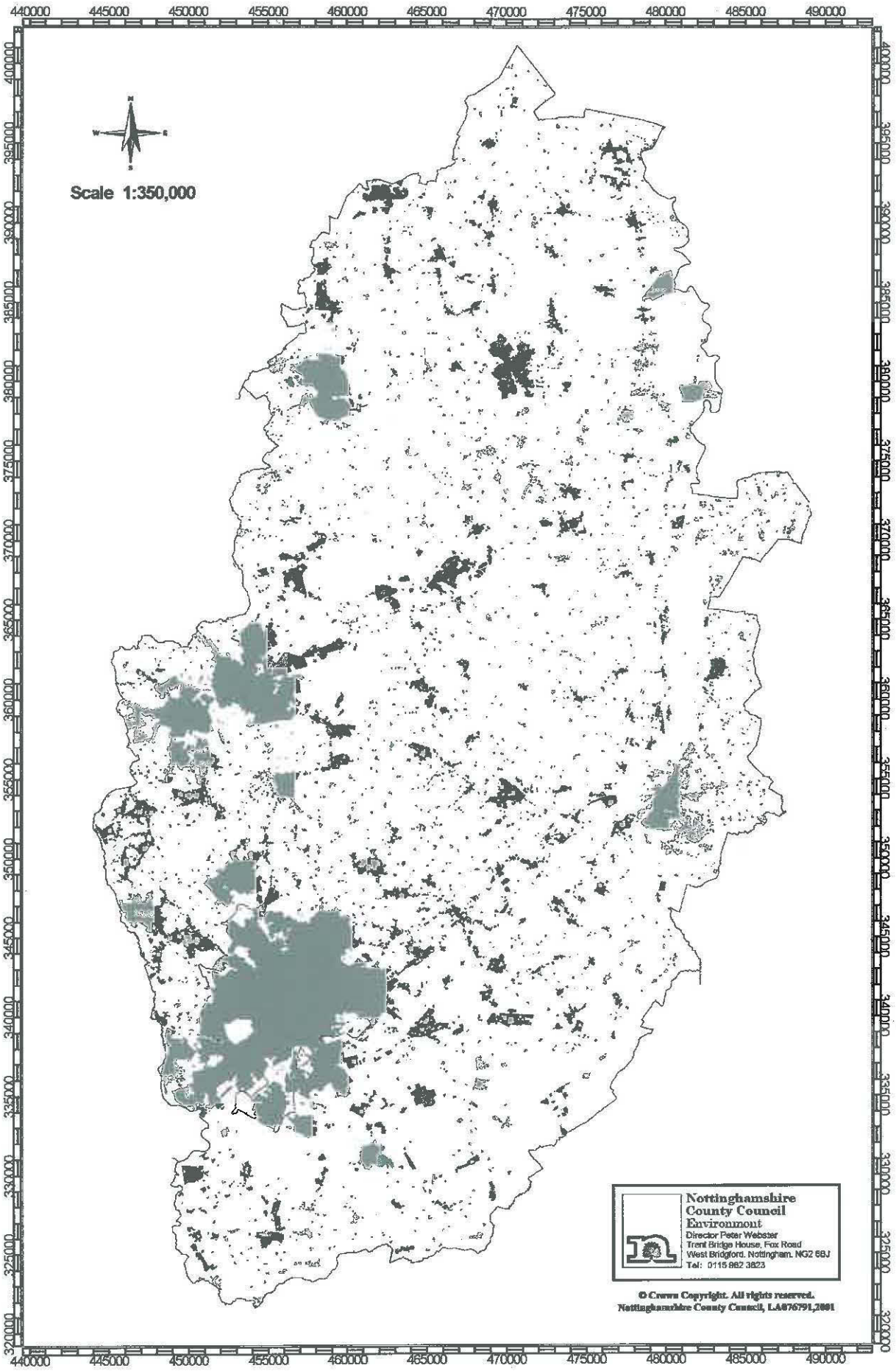

Figure 16 : Urban Areas

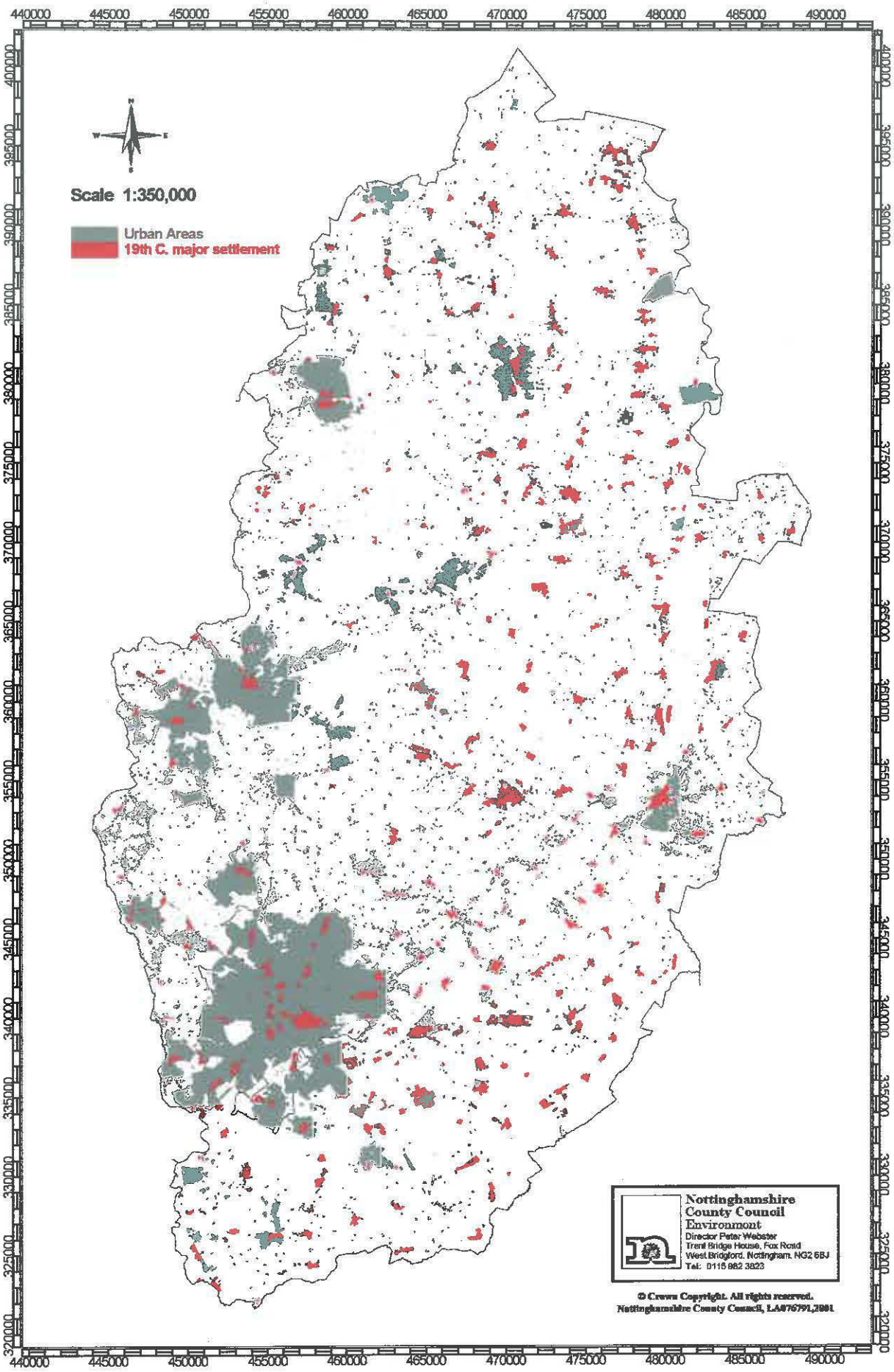

Figure 17 : 20th Century Urban Areas and 19th Century Major Settlements

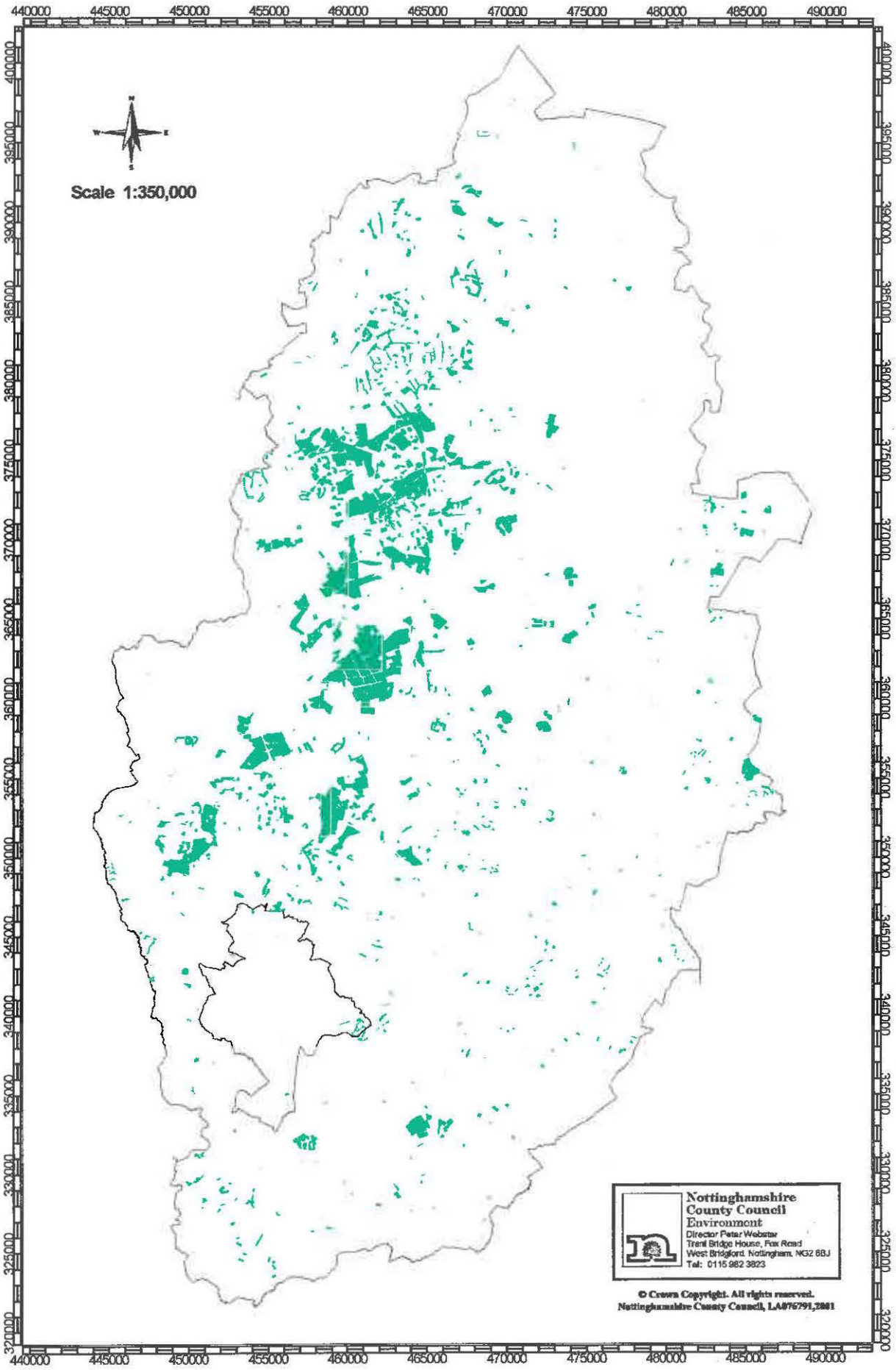

Figure 18 : 20th Century Woodland

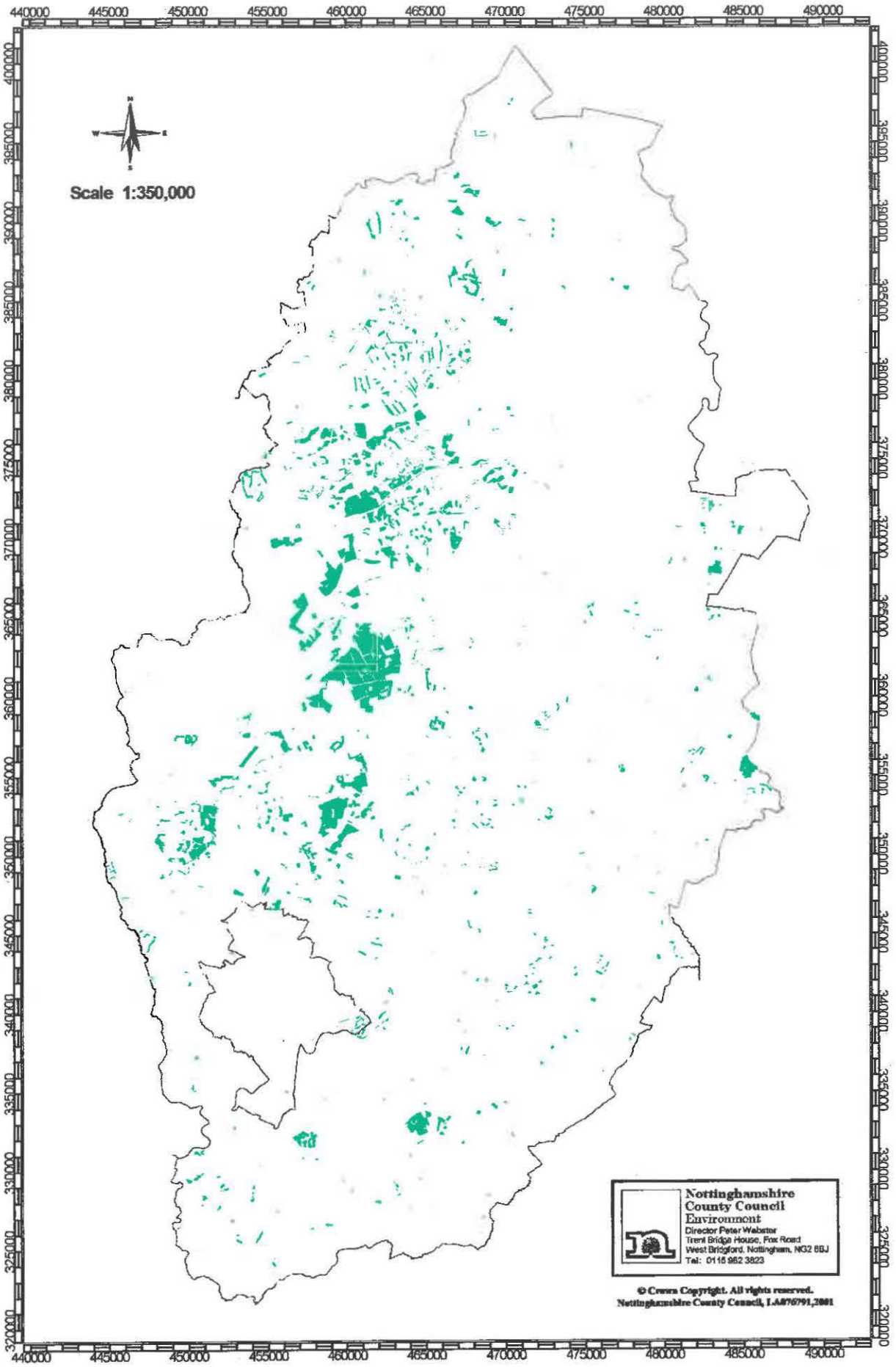

Figure 19 : New Woodland since the 19th Century

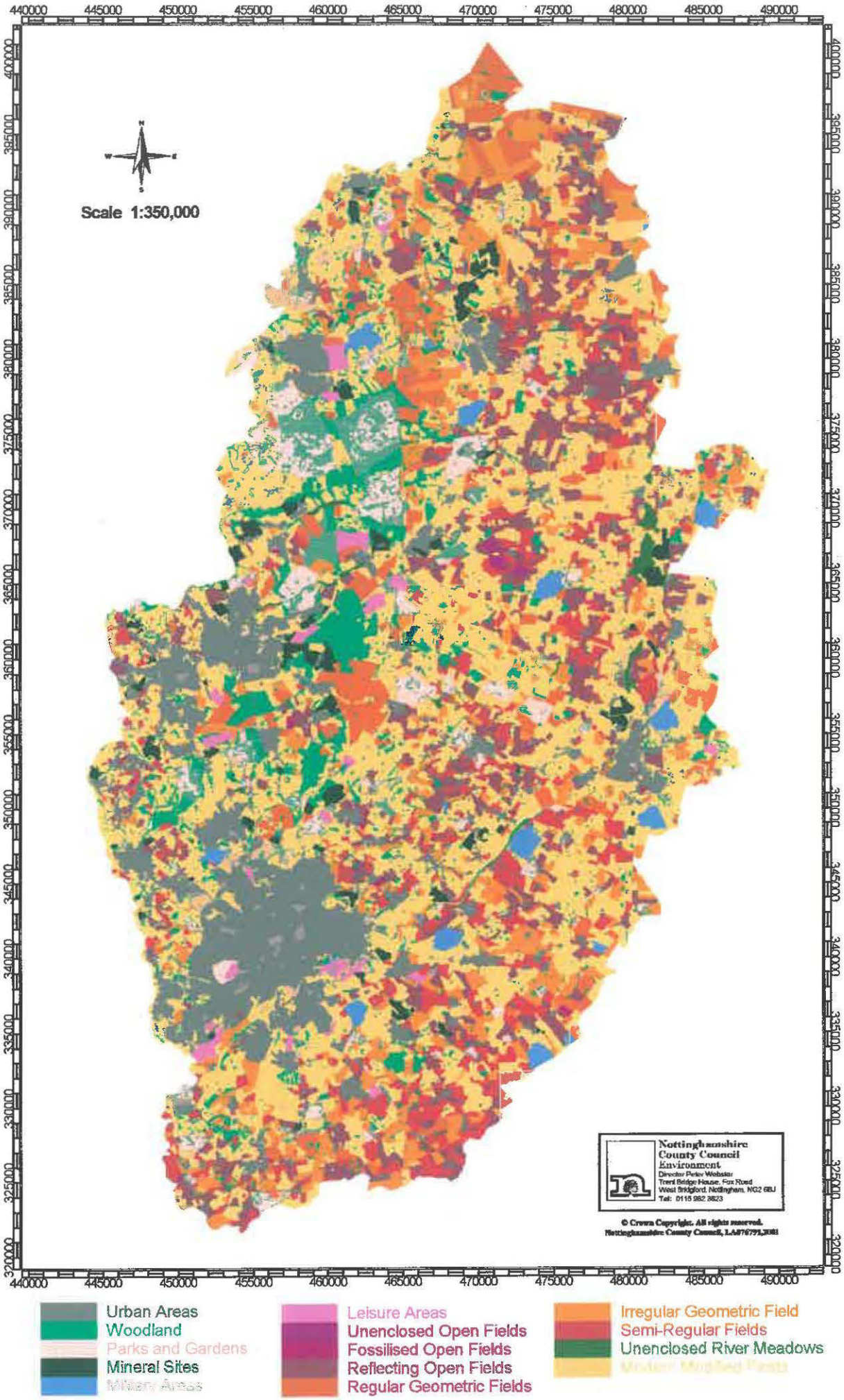

Figure 1 : The Nottinghamshire Historic Landscape Character Map

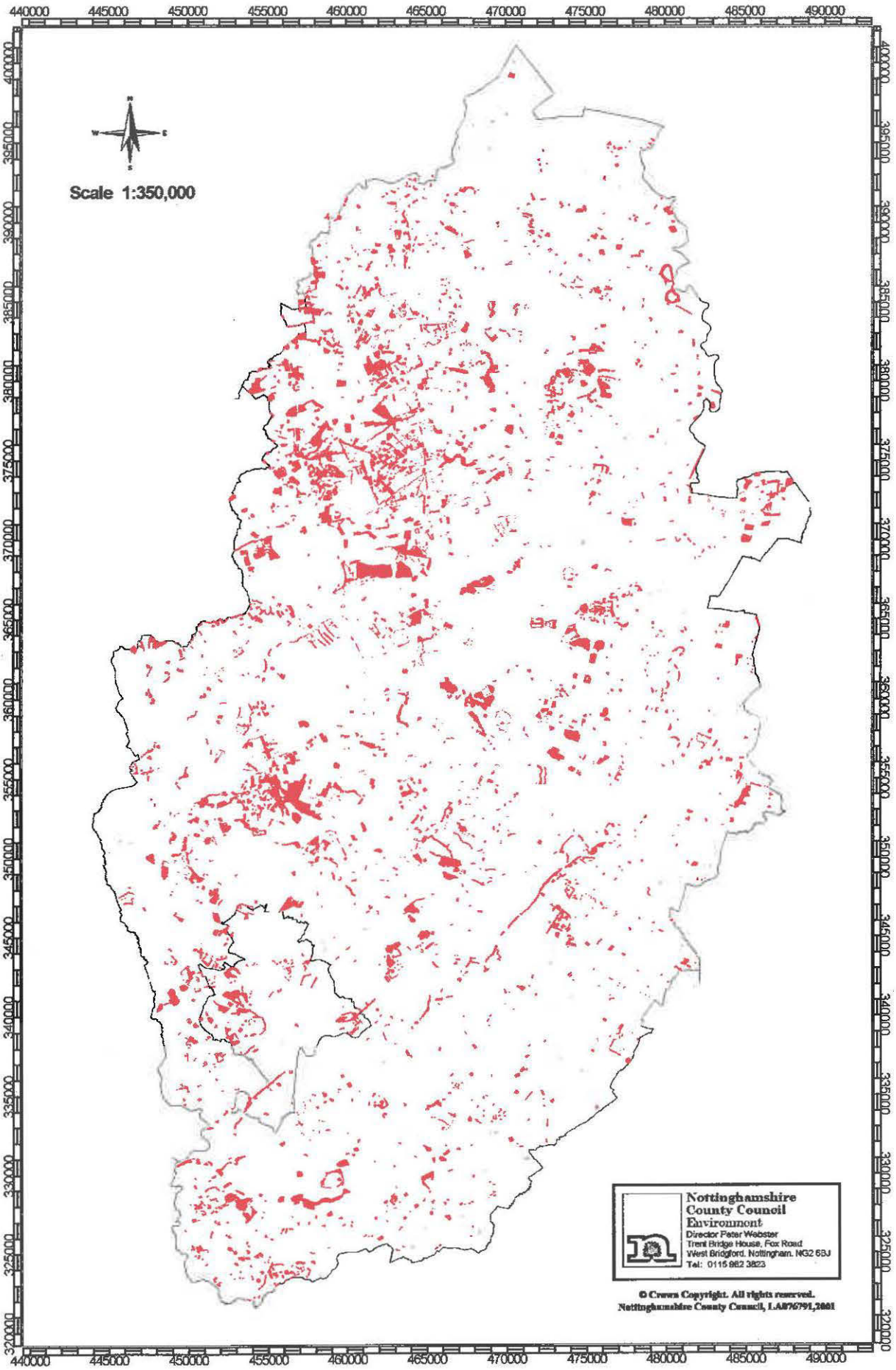

Figure 20 : Lost 19th Century Woodland

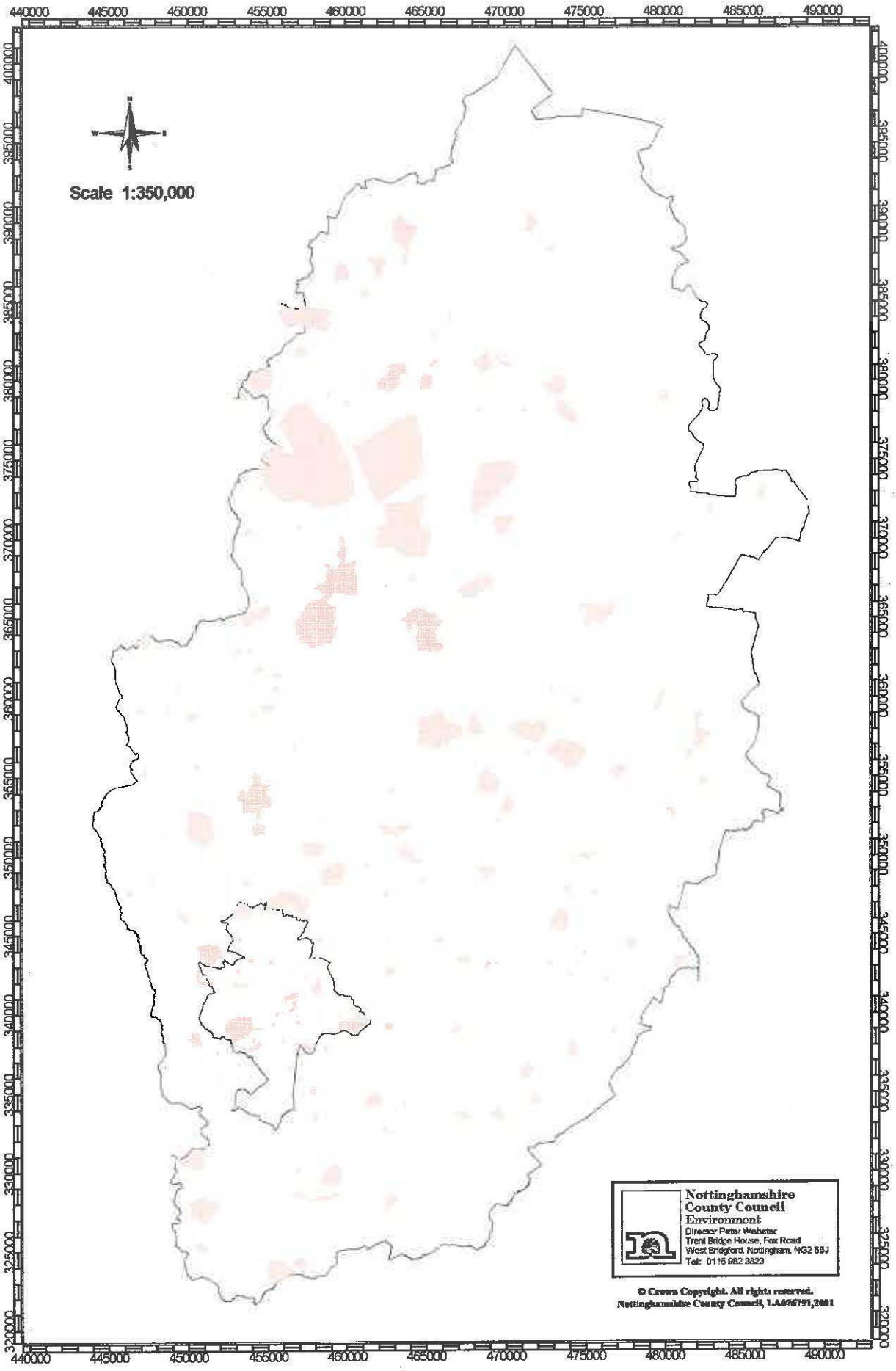

Figure 21 : Parks and Gardens

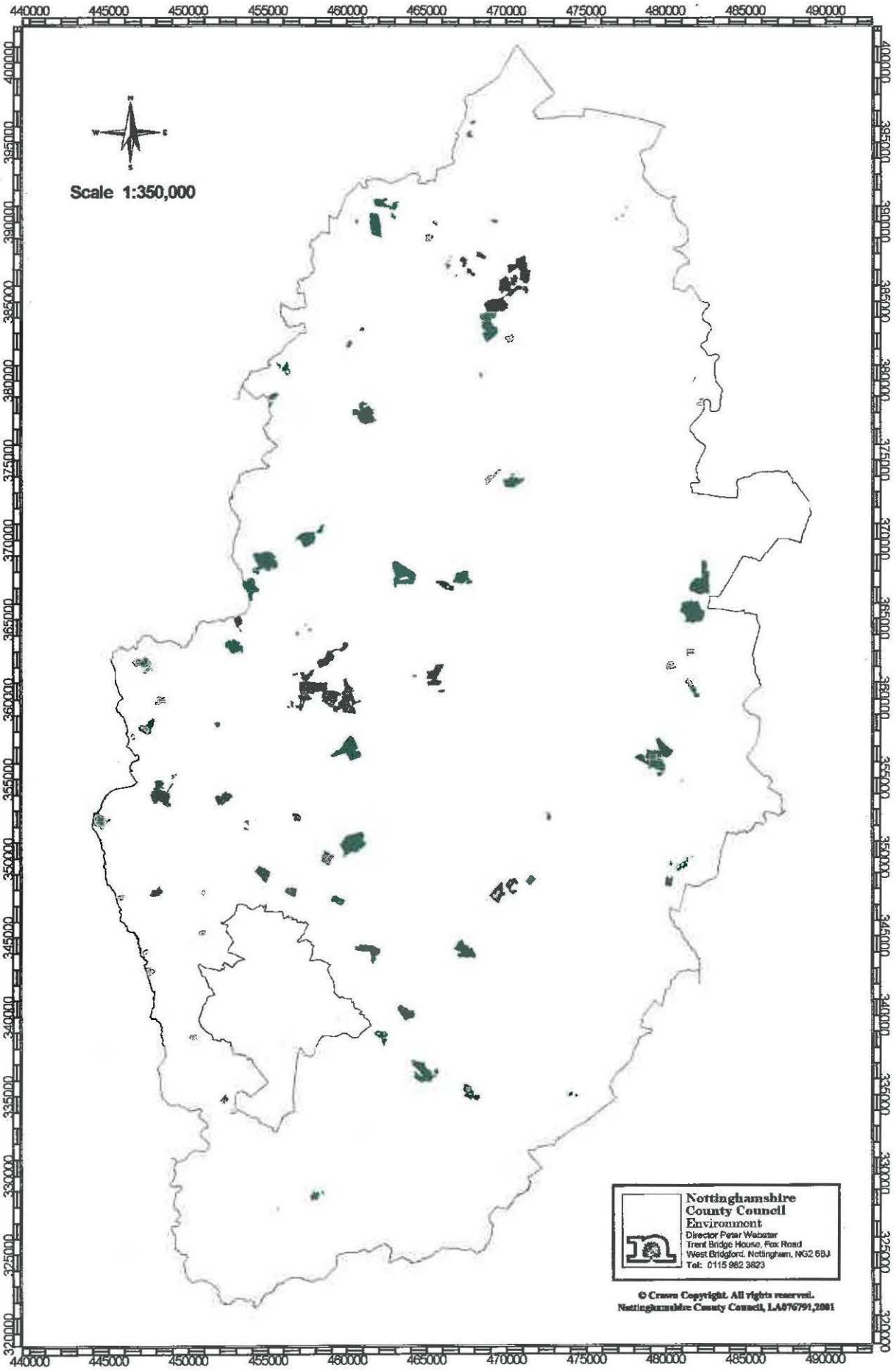

Figure 22 : Mineral Sites

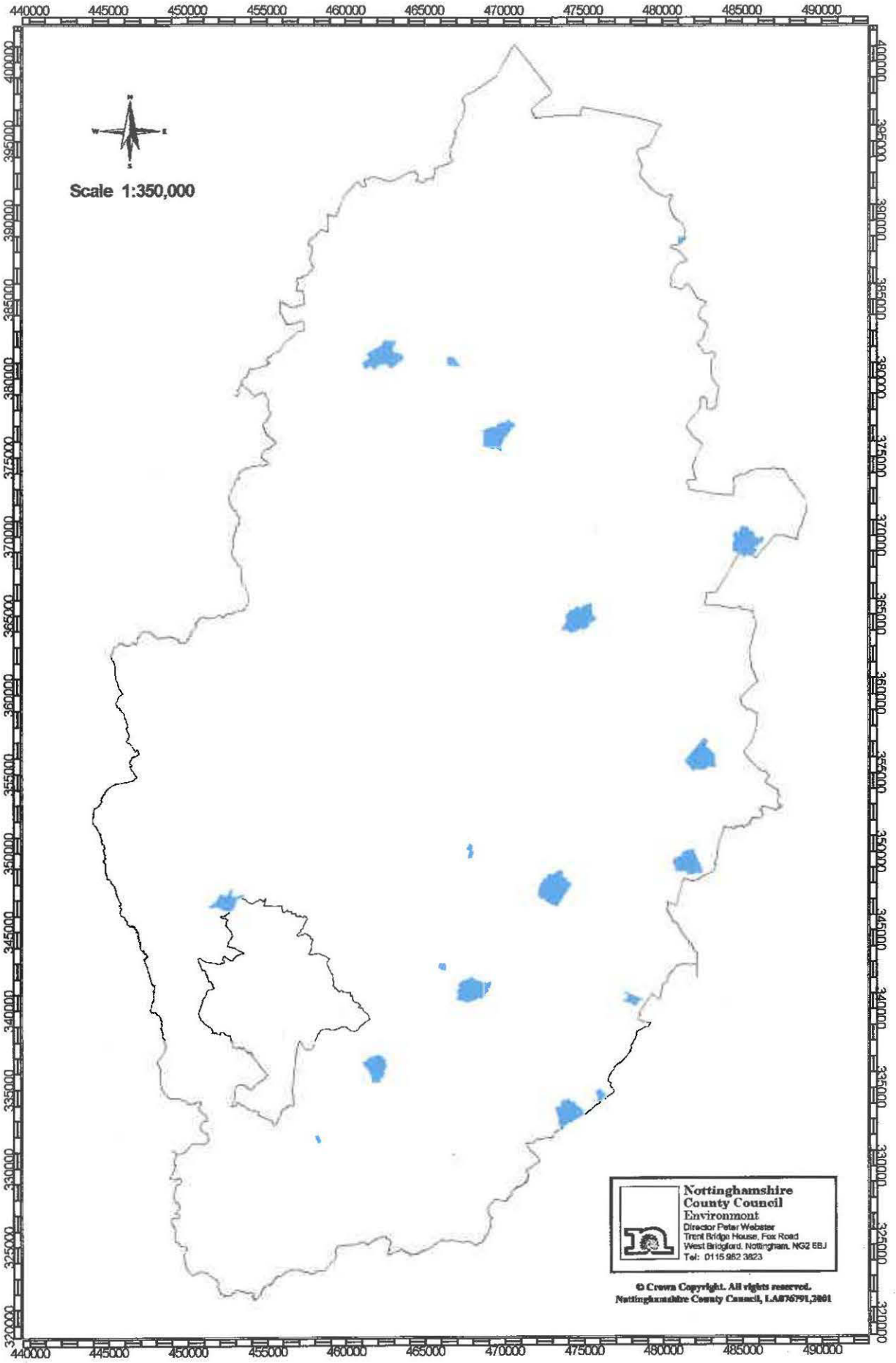

Figure 23 : Military Areas

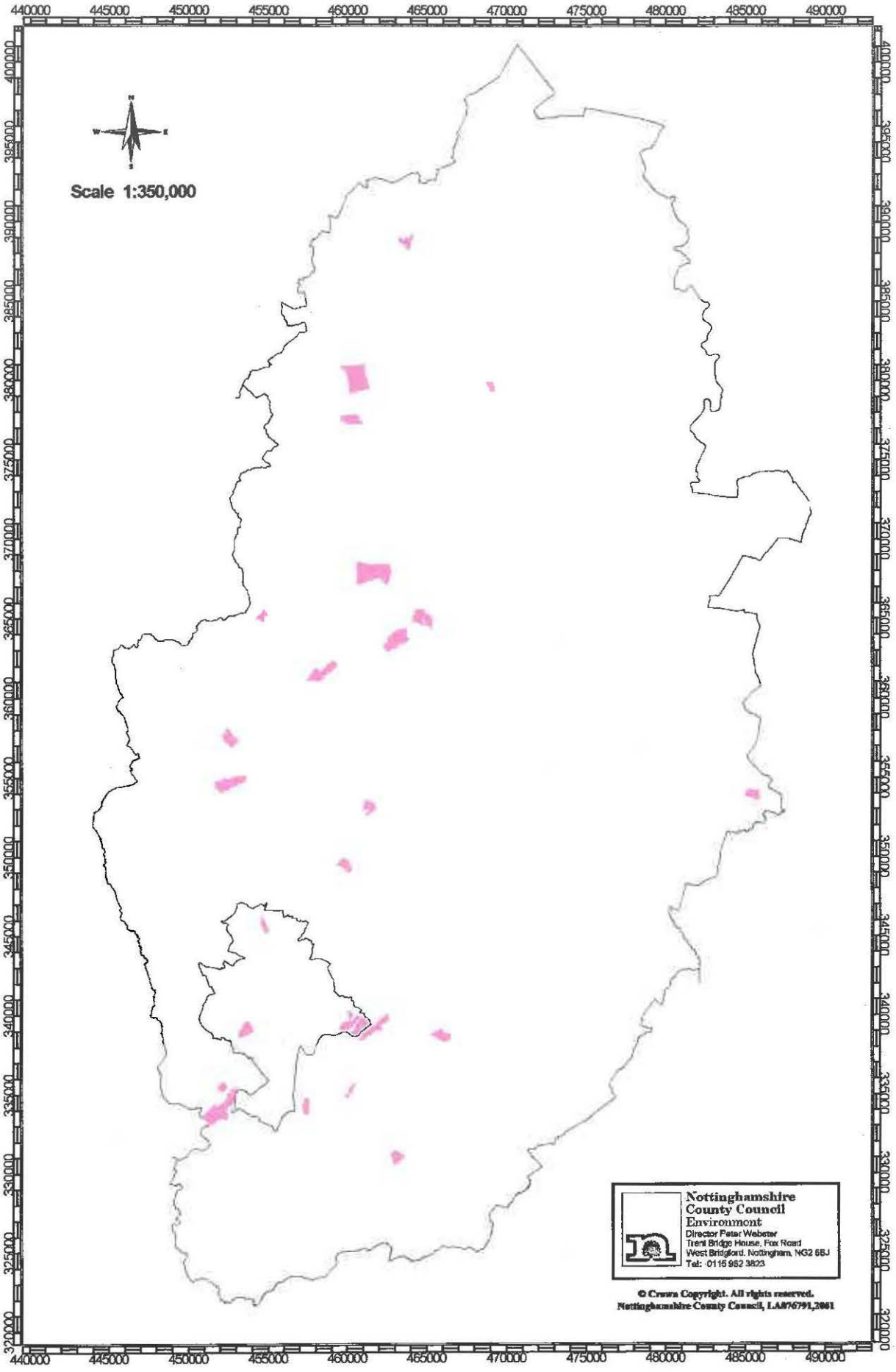

Figure 24 : Leisure Areas

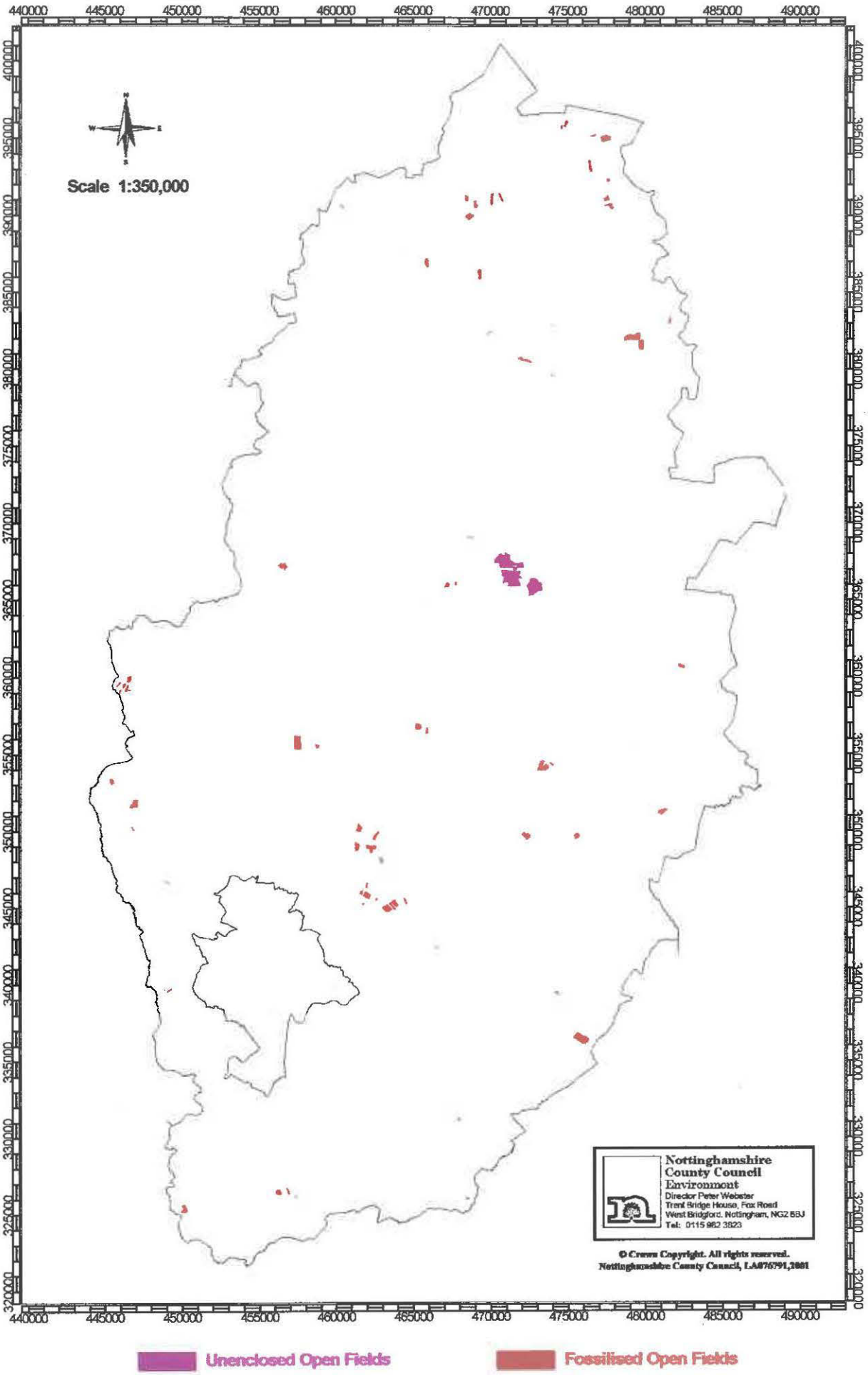

Figure 25 : Unenclosed Open Fields and Fossilised Open Field Patterns

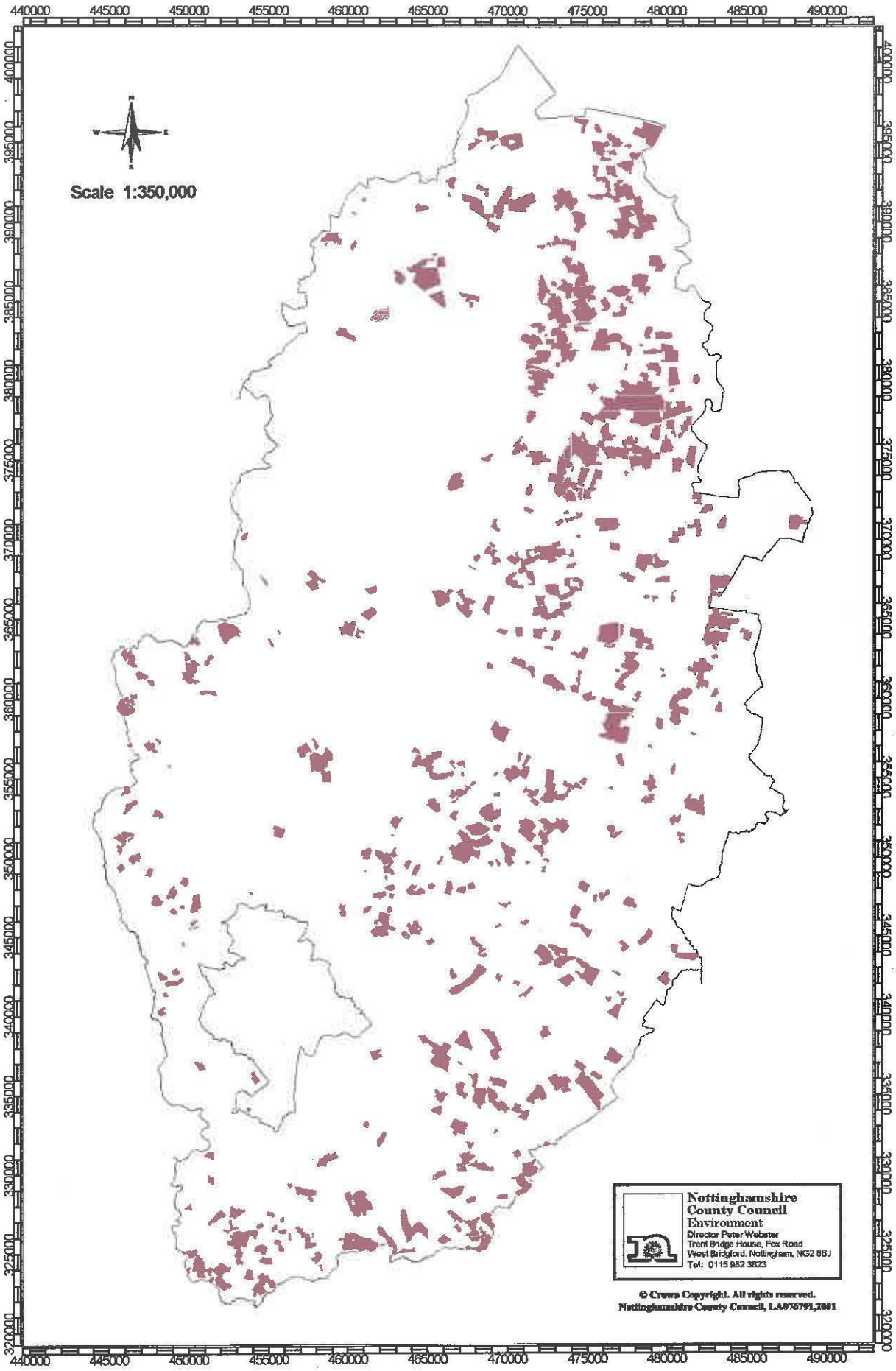

Figure 26 : Field Patterns Reflecting Open Fields

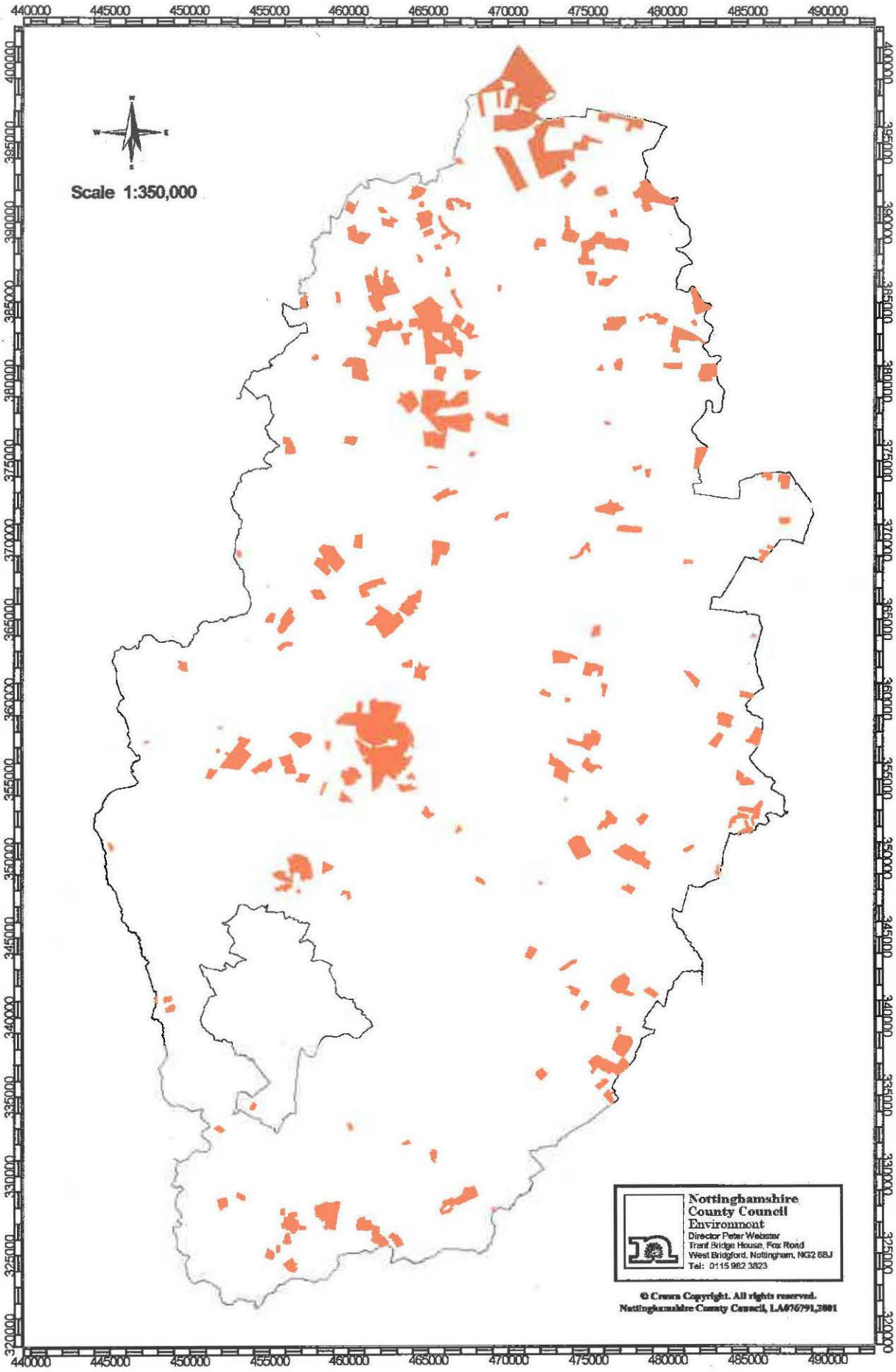

Figure 27 : Regularly Laid Out Large Geometric Field Patterns

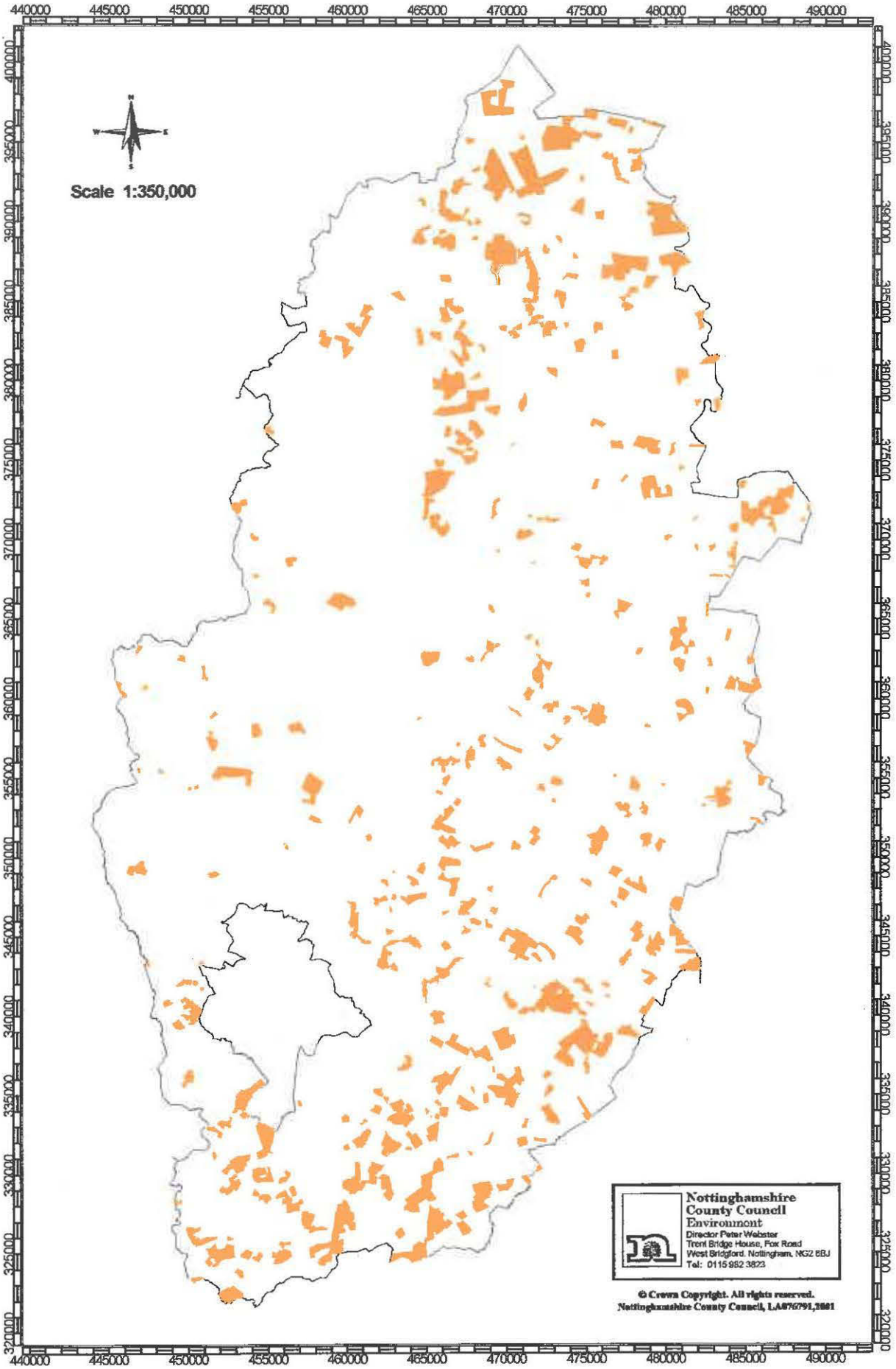

Figure 28 : Irregular Geometric Field Patterns

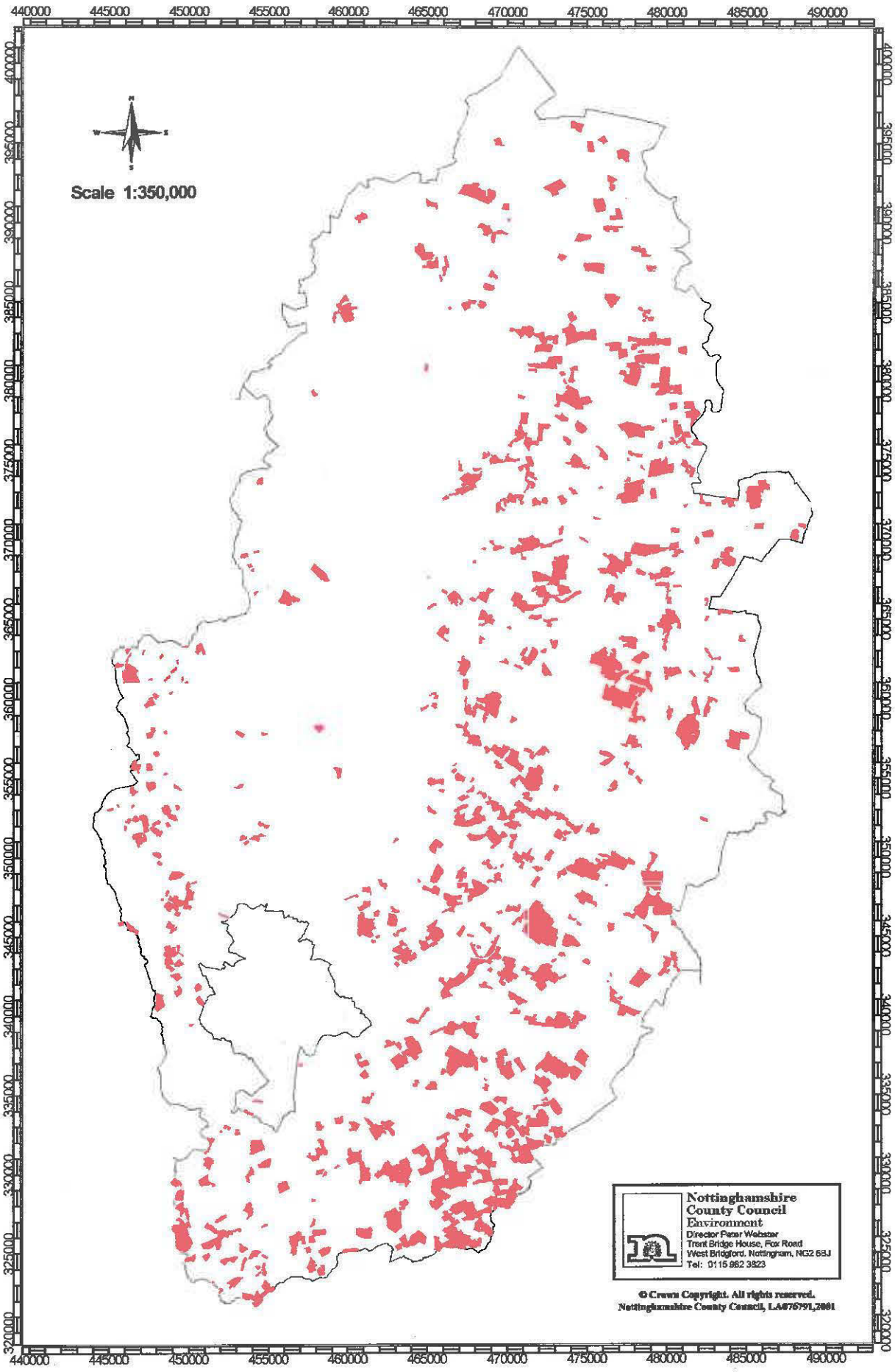

Figure 29 : Semi-Regular Field Patterns

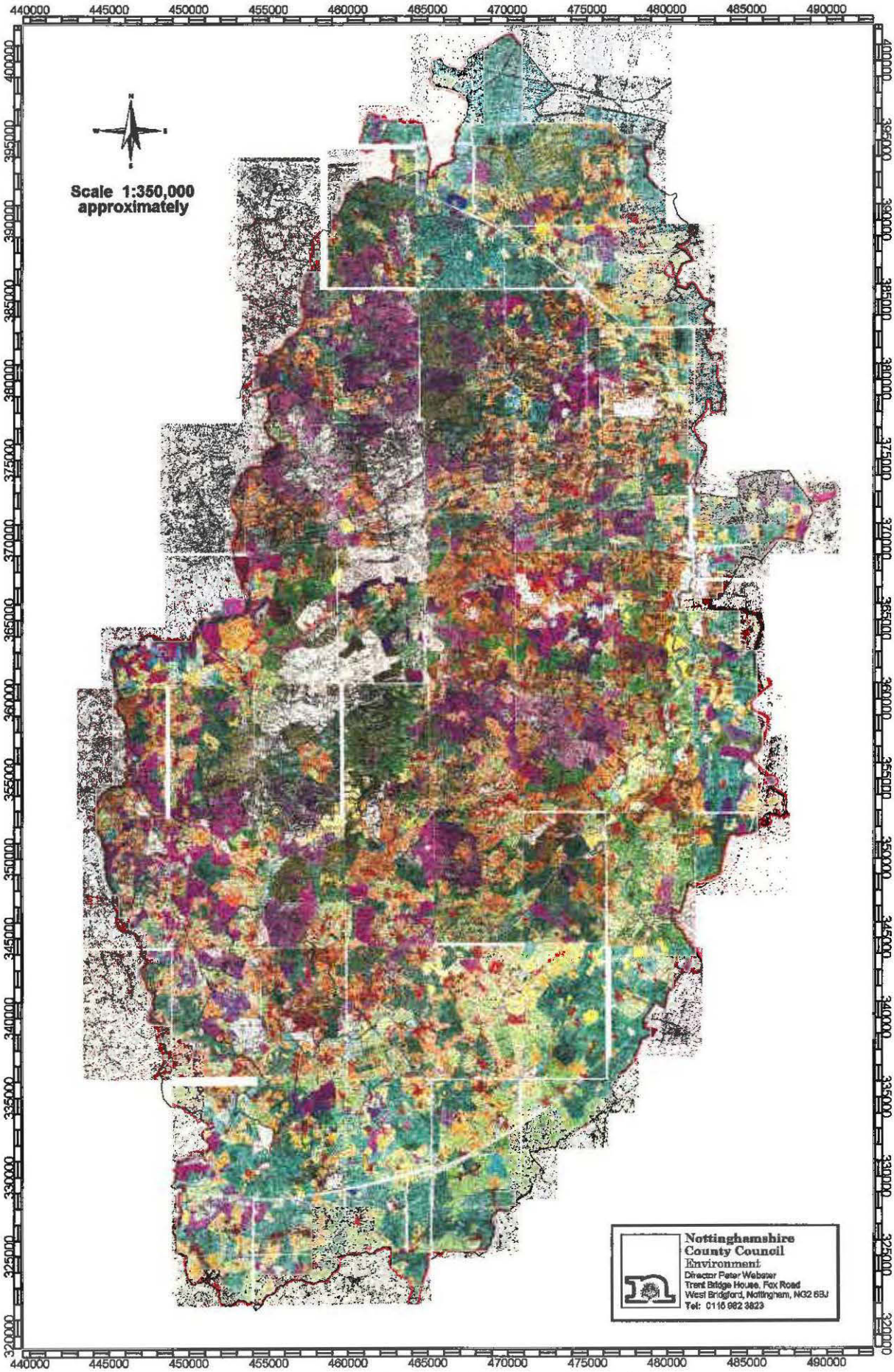

Figure 2 : The 19th Century Map

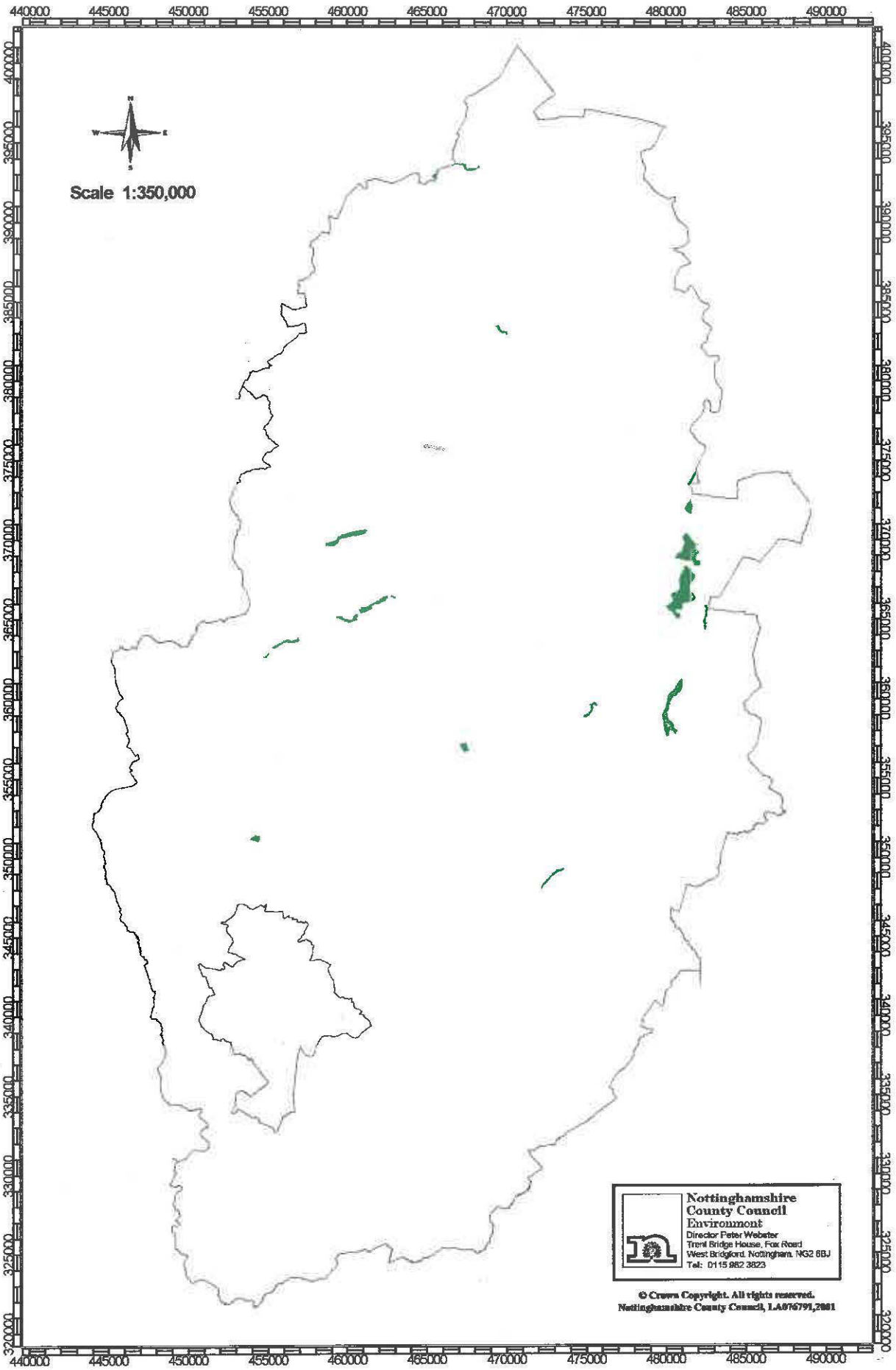

Figure 30 : Unenclosed River Valley Meadows

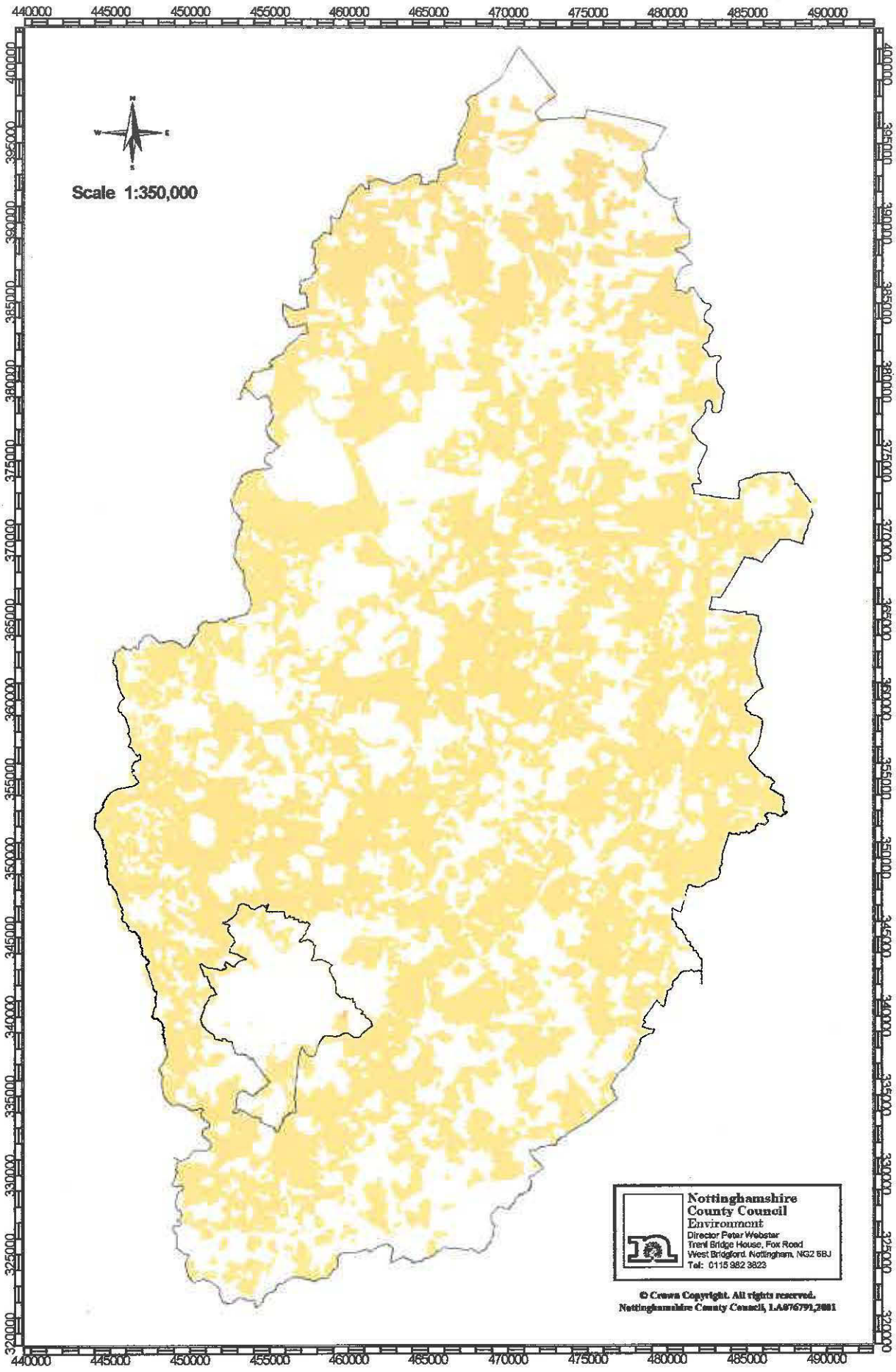

Figure 31 : Modern Modified Field Patterns

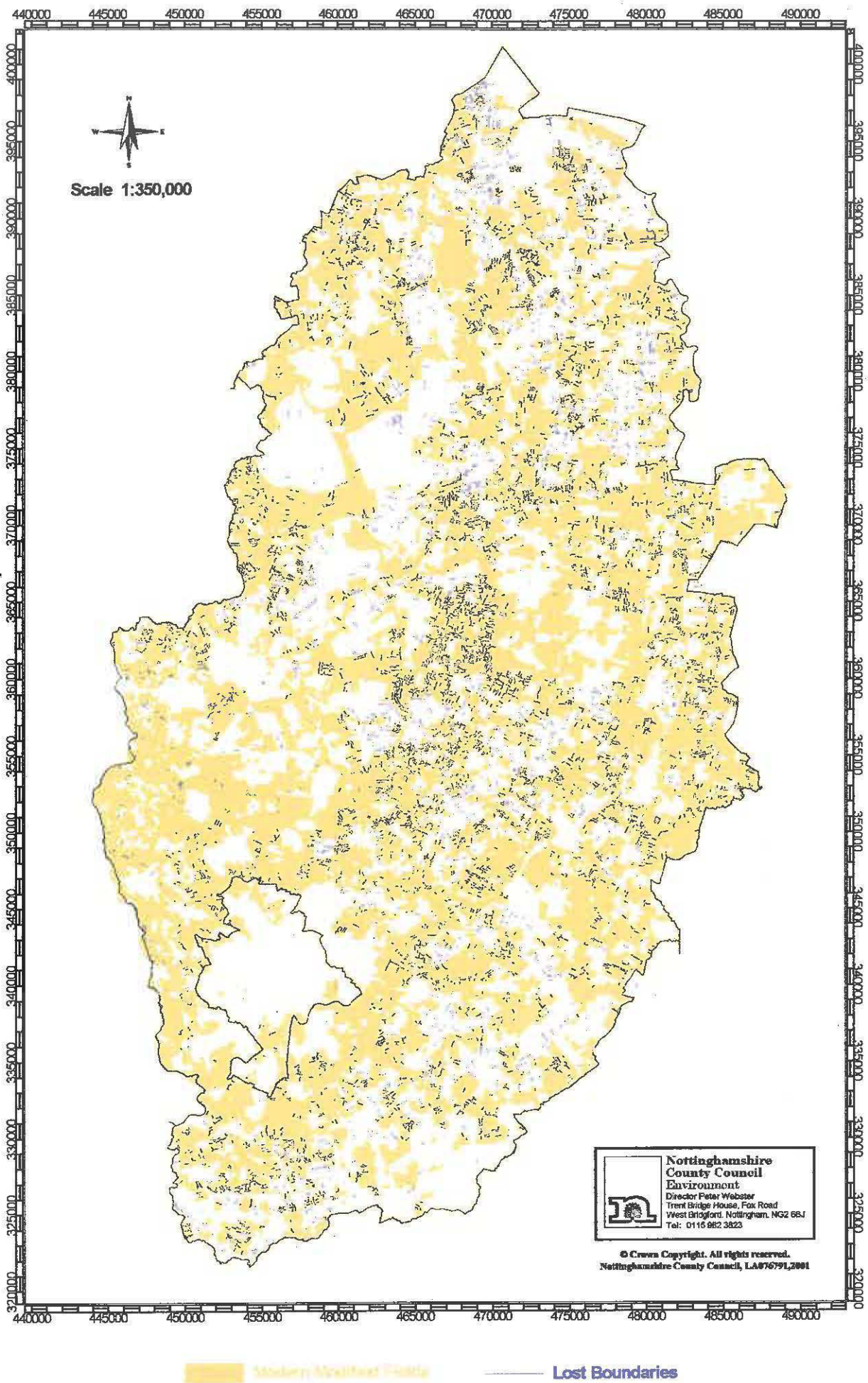

Figure 32 : Lost Boundaries in Nottinghamshire

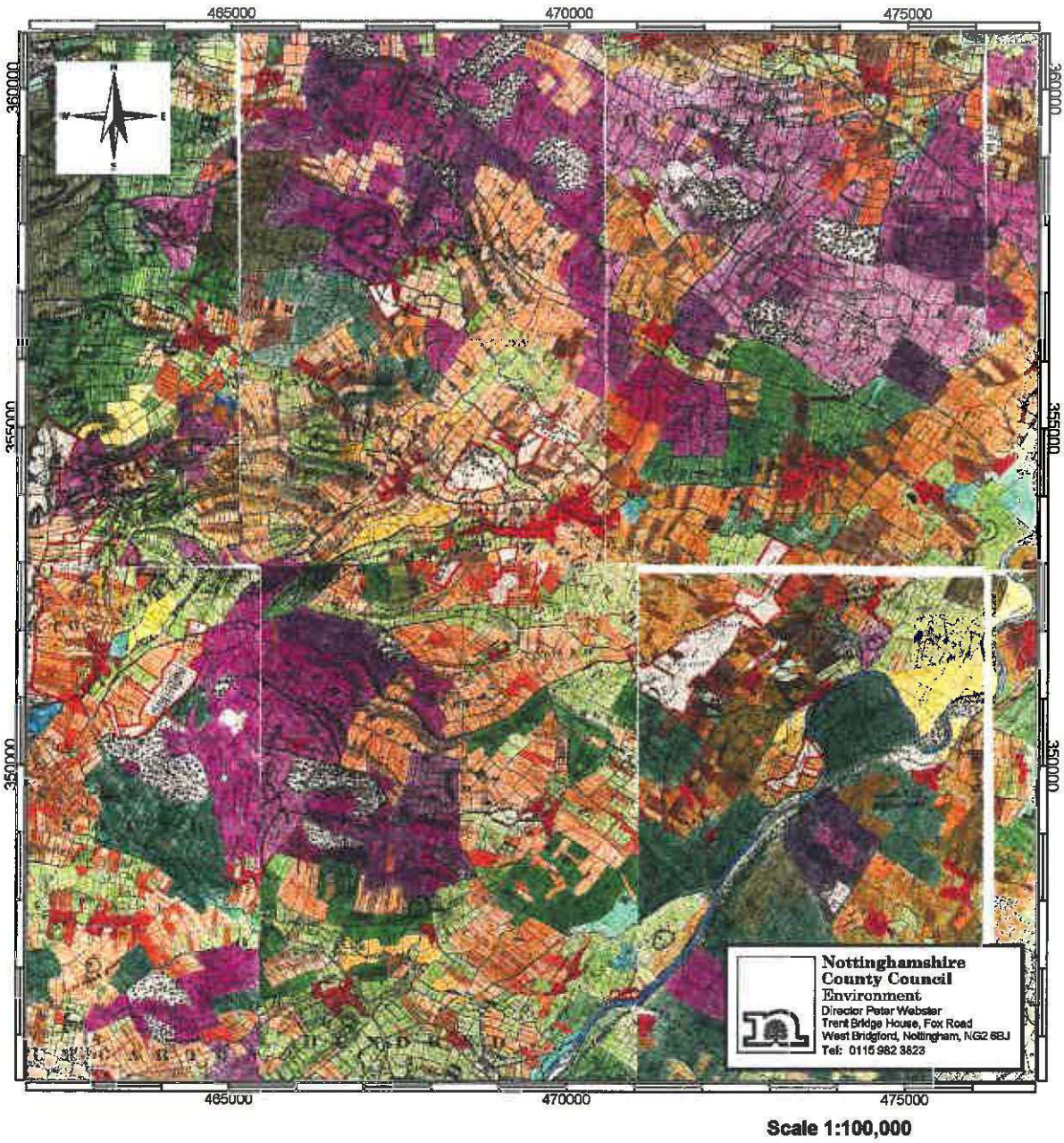

Figure 3 : The Area around Southwell from the 19th Century Map

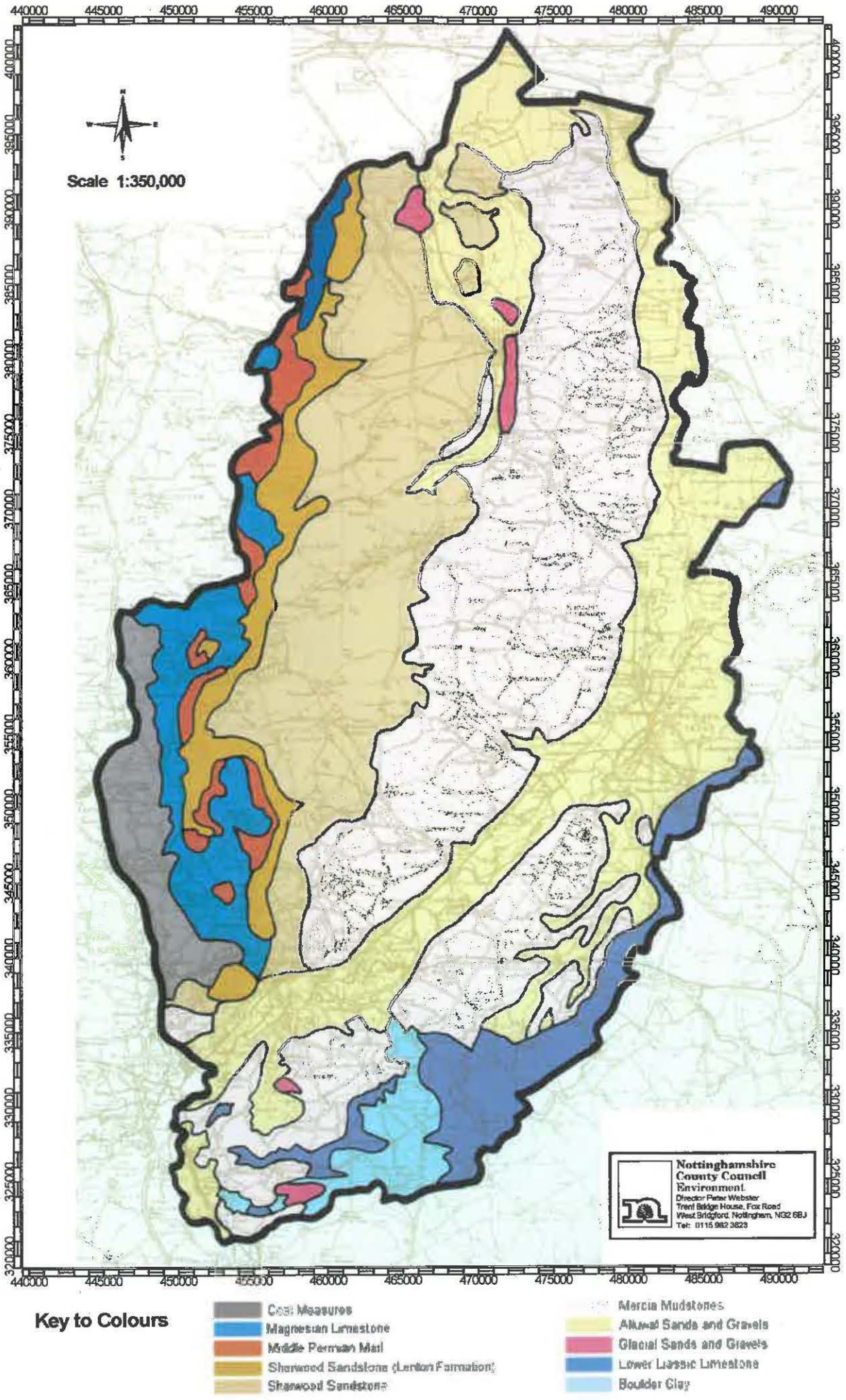

Figure 4 : The Geology of Nottinghamshire

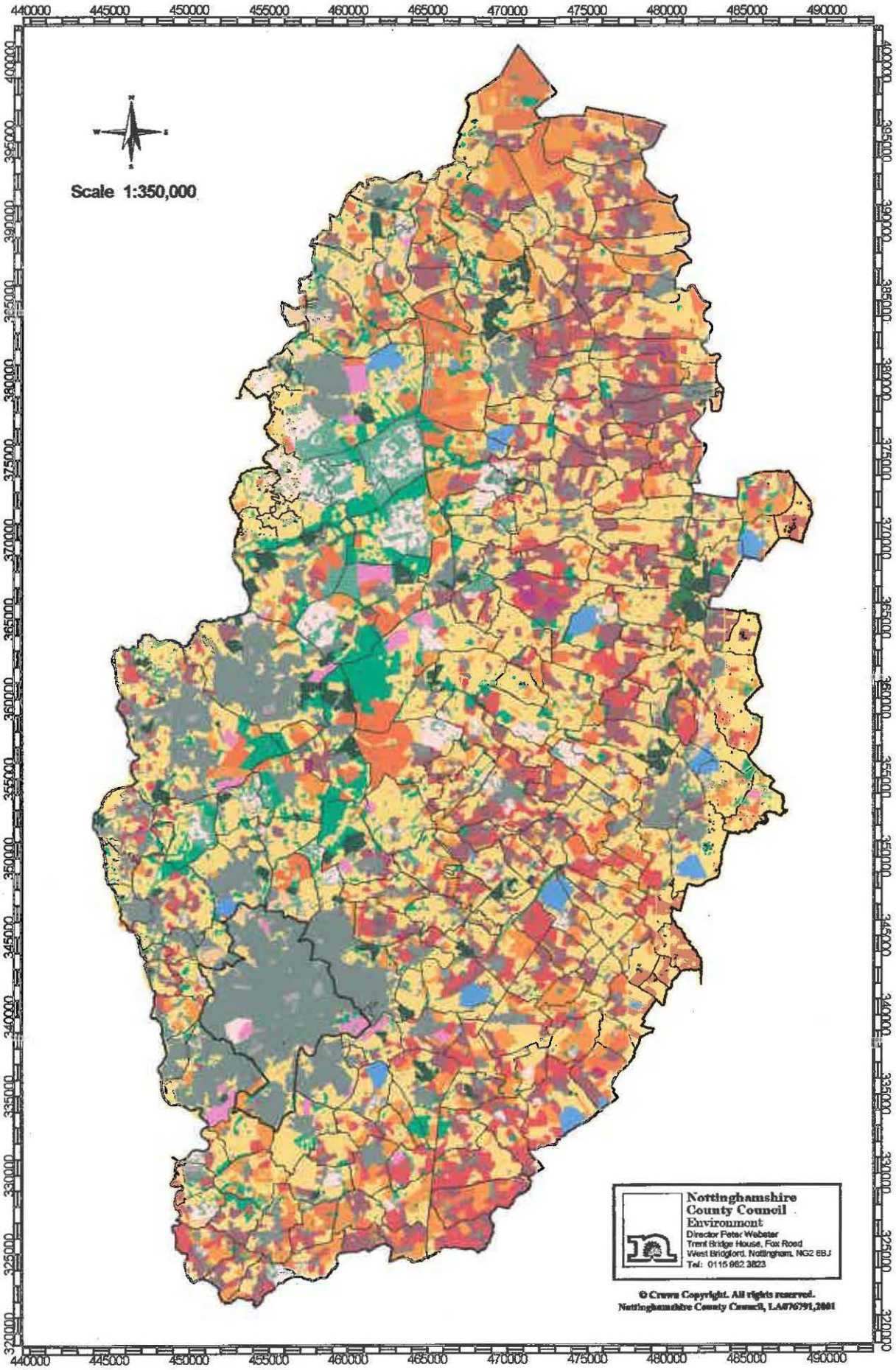

Figure 5 : Parish Boundaries

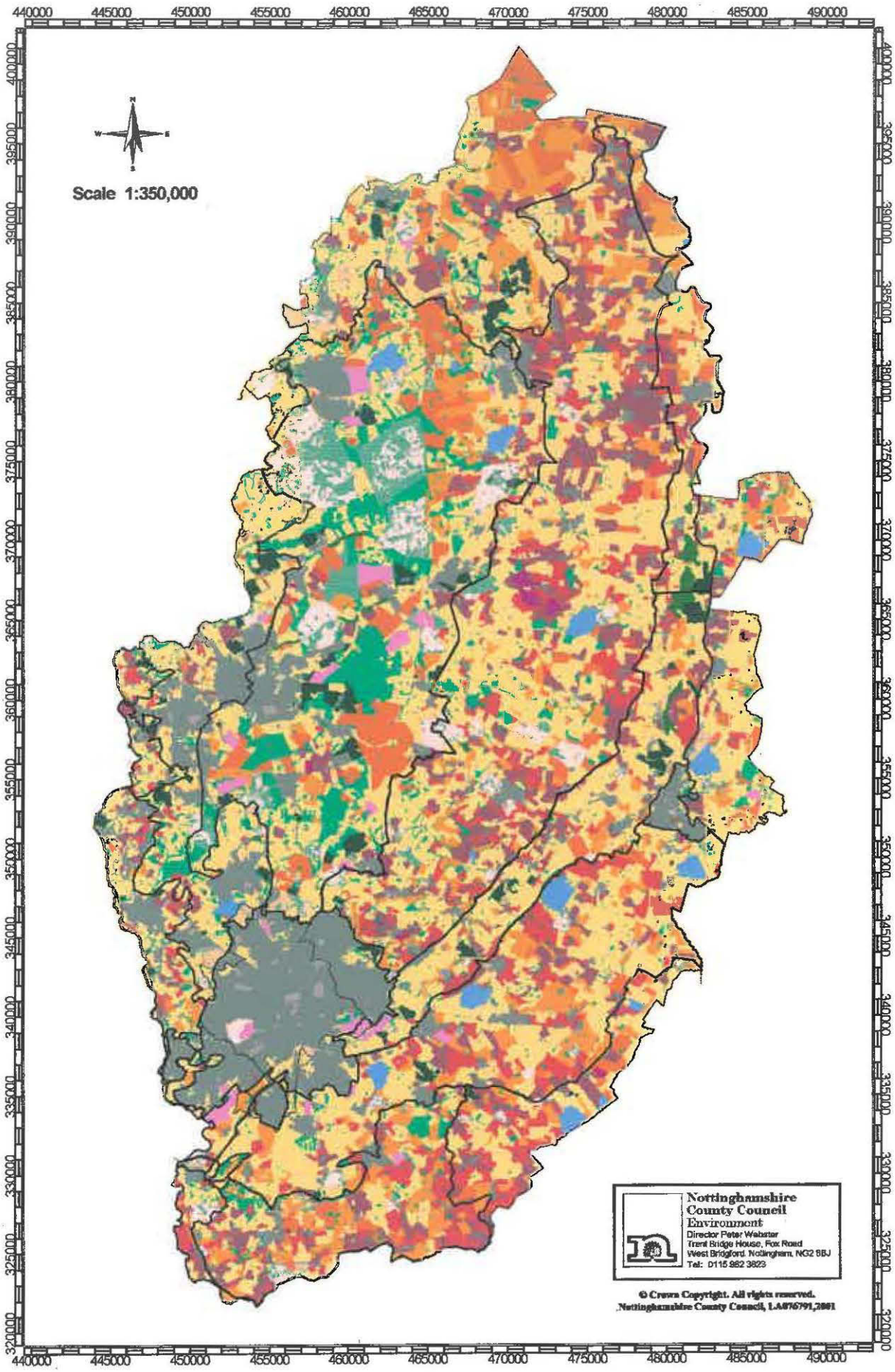

Figure 7 : N.C.C. Countryside Appraisal - Landscape Character Areas

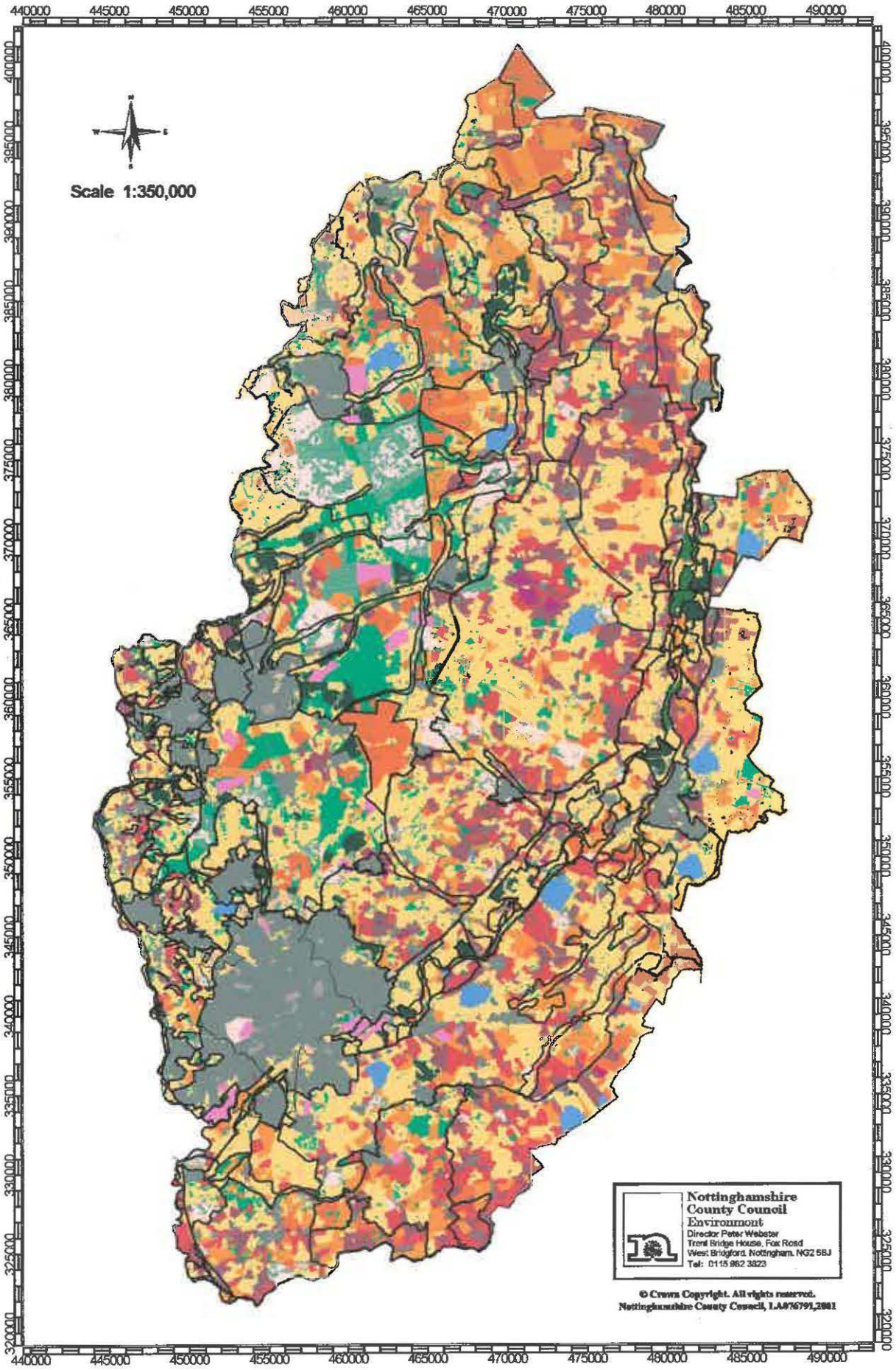

Figure 8 : N.C.C. Countryside Appraisal - Landscape Type Areas

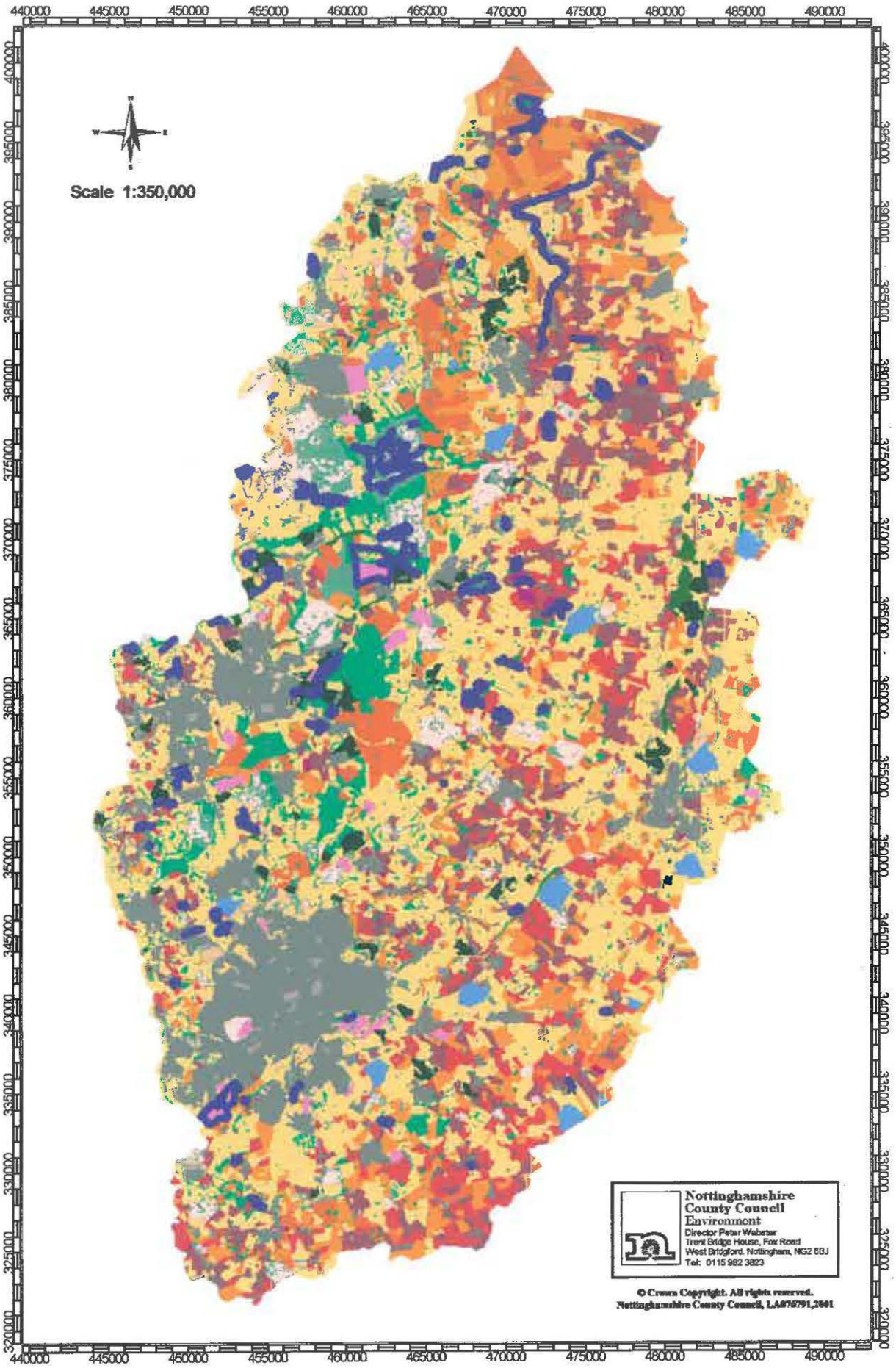

Figure 9 : Sites of Special Scientific Interest (dark blue) in Nottinghamshire