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**Techniques for Reconstructing Landscapes**  
**A Study of**  
**Allesley, Coundon and Stoneleigh Parishes**  
**in the Warwickshire Arden**

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**Thesis submitted for the degree of**  
**Doctor of Philosophy**  
**at the University of Leicester**

**by**

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## **Abstract**

# **Techniques for Reconstructing Landscapes A Study of Allesley, Coundon and Stoneleigh Parishes in the Warwickshire Arden**

**by**

**David Sheppard**

This thesis demonstrates that private researchers with limited resources can use computer-based methods to reconstruct and understand old landscapes in the greatest detail and to the highest accuracy that the documentary evidence allows. The most important feature is the development of a new technique which uses inexpensive computer-aided design software to transcribe, analyse and present maps that are accurate, detailed and informative.

The development of these methods was based on a study area in north Warwickshire which comprises the historical parishes of Allesley and Coundon and the northern part of Stoneleigh parish, almost all of which now lies within the city of Coventry. The new technique was used to reconstruct a sequence of detailed maps which show the changing landscape of this area from about 1600 to the early twentieth century.

Several contemporary surveys were analysed and presented on these maps to illustrate some aspects of the local history. The sparseness of the documentary evidence did not allow a continuous narrative, but the new technique illuminated selected themes in ways that traditional methods have not. These themes included landholdings, land use and land value in the 1652 enclosure of the open field of Allesley, the 1626 and 1809 surveys of Allesley and the c.1840 tithe surveys of the study area. The thesis concludes by analysing the geographical characteristics of Allesley and Coundon that may relate to a much earlier landscape, although a speculative reconstruction was not attempted because of the need for substantial extra research beyond the scope of this thesis.

The methods developed in this thesis should be useful for private research on the landscape of other study areas with a similar quantity and quality of documentation. Despite the continuing growth in the power and versatility of computers, they will remain valid because they deal with the difficult interface between manuscript sources and digital methods.



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I also want to thank Professor Charles Phythian-Adams and Professor Harold Fox, who were in turn my supervisors. This often difficult student greatly appreciates the knowledge and wise advice that they were so willing to share.

Finally I should record how much I was inspired by the example of our friend, the late Mrs Eileen Gooder, who retained her enthusiasm for all things historical in her ninety-second year.

## Conventions

All quotations in this thesis have retained their original spelling and punctuation.

The Imperial system of measurement and money has been used throughout the thesis, in keeping with the lives and times of those who created and lived within the landscape of Allesley, Coundon and Stoneleigh. The following conversions to the metric system may be useful :

<b>Money</b>	Pound sterling (£)	As now, but worth much more then	
	Shilling (s)	20 shillings = 1 pound	
	Penny (d)	12 pennies = 1 shilling ('pence' was the usual plural)	
		240 pence = 1 pound	

Values were written in the form £ x / y s / z d

<b>Length</b>	1 mile	= 1.6093 kilometres	
	1 yard	= 0.9144 metres	1,760 yards = 1 mile
	1 foot	= 0.3048 metres	3 feet = 1 yard
	1 inch	= 0.0254 metres (25.4 millimetres)	12 inches = 1 foot

<b>Area</b>	1 acre	= 0.4047 hectare	= 4,840 square yards
	4 roods	= 1 acre	
	40 perches	= 1 rood	Note that 'perch' was also a distance = 5.5 yards; the areal perch was actually a square perch.

# Abbreviations

<	less than or earlier than
>	more than or later than
<i>Agric. Hist. Rev.</i>	<i>Agricultural History Review</i>
c.	<i>circa</i>
CAD	Computer-Aided Design
ch.	chapter
Cov. A.	Coventry Archives
C.R.O.	County Record Office
<i>Econ. Hist. Rev.</i>	<i>Economic History Review</i>
ed.	editor
eds	editors
edn	edition
<i>et al.</i>	<i>et aliter</i> [and other authors]
Fig.	Figure
Figs	Figures
fo.	folio
ff.	folios
ft	feet
GIS	Geographical Information System
km	kilometres
m	metres
M.A.F.F.	Ministry of Agriculture, Fisheries and Food
OS	Ordnance Survey
p.	page
pp.	pages
R.	river
ref.	reference
S.B.T.	Shakespeare Birthplace Trust, Stratford-upon-Avon
ser.	series
T.N.A.,P.R.O.	The National Archives (Public Record Office), Kew
V.C.H.	Victoria County History
vol.	volume
vols	volumes
War. C.R.O.	Warwickshire County Record Office

# 1

## Introduction

This chapter states the aims of the thesis, describes the geographical and historical setting of the study area and summarises the contents of each chapter and appendix.

### 1.1 Aims of the Thesis

This thesis aims to demonstrate that private researchers with limited resources can use computer-based methods to reconstruct and understand old landscapes in the greatest detail and to the highest accuracy that the documentary evidence allows. The most important feature will be the development of a new technique which uses inexpensive computer-aided design software to transcribe, analyse and present maps that are accurate, detailed and informative.

The development of these methods will be based on a study area in north Warwickshire which comprises the historical parishes of Allesley and Coundon and the northern part of Stoneleigh parish, almost all of which now lies within the modern boundary of the city of Coventry. The new technique will be used to reconstruct a sequence of detailed maps which show the changing landscape of this area from about 1600 to the early twentieth century, based on the framework of the Ordnance Survey and working backwards in time.

Data from contemporary surveys will be presented on these maps and used to illustrate some aspects of the local history. The sparseness of the documentary evidence does not allow a continuous narrative, but it is hoped that the new technique will illuminate the local history in ways that traditional methods have not. Themes to be explored will include landholdings, land use and land value in the 1652 enclosure of the open field of Allesley, the 1626 and 1809 surveys of Allesley and the c.1840 tithe surveys of the whole study area. The final theme will be an analysis of the geographical features of Allesley and Coundon that may relate to a much earlier landscape.

It is hoped that the methods developed in this thesis will be found useful by private researchers who are reconstructing and analysing the landscapes of other study areas which possess a similar quantity and quality of documentation. Despite the continuing growth in the power and versatility of computers, it is believed that these methods will remain valid because they deal with the difficult interface between manuscript sources and digital methods.



## 1.2 The Study Area



**Fig. 1-1 The Countryside near Allesley Village**

Looking north-east from SP301808 in October 2006.  
This glebe land was a part of Church Furlong in the open field that was enclosed in 1652.

The study area comprises the traditional parishes of Allesley and Coundon and the northern part of Stoneleigh parish in the historical county of Warwickshire. Before the twentieth century this area was entirely rural and Coventry was a small city whose rural hinterland extended to the eastern boundary of the three parishes.<sup>1</sup> By 2000 the urban area had extended across northern Stoneleigh and the south-eastern parts of Allesley and Coundon. These irrevocable changes to the southern half of the study area contrast with the largely unchanged rural landscape of northern Allesley. Despite the growth of Coventry, Fig. 1-1 shows that some attractive countryside still survives and Fig. 1-2 proves that the heart of Allesley village did not change much during the twentieth century. Fig. 1-3 illustrates the setting of the study area among the rivers, towns and parishes of northern Warwickshire. The modern landscape of the study area in about 2000 is shown by the Ordnance Survey map (Fig. 1-4) and satellite photograph (Fig 1-5). Fig. 1-6 shows the place-names and road names that relate to the old rural landscape that existed before the twentieth century; these names will be referred to throughout this thesis.

<sup>1</sup> The population of Coventry expanded from 53,000 in 1891 to 167,000 in 1931 and was to exceed 300,000 in 1961; R. B. Pugh (ed.), *V.C.H. Warwickshire*, 8 (London, 1969), pp.4-5.





**Fig. 1-2 Allesley Village in 1906 and 2006**

Postcard entitled 'Peace, Allesley', published by Day & Heeley, posted in 1906; photograph taken in October 2006. This is the Birmingham Road, formerly the Chester Road. Both views are looking ESE from about SP300807. The 2006 photograph was taken from the gateway that can be seen on the other side of the road in the 1900 view.



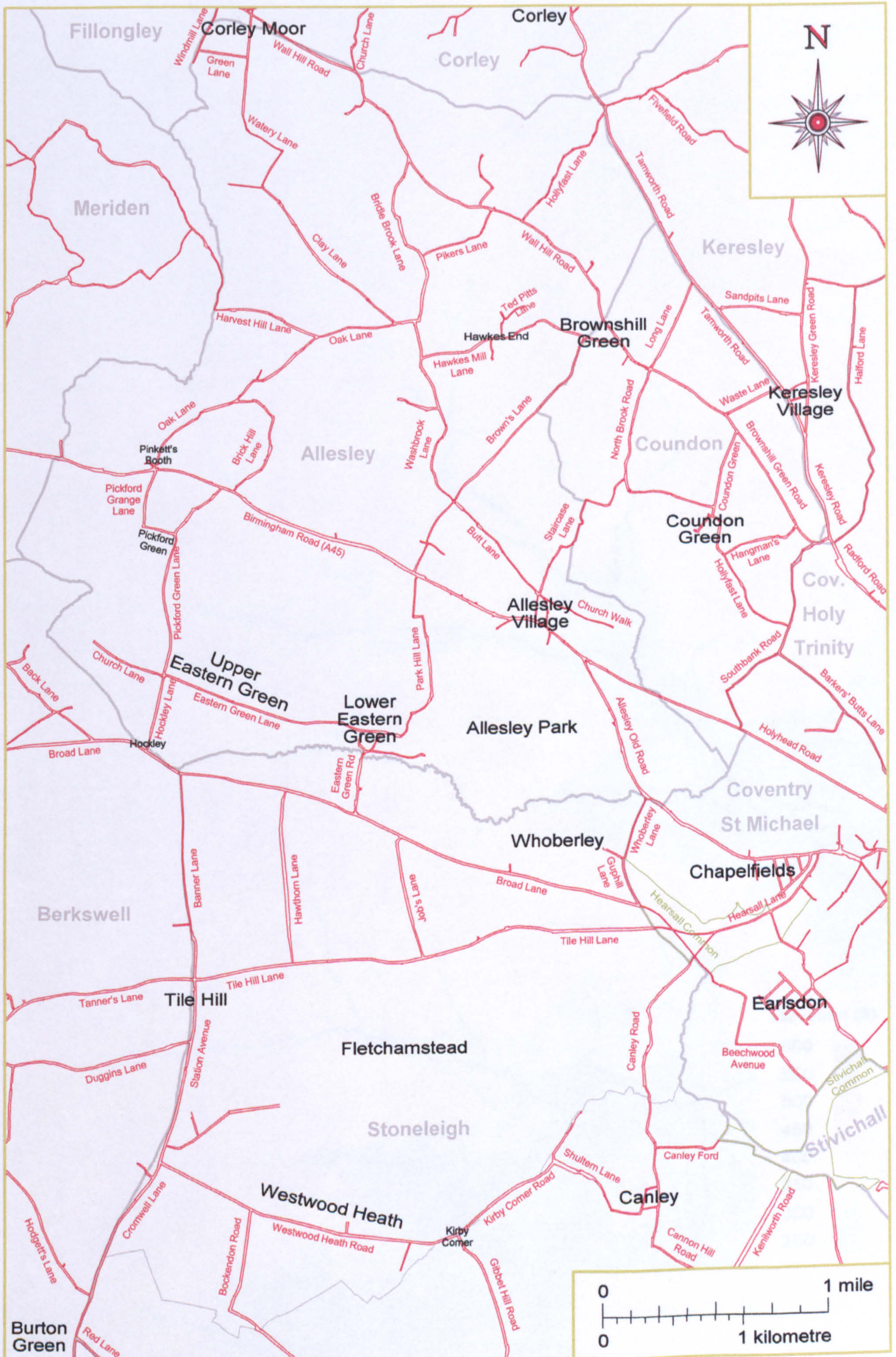


**Fig. 1-3 The Setting of the Study Area within Northern Warwickshire**



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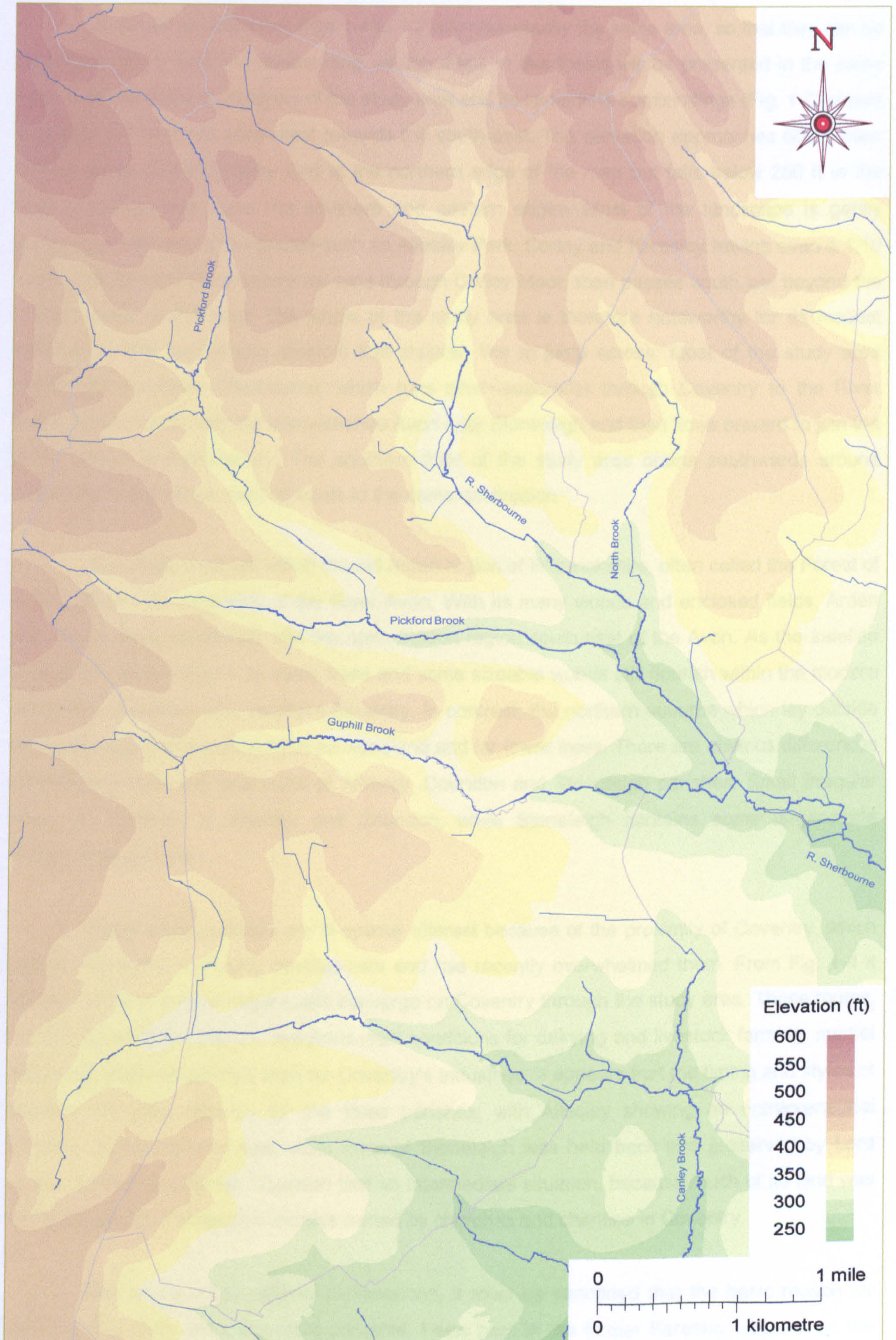




**Fig. 1-6 Place-names and Road Names in the Study Area**

The roads and settlements are as they were in 1887. Modern road names have been used.





**Fig. 1-7 The Topography of the Study Area**



It should be noted that Figs 1-4 to 1-7 all show exactly the same area, so that they can be superimposed for better understanding. All the maps in this thesis will be presented in the same way. The map of the topography of the study area and its immediate surroundings (Fig. 1-7) shows a general fall from the north-west towards the south-east. The elevation approaches 600 ft near Corley village and Hollyberry End at the northern edge of the map but falls below 250 ft in the shallow valleys that cross the southern and eastern edges. Most of the landscape is gently undulating, with only a few places such as Allesley Park, Corley and Keresley having even a 1:10 slope. The Severn-Trent watershed runs through Corley Moor, then passes south just beyond the western edge of this map. The whole of the study area is therefore noteworthy for its modest waterways, little brooks and streams that children like to jump across. Most of the study area drains into the River Sherbourne, which runs south-eastwards through Coventry to the River Sowe, which itself meets the Warwickshire Avon near Stoneleigh and then flows onward to join the River Severn at Tewkesbury. The southern third of the study area drains southwards around Gibbet Hill to the Sowe, then onwards to the same destination.

The study area lies within the old Arden region of Warwickshire, often called the Forest of Arden, which lies north-west of the River Avon. With its many woods and enclosed fields, Arden has always been contrasted with the open Feldon region south-east of the Avon. As the satellite photograph shows (Fig. 1-5), many trees and some sizeable woods still flourish within the modern landscape of western and southern Coventry. In contrast, the northern suburbs which lay outside the Arden region continue to have no woodland and far fewer trees. There are obvious differences between the surviving rural parts of Allesley, Coundon and Stoneleigh parishes. Small irregular fields are common in Allesley and Coundon, while Stoneleigh contains some larger-scale enclosure landscape.

These three parishes are of special interest because of the proximity of Coventry, which heavily influenced their rural development and has recently overwhelmed them. From Fig. 1-4 it will be seen that several major roads converge on Coventry through the study area. These routes, running downhill into the city, provided ideal conditions for dairying and livestock farming, market gardening, and sub-contract work for Coventry's industries. It appears that the timing and styles of development were different for the three parishes, with Allesley showing an entrepreneurial response to the opportunities, while most of Stoneleigh was held back and preserved by Lord Leigh's controlling interest. Coundon had an intermediate situation, because much of its land was on the periphery of large rural estates owned by churches and charities in Coventry.

After giving these rational explanations, it must be conceded that the basic reason for choosing this study area was more personal. I was born in the former Keresley Hospital on the northern edge of the study area, grew up in Whoberley and, after years spent away, now live in Allesley Park at the centre of the study area. I know and love this landscape more than any other.

### 1.3 The Structure of this Thesis

This thesis is divided into ten chapters, a bibliography and six appendices.

You are reading Chapter One.

Chapter Two summarises the existing literature dealing with the reconstruction of landscapes, landscape regions, woodland, the Arden region and the study area.

Chapter Three assesses the available sources of information and describes the development and application of the technique that will be used to create computer-based maps.

Chapter Four describes the use of this technique to reconstruct a series of detailed maps of the study area, working from 1938 back to about 1600. Using these maps, Chapter Five analyses the landholdings within the study area in 1600, 1809 and c.1840, Chapter Six analyses land use and field size and Chapter Seven derives the pattern of land value at these dates.

Chapter Eight investigates the changes in field-names, landholdings, field size, land use and land value within the study area from about 1600 to c.1840. It goes on to evaluate the benefits or otherwise of the 1652 enclosure of Allesley's open field and concludes by mapping the evolution of buildings, roads, paths, ponds and woods in the study area between 1809 and 1938.

Chapter Nine analyses the geographical features of Allesley and Coundon that may relate to a much earlier landscape.

Chapter Ten summarises the conclusions of this thesis.

Appendix A gives the correct pronunciation of local place-names.

Appendix B discusses the different ways in which the value of land may be judged.

Appendix C assesses the reliability of the 1814 two-inch Ordnance Survey map of the area.

Appendix D solves a secret code used in the 1809 Poor Law survey of Allesley.

Appendix E describes the detailed reconstruction of Allesley's open field, as it was in 1652.

Appendix F gives an example of the natural regeneration of woodland near the study area.

The Bibliography lists the manuscript, primary and secondary sources.



## 2

### Literature Survey

This chapter surveys the literature about reconstructing old landscapes, computer-based methods and the study area. It also covers the historical themes and sources of information that were considered for inclusion in this thesis. Chapter 3 explains why some were chosen and others were not and also expands upon the descriptions of those that were.

#### 2.1 Methods for Reconstructing Landscapes

Bloch points out that there are two basic methods by which historical geographical research may be conducted, the one progressive, the other retrogressive. The progressive approach recounts history in the normal way, with events in the chronological order in which they occur. The alternative retrogressive approach reads history backwards, arguing that the paucity of documentation for early eras necessitates a thorough study of more recent eras, including the present day, before moving back in time to study their antecedents :

In the film which the researcher is examining, only the last picture remains quite clear. In order to reconstruct the faded features of others, it behoves him first to unwind the spool in the opposite direction from that in which the pictures were taken.<sup>1</sup>

While capturing the spirit of retrogressive reconstruction, this analogy does not convey the incomplete nature of most of the pictures, and the absence of some of them. Wilson likens the landscape to a palimpsest.<sup>2</sup> Another analogy might be to a stack of jigsaws showing fragments of the same landscape in different eras. A few jigsaws show the complete picture of one era, but most show only parts of the overall picture. Landscape reconstruction is like completing each of these fragmentary jigsaws to produce an evolving picture of the whole landscape.

Baker and Butlin have provided a useful summary of the differing approaches to research into landscapes.<sup>3</sup> They point out that no single intellectual discipline can, by itself, provide a complete solution. The research must combine three disciplines : the production of maps using data from various cartographic and documentary sources, historical studies of the influence of economic and institutional change and, thirdly, geography, which is primarily concerned with spatial organisation and physical evidence. A morphogenetic study of a landscape uses field evidence with early and modern maps to find the relationship of field patterns to settlement, relief,

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<sup>1</sup> A. R. H. Baker and R. A. Butlin (eds), *Studies of Field Systems in the British Isles* (Cambridge, 1973), pp.39-40, quoting M. Bloch, *The Historian's Craft* (Manchester, 1954), pp.45-46.

<sup>2</sup> D. R. Wilson, 'Reading the palimpsest: landscape studies and air photography', *Landscape History*, 9 (1987), pp.5-25.

<sup>3</sup> Baker and Butlin, *Field Systems*, pp.37-40.



soils and drainage. This method attempts to reconstruct the most likely order in which the elements of the field pattern were introduced, by studying the patterns, boundaries and names of fields, the arrangement of settlements, topography and soils and relict features, as in this thesis.

## 2.2 Reconstructing Later Landscapes

In this thesis, later landscapes are those for which maps and detailed documentary evidence exist, although perhaps fragmentary. The problems are those of access, transcription, integration, analysis and presentation, unlike the earlier landscapes which must be reconstructed by indirect methods. The Ordnance Survey maps, as outlined by Harley, are of course fundamental to this work.<sup>4</sup> The body of documentary evidence for later landscapes will be discussed working backwards in time, in keeping with the approach used in this thesis.

### The National Farm Survey of 1941

The National Farm Survey of England and Wales, carried out between 1941 and 1943, was a fundamental component of state intervention at a time of universal rationing and food shortage caused by Germany's U-boat campaign and the competing demands of the war effort.<sup>5</sup> However, there was an obvious conflict between the bureaucratic process and the intention to grow more food. Only in July 1943 was thought given by the Ministry of Agriculture to the final presentation of the results, which was three months after decisive convoy battles in the Atlantic had ensured that growing more food became a question of economics rather than national survival.<sup>6</sup> The National Farm Survey was finally published in August 1946, but the full records were not made available at the Public Record Office (now The National Archives) until 1992. Short shows that the survey contains an immense amount of useful data, but with serious limitations.<sup>7</sup> Much detailed information about crops, equipment and tenancy, as of June 1941, was demanded of the farmer, some of it unfamiliar and prone to error. The basic unit was the farm, not the individual field. Amazingly, the printed form did not ask for the area of the farm, although this was sometimes added by hand. The data referred to Ordnance Survey sheets, but the transposing of farm outlines onto maps was never completed, and many maps have been mislaid since. Short reports wide variations in the quality of the survey and contemporary confusion about its contents. He concludes that the survey has substantial limitations as an historical source, but without it there would be no information with its coverage, detail and richness for this era.

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<sup>4</sup> J. B. Harley, *The Historian's Guide to Ordnance Survey Maps* (London, 1964).

<sup>5</sup> B. Short *et al.*, *The National Farm Survey 1941-1943 : State Surveillance and the Countryside in England and Wales in the Second World War* (Wallingford, 2000).

<sup>6</sup> C. Barnett, *Engage the Enemy More Closely - The Royal Navy in the Second World War* (1991; London, 2000), pp.573-613.

<sup>7</sup> Short *et al.*, *National Farm Survey*, pp.113-142.



## The 'New Domesday' of 1909-10

The 'New Domesday' of landownership and land values, carried out in response to Lloyd George's 'People's Budget' of 1909-10, collected information about both town and countryside in the Edwardian era.<sup>8</sup> Short describes it as the largest data bank in British history. In principle this survey should allow a detailed map and analysis of the landscape at the start of the twentieth century, which could be compared with earlier studies such as the c.1840 tithe surveys. Short's work shows that the information in this survey is rather fragmentary and difficult to access. The basic administrative unit was the Income Tax Parish, which usually contained several civil parishes. This unit was named after the first of its civil parishes, listed alphabetically, so it may be difficult to locate the other civil parishes. The 1909 records were split up in 1979, the field books (Class IR 58) remaining at The National Archives, while the valuation books, plans and other documents were offered to local record offices. It needs to be determined whence the records have gone, how much survives, and how useful they are. Most record offices have the valuation books, which summarise a great deal of information from the survey, but the annotated maps and plans may have been separated, lost or discarded. The fullest record of the survey survives in the 95,000 volumes of field books at The National Archives. Short shows how the comprehensive information in the survey can be used to study Edwardian housing, trade and industry and rural estates. His work also reveals that the survey may be of limited use for some purposes because it was based on landholdings and usually does not refer to individual fields.<sup>9</sup>

## Tithe Surveys

The landscape of many parishes in the mid-nineteenth century can be reconstructed from the tithe surveys, mostly prepared between 1836 and 1841, which comprise maps and apportionments listing the owner, occupier, name, area, value and use of every field. Kain and Prince provide an introduction to the uses to which they may be put by the local historian.<sup>10</sup> The coverage of tithe surveys is uneven, with the greatest concentration being in the midlands and north of England. A tithe survey provides a definitive record of the boundaries of the parish, showing field boundaries and names at the end of a period of enclosure, with relics of earlier field systems. Rural settlements were in their final stage of development, but roads were still unpaved. Tithe surveys also provide the fullest information about land use and land value around 1840. Computer-based methods make possible the mapping and analysis of a large number of relationships between factors such as land use, ownership, farm size and distance from markets.

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8 B. Short, *The Geography of England and Wales in 1910: An Evaluation of Lloyd George's 'Domesday' of Landownership*, Historical Geography Research Series, 22 (1989); B. Short, *Land and Society in Edwardian Britain*, Cambridge Studies in Historical Geography, 25 (1997).

9 Short, *Edwardian Britain*, p.220.

10 R. J. P. Kain and H. C. Prince, *Tithe Surveys for Historians* (Chichester, 2000).



Comprehensive work by Kain, Prince and Oliver confirms that the tithe surveys constitute a detailed national inventory of the geography and uses of the landscape in about 1840.<sup>11</sup> The surveys do not contain information about population, but this can be remedied through the 1841 census. A great deal of extra information may be contained in the tithe files, which describe the district and the process of compiling the survey.<sup>12</sup> Good tithe surveys provide a record of early parish boundaries, of great estates and of every type of holding, with a record of its use. The names of the landowners and occupiers show what sort of people they were, the sizes of the estates, how much was owner-occupied and how much had tenant farmers. When a computer database is created from an apportionment, the rent-charge per acre is calculated automatically for each piece of land. The data can then be sorted and reported in many ways, for example listing the fields by decreasing rent-charge per acre for each land use. Such information is suitable for statistical analysis and presentation on maps which illustrate principles that are not evident from the written apportionment. Of particular interest is the method that was used to derive rent-charges because, as Appendix B explains, some surveys treated land value rather crudely while others did so with great subtlety. Maps also show whether the fields that constitute farms lie together or are scattered around. Many of the groups of fields will preserve old divisions of the landscape.

Baker has studied the tithe surveys for Dorset and found a strong relationship between rent-charge per acre and land rent, contradicting the opinion that rent-charges do not bear any systematic relationship with actual output because of distortion by local tithing customs and practices.<sup>13</sup> An analysis of the rent-charge per acre may therefore provide a measure of the value of the land across any study area. Confirmation can be sought by comparison with modern maps of soil quality, although it is recognised that soils may change over time, and that modern assessments are not necessarily valid for the different techniques of agriculture in earlier eras. Changes in land use for the study area may confirm Vamplew's suggestion that farmers could reduce their tithe payments by switching from grain into mixed or livestock farming.<sup>14</sup>

Pearson and Collier employed a computer-based Geographical Information System to analyse the statistical importance of land-ownership and other factors in mid-nineteenth century agricultural productivity, combining a tithe map and apportionment compiled in about 1845 with modern topographical data for Newport parish in Pembrokeshire.<sup>15</sup> The technical details of their approach are discussed in Chapter 3. The authors produced a computer-generated map showing

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11 R. J. P. Kain and H. C. Prince, *The Tithe Surveys of England and Wales* (Cambridge, 1985); R. J. P. Kain, *An Atlas and Index of the Tithe Files of Mid-Nineteenth-Century England and Wales* (Cambridge, 1986); R. J. P. Kain and R. R. Oliver, *The Tithe Maps of England and Wales, A Cartographic Analysis and County-by-County Catalogue* (Cambridge, 1995).

12 E. A. Cox and B. R. Dittmer, 'The tithe files of the mid-nineteenth century', *Agric. Hist. Rev.*, 13 (1965), pp.1-16; W. Vamplew, 'Tithes and agriculture: some comments on commutation', *Econ. Hist. Rev.*, 34 (1981), pp.115-119.

13 J. R. Baker, 'Tithe rent-charge and the measurement of agricultural production in mid-nineteenth-century England and Wales', *Agric. Hist. Rev.*, 41 (1993), pp.169-175.

14 Vamplew, 'Tithes and agriculture', pp.115-119.

15 A. Pearson and P. Collier, 'The integration and analysis of historical and environmental data using a geographical information system: landownership and agricultural productivity in Pembrokeshire c.1850', *Agric. Hist. Rev.*, 46 (1998), pp.162-176. Geographical Information System is hereafter abbreviated as GIS.



the use of each field in the parish and another map showing the variation of tithe rent-charge per acre. The latter confirmed that rent-charge tended to vary continuously across wide areas, proving that it was not apportioned randomly but was probably related to agricultural productivity. The authors note that the rent-charge per acre fell with increasing distance from Newport town, which may have been due to environmental factors or the distance of the fields from the labour supply and market in Newport. After analysing the pattern of land ownership, Pearson and Collier then used statistical techniques to find the correlation between tithe data and the topographical factors of altitude, slope and aspect. This analysis was partly intended to discover whether variations in tithe rent-charge per acre depended on differences in farming methods. A multi-level statistical analysis was used to correlate all the tithe data and topographical factors. The authors do not relate this analysis to the maps or the history of the area and they concede that it is difficult to draw many conclusions from such a statistical analysis, given its limited geographical extent. Pearson and Collier's paper was intended to demonstrate the technical possibilities of GIS, rather than to study the history of a parish.

### Land Tax Returns

Several authors including Grigg, Mingay and Martin have written about the land tax returns, made from c.1770 to 1832, with a similar tax lasting until 1949, that listed the tax due from land occupiers.<sup>16</sup> The returns contain information about the geographical distribution of different classes of owners and occupiers, including owner-occupiers, and provide continuity in studies of individual landholdings whose records are fragmentary. However, the returns only relate to estates, not individual fields, and all the researchers emphasise their potential unreliability. The lack of information about fields makes the returns of limited relevance to this thesis.

### Official Reports on Agriculture

William Marshall was the editor of the Board of Agriculture surveys of the agriculture in each county, which appeared in 1815.<sup>17</sup> The Warwickshire surveys had been carried out by Wedge in 1794 and Murray in 1813.<sup>18</sup> These surveys have their limitations but are a valuable source of contemporary opinion as well as giving a general picture of the state of agriculture.

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16 D. B. Grigg, 'The land tax returns', *Agric. Hist. Rev.*, 11 (1963), pp.82-94; G. E. Mingay, 'The land tax assessments and the small landowner', *Econ. Hist. Rev.*, 17 (1965), pp.381-388; J. M. Martin, 'Landownership and the land tax returns', *Agric. Hist. Rev.*, 14 (1966), pp.96-103.

17 W. Marshall (ed.), *The Review and Abstract of the County Reports to the Board of Agriculture from the Several Agricultural Departments of England*, 4 (1815; York, 1818).

18 J. Wedge, 'General view of the agriculture of the County of Warwick 1794', in Marshall (ed.), *Review and Abstract*, 4, pp.281-302; M. Murray, 'General view of the agriculture of the County of Warwick 1813', in Marshall (ed.), *Review and Abstract*, 4, pp.303-329.



## Enclosure Records

Enclosure records are an important source of information for reconstructing landscapes. Hollowell and Kain provide summaries of the origin, creation and uses of these records.<sup>19</sup> One major use is to show the changing geography of field boundaries, routes, occupation and ownership from the old landscape of open fields and waste to the new enclosed landscape. If the enclosure was mapped, which was usual after the late eighteenth century, this is a straightforward process of distinguishing earlier boundaries from the later boundaries whose positions are shown on c.1880 Ordnance Survey maps. Where a map does not exist, the pre-enclosure landscape can only be reconstructed with difficulty by piecing together the geography of the written award with the help of early maps from other sources. The details in these written awards may provide a great deal of incidental information about early roads, waterways and landscape features, rights of way, types of ownership and occupation, relations between farmers and even the positions of gateways. Yelling provides a comprehensive study of the background to the enclosure of open fields, including the political and economic influences.<sup>20</sup> His explanation of Chancery decrees resulting from collusive disputes over enclosure by agreement is relevant to Allesley's 1652 enclosure.

Page and Page have reconstructed the enclosure landscape of Snitterfield parish in Warwickshire, whose 1766 enclosure award has no map.<sup>21</sup> Their reconstruction was based on field-names, most of which had survived from 1766 until the first map in 1810, apart from the interchangeable use of 'close', 'piece' or 'ground'. The authors assumed that the 1766 field boundaries would also remain unchanged and concluded that the areas stated in 1766 were not always accurate when compared with the twenty-five inch Ordnance Survey map of 1905. The authors did not consider the possibility that the boundaries had changed by design or that widely-spaced surveys should show changes in an organic landscape of hedgerows.

The Snitterfield reconstruction started with one field which was easily identifiable because of adjoining roads and the parish boundary. Using field-names, ownership, areas and landscape features, the reconstruction then expanded across adjoining fields until the whole enclosure had been defined. Property deeds were found valuable because they showed changes of ownership and confirmed the areas of each land-holding. One cautionary discovery was that many of the compass directions in the enclosure award were manifestly wrong, so 'west' could mean 'north' and so on. Page and Page's only intention was to produce a map of the enclosures in Snitterfield parish, but their method is applicable to this thesis, although the longer time between enclosure and the first map will cause more uncertainty here. Martin's research into using enclosure records within the Arden region is described in Section 2.5.

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19 S. Hollowell, *Enclosure Records for Historians* (Chichester, 2000); R. J. P. Kain, *The Enclosure Maps of England and Wales 1595-1918* (Cambridge, 2004).

20 J. A. Yelling, *Common Field and Enclosure in England 1450-1850* (London, 1977).

21 C. Page and R. Page, 'Snitterfield - reconstruction of an enclosure map', *Warwickshire History*, 3 (1977), pp.208-221.



## 2.3 Reconstructing Earlier Landscapes

In this thesis, earlier landscapes are those for which maps do not exist and documentary evidence is incomplete and perhaps unreliable. Their reconstruction must make use of indirect methods which combine information from a variety of sources. This thesis will adapt some of the indirect methods that others have used.

Robinson employed a 'land-systems' approach to study the bounds of the Anglo-Saxon estate of Plaish, Shropshire.<sup>22</sup> This approach splits the landscape into land-units with a single rock-type or soil profile which appear as a particular feature, such as a hill slope, cliff or river terrace. A land-system defining the wider landscape consists of several land-units. By dividing the Plaish estate into land-units using modern data, Robinson shows that the Anglo-Saxons had an intimate knowledge of the landscape and its potential wealth and resources.

Fowler suggests that the more favoured part of the Romano-British settlement pattern has survived as existing farms, hamlets and villages, while our traditional view of the Roman countryside, being based on 'dead' sites, may be skewed towards the lowly, the aberrant or the marginal.<sup>23</sup> Roman land units may be echoed by Anglo-Saxon estates, ecclesiastical parishes, manorial holdings or even surviving field boundaries. With a much larger population than in 1086, mostly living in the countryside, more of the British landscape must have been farmed by the Romano-British than in early medieval times. The extensive post-Roman regeneration of woodland, and its subsequent re-colonisation, shows that much of the landscape remained in good heart. Fowler's theme of continuity implies that the study area, being just such an area of woodland, may contain features that have survived from before the Roman era. By using Hooper's Rule to date hedges in the parish of Driffield Gloucestershire, Reece discloses some continuous ancient boundaries which appear to be older than the parish boundary and may be related to Roman occupation.<sup>24</sup> In contrast, Unwin's study of north Nottinghamshire found evidence of discontinuities between the boundaries in the Roman and Anglo-Saxon eras, probably caused by abandonment of the land and regeneration of woodland after the fourth century.<sup>25</sup> Bowen has studied the formation and identification of ancient fields dating from the prehistoric and Roman periods, although these may not be relevant to the study area.<sup>26</sup>

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- 22 P. Robinson, 'Mapping the Anglo-Saxon landscape: a land-systems approach to the study of the bounds of the estate of Plaish', *Landscape History*, 10 (1988), pp.15-24.
  - 23 P. J. Fowler, 'The countryside in Roman Britain: a study in failure or a failure in study?', *Landscape History*, 5 (1983), pp.5-9.
  - 24 R. Reece, 'Continuity on the Cotswolds: some problems of ownership, settlement and hedge survey between Roman Britain and the middle ages', *Landscape History*, 5 (1983), pp.11-19.
  - 25 T. Unwin, 'Townships and early fields in north Nottinghamshire', *Journal of Historical Geography*, 9 (1983), pp.341-346.
  - 26 H. C. Bowen, *Ancient Fields*, British Association (London, 1961).



Williamson has examined the relationship between parish boundaries and the basic pattern of field boundaries and minor routeways, which may be of prehistoric or Romano-British origin.<sup>27</sup> He casts doubt on the antiquity of the land units which became medieval townships and parishes, but also suggests that territorial reorganisation during the Anglo-Saxon period need not imply radical disruption in the continuity of land-use and settlement. Williamson demonstrates a technique for exposing the ancient framework of the landscape, where it exists, by disregarding medieval and post-medieval features. He supposes that the basic form of many areas of ancient countryside was established in the later Iron Age and Roman periods and notes a regularity in the pattern of boundaries and roads on the claylands of south Norfolk and north Suffolk that suggests organisation on a scale larger than that of the medieval manor, vill or parish. In some places these boundaries are apparently disturbed by Roman roads, showing that the boundaries were earlier. Although centuries of change have removed much of the original pattern, enough remains to suggest that such landscapes display similarities with known prehistoric field systems.

Williamson proposed a method for removing later features from a map, in order to expose the earlier system. Working in an area in south Norfolk, he removed all boundaries and routeways that were known to be medieval or later, as identified from early maps, field-names or stratigraphic relationships. He then removed all boundaries that lay at right angles to late roads, or parallel to them. In total this eliminated 20% of all the boundaries in the study area, leaving a co-axial field system with a number of almost parallel axes. These axes ran for long distances, paying little regard to local topography and producing a distinctive 'brickwork' appearance. Parish boundaries in the study area incorporated components from this co-axial landscape but also included later features, suggesting that the parish boundaries are of later origin.

This interpretation is challenged by Hinton, whose detailed reconsideration of this landscape leads him to suggest that local topography was the most important influence on routes, settlements and boundaries.<sup>28</sup> He concludes that most of the rectilinear field shapes are post-medieval, not relics of an ancient landscape. Williamson argues against this re-interpretation by pointing out that the local topography is uneventful and therefore unlikely to exert an important influence on the man-made landscape.<sup>29</sup> He reinforces his original claim that the co-axial landscape was early, but concedes that the rectilinear pattern may not result from a large-scale plan, but rather from the late prehistoric creation of numerous transhumance tracks leading perpendicularly from the rivers up to the watershed areas.

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27 T. Williamson, 'Parish boundaries and early fields: continuity and discontinuity', *Journal of Historical Geography*, 12 (1986), pp.241-248.

28 D. A. Hinton, 'The "Scole-Dickleburgh field system" examined', *Landscape History*, 19 (1997), pp.5-12.

29 T. Williamson, 'The "Scole-Dickleburgh field system" revisited', *Landscape History*, 20 (1998), pp.19-28.



Ford has found similar transhumance links in Warwickshire, with a pattern of settlements and routes linking the wooded Arden and cultivated Feldon regions.<sup>30</sup> Hooke's map of the southern part of the Arden region, north of Stratford-upon-Avon and Alcester, shows a network of trackways trending north-west to south-east between the Arden and Feldon regions, some of them referred to in pre-Conquest charters.<sup>31</sup> Everitt has shown a similar pattern of drove-ways running north-east to south-west across the North Downs in Kent, linking settlements north of the Downs to their detached pasturelands in the Weald and Romney Marsh.<sup>32</sup>

Wilson describes how aerial photography can contribute to landscape studies for the prehistoric and modern eras.<sup>33</sup> Every time that a landscape is remodelled, the evidence for earlier phases is largely obliterated, apart from traces in neglected corners. Aerial photography permits large areas of the landscape to be studied together, allowing scattered or faint traces to be recognised as sharing a common pattern. Wilson goes on to discuss the photographic evidence for the transformation of the natural post-glacial landscape into the man-made landscape of historical times. He emphasises the importance of aerial photography in recording landscapes, and particularly crop marks, which may be destroyed before any archaeological investigation is even contemplated.

Examples of aerial photography can reveal the layout of ancient fields, which were still visible on the ground as apparently unconnected earthworks. In many areas, where cultivation has long removed all surface traces of the Roman and prehistoric landscape, crop marks are the only source of evidence. Examples are given of many types of prehistoric settlement enclosures in the Welsh Marches and Wessex, and a brickwork pattern of crop marks, representing late-prehistoric fields in south Yorkshire and north Nottinghamshire.

Wilson ends by pointing to the severe damage that modern development often does to the landscape, sometimes totally destroying every trace of what was there before. This concern is especially relevant to the study area in this thesis, large parts of whose historical landscape were obliterated by new housing estates and industrial sites during the twentieth century.

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30 W. J. Ford, 'Some settlement patterns in the central region of the Warwickshire Avon', in P. J. Sawyer (ed.), *English Medieval Settlement* (London, 1976), pp.143-163.

31 D. Hooke, *Anglo-Saxon Landscapes of the West Midlands : the Charter Evidence*, British Archaeological Reports, Br ser. 95 (1981); D. Hooke, 'The Anglo-Saxon landscape', in T. R. Slater and P. J. Jarvis (eds), *Field and Forest - An historical geography of Warwickshire and Worcestershire* (Norwich, 1982), pp.79-103; D. Hooke, 'The Warwickshire Arden: the evolution and future of an historic landscape', *Local History*, 10 (1988), pp.51-59; D. Hooke, 'Pre-conquest woodland: its distribution and usage', *Agric. Hist. Rev.*, 37 (1990), pp.113-129.

32 A. Everitt, *Continuity and Colonization : the Evolution of Kentish Settlement* (Leicester, 1986), pp.35-39.

33 Wilson, 'Reading the palimpsest', pp.5-25.



## 2.4 Agricultural Regions

General discussions of agricultural regions are supplied by Thirsk and Butlin.<sup>34</sup> Thirsk considers that the principle factors defining a region are physical, agricultural, economic, social and political. High altitude and above-average rainfall favour pasture, while drier climates encourage arable farming, so pastoral country lies mainly in the north and west of England and arable is preferred in the south and east. By the sixteenth century, regional farming systems had become set in a mould determined by social structure rather than agricultural considerations or economics. Such systems were long-enduring but could be transformed by major events such as the desertion of some settlements after the Black Death. Equally significant social changes were later produced by enclosure, which favoured larger farmers, and by the increasing population in the sixteenth century which forced the division of some family farms into smallholdings. Areas with fewer people, such as the Arden region, were naturally suited to pastoral rather than arable farming. The greatest economic pressures on farming were generated by changes in the size of the population needing to be fed. The Black Death reduced the population by a third and hence the demand for grain, so the excess land was put down to sheep pasture for the wool market. By the late sixteenth century the population was again expanding and farmers turned back to agriculture. In the late seventeenth century the price of grain fell again, and some farmers turned to pigs, dairy produce, fruit and vegetables. The study area was particularly likely to undergo this change, because of the demands of nearby Coventry. Political decisions could also have an important effect, by promoting particular produce such as wool or cattle at the expense of foreign competition.

Williamson seeks to explain the contrast between woodland and champion landscapes in southern and eastern England.<sup>35</sup> He notes that there is surprisingly little correlation between soil types and the regional distribution of the two landscapes. Woodland regions may not coincide with the poorer soils. Williamson questions the traditional assumption that woodland areas are late-settled, their scattered farmsteads and hamlets a consequence of medieval assarting. He suggests that woodland and champion regions may have had a similar density of scattered Romano-British settlements and a similar post-Roman decline in population. They only diverged in the later Saxon period when the settlements in champion regions tended to coalesce, while those in woodland regions remained dispersed, especially where the soils were fertile. In some areas such as East Anglia, farmsteads moved and congregated around the periphery of residual areas of grazing or wood-pasture, producing straggling hamlets around greens or commons. Williamson says that there is no reason why woodland regions should have been settled later than the champion regions. He says that there is no evidence that they were, and no clear reason why late

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34 J. Thirsk, *Agricultural Regions and Agrarian History in England, 1500-1750* (Basingstoke, 1987); R. A. Butlin, 'Regions in England and Wales c.1600-1914', in R. A. Dodgshon and R. A. Butlin (eds), *An Historical Geography of England and Wales* (1978; London, 1990).

35 T. Williamson, 'Explaining regional landscapes: woodland and champion in southern and eastern England', *Landscape History*, 10 (1988), pp.5-13.



settlement should necessarily have created woodland landscapes. He proposes that the variation in the landscapes of southern and eastern England must be seen in the context of a long history of distinct regional development, perhaps related to variations in social continuity between Roman and Anglo-Saxon England, not in terms of differences in population density or tenorial structure. Williamson's work may be relevant to the study area and to the woodland Arden region, where settlements often lie on better soils than are to be found in the Feldon region.

Some of the leading work on woodland regions, by Roberts, Hooke and others, has dealt specifically with the Arden region and will be discussed in Section 2.5. The nature and management of woodland and wood-pasture is described by Rackham, Peterken and Everitt.<sup>36</sup> Their work is particularly useful for placing woodland within the context of the physical nature of the land and the history of settlement in the wider landscape. In his study of Hanbury, Dyer has combined a range of archaeological and documentary techniques to show how one area of woodland landscape in the midlands has been settled and used since prehistoric times.<sup>37</sup> He shows that there have been many alternations between cultivation of the land and its reversion to woodland and pasture. The medieval and recent woods of this landscape were the result of constant change, not the remnants of some primeval forest.

Stamper has analysed the extensive medieval records for the royal forest of Pamber, Hampshire, which show that its timber was transported across central southern England for 250 years, but by 1300 had become over-exploited.<sup>38</sup> In the mid-thirteenth century a change in royal policy, from conservation to exploitation, reduced Pamber Forest to its core. Timber production reached a peak between 1250 and 1260, the taking of deer between 1250 and 1270 and the creation of parks between 1270 and 1280. Similar studies of woodland and forests, and the documents that survive from various eras, have been carried out by Pettit for the later royal forests of Northamptonshire, by Birrell for the medieval forests of Cannock and Kinver, and by Broad and Hoyle for Bernwood.<sup>39</sup> Although the Arden region was not a royal forest, the general conclusions about the value of woodland and the pressure for exploitation would also have applied.

Contrasting experiences for a partly wooded region are shown by Stinson's investigation of the relationship between assarting and poverty in the very large manor of Wakefield in western Yorkshire during the early fourteenth century.<sup>40</sup> Local peasants had to take any available moorland, while the under-productive woodland was kept for the local Earl and his chief tenants.

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36 O. Rackham, *Trees and Woodland in the British Landscape* (1976; London, 1990); O. Rackham, *Ancient Woodland, Its History, Vegetation and Uses in England* (London, 1980); O. Rackham, *The History of the Countryside* (1986; London, 1990); G. F. Peterken, *Woodland Conservation and Management* (London, 1981); Everitt, *Continuity and Colonization*.

37 C. Dyer, *Hanbury: Settlement and Society in a Woodland Landscape*, Leicester University Department of English Local History, Occasional Papers 4, 4 (Leicester, 1991).

38 P. A. Stamper, 'The medieval forest of Pamber, Hampshire', *Landscape History*, 5 (1983), pp.41-52.

39 P. A. J. Pettit, *The Royal Forests of Northamptonshire: a Study in their Economy, 1558-1714* (Northampton, 1968); J. Birrell, *The Forests of Cannock and Kinver, Select Documents 1235-1372*, Staffordshire Record Society, ser. 4, 18 (Stafford, 1999); J. Broad and R. Hoyle (eds), *Bernwood: the Life and Afterlife of a Forest* (Preston, 1997).

40 M. Stinson, 'Assarting and poverty in early-fourteenth-century western Yorkshire', *Landscape History*, 5 (1983), pp.53-67.



Extensive assarting began early in the fourteenth century, but those who tackled the bleak moor often came to a tragic end, accelerated by the agrarian crisis of the time. Stinson's study illustrates profound differences with the study area, where exploitation of the woodland and waste seems to have guaranteed survival and even advancement among all classes.

Rackham gives a thorough description of the occurrence and significance of deer parks and commonland, which are typical features of woodland regions.<sup>41</sup> He notes that commonland is often the treeless final stage in an inadequately managed system of wood pasture. Few deer parks are recorded in the Domesday Survey and most were established as late as the thirteenth century. They have a characteristic rectangular shape with rounded corners, in order to minimise the very high cost of creating and maintaining the surrounding park pale. Many deer parks were compartmented, with areas of woodland and several grassy *launds* (lawns). Some had shared uses, with pasture for farm animals and perhaps even arable cultivation. A deer park was a precarious enterprise and many fell into disuse when the Black Death removed the cheap labour needed by them. They often evolved into landscaped parks containing a country mansion and still survive today as public parks, as at Allesley Park in the study area. Birrell gives a detailed description of deer farming in medieval England.<sup>42</sup> She notes that deer parks and deer farming were usually poorly documented, but it is clear that they were often efficiently managed, fulfilling a number of purposes, and should not be dismissed as being mere status symbols.

Medieval fishponds are discussed by Aston, and the fishponds of the western Arden region by Roberts.<sup>43</sup> In Warwickshire, the commonest type of fishpond was formed by constructing a dam across a narrow, moderately steep-sided and flat-bottomed valley. By far the largest number of fishponds in Warwickshire is associated with manorial sites, especially the scattered settlements of the Arden region. Fishponds in this area are often associated with moated sites, which are described by Rackham. Although there are several theories to explain moated farmsteads in woodland regions, Rackham points out that their incomplete outline rules out any defensive purpose.<sup>44</sup> Another theory, relevant to the study area, is that both moats and fishponds were designed primarily as reservoirs to allow permanent settlement of areas that were otherwise too dry because of limited and unreliable surface and underground supplies.<sup>45</sup> Moated sites in Warwickshire are listed by Salter.<sup>46</sup>

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<sup>41</sup> Rackham, *Ancient Woodland*.

<sup>42</sup> J. Birrell, 'Deer and deer farming in medieval England', *Agric. Hist. Rev.*, 40 (1992), pp.112-126.

<sup>43</sup> M. Aston (ed.), *Medieval Fish, Fisheries and Fishponds in England* (Oxford, 1988); B. K. Roberts, 'Settlement, land use and population in the western portion of the Forest of Arden, Warwickshire, between 1086 and 1350. A study in historical geography', (unpublished Ph.D. thesis, University of Birmingham, 1965).

<sup>44</sup> Rackham, *History of the Countryside*, pp.360-4.

<sup>45</sup> D. Sheppard, 'In search of the Forest of Arden', (unpublished M.A. dissertation, University of Leicester, 1996).

<sup>46</sup> M. Salter, *The Castles and Moated Mansions of Warwickshire* (Malvern, 1992).



## 2.5 The Arden Region

The river Avon separates Warwickshire into two contrasting regions, the Arden and the Feldon.<sup>47</sup> The name Arden, derived from the British *ardu* (high or steep), applies to the higher land in the north-western part of the county, between Birmingham and Coventry, which has always favoured woodland. The name of the Feldon, to the south-east of the Avon, derives from Old English *feld* (open land), which exactly describes the open (champion) landscape that has existed since at least the late Iron Age or Roman eras. There is an extensive body of literature about the Arden region, but discussion here will be restricted to literature dealing with the landscape.

One inspiration for this thesis was Roberts' speculative map of Tanworth parish in 1350, which shows the landscape resulting from the efforts of colonists between 1150 and 1300.<sup>48</sup> His study developed out of the collection of land charters which survives for Tanworth between c.1150 and 1350. Tanworth shows the typical 'ripple' pattern of woodland colonisation, originating from the Anglo-Saxon *Tanna's worth* on the most accessible border of the parish. There was a network of winding lanes, scores of scattered farms, frequent hamlets, relict woodlands, moated farmsteads and 'End' and 'Green' place-names, all typical of late woodland colonisation. Noting that this colonisation of the waste was probably encouraged by the Earls of Warwick, Roberts says that other lords of the manor must have made similar concessions. Skipp has produced a similar reconstruction for the area around Yardley during the early modern period.<sup>49</sup>

Roberts has written about the field systems of the wider west midlands, including the Arden region and the study area.<sup>50</sup> He deals with the occurrence, origins and enclosure of open fields, which existed here as well as in the traditional Feldon land south-east of the Avon. His detailed map of the open fields in Crimscote, Warwickshire shows that such fields could be exceedingly complex. He emphasises that the method of dividing and working the fields was far from uniform, and goes on to discuss the various field systems that survived in the county after about 1600. Roberts points out that the number of fields often changed over time and does not necessarily indicate the number of rotational courses. From this research, the present study area of Allesley, Coundon and Stoneleigh parishes should have irregular woodland field systems after 1600. This thesis will seek evidence for the form and management of the open field systems that existed in the study area, although their relatively early enclosure may make this difficult.

According to Roberts, the Arden of north-west Warwickshire was bypassed by the main wave of Anglo-Saxon colonisation.<sup>51</sup> From the eleventh to the early fourteenth centuries the area

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47 D. Hooke, 'The Warwickshire Arden: the evolution and future of an historic landscape', *Landscape History*, 10 (1988), pp.51-59.

48 B. K. Roberts, *Rural Settlement in Britain* (London, 1977), pp.169-171; B. K. Roberts, 'A study of medieval colonisation in the Forest of Arden, Warwickshire', *Agric. Hist. Rev.*, 16 (1968), pp.101-113; Roberts, 'Settlement, land use and population'.

49 V. Skipp, *Crisis and Development: An Ecological Case Study of the Forest of Arden 1570-1674* (1978).

50 B. K. Roberts, 'Field systems of the west midlands' in Baker and Butlin (eds), *Field Systems*, pp.188-231.

51 Roberts, 'Settlement, land use and population'.



saw a vigorous colonising movement whose character was determined partly by the amount of woodland and waste surviving, and partly by seigneurial policy. This movement differed from the earlier creation of common open fields in that clearing was a matter of private initiative and resulted in the creation of enclosed severalties. Manorial lords were compelled to offer some form of inducement to settlers, and this took the form of a less rigid application of the manorial regime, so that the typical tenure of Arden was free socage, and dues were largely rendered in cash. These concessions encouraged the movement of population into the area and led indirectly to the appearance of a vigorous land market. The processes of fragmentation, agglomeration and exchange which resulted from this encouraged social mobility, and led to the emergence of sub-manors in the hands of wealthy free tenants, and to a reduction in the number of small independent freeholdings. While the economy of Arden was based upon true mixed farming, it is likely that pastoralism produced much of the capital available to both lord and peasant. This thesis may show that the colonisation of the study area followed the pattern proposed for other parts of Arden, or it may show that different forces were at work.

Watkins has studied the evolution of the seigneurial economy in the Arden region during the fifteenth century.<sup>52</sup> Working mainly with documents from northern Arden, adjoining the present study area, he shows that this was an area of wood pasture whose resident landlords were mainly lesser peers, gentry and smaller religious houses. In contrast to other areas in the later Middle Ages, where direct demesne exploitation by the lord was abandoned in favour of leasing out, the Arden demesnes and their management were adapted to the particular circumstances of the fifteenth century to create home farms, while other manors were involved in commercial cereal cultivation, livestock raising, and exploiting the woodland and industrial resources of the estate. Studying cattle grazing during the later Middle Ages in more detail, Watkins shows that many demesnes were retained by their lords to graze cattle to feed their households, while the fattening of beef animals for the market gave scope for advancement by peasant families.<sup>53</sup>

The effects of land enclosure on rural society in Warwickshire, and the small landowner in particular, has been investigated by Martin.<sup>54</sup> He shows that, even within this one county, enclosure meant different things in different localities and at different periods. Freeholders often remained an important group at the time of enclosure, and the decline of the small landowner depended on place and time. The decline, where it did occur, may have benefited the large freeholders rather than any great landowner in the area. In the Arden region, Parliamentary enclosure was often delayed until the end of the eighteenth century. Many common fields survived here until then, but a large number were enclosed without resort to Parliament. In many Arden parishes, landownership was dispersed among a large number of small proprietors.

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52 A. Watkins, 'Landowners and their estates in the Forest of Arden in the fifteenth century', *Agric. Hist. Rev.*, 45 (1997), pp.18-33.

53 A. Watkins, 'Cattle grazing in the Forest of Arden in the later middle ages', *Agric. Hist. Rev.*, 37 (1989), pp.12-25.

54 J. M. Martin, 'The parliamentary enclosure movement and rural society in Warwickshire', *Agric. Hist. Rev.*, 15 (1967), pp.19-39; J. M. Martin, 'The small landowner and parliamentary enclosure in Warwickshire', *Econ. Hist. Rev.*, 32 (1979), pp.328-343.



Watkins has studied the nature and function of small towns in the Arden region in the fifteenth century.<sup>55</sup> He concludes that, in contrast to the decline and decay of the larger towns such as Coventry, the smaller towns such as Atherstone, Coleshill and Nuneaton continued as diversified, confident communities of craftsmen and traders, their fortunes closely tied to those of the surrounding Arden countryside, with its robust and vibrant wood-pasture economy. Watkins believes that the vitality and durability of these towns formed the basis for a trade and marketing network which lasted for seven hundred years, into the twentieth century. The only significant settlement in the study area was Allesley, which was a small village until modern times. Its proximity to Coventry must have tied its fortunes to those of the city, despite a large rural hinterland. Despite these reservations, it will be interesting to compare the long-term fortunes of Allesley with those of the small towns and of the Arden region as a whole.

Roberts has investigated the plans of villages in Warwickshire, in order to gain some understanding of the processes affecting settlement.<sup>56</sup> He establishes a classification for these plans, assuming that villages were originally built up of individual farms, comprising the farmstead and toft, with perhaps a croft. These were the building-blocks of the village, together with the manor-house, church, open spaces and routeways. The arrangement of these blocks defines the classification of the village plan, based upon three criteria - the basic shape, the degree of regularity and the presence or absence of an integral green. Dwellings and tofts can be arranged in rows or agglomerations, which can be regular or irregular and based on a grid or a radial plan. Permutations of these criteria allow eleven general families of village plan, although it is emphasised that a given village may fall between two of them. Roberts presents a somewhat obscure map of the types of villages, hamlets and groups of farmsteads in Warwickshire. This map highlights a concentration of deserted village sites around Coventry, including the study area. The distribution of types clearly reflects the division of Warwickshire between Arden and Feldon regions, confirming that this division has ancient roots of uncertain origin. The old-settled Feldon lands are dominated by villages, while the late-settled Arden mostly contains hamlets and scattered farmsteads. The dominant plan-type in Warwickshire is polyfocal, perhaps reflecting an ancient origin in clusters of Romano-British or Anglo-Saxon farms. Roberts sees a survival of this original form in some farm clusters on the woodland edge between Arden and Feldon. The distribution and type of settlement is of particular interest in the study area, where Allesley is the only village, with a few small hamlets and scattered farmsteads. Roberts' speculations about the processes and timescale of settlement will be useful in understanding the development of the whole study area. Taylor has studied village morphology in relation to medieval markets, showing that some villages were altered to accommodate markets, while others already contained open spaces suitable for a market.<sup>57</sup> This work may help explain why Allesley, a significant village on a major route, did not have a market.

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55 A. Watkins, 'Small towns in the Forest of Arden in the fifteenth century', *Dugdale Society Occasional Papers*, 38 (Oxford, 1998).

56 B. K. Roberts, 'The anatomy of the village: observation and extrapolation', *Landscape History*, 4 (1982), pp.11-20.

57 C. C. Taylor, 'Medieval market grants and village morphology', *Landscape History*, 4 (1982), pp.21-28.



An earlier M.A. dissertation combined place-name evidence and environmental factors to estimate the extent of the Anglo-Saxon and Domesday Arden region, to illuminate some of the factors that decided the position and shape of its woodland and to speculate about the changes that brought about its denudation during the early Middle Ages.<sup>58</sup> This study, which dealt with the complete Arden region in north-west Warwickshire, made use of Gelling's proposal that a *leah* within the Arden area is likely to have been the central settlement of a woodland estate, with *tun* meaning a farm or estate in areas which were not wooded. It was found that *worth* place-names were also associated with woodland, being usually found near to *leah* place-names, while *ingtuns* tended to be near *tuns*. A clear correlation was found between place-names, geology and surface water supply, with *leah* names occupying the driest sites. An attempt was made to reconstruct the Arden woodland, as it was in 1086, by positioning the Domesday woodland entries using the previous place-name evidence and taking account of the local environmental factors that had been found to favour woodland there. Some ambiguities and inconsistencies in the map of Domesday Arden could not be resolved, but this procedure did identify blank areas within otherwise dense woodland, which probably contained woodland. Allesley parish was one example. It is likely that the missing woodland appeared under another Domesday entry, perhaps a Feldon manor or one of the Arden entries. It was concluded that further work was needed to identify these dependants and to improve the reconstruction using documentary evidence.

The soils of the Arden heartland were found to be more fertile and workable, on average, than those of the traditionally agricultural Feldon region, raising the question why Arden was not colonised extensively until the Middle Ages, despite being fertile and accessible. Early lack of population in the forest was found to correlate with lack of surface and underground water. It was suggested that the many ponds and moated sites within the Arden region may have been created to store water to allow colonisation. The present study area is a small part of the Arden region, but the methods used in the earlier dissertation, and the conclusions and questions that arose from it, will remain valid. The smaller extent will, however, allow a more detailed study of the geographical and human factors that governed settlement and development of its landscape over many centuries.

Wager has made a comprehensive study of the extent and distribution of Warwickshire's woodland in the medieval period.<sup>59</sup> This was intended to test the assertion that Warwickshire south and east of the Avon was woodless in 1086, to consider whether much of the woodland allegedly covering large areas of north and west Warwickshire was actually wood pasture, to see whether there was a general distinction between coppice woods and wood pasture, and to trace the history of individual areas of woodland as far as the documentary evidence allowed. Another aim was to examine whether the increase in arable in the twelfth and thirteenth centuries was at

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<sup>58</sup> Sheppard, 'Forest of Arden'.

<sup>59</sup> S. J. Wager, *Woods, Wolds and Groves: the Woodland of Medieval Warwickshire*, B.A.R. British Series, 269 (Oxford, 1998).



the expense of wood pasture rather than coppice woods and to question the use of the word colonisation in relation to the expansion of cultivation. This research also contains a summary of the documents relating to woodland in each Warwickshire parish.

This thesis will look for answers to the question why Arden was not colonised extensively until the Middle Ages, despite being accessible and fertile (at least by modern assessments). How difficult a task was it for isolated colonists to fell woodland in the Early Middle Ages, and to keep it clear in face of the vigorous forces of natural regeneration? Rackham is impressed by the effort required, since 'British woodlands (except pine) burn like wet asbestos'.<sup>60</sup> Was the disappearance of woodland in the study area largely the consequence of the destruction of replacement trees by over-grazing? There are early local references to underwood being worth nothing, suggesting that the wood would not outlast the felling of its current timber.<sup>61</sup>

Much complementary work around the study area has already been done by others, although not concerned with the topography of the landscape. Of particular interest is Harley's study of the early settlement geography of Stoneleigh and Kineton Hundreds, which shows how the facts of population increase, of changing tenurial structure and of land ownership influenced the developing patterns of rural and urban settlement in varying degrees.<sup>62</sup> New settlements mainly arose between 1150 and 1250, with the greatest numbers south of the rapidly industrialising Coventry and in an area stretching eastwards from Worcestershire through Solihull and Tanworth towards Coventry. Harley says that the form taken by the new settlements varied considerably because of variations in social organisation, for example the eight granges established as the primary units of settlement by the Cistercian monks of Stoneleigh Abbey and the moated homestead which may have been the colonising settlements established in woodland by the smaller manorial lords or wealthier freeholders.

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60 Rackham, *History of the Countryside*, pp.71-73.

61 Inquisition *post mortem* for John de Hastings, Lord of Bergavenny (1325-26), translated in H. W. Mapleton-Bree, 'A history of Allesley in the county of Warwick', (manuscript vol. at Coventry Archives, 1939), pp.91-92. Underwood was worth nothing in most of the woods in Allesley manor, while one contained pigs and another 'wild animals'.

62 J. B. Harley, 'The settlement geography of early medieval Warwickshire', *Transactions and Papers, The Institute of British Geographers* (1964), pp.115-130; J. B. Harley, 'Population and land-utilization in the Warwickshire hundreds of Stoneleigh and Kineton, 1086-1300', (unpublished Ph.D. thesis, University of Birmingham, 1960); J. B. Harley, 'Population trends and agricultural developments from the Warwickshire hundred rolls of 1279', *Econ. Hist. Rev.*, 11 (1958), pp.8-18.



## 2.6 The Study Area

The literature about the study area, which comprises the historical parishes of Allesley, Coundon and Stoneleigh, is limited in quantity and variable in quality. The Victoria County History entries for these parishes, published in 1951 and 1969, are notable for the shortage of information about the landscape or its uses, lacking even simple maps. The entry for Allesley parish merely notes that 'the ground is open, with many ponds and small streams'.<sup>63</sup> There is a little historical information, but most of the entry concerns the church and the architecture of the buildings in the parish. In contrast, the entry for Coundon contains a substantial amount of information about the early history of its landscape, settlement and farming.<sup>64</sup> The entry for Stoneleigh parish is mainly concerned with architecture and early history.<sup>65</sup>

Coss has studied the evolution of the area around Coventry between c.1180 and c.1280, concentrating upon the nature of lordship and upon the social and economic fortunes of knights, free tenants and local administrators, and the relationship between them.<sup>66</sup> The role of Coventry, an important seigneurial borough, is explored in relationship to the nearby country areas, including the study area. The Hastings estate at Allesley was the nearest to a classical manor that the locality produced - 'a tight, well-controlled, relatively stable and very profitable lordship'.<sup>67</sup> Coventry's investment in the study area only seems to date from the mid-thirteenth century.<sup>68</sup> Dugdale has an extensive entry for Stoneleigh and lesser ones for Allesley, Coundon and the dependent settlements in each parish.<sup>69</sup> Hilton's compilation of the Stoneleigh Leger Book contains a variety of Latin documents, with some modern commentary, dealing with the management of the abbey's lands during the middle ages.<sup>70</sup> There are deeds, perambulations and disputes over land, all of which provide specific or incidental descriptions of the contemporary landscape of Stoneleigh parish and the bordering area of Allesley. Many of the place-names are no longer used but should be recoverable through research in this thesis.

The first detailed study of the history of Allesley parish was by Rev. Mapleton-Bree.<sup>71</sup> Although its early date shows in its type-written presentation without maps or illustrations, and an emphasis on the lord and the church, this work is valuable for identifying and drawing together documentary evidence from many sources. Its translations of Inquisitions *post mortem* from the thirteenth and fourteenth centuries are particularly informative about some features of the landscape.

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63 L. F. Salzman (ed.), *V.C.H. Warwickshire*, 6 (London, 1951), pp.3-8.

64 W. B. Stephens (ed.), *V.C.H. Warwickshire*, 8 (London, 1969), pp.50-57.

65 Salzman, *V.C.H. Warwickshire*, 6, pp.229-240.

66 P. Coss, *Lordship, Knighthood and Locality, a Study in English Society c.1180 - c.1280* (Cambridge, 1991).

67 Coss, *Lordship*, pp.119-120.

68 Coss, *Lordship*, pp.91-92.

69 W. Dugdale, *The Antiquities of Warwickshire* (1656; Coventry, 1765).

70 R. H. Hilton (ed.), *The Stoneleigh Leger Book*, Dugdale Society, 24 (Stratford-upon-Avon, 1960).

71 H. W. Mapleton-Bree, *A History of Allesley in the County of Warwick*, (manuscript vol. at Coventry Archives, 1939).



For reconstructing the early and late landscapes of Allesley, intensive use will be made of Philpott's summaries of documents relating to this parish and manor, transcribed from all the sources that he could find.<sup>72</sup> Much of this work is a summary of deeds relating to particular land-holdings, fields and families, and is therefore of great use in establishing the sequences of land ownership and occupation that are essential for relating widely-separated surveys of the same land. Philpott's work also includes a great number of transcriptions and summaries of original documents, compiled during about twenty years of research into Allesley parish. These transcriptions identify most of the sources of relevant material and provide at least a summary of their content. The original material will be consulted where it is necessary to ensure that the information is accurate and that all the useful information has been extracted.

Alcock has done a great deal of work on Stoneleigh parish, studying its people, their houses and possessions, using the unusually extensive estate records and probate inventories that survive from the period 1500 to 1800.<sup>73</sup> Combined with speculative reconstructions of contemporary houses and farms, based on field evidence from surviving buildings, Alcock presents a particularly detailed picture of the people of Stoneleigh parish, at home and at work during this period. This work does not devote much attention to geography, landscape and land use, which are the subjects of most importance to this thesis, but it will be an invaluable source of data on populations, ownership and occupation.

As far as is known, there is no published research dealing with the later history of Coundon, although a recent book written for the wider readership summarises the history of Coundon, as well as Allesley and parts of Stoneleigh parish, up to modern times.<sup>74</sup> The factual content of this book will be regarded with caution, however, because it is a popular summary of other secondary sources, included some by the present author. The late local historian Mary Dormer Harris has also left her memories of the rural landscape of this area just before it was absorbed into Coventry's suburbs.<sup>75</sup> There are numerous published directories describing the population of the study area in the later nineteenth and early twentieth century. They are usually made up of information recycled from earlier sources, with very dubious historical notes. In view of their late date and lack of reliable information about the landscape, these directories will not be of much use to this thesis, although they would be invaluable to any socially-based research.

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72 L. C. Philpott, *Allesley Lands and Peoples, Being a Brief History of Some Properties and Their Owners* (3 manuscript vols at War. C.R.O., 1970-1974); L. C. Philpott, *Court Minutes and Other Matters Relating to Allesley Manor* (manuscript vol. at War. C.R.O., 1968).

73 N. Alcock, *People at Home, Living in a Warwickshire Village, 1550-1800* (Chichester, 1993).

74 D. McGrory, *The Illustrated History of Coventry's Suburbs* (Derby, 2003).

75 M. D. Harris, *Some Manors, Churches and Villages of Warwickshire* (Coventry, 1937).



## 2.7 Related Research by Others

Perusals of *Current Research in Britain* while this thesis was being planned and during its early years did not reveal any related work being done on the history of the study area, the Arden region or Warwickshire as a whole.<sup>76</sup> This conclusion was known to be unreliable, however, because none of the equivalent research by students at Leicester University was listed either.

Information is now becoming available about GIS-based projects which have some similarities to the present work, but with a geographical rather than an historical perspective. Two of them seem to be particularly relevant to this thesis. A GIS-based method for reconstructing and visualising past and present landscapes has been developed by McClure and Griffiths and demonstrated on the parish of Leafield in Oxfordshire, which contains examples of early and late enclosure landscapes.<sup>77</sup> The authors used Ordnance Survey contour data to create a digital elevation model which allows perspective views of the landscape from any height and angle, incorporating surface details from old maps and aerial photographs. Worcestershire County Council are using their GIS to integrate c.1840 tithe apportionments and maps in an on-line format that allows the public to search for and display information about land ownership, tenancy, field-names, land use and land value.<sup>78</sup> Although these projects had no effect on this thesis because of the timescale, the conclusions in Chapter 10 will include comparisons between the GIS-based approach and the CAD-based technique developed in this thesis.

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<sup>76</sup> *Current Research in Britain - The Humanities volume and Social Sciences volume* (1996-1999).

<sup>77</sup> J. T. McClure and G. H. Griffiths, 'Historic Landscape Reconstruction and Visualisation, West Oxfordshire, England', *Trans. GIS*, 6 (2002), pp.69-78.

<sup>78</sup> Worcester Tithe and Inclosure Map Project, <http://worcestershire.whub.org.uk/home/wcc-arch-tithe-maps.htm> (27/12/2006).



# 3

## Sources and Methods

This chapter describes the available sources of information and the methods proposed for attaining the objectives stated in Section 1.1.

### 3.1 Available Sources of Information

This section describes and assesses the major sources of information that will be used for the present research. After a general reference to maps, the major sources are arranged by date, working backwards from modern times to around 1600. The assessment of each source should be read in conjunction with Chapter 2, which describes the uses that each source can be put to when all the information that it should provide is actually available.

#### Maps

This thesis will reconstruct maps of former landscapes which were not mapped at the time or for which maps have been lost. The creation of new maps of these old landscapes depends on transcribing the information on existing maps which show all or part of the landscape of Allesley, Coundon and Stoneleigh parishes, as it was before the era of digital mapping. The most useful maps are those that show a complete parish at a particular date, but other maps show smaller areas, which are usually the estates belonging to large landowners. These fragmentary maps are parts of a jigsaw puzzle that would ideally show the complete landscape at one date; in practice there will be many missing pieces.

Printed and manuscript maps of the study area are held in the following collections, listed alphabetically: Birmingham Library, Coventry Archives, Coventry and Warwickshire Collection (formerly in Coventry Central Library, combined with Coventry Archives in 2006), Leicester University (Centre for English Local History and Geography Library), Ordnance Survey, Shakespeare Birthplace Trust (Stratford-upon-Avon), and Warwickshire County Record Office. Some old maps are held in private collections that are only accessible through photographs, copies or tracings that were made by authorised researchers and later deposited in record offices.

The maps with special relevance to particular aspects of the thesis will be listed in the present section. The practical techniques that were used to transcribe the information contained in these printed and manuscript maps are described in Section 3.2.



## The National Farm Survey of 1941

The index of the 1941 Farm Survey was inspected at the Public Record Office (The National Archives) at Kew. Although the index showed that the maps for Allesley, Coundon and Stoneleigh parishes have not survived, the original survey forms from the survey of Allesley were examined to see how much useful information they contain.<sup>1</sup> Some fields could be identified by the numbers shown on the c.1887 twenty-five inch Ordnance Survey, but none of the information about crops was listed in a form that could be related to individual fields. Because of the lack of maps and the limitations of the surviving information, it was concluded that the 1941 Farm Survey could not be used to reconstruct the geography of wartime farming in the study area. However, if the Allesley survey is typical, there is a great deal of raw material for a farm-based analysis. The surveyor's often caustic comments about the competence and character of each farmer would also be of use to a social historian. Of more general interest is the evidence of German bombing aimed at the several large 'shadow' factories within the study area to the west of Coventry. In Brownhill Green farm, near the Brown's Lane factory which built aircraft engines and was later famous for Jaguar Cars, 'the field drainage is suffering from damage by bombs'. In Mount Nod farm, north of Broad Lane, 'there are 31 bomb holes in the fields', probably because of its proximity to the Coventry Gauge and Tool factory, which made 75% of all the gauges used to manufacture armaments in Britain, as well as the huge Fletchamstead/Canley factory (later the Standard-Triumph car factory) which built aircraft engines, aircraft and armoured cars.

## The 'New Domesday' of 1909-10

Inspection of the local index of the 1909-10 'New Domesday' at Warwickshire C.R.O. showed that the maps for Allesley, Coundon and Stoneleigh parishes have not survived despite the positive entry in Short's index to the national records.<sup>2</sup> The valuation books for Allesley and Stoneleigh parishes were inspected to see how much useful information they contain.<sup>3</sup> These books contained a large amount of detail about properties, but farmland was only mentioned as a total figure such as '200 acres of land'. Because of the lack of maps and the absence of information relevant to the present work, the 1909-10 'New Domesday' cannot be used to reconstruct the geography of the landscape of the study area. A social historian, especially one interested in housing, would find a great deal of useful data about the study area, although the valuation books are notable for their disorder, having been amended in several different and untidy hands, apparently for a later purpose to do with parish administration.

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1 National Farm Survey 1941, Warwickshire, Allesley, T.N.A., P.R.O., MAF 32/955 Pt. I/119.

2 B. Short, *The Geography of England and Wales in 1910: An Evaluation of Lloyd George's 'Domesday' of Landownership*, Historical Geography Research Series, 22 (1989); B. Short, *Land and Society in Edwardian Britain*, Cambridge Studies in Historical Geography, 25 (1997).

3 Finance 1909-10 Act, Valuation book for Allesley, War. C.R.O., CR1978/2/34; for Stoneleigh, War. C.R.O., CR1978/1/6.



## Tithe Surveys c.1840

Kain and Oliver's catalogue of tithe maps shows the parishes which have the fullest information and are therefore most suitable for analysis.<sup>4</sup> Surveys of the three parishes in the study area were made in about 1840, although not all to the same standard. The maps were all drawn to a scale of 6 chains : 1 inch, which made them second-class according to instructions by the Tithe Commission.<sup>5</sup> Originals of all three surveys are held at Warwickshire C.R.O., but it was more convenient to work with photocopies of reduced copies of the Allesley and Coundon surveys that were held at the Coventry and Warwickshire Collection in Coventry Central Library. Computer-based transcriptions of these imperfect reduced copies were double-checked against the original versions at Warwick, which are entirely readable.<sup>6</sup>

The tithe surveys for Allesley (1840) and Coundon (1841) provided all the information that the present work needed to create detailed maps and computer databases. The Allesley apportionment is a very large printed book which seems to have been compiled with great care. Fig. 3-1 shows one of its twenty-nine pages, copied from a much-reduced and inferior photocopy that is held in the Coventry and Warwickshire Collection. The origin of the manuscript annotations on the Coventry copy is not known; they do not appear on the original version at Warwick. Printed copies would have been needed for the large number of occupiers and landowners in the parish. The credit for the competence of the Allesley tithe survey belongs to Thomas Chapman of Stoneleigh, land agent, and Charles Oakley of Allesley. The map, which bears the inscription 'Chas Oakley, Surveyor, Allesley', shows all the required details of the landscape. The original map at Warwick is very large, so Fig. 3-2 covers only a small part of the reduced photocopy that is held in the Coventry and Warwickshire Collection.

The Coundon apportionment is in manuscript form, but it contains the same information as Allesley's and was produced with equal care. The valuer was John Holbeche of Erdington. Although unsigned, the tithe map appears to be a tracing of the map that is bound into the 1841 enclosure act for Coundon and Keresley, except for one field boundary.<sup>7</sup> Fig. 3-3 shows a fragment of the Coundon map, which contains all the qualitative detail required for the present purpose, although later work showed that its overall framework was distorted. This is the first of many examples of a map which contains useful and detailed qualitative information, but whose quantitative shortcomings demand transcription onto an accurate geographical framework such as that provided by the c.1887 Ordnance Survey map.

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4 R. J. P. Kain and R. R. Oliver, *The Tithe Maps of England and Wales, A Cartographic Analysis and County-by-County Catalogue* (Cambridge, 1995), Fig.48.

5 R. J. P. Kain and H. C. Prince, *Tithe Surveys for Historians* (Chichester, 2000), p.38.

6 Allesley Parish tithe survey 1840, War. C.R.O., CR569/3, map scale 6 chains : 1 inch;  
Coundon Hamlet tithe survey 1841, War. C.R.O., CR569/80, map scale 6 chains : 1 inch;  
Stoneleigh Parish tithe survey 1843, War. C.R.O., CR569/213, map scale 6 chains : 1 inch.

The Coventry and Warwickshire Collection at Coventry Central Library is now subsumed within Coventry Archives.

7 Coundon and Keresley Inclosure Act 1841, War. C.R.O., CR1943/8 [act only]; QS75/36 [act, award and map].



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The 1843 Stoneleigh tithe apportionment was less useful. Although presented in a large, handsome leather volume, it appears negligent by comparison with those for Allesley and Coundon. The manuscript entries look rushed and untidy, with some easily-found errors in the calculated totals. Most disappointingly for the present purposes, the information for each parcel of land or property was incomplete, neither the cultivation nor the rent being shown for individual fields. Although the summary did show the lump-sum rent due from the total holding of each landowner/occupier, this information is devalued by the fact that 53% of the parish was zero-rated. With these severe limitations the Stoneleigh survey could provide only fragmentary and unfocused information about land value, preventing the accurate and detailed analysis that is possible for Allesley and Coundon. Even the information about owners and occupiers is less useful than it should have been, with many properties having the occupier recorded as 'Rt Hon. Chandos Leigh and others'. Rather than implying some form of joint venture, it seems likely that this meant that Leigh was the owner-occupier of some land, while the remainder of his land was occupied by farmers who were thought too unimportant to name. This attitude is reinforced by the 1846 Land Tax return for Stoneleigh, which had most of the parish's tax ascribed to 'Sundry Occupiers' of Lord Leigh's huge landholding, whereas the occupiers of small pieces of other landowners' land were given the dignity of their own names.<sup>8</sup>

From the circumstantial evidence provided by the apportionment, one might deduce that Lord Leigh who owned most of Stoneleigh parish was not a man to treat his tenants with respect or to provide higher authority with as much information as they demanded. In contrast, the tithe surveys for Allesley and Coundon appear businesslike, accurate and respectful to all parties. It would be interesting to know more about the process that allowed the clearly inadequate and factually incorrect Stoneleigh tithe map and apportionment to be approved by the tithe commissioners. One explanation may lie in the contemporary personal circumstances of Chandos Leigh, first Baron Leigh of the second creation (1791-1850).<sup>9</sup> He was a poet, friend of Lord Byron but prey to ill-health and financial difficulties. Unfortunately for him, there were other claimants to the huge Stoneleigh estate, which later totalled 14,891 acres (almost three times the size of Allesley and Coundon parishes together). During 1844, in the family's absence, a mob seized Stoneleigh Abbey on behalf of a John Leigh; twenty-eight people were arrested and convicted at Warwick assizes. In 1848 Chandos was falsely charged with murdering four workmen after they had allegedly been ordered to remove and destroy church monuments which supported other claimants. Combining such stressful crises with constant complaints of malicious trespass and local hostility, Chandos may not have given enough attention to administration and paperwork, although it is surprising that the commissioners did not demand a higher standard.

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<sup>8</sup> Stoneleigh Land Tax Return 1846, War. C.R.O., CR863/146/1.

<sup>9</sup> R. Bearman, *Stoneleigh Abbey - The House, Its Owners, Its Lands* (Stoneleigh 2004), pp.185-190.



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## Early Nineteenth-century Enclosures

Warwickshire C.R.O. holds maps and awards from the enclosure of parts of all three parishes within the study area during the first half of the nineteenth century.<sup>10</sup> For the present purpose almost all the useful information is contained in the large maps. Within the handsomely-bound awards there is a great deal of other information about the enclosures, but only in a few instances such as lists of road widths is this directly relevant.

The 1824 enclosure of Allesley encompassed many small pieces of land outside the area of the great 1652 enclosure, including a large area of Corley Moor, a part of Brownhill Green, several old lanes and many roadside verges. The drawing is very detailed, showing the tiny size of some of the enclosures of roadside verges, but the absolute accuracy is uncertain. The map shows only the enclosures and the roads; there is no other information about the landscape of the parish. Despite this limitation the map is extremely useful for showing the contemporary outlines of the roads, many of them much wider than would be thought likely without this direct evidence. Being able to define the road system in the early nineteenth century is also very useful for locating the fields shown on the fragmentary 1809 maps of Allesley, as will be described later.

The relatively small 1841 enclosure of Coundon was concerned with a part of Brownhill Green and some roadside verges. Unlike the maps of the other two parishes, the Coundon map shows all the fields and roads in the parish; these were identical to those shown on the 1841 tithe map apart from one added field boundary. It can be assumed that the latter was removed during 1841, before the tithe survey which showed all the new enclosures. As with Allesley, the drawing is detailed and precise, but the accuracy is uncertain. A particularly useful feature of this map is the inclusion of old names for roads and places such as Hangman's Lane and Weeping Birch Tree.

The 1816 enclosure of Stoneleigh was almost entirely concerned with the northern part of the parish that lay within the study area. A large area of Westwood Heath was enclosed, together with several old lanes and many roadside verges. Helpfully, this map states the old and new names for some lanes and roads, with the old names shown in Old English script. As with Allesley and Coundon, the map of Stoneleigh is finely drawn, but of uncertain accuracy.

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<sup>10</sup> Allesley Inclosure Award Map 1824, War. C.R.O., CR467, scale c.5 chains : 1 inch;  
Coundon and Keresley Inclosure Act, Award and Map 1841, War. C.R.O., QS75/36, map scale 6 chains : 1 inch;  
Stoneleigh Inclosure Map 1816, War. C.R.O., CR523/2, map scale 6 chains : 1 inch.



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The purpose of the 1809 Poor Law Assessment was stated in the final summary of the valuation, which was dated 11th May 1809:

‘An Assessment for the necessary relief of the Poor and for the other purposes  
in the several Acts of Parliament mentioned relating to the Poor  
for the parish of Allesley in the County of Warwick.’

Among the 1809 survey maps is an account detailing the cost of some of the items in the survey, which includes 2,600 acres of new surveys (65% of the parish) and a great deal of map-making, some of it based on old maps that the surveyor had procured.<sup>14</sup> It is likely that no map of the whole of Allesley parish existed before the 1809 survey, but only an incomplete set of estate maps drawn at different dates to varying scales and standards of accuracy and presentation. Some of these estate maps will be mentioned later. Attempts to calculate Poor Law levies based on these inaccurate estate maps would have been frustrated by the lack of consistent information on land value per acre. This lack of usable information is surprising when one considers Allesley’s profitable situation near Coventry. An accurate and reliable survey, conducted on a consistent basis throughout the parish, was obviously long overdue. There must have been a very good reason for making a complete survey and valuation in that year, because the cost was probably more than £60. The total annual value of Allesley parish was assessed to be £5,654 which, at a rate of one shilling in the pound, yielded £282-14s-0d for the relief of the poor.

The survey does not seem to owe its origins to any major change in Allesley parish. The great enclosure had been in 1652, with the final enclosure of a relatively small area in 1824. The Land Tax assessment was the same in 1808 as it had been in 1776, and it was to remain up to 1812.<sup>15</sup> Although Allesley itself may not have been changing much, the parish would have been affected by an overflow of poor people displaced by more recent enclosures in adjoining parishes. For example, the following conversation was recorded in 1782, after the enclosure of Meriden parish, which adjoins the study area on the west side of Allesley parish :

Lord Torrington : ‘Has Meriden Common long been enclosed?’

Woman : ‘A lackaday Sir, that was a bad job, and ruined all us poor folk . . .’

Lord Torrington : ‘Why so?’

Woman : ‘Because we had our garden, our bees, our share of a flock of sheep, and the feeding of our geese. And could cut turf for our fuel. Now that is gone! . . . My cottage is pulled down and the poor are sadly put to it to get a house to put their heads in.’<sup>16</sup>

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<sup>14</sup> Sketch Maps of Allesley Parish 1809, War. C.R.O., CR1709/75/27.

<sup>15</sup> Allesley Land Tax Returns 1775-1831, War. C.R.O., QS77/2/1-56.

<sup>16</sup> C. B. Andrews (ed.), *The Torrington Diaries* (1935; London, 1970).



Allesley was affected by the fortunes of Coventry, two miles away, which suffered severe unemployment during the Napoleonic Wars.<sup>17</sup> The existing workhouses in the city proved inadequate and their upkeep too expensive. The amount of poor rates levied in the central parishes of Coventry, which stayed around £5,000 between 1775 and 1794, rose to £17,988 in 1801. In that year a local Act was obtained for regulating poor-relief in Coventry. The old Whitefriars monastery was converted into a workhouse; it was in use by 1804. In 1813 it was described as 'a peaceable asylum' and the cells for 'those in the last stages of vice and turbulence' were little used. Administration under the local Act appears to have been comparatively generous, but attempts were made to ensure that the 'house of industry' lived up to its name, by allowing the inmates to be employed by private persons. Despite Coventry's providing for its own poor, it is likely that some would have preferred being in the rural environment of nearby Allesley. By 1809 some Allesley residents must already have been working in Coventry, or for businesses based in the city, and lost their employment as a result of the economic depression.

Thompson suggests that the French Revolution and the Napoleonic Wars led to a reduction of the gentry's humane instincts towards the poor.<sup>18</sup> 'It became a matter of public-spirited policy for the gentleman to remove cottagers from the commons, reduce his labourers to dependence, pare away at supplementary earnings, drive out the smallholder'. He quotes an influential contemporary opinion that the village poor [throughout the country] are 'designing rogues, who, under various pretences, attempt to cheat the parish . . . their whole abilities are exerted in the execution of deceit, which may procure from the parish officers an allowance of money for idle and profligate purposes.'

Did the farmers and land occupiers of Allesley share this antagonism towards the poor of their own parish? Although Allesley had a very high proportion of absentee landowners, who might be expected to care little for the local poor, this would not necessarily apply to the resident land occupiers who, it will be shown later, were actually paying the Poor Law levy. Landowners and farmers in Allesley may have been hostile, judging by this observation by Adam Murray, who surveyed Warwickshire in 1813 for the County Reports to the Board of Agriculture :

There are to be found in the more remote parts of the county many small farmers, who are exceedingly shy and jealous in communicating their modes of farming, although it is very evident there is nothing new to be learned from them, even if they were communicative. The only information required, is, the facts as to the present state of agriculture, which there is hardly a possibility of getting. Even in the very best districts of the county, farmers of the same description are often to be met with; and I wish I could say that this jealousy was confined to the farmers only. It is to be regretted, that sometimes people of large property and liberal education are unhappily the dupes of those about them; and though perhaps willing of themselves to afford information, are biassed by their bailiffs, and act contrary to their own original good intentions.

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17 W. B. Stephens (ed.), *V.C.H. Warwickshire*, 8 (London, 1969), pp.276-277.

18 E. P. Thompson, *The Making of the English Working Class* (1963; London 1991), pp.242-243.



In confirmation of this remark, I beg leave to state a fact which happened to myself. In the prosecution of this Survey, I waited on a clergyman, a gentleman of good property, and producing my credentials from the Board, requested his assistance in furnishing me with any information in his power, so as to enable me the more perfectly to draw up my Report. He received me very politely, and seemed willing to further the object I had in view : he said that he knew very little about farming himself, but would send for his bailiff, who was an intelligent man, and could give me a great deal of information, not merely concerning his own extensive property, but the properties adjoining; and in the meantime he would write a letter to one of his tenants, whom he conceived very competent to afford me the details of the system of farming in his district. However, the bailiff arrived before the gentleman had well begun his letter, got closeted with his master, over whom he had an unbounded influence, and persuaded him that it would be a very dangerous measure to give me any information; and that instead of giving me a letter to his tenant, it would be much better for him to go with me to him, for fear, as I supposed, that he should be too communicative in telling me the rents they paid . . .

My suppositions were well-founded; for when he arrived at the tenant's, the bailiff made his way into the house as quickly as he could, got closeted with the tenant, and no doubt communicated to him his apprehension of the danger that might attend his giving me any information : that the rents would be raised, and every thing would be against him. The consequence was, that the tenant was alarmed by the misrepresentations of the bailiff, and immediately on my being introduced to him, he at once told me that he did not see any advantage the county of Warwick would derive from such a Survey; that it must do a great deal of hurt instead of good; and that such being his opinion, he declined giving me any information on the different heads of queries I meant to put to him. If it had not been for the ignorance, or mischievous interference of the bailiff, I have no doubt I should have derived much valuable information from the tenant, who, I was informed, was a man that stood as high in his profession as any in the county. From motives of delicacy I decline mentioning names; but I vouch the fact.<sup>19</sup>

Direct evidence about the popularity of Allesley's 1809 Poor Law valuation among those who would have to pay appears in the minute of the vestry meeting held on 11th May 1809 which approved the assessment. No objection was made except by Wm North 'who thought it was laid thickish upon him'; and Richard May 'who thought himself a little overdone'.<sup>20</sup> The mildness of these opinions suggests that the people of Allesley were not averse to relieving poverty in their parish. The minute of the meeting lists the names of 22 men who attended, out of a total of 66 landowners or 115 occupiers who are named in the valuation. All those named are in the list of land occupiers, but half of them are not landowners, so it is clear that the rent was to be paid on the basis of land occupation, not ownership. It is of interest to note that no woman was present in person, but two women were listed as being represented by a man. The list included several big farmers, ranking 1,3,4,6 by area, but also included several smallholders. Those present accounted for 40% of the total land area and 39% of the rent, which suggests an average cross-section of the land occupiers. From the list of those attending, it appears that the meeting was quite democratic, although the attendance may have been biased in favour of those who lived near the church, or could be coaxed out of the 'Rainbow' public house opposite.

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19 A. Murray, 'General view of the agriculture of the County of Warwick 1813', in W. Marshall (ed.), *The Review and Abstract of the County Reports to the Board of Agriculture from the Several Agricultural Departments of England*, 4 (1815; York, 1818), pp.317-318.

20 Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1.



The 1809 Poor Law valuation of Allesley parish not only contained the same comprehensive range of information as the 1840 tithe survey, but also provided complete geographical coverage of the parish, including the large areas of Allesley Park and glebe land that were not tithable. Neatly written in one notebook, with a new page for each owner and occupier, the valuation was obviously a final fair copy of the results from a thorough and probably contentious process of assessing the value of each field in the parish. Appendix B compares this process with the alternative means of assessing land value and Fig. 3-7 shows a sample page of the written valuation. The information in the valuation will be processed in the same way as for the tithe survey and then presented graphically on the 1809 map of Allesley parish. This work is described in Sections 4.5 and 4.6.

There are 32 maps relevant to 1809 in the series at Warwickshire C.R.O.. They are bundled with a later map and some notes, so they probably became the parish's collection of working maps during the early nineteenth century after being used for the 1809 assessment. Each map shows one or more fragments of Allesley parish, often the property of one landowner but sometimes covering several properties in one geographical location. The maps are of varying shape and size, the largest being about as large as a modern A2 sheet. The quality also varies, but most of them are rather rough sketches on oddly-shaped pieces of tracing paper. The surveyor and map-maker are uncertain, although a Mr Dixon was mentioned in connection with procuring the maps. Fig. 3-8 shows a typical sample of these fragmentary maps which corresponded to Penelope Betty's holding, as listed in Fig. 3-7. Although very informative in a qualitative sense, these sketches are not to a constant scale and were sometimes distorted to fit within a sheet of paper. North was usually not indicated and was seldom at the top; in Fig. 3-8 the indicated direction is wrong by about thirty degrees. Usually there was no suggestion where the fields lay within the parish and widely-separated fields were often shown as though next to each other. A few of the maps were beautiful examples of estate mapping from the 1770s, presumably covering holdings whose fields had not changed since the maps were drawn. One of the maps is an 1819 auction catalogue for a large estate, dating from well after the valuation. It will be assumed that this map replaced a rough 1809 sketch, now lost, which contained the same information.

The original map numbers show that four maps are missing from the series; these accounted for about 25% of the area of the parish. By comparing the written valuation with the area covered by the surviving maps, it became clear that these maps mainly covered the estates belonging to the Neale family (Lords of the Manor) and some other large landowners. An administrative note enclosed with the maps refers specifically to one of the Neale maps and the intention to make a complete sketch of Allesley Park, both of which are now missing.<sup>21</sup> The loss of these maps was no doubt an example of the age-old problem of important men removing documents from the filing system and failing to return them.

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21 Sketch Maps of Allesley Parish 1809, War. C.R.O., CR1709/75/27.



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## 1654 Allesley Enclosure Survey

And that the said Complaynants & Defendants seeing the many inconveniencies that did accrew to them & theire respective tennants And that the said lands soe lyeing in Common were of little benefitt and not above one fourth parte thereof was manured and sowed with any sort of corne or greine in any one yeare And the respective Owners & occupiers disabled to improve or better the same which if inclosed might with much ease & farr lesse charge be done did joyntly & severally agree to take in & inclose the said lands called Allesley corne feilds and to hold the same in severalty.<sup>22</sup>

The pattern of enclosure of the open field of Allesley was described in a 1654 Decree in Chancery which was the final judgment in a dispute among the parties to the 1652 enclosure. This decree, which lacks a map, can be divided into a preamble, a survey of the allotments and a judgment. The original survey, as restated in the decree, was carried out by Thomas Sarginson, 'a common surveyer and a man of good repute [who was to] measure & survey every particular mans land lying in the Common Feilds of Allesley to the end the certaine quantity of every mans land might be known.'

Each allotment within a furlong or other piece of land was defined by its owner, area and by the sides on which the allotment had to be ditched, mounded and hedged. Neighbours and landmarks were sometimes mentioned. Many of these allotments became single fields that can be identified in nineteenth-century maps and surveys, but some allotments were later sub-divided into smaller fields. The details of ownership, access and geographical information will be combined with information from other sources to reconstruct the open field on the framework of the 1809 map, as described in Section 4.7. Apart from being of interest in its own right, locating the open field contributes towards the reconstruction of the c.1600 landscape of Allesley parish (see Section 4.8), because most earlier copyhold properties would lie in the reduced area of the parish that lies outside it and some of these properties were described in relation to the open field.

The preamble to the decree described the reasons for the enclosure and listed the opposing parties in a dispute about carrying it out. Six complainants and twenty-eight defendants were named, the latter accused of resisting the enclosure of 'The Common Corn Fields of Allesley' that they had all agreed to in January 1650. The complaint had been made in Michaelmas term 1652, shortly after the 1st May deadline for each man to complete his share of the enclosure work. With the help of the 1809 field values, the reconstruction of the open field provides the evidence needed to test the agricultural benefits of the 1654 enclosure and to find out whether the unwilling parties (the defendants in the decree) were as unfairly treated as they thought themselves to be.

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<sup>22</sup> The Copy of Allesley Inclosure for Henry Neale Esq., [1654 Chancery decree], War. C.R.O., CR623 Box 13; The Copy of Allesley Inclosure for Richard Eburne Esq., [1654 Chancery decree], War. C.R.O., CR299/583/1.



Two complete eleven-page copies of the 1654 decree are preserved at Warwickshire C.R.O., one made for Henry Neale, lord of the manor, and the other for Richard Eburne. Fig. 3-9 shows a typical page of the Eburne copy, defining some of the allotments. The two examiners named at the end of one copy also appear on the other, with an identical or very similar hand, so their dates must be close. There is also a single large sheet, in a hand that looks older, containing an extract of the decree which related only to the holdings of William Jelliffe.<sup>23</sup>

There is some confusion about the date of the original enclosure and the dates when these copies were made. A Richard Eburne and a William Jelliffe both appeared as minor defendants in the 1654 decree, but Henry Neale did not become lord of the manor of Allesley until 1692. Jelliffe's copy was labelled 'the 4th Day of July 1667' on the back, but the text of the Decree concluded with the date 'the one and thirtieth day of August in the yeare of our Lord one thousand six hundred sixty and fower'. The clearly erroneous date '30th August 1644' was written in a later hand on the back of Richard Eburne's copy.

It seems reasonable to conclude that 1654 was the date of the decree and that Jelliffe's partial copy was the earliest and perhaps the only survivor of a set intended to make each defendant aware of the actions required from him. Another Richard Eburne and another William Jelliffe were named as landowners in the 1682 glebe terrier for Allesley, so it seems likely that the Neale and Eburne copies and perhaps the Jelliffe copy were made in the 1680s or 1690s.<sup>24</sup> Despite the uncertainty about the dates of these copies, each of them is expected to have the same factual content.

### **1626 Survey of Allesley Manor**

The study of the early landscape history of Allesley parish benefits greatly from the survival at Warwickshire C.R.O. of a detailed 1626 survey of demesne tenants and copyholders in the manor of Allesley<sup>25</sup>. The survey comprised forty pages, written in English, of which Fig. 3-10 is an example. It provided information on many individual fields and properties, quoting names, areas and values and usually specifying the land use. Sometimes one value covered a group of individual fields of the same type. Much less useful are the entries where fields were lumped together, for example as 'six other pastures and closes' with only one total area and value. As with the 1809 survey, the 1626 survey had the value per acre for each field or group of fields stated specifically, thereby avoiding the errors and approximations that would be introduced by calculating backwards from quoted values and areas.

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23 An Extract of the decree in Chancery toucheing the inclosure of the Come feilde of Allesley in hiliary tearme 1653, War. C.R.O., CR299/583/2.

24 Bundle of thirty-four glebe terriers for Allesley, 1692-1836, War. C.R.O., DR72A.

25 The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14.



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The variation in the geographical coverage and refinement of this survey prevents a complete comparison with the fully comprehensive 1809 and 1840 surveys of the whole parish, but it does allow a broad-brush picture of land use and land value in 1626 to be created, with some areas of detailed information related to individual fields. Achieving this depends on being able to locate the fields in the 1626 survey on a reconstructed map of Allesley manor. It seemed reasonable to assume that there would have been only small changes to the open field between 1626 and 1654 and that the area of the open field could be excluded from the land covered by the 1626 survey.<sup>26</sup> It should therefore be possible to unite the contents of the 1626 survey with the map derived from the 1654 enclosure survey to produce a map of much of Allesley parish as it was in 1626. The survey quoted a total area of 2,412 acres for the demesne and copyhold land (although the sum of the items in the survey is actually 2,508 acres). Because it excluded freehold properties, the 1626 survey probably represented about 60% of the area that was cultivated land, pasture or woodland at the time, mostly within Allesley parish but including a part of Coundon and at least one adjoining field in Stoneleigh parish that lay within Allesley manor.

Loosely attached to the 1626 document is a one-page survey of Allesley Park, which was owned by the lord of the manor.<sup>27</sup> The hand is obviously later than 1626 but the title 'Allesley Parke - Survey According to Mr Compton's Booke and his Valuation' suggests a date before 1660 when the property was bought from Richard Compton by Thomas and Martha Flynt. The survey recorded Allesley Park as it was transforming from a medieval deer park to the farming landscape that it had become by 1770. Three of the lawns were named as parcels of land, although it is possible that divisions already existed within them. These names do not appear on later records but the names of most of the other parcels survived as field-names up to modern times.

There were some imprecise definitions in the main survey, such as 'Certaine parcells of Land', suggesting that the surveyor was not as conscientious as he should have been. Any lack of diligence may be excused in light of the contemporary outbreak of bubonic plague in Allesley. The records of the Warwick Quarter Sessions include the following entry for summer 1626 :

Whereas we are requested by divers of our neighbours to take instant order and care in preventing an interchangeable concourse of people in this infectious time of the plague, that the infected towns may be kept from those that are not infected, and taking into our consideration that the infected towns being so restrained may have relief for sustaining of their necessities until it please God that the sickness cease, we do therefore think fit and it is to be ordered by the court that the parish of Allesley, being a town in the hundred of Knightlow, have 40 shillings weekly towards the relief of the poor inhabitants there collected and paid unto them within the said hundred of Knightlow, and that the high constables of every hundred in the whole county take present and strict order for watch and ward to be had and made to restrain any suspected wandering people that are like to set infection in sound places.<sup>28</sup>

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<sup>26</sup> Section 4.8 will show that this assumption was not correct.

<sup>27</sup> Allesley Parke - Survey According to Mr Comptons Booke & his val[ua]tion, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey].

<sup>28</sup> S. C. Ratcliff and H. C. Johnson (eds), *Quarter Sessions Order Book 1625-1637*, Warwick County Records, 1 (Warwick, 1935), p.36.



This order almost certainly means that Allesley had a severe outbreak of the plague and that the inhabitants were to be forcibly prevented from spreading it around by leaving the village. One may therefore forgive the surveyor for failing to inspect every infected nook and cranny in the parish. The frequent use of the word 'broomy' to describe all types of fields suggests that the survey came after the land had been neglected for several years, perhaps as a result of repeated outbreaks of the infection. It seems that Sir Richard Compton, the prospective lord of the manor for whom the valuation was made, knew when to strike a favourable deal. We do not know who the surveyor was or what became of him, but he was probably not welcome in Allesley when plague was about, compounding the perennial suspicion of officials of all sorts that was noted by Murray in 1813.<sup>29</sup> The fact that twenty-one of the fifty-six copyholders' entries end with 'The Coppy not shewed', representing 38% of the total copyhold area, suggests a lack of enthusiasm. The entry for Francis Blith(e) contained a commentary which provides a glimpse of two warring residents :

There is some Muttering that the valuation of Mr Blythe's land which hee claymeth as free is coppy Land which . . . under Hand that one Mr Wm Stapleton a Coppy holder of this Mannor who being in some danger doth now obscure himselfe in the Temple doth offer to give informacion of. And therefore if hee doth enfranchise his ?bove their must be care had that he doe not in generall . . . cutt of my Lord from his right. Also he pretendeth right to three yard Land in the common Feild for his Free & Coppy but how much belongeth to either none will undertake to informe, neither he himselfe doth certainly know but by an obscure note which doth not explayne it hee yeeldeth but to one yard Land for his coppy which is here putt downe as iiij<sup>s</sup> the acre.

Francis Blith is said to have qualified as a lawyer, probably at the Inner Temple.<sup>30</sup> In 1630 he appeared at Warwick Quarter Sessions, being awarded £3-3-6 from the unwilling residents of Allesley for his services as 'late constable'.<sup>31</sup> In the same year Francis found himself in the dock on another matter, being ordered to pay thirty shillings due to John Mason, his late servant.<sup>32</sup> This Francis was probably the great-uncle of the Francis Blith who inherited the estate and was one of the few local supporters of the 1654 enclosure. William Blith, another relative, was a campaigner for agricultural improvement.<sup>33</sup> The younger Francis appeared in a 1664 prosecution of three men for 'riotously breaking and entering the close of Francis Blithe the younger, gentleman . . . and for assaulting, beating and wounding the said Francis Blithe there'.<sup>34</sup> The Blith(e)s seem to have been forceful men who were not troubled by unpopularity. The will of the older Francis contained an injunction to his heirs to deal with each other 'kindly and with amity', so he may have been aware of this family failing.<sup>35</sup> Nothing is known about the fate of William Stapleton after he took refuge in London in 1626.

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<sup>29</sup> Murray, 'General view of the County of Warwick 1813', in Marshall (ed.), *Review and Abstract*, 4, pp.317-318.

<sup>30</sup> L. C. Philpott, *Allesley Lands and Peoples, Being a Brief History of Some Properties and Their Owners*, (3 manuscript vols at War. C.R.O., 1970 - 1974), 3, p.12.

<sup>31</sup> Ratcliff and Johnson, *Quarter Sessions Order Book*, 1, p.106.

<sup>32</sup> Ratcliff and Johnson, *Quarter Sessions Order Book*, 1, p.166.

<sup>33</sup> W. Blith, *The English Improver Improved* (1649; London, 1652).

<sup>34</sup> S. C. Ratcliff and H. C. Johnson (eds), *Quarter Sessions Indictment Book 1631-1674*, Warwick County Records, 6 (Warwick, 1941), p.150.

<sup>35</sup> Philpott, *Allesley Lands and Peoples*, 3, p.12.



### 1597 Survey and Maps of Stoneleigh Manor

A set of maps and a survey of all the property of Sir Thomas Leigh shows much of the field pattern and land use of Stoneleigh manor in 1597.<sup>36</sup> One of these maps covers the northern part of Stoneleigh parish that lay within the study area. At the time the area was known as Fletchamstead; the name survives today only in Fletchamstead Highway, a part of the modern A45 road that runs across the eastern side of it. The 1597 map covered Stoneleigh manor, which had Broad Lane as its northern boundary, rather than Guphill Brook (called Allesley Brook in 1597) which lies a little further north and was the parish boundary between Stoneleigh and Allesley. A fourteenth-century perambulation shows the northern boundary of Stoneleigh manor running eastwards along Broad Lane to a place called *le Kynggeshok* on the southern edge of Allesley Park, then stepping a short distance north to meet Allesley Brook and follow it to the east.<sup>37</sup> The band of fields between Broad Lane and the parish boundary to the west of *le Kynggeshok* were part of Allesley manor, although disputed at one time. Their inclusion makes sense on the ground because Broad Lane defines the skyline when looking southwards from within Allesley parish.

The colourful map of Fletchamstead was drawn to a nominal scale of six chains to one inch. It is well-preserved because Fletchamstead was at the unfashionable end of the manor, so avoiding the fate of the map of Stoneleigh Abbey itself which has deteriorated after many years on display at the stately home. Unfortunately it was not possible to obtain a photograph to show the quality of the Fletchamstead map. The survey listed about 500 parcels of land, of which seventy-seven, ranging from Mr Smith's freehold of 415 acres down to Widow Watson's little cottage and garden, lay within the study area. The combined information from the map and survey was extremely useful for many purposes.

### 1587 Survey of Allesley Manor

The 1587 survey of Allesley manor is of little use for the present purpose because few of the named fields can be identified.<sup>38</sup> It does, however, provide some evidence for the location of the old 'End' place-names which disappeared around the time of the 1652 enclosure. From the historical perspective, Allesley in 1587 is interesting for showing the final traces of the manorial system, with some services still listed and many disputes about land on which several people claim to have customary rights. The 1626 survey seems modern by comparison.

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<sup>36</sup> A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a; [Map] of the Severall Grounds Lying in Hurste, Flechamstead, and Candley being The Lands of the right worshipfull Sir Thomas Leigh Knight . . . by John Goodwin, Practicioner in the Mathematiques, Shakespeare Birthplace Trust, DR18/25/69a.

<sup>37</sup> R. H. Hilton (ed.), *The Stoneleigh Leger Book*, Dugdale Society, 24 (Stratford-upon-Avon, 1960), pp.246-249.

<sup>38</sup> Survey and Rental of several manors, including Allesley, Sussex Archaeol. Soc., Lewes, Abergavenny 68; I am indebted to Nat Alcock for kindly supplying a transcript of this survey.



## Estate Maps and Surveys

As far as is known, the 1840 tithe maps were the first complete large-scale maps of each parish, with the exception of the problematical two-inch Ordnance Survey from 1814, but there were several detailed maps and surveys of estates within the study area between the late seventeenth and early nineteenth century. The coverage is best for Stoneleigh and worst for Coundon. The most detailed and probably the best of all the estate maps in the study area was carried out by Matthias Baker in 1766-7 for the Leigh property in Stoneleigh and Allesley; this was accompanied by two volumes of large-scale maps of individual fields.<sup>39</sup> There were four maps showing the estates of major landowners within Allesley parish during the period 1770 to 1811.<sup>40</sup> The most impressive of these is the 1770 map of the Allesley Park estate, which belonged to Joseph Neale who was the lord of the manor. This map by Thomas Eagle (perhaps related to the Thomas Eagle of the 1809 valuation) is a work of art, with each field tinted a different colour and every five-barred gate shown in detail. The quality and detail of the original map, drawn to a scale of 3 chains : 1 inch, does not really show in the monochrome Fig. 3-11. Because the copying process emphasised the wrinkles it is not possible to distinguish some interesting pencilled amendments on the original map. These, probably dating from shortly after the map was drawn, showed a projected design for the walled garden next to Allesley Hall; this was built with a different layout in about 1786. Despite its high quality, the map shows some distortion of the overall geometry of the estate. The errors may have been due to the technical difficulty of surveying and drawing a two-dimensional map of an area which contains steep slopes.

Coventry Archives holds a series of notebooks containing several other surveys of Allesley parish, with dates between 1826 and 1836 pencilled in the margin.<sup>41</sup> It appears that these notebooks provided some of the raw material for the 1840 tithe survey and probably for other administrative purposes related to the parish. Unfortunately, the lack of explanation, an untidy and much-amended presentation and apparent gaps in the geographical coverage make these surveys unsuitable as sources for the present research. Their inclusion would add nothing to the development of computer-based methods and little to a study of the landscape history of Allesley parish, taking into account the wealth of reliable data provided by the 1809 and 1840 surveys.

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39 Matthias Baker, *Maps and Surveys of the Estate of Edward Lord Leigh 1766-67*, vol. 1 : Stoneleigh etc., vol. 2 : Allesley etc., Shakespeare Birthplace Trust, DR671/30-31.

40 A Map of the several Farms & Lands . . . [of] Joseph Neale Esqr by Thos Eagle 1770, War. C.R.O., CR623; A Map of Several Estates . . . [of] Rev. Mr. Edw. Harries, by Jas Sherriff 1777, War. C.R.O., CR2554/1; A Map of estates [of] Heneage Earl of Aylesford . . . c.1795, War. C.R.O., CR2381; Rough Plan of an Estate at Allesley [of] Henry Greswold Lewis Esq., surveyed 1811, War. C.R.O., CR1291/355.

41 Allesley Tithe Valuation Books c.1830, Cov. A., 295/2/1-9.



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## Glebe Terriers

Warwickshire C.R.O. holds a sequence of glebe terriers for Allesley, dating from between 1682 and 1836.<sup>43</sup> The first of these is a brief document dated 1682. Most of the land is easily identifiable as the traditional glebe land scattered around Allesley village, with a small plot in an adjoining corner of Coundon. Each plot usually consisted of one or two closes which can be equated with those shown on the 1809 and 1840 maps. The 1682 glebe terrier also gave a brief description of the parsonage house and a tenement in the village, the latter newly built. This first terrier provides some continuity with the enclosure of the open field, which occurred less than thirty years before - two of the witnesses and four of the neighbours have the same name as defendants listed in the 1654 decree.

Later terriers in the sequence would be expected to repeat the same information with different names, but there is actually a wide variation in the areas quoted for some of the plots. From 1682 to 1733 one plot oscillated between nine, twelve, nine, thirteen and twelve acres. This variation is puzzling for an easily-measured rectangular plot at a time when, as later analysis of the 1652 enclosure will show, existing closes within the parish were being surveyed to an accuracy of a few percent. The vagueness of the measurements does not disappear until the 1836 terrier, which quoted areas to an accuracy of one perch, although these were still slightly different from those found in the near-contemporary tithe survey. A useful feature of the later terriers, for example that for 1809, is their habit of repeating the names of long-dead occupiers and neighbours of the glebe land. Since the land is easily identified, the early occupiers and neighbours can be identified unambiguously using this source. A student of housing would also be interested in the detailed description of the parsonage.

Taken as a complete set covering the years 1682 to 1836, the Allesley glebe terriers provide a great deal of incidental information about places and people which is useful for reconstructing the early landscape. They must, however, be treated with caution because of the unreliability of the quoted field areas and the tendency to repeat obsolete data which may not have been relevant to the contemporary situation.

Coundon was a hamlet of the parish of Holy Trinity in Coventry, but the only glebe land within Coundon was the small portion belonging to Allesley church that has already been mentioned. The 1843 tithe survey shows that none of the small area of glebe land within Stoneleigh parish lay within the study area.

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<sup>43</sup> Bundle of thirty-four glebe terriers for Allesley, 1682-1836, War. C.R.O., DR72A. [The catalogue incorrectly says 1692.]



## Land Tax Returns

Land Tax returns are available for the whole study area between 1775 and 1831, except for 1780, and also for a varying period from c.1842 to the early twentieth century.<sup>44</sup> These returns listed the tax due from each occupier of the land of each owner and the second series included a rental value. No information was provided about fields or holdings. The earlier series is useful for establishing the sequence of owners and occupiers of land, working back to the eighteenth century when other evidence was fragmentary. The later years of the second series are useless because they were obviously fictitious. For example, John Lancaster who became the owner of Allesley Hall in 1872 and Thomas Wyles who occupied it after 1861 are shown until the end of the series in 1922-3, although during this time there had actually been two new owners and two new occupiers, while the Hall itself had been demolished and rebuilt by Lord Iliffe in 1909. One wonders who actually paid the Land Tax when those named were long dead or departed.

## Contemporary Travellers' Accounts and Maps

Dugdale described some features of the mid-seventeenth century landscape of Warwickshire and there are eye-witness accounts by early travellers.<sup>45</sup> Leland and Lord Torrington both passed along the Birmingham Road/Chester Road (now A45) through Allesley parish, although 250 years separated them, and their brief descriptions should confirm the appearance of the reconstructed landscape c.1540 and in 1789.<sup>46</sup> General descriptions of the state of agriculture in Warwickshire were compiled by John Wedge in 1794 and Adam Murray in 1813.<sup>47</sup> While the accuracy of their numerical data may be questioned, their reports do provide many insights into contemporary farming methods and the personalities of those involved.

Ogilby's road maps of England and Wales in 1675 included a journey from London to Holyhead and another from Hereford to Leicester.<sup>48</sup> Both journeys followed the Chester Road through Allesley village and the middle of the study area at the same time as Dugdale was describing it. Fig. 3-13 shows the relevant part of Ogilby's map of the Holyhead route. The two maps showing the Chester Road were slightly different, but both show houses, hills, streams and woodland alongside an enclosed road. The mile and furlong markers make it possible to scale the maps to discover how well they agree with the reconstructed map of the study area.

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44 Allesley Land Tax Returns, War. C.R.O., CR863/2/1-78 and QS77/2/1-56; Coundon Land Tax Returns, War. C.R.O., CR863/47/1-84 and QS77/76/1-56; Stoneleigh Land Tax Returns, War. C.R.O., CR863/146/1-66 and QS77/214/1-54.

45 W. Dugdale, *The Antiquities of Warwickshire* (1656; Coventry, 1765).

46 L. T. Smith (ed.), *The Itinerary of John Leland In or About the Years 1535-1543* (1906; London, 1964); C. B. Andrews (ed.), *The Torrington Diaries* (1935; London, 1970).

47 J. Wedge, 'General view of the agriculture of the County of Warwick 1794', in Marshall (ed.), *Review and Abstract*, 4, pp.281-302; Murray, 'General view of the County of Warwick 1813', in Marshall (ed.), *Review and Abstract*, 4, pp.303-329.

48 R. Cleeve, *Ogilby's Road Maps of England and Wales 1675*, (Reading, 1971).



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## Satellite and Aerial Photographs

Satellite photographs have become so widely available since 2000 that it is difficult to remember the time, only a few years ago, when it was impossible to obtain one photograph showing the whole of a study area. This thesis used the c.2000 Warwickshire and West Midlands images from the 'High in the Sky' series of county photographs from Getmapping plc. The more extensive images that have since become available would have been preferable because they avoid the problems encountered when a study area spreads across the boundary between two separate images, as with the present work. The satellite photograph of the study area shown in Fig. 1-5 was actually assembled from two separate parts copied from the Warwickshire and West Midlands images; the joint is just visible as a yellow hair-line.

Much of the study area was covered by aerial photographs taken by the Luftwaffe in 1940 and by the RAF from 1940 onwards. Later aerial photographs exist, but are not always very useful because this was the era when much of the ancient landscape of the study area had been destroyed by modern housing and industry. The RAF photographs, mostly at 1:5,000 scale, are held by the National Monuments Record within The National Archives. The series of photographs of Britain in 1946 is extremely informative, with flights expertly planned to make the best use of transient weather conditions. Earlier photographs from 1940-1 are to a smaller scale and much less clear. The Luftwaffe photographs are held in the US National Archives in Washington, although expensive copies can be obtained with difficulty. These photographs were taken hastily from a great height in 1940 and have proved disappointing because of cloud cover.

Fig. 3-14 compares what can be seen on a satellite photograph and an aerial photograph of the same area. The area in question, about half a mile wide, is centred on SP285835, near Clay Lane in the northern part of Allesley parish. It was chosen because there were few changes between 1891 and 1946 and it was still recognisable in 2000. The fragment of the 1891 six-inch Ordnance Survey map used as a reference is about twice the size it was on the original map.<sup>49</sup> The satellite photograph was taken at mid-day in the early summer of 2000. It has been reproduced at the best available resolution, with subsequent digital enhancement to make it as informative as possible. Despite these measures, the picture is blurred because it has been magnified beyond the scale that the original image justifies. Roads, footpaths, buildings, hedges and trees are evident, and an electricity pylon near the top right corner shows up surprisingly clearly, with the shadow of the cables visible as a diffuse line extending towards the south-south-west. Ponds cannot be made out because those few that survive are overshadowed by trees. Some blurred details can be seen within a few of the fields, but most of the detail has been hidden by the high sun and the standing crops.

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<sup>49</sup> Satellite photograph c.2000 by Getmapping plc (West Midlands image);  
Aerial photograph RAF sortie No. 3G/TUD/UK/65, Frame 5125, 9th February 1946;  
Ordnance Survey *Six-inch First Edition Without Contours, Warwickshire, Sheet 16 S.W. (1891)*.



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The aerial photograph was taken by an RAF Spitfire on a clear February morning in 1946, with a light dusting of snow helping the low sun to emphasise the features of a bare, crop-free landscape. It is particularly informative, although reproduced from a photocopy rather than the high-quality photographic print that is also available. The varying patterns of ridge and furrow are prominent, with some crossing the current field boundaries and suggesting where older boundaries used to exist. Near the bottom of the photograph is what looks like a continuous curved wood-bank enclosing several modern fields, cutting across two of them, and perhaps once linked to Elkin Wood at the top left. Dotted around the landscape are the shadows of former ponds. The lack of colour makes buildings and footpaths less obvious than on the satellite photograph. Ponds in fields are easily identified but others near buildings and trees are lost in the shadows. The shadows cast by the trees hide some details in this print, but probably not in the original photograph. The lengths and shapes of the shadows would be useful for reconstructing the heights and species of trees that existed in 1946, although this will not be attempted here.

This comparison shows that the satellite photograph contains a little less information than the six-inch map, whereas the aerial photograph contains much more. The aerial photograph provides firm evidence of field outlines that pre-date all known maps; former watercourses and lost lanes also show up clearly on other aerial photographs in the series. The variation in pitch of the ridge and furrow may provide evidence of early cultivation. Even more information would be obtained from photographic prints of the original aerial photographs, but these would be prohibitively expensive in the quantity required for the present work (£14.10 each compared with 40p for a photocopy in 1999).

It will be concluded that both satellite and aerial photographs have a role to play. There is probably no alternative to using satellite photographs to show the whole of a large study area, as in Fig. 1-5, but aerial photographs are far more useful for studying the details of the landscape. Acknowledging that this is the first generation of satellite photographs, however, it is expected that future researchers will have access to pictures with higher resolution. Despite this, there are two reasons why aerial photographs will remain more important for the present type of research. Firstly, commercially-available satellite photographs are designed to be attractive rather than informative, so they tend to be taken in summer when the ground is covered by crops, whereas the 1946 aerial photographs were taken by photo-reconnaissance pilots who had spent six years at war perfecting techniques for obtaining as much information as possible. The conclusive argument in favour of aerial photographs is that they preserve the landscape as it was in 1946, before much of it was irretrievably lost to modern development and intensive farming.



## Place-names and Field-names

Place-names will play an important role in defining the early geography of the study area. Gelling and others have shown the scope for reconstructing the general landscape of Anglo-Saxon England by studying and mapping the place-names that were created at that time.<sup>50</sup> Her method has been particularly fruitful in defining the Arden region by mapping the *leah* suffix and other significant place-name elements. The study area is in the heartland of the Arden region, with most of its old place-names containing the *leah* element or the 'Green' and 'End' of medieval settlement. Although the major Anglo-Saxon place-name elements have already been studied in this area, there has been no detailed study of the later, medieval place-names. The historical records of the study area, especially the Stoneleigh Leger Book, are full of other names which have left no trace on the modern map but contain significant elements which may describe their contemporary setting. The early records of Allesley parish have revealed an extraordinary number of 'End' names which seemed to have disappeared after the 1652 enclosure of the open field.

Field-names will also be a useful guide to former landscapes.<sup>51</sup> Although the average lifespan of field-names may be fairly short, some should survive long enough to identify land in old documents. Most of the field-names in the study area are trivial, for example Ten Acres or Top Field, but even these can convey history in their second element. Maps of field-name elements should be informative, especially those such as 'Wood' and 'Broom' which relate to an earlier landscape. The 1840 Allesley tithe survey reveals that humour also had its place, with the most worthless fields being given names such as Folly and France.

## Censuses

Although the present work is primarily concerned with the landscape of the study area it will also show how the landscape related to the people who lived from it. An analysis of the changing proportions of different occupations between 1841 and 1891 shows how the study area was developing economically, especially in relation to industries in Coventry. Examples of this were the building of mansions for businessmen and the subcontracting of work in the silk and watchmaking industries. Copies of the original 1841 to 1891 censuses for the whole study area are held on microfilm at Warwickshire C.R.O. and are also accessible through the internet.<sup>52</sup> Computer-based transcriptions of these censuses are becoming available from several sources. The Church of Jesus Christ of Latter-Day Saints, otherwise known as the Mormons, sells

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50 M. Gelling, 'Some notes on Warwickshire place-names', *Birmingham and Warwickshire Archaeological Society Transactions*, 86 (1974); M. Gelling, *Signposts to the Past: Place-names and the History of England* (London, 1978); M. Gelling, 'The place-name volumes for Worcestershire and Warwickshire: a new look', in T. R. Slater and P. J. Jarvis (eds), *Field and Forest - An historical geography of Warwickshire and Worcestershire* (Norwich, 1982), pp.59-78; M. Gelling, *Place-Names in the Landscape* (London, 1984).

51 J. Field, *English Field-names: a Dictionary* (Newton Abbot, 1972).

52 Microfiche and microfilm copies of the 1841-1891 censuses for Allesley, Coundon and Stoneleigh are on open display at Warwickshire C.R.O.



transcriptions of the 1881 British Census and the 1851 Census for Warwickshire.<sup>53</sup> The 1881 census is the more comprehensive and reliable of these but it is only indexed by people across the nation with no direct access to a particular place or enumeration district. This problem can be overcome by searching for the name of a known resident of the place, for example the vicar or the occupier of a large residence, which will point to the correct enumeration district within the whole census. Since the 1881 enumerators normally listed the houses in order along each road within a district it is possible to work through the entries before and after the located individual to find all the entries for the district, which can then be copied into a separate file for subsequent processing and analysis. Each census entry contained all the information for one household, including each person's name, age, sex, relationship, marital status, occupation and place of birth. Occasionally there were notes such as 'farmer with 45 acres, employing two men and a boy'. Although there was usually no proper household address, other than the road or hamlet, there should be enough landmarks, combined with residents identified from other sources, to relate the census to the modern street directory. Some mis-spellings of local names are evident in the transcription.

The 1851 transcription comprises three counties, including Warwickshire. Unfortunately its coverage of the study area is flawed because several folios are missing from the enumeration of Allesley, while the mis-spellings and inconsistencies seem too numerous to blame entirely on the enumerator. It is probable that the transcribers had difficulty with the 1851 script and abbreviations, while lacking a knowledge of local personal names and place-names. In view of the evident deficiencies of the 1851 transcription and uncertainty about the 1881 transcription, and similar problems with other transcriptions, it will be better to work with the microfilm copies of the original enumerations that are held at Warwickshire C.R.O.. Each of the three parishes in the study area corresponded to an enumeration district, so all the census entries for each parish can be transcribed directly into a computer database on a lap-top computer. In practice the transcription may present problems because the censuses are held on microfilm, which is unpleasant to work with, and because the Victorian handwriting on the census forms is often difficult to read. Inspection of the microfilms of the original enumerations showed that most are clear or readable with care, but one was written in very faint pencil, using an excessively ornate hand that is now largely unreadable. Local knowledge is essential to the transcription because the original entries may include errors and variations in spelling place-names and personal names.

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53 1881 British Census and National Index, The Church of Jesus Christ of Latter-Day Saints (Salt Lake City, 1998); 1851 British Census (Devon, Norfolk and Warwick only), The Church of Jesus Christ of Latter-Day Saints, (Salt Lake City, 1997).



## Unreliable Sources

Although it was expected that some sources would be more reliable and accurate than others, it was a surprise to discover that two major sources used in this thesis contained information that was obviously wrong and must have been known to be wrong when created. These sources, the 1843 tithe map and award for Stoneleigh parish and the later Land Tax returns, have already been discussed. Such blatantly falsified documents encourage a greater degree of scepticism about the reliability and accuracy of all the sources used in the present work. When using a source it will be borne in mind that the creator probably made a few mistakes. If an item of data looks wrong or is inconsistent with those around it, either geographically or temporally, then the simplest explanation may be that it was a mistake.

## The Internet

The timescale of the present research (1998-2006) corresponded to the burgeoning of internet sources that relate to historical research. Progress had already been made using more traditional methods before information started to appear on the internet, so this source did not play as large a role in this thesis as it would in research that began today. It is certain that the internet will become increasingly useful to the present type of work and may eventually supply most of the researcher's needs in a form that can be used with only a fraction of the effort that was demanded by traditional methods.

The ability to search the catalogues of distant record offices saved a great deal of time, effort and expense but, at the time of writing, internet catalogues had not been developed to the state where they are comprehensive and fool-proof. A search of the catalogue of one record office failed to find any references to 'census' because, as it turns out, they were confined to a separate catalogue related exclusively to family history. Internet catalogues usually repeat the information in manual indexes, so where this is unhelpful, for example referring to 'miscellaneous documents', the internet user is even more helpless than a researcher in the record office. Fortunately some effort seems to have been taken to cross-reference these internet catalogues so that, for example, a large quantity of valuable records for Allesley is no longer indexed under 'The Neale Collection'. It is expected that internet catalogues will steadily improve in terms of content and ease of use, eventually providing far more useful information than manual indexes can. For the present thesis on landscape history it was found that almost all the major sources such as manuscript maps and surveys are held by local record offices, especially Warwickshire C.R.O.. The few relevant documents such as Inquisitions *post mortem* that are held by The National Archives (Public Record Office) also exist as copies in these local offices.



Although the internet is invaluable for locating the documents that are needed for the present type of work, it is at present of little use for accessing them because digital images of the documents do not exist. Manuscript maps tend to be difficult to photograph because they are large, impossible to lay flat and priceless because they are unique. Most of them are also of interest to very few researchers, so would be near the end of any queue for creating digital images. As will be explained in Section 4.5, the irremediable distortion of some maps is not evident in a perpendicular photograph but makes them far less accurate than they appear to be. All these problems are less severe for manuscript surveys consisting of small sheets which are readable even when distorted, for example Fig. 3-10. Even when record offices start to create digital images of their original documents, it may be many years before manuscript maps can be accessed through the internet as images of a high enough quality for the present type of work.

Ordnance Survey maps are already available as digital images. Modern maps are stored in digital form and can be accessed through the internet after suitable payment, but they will not provide much useful information about an old landscape that has been destroyed by modern developments, as in much of the study area in this thesis. Digital images of some old maps such as the c.1887 six-inch First Edition of the Ordnance Survey can be obtained, but the resolution of these images is too coarse for them to be used for the present type of work. This objection relates to the first generation of internet images, so it is likely that future researchers will have access to much better images of old Ordnance Survey maps that can be used as the basis for a more efficient version of the procedure described in Section 3.2. Transcriptions of documents will be easy to distribute, if a researcher has created and published them, but there will be the usual doubts about accuracy. The on-line images and transcriptions of the censuses for the parishes of the study area have already been mentioned.

Google and the other internet search engines revealed few websites containing material that is relevant to the history of Allesley, Coundon and Stoneleigh. Some information is supplied by local authorities and other websites that specialise in local areas. Close study revealed that many of these sites include the same text, sometimes with a garbled version of the history. Several include portions of text that seemed strangely familiar, being unauthorised copies of articles written by the present author. In general the historical content of all these websites must be treated with great caution because they are not created by historians. To date no existing research into the landscape of Allesley and Coundon has been located through the internet and the references to Stoneleigh are known from the original sources.



## 3.2 Methods

This thesis aims to create accurate and detailed maps of the study area, showing the fields, settlements, roads, streams and ponds for each era from modern times back to about 1600. These maps need to be edited, scaled, and printed to illustrate each aspect of the research. From these requirements it is clear that the maps should be created using computer-based methods which are suitable for intensive long-term use by a private researcher.

A retrogressive approach will be used, modifying the known landscape of recent times in accordance with evidence from other sources to reconstruct a series of landscapes, working backwards through history. Information about the study area will be derived from a variety of sources, many of them fragmentary maps and documents. Aerial photographs will be used to locate lost features of the landscape such as field boundaries, woods and roads as well as patterns of cultivation. The general topic of interpreting the landscape from these sources is covered by Hoskins, Aston, Beresford and St Joseph, and Rackham.<sup>54</sup>

### Previous Computer-based Methods for Mapping and Analysing Landscapes

In their computer-based approach Pearson and Collier used a Geographical Information System to create a map of the tithe survey for Newport parish, Pembrokeshire, and also to integrate environmental data with this map.<sup>55</sup> Their intention was to demonstrate the scale and range of analyses that computer-based tools make possible. The authors say that GIS software offers the simple analytical tools that provide historians with the opportunity to study past societies in relation to their cultural and physical environments. For their GIS software the authors chose ARC/INFO because it possesses sufficient data input, digitising, editing and analysis capabilities for the initial map production and exploratory analysis. The well-known ARC/INFO program supports the broad spectrum of GIS-based applications.<sup>56</sup> The impressive illustrations generated by ARC/INFO may not be entirely representative because they come from projects using modern digital maps that are ideally suited to computer-based processing. The application of GIS software to historical research is much more difficult and time-consuming because old maps are not held in digital form, by the Ordnance Survey or anyone else. The researcher must start by personally creating the computer-based digital maps needed for research into the area of interest.

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54 W. G. Hoskins, *The Making of the English Landscape* (1955; London, 1981);  
M. Aston, *Interpreting the Landscape - Landscape Archaeology and Local History* (London, 1985);  
M. W. Beresford and J. K. St Joseph, *Medieval England, An Aerial Survey* (1958; Cambridge, 1979);  
O. Rackham, *The History of the Countryside* (1986; London, 1990).

55 A. Pearson and P. Collier, 'The integration and analysis of historical and environmental data using a geographical information system: landownership and agricultural productivity in Pembrokeshire c.1850', *Agric. Hist. Rev.*, 46 (1998), pp.162-176; Geographical Information System is hereafter abbreviated as GIS.

56 ARC/INFO Revision 6.0 Brochure (1991).



Pearson and Collier's research aimed to explore some of the potential of GIS techniques in local history research by analysing landownership as a factor in mid-nineteenth century agricultural productivity in Newport parish. Their analysis used a tithe map and apportionment compiled in about 1845, combined with modern topographical data supplied by the Ordnance Survey. Noting that the field boundaries appeared to have changed little between 1845 and the present day, they based the GIS model of the tithe map on the latest 1:10,000 Ordnance Survey map. The modern field boundaries were digitised using the ARC/INFO digitising module, and then the computer model was edited by hand to reproduce the tithe map. The owners, occupiers, field-names, state of cultivation, acreage and tithe rent-charge were transcribed from the apportionment into the Lotus Symphony spreadsheet package, for further analysis.

Pearson and Collier point out the benefits of displaying data through GIS software, with its combination of reliability, precision, flexibility and visual appeal, as shown by their detailed maps of the state of cultivation and the variation of tithe rent-charge per acre for each of the many fields within Newport parish. Subject to the limitations of monochrome reproduction, these maps show the great possibilities for presenting data which, as the authors point out, the tithe surveyor himself never saw on a map, let alone such a good one. Pearson and Collier went on to use the analytical functions of their GIS software to find any correlations between tithe data and the topographical factors of altitude, slope and aspect in their study area. This analysis was partly intended to discover whether variations in tithe rent-charge per acre were dependent on changes in farming methods due to the owners or occupiers. A sophisticated multi-level statistical analysis was used to correlate all the tithe data and topographical factors. It was concluded that occupants were more important than owners in explaining variations in tithe rent-charge.

The authors concede that it is difficult to draw too many conclusions from such a statistical analysis, given its limited geographical extent, and concluded by warning against seeing GIS packages as magic boxes, despite their impressive results. Noting that five people helped to produce the maps in Pearson and Collier's paper and two professors helped with the statistical analysis it seems clear that the application of ARC/INFO to local history research is not as simple as they initially suggested, or as affordable, quick or straightforward as a private researcher would need. Their maps are particularly impressive and informative, and would be even more so with the benefit of colour presentation. However, from the lack of reference from their results to the history of their study area, it appears that Pearson and Collier may have over-extended their use of statistical techniques in order to illustrate the theoretical potential for integrating map-making and analysis. The present research will adopt several features of the approach used by Pearson and Collier, but modified to suit different circumstances and objectives.



## The Preferred Method Using Computer-Aided Design

The creation of computer-based maps of the study area is certain to be a major task because the information must be transcribed from old maps, with much more detail than was used by Pearson and Collier. Cost, familiarity and ease of use are primary requirements for the method because the transcription will require continuous access to a computer over many months. The GIS software ArcCAD uses the Computer-Aided Design program Autocad to create data for ARC/INFO and it is clear that CAD should be used for creating and printing maps.<sup>57</sup> GIS is best for analysing data associated with a map and is most attractive for modern maps whose geography is already held in digital form. It is much less efficient for old maps where there is no existing digital map.

Despite the attractions of GIS, this thesis will employ CAD software which, from previous work, is known to produce maps which satisfy all the requirements of this thesis.<sup>58</sup> A two-dimensional CAD program is inexpensive and can be mounted on any domestic computer with a scanner and a colour printer. The technical options will be explored below. The required analyses of data to relate to the maps can be carried out using any standard database program such as Microsoft Works.

The Autosketch for Windows (Release 2) CAD program will be used, supplemented by the more versatile Turbocad (Version 10) CAD program where there is a need for extra features such as differential scaling and superior colour presentation.<sup>59</sup> Although the results from database analyses will need transferring manually to these CAD maps, rather than being integrated within GIS software, this is not considered to be a significant drawback. It is estimated that more than 90% of the total effort will be needed to create the maps, so reducing this effort by using a simple, familiar method is more important than easing the last 10% of the work. There is also the question of cost, extra hardware and learning-time when adopting unfamiliar software such as ARC/INFO. The choice between CAD and GIS might be different if it were necessary to include extensive or sophisticated analyses like those demonstrated by Pearson and Collier, or if the researcher could make use of existing digital maps. A digital map of the study area as it is today could in principle be obtained from the Ordnance Survey and read by the researcher's CAD program using a suitable data format. Unfortunately, the Ordnance Survey expects to be rewarded generously for sharing this information, no matter how uncommercial the purpose. The maps of the study area must therefore be obtained by other means which do not infringe Ordnance Survey's copyright.

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<sup>57</sup> Computer-aided design is hereafter abbreviated as CAD.

<sup>58</sup> D. Sheppard, 'In search of the Forest of Arden', (unpublished M.A. dissertation, University of Leicester, 1996).

<sup>59</sup> Autosketch for Windows Release 2 (1993), Autodesk Inc.; Turbocad Version 10 (2004), IMSI.



Autosketch will be used to create two-dimensional maps consisting of lines, text and areas of colour, stored with an accuracy equivalent to a fraction of a millimetre in the full-size landscape. The properties of selected entities can be changed with ease, for example making all road outlines red instead of black, altering the text or filling areas with colour. The map can be printed in colour, using whatever scale and position is needed to correspond to another map or to fit the area available for printing on a page. If required, only a portion of the map needs to be printed, or only selected features of the map, for example streams, ponds and buildings but not roads or field outlines. It should be emphasised that there is no loss of accuracy in changing the scale of the printed map and that maps are reproduced exactly the same each time, although very small maps can be somewhat grainy because of the 'dottiness' of printer technology.<sup>60</sup> The drawing file defining the map is stored permanently on the computer's hard disc, but can be copied onto rewritable CD or ZIP discs to prevent loss and to transfer the map to other computers.

### **Transcribing Maps and Creating the Geographical Framework**

Accepting that digital maps of the study area cannot be used for this thesis, the required maps will need to be created by transcribing field outlines and other information from old maps using a CAD program. The creation of new maps in this way will be time-consuming and perhaps less accurate than direct input from an OS database, although anecdotal evidence suggests that modern maps are not always as accurate as their Victorian ancestors. The most important benefit of older OS maps is the extraordinarily detailed record of the landscape that they preserve, some of it very ancient, before much was destroyed by developments in the twentieth century.

Two methods of transcribing maps into a CAD program were available at the beginning of the present research (1998). The first used a digitising tablet to trace a map directly, recording numerous co-ordinates in a form that feeds directly into the CAD program. Some digitisers claim to detect lines automatically, although it is not known how well they cope with the fuzzy and broken lines that are typical of old maps. Although the method was not tested in this thesis, it appears that there may be problems following particular lines on a crowded map, especially those drawn at a small scale, and small features such as buildings and ponds must be difficult to trace at all. Because archivists usually do not allow original maps to be digitised directly, a current GIS project by Worcestershire County Council had to rely on digitising from manual tracings of the original maps, thereby multiplying the inaccuracy.<sup>61</sup> Tracing original maps is not always possible because they are too large, fragile or inflexible, so an approach based on photography may be unavoidable.

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60 The dots are not evident under a magnifying glass at 720 dots per inch on Epson printers; dottiness should not be a problem if coarse printing (360dpi or less) is avoided.

61 <http://worcester.whub.org.uk/home/wcc-arch-tithe-maps.htm> (27/12/2006).



The alternative method is to use the features in a CAD program which allow a computer mouse to trace the lines on a bitmap image of the original map. By using bitmap images as intermediaries this method avoids the practical problems that arise with original maps and also allows for much greater detail and accuracy. It is easy to import bitmap files into either Autosketch or Turbocad and then use their standard drawing features to trace over the lines on the map to produce a CAD drawing. A magnified image makes the tracing much more accurate than it can be with full-size tracing using a digitiser. When tracing has been completed, the original bitmap file is deleted to reveal a CAD drawing which duplicates the selected information on the original map.

If the original map was drawn very clearly, it may be possible to automate this process using raster-to-vector conversion software, which quickly converts everything on the original image into a CAD drawing. Therein lies a problem, because most images contain a lot of 'noise', particularly old maps which are full of blemishes, creases and stains, while the required lines may be dim and discontinuous. The conversion software faithfully reproduces all this unwanted noise as well as the required information. When tested on an old map, Turbocad's raster-to-vector conversion program produced an unwieldy CAD drawing in which large numbers of line fragments represented the required lines as well as innumerable creases. Automation will probably become feasible in future, but the manual method had to be used in this thesis.

The CAD maps in this thesis were all traced from images scanned from prints, photocopies or conventional photographs, but this method could be improved by working directly from digital photographs of original maps. If it were possible to work with images of complete maps, this would have the considerable advantage of eliminating the need to re-assemble the map from separately-scanned fragments. It will later be shown that this re-assembly is difficult because of distortions introduced by photocopiers and scanners. The use of digital cameras was not tested in the current research, so it is not possible to state how satisfactory they would be in practice, but a very high-resolution undistorted image is essential.

### **Choice of Maps for the Geographical Framework**

There are a number of conditions to be satisfied by the original maps which provide the framework for creating CAD maps of the study area. The original maps must be accurate, detailed and preferably older than seventy years to avoid copyright problems. They must show as much as possible of the old landscape of the study area before it was built over by an expanding Coventry during the early twentieth century. Copies of the original maps must be obtainable for scanning and prolonged study, and if a copy consists of several individual sheets (such as A3 or A4 photocopies) then the number of sheets must not be so great that the task of transcribing and merging them digitally becomes impractical.



All these conditions point to one or another series of Ordnance Survey maps because of their accuracy, detail, availability and consistency across the study area.<sup>62</sup> Several trials were required before the most useful series was identified. Three scales were used in the series of Ordnance Survey maps under consideration, namely twenty-five inches : 1 mile, six inches : 1 mile and 1 : 25,000, all of which show field boundaries. The following discussion will be illustrated by Fig. 3-15, which compares the information about an area that is shown on a map at each of these scales. This area of Allesley Park is about half a mile wide and was chosen because many of its features have not changed between 1887 (the six-inch map) and 1978 (the 1 : 25,000 map). The obvious changes between these dates are the building of the housing estate, the diversion of the road at the top right, the removal of some temporary field boundaries and the remodelling of Allesley Hall. The farm buildings actually still survive under the word 'of' at the bottom left.

#### OS Twenty-five inch First Edition c.1887

The twenty-five inch maps of the area, surveyed around 1887, record the ancient landscape of the study area in extraordinary detail, and apparent accuracy, down to the last bush and brick out-house.<sup>63</sup> In fact some detail is lost even at this scale, for example a massive old oak that still grows where 'Park' was printed. It is unlikely that copies of twenty-five inch maps exist for the whole study area, but the biggest problem is their large scale, which poses unacceptable practical difficulties for the chosen method of transcription. It would require hundreds of applications of the computer-based procedure to cover the whole study area, followed by re-assembly of all these individual CAD maps using a complicated process that degrades the overall accuracy. Regrettably, the twenty-five inch maps are an impractical basis for the framework CAD map, although they are useful for elucidating details on contemporary six-inch maps.

#### OS Six-inch First Edition c.1887

The task of transcribing the study area can be reduced to an acceptable level by using six-inches : 1 mile maps. As Fig. 3-15 shows, the c.1887 six-inch First Edition maps contain the same information as the twenty-five inch maps, except for field areas. In fact this example includes some paths on the six-inch map which are not shown at the larger scale, although six-inch maps are said to be produced by photographic reduction of twenty-five inch maps.<sup>64</sup> The apparent loss of some trees on the six-inch map is caused by poor reproduction of faint parts of the original map. It is evident that the finer details such as buildings and small ponds are fuzzy and indistinct at the smaller scale, which sets a limit on the detail and accuracy obtainable from the transcription.

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<sup>62</sup> J. B. Harley, *The Historian's Guide to Ordnance Survey Maps* (London, 1964).

<sup>63</sup> Ordnance Survey *Twenty-five inch First Edition, Warwickshire, Sheet 21.6* (Southampton, 1888) etc..

<sup>64</sup> Harley, *Historian's Guide to Ordnance Survey Maps*, p.21.



MISSING PAGES  
REMOVED ON  
INSTRUCTION  
FROM THE  
UNIVERSITY



The 18inches by 12inches area of each original six-inch sheet covered an area three miles by two. The whole study area is defined by parts of nine of these sheets, copies of which are widely available.<sup>65</sup> A drawback to using the First Edition is that the sheets lack intermediate grid lines within their borders. This makes it difficult to correct the scale, rotation and distortion of each of the four sections that each sheet must be divided into for transcription before re-assembling them to recreate the original sheet. The six-inch First Edition also lacks contours. If it were not for these reservations the c.1887 six-inch maps would form a good geographical framework for this thesis, so they will be reserved for areas where a better alternative is not available.

#### OS Six-inch Edition c.1938

Later revisions of the six-inch map did include contours at hundred-foot intervals and a half-mile Ordnance Survey grid. A single linen map dating from about 1938 was obtained for the whole of North Warwickshire, including the study area.<sup>66</sup> Coventry's expansion to the west had begun to affect the study area, but surviving features appear to be the same as on the c.1887 six-inch maps. As with the First Series, some small details were indistinct, and Section 4.1 will show that some modern features were not drawn to scale.

The A4 rectangle required for the transcription process can easily accommodate four grid squares on this map, corresponding to one square mile, and the intermediate grid will help to improve the overall accuracy. Although these grid squares do not correspond to those on the modern OS grid, the whole CAD map can easily be adjusted after completion. The c.1938 map therefore appears to provide a good geographical framework for the present work.

#### OS 1 : 25,000 Pathfinder Series c.1991

At first sight the modern OS 1:25,000 Pathfinder maps seems to offer a reasonably accurate framework for the geography of the study area, with the study area conveniently limited to two sheets at this scale.<sup>67</sup> Unfortunately these maps suffer from four major deficiencies for the present purpose. Firstly, as Fig. 3-15 shows, these and other 1:25,000 maps provide only an edited and simplified representation of what is actually there. At this scale the widths of roads and paths are greatly exaggerated and the field outlines are simplified. Buildings usually appear larger than their true size and their representation is often only nominal, for example showing a scattered line of detached houses as a block. Comparing the 1:25,000 map with the six-inch and twenty-five

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65 Ordnance Survey *Six-inch First Edition Without Contours, Warwickshire, Sheet 16 S.E. (1887), Sheet 16 S.W. (1891), Sheet 21 N.E. (1888), Sheet 21 N.W. (1887), Sheet 21 S.E. (1888), Sheet 21 S.W. (1887), Sheet 26 N.E. (1886), Sheet 26 N.W. (1886), Sheet 26 S.W. (1886).*

66 I am greatly indebted to the late Mrs Eileen Gooder for donating this map.

67 Ordnance Survey *1:25,000 Pathfinder Series, Sheet 935 Coventry (North) & Meriden (Southampton, 1994), Sheet 955 Coventry (South) & Kenilworth (Southampton, 1991).*



inch maps in Fig. 3-15 it will be seen that the representation of trees is entirely nominal, with a symbol only meaning that there are numerous trees in the general area. As an example, the coniferous and deciduous tree symbols next to Allesley Hall correctly suggest that the grounds contain many ornamental conifers as well as deciduous species. What appear to be representations of individual trees, for example to the left of the pond, do not exist in reality.

The inaccuracy of the printing of the Pathfinder maps also amounts to a defect. Careful measurement shows that the spacing of the OS grid lines on them varies by plus or minus half a percent, equivalent to five metres on the ground. In addition, the colour printing introduces inaccuracies because the paper makes four separate passes through the printing press to add the black, blue, green and orange features. Use of a magnifying glass on a sample map reveals that coloured features usually do not quite match their black outlines, for example orange roads being offset from the black lines that should contain them. This indicates that the register between different colours is only accurate to about five metres on the ground, which proves that single-colour features such as streams, ponds and contours will be displaced by this distance from their true position in relation to the black outlines of fields and roads. The third objection is to the small 1:25,000 scale of these maps, which would lead to a greater proportional inaccuracy in scanning and transcribing them. The final and conclusive objection to the modern 1:25,000 maps is that they give no information about the portions of the study area that are were already built over. This applies to most of the northern part of Stoneleigh parish that lies within the study area and much of Allesley and Coundon parishes. With a great deal of missing, distorted or simplified information, printing errors of five metres or more, and relatively large transcription errors, it is clear that the OS 1:25,000 Pathfinder series cannot provide an accurate and detailed framework for CAD maps.

#### OS 1:25,000 First Series c.1951

Despite the practical advantages and historical relevance of the six-inch maps, both editions omit some information that is important to the present research. The c.1887 First Edition shows no contours; the c.1938 revision has contours at 100 feet intervals, but this spacing is too wide for any detailed analysis of the landscape. The fact that both editions are drawn entirely in black lines avoids the errors due to colour register but leads to some confusion between different types of feature. For example, the minor streams in the study area often run close to a hedge or along a lane, sometimes within the lane width rather than alongside it. With only black lines it is not clear which is the stream and which the hedge or the edge of the road. In some places, streams cross from one side of a hedge to the other, then back again. Confusion can also arise with contours, where they follow roads or hedgelines, or cross an area that is full of detail. Sometimes it is difficult to decide whether a small shape was a building or a pond.



All these uncertainties can be resolved by consulting the corresponding twenty-five inch map, where one exists, but an easier solution comes from twentieth-century coloured maps that show the same features. Most suitable for this purpose are probably the OS 1:25,000 First Series maps which are derived from six-inch sheets that were last fully revised in 1922-23.<sup>68</sup> Those for the study area were published in about 1951, at an intermediate stage in Coventry's expansion across the study area. They do not, of course, provide any information about features that disappeared between 1887 and 1951. The four sheets covering the study area show the contours at twenty-five feet intervals, which is ideal for the present thesis, while retaining imperial units. The contours, roads, fields and streams are shown in orange, black, grey and blue respectively, which ensures that their relative positions are quite clear, provided that the register is accurate. The coloured contours on this map may be slightly displaced, but they can easily be superimposed on the c.1938 six-inch map because both maps show the 100-foot contours.

Linking 1:25,000 maps with six-inch maps also creates some problems because each uses a different grid system. The 1:25,000 maps have the modern Ordnance Survey grid at one kilometre intervals, the c.1938 six-inch revision includes a half-mile grid, while the c.1887 six-inch First Edition only has the three miles by two miles edges of its sheets as reference lines. To complicate matters, the c.1938 grid and the c.1887 edges do not correspond exactly in position or orientation. Although the 1:25,000 maps are generally incompatible because of the loss of detail at their reduced scale, this is not a significant drawback with contours, which are generally sweeping curves lacking in detail in the gentle landscape of the study area.

### Working with Ordnance Survey Maps

Original copies of the six-inch Ordnance Survey maps are widely available and copies of older Ordnance Survey maps are held in most of the collections that have been consulted for this thesis. Photocopies of these older maps can be obtained, but copyright regulations restrict the use of Ordnance Survey maps that are less than seventy years old. These restrictions had little effect on the present thesis, which deals mainly with the period between 1600 and 1888. Since there are usually several sources of photocopies of Ordnance Survey maps, it is worthwhile investigating which collection holds the best originals and has the most modern facilities for photocopying them. The present thesis confirmed that working with poor photocopies and damaged originals is both difficult and inefficient. A dirty and creased original will produce a dark photocopy which is full of spurious lines, while some information on a damaged original is inevitably lost or distorted. It may be found that lines distinguishable on an original map through contrasting pen styles are confused on a poor-quality photocopy.

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<sup>68</sup> Ordnance Survey *1:25,000 First Series, Sheet SP27 Kenilworth* (1951; Southampton, 1970); *Sheet SP28 Meriden* (1951; Southampton, 1972); *Sheet SP37 Coventry (South)* (1952; Southampton, 1971); *Sheet SP38 Coventry (North)* (1951; Southampton, 1957).



One benefit of using photocopies is that they can be annotated, marked with drawing construction lines and generally abused in ways that no original map can be, or should be. Even without intentional marking, experience shows that maps or photocopies are damaged by the intensive handling, leaning upon and measuring that is required for their transcription. The photocopy of a map should ideally be on a single sheet or on a few large sheets such as the standard A3 size. Using the fewest possible sheets reduces the errors introduced when the map is re-assembled, because photocopying introduces small distortions. However carefully the copy is made, there will usually be a slight distortion of the proportions, such as longitudinal stretching and probably some more complex distortions such as spherical aberration. The former can be removed by simple computer processing but the latter are far less tractable. All these problems are less evident with modern photocopiers and can be expected to reduce still further, although not disappear entirely, as photocopier technology continues to improve.

### **Creating the Framework Map**

The transcription process used to create the framework map will now be described in detail. The study area was first divided into numerous one-mile squares corresponding to the grid on the c.1938 six-inch map. Some squares extended beyond the boundaries of the study area but this did not create extra work because redundant information would not be transcribed. Each of these one-mile squares was scanned and stored as a bitmap (.bmp) file; this was done with the Paint Shop Pro program, although any similar program could be used. File size was kept within reasonable limits by using 'greyscales' and a scanning density of 300 dots per inch. A higher density would have been better but the resulting file would have been too large to use within the current Autosketch installation.<sup>69</sup> The large size of the original map, which was thirteen feet long and six feet wide, made it difficult to position for scanning.

The scanned one-mile squares were then transcribed into CAD drawings by using Autosketch. The bitmap file for each square mile was imported into a new Autosketch file and the view of it was magnified until the individual pixels just become visible; at this magnification the transcription errors were minimised. The CAD map was produced by tracing every required line with a mouse, using different colours and 'layers' for each type of feature such as roads, field boundaries, ponds, streams, buildings and grid lines. Continuous 'polylines' were used for tracing continuous features such as road edges, streams, hedgelines, ponds and contours. Rectangular boxes were used for buildings and individual straight lines were used for the grid lines that extend across the map. This process took very many hours for each drawing, depending on the amount of detail on the one-mile square; areas of settlement and small-holdings were particularly time-consuming. Practical problems arose in tracing areas where the ink had faded or the copying

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<sup>69</sup> This restriction will not apply to future users of the technique who have better software and hardware.



and scanning had made a continuous outline appear intermittent. Particular care was exercised when tracing the grid lines; these needed to be as accurate as possible because they were the references for re-assembling the individual one-mile squares. Each transcription ended by deleting the bitmap, leaving a CAD drawing of the one-mile square. All the one-mile squares covering the study area were transcribed in this way, producing numerous CAD files, but further processing was needed to fit these squares together to produce a single CAD map of the whole study area. None of the one-mile squares was actually a perfect square because of distortions present in the original map and others that had been introduced by the scanning and transcription process. Differential magnification and rotation and some more complicated adjustments, would be needed to make each one exactly square, perpendicular and drawn to the correct scale.

The most troublesome distortion was the fact that the grid lines were not quite perpendicular due to inaccurate drawing or printing of the original map or warping of its material in storage. This was compensated for by differential magnification of the square along its diagonals, which was a lengthy and troublesome manoeuvre. A similar process had to be used to remove any slight differences in the orientation of each pair of opposite sides, often due to inaccuracies in the original map. The fact that the original bitmap image was always at an angle, however slight, was corrected by a simple rotation of the CAD drawing until the grid lines were horizontal and vertical. After removing the above distortions the CAD drawing of the one-mile square had been transformed into a rectangle whose east-west and north-south sides were of slightly different lengths because of inaccuracies in drawing and printing the original map and the slight but significant stretch introduced by scanning. This final distortion was removed by magnifying the rectangle using different factors in the horizontal and vertical directions, to make each side exactly one mile long. This had to be done by the CAD program Turbocad because Autosketch did not include the feature. The drawing was transferred to and fro between the programs by translating it into a Drawing Exchange Format ( .dxf ) file, which preserved all the geometrical data.

When all the one-mile squares had been transcribed and adjusted, they were slotted into place within the framework CAD drawing of the entire study area. For once, this was as almost as easy as it sounds because CAD drawings can be added together in a simple operation. One problem still remained because the large original linen map was actually made up of a number of smaller sheets glued together. However carefully this had been done, discontinuities of a fraction of a millimetre were inevitably created across the joints. Some were due to very small differences in the sizes of the original component sheets; others were caused by the original draughtsman's failure to draw features in exactly the same position where they crossed onto an adjacent sheet. Since an error of one millimetre on a six-inch map equates to thirty-five feet on the ground these gaps and discontinuities needed to be removed by judicious manual adjustment. This process was usually straightforward, based on maintaining the continuity of field boundaries and other features that crossed a map joint.



That completed the procedure for transcribing the c.1938 Ordnance Survey map into a CAD drawing of the study area that would form the geographical framework for the present project. Absolute positions on this CAD map should be accurate to five metres at worst, which is the width of a lane. Relative positions of nearby features will be much more accurate.

### **Modifying the Framework Map to Represent Earlier Maps**

The retrogressive approach to reconstructing earlier landscapes started with the accurate CAD map whose creation was described above. This supplied the geographical framework that would be modified to create maps for earlier eras in accordance with evidence from other sources, working backwards through history for as long as the evidence permits. The following section describes the techniques that were developed for incorporating the information shown on manuscript maps, which are the most reliable source of evidence.

### **Recording Manuscript Maps**

Manuscript maps often contain a wealth of detail that needs recording in an accessible form for intensive work elsewhere. The convenient Xerox-type photocopier is usually ruled out by record offices because of the damage caused by handling, flattening and strong light. Existing photocopies may, however, be available from other researchers who have circumvented the restrictions. Examples of this are the reduced and fragmentary prints of the c.1840 tithe maps of Allesley and Coundon, probably from T.N.A. (P.R.O.) originals, that are held in the Coventry and Warwickshire Collection (now Coventry Archives) and are available for further photocopying. Another example is Thomas Eagle's 1770 map of Allesley Park, which a Coventry resident had somehow acquired in the form of four large prints. When using these indirect map sources it has to be accepted that a copy of an old photocopy will contain more distortions than usual.

Before discussing photography, a simple manual method should also be mentioned. This involves printing a later CAD map of the area of the manuscript map at the same scale, using a mosaic of A4 or A3 sheets. The differences between the two maps are then recorded on the prints, taking measurements of the manuscript map with a ruler, which must be done with a light hand to avoid censure by the archivist. This process is tedious if there are many differences and it is not easy if the manuscript map is distorted. A more fundamental objection to this manual method is that only a limited amount of detail can be recorded accurately while working under difficult conditions in a busy record office. Large maps are very difficult to handle for this procedure. The accuracy and detail required for reconstructing old maps is best achieved in a less stressful environment with facilities to aid the transcription and with the opportunity to check the results. Despite these limitations the manual method does have its uses for recording minor differences between maps.



Wherever it was allowed, photography was the best way of recording most documents for later transcription under more suitable conditions. It proved indispensable for the present research, although not entirely satisfactory with maps. Traditional photography in natural daylight gave good results with documents up to about A3 size, as shown by Figs 3-9 and 3-10. The fact that these photographs were slightly distorted was of no importance, but Section 4.5 explains why photographs of maps can be very misleading. All the present work was done using conventional film cameras, before the advent of affordable digital cameras, but it is now evident that digital photography would have the following advantages for recording documents, particularly maps :

- 1        Digital cameras are better for large documents such as maps.
- 2        They are more suitable for the low-light environment of a record office, where flash photography is usually forbidden and it is difficult to set up a tripod.
- 3        Photographs of anything can be taken at short notice in the search room (with the prior approval of the archivist) rather than having to make special arrangements to have the document laid out in a well-lit ante-room.
- 4        The ability to preview pictures when they are taken eliminates the risk of finding that one or more frames in a series has been overlooked or spoilt. This is an important advantage when visiting a distant record office or when special arrangements have to be made.
- 5        Digital photographs can be magnified and printed at any scale. This would be especially valuable for generating A4 or A3 paper prints of maps to use in the transcription process.
- 6        Digital photographs do not need to be scanned.
- 7        It may be possible for digital photographs of maps to go directly into a CAD program as the first stage in the transcription procedure described previously. Practical experience will be needed to show whether the resolution of an image of a large map is sufficient.

These advantages of digital cameras will not solve all the problems that the photographer may encounter, such as being unable to gain access to a very large map that the archivist will only allow to be displayed in its entirety on a horizontal surface. Without practical experience, it is not certain whether digital cameras will eliminate the need for scanners in every aspect of the present type of work, although the very high resolution available from scanners would seem to confer a permanent advantage over cameras when copying from existing paper documents.



## The Reliability and Accuracy of Old Maps

Experience in this thesis suggests that the reliability and accuracy of manuscript maps should always be questioned. Reliability means whether the map shows what was actually there and accuracy relates to the precision with which the existing features were mapped. The care with which a map was drawn may be deceptive, for example the late eighteenth-century estate maps which are beautiful and highly-detailed works of art, but inaccurate in their overall geometry. These maps are obviously more reliable qualitatively than they are quantitatively. Later maps such as the 1841 Coundon tithe map share the inaccuracy and were also less carefully drawn. Maps of parishes or areas with several occupiers are often unreliable in depicting the size and orientation of farm buildings, probably because the farmers would not allow access by the surveyor.

The present project avoided most of the problems caused by inaccurate old maps by adopting the accurate geographical framework provided by the Ordnance Survey. Since most of the boundaries on the old maps survived until the era of the Ordnance Survey, the geographical inaccuracy and uncertainty applied to relatively few changed features. Inaccurately mapped boundaries can often be related to known points on the accurate map, for example where a hedge changes direction at the corner of a former field, making it possible to recreate the boundary with sufficient accuracy for the present purpose. Occasionally, for example in the eastern part of the Coundon tithe map, this process becomes more difficult because of wholesale changes in field boundaries. Aerial photographs can help considerably in locating the traces of old boundaries, or in proving that an indicated position is inaccurate because there was no trace of it on the ground. When mapping farm buildings it may be advisable to adopt the layout shown on early Ordnance Survey maps, rather than relying on the questionable depictions on some manuscript maps.

The question of reliability relates to the purpose for which a map was drawn. An extreme example of this is provided by the 1843 Stoneleigh Tithe Map, as described in section 4.3, which depicted some features accurately, left many areas blank and filled in peripheral areas by copying from an older map showing features that no longer existed in 1843. Although geographically incorrect, this map was accepted by the tithe commissioners for the intended purpose. It is fortunate that the blank, tithe-free areas gave a clue that this map needed treating with caution. Two of the three nineteenth-century enclosure maps for the study area showed only the new enclosures and the roads; the remainder of the parish was left blank, in this case with no risk of deceiving the researcher. The very early 1597 map of Stoneleigh omitted all details within the boundaries of freehold estates and did not show any streams or ponds at all. It was obviously difficult to cope with the possibility of unreliable maps that did not show what was actually there, but Chapter 4 gives some examples of the strategies that were adopted to reduce the errors.



## The Creation and Uses of Computer Databases

Computer software for creating and manipulating databases proved to be indispensable for this thesis, allowing all sorts of information about individual fields and properties to be organised, selected and inter-related. Databases were used to analyse and present all the information contained in surveys and in nineteenth-century censuses. Microsoft Works version 4.5a was used exclusively for the present work, because it combines word-processing and database software in the same compatible package. All the well-known database programs would include the same limited range of features required by this type of work.

The present procedure for landscape reconstruction was based on large amounts of data from surveys and other sources, much of it only existing in manuscript form in record offices. Some of the present work, for example the 1809 Poor Law Assessment of Allesley parish, needed to combine data from more than one location, but all this information could be concentrated into one computer database. Despite the advantages, there was usually no escaping the manual task of transcribing original manuscript sources before they could be used as the raw material for research. The only exceptions were those censuses and similar records which had already been transcribed into databases and made available to other researchers.

The errors introduced by manual transcription were minimised by entering the information directly into a database, using a portable lap-top computer or equivalent hardware (the technology develops apace) rather than doubly transcribing it via a manuscript copy. Automatic spell-checking software identified many transcription errors as soon as they occurred, although this process was complicated by the many unusual and archaic names encountered in surveys and censuses. A more straightforward advantage of databases was that printed copies produced by a PC printer were very easy to read, and easier to check against the original than manuscript lists would have been. Databases were corrected and reprinted perfectly, whereas an amended manuscript list would have become increasingly untidy and confusing every time it was corrected or extended.

The database program was also indispensable for applying formulae which automatically, perform calculations on the data fields to produce information which is more useful than the raw data. For example, tithe surveys list field areas in acres, roods and perches, while rents are listed in pounds sterling, shillings and pence. These areas and rents were converted into decimal form, as needed for further calculations, by means of the following database formulae :

$$\text{Area (decimal acres)} = \text{Acres} + \text{Roods divided by 4} + \text{Perches divided by 160}$$

$$\text{Rent (decimal pounds)} = \text{Pounds} + \text{Shillings divided by 20} + \text{Pence divided by 240}$$



By applying these formulae, the decimal areas and rents for each of the fields and properties in the tithe survey were calculated instantaneously, with no chance of error, although it was always found advisable to check a small, random sample to confirm that the formulae were working correctly. In the above example, another formula was used to find the value of each field :

$$\text{Value (pence per acre)} = 240 \times \text{Rent (decimal pounds)} \text{ divided by Area (decimal acres)}$$

Formulae also allowed the data to be filtered and grouped, for example listing all the pasture, arable and meadow in separate reports. Totals were calculated automatically, either for the whole database or for a filtered part of it. Using all these features it was a simple task to find out, for example, the average value per acre of arable fields between five and ten acres in size.

For comparison of the effort, the 1840 Allesley tithe survey lists 1,186 fields and properties, which would require 25,000 keystrokes on a calculator to produce the decimal areas and rents, another 18,000 keystrokes to find the totals and another 18,000 to calculate each value per acre. Allowing for double-checking and correction, the grand total would be about 130,000 keystrokes and a great deal of manual transcription. Even with all this careful effort, the results would still contain errors caused by repeated manual intervention.

### **Problems with Computer-based Methods**

Computer-based methods provide unrivalled opportunities for improving the detail, accuracy and presentation of reconstructed maps and surveys of old landscapes, but they may also create problems which are more serious than those that come from traditional methods. The problem of digital preservation is well known and, during this thesis, there were some conflicts between the rapid rate of change of computer technology and the stable methods required for long-term research. All the maps were created with an early version of the Autosketch CAD program, which has a unique internal data format that cannot be read directly by other CAD programs and is not entirely compatible with the latest computer printer drivers.

The risk posed by relying on one program can be reduced by making copies of all data files using standard formats which allow communication between equivalent software. Drawing Exchange Format (.dxf) files can be used for CAD and Rich Text Format (.rtf) files for basic word processing, although there are alternatives. There still remains a risk that data files that have taken years to create may become unreadable by any program that is available to future researchers. The rapid evolution of storage technology creates more problems, with current data becoming inaccessible if ZIP and CD drives disappear from future PCs.



The most reliable long-term solution to the problem of digital preservation may, paradoxically, be to print all computer-based text and maps as clearly as possible on high-quality paper, which can then be stored in the time-honoured way. Printed text can be returned to a computer-based format at any time, using Optical Character Recognition software. Printed maps can be scanned or photographed as digital images which have the same quality and detail as the original, and conversion into CAD format is possible using special raster-to-vector conversion software. Maps that are full of detail, such as those created for this thesis, may need to be printed at a large scale on several sheets of paper. To allow for future scanning, registration and re-assembly of the complete map, each scanned segment should show at least one complete square from a grid covering the whole map.

This solution must take account of another problem with computer-based methods, which is the possible impermanence of printer output. Research using accelerated ageing techniques has shown a wide variation in the permanence of the inks used by different manufacturers.<sup>70</sup> This is a particular problem with coloured inks. According to this research, some manufacturers' prints show significant deterioration within five years, while others are good for a hundred years. Prints that are seldom exposed to daylight will last longer, but the differences between printers should be taken into account when creating maps that are intended to be a permanent source of information, for example within a thesis. At present (2006) it appears that some of the printers supplied by Epson and Hewlett Packard give the most long-lasting prints.

### Computer Viruses and Database Errors

The risk from computer viruses is so well known and the precautions against them so readily available that little needs to be said on this subject. Except that a virus was acquired during the present work, despite using anti-virus software. It destroyed the file directory on the hard disc and left no alternative to installing a new hard drive and reloading all the software and data files. Database errors were, however, even more troublesome. They made their presence known by randomly deleting parts of the map that was being worked on. When this first occurred it was put down to oversights in creating the map, but it was later noticed that fragments of the map were disappearing at the same time as another area of the map was being worked upon. Thinking in terms of word-processing, a database error is like using the 'Undo editing' command on this sentence but finding that it actually has the effect of deleting random words elsewhere in the chapter. What makes database errors so destructive is the fact that they start off unobtrusively and may not become evident until the CAD data file has been thoroughly corrupted. These errors occur because the database containing the individual lines defining the boundaries of fields, roads, streams etc. forms a very long chain of data. Every modification of the map involves breaking this

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<sup>70</sup> Printer fade-resistance tests published on the <http://www.wilhelm-research.com> website.



chain and reassembling some of the links in a new order. The longer and more complicated the database, the more likely it is to be damaged by a bug while being processed in the CAD program or by electronic interference from the power supply while the file is being read, modified or saved.

The damage and disruption that database errors cause can be reduced by adopting a procedure which goes against the natural tendency to include more and more details on a computer-based map. For example, having everything about the 1840 tithe survey on one map is obviously convenient, but it does produce a very large file which is slow to use, more likely to encounter a database error, and extremely difficult to correct if it does. Experience showed that it was better to keep each major feature of the map, for example roads, streams or fields, in a separate file. These smaller files were almost immune from database errors and could easily be merged whenever their content was required on a particular map.

A complicating factor is that the otherwise admirable practice of making frequent file back-ups may make database errors more difficult to manage. The usual practice of over-writing the previous version of a back-up file ensures that a perfectly good back-up file will be over-written by a corrupted successor. By the time the database error is detected, all the back-up copies may have been contaminated. The recommended procedure is therefore not to over-write back-up copies of the same file, but to give each back-up a distinct name. If a database error is detected, then the latest uncorrupted back-up can be located and restored. Although tedious to manage, this process is now entirely feasible because modern PCs provide ample storage capacity.



# 4

## Reconstructing the Maps and Surveys of the Study Area

This chapter describes how the sources and techniques in Chapter 3 were used to reconstruct the maps and surveys of the study area, for the era from around 1600 up to 1938. The description starts with the modern map and works backwards in time, in line with the retrospective process that was actually used. The various problems that were encountered are described in detail, in the hope that their solution will help future research in similar fields.

### 4.1 Map of the Study Area in 1938

A computer-based map of the study area in 1938 was created from Ordnance Survey maps using the transcription procedure described in Chapter 3. The main source was a linen map of the whole of North Warwickshire, which included the study area.<sup>1</sup> Although the date was not stated on the map, the known sequence of construction of particular roads and estates in Coventry proves that the date is within one year of 1938, when a partial revision of the Ordnance Survey was undertaken. The monochrome 1938 map avoids the inaccuracies inherent in multi-coloured maps such as the modern OS Pathfinder series, as described in Chapter 3. The six-inch square that can easily be accommodated by the transcribing process corresponds to one square mile on this map, covering four of its half-mile grid squares. These grid squares do not correspond to those on the modern OS grid, either in position or orientation, but the adjustment was easy to make to the whole computer-aided design map after completion.<sup>2</sup>

The 1938 map was used to transcribe the whole of Allesley parish and the northern part of Coundon. In these areas, most features appear to be the same as in 1887, but an alternative procedure had to be developed for the southern part of Coundon parish and the northern part of Stoneleigh parish, where the old landscape had been almost erased by recent housing estates and factories such as the Standard Motor Company's large Canley/Fletchamstead plant. Reconstructing the highly-detailed early landscape on the sparse framework provided by the modern map would clearly be more difficult and less accurate than the reverse process. This conclusion was reinforced by the known deficiencies of the 1938 map and by the need for extra accuracy in the pre-modern map which would form the basis for all subsequent reconstructions.

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<sup>1</sup> I am indebted to the late Mrs Eileen Gooder for donating this map.

<sup>2</sup> Computer-aided design is hereafter abbreviated as CAD.



The geographical framework for the erased areas was therefore based on the 1887 map whose reconstruction is described in Section 4.2. This map was then extended forwards to incorporate the extensive deletions and additions between 1887 and 1938. The widespread changes in the landscape of these areas required some constant landmarks for superimposing the two maps accurately. Woodland was most useful because it usually retained all the details of its earlier geometry. Although roads and streams had a higher survival rate, they were less reliable because many roads had been widened and straightened while streams had sometimes been re-routed through culverts. In northern Stoneleigh, the outlines of the woodland provided adequate reference points for locating the surrounding changes. Elsewhere in Stoneleigh and in Coundon it was necessary to rely on surviving fragments of streams and field boundaries. Although some roads were the same in 1887 and 1937, the major routes into Coventry had all been enlarged, so they and their surrounding features could not be superimposed as accurately as elsewhere. With the benefit of hindsight it might have been better to use the 1887 map to create the geographical framework for the whole study area and then modify it to suit 1938, rather than using parts of two maps which may not be entirely consistent. Using this alternative approach would have required the manual addition of a reference grid on the 1887 map, for use in its transcription.

Further problems were caused by the interim nature of the 1938 map, which seems to have been produced rather hurriedly at a time when Coventry was expanding rapidly and there was an urgent national need for modern maps to aid wartime planning, manufacture and travel. It is clear that the modern parts of this map were a superficial revision of an older map, showing little apart from the roads and buildings that actually existed in 1938. The *minor changes in rural areas* were probably mapped precisely, but the new suburbs and factories were drawn on a blank background, as if every trace of the former landscape had been erased in the few years since building began. The roads and houses in the new suburbs were usually shown with their widths exaggerated, so it is not always clear whether a major road had actually been widened. The representation of houses was particularly unreliable, with varied types of houses with front gardens being shown as continuous terraces fronting the roads. The 1938 map did not show any boundaries between the new houses, except in rural areas. Fortunately it had already been decided to omit domestic boundaries from the reconstruction, except where they preserved an earlier boundary, because their density on a small-scale print would be confusing. One final problem was caused by a physical joint in the 1938 map which ran through the area of modern factories. Rather than introduce uncertain errors by transcribing across this joint it was decided to superimpose the affected area from 1:25,000 maps that covered the whole area in about 1951.<sup>3</sup> Although drawn at a smaller scale than in 1938, the same buildings seemed to be shown more accurately and without the distortion that affected houses and small buildings. The transcribed computer-based map of the study area in 1938 is shown in Fig. 4-1.

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3 Ordnance Survey 1:25,000 *First Series*, Sheet SP27 Kenilworth (1951; Southampton, 1970); Sheet SP28 Meriden (1951; Southampton, 1972); Sheet SP37 Coventry (South) (1952; Southampton, 1971); Sheet SP38 Coventry (North) (1951; Southampton, 1957).



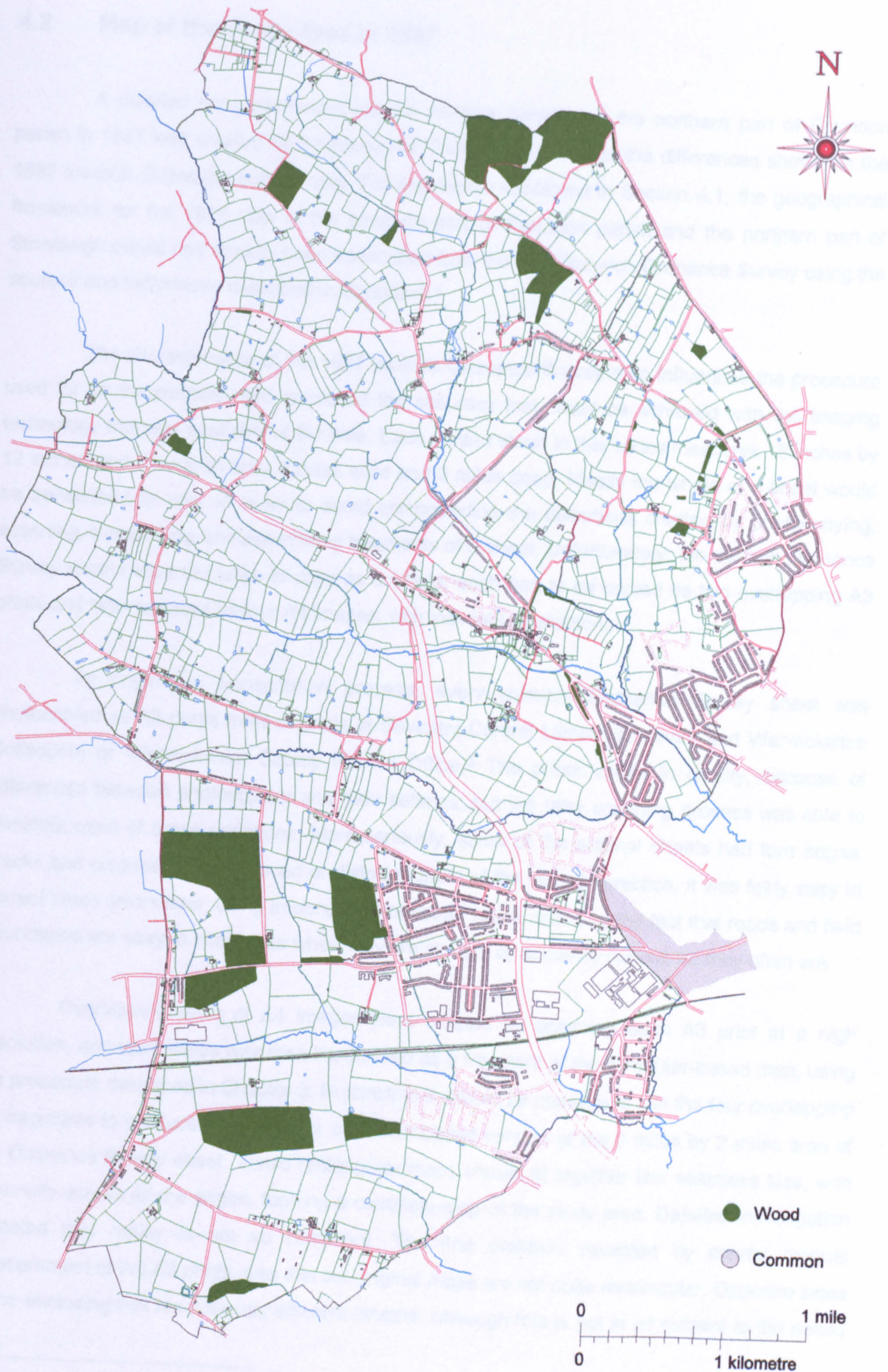


Fig. 4-1 The Study Area in 1938



## 4.2 Map of the Study Area in 1887

A detailed computer-based map of Allesley parish and the northern part of Coundon parish in 1887 was created by modifying the 1938 map to include the differences shown on the 1887 six-inch Ordnance Survey map. For the reason explained in Section 4.1, the geographical framework for the 1938 map of the southern part of Coundon parish and the northern part of Stoneleigh parish had already been transcribed from the 1887 six-inch Ordnance Survey using the sources and techniques described in Chapter 3.<sup>4</sup>

The characteristics of the 1887 six-inch Ordnance Survey map influenced the procedure used for its transcription and controlled the accuracy that could be achieved with the imaging technology that was available at the time. Each printed sheet in this series measures 18 inches by 12 inches and covers an area 3 miles wide and 2 miles deep. Ideally the whole of a sheet would be transcribed as one, in order to avoid compounding the distortions created by photocopying, scanning, transcribing and assembling fragments of a sheet. Unfortunately, the six-inch Ordnance Survey sheets were too large to copy as a whole; each had to be copied as two overlapping A3 prints and later scanned as four A4 images, with inevitable distortions.

To begin the transcription process, every relevant Ordnance Survey sheet was photocopied as A3 prints from originals at Coventry Central Library (Coventry and Warwickshire Collection) or Warwickshire County Record Office.<sup>5</sup> The prints varied in quality, because of differences between photocopiers and their settings, but the later scanning process was able to eliminate most of these variations. More seriously, some of the original sheets had torn edges, cracks and creases, which defaced or distorted parts of the map. In practice, it was fairly easy to correct these errors later, using information from other maps, aided by the fact that roads and field boundaries are easy to interpolate when they are straight or uniformly curved, as they often are.

Overlapping pairs of A4 images were created by scanning each A3 print at a high resolution, and each image was then transcribed as a fragment of the computer-based map, using the procedure described in Chapter 3. In principle it should be possible to join the four overlapping A4 fragments to produce a rectangular computer-based version of the 3 miles by 2 miles area of the Ordnance Survey sheet. These rectangular maps should fit together like seamless tiles, with continuity across all the edges, forming a complete map of the study area. Detailed investigation revealed that reality is not so compliant. The first problem, revealed by careful manual measurement of the A3 prints, was that the original maps are not quite rectangular. Opposite sides of the enclosing box have slightly different lengths, although this is not at all evident to the naked

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<sup>4</sup> Ordnance Survey *Six-inch First Edition Without Contours, Warwickshire, Sheet 16 S.E. (1887); Sheet 16 S.W. (1891); Sheet 21 N.E. (1888); Sheet 21 N.W. (1887); Sheet 21 S.E. (1888); Sheet 21 S.W. (1887); Sheet 26 N.E. (1886); Sheet 26 N.W. (1886); Sheet 26 S.W. (1886).*

<sup>5</sup> The Coventry and Warwickshire Collection at Coventry Central Library is now subsumed within Coventry Archives.



eye and would be of no importance when using the map for other purposes. It is not possible to say whether this lack of regularity is due to the mapping projection, faults in the original drawing, distortion in the prints over time or distortion in the photocopying. Whatever the cause, there would certainly be some distortions after photocopying, scanning and transcribing a map. A rather complicated application of the standard CAD software was therefore developed for removing these distortions so that maps could be transformed into exact rectangles which would fit together exactly. The convenience of this regularity outweighed the possibility that the Ordnance Survey did not intend the six-inch sheets to be exact rectangles because of the cartographic projection.

Another problem was that the edges of adjacent Ordnance Survey sheets often do not quite match on the original prints. Continuous features such as straight field boundaries may be offset by a few yards and small features such as the ends of ponds and buildings may be omitted where they cross an edge. When magnified for the transcription process, the straight edges of the sheets revealed themselves to consist of a series of large-radius arcs, produced by the rotating wrist joint of even the most careful draughtsman using an ink pen on a traditional drawing board. These problems are to be expected from manually-drawn maps. More surprising is the discovery that the information on adjacent sheets sometimes overlapped by a few yards, with a slight relative rotation between them. This may reflect the distortions produced by the particular projection that the Ordnance Survey used to map the Earth's spherical surface onto flat sheets.

Dealing with these problems, especially the last, involved a great deal of transformation to preserve the rectangular framework of the map, combined with judicious adjustment where there was no sounder alternative. It is not certain by how much these measures degraded the absolute accuracy of the computer-based map, but a maximum error of less than five yards or metres is likely. Despite these problems in transcribing the 1887 map, it is certain that shapes, relative positions and qualitative relationships are shown with more than enough accuracy for the present purpose, as they are on prints of the original Ordnance Survey map.

Fig. 4-2 shows the computer-based map of the study area in 1887. As with the other maps in this chapter, the small scale does not do justice to the detail and accuracy of the CAD data. For future work in a similar field it is recommended that several sources of Ordnance Survey maps should be investigated to find the best originals of each sheet and to check the quality of photocopying available at each repository. With improving technology, it may now be feasible to photograph a complete six-inch sheet using a high-quality digital camera, thereby avoiding the problems with photocopying, scanning and assembling several fragments of each sheet. Because of varying distance from the camera this alternative would introduce spherical aberration, showing straight lines as slight curves, but it should be possible to obtain image-processing software which removes this standard distortion. The computer hardware used in the present procedure does not encounter this problem because both photocopying and scanning track linearly across the image.





Fig. 4-2 The Study Area in 1887



### 4.3 Map of the Study Area in about 1840

A detailed computer-based map of the study area in about 1840 was created by modifying the 1887 map to include the differences shown on the tithe maps for these three parishes, using the techniques described in Chapter 3.<sup>6</sup> Different accuracy was achieved for each of the three parishes. The map of Allesley should be accurate because the tithe map fitted easily into the framework of the 1887 map, but the eastern part of Coundon is less reliable because the framework of the tithe map is distorted and there were many changes to its landscape between 1840 and 1887. The mapping of Coundon was helped to some extent by the earliest aerial photographs, which were taken in 1940 just before several fields were covered with allotments and hostels for Coventry's wartime industries, but large areas had already been defaced by inter-war housing estates which left little or no trace of the earlier field pattern.

The mapping of the northern part of Stoneleigh parish encountered five problems which made this process more difficult and inaccurate than it had been for Allesley and Coundon. The first problem was that many hedges within the study area had been removed by 1887, so the earlier landscape could not be reconstructed on the later framework with the usual confidence. Another problem was that the 1843 tithe map was clearly not accurate, since in many places Matthias Baker's 1766 map of Stoneleigh agreed more closely with the 1887 Ordnance Survey, in features as well as positions, than either did with the 1843 tithe map.<sup>7</sup> The differences were most evident in the fields adjoining the main roads, and may have been the result of attempts to accommodate closing errors between separate surveys of individual holdings. The third problem was the practical difficulty of extracting information from the Stoneleigh map. Whereas existing A3 photocopies of the Allesley and Coundon maps had been obtained from Coventry Central Library, the Stoneleigh map was only accessible from the original held at Warwickshire County Record Office. Being the size of a very large table, this map could not be unrolled in its entirety and would have been impossible to work with even if it had been. The solution was to photograph small sections of the map when it was unrolled by special arrangement. Unfortunately, the map could not be unrolled so that it hung vertically, which would have allowed consistent photography over the whole area of interest. Instead, the map had to be photographed unrolled on the floor with the camera suspended vertically above it. This only produced good results around the edges where a tripod could be used.

The next problem with the Stoneleigh tithe map was the fact that the tithe-free holdings belonging to Lord Leigh were left blank, failing to show even the roads and streams. Fortunately the consistency between the 1766 and 1887 maps allowed most of these gaps to be filled with

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6 Allesley Parish tithe survey 1840, War. C.R.O., CR569/3, map scale 6 chains : 1 inch;  
Coundon Hamlet tithe survey 1841, War. C.R.O., CR569/80, map scale 6 chains : 1 inch;  
Stoneleigh Parish tithe survey 1843, War. C.R.O., CR569/213, map scale 6 chains : 1 inch.

7 Matthias Baker, *Maps and Surveys of the Estate of Edward Lord Leigh 1766-67*, vol. 1 : Stoneleigh etc., vol. 2 : Allesley etc., Shakespeare Birthplace Trust, DR671/30-31.



confidence. The final and most puzzling problem was the absence from the 1843 tithe map of some major features of the landscape of Stoneleigh parish that certainly existed then. The most obvious example was the Kenilworth Road, a broad avenue which extends through the eastern side of the study area between Coventry and Kenilworth. This magnificent road can be seen near the south-eastern corner of Figs 1-5 and 1-6. It was planted in the late eighteenth century by the owner of the surrounding Styvechale estate and is clearly visible on the 1814 Ordnance Survey map (Fig. 3-5). Another missing feature was the re-aligned Gibbet Hill Road, south-east of Kirby Corner; only the old Toacil Lane that preceded it is shown on the 1843 map, despite the fact that the 1816 Stoneleigh enclosure map includes 'The New Road' and 'Toacil Lane (stopped up)'.<sup>8</sup>

Because of these problems it became clear that the 1843 Stoneleigh tithe map was deeply flawed and misleading because it did not represent what much of the parish really looked like at the time. The map is actually a composite of the contemporary landscape in some areas, a much earlier landscape in other areas and large blanks covering the tithe-free land belonging to Lord Leigh. It is particularly puzzling that the demonstrable faults in map-making were repeated in the written apportionment, which lists some fields which no longer existed in 1843. The map-maker seemed content to show the enclosures correctly and in great detail, while the areas not enclosed were represented in a nominal way by copying them from some old map. Although this approach is understandable because it avoided spending time and money on surveying the parts of the parish that were not affected by the enclosure, a note on the map explaining what had been done would have been helpful. One wonders whether Lord Leigh believed that he had paid for a complete and uniformly reliable survey. The flawed Stoneleigh survey also raises doubts about the system of approval used by the tithe commissioners; perhaps they were too easily influenced by a title.

The representation of small buildings caused problems in all three parishes. It was sometimes found that the shapes of buildings or groups of buildings were similar on the tithe map and the 1887 OS map, but with slightly different sizes or orientations. Where there was a conflict it was usually decided to retain the 1887 shape and position, rather than believe that one group had been replaced by a similar but different group on the same site. Despite these efforts it must be recognised that buildings were transcribed only approximately because they were small and often fuzzy on original maps or prints at six-inch scale or thereabouts. The shapes and sizes are clear on the 1887 twenty-five-inch maps, if they exist and can be found, which they usually cannot.

Fig. 4-3 shows the computer-based map of the study area in about 1840. Although this map is not exactly correct for any one date because the surveys were spread over about five years, any errors should be insignificant. The contrasting experiences with the three parishes show that transcribing a tithe survey onto the framework of the c.1887 map may be straightforward and accurate or difficult and unreliable, as it was for Allesley and Stoneleigh respectively.

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<sup>8</sup> Stoneleigh Inclosure Map 1816, War. C.R.O., CR523/2, map scale 6 chains : 1 inch.





**Fig. 4-3 The Study Area in about 1840**



#### 4.4 Computer Databases from the c.1840 Tithe Surveys

A computer database was created for each of the three c.1840 tithe surveys. Stoneleigh was treated differently from the other two parishes because its survey contained less information. The Allesley and Coundon apportionments listed the landowner, occupier, identifying number on the tithe map, description (field-name or property name), cultivation (arable, meadow, pasture, wood etc.), area (acres, roods and perches) and rent (pounds, shillings and pence) for every parcel of land or property in the parish. The same information, except for the rent, was shown for the tithe-free land and properties. There were 1,186 items in the Allesley survey, ranging in size from 45.3 acres to half a perch (15 square yards). Within Coundon there are 256 items, ranging from 21.8 acres to 7 perches (212 square yards).

After the computer databases for Allesley and Coundon had been created and twice checked against the original documents, the formulae shown in Section 3.2 were applied so that the decimal areas and rents would be calculated automatically, together with the value of each field and property in pence per acre. Great care must have been taken when compiling the Allesley tithe apportionment, because the totals and sub-totals were confirmed by the computer database, apart from a tiny seventeen-perch fragment of enclosed lane which was over-valued by a factor of about ten. The Coundon apportionment seems to have been compiled with equal care, although presented in manuscript form. The information in the apportionments was now in a suitable form for presentation and analysis in Chapters 5 to 8.

It has already been explained why, like its accompanying map, the 1843 tithe apportionment for Stoneleigh was of limited use because it did not give a consistent or reliable account of what the parish actually looked like at the time and because it did not show the land use and rent for individual fields.<sup>9</sup>

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<sup>9</sup> See Section 3.1.



## 4.5 Map of the Study Area in about 1809

The reconstruction of maps of the study areas before 1840 was greatly assisted by the survival of the c.1809 Poor Law valuation of Allesley parish and most of its accompanying maps.<sup>10</sup> The maps were used to reconstruct the landscape of Allesley parish in 1809 in great detail, based on the reliable geographical framework established by the 1887 and 1840 maps. The 1809 survey listed each field and property by its landowner, occupier, name, use, area and value per acre. This is identical to the information provided by the 1840 tithe survey, allowing direct comparisons to be made between the state of Allesley parish in 1809 and 1840. Since this survey is so valuable, it was decided to use 1809 as a suitable date for reconstructing a map of the whole study area. Although there are no sources that show Coundon and Stoneleigh at exactly this date, it was possible to reconstruct maps of most of the area of these parishes in the early nineteenth century. Some details on these reconstructed maps of Coundon and Stoneleigh may not be entirely correct for 1809, but it should be remembered that the authoritative survey of Allesley was also based on a set of sketch maps with a range of dates between 1778 and 1809. The map of Allesley must have been changing very slowly to allow this to be done, so it seems reasonable to assume that the same applied to Coundon and Stoneleigh just before the late enclosures which affected all three parishes to different degrees.

The fragmentary maps of Allesley parish in 1809 were used to create a computer-based map of Allesley parish in 1809 by modifying the accurate and detailed 1840 map which had been created previously. From previous work it was realised that intensive study of the written valuation and maps would be needed, which would be impractical in a record office. The first task was therefore to obtain photocopies of all the maps at Warwickshire C.R.O. and of the valuation at Coventry Archives. The photocopies were then studied at leisure and defaced with annotations and, in the case of the maps, marked and measured for transcribing into the computer-based map.

The next task was to locate each fragmentary map within Allesley parish, which was not as simple a task as it sounds because of the variety of scales and orientations as well as some distortions in the mapping. Entirely separate holdings were often shown as though they adjoined, and fields in neighbouring parishes were sometimes included to add to the confusion. After finding the place of each map fragment within Allesley parish it was compared with a large-scale print of the equivalent part of the computer-based 1840 tithe map. This allowed any differences to be noted, measured and then incorporated into the new 1809 map. In fact it was found that the majority of the field boundaries and other features were near enough the same in 1809 as they were to be in 1840, although there were more changes between 1809 and 1840 than between 1840 and 1887. One must say 'near enough' because the 1809 and 1840 maps often showed a

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<sup>10</sup> Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1;  
Sketch Maps of Allesley Parish 1809, War. C.R.O., CR1709/75/1-36.



feature that was qualitatively similar, for example a zigzagging boundary or an L-shaped building, but which appeared to have a slightly different size, position or orientation. Depending on the magnitude of the change, it was usually considered safe to conclude that the differences reflected imperfect mapping of the same physical object. It was also remembered that no two surveys would be quite identical, even if done to the same standard. A gap of thirty years would certainly see many detailed changes to a soft boundary such as a hedge or a ditch. In general it was thought safer to favour the 1840 outlines of fields and other features that had already been mapped, unless supporting evidence from field areas and aerial photographs confirmed that a real change had occurred since 1809.

After modifying the 1840 map of Allesley to incorporate the differences shown on the 1809 sketch maps, there remained the problem of the 25% of the parish (980 acres) shown on maps that are now missing. Fortunately, near-contemporary estate maps exist for much of this land because it belonged to major landowners.<sup>11</sup> One third was the Allesley Park estate belonging to the Neale family, which had been mapped in detail by Thomas Eagle in 1770 (Fig. 3-11). This map showed the field boundaries unchanged between 1770 and 1840, apart from the building of a walled garden and the removal of three hedges, and a comparison of the field areas shown on the maps and apportionments proved that these changes had already occurred before 1809. The former positions of the deleted hedges were clearly visible on 1946 aerial photographs. A 1795 map of another missing area was found, by chance, at the edge of a map of an estate that the Earl of Aylesford owned in several parishes. Although near-contemporary maps could not be found to fill in all the missing areas, the valuation shows that their field areas, and presumably the boundaries of these fields, had not changed significantly between 1809 and 1840.

The fragmentary nature of the 1809 maps left some doubt about the widths of those roads that were only indicated where they defined estate boundaries. It appeared that several roads were much wider in 1809 than they were to be in 1840, but this could have been an illusion caused by a failure to record all the verges. Fortunately the 1777 Harries estate map and the 1824 enclosure map both showed the roads to scale and in their geographical context.<sup>12</sup> The Harries map was too large and cumbersome to transcribe in the record office, so photographs were taken at Warwickshire C.R.O. for later study at leisure. A problem with this map was that its stiff material had become permanently curved in storage, making it impossible to lay flat for photographing. When consulted later, the photographs did not give any clue that there was any distortion of the original map, so it had to be remembered that scaling from these apparently reliable photographs would be inaccurate and misleading.

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11 A Map of the several Farms & Lands . . . [of] Joseph Neale Esqr by Thos Eagle 1770, War. C.R.O., CR623; A Map of Several Estates . . . [of] Rev. Mr. Edw. Harries, by Jas Sherriff 1777, War. C.R.O., CR2554/1; A Map of estates [of] Heneage Earl of Aylesford . . . c.1795, War. C.R.O., CR2381; Rough Plan of an Estate at Allesley [of] Henry Greswold Lewis Esq., surveyed 1811, War. C.R.O., CR1291/355.

12 Allesley Inclosure Award Map 1824, War. C.R.O., CR467, scale c.5 chains : 1 inch.



In 1840, much of the course of the River Sherbourne (in fact nothing grander than a brook) ran along a straight channel in the south-east corner of the parish, whereas the 1809 map showed numerous meanders. There must have been a re-alignment of the river between these dates, although the 1809 map was too approximate to give confidence that the shapes of the meanders were more than an artistic flourish. Fortunately the meanders were shown in detail on the 1811 map of the Lewis estate, so they were transcribed from this map using the standard computer-based method and then scaled and rotated to fit into place on the 1809 map.

Because of the lack of contemporary maps and surveys, indirect methods had to be used to reconstruct the maps of Coundon and Stoneleigh in about 1809, based on the c.1840 map described in Section 4.3. For Stoneleigh parish the reconstruction made use of the 1816 enclosure map and the detailed 1766 map by Matthias Baker.<sup>13</sup> The first step was to delete all the 1843 field boundaries corresponding to, or within, the allotments shown on the enclosure map, provided that they did not appear on the 1766 map. This process removed a large area of Westwood Heath and many small enclosures lining Broad Lane and Tile Hill Lane. Most of the latter were easily identified because they were still separate fields in 1843 rather than being incorporated within adjoining fields. The 1816 enclosure map also showed which roads existed at the time and confirmed their contemporary names and detailed boundaries.

Comparing the 1766 map with the 1843 tithe map of Stoneleigh it was found that there had been few significant changes in field outlines outside the area covered by the 1816 enclosure. It was therefore decided to retain the 1843 boundaries wherever they appeared to be identical or nearly so. As with Allesley it was considered that minor differences between surveys of field outlines would not necessarily reflect real changes on the ground, and those there were would not be significant for the present purpose. Since almost all the recent changes to Stoneleigh happened as a result of the 1816 enclosure, it is considered that the map reconstructed by this process is a close approximation to what existed in 1809. Areas of the 1843 Stoneleigh tithe map that had been reconstructed from the 1766 map would actually be more reliable in 1809 because of the shorter interval since 1766.

Coundon was the most difficult parish to reconstruct in 1809 because of the shortage of contemporary or preceding maps. The 1809 roads could be reconstructed fairly reliably by deleting the road-side enclosures shown in the 1851 Coundon enclosure map.<sup>14</sup> An 1811 map of Holy Trinity parish annoyingly excluded Coundon itself, although it was a hamlet within the parish, but did include precise details of the complicated junction where three lanes met the Radford Road at the south-east corner of the parish.<sup>15</sup> The only other 1809 features that could be reconstructed

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<sup>13</sup> Stoneleigh Inclosure Map 1816, War. C.R.O., CR523/2, map scale 6 chains : 1 inch; Matthias Baker, Maps and Surveys of the Estate of Edward Lord Leigh 1766-67, vol. 1 : Stoneleigh etc., vol. 2 : Allesley etc., Shakespeare Birthplace Trust, DR671/30-31.

<sup>14</sup> Coundon and Keresley Inclosure Act, Award and Map 1841, War. C.R.O., QS75/36, map scale 6 chains : 1 inch.

<sup>15</sup> Plan of the parish of the Holy Trinity Coventry 1811 by George Miller, War. C.R.O., CR796.



with complete confidence were those shown on the 1811 Lewis map and on a few of the maps in the 1809 Allesley survey. Combining all these known sources it was therefore possible to reconstruct only a small part of Coundon parish in 1809 with complete confidence. Although, by analogy with Allesley, it is likely that most of the features of the landscape were in place long before 1809, those areas where there was no documentary evidence had to be omitted from the reconstruction.

The previously-described procedures and sources of information were combined to produce a computer-based map of the study area in 1809. This map, which is shown in Fig. 4-4, is accurate in representing the roads and field boundaries, and should be as accurate as makes no difference in representing the small-scale features such as buildings and ponds. This map should be seen as representing the study area in its typical state before the final enclosures of Allesley, Coundon and Stoneleigh in the early nineteenth century.

The map of the study area in 1809 was reconstructed before the near-contemporary 1814 Ordnance Survey map became available for study.<sup>16</sup> It was therefore possible to judge the accuracy of the present method and the 1814 survey by comparing Fig. 4-4 with Fig. 3-5. It must be emphasised that no changes of any sort were made to Fig. 4-4 as a result of this comparison, which is described in Appendix C. The two maps were found to agree very well in the shapes and alignments of the major roads and in the positions of the buildings, but with consistent offsets in parts of the study area which suggest that several fairly accurate but independent surveys had been assembled without sufficient care. Some minor roads had been mapped very inaccurately, as though from a freehand sketch. The shapes of woods were also rather inaccurate. There were some minor differences in the shapes of streams, although in this case the 1814 survey may be more reliable than the 1809 map, which copied the streams shown on later surveys.

More detailed comparisons proved conclusively that the field boundaries shown on the 1814 Ordnance Survey map were almost entirely fictitious, although the average field sizes were about right. In a few small areas there were the correct number of fields with roughly the correct shapes, but these agreements were so rare and approximate that they should be disregarded. It appears that the surveyors guessed the positions of a few boundaries near to the roads, while the remaining areas were filled with random lines. These conclusions are more severe than Harley's opinion that 'The surveyors' drawings are in themselves an important source of topographical information. Many of the drawings for example show field boundaries which do not appear on the one inch maps; in some cases however these are diagrammatic and should be interpreted cautiously.'<sup>17</sup> It is, of course, possible that this particular 1814 map was atypically inaccurate.

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<sup>16</sup> Ordnance Survey Drawings, Birmingham Sheet, Surveyed 1814, British Library OSD 256,24 (c.1831-35).

<sup>17</sup> J. B. Harley, *The Historian's Guide to Ordnance Survey Maps* (London, 1964), pp.7-8.



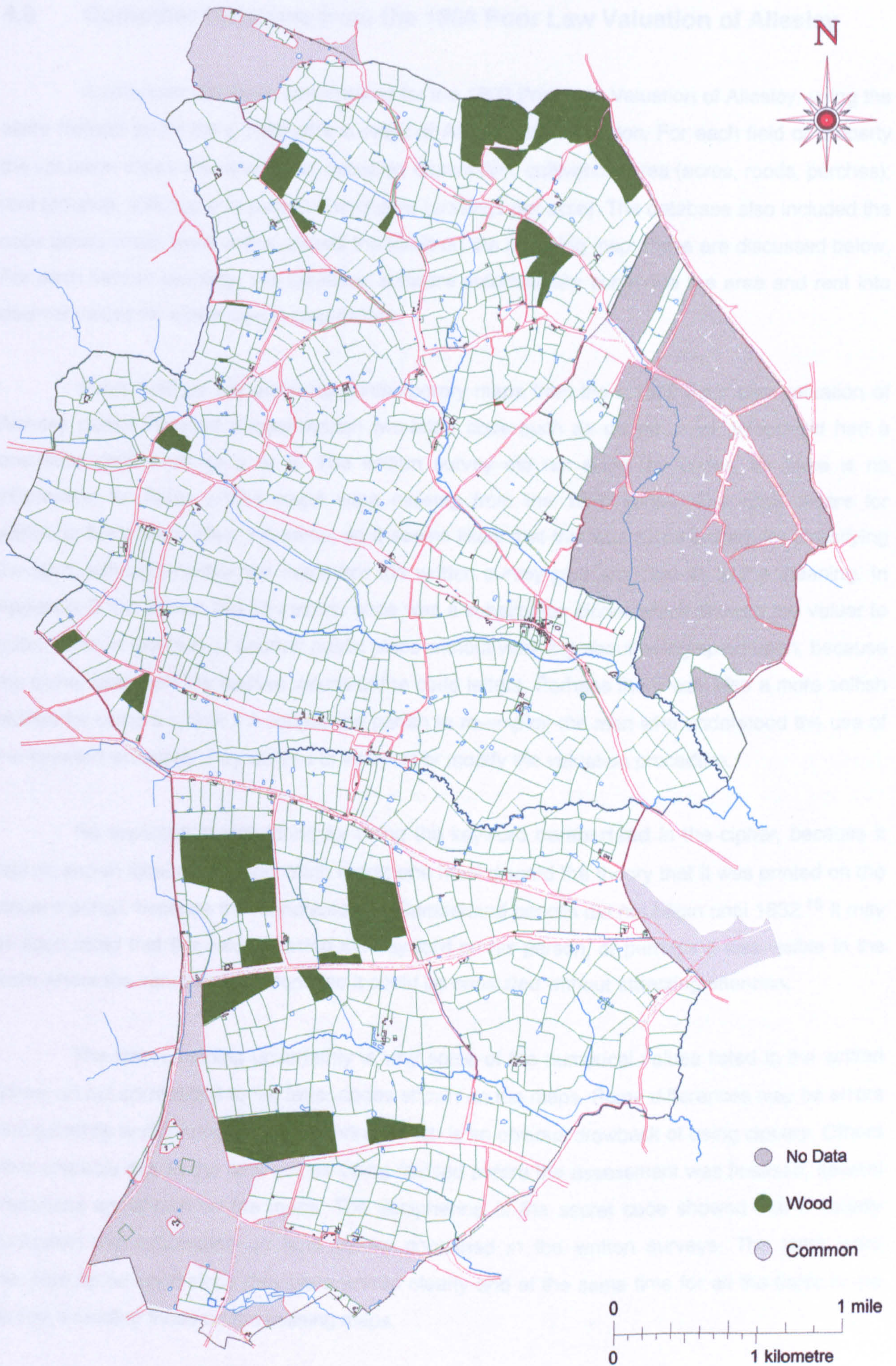


Fig. 4-4 The Study Area in about 1809



## 4.6 Computer Database from the 1809 Poor Law Valuation of Allesley

A computer database was created for the 1809 Poor Law Valuation of Allesley, using the same method as for the c.1840 tithe surveys of Allesley and Coundon. For each field or property the valuation stated the landowner, occupier, description, cultivation, area (acres, roods, perches), rent (pounds, shillings and pence) and charge (shillings per acre). The database also included the code letters which were written across the fields on the surviving map; these are discussed below. For each field or property, the database software automatically converted the area and rent into decimal values for easier use in calculations.

Every field on the surviving contemporary maps from the c.1809 Poor Law valuation of Allesley parish included a hand-written two-letter code such as **ud mr** or **cl**. Woodland had a one-letter code such as **a** or **b**. The written survey did not show the codes, so there is no information for fields whose maps were missing from the 1809 series. The code letters for adjoining fields were often the same, so it seems likely that this was some system for classifying the land, although neither the maps nor the written survey give any clue as to the meaning. In Appendix D it is shown that this secret code was a substitution cipher which allowed the valuer to make notes in the field or another public place without worrying about being spied upon, because the cipher obscured the relative values of the code letters. Perhaps there was also a more selfish reason for using a cipher - it obliged the parish to re-employ the man who understood the use of the keyword whenever they wanted to interpret or modify the valuation procedure.

No explanation was found for using the keyword **cumberland** in the cipher, because it had no known local connection. With regret one must discard the theory that it was printed on the valuer's pencil, because the manufacture of Cumberland pencils did not begin until 1832.<sup>18</sup> It may be speculated that the valuer carried the keyword on his person, or perhaps it was visible in the room where the valuation was done, so it could be consulted without attracting attention.

The last remaining uncertainty is why some of the numerical values listed in the written survey do not correspond to the letter codes shown on the maps. Some differences may be errors introduced by enciphering and deciphering, which is an obvious drawback of using ciphers. Others were probably due to the land values being revised before the assessment was finalised; several alterations are shown on the maps. The deciphering of the secret code showed that it usually duplicated the information on land values contained in the written surveys. The latter were therefore relied upon since they were written clearly and at the same time for all the fields in the survey, including those on the missing maps.

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18 Cumberland Pencil Museum, <http://www.pencils.co.uk> (2006).



## 4.7 Map of Allesley's Open Field in 1652

The pattern of enclosure of the open field of Allesley was described in a 1654 Decree in Chancery which was the final judgment in a dispute among the parties to the 1652 enclosure. This decree included detailed verbal definitions of the enclosure allotments, but there was no map. The reconstruction of the open field is therefore different in kind from the map-based reconstructions described in the previous sections. Because they are different in kind, the techniques used and the problems solved will be described at some length for future reference.

Two complete eleven-page copies of the 1654 decree have survived as well as a single sheet containing an extract of the decree which related to one of the holdings.<sup>19</sup> It was expected that all three copies would have the same factual content but this assumption would need to be confirmed as soon as possible. From Fig. 3-9, which shows a typical page of the Eburne copy, it will be seen that the hand is sometimes difficult. In order to ensure an accurate transcription, it was necessary that all three copies should be photographed so that they could be studied and compared at leisure. A literal transcription of the decree was made from the Eburne copy; this was checked and then compared with the Neale copy and, in parts, with the Jelliffe copy. Although the hand was a little difficult at first sight, it soon became possible to read quickly and easily, aided by the many repetitions. Comparing the three copies it was found that the Neale copy was the most complete, containing 10,218 words in all. The Eburne copy was found to be 99.76% identical, lacking one complete line and a few isolated words near the end of the text; no doubt these were copying errors by a tired clerk, although they should have been eliminated by the men who certified that these were true copies. The Jelliffe copy is identical to the relevant parts of the decree, but it is of special interest because of its references to 'Schedule 2 : lyne 25' and 'Schedule 3 : lyne 52'. These were the locations of the text referring to Jelliffe's land in the original 1650 enclosure agreement, which has not been found.

The next step was to prepare a more usable version of this literal transcription with modern spelling, punctuation, grammar and layout. This process was greatly simplified by the word processor's 'Replace' option and by the fact that the original copy was unusually consistent in its mis-spellings. Some frequent repetitions were deleted, for example the clauses which required that all ditching, mounding, quicksetting and setting up of gates should be completed 'well and sufficiently and before the said first day of May in the year aforesaid'. Names of places and people were highlighted to aid the analysis. The survey of allotments was now in a convenient form for reconstructing some or all of the map of Allesley's open field as it was in 1652, based on the framework of the accurate and detailed 1809 map which had been created previously.

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19 The Coppy of Allesley Inclosure for Henry Neale Esq., [1654 Chancery decree], War. C.R.O., CR623 Box 13; The Coppy of Allesley Inclosure for Richard Eburne Esq., [1654 Chancery decree], War. C.R.O., CR299/583/1; An Extract of the decree in Chancery toucheing the inclosure of the Come feilde of Allesley in hillary tearme 1653, War. C.R.O., CR299/583/2.



Several strands of evidence were woven together to produce a robust reconstruction of the open field. Ideally an allotment would be identified unambiguously by its name, area, use, owner, neighbours, landmarks and sequence in the list, but in practice it was thought reasonable to accept the identity of an allotment if at least three of these criteria were met. The first clues to the geography of the open field came from the names of the furlongs and other pieces of land that were used as survey headings in 1652 : Park Hill Furlong, Tine Croft Furlong, Pickford Meadow, Rye Hill Furlong, Gibb Piece, Ash Furlong, Red Hill Furlong, Stockhalls, Darley, Hamm Meadow, North Field Meadow, North Field, Church Furlong, Dole Meadow and Lammas Closes. These names were preserved in the 1809 place-names and field-names : Park Hill Lane, Tine Croft, Pickford Meadow, Rye Hill, Gibbs Close, . . . . , . . . . , Stockall, Darley Meadow, . . . . , North Field, North Field, Allesley church, Dole Meadow and . . . . The word 'furlong' has not been found in Allesley's records after 1654. The surviving names were all in an area to the west and north of Allesley village which was notable for its many straight field boundaries in 1809 and for the insubstantial nature of the hedges that survive today. It is clear that the old open field occupied this general region, with its furlongs containing the 1809 fields with the same name, although the exact outlines and allotments within the open field remained to be discovered.

With the exception of Dole Meadow and Lammas Closes, which were an afterthought in the survey, the surviving place-names and field-names suggest that the furlongs and other pieces of land were listed in a clockwise sequence which started on the western boundary of Allesley Park, moved west then north then east and ended somewhere north-east of the village. It seemed reasonable to assume that Ash Furlong, Red Hill Furlong and Hamm Meadow, which left no evidence of their names, lay in sequence between Gibb Piece and Stockhalls. Further analysis would reveal that the sequence actually included an extra loop towards the village, with Stockhalls out of order, but the general area was identified closely enough for the missing furlongs to be located. The positions of most furlongs were confirmed by references to landmarks such as 'the windmill' (in Windmill Field), 'the great road way' (modern A45) and 'The Running Brook of water' (River Sherbourne) and several uses of the phrase 'as the common way did lie'. Unfortunately the sequence of furlongs gave no clue to the position of Dole Meadow and Lammas Closes.

After finding the general locations of each furlong and piece of land in the 1654 decree, the next task was to identify all the allotments on the framework of the accurate 1809 map, and thereby to define the precise outline of each furlong within the complete open field as it was in 1650. It was assumed that most of the boundaries set out in about 1652 would survive as field boundaries in 1809, either as one field or as a group of fields with the same owner and occupier. It was hoped that the evidence would not already have been obscured by the merger of allotments. Subsequent work confirmed these hopes and assumptions, but this favourable outcome would not necessarily apply to other studies with more years between the enclosure and the first reliable map.



The varying precision of the quoted allotment areas provided useful evidence for the reconstruction. Of the seventy-five allotments in the 1654 decree, fifty-one areas were given to the nearest acre 'or thereabouts', thirteen to the nearest rood and one to the nearest perch. No area was quoted for three plots of glebe land and seven other allotments, three of which have a long blank space where the area should be in both copies of the decree. A plausible explanation for this variation would be that some of the allotments were already defined distinctly enough to allow an accurate survey, whereas the areas of the fresh allotments would be influenced by the accuracy with which they were later set out and then constructed. Any closes that already existed within the open field would only need indicating, which is a likely explanation for those allotments for which no area was given.

It cannot be assumed that all the allotments where the area was given to the nearest acre were being created from a virgin open field; some of them included phrases such as 'three severall peices of land as they were then sett out lyeing togeather containing forty acres or thereabouts' which show that there were some pre-existing boundaries within the open field. These pre-existing closes and divisions were relevant to the reconstruction of the open field because most of them should have survived until the 1809 survey.

Identification of the allotments would be helped by assuming that the areas quoted in 1654 were accurate, or at least consistently inaccurate, when compared with the 1809 areas, or the definitively accurate 1887 Ordnance Survey. There was an argument in favour of using 1887 as the basis for comparison, but it was decided that the relatively small gain in surveying accuracy would be outweighed by actual differences due to losses and changes of field boundaries. Previous study suggested that the 1809 survey was a genuine attempt to measure the area of each field, rather than relying on traditional values which might be inaccurate. The absolute accuracy of the 1654 areas could be established later, using identified allotments that were likely to have remained unchanged up to 1887.

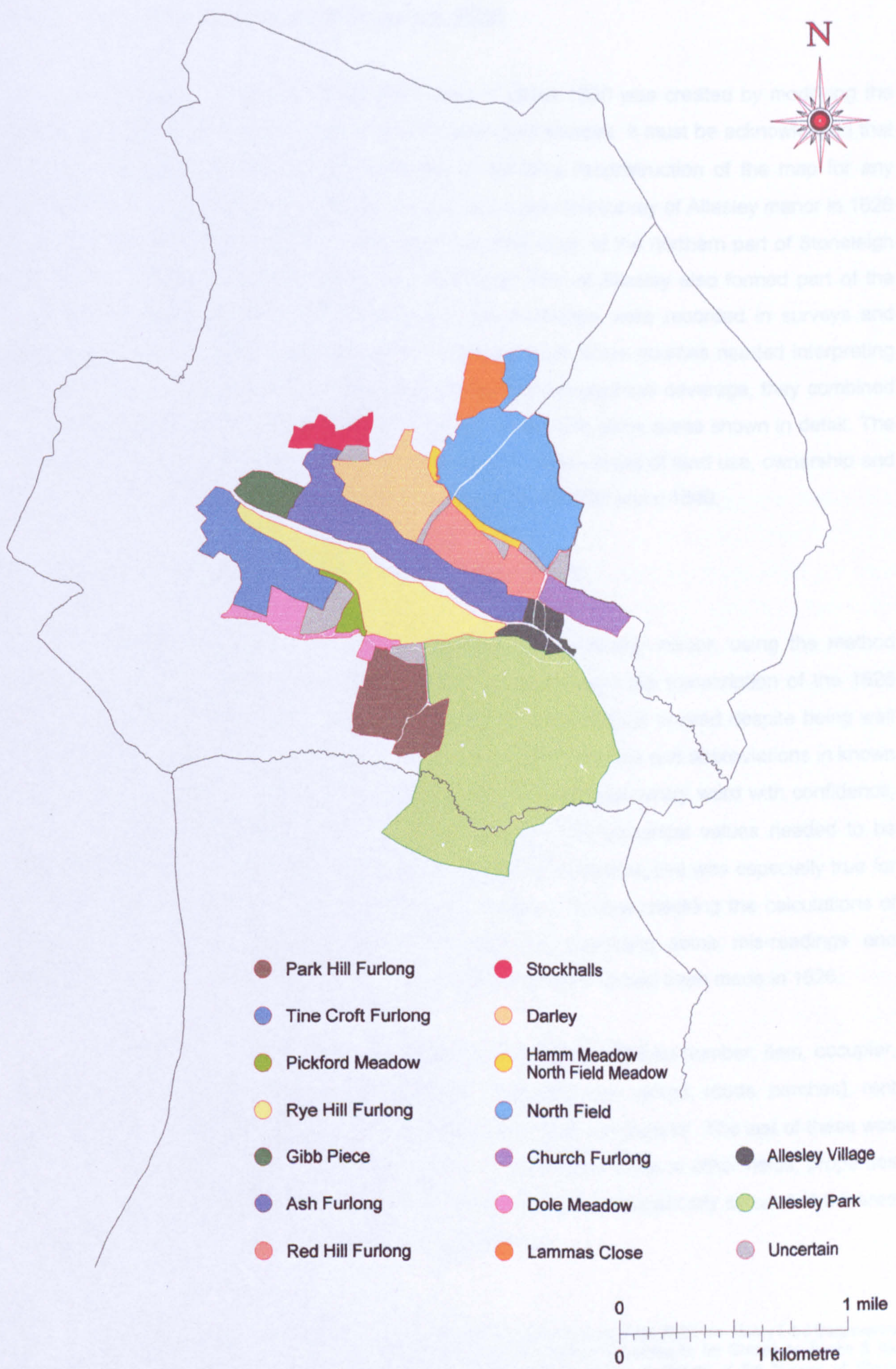
The reconstruction of the open field was a complicated process which had to take account of the fine details of the landscape. To preserve the continuity of the narrative the description of this process has therefore been put into Appendix E. The experience gained in this work showed that surviving field-names usually pointed to the general location of furlongs, but the most useful indicator was the sequence in which the furlongs were listed (usually clockwise) and the linear sequence of allotments within the furlongs. Landmarks and areas helped to confirm the identify of each allotment, but boundary clauses were less reliable. The 1809 parcels of landholding had little correlation with the 1652 allotments, except for the glebe land.



Several of the furlongs were reconstructed with confidence, achieving an accuracy better than 3%, but some could be matched only approximately because of inadequate information or possible changes of field outlines between 1652 and 1809. Had the quality of information been as poor for every furlong, the project to restore the open field would have been too unreliable to be worth pursuing. The contrast between these areas and those other furlongs and pieces of land that were reconstructed without much difficulty and with surprising accuracy may show that the 1654 survey was assembled from more than one source. Some closes and divisions already existed within the open field before the enclosure, which probably explains the difference between the 'six hundred acres, or thereabouts' stated in the preamble to the decree and the 900 acres contained within the whole of the reconstructed open field.

The reconstruction of Allesley's open field is illustrated by Fig. 4-5, which shows the outlines of the furlongs that have been located with confidence. The small areas that cannot be identified from the survey are also shown. It will be seen that the open field occupied a large area to the west and north of Allesley village, bisected by the road that was successively known as the Chester Road, the Birmingham Road and the A45 and has always been a route of national importance. The contemporary outline of Allesley village (then known as Church End) and Allesley Park has been included on this map to demonstrate their close relationship with the open field.





**Fig. 4-5 The Open Field of Allesley in 1652**



## 4.8 Map of the Study Area in about 1600

A detailed map of parts of the study area in about 1600 was created by modifying the 1809 map to include information from several independent sources. It must be acknowledged that the range of dates of these sources prevented a definitive reconstruction of the map for any precise year. The most important of these sources are a detailed survey of Allesley manor in 1626 and a detailed survey and map from 1597 which covered much of the northern part of Stoneleigh manor that lay within the study area.<sup>20</sup> The 1652 open field of Allesley also formed part of the reconstruction. Some other pre-1809 features of the landscape were recorded in surveys and estate maps, most of which dated from about 1770. Although these sources needed interpreting with care because of their different dates and incomplete geographical coverage, they combined to show the general nature of the landscape in about 1600, with some areas shown in detail. The c.1600 surveys also contained the information needed to create maps of land use, ownership and value which allow general comparisons with the surveys from 1809 and c.1840.

### Computer Database from the 1626 Survey of Allesley Manor.

A database was created from the 1626 survey of Allesley manor, using the method developed for the 1840 and 1809 surveys. Unlike these surveys, the transcription of the 1626 survey presented a challenge because the original hand was difficult to read despite being well preserved, as shown in Fig. 3-10. With practice, comparing characters and abbreviations in known words in this document and elsewhere, it was possible to transcribe every word with confidence, apart from a few initial capital letters in proper names.<sup>21</sup> The numerical values needed to be transcribed with care because they could not be interpreted in context; this was especially true for the values per acre which were written in Roman numerals. Double-checking the calculations of values and totals in the survey was found useful for correcting some mis-readings and transcription errors, while pointing to several arithmetical errors that had been made in 1626.

The database record of each field or property contained its folio number, item, occupier, description, modern translation of the description, cultivation, area (acres, roods, perches), rent (pounds, shillings and pence), specified value (pence per acre) and 'next to'. The last of these was added to make use of the frequent abbutal clauses which related fields to other fields, properties and landmarks. For each field or property, the database software automatically calculated the area and rent as decimal numbers for easier use in calculations.

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20 The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14; Allesley Parke - Survey According to Mr Comptons Booke & his val[ua]tion, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey]; A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a; [Map] of the Severall Grounds Lying in Hurste, Flechamstead, and Candley being The Lands of the right worshipfull Sir Thomas Leigh Knight . . . by John Goodwin, Practicioner in the Mathematiques, Shakespeare Birthplace Trust, DR18/25/69a.

21 L. Munby, *Reading Tudor and Stuart Handwriting*, British Association for Local History (1988, Chichester 1997).



## Map of Allesley Manor in 1626

The relational detail in the 1626 written survey of Allesley manor indicated that no map was made to accompany it, so a map had to be reconstructed in as much detail as possible to show the geography and allow the presentation of data from the survey in its geographical context. The standard procedure was used to modify the next earliest maps of Allesley parish and Coundon parish to conform with the details in the 1626 survey. For lack of any earlier complete map, the reconstructed 1809 map described in Section 4.5 supplied the basis for the whole of Allesley parish and some fields in Coundon, while most of the roads and streams in Coundon parish were incorporated from the existing computer-based map of the parish in 1840. Despite their later date it was expected that the few Coundon fields included in the 1626 survey, being part of Allesley manor, would be less changed than other land in the parish.

It is acknowledged that a gap of almost 200 years could present insuperable obstacles to reconstructing the early landscape of any area where there had been widespread changes during the interval, for example through eighteenth-century enclosure. Fortunately it appeared that major changes had not occurred within the study area. Evidence for the stability of the local landscape came from the area of the 1652 enclosure, which lies within the land defined by the 1626 survey. In 1809 this area was characterised by large fields with straight boundaries, contrasting with the small and irregular fields which were usual elsewhere in Allesley and Coundon. It seemed reasonable to assume that the latter pre-dated the former by many years and were already there in 1626. The 1809 map should therefore provide a reliable framework for the 1626 map, albeit with additions and subtractions within the framework. The relative age of straight field boundaries outside the open field would be difficult to establish without direct evidence.

From an initial reading of the 1626 survey it was clear that a number of the listed fields were within the open field, as defined in the 1654 decree. Many of the larger copyholders had land named 'His Feild Ground', whose area was often in multiples of 10.5 acres. The largest such holding was 66 acres and the smallest 3 acres; the total of 356 acres was almost one half of the total area of the open field defined in 1654. In addition to this, the 1626 survey named several fields such as Northfield Meadow and Pickford Meadow which also appeared in the later decree.



The uncertainty introduced by the long gap between 1809 and 1626 was reduced a little by incorporating the details shown on several estate maps which dated from before 1809.<sup>22</sup> Apart from the 1597 map of Stoneleigh described in the next section, the earliest of these was Thomas Harriss's 1697 map of a few fields in Allesley and Stoneleigh (Fig. 3-12), but the large maps all dated from the late eighteenth century. In practice these estate maps showed few differences from the 1809 map, and these were usually insignificant for the present purpose. The stability of the landscape between the estate maps and 1809 gave more hope that many elements of the 1626 map would have survived until 1809, especially in Allesley parish.

It must be conceded that the reconstruction of the 1626 map posed more of a challenge than had been expected, bearing in mind the detail provided by the survey and the apparent stability of much of the landscape in question. It had been expected that many of the fields would be immediately identifiable from their names, areas, and locations because the survey contains about ninety-five field-names, excluding those that could be descriptions rather than names, for example Little Meadow and Broomy Field. Identification by field-name was achieved in some cases, but it was found that few fields had kept the same name between 1626 and 1809. The rate of survival of field-names between widely-separated surveys will be discussed in Chapter 8. Where a field-name was found in both 1626 and 1809, it was accepted as being the same field if the area was almost identical and the general location of the 1626 field appeared to be the same. In general there was surprisingly little difference between the areas of identified fields, with the 1626 values being about 3% less than those quoted in 1809.

Landmarks such as lanes, streams, settlements, woods and known features of the early landscape were found useful in locating many of the 1626 fields and in confirming the identity of those whose names survived until 1809. Some correspondence was found between the landholdings at the two dates, which allowed one definitely identified field to be used to locate others that were associated with it at both dates. Almost no continuity of family ownership or occupation was found, but many individual fields were traced through Philpott's summaries of documents relating to the parish and manor of Allesley.<sup>23</sup> This work, listing the deeds relating to particular land-holdings, fields and families in several record offices, was of great use in tracing the chains of land ownership and occupation between 1626 and 1809.

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<sup>22</sup> Maps . . . by Thomas Harriss 1697, S.B.T., DR18/25/6-7; Map . . . by Thos Eagle 1770, War. C.R.O., CR623; Map . . . by Jas Sherriff 1777, War. C.R.O., CR2554/1; Map of estates . . . c.1795, War. C.R.O., CR2381; Plan of an Estate . . . 1811, War. C.R.O., CR1291/355.

<sup>23</sup> L. C. Philpott, *Allesley Lands and Peoples, Being a Brief History of Some Properties and Their Owners*, (3 manuscript vols at War. C.R.O., 1970 - 1974); L. C. Philpott, *Court Minutes and Other Matters Relating to Allesley Manor*, (manuscript vol. at War. C.R.O., 1968).



### Map of Part of Stoneleigh Manor in 1597

Almost all of the part of Stoneleigh parish that lay within the study area was known as Fletchamstead and much of the c.1600 field pattern can be transcribed from a surviving 1597 map of this division of the manor.<sup>24</sup> As with the other old maps transcribed in the present work, it was essential to have a copy that could be measured and marked at leisure. Fortunately a copy of an existing tracing of the original map was already available, avoiding the probable copyright problems involved in photographing the original.<sup>25</sup> Each field on this map was defined by a number relating to the accompanying survey and by a coloured fringe around its internal perimeter.<sup>26</sup> It is not obvious that the choice of colour had any significance, especially where the fringe changed colour around the same field. The few houses were represented by little pictures which may be representational, although Alcock does not compare these images with other evidence of the buildings' designs.<sup>27</sup> The chief house was shown on some freeholdings, but it is likely that other cottages also existed. Woods and hedgerows were indicated by tree symbols, spaced at regular intervals; these were symbolic, allowing no inferences to be made about the actual location of trees. All roads and lanes were shown, but no ponds or streams. The absence of the last is a drawback to understanding how the land was used, because water supply must have been of critical importance in this area. Several moated sites existed within this part of Stoneleigh and an extensive system of man-made pools created by damming the stream on Westwood Heath, all of which probably existed in 1597.<sup>28</sup>

Subsequent work on the 1597 map showed that it gave a good qualitative representation of the positions and shapes of those field boundaries that survived until the 1887 Ordnance Survey. In contrast, the features that were not of interest to the survey, especially the freehold land and the manorial boundary, were represented rather casually. For the purposes of the present research, the worst shortcoming of this map and survey is the lack of information about the large tracts of freehold land. Their outlines and total areas were shown, together with the freeholders' names, but there was no information about the internal field pattern, value or land-use.

Although this map of Stoneleigh was accurate in a qualitative sense, comparisons with the 1843 tithe survey and 1887 Ordnance Survey maps showed that the accompanying 1597 survey was far from accurate. This became clear from a detailed analysis of the rectangular block of land which is bounded by Broad Lane, Hawthorn Lane, Tile Hill Lane and Banner Lane, near the north-west corner of the parish, which survived intact until after 1843. A comparison showed that this area totalled 201.8 acres in 1843 but only 154.1 acres in 1597, a factor of 76.3%. Within

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24 [Map] of . . . Flechamstead . . . by John Goodwin, Shakespeare Birthplace Trust, DR18/25/69a.

25 Thanks are due to Coventry City Council for supplying a copy of a tracing made for planning purposes, date unknown.

26 Survey of the Manner of Stonly . . . [1597] by John Goodwin, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript, Shakespeare Birthplace Trust, DR18/30/24/279a.

27 N. W. Alcock, *People at Home - Living in a Warwickshire Village 1500-1800* (Chichester, 1993).

28 M. Salter, *The Castles and Moated Mansions of Warwickshire* (Malvern, 1992).



this area, the factors for individual fields or groups of fields with surviving boundaries were between 74.1% and 95.6%, with small closes tending to have the highest values. The relatively high factors for small closes may be due to changes in surveying procedure between 1597 and 1843. Small changes in the field boundaries were expected to occur during this time-span, some intentional and others resulting from slow organic changes in the shape of the hedgeline.

One explanation for the smaller recorded number of acres in 1597 would be that each acre was larger; the traditional 'woodland acre' is an obvious candidate because this part of Stoneleigh was still heavily wooded.<sup>29</sup> The evidence against this explanation comes from a legend on the map which reads : 'Scale of perches 16~foote~1/2' which is correct for the standard acre. The accompanying survey of the whole of Stoneleigh parish showed areas in acres/roods/perches, with the number of roods never exceeding three and the number of perches never exceeding thirty-nine. This evidence suggests that the surveyor John Goodwin used the standard acre. The correct explanation for the missing acres may be provided by the scale bar, in chains, which is drawn on the map. Using this scale bar to measure dimensions on the map, assuming that one chain is 22 yards, it was found that east-west distances were about 17% less, and north-south distances 10% less than those shown in 1887. If the surveyor underestimated distances in this way, the combined effect would be to reduce all areas to about 75% of their correct values, which is close to the 76.3% that was actually found. The missing acres could therefore be explained by the areas being calculated by scaling from a very inaccurate map. However, scaling from drawings is always warned against because of the cumulative errors, so it is unlikely that Goodwin would have done this for a survey with a nominal precision of one perch, paid for by a prestigious client.<sup>30</sup> Shrinkage of the map itself cannot be an explanation, because the scale bar would shrink at the same rate as the east-west distances being measured with it.

The most puzzling aspect of this question is the 9% difference between the east-west and north-south scales, which is highly unlikely to be caused by differential shrinkage of the map. Because the differential scales are consistent with the quoted field areas, it is probable that the drawing of the map and the calculation of areas were both based on the same faulty surveying measurements. It cannot be claimed that the area in question was difficult to survey, being surrounded by a rectangle of roads with long sight-lines and only gentle gradients. Only implausible explanations come to mind, such as all north-south measurements being surveyed using a chain which was shorter than the chain used for the east-west measurements, or one direction having incompetent surveyors. In truth, the gross inaccuracy of the absolute and relative distances and areas in the 1597 Stoneleigh map awaits a satisfactory explanation.

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29 O. Rackham, *The History of the Countryside* (1986; London, 1990), p.75.

30 J. A. Sandover, *Plane Surveying* (London, 1961), pp.385-400.



Fortunately, these deficiencies were not of critical importance in the present work because an accurate geographical framework had already been established from later maps. The information in the 1597 map, which seems to be reliable qualitatively, was sufficient to produce a reasonably accurate map based on this framework. However, it should be noted that the inaccuracies in the original 1597 map and survey would invalidate any isolated analysis of its numerical contents that did not have such a reliable framework. The misrepresentation of field areas would need to be corrected using later surveys before landholdings and land values could be assessed, but this fact is in no way evident from the detailed, precisely-stated and largely erroneous information in the 1597 survey of Stoneleigh manor.

As would be expected, the survival of a contemporary map made the reconstruction of a computer-based map of Stoneleigh manor in 1597 much more straightforward than the equivalent reconstruction for Allesley manor in 1626, which was based only on a written survey. Some areas of potential difficulty remained, however, especially the possibility that the geography of Stoneleigh might have changed so radically between 1597 and 1843 that the 1843 map would not share enough framework to allow a reliable reconstruction. Fortunately Matthias Baker's detailed maps from 1766-67 confirmed that the landscape was little changed between 1767 and 1843, apart from the enclosures, road closures and road narrowing shown in the 1816 enclosure map and presented on the 1809 map in Fig. 4-4.<sup>31</sup> The remaining interval of 170 years was almost the same as for the Allesley reconstruction, but with the firmer basis supplied by the 1597 map.

The reconstruction of the 1597 Stoneleigh map based on the framework of the 1809 map began with the large areas of woodland whose shapes appeared to be unchanged. The roads and lanes that survived until 1809 were then reconstructed by removing any later enclosures which had reduced their width. Most of these enclosures were easily identifiable because they created separate narrow fields bordering the lanes rather than being incorporated into adjoining fields.

Attention then turned to the fields which appeared to be the same in 1843 as in 1597 and those 1597 fields that had been sub-divided before 1843. By comparing the shapes and sizes of the 1766 fields within the freehold areas with other old fields shown in 1597 it seemed evident that many of the boundaries within the freeholdings dated from before 1597. Despite this, it was decided to restrict the reconstructed 1597 map to known facts, so most boundaries within the freeholds were ignored. Woods that existed in 1766 were retained, however, because it was thought highly unlikely that they were recent creations at a time when 1597 woodland was being destroyed on a large scale, and no new woodland created in areas that were not freeholdings.

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31 Matthias Baker, Maps . . . 1766-67, S.B.T., DR671/30-31; Stoneleigh Inclosure Map 1816, War. C.R.O., CR523/2.



The changes so far had been made by deleting boundaries that were on the 1809 map but did not exist in 1597. Removing the 1809 boundaries within the large freeholdings on the eastern side of Stoneleigh actually improved the relative accuracy of the 1597 reconstruction because these boundaries were known to be the least reliable part of the 1843 tithe map upon which the 1809 map was based. The remaining changes concerned lanes and field boundaries which were there in 1597 but not in 1843 or 1766. Reconstructing these boundaries would obviously be more approximate than the process that was used for the remainder of the map, but it was hoped that the proven reliability of the qualitative representation of surviving features in the 1597 map would be maintained for these lost features.

Most of the lost lanes and field boundaries were concentrated near the middle of the Stoneleigh map, to the south of Tile Hill Lane. The old lane running south-west from Tile Hill Lane opposite Hawthorn Lane was obviously a continuation of the access lane on the south side of the woodland that was shown in 1843; its varying width was scaled from the 1597 map as a proportion of the known size of the woodland, with widening being accommodated on the south side of the lane. The other old lane which ran due south from Tile Hill Lane opposite Hawthorn Lane was also easy to locate because one side of most of it was preserved by 1843 field boundaries. The side where it ran was decided by the presence of a later footpath and by some short dog-legs where east-west fields met this boundary; scaling was again used to set the varying width. This lane still survives as an overgrown and unremarked feature where its route runs through the middle of Park Wood. The old access lanes on the south and east sides of Westwood Heath were added for completeness, although they were not within the study area. This involved some approximation because these lost features were difficult to locate precisely within the much-changed landscape of 1776 and 1843 in this area.

The reconstruction of lost field boundaries was more difficult because it was clear that some areas had been surveyed less reliably than others. The lane running south from Tile Hill Lane near the end of Job's Lane was shown joining further to the east in 1597. At first it was considered that the lane might actually have been moved, but this idea was discarded because moving the lane would grossly distort the proportions of the adjacent fields to the west, which had some known boundaries. Another more practical argument was whether anyone would bother to move a lane which was equally narrow in both 1597 and 1843, and whose later route enclosed a small stream.

It was concluded that the estates to the north and south of Tile Hill Lane were surveyed independently, with a poor match between the surveys. Similar defects were found on the 1843 tithe map of Stoneleigh. The lack of correspondence between the two sides of Tile Hill Lane in this area prevented any continuity being assumed between boundaries on opposite sides.



Aerial photographs were of little assistance in locating earlier boundaries in the northern part of Stoneleigh parish because this land had been almost entirely defaced by roads and houses in the early twentieth century. For lack of better information about these old boundaries, they were added to the transcribed map by scaling between the nearest known boundaries on the 1597 map. As discussed previously, the actual areas of these surviving fields were in poor agreement, with the areas quoted in the 1597 survey, so the latter provided little assistance in determining the shapes of fields whose boundaries had not survived.

Unfortunately, the absence of streams and ponds on the 1597 map prevented these features from being reconstructed as they actually were. Some of the 1597 meadows certainly had a stream running across them, but the 1597 map gave no clue as to whether the contemporary course of the stream defined one boundary or meandered across the middle. As a final detail, the relatively few houses and cottages shown on the 1597 map were transcribed at the scale of the floor-plan of a typical cottage in Stoneleigh parish around that date, and then doubled in size to make them more visible on the final map.<sup>32</sup>

### **Map of the Study Area in about 1600**

The detailed but incomplete maps of Allesley manor in 1626 and the northern part of Stoneleigh manor in 1597 were merged to produce a map of much of the study area as it was in about 1600. The merging of these maps presented little practical difficulty because each map was a computer-based reconstruction based on an identical geographical framework. The two maps could be superimposed by one simple operation in the computer-aided design system, producing an exact correspondence across the join.

Fig. 4-6 shows the final reconstructed map of the study area in about 1600, covering parts of Allesley parish, fragments of Coundon parish and the northern part of Stoneleigh parish. This map can be compared directly with the maps of the study area in 1809, c.1840, 1887 and 1938, as well as with the c.2000 satellite photograph shown in Fig. 1-5. From Fig. 4-6 it will be seen that there are large areas where there was not enough information to permit a reliable reconstruction for 1600. In Allesley and Coundon parishes, the blank areas were land outside Allesley manor, the freehold land and other areas that could not be positively identified from the information in the 1626 survey. Within Stoneleigh, the blank areas were the freeholdings that were not detailed in the 1597 map and survey.

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<sup>32</sup> Alcock, *People at Home*, pp.23-53.



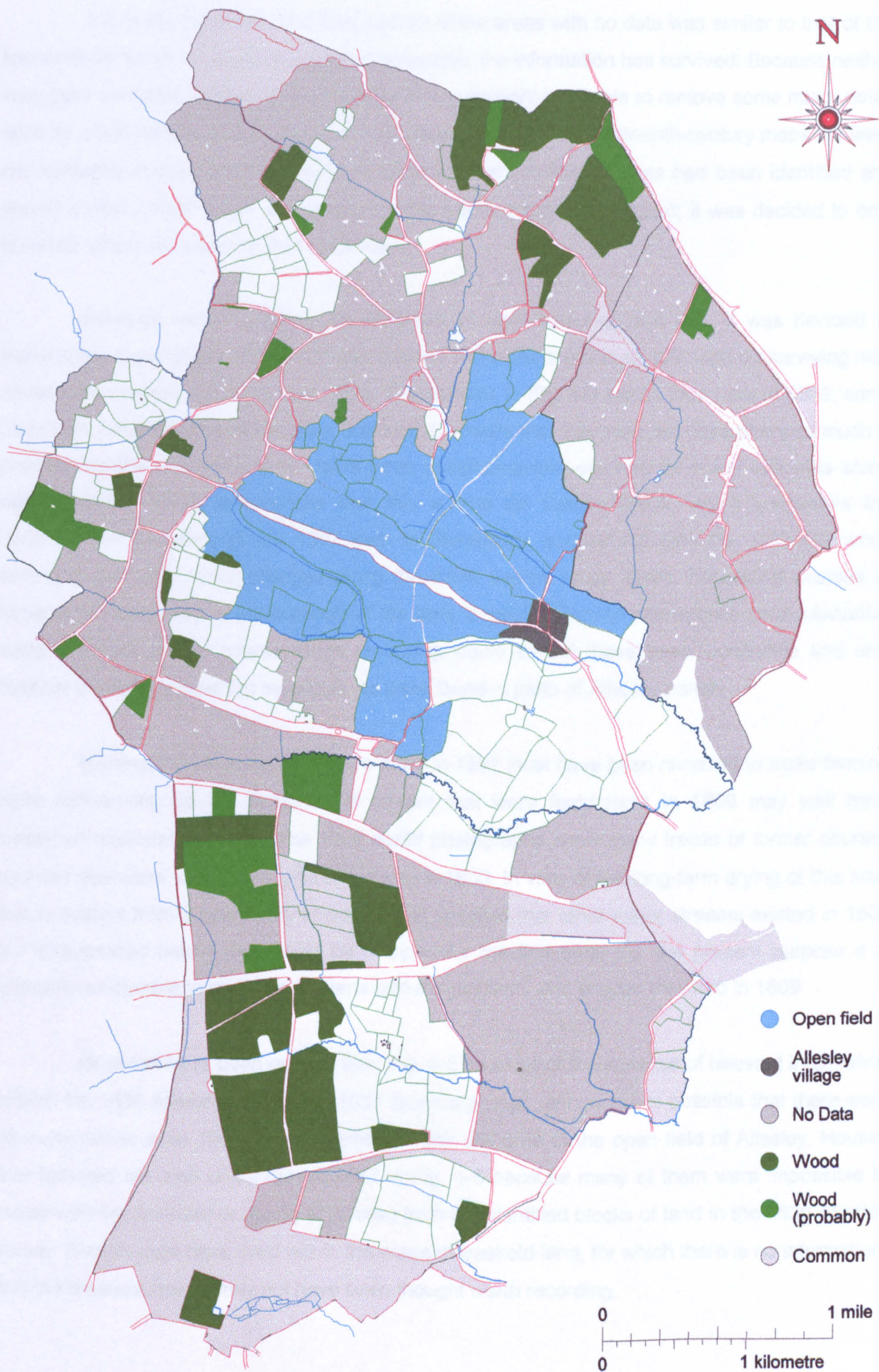


Fig. 4-6 The Study Area in about 1600



It is likely that the c.1600 field pattern of the areas with no data was similar to that of the known fields for which, by an accident of ownership, the information has survived. Because neither map gave complete geographical coverage, it was thought justifiable to remove some minor detail such as small parcels of enclosed land that were shown on the nineteenth-century maps but were not traceable in the c.1600 surveys. Although several small enclosures had been identified and shown on the c.1600 maps, and others existed but had not been located, it was decided to omit those for which there was no firm evidence.

Because water supply is so important in understanding land use, it was decided to indicate the approximate positions of the streams within the study area, although no surviving map shows their courses as far back as 1600. The streams in Fig. 4-6 are as they were in 1809, some 200 years after the date of the other features. Evidence that they may not have changed much is provided by the meanders which have been developing and evolving for many centuries along some streams. Maps demonstrate that this is true for Canley Brook, which constitutes the north-eastern boundary of the 1597 map of Stoneleigh; comparison with the 1887 Ordnance Survey shows only minor changes along the same overall route. Since the natural courses of streams are controlled by the contours of the land, it requires human interference on a substantial scale to create a new course. Such re-routing would seldom have been worthwhile and only feasible in broad, almost flat meadows, as were found in parts of Allesley parish.

Many of the meanders that were there in 1597 must have been removed to make farming more convenient, so the stretches of stream that were featureless in 1809 may well have contained meanders in 1600. The 1946 aerial photographs show many traces of former courses and lost meanders which were probably there in 1600. In view of the long-term drying of this area that is evident from a later study of ponds, it is possible that other minor streams existed in 1600 but disappeared before they could be mapped for the first time. For the present purpose it is probably acceptable to show the streams with the positions and shapes they had in 1809.

All ponds have been omitted from Fig. 4-6 because of the absence of relevant information in both the 1626 Allesley survey and 1597 Stoneleigh map, although it is possible that there were as many ponds as in 1809, except perhaps within the area of the open field of Allesley. Houses and cottages are also under-represented in Fig. 4-6 because many of them were impossible to locate with any confidence, being separated from the identified blocks of land in the 1626 Allesley survey. People must have lived within the areas of freehold land, for which there is no information, and the meanest hovels may not have been thought worth recording.



If one imagines the areas with no data to be patchy cloud, then Fig. 4-6 is the view that a bird would have had when flying high over the study area in about 1600. Unfortunately almost none of Coundon can be reconstructed with confidence at this date but, despite the omissions and approximations, there is a clear contrast between the landscape of Stoneleigh and that of Allesley to the north. Apart from the large furlongs of the open field, Allesley is already taking on the appearance it had in 1809, with a moderate proportion of woodland, only a little waste and a trend towards fields of small and medium size. The satellite photograph in Fig. 1-5 shows that many of these fields still survived in 2000. By contrast, the northern part of Stoneleigh parish looks very odd to modern eyes, with islands of woodland and large fields set in a sea of waste. Even at this early date the geography of Stoneleigh was distinctly more rectilinear than that of Allesley. There was a notable concentration of woodland in the north-west corner of Stoneleigh parish, corresponding to the medieval Westwood. A more detailed study of the development and use of the landscape of the whole study area is contained in the following chapters.



# 5

## Landholdings in the Study Area

This chapter explains the techniques used to derive the maps of landholdings within the study area since about 1600. Changes between the landholdings at different dates are described in Chapter 8, while a more fundamental exploration of the development of the landscape of the study area is provided in Chapter 9. The present chapter refers to places and features shown in Fig. 1-6, using the maps and surveys of the study area described in Chapter 4. For clarity of presentation, all acreages quoted in the text have been rounded to the nearest integer.

### 5.1 The Study Area in about 1600

The following information about the study area is presented on the c.1600 map shown in Fig. 4-6 whose derivation is described in Section 4.8.

#### Landowners' holdings

The 1597 map and survey of Stoneleigh manor provided all the information needed to reconstruct the contemporary pattern of land ownership in that part of the study area.<sup>1</sup> Because the freeholders were named, the lack of other data for their land was not a hindrance, despite preventing any reconstruction of the field layout and pattern of land use. The survey of Allesley Park also presented no difficulties because the whole area had one owner.<sup>2</sup> It was more difficult to establish the 1626 pattern of land ownership in Allesley manor because this depended on correctly locating the parcels of land listed in the survey.<sup>3</sup> For the reasons given in Section 4.8, the reconstruction of the 1626 map posed more of a challenge than had been expected, bearing in mind the detail provided by the survey. Allesley manor also contained considerable areas of freehold land that were not even mentioned in the survey, so neither the location nor the ownership of this land could be ascertained. Despite these problems it was possible to reconstruct the pattern of land ownership in some parts of Allesley manor, aided by the fact that it was not necessary to know anything about the field boundaries within each holding.

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- 1 A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a; [Map] of the Severall Grounds Lying in Hurste, Flechamstead, and Candley being The Lands of the right worshipfull Sir Thomas Leigh Knight . . . by John Goodwin, Practicioner in the Mathematiques, Shakespeare Birthplace Trust, DR18/25/69a.
  - 2 Allesley Parke - Survey According to Mr Comptons Booke & his val[ua]tion, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey].
  - 3 The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14.



These three sources of information about land ownership related to different dates between 1597 and about 1660. There was a gap of almost thirty years between the major surveys of Stoneleigh manor and Allesley manor, so one should not expect many individuals to appear in both surveys, even if they owned land in both manors in either 1597 or 1626. Fortunately it appears that most of the holdings based in Allesley parish that extended into Stoneleigh were confined within the narrow strip to the north of Broad Lane that was counted within Allesley manor. In addition, some fields on the south side of Broad Lane were owned by the lord of the manor of Allesley, who owned the nearby Allesley Park.

Fig. 5-1 shows the reconstructed map of landowners' holdings within the study area in about 1600. Because of the range of dates, this map is significant for the pattern of land ownership rather than the identity of individual owners. One of the most prominent features was Lord Leigh's large block of land, which extended north in places as far as Broad Lane and was itself only the northernmost part of Leigh's total holding in Stoneleigh. Almost all of Stoneleigh parish within the study area was formerly part of the Stoneleigh Abbey estate, but one exception to this was the Anglo-Saxon Whoberley estate in the north-east corner of the parish. To the west of Whoberley was the part of Allesley Park that lay within Stoneleigh parish. This land was transferred from Stoneleigh Abbey to Henry Hastings in 1305, in exchange for his agreeing not to pasture his animals in the woodland of northern Stoneleigh.<sup>4</sup> The place-name *le Kyngeshok* quoted in the agreement related to the hock-shaped (bent-leg) profile of the stretch of landscape which combined the flat-topped ridge containing Broad Lane and the steep slope down to Guphill Brook (Allesley Brook as it was then known) to the north of Broad Lane.

Further west along Broad Lane were two Kingwoods, one of them shown on the 1697 map (Fig. 3-12). It may be assumed that this whole strip of land to the north of Broad Lane was once treated as part of the king's highway (hence the 'king' names), and worth little to Stoneleigh Abbey because of its poor soil and north slope and because the sparse population of Stoneleigh could not protect it from intrusion by travellers and the nearby residents of Allesley parish. That would explain why most of this land had other owners by 1597. The holdings on the south side of Broad Lane had straight boundaries, which suggests that their enclosure was also fairly recent.

Fig. 5-1 shows that the most prominent features in Allesley manor were the open field, Allesley Park, and the copyhold land belonging to Lord Bergavenny. The few identified freehold properties are also shown, but the large area of unidentified land contained both copyhold and freehold land. It is regrettable that these two types could not be located precisely because it appears that the open field may have lain within a ring of freeholdings which had been created at its expense.

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4 R. H. Hilton, *The Stoneleigh Leger Book*, Dugdale Society, 24 (Stratford-upon-Avon, 1960), pp.175-176.



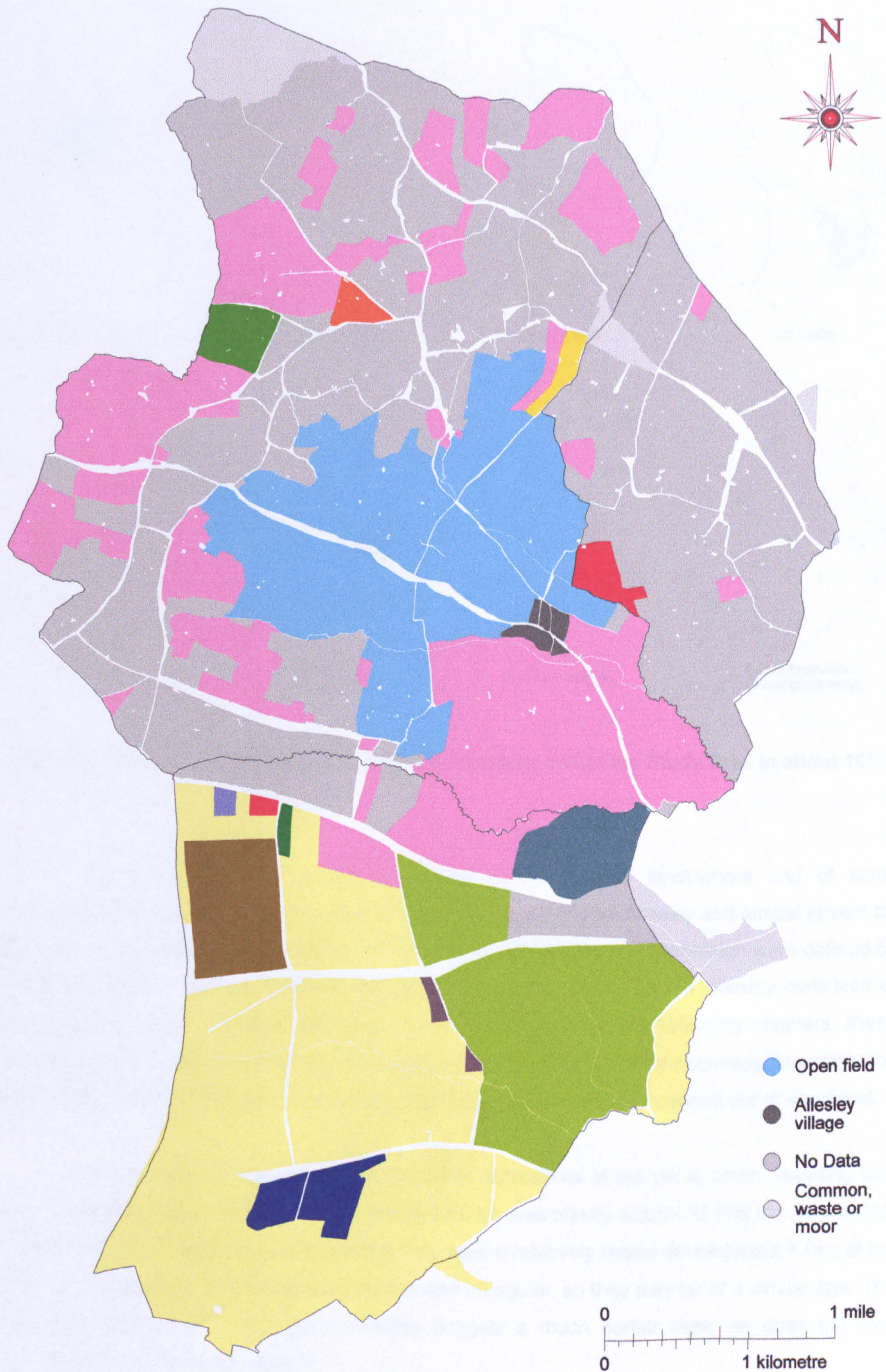
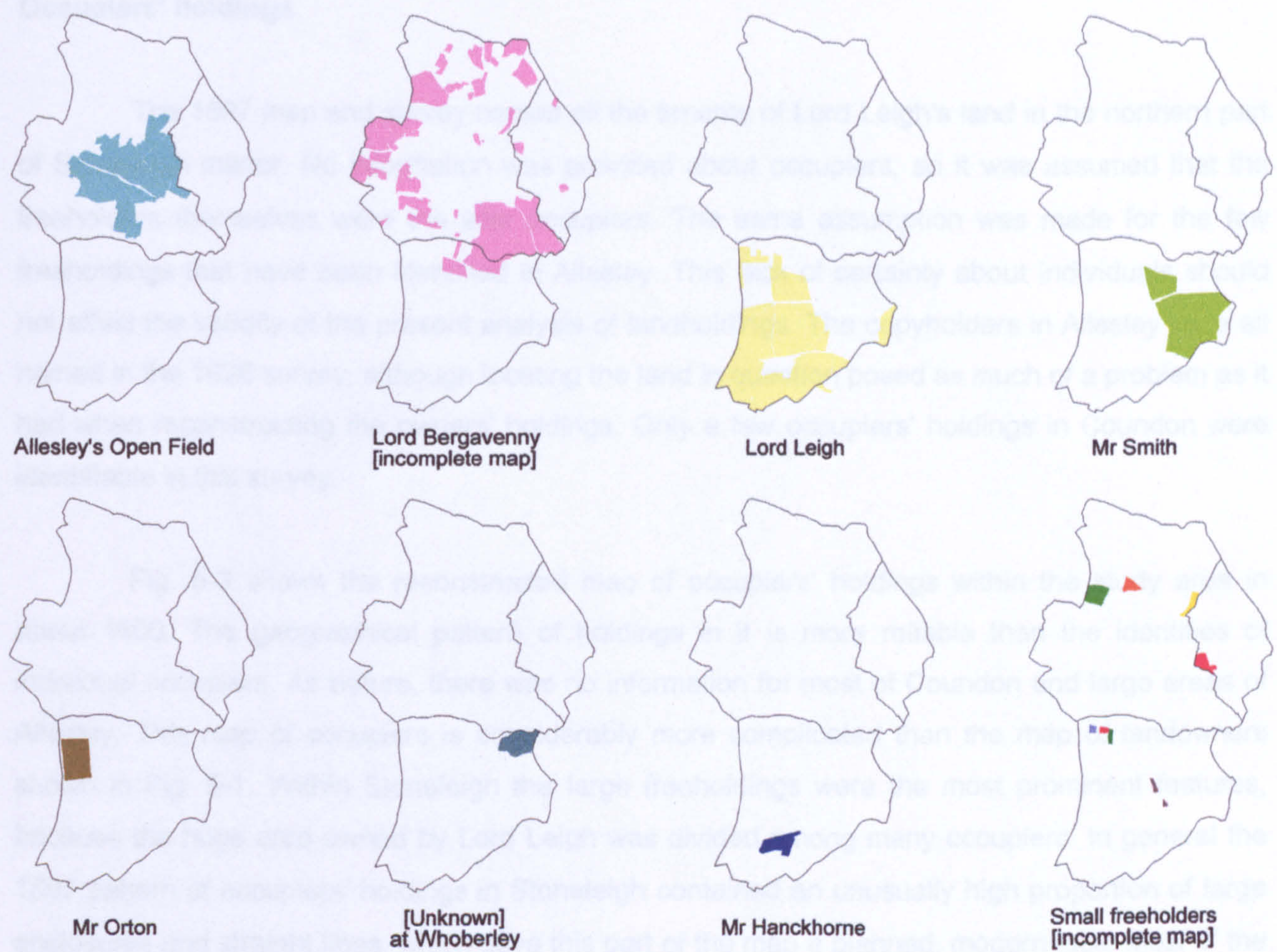


Fig. 5-1 Landowners' Holdings within the Study Area in about 1600





**Fig. 5-2 The Larger Individual Landowners' Holdings within the Study Area in about 1600**

Fig. 5-2 shows the individual holdings of these large landowners and of some freeholders; the map is complete for Stoneleigh, very incomplete for Allesley and almost absent for Coundon. It is noteworthy that most of the freeholdings in Allesley and Stoneleigh were defined by simple geometrical shapes, whereas the open field and copyhold land in Allesley consisted of complicated shapes. Together with other evidence described in the following chapters, these shapes suggest a landscape derived by woodland assarts. It is therefore necessary to explain the startling contrast with the layout of northern Stoneleigh, which was also created out of woodland.

The explanation can probably be found in differences in the dates when assarting was done. Domesday Book shows that northern Stoneleigh was mainly woodland and the geometrical boundaries of the freeholdings suggest that they were a relatively recent development.<sup>5</sup> Two of the three known freeholds in Allesley were square and triangular, so they may be of a similar age. The irregular shapes of the holdings in Allesley suggest a much earlier date, as does the oval boundary of the Whoberley estate.

<sup>5</sup> A. Williams and G. H. Martin (eds), *The Warwickshire Domesday, Facsimile and Translation*, Alecto Historical Edition (London, 1991), fo.1.



## Occupiers' holdings

The 1597 map and survey named all the tenants of Lord Leigh's land in the northern part of Stoneleigh manor. No information was provided about occupiers, so it was assumed that the freeholders themselves were the sole occupiers. The same assumption was made for the few freeholdings that have been identified in Allesley. This lack of certainty about individuals should not affect the validity of the present analysis of landholdings. The copyholders in Allesley were all named in the 1626 survey, although locating the land in question posed as much of a problem as it had when reconstructing the owners' holdings. Only a few occupiers' holdings in Coundon were identifiable in this survey.

Fig. 5-3 shows the reconstructed map of occupiers' holdings within the study area in about 1600. The geographical pattern of holdings in it is more reliable than the identities of individual occupiers. As before, there was no information for most of Coundon and large areas of Allesley. This map of occupiers is considerably more complicated than the map of landowners shown in Fig. 5-1. Within Stoneleigh the large freeholdings were the most prominent features, because the huge area owned by Lord Leigh was divided among many occupiers. In general the 1597 pattern of occupiers' holdings in Stoneleigh contained an unusually high proportion of large enclosures and straight lines, which gave this part of the map a planned, modern look. Most of the irregular boundaries conformed with stream-courses and wood outlines. Within Allesley the Stoneleigh pattern of holdings was echoed by Allesley Park, which had recently been divided into farms. The curved boundaries there ran around the contours on its steep slopes. By analogy with Allesley Park, it seems likely that the 1597 boundaries of occupiers' holdings in northern Stoneleigh were also of fairly recent origin.

Most of the parcels of land making up the 1626 occupiers' holdings in Allesley were smaller than the 1587 tenants' holdings in Stoneleigh. They were also more irregular in shape, with the exception of the square and triangular freeholdings. This irregularity was repeated in the field boundaries that are shown in Fig. 4-6, lending further support to the theory that this landscape had been created by piecemeal woodland assarts at a fairly early date, rather than being planned as a whole in the same way as Stoneleigh appears to have been. It is regrettable that no documentary evidence has survived. An obvious candidate for being created out of woodland was John Milward's curvilinear holding (coloured pale green) near the south-west corner of Allesley, which was on the top of a hill and had pockets of woodland defining two of its boundaries.

Fig. 5-4 illustrates the categories of occupiers' holdings within the study area. The upper row shows the four broad divisions into open field, demesne, freeholders and copyholders. In the 1597 Stoneleigh survey the occupiers were actually described as 'tenants', but they have been included with Allesley's copyholders because their status was similar.



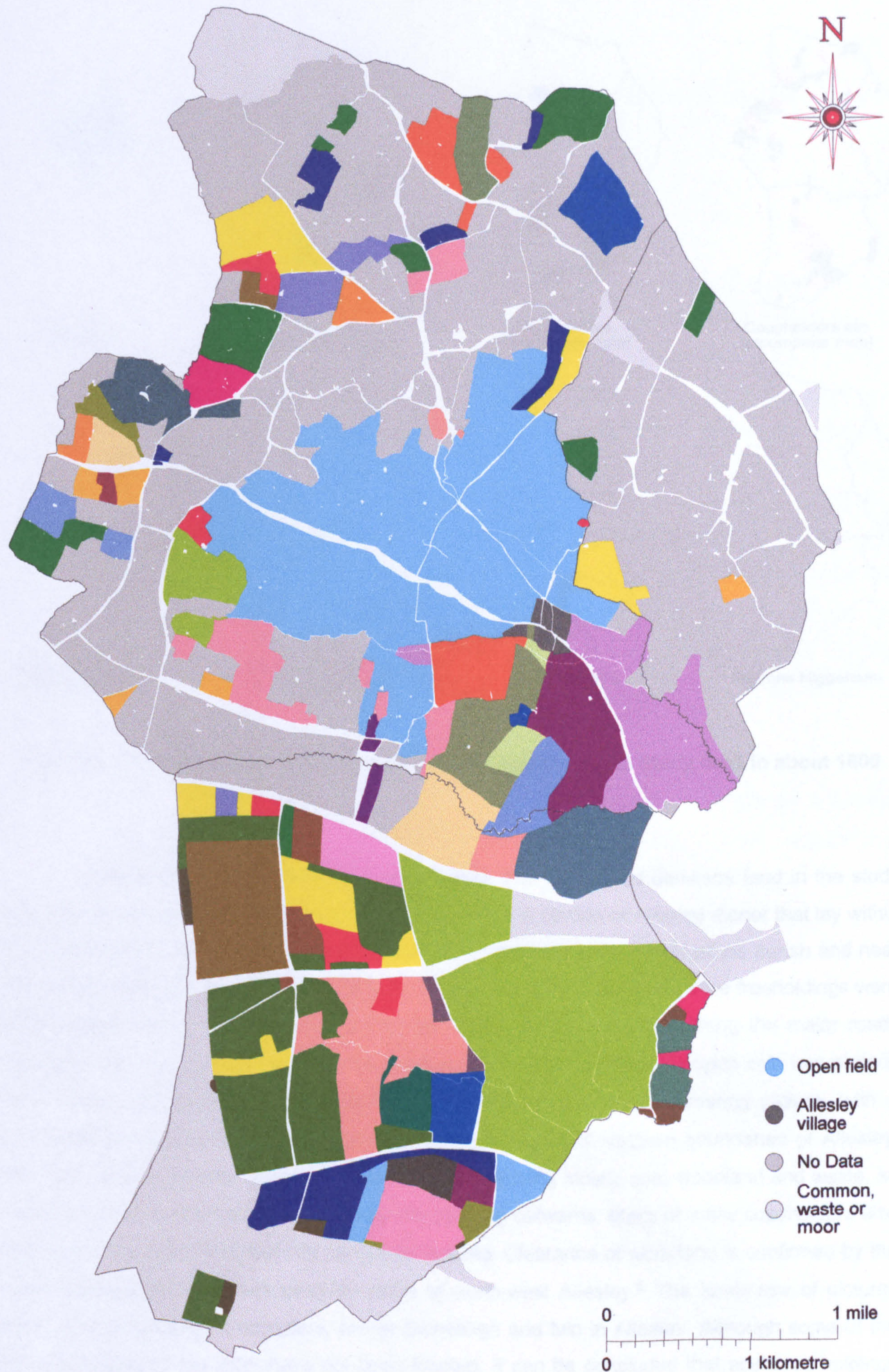
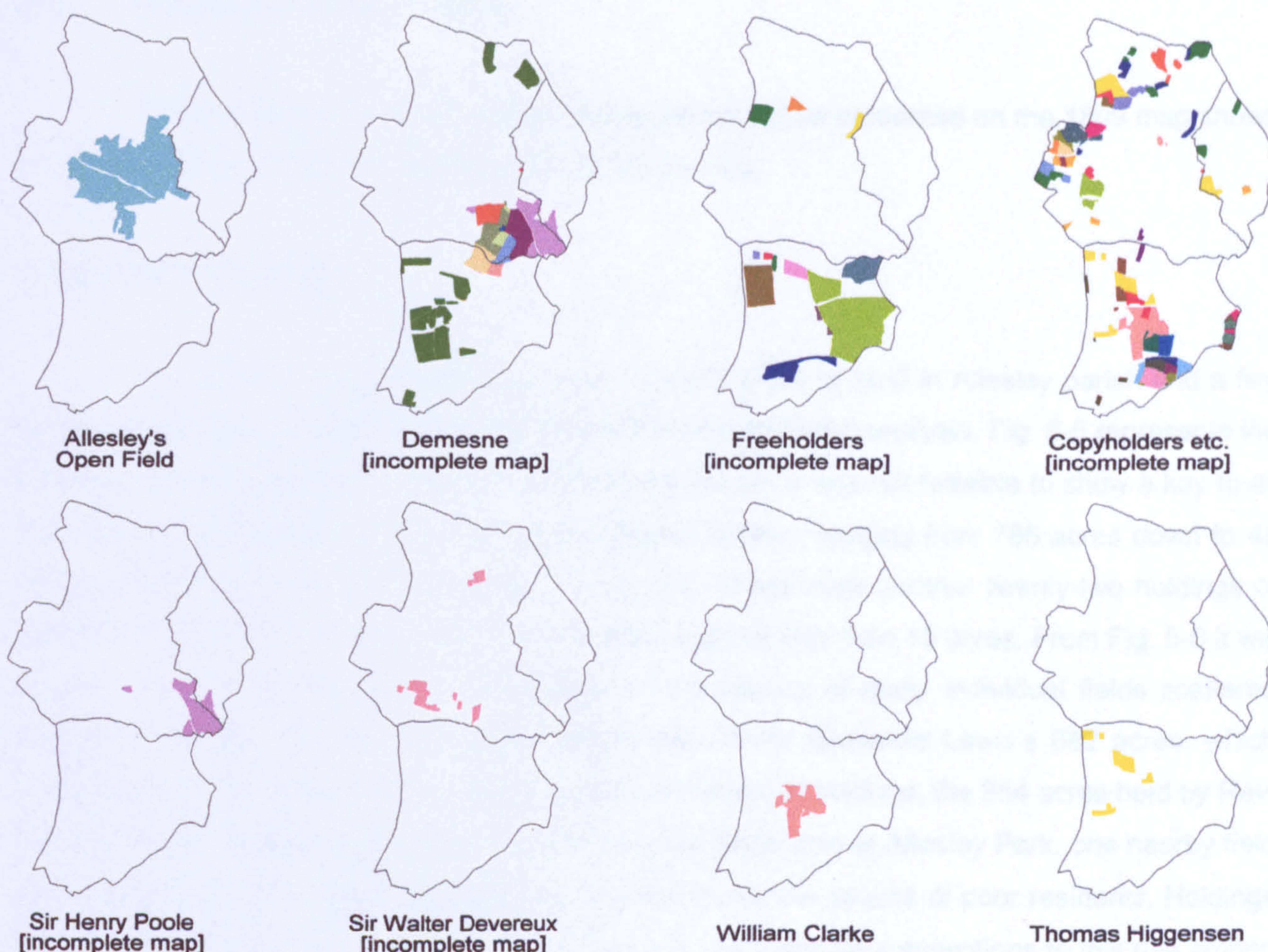


Fig. 5-3 Occupiers' Holdings within the Study Area in about 1600





**Fig. 5-4 The Larger Individual Occupiers' Holdings within the Study Area in about 1600**

Despite the gaps in the data it can be seen that the farmed demesne land in the study area was concentrated around Allesley Park, including the portion of Allesley manor that lay within Stoneleigh parish, but there were detached woods in the north-east corner of the parish and near the western edge of Stoneleigh (all coloured dark green). Within Stoneleigh the freeholdings were concentrated next to Hearsall Common on the Coventry boundary and along the major roads leading to the city. The possible location of freeholdings around Allesley's open field has already been noted. The copyholders and other tenants provide the most interesting picture, with a continuous arc across Stoneleigh and around the western and northern boundaries of Allesley. This was the most remote area relative to Coventry, backing mostly onto woodland and waste, so it appears to be the frontier where farming was pushing outwards. Many of these copyholders also had land in the open field, but this cannot be located. Clearance of woodland is confirmed by the name 'Ridings End' that was used for much of north-west Allesley.<sup>6</sup> The lower row of pictures shows four of the largest occupiers, two in Stoneleigh and two in Allesley. Although some of the fields belonging to the latter have not been located, it can be concluded that scattered holdings were not unusual in about 1600, despite their apparent inefficiency.

<sup>6</sup> J. Field, *English Field-names: a Dictionary* (Newton Abbot, 1972), p.67.



## 5.2 Allesley Parish in 1809

The following information about Allesley parish will be presented on the 1809 map shown in Fig. 4-4 whose derivation was described in Section 4.5.

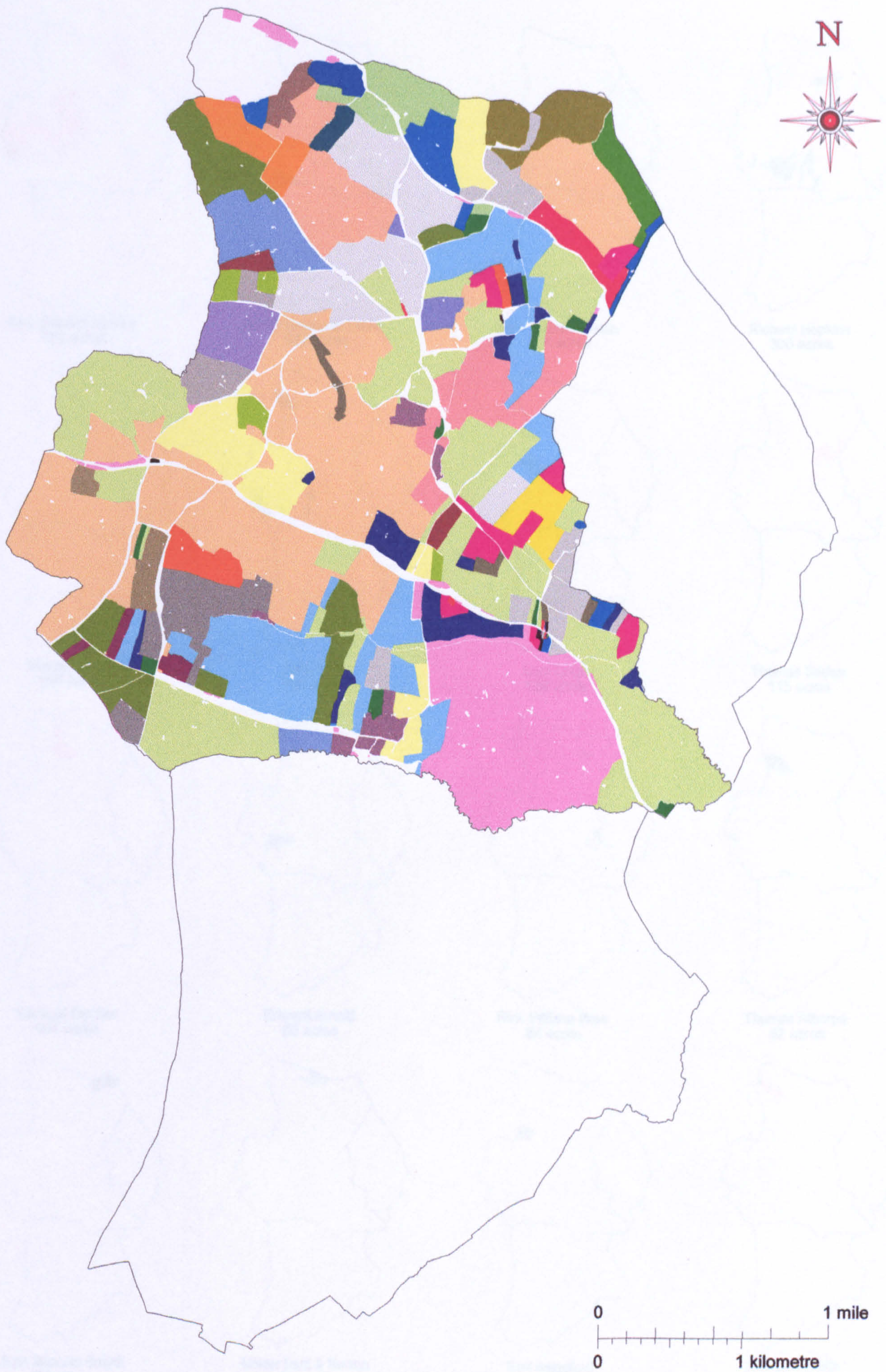
### Landowners' Holdings

The 1809 survey recorded the owner of every piece of land in Allesley parish and a few fields in Coundon; the latter have been omitted from the following analysis. Fig. 5-5 represents the holding of each landowner in Allesley by a different colour. It was not feasible to show a key to all seventy-two landowners on this map, so the largest sixteen, ranging from 786 acres down to 48 acres, have been presented individually in Fig. 5-6. There were another twenty-two holdings of between 11 acres and 44 acres and a further thirty-eight of less than 10 acres. From Fig. 5-6 it will be seen that most of the large landholdings were made up of many individual fields scattered around the parish. The most extreme example was Henry Greswold Lewis's 682 acres, which comprised several compact farms and many isolated fields. In contrast, the 354 acres held by Rev. Edward Neale, the lord of the manor, consisted of the large area of Allesley Park, one nearby field and a large number of very small road-side enclosures for the houses of poor residents. Holdings of less than 65 acres were more likely to be compact, but there were exceptions to this rule among even the smallest properties.

Fig. 5-5 shows that there was a very irregular arrangement of landholdings in Allesley parish in 1809. There was little indication that the landscape was ever divided geometrically, except for Earl Aylesford's 49-acre square on the western boundary and the north-eastern part of the former open field adjoining Coundon. Some tendencies are made clearer by Fig. 5-7 which shows the distribution of landholdings in four size ranges. Large holdings of more than 200 acres were near the village or the main roads; there were none in the north-west quarter of the parish and few in the south-west. These gaps were filled by holdings of between 50 acres and 200 acres. Landholdings between 10 acres and 50 acres were fairly evenly distributed, although with some concentration around Allesley village, within the former open field, and near the boundaries of the parish. The smallest holdings below 10 acres were concentrated in and around the village and Hawkes End, next to the Coundon boundary.

The prevalence of scattered holdings makes it clear that there was an active market in agricultural land, with even single fields being in demand. Because of this, the distribution of sizes of landholdings is probably not significant. As will be shown later, few of the major landowners were owner-occupiers or even local residents.





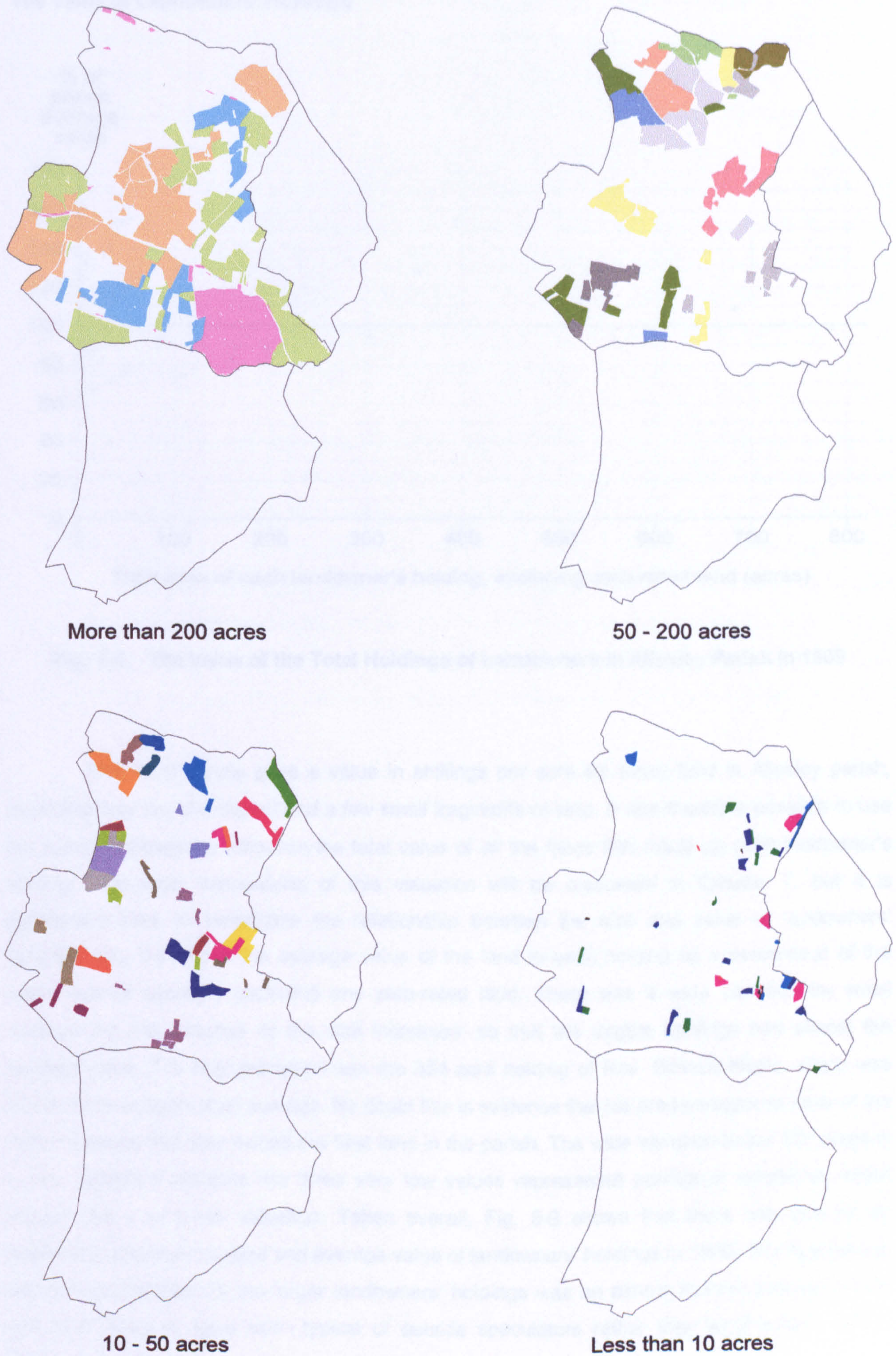
**Fig. 5-5 Landowners' Holdings within Allesley Parish in 1809**





**Fig. 5-6 The Larger Individual Landowners' Holdings within Allesley Parish in 1809**

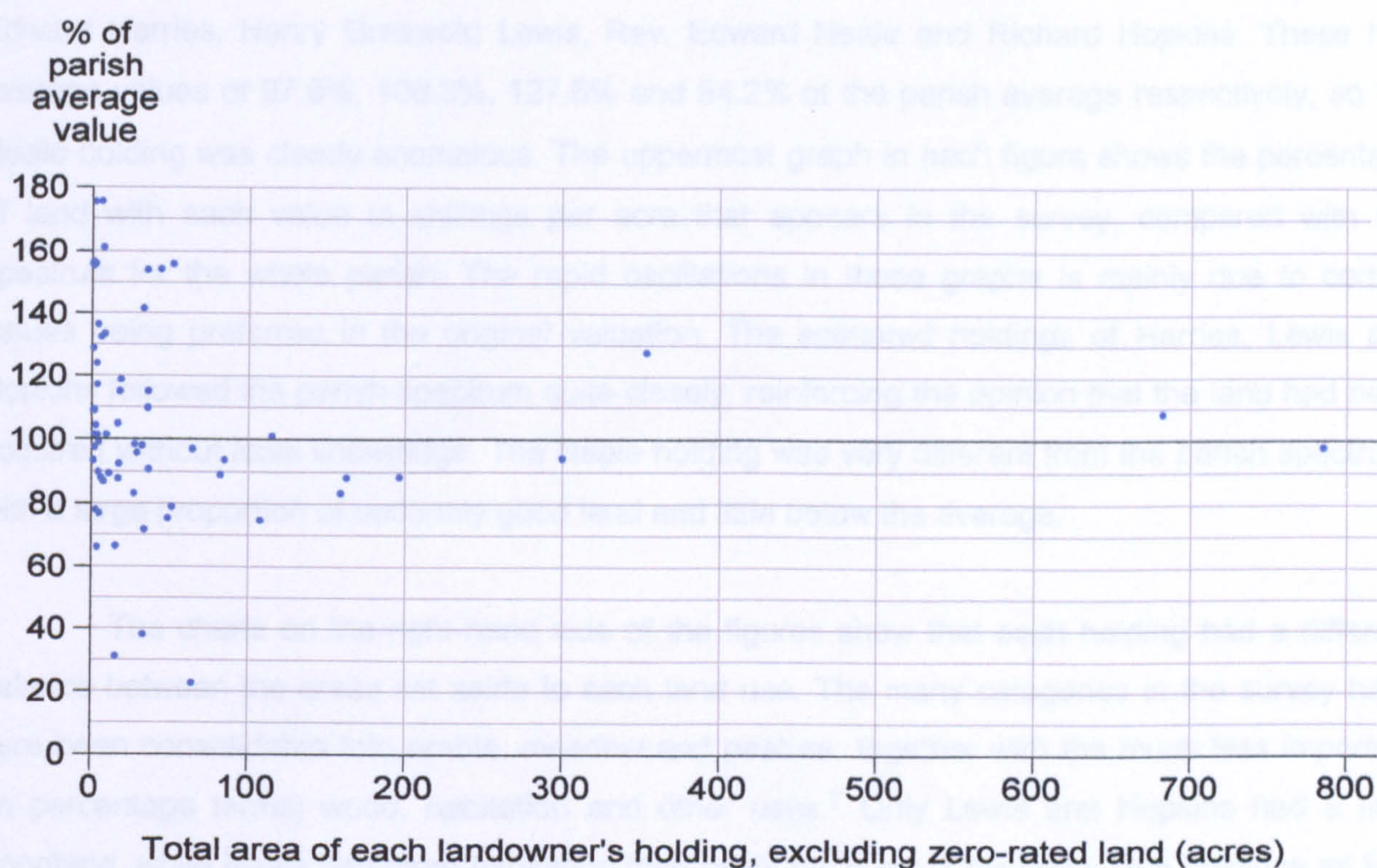




**Fig. 5-7** Size Distribution of Landowners' Holdings within Allesley Parish in 1809



### The Value of Landowners' Holdings



**Fig. 5-8 The Value of the Total Holdings of Landowners in Allesley Parish in 1809**

The 1809 survey gave a value in shillings per acre for every field in Allesley parish, excluding only the churchyard and a few small fragments of land. It was therefore possible to use the survey database to calculate the total value of all the fields that made up each landowner's holding. The wider implications of this valuation will be discussed in Chapter 7, but it is appropriate here to investigate the relationship between the size and value of landowners' holdings. Fig. 5-8 shows the average value of the land in each holding as a percentage of the overall parish average, excluding any zero-rated land. There was a wide variation for small holdings but this reduced as the size increased, so that the largest holdings had almost the average value. The only exception was the 354 acre holding of Rev. Edward Neale, which was 27.6% more valuable than average. No doubt this is evidence that his predecessors as lords of the manor ensured that they owned the best land in the parish. The wide variation below 100 acres is a little deceptive because the three very low values represented parcels of woodland, which always had a very low valuation. Taken overall, Fig. 5-8 shows that there was little or no relationship between the size and average value of landowners' holdings in 1809. This is evidence that the accumulation of the larger landowners' holdings was an almost random process, which was more likely to have been typical of outside speculators rather than local people with a knowledge of the land.



The value of the holdings of individual landowners is analysed in detail in Figs 5-9 to 5-12, which show the four unusually large holdings of more than 300 acres belonging to Rev. Edward Harries, Henry Greswold Lewis, Rev. Edward Neale and Richard Hopkins. These had average values of 97.8%, 108.3%, 127.6% and 94.2% of the parish average respectively, so the Neale holding was clearly anomalous. The uppermost graph in each figure shows the percentage of land with each value in shillings per acre that appears in the survey, compared with the spectrum for the whole parish. The rapid oscillations in these graphs is mainly due to certain values being preferred in the original valuation. The scattered holdings of Harries, Lewis and Hopkins followed the parish spectrum quite closely, reinforcing the opinion that the land had been acquired without local knowledge. The Neale holding was very different from the parish spectrum, with a large proportion of uniformly good land and little below the average.

The charts on the right-hand side of the figures show that each holding had a different balance between the areas set aside to each land use. The many categories in the survey have here been consolidated into arable, meadow and pasture, together with the much less important (in percentage terms) wood, habitation and other uses.<sup>7</sup> Only Lewis and Hopkins had a little woodland, while Neale had more habitation than usual because of his many little holdings as lord of the manor. These charts show that Harries and Hopkins favoured arable, while Lewis and Neale preferred pasture. The percentage of meadow also varied considerably, with Harries having three times more than Hopkins. These differences may not, however, be significant for landowners.

There was an inverse correlation between the average value of the holding and the percentage of arable in it; a less clear-cut direct correlation existed with the percentage of pasture. It may therefore be hypothesised that the variation in value was due to the fact that, as will be shown in Section 7.2, the average value of arable:meadow:pasture was in the ratio 100:128:118 for the whole parish. This theory is addressed by the three graphs on the left-hand side, which show the value of the land in each use in relation to the parish average value for that use. These graphs show that Harries's arable and pasture were below average, while his meadow was slightly above average. The arable, meadow and pasture belonging to Lewis and to Hopkins had a wider range of values, but each of them was about average overall. In contrast, Neale's arable, meadow and pasture was almost all better than the parish averages for each of those land uses.

For these landowners at least it seems safe to discard the hypothesis that the variations in average value were due to differences in the proportions set aside to each land use. The most important factor appears to be whether the landowner was a speculator, a local resident who knew the land or the inheritor of an estate that had always been valuable. The holdings owned by speculators who did not know the land were very scattered, of average overall value and consistent with the parish spectrum of land value.

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<sup>7</sup> The consolidation of these land-use categories is described in Section 6.2.



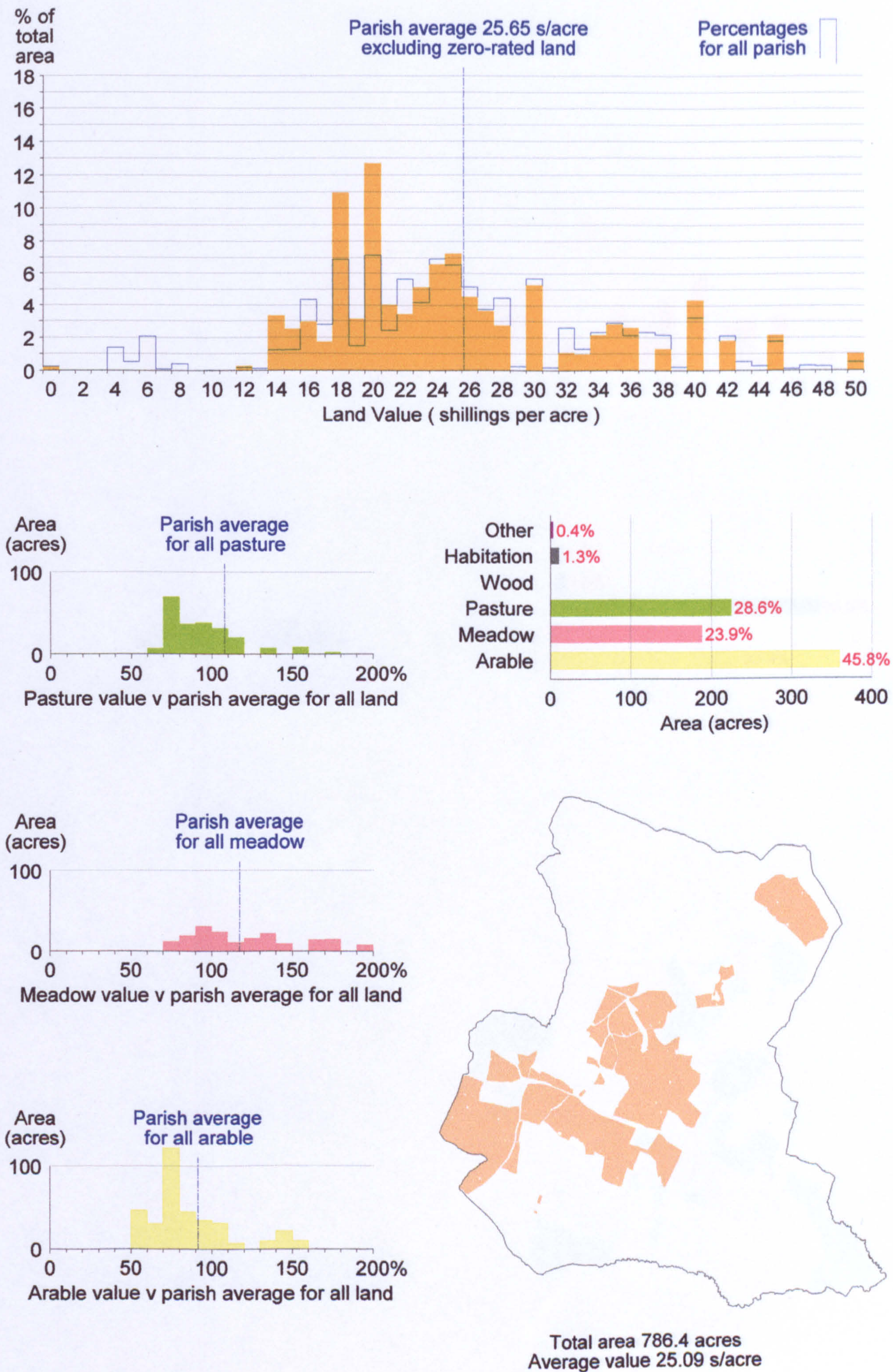


Fig. 5-9 The Holding Owned by Rev. Edward Harries in Allesley Parish in 1809



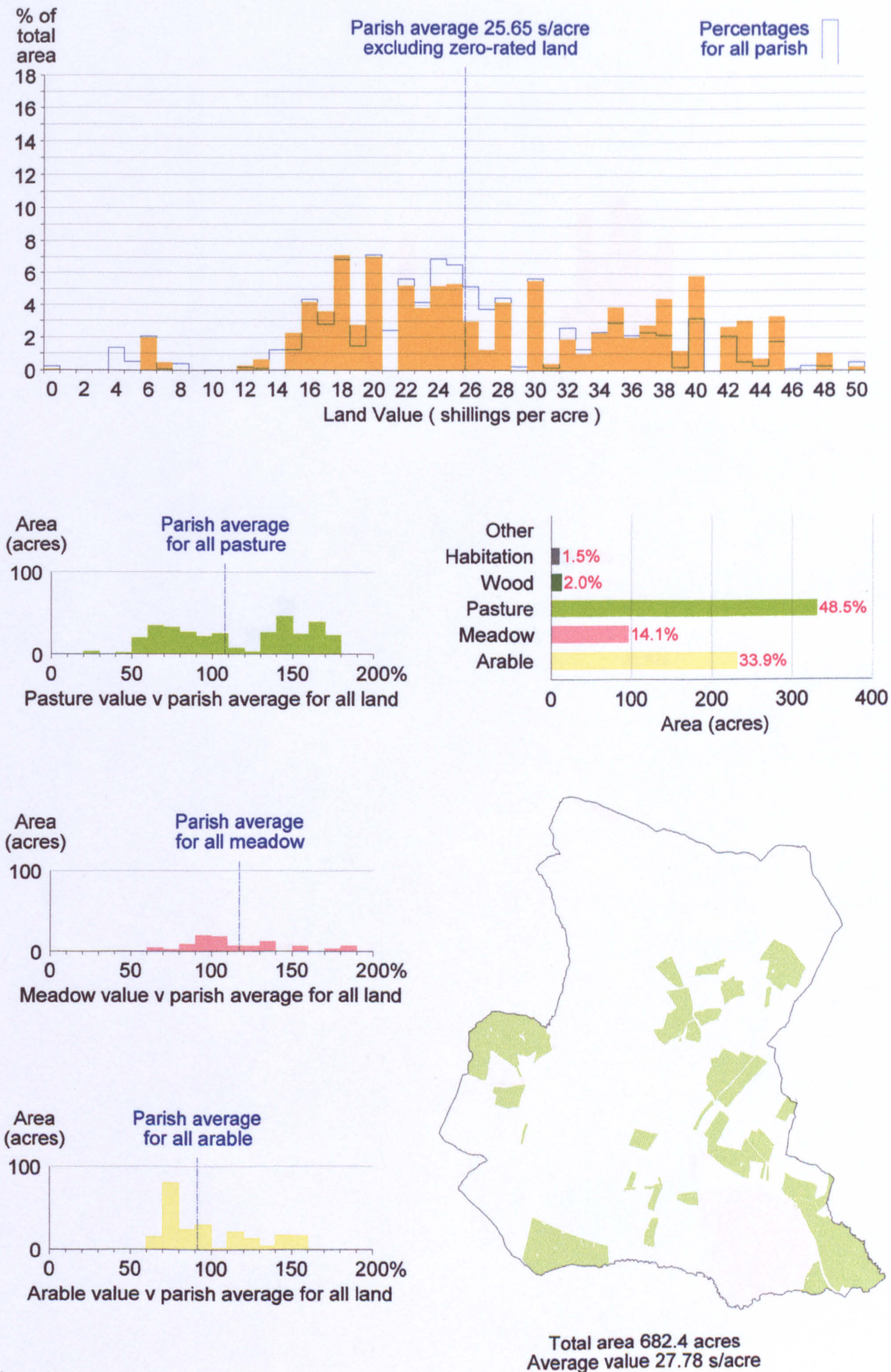


Fig. 5-10 The Holding Owned by Henry Greswold Lewis in Allesley Parish in 1809



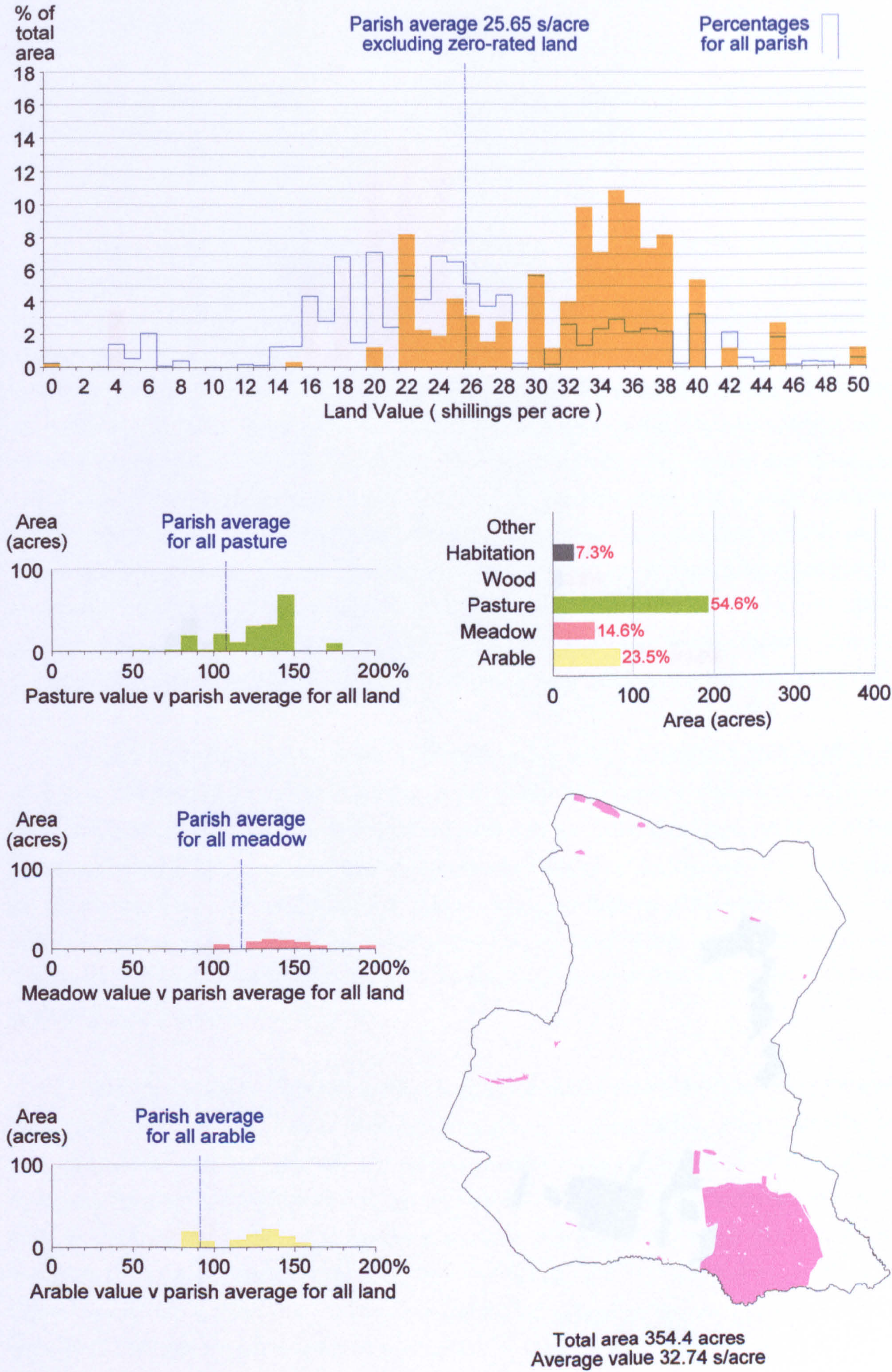


Fig. 5-11 The Holding Owned by Rev. Edward Neale in Allesley Parish in 1809



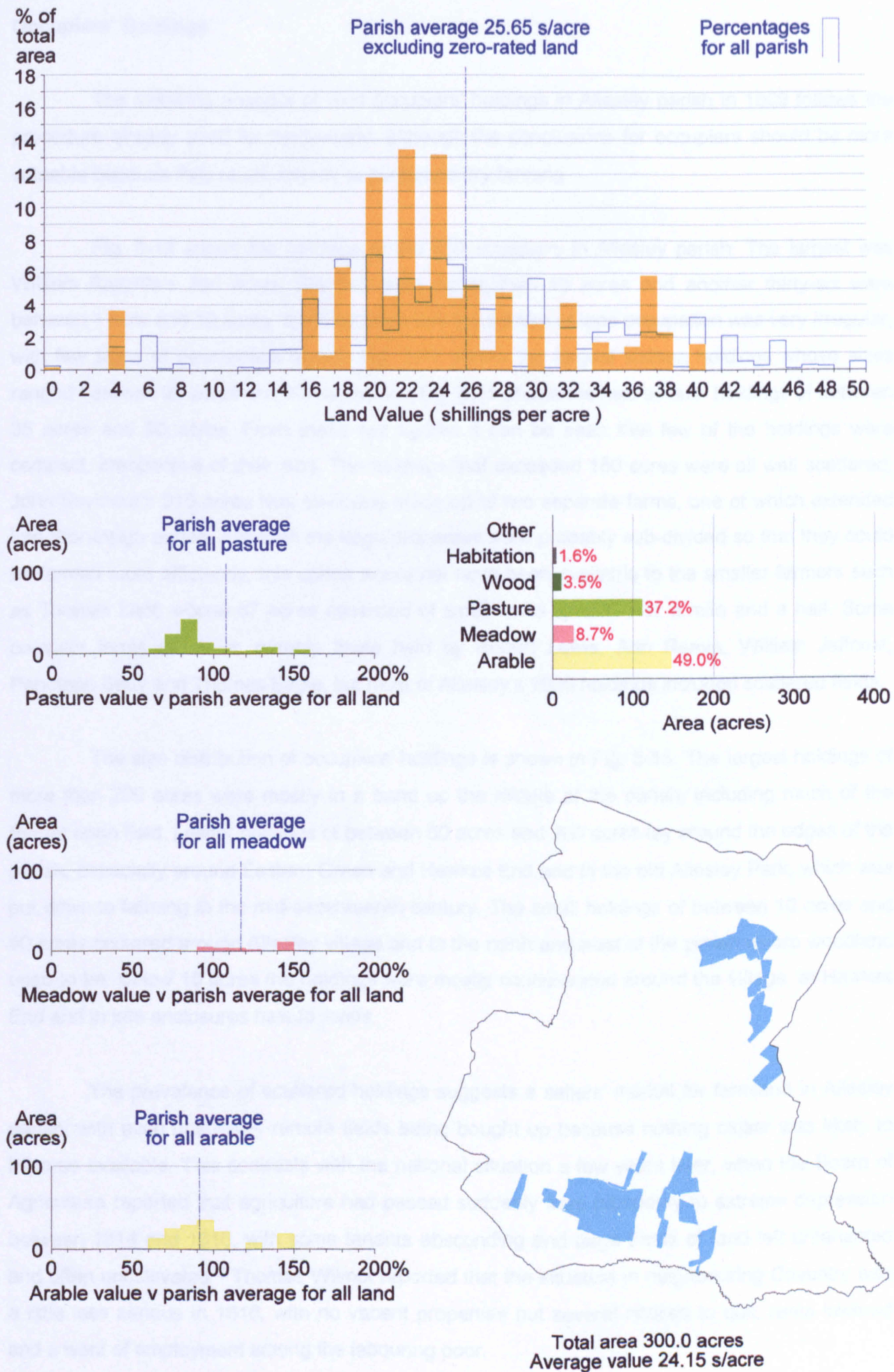


Fig. 5-12 The Holding Owned by Richard Hopkins in Allesley Parish in 1809



## Occupiers' Holdings

The following analysis of land occupiers' holdings in Allesley parish in 1809 follows the procedure already used for landowners, although the conclusions for occupiers should be more valuable because they relate directly to contemporary farming.

Fig. 5-13 shows the holdings of the 159 occupiers in Allesley parish. The largest was William Ratcliffe's 306 acres; fifty-four were larger than 10 acres and another thirty-six were between 1 acre and 10 acres. It will be seen that the pattern of land occupation was very irregular, with few signs of geometrical layout. Fig. 5-14 shows the largest sixteen holdings whose sizes ranged between 90 acres and 306 acres and Fig. 5-15 shows the next sixteen holdings of between 35 acres and 90 acres. From these two figures it can be seen that few of the holdings were compact, irrespective of their size. The holdings that exceeded 150 acres were all well scattered; John Seymour's 215 acres was obviously made up of two separate farms, one of which extended into Stoneleigh parish. Although the large properties were probably sub-divided so that they could be farmed more efficiently, this option would not have been available to the smaller farmers such as Thomas Lant, whose 67 acres consisted of small fields spread over a mile and a half. Some compact farms did exist, notably those held by Robert Lewis, Ann Reeve, William Jeffcoat, Penelope Betty and Thomas Eagle, but most of Allesley's 1809 holdings included scattered fields.

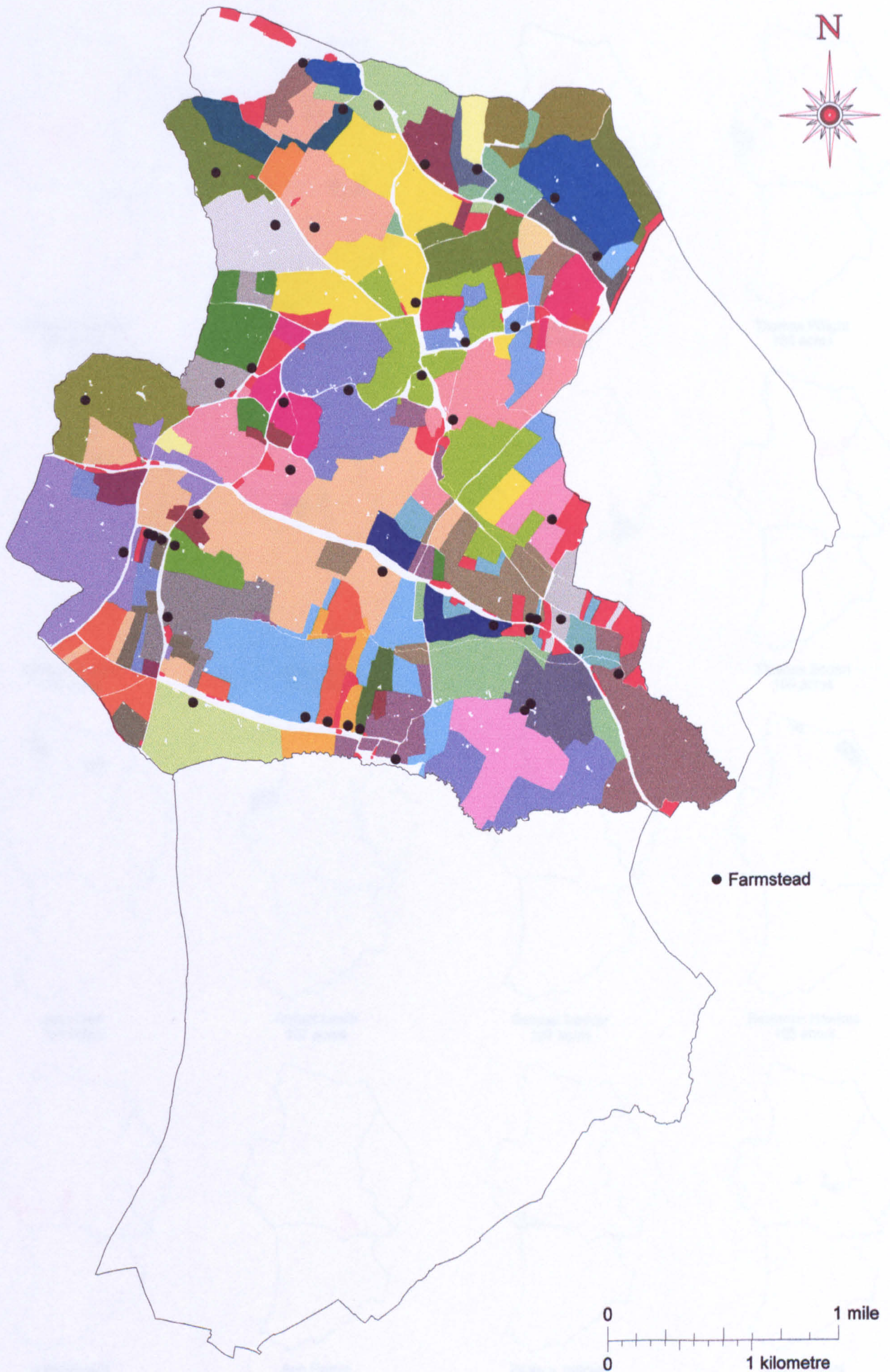
The size distribution of occupiers' holdings is shown in Fig. 5-16. The largest holdings of more than 200 acres were mostly in a band up the middle of the parish, including much of the former open field. Lesser holdings of between 50 acres and 200 acres lay around the edges of the parish, especially around Eastern Green and Hawkes End and in the old Allesley Park, which was put down to farming in the mid-seventeenth century. The small holdings of between 10 acres and 50 acres occurred around Allesley village and in the north and west of the parish where woodland used to be. Below 10 acres the holdings were mostly concentrated around the village, at Hawkes End and in late enclosures next to roads.

The prevalence of scattered holdings suggests a sellers' market for farmland in Allesley parish, with even unsuitably remote fields being bought up because nothing closer was likely to become available. This contrasts with the national situation a few years later, when the Board of Agriculture reported that agriculture had passed suddenly from prosperity to extreme depression between 1814 and 1816, with some tenants absconding and large tracts of land left untenanted and often uncultivated.<sup>8</sup> Thomas Wilmot reported that the situation in neighbouring Coventry was a little less serious in 1816, with no vacant properties but several notices to quit, rents lowered and a want of employment among the labouring poor.

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8 Board of Agriculture, *The Agricultural State of the Kingdom 1816* (1816; New York, 1970), p.iii.





**Fig. 5-13 Occupiers' Holdings within Allesley Parish in 1809**

The farmsteads are represented by black circles.





**Fig. 5-14 Individual Occupiers' Holdings within Allesley Parish in 1809 (90+ acres)**

The farmsteads are represented by black dots.

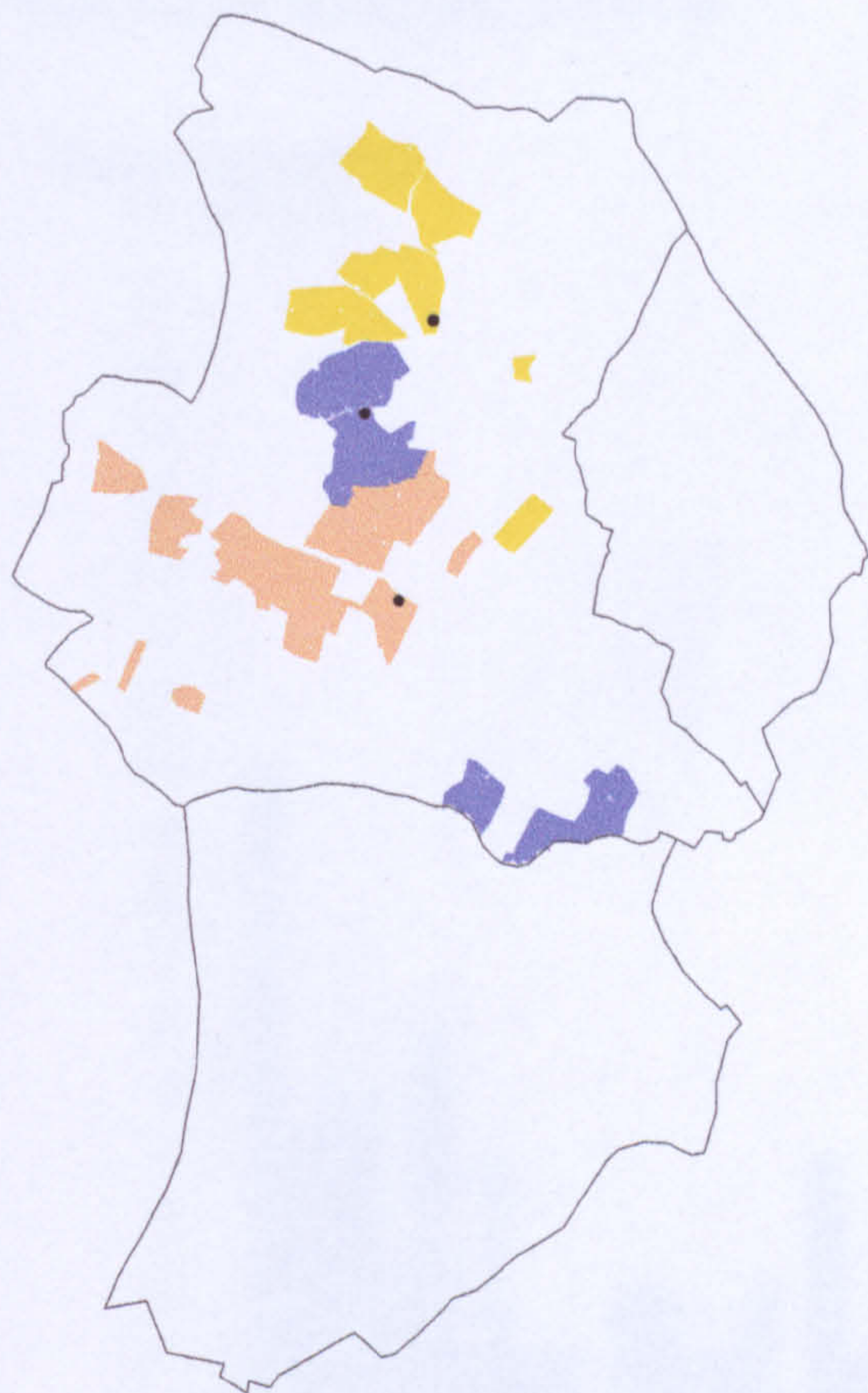




**Fig. 5-15 Individual Occupiers' Holdings within Allesley Parish in 1809 (35-90 acres)**

The farmsteads are represented by black dots.





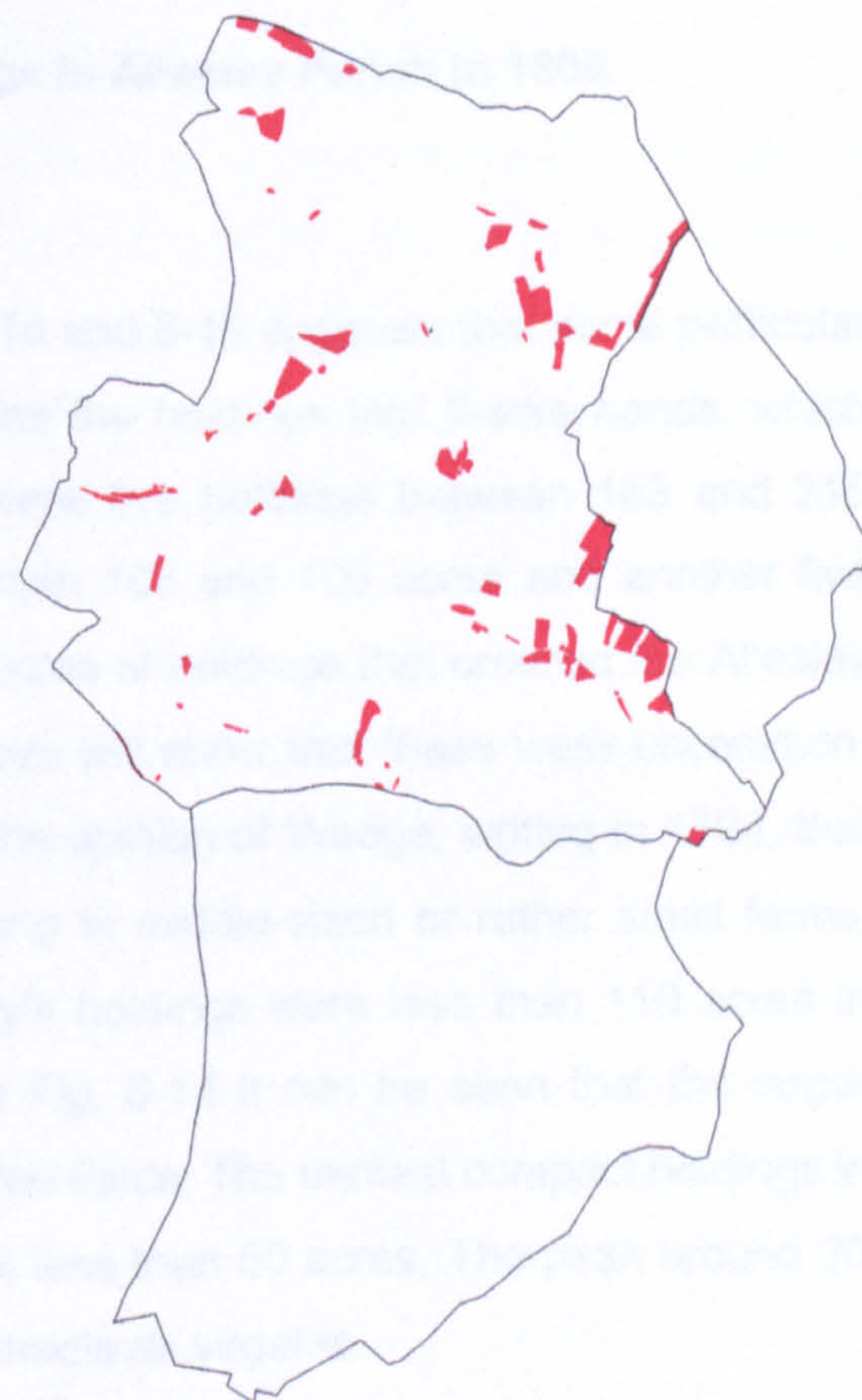
More than 200 acres



50 - 200 acres



10 - 50 acres



Less than 10 acres

**Fig. 5-16 Size Distribution of Occupiers' Holdings within Allesley Parish in 1809**



The Size of Occupiers' Holdings

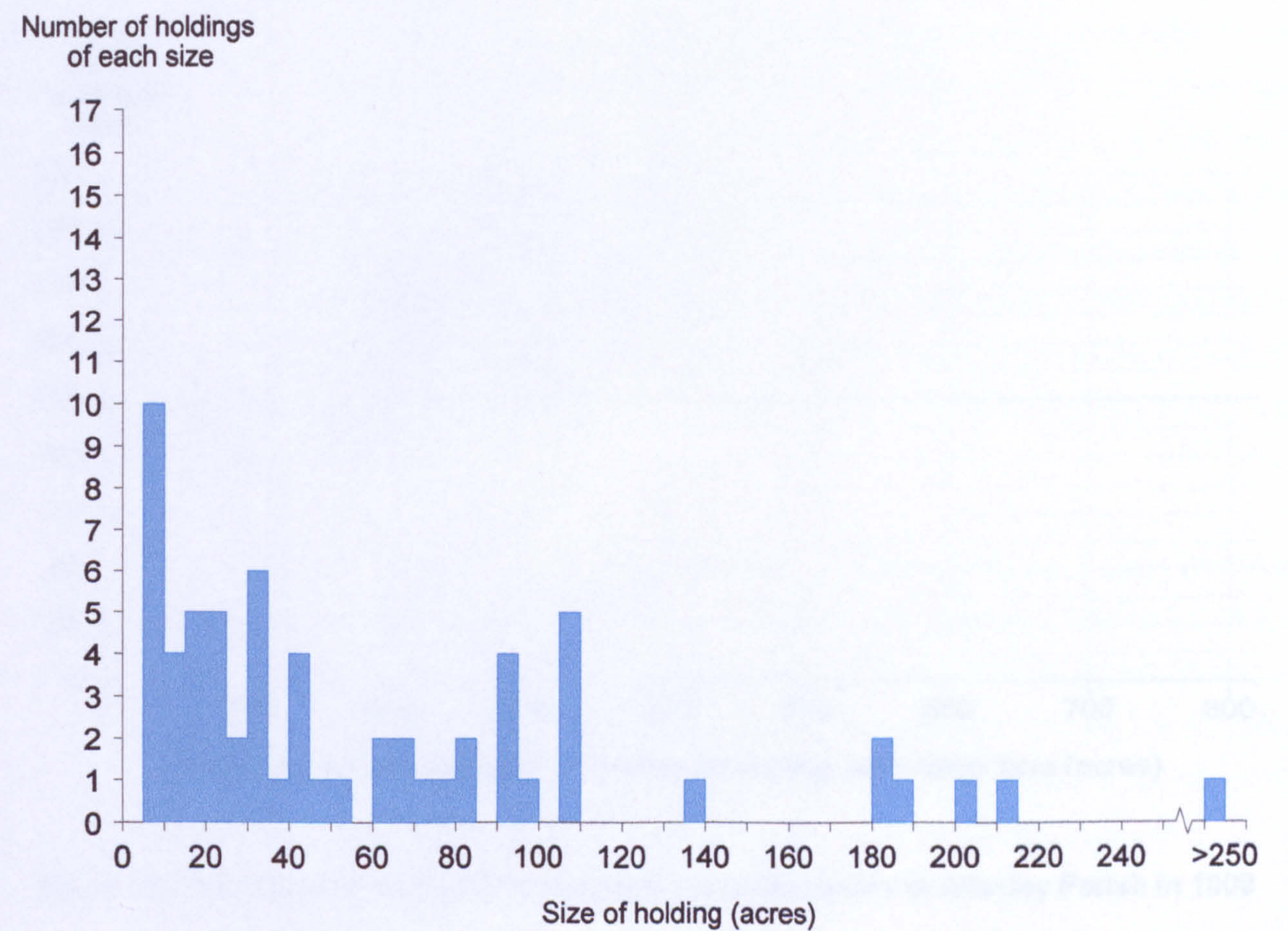


Fig. 5-17 The Size of Occupiers' Holdings in Allesley Parish in 1809

The sequence of occupiers' holdings in Figs 5-14 and 5-15 suggests that some particular sizes were preferred in 1809. Fig. 5-17 therefore divides the holdings into 5-acre bands, which confirm that there were some favoured sizes. There were five holdings between 183 and 215 acres, only one between 109 and 183 acres, five between 106 and 109 acres and another five between 90 and 97 acres. This graph under-states the sizes of holdings that crossed the Allesley parish boundary, but later work on the 1840 tithe surveys will show that these were uncommon. The preferred sizes found here may be compared with the opinion of Wedge, writing in 1794, that 'The land in this county . . . may be considered as being in middle-sized or rather small farms, about 150 acres each, perhaps less'.<sup>9</sup> Most of Allesley's holdings were less than 110 acres in 1809 and there was only one around 150 acres. From Fig. 5-14 it can be seen that the larger holdings were usually made up of two farms or of scattered fields. The earliest compact holdings in this area must therefore have been quite small, perhaps less than 50 acres. The peak around 30 acres may show that some holdings were still based on medieval virgates.

9 J. Wedge, 'General view of the agriculture of the County of Warwick 1794', in W. Marshall (ed.), *The Review and Abstract of the County Reports to the Board of Agriculture from the Several Agricultural Departments of England*, 4 (1815; York, 1818), p.294.



The Value of Occupiers' Holdings

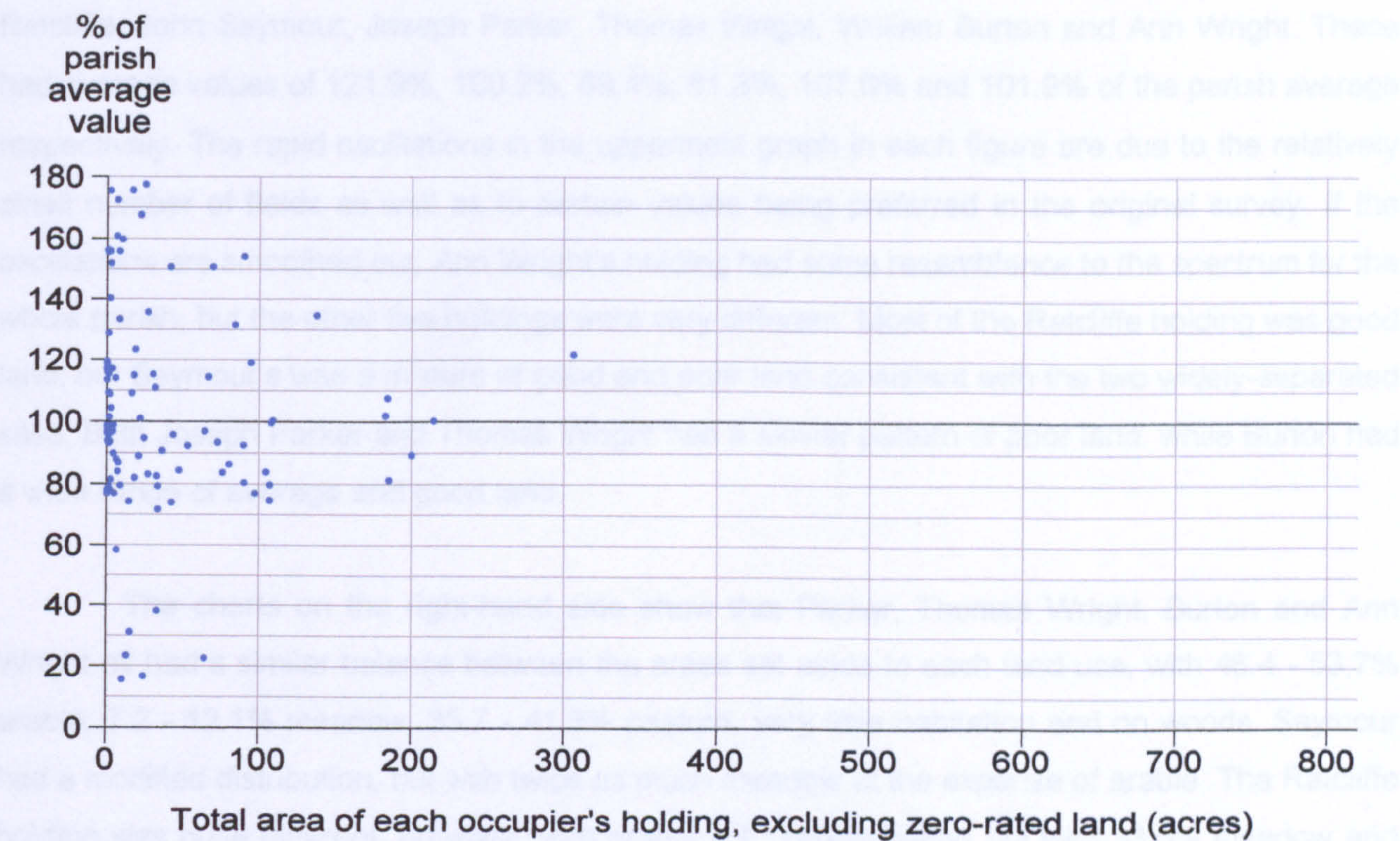


Fig. 5-18 The Value of the Total Holdings of Land Occupiers in Allesley Parish in 1809

Fig. 5-18 shows the average value of the land in each occupier's holding as a percentage of the overall parish average. It would not be surprising to find that this graph showed economies of scale, with larger holdings being more valuable than small ones. In fact there was a very wide variation for small holdings and a much smaller variation for large holdings. At first glance there appears to be an underlying slope implying that larger holdings were more valuable, but this may be an illusion. Omitting the six holdings with less than 40% of the parish average value from the analysis because they were single woods, the below-average holdings lie within a horizontal band above 70%, whereas the most valuable holdings reach almost 180% of the parish average value. Apart from William Ratcliffe's 306 acres, the largest holdings lie near or below the average.

From this analysis, it seems that economy of scale in farming was not a factor in the valuation of occupiers' holdings in the 1809 survey of Allesley. This implies that human endeavour made no difference to the value ascribed to a field, which implies that the valuation was based on the intrinsic value of the land rather than its profitability for those who actually farmed it in 1809. Appendix B discusses these different meanings of land value in more detail. The wide variation in average values shown in Fig. 5-18 would therefore be accounted for by differences in the value of the land on which each holding's fields lay. The analysis of land value in Chapter 7 will confirm these conclusions.



The value of the holdings of individual occupiers is analysed in detail in Figs 5-19 to 5-24, which show the six unusually large holdings of more than 180 acres that belonged to William Ratcliffe, John Seymour, Joseph Parker, Thomas Wright, William Burton and Ann Wright. These had average values of 121.9%, 100.2%, 89.4%, 81.3%, 107.6% and 101.9% of the parish average respectively. The rapid oscillations in the uppermost graph in each figure are due to the relatively small number of fields as well as to certain values being preferred in the original survey. If the oscillations are smoothed out, Ann Wright's holding had some resemblance to the spectrum for the whole parish, but the other five holdings were very different. Most of the Ratcliffe holding was good land, but Seymour's was a mixture of good and poor land consistent with the two widely-separated sites. Both Joseph Parker and Thomas Wright had a similar pattern of poor land, while Burton had a wide range of average and good land.

The charts on the right-hand side show that Parker, Thomas Wright, Burton and Ann Wright all had a similar balance between the areas set aside to each land use, with 46.4 - 53.7% arable, 7.2 - 12.1% meadow, 35.7 - 41.3% pasture, very little habitation and no woods. Seymour had a modified distribution, but with twice as much meadow at the expense of arable. The Ratcliffe holding was quite different, however, with arable still predominating but with 33.5% meadow and only 20.1% pasture. This was the holding that included a large part of the former open field.

The three graphs on the left-hand side show how the value of each land use affected the total value of each holding. Ratcliffe's pasture had a wide range of values around the average, but his arable was better than average and his meadow much better. This unusually valuable meadow explains why the overall value of his holding was so high in Fig. 5-18. Seymour's arable and meadow occurred in two blocks, one of them worse than average, the other better, while his pasture was about average; these patterns also reflect the two separate sites. Most of Parker's arable, meadow and pasture was a little below average, as was Thomas Wright's; these two holdings were relatively compact. Burton's holding had an unusually wide range of values for all three land uses, especially the pasture, which varied by a factor of seven between the best and the worst despite being fairly close together within the parish. Ann Wright's arable and meadow were better than average, but her pasture was worse.

These contrasting balances between the area and quality of the arable, meadow and pasture held by each of these six large occupiers show that different ways of managing the land had been developed by each occupier and his predecessors. For these six large occupiers the arable:pasture ratio varied between 1.10 and 2.26, compared with a national average of 0.66 at the time, so none of them could be described as a typical farmer.<sup>10</sup> Unfortunately there is no evidence to show whether the differences in land value were reflected in the profitability of the farming.

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10 J. Thirsk (ed.), *The Agrarian History of England and Wales*, 6, 1750-1850 (Cambridge, 1989), p.31.



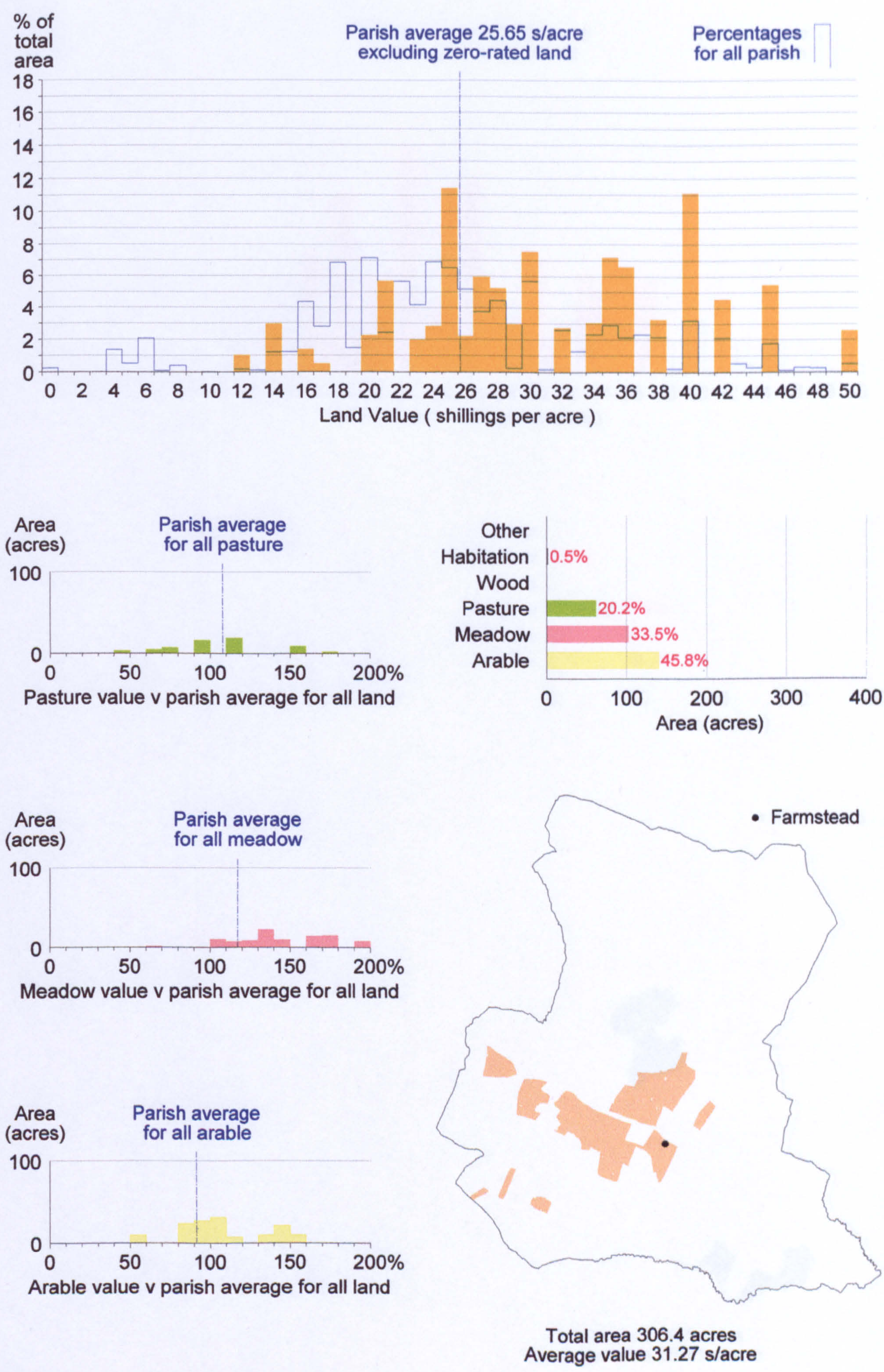


Fig. 5-19 The Holding Occupied by William Ratcliffe in Allesley Parish in 1809



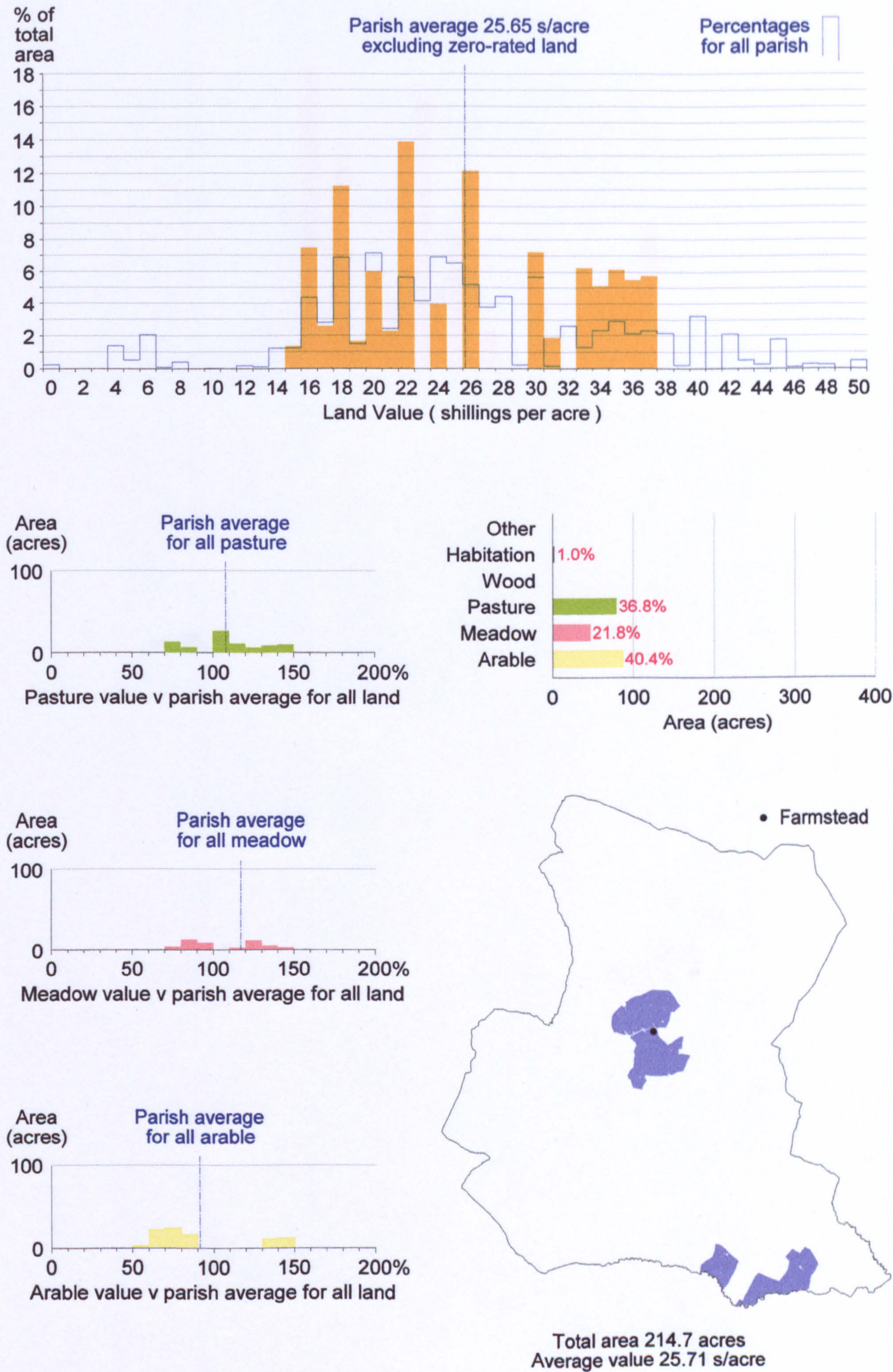


Fig. 5-20 The Holding Occupied by John Seymour in Allesley Parish in 1809



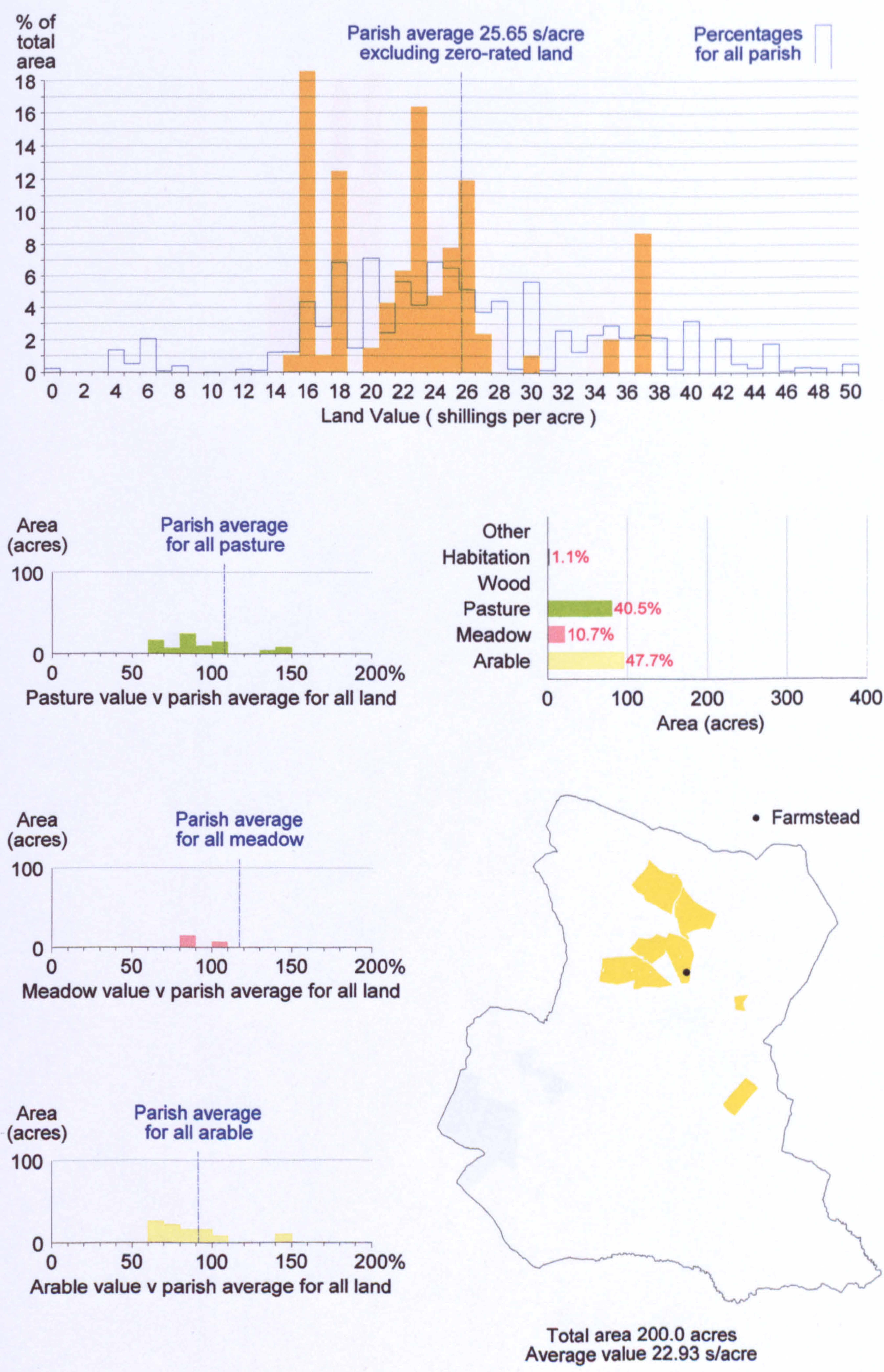


Fig. 5-21 The Holding Occupied by Joseph Parker in Allesley Parish in 1809



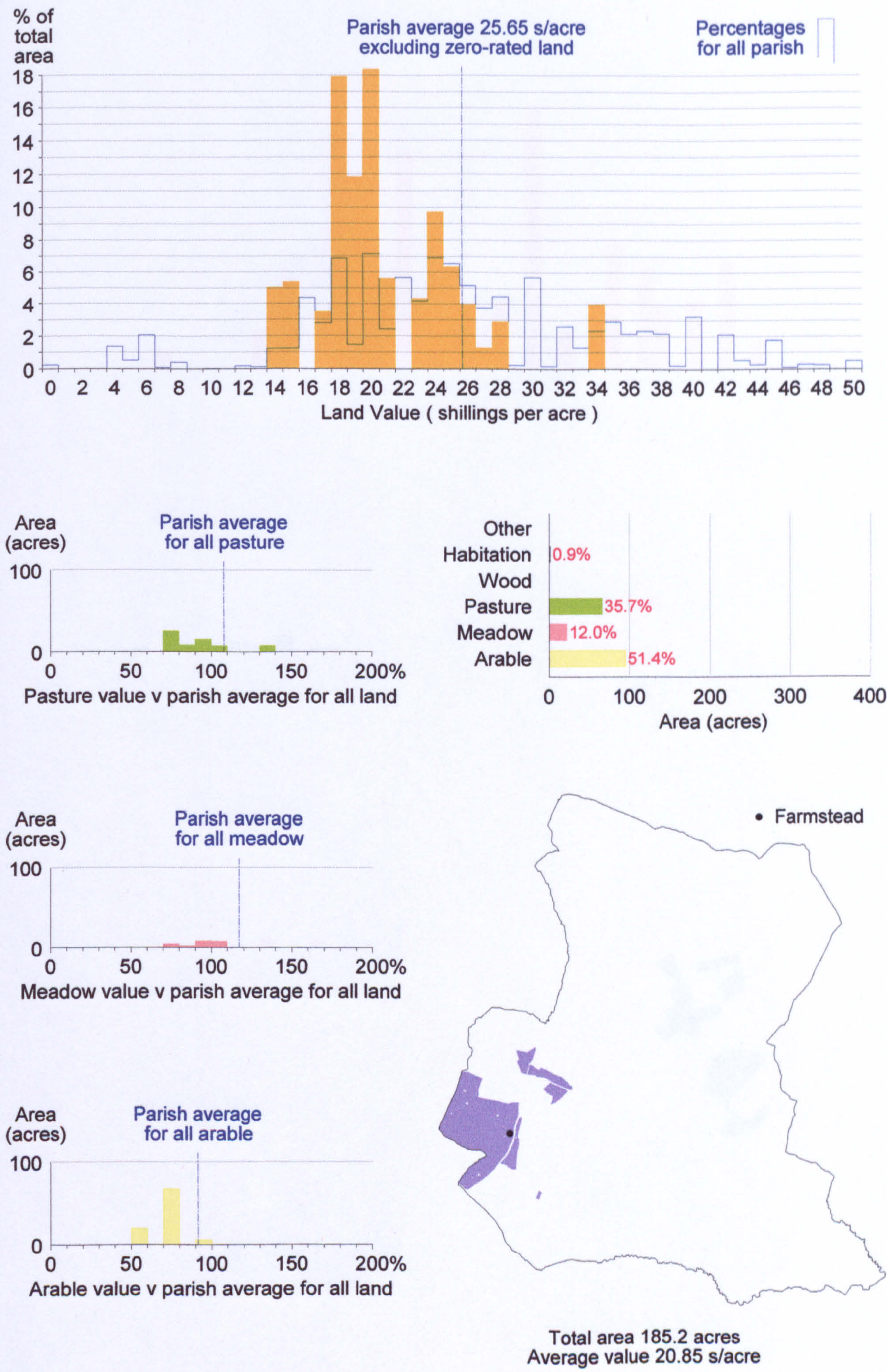


Fig. 5-22 The Holding Occupied by Thomas Wright in Allesley Parish in 1809



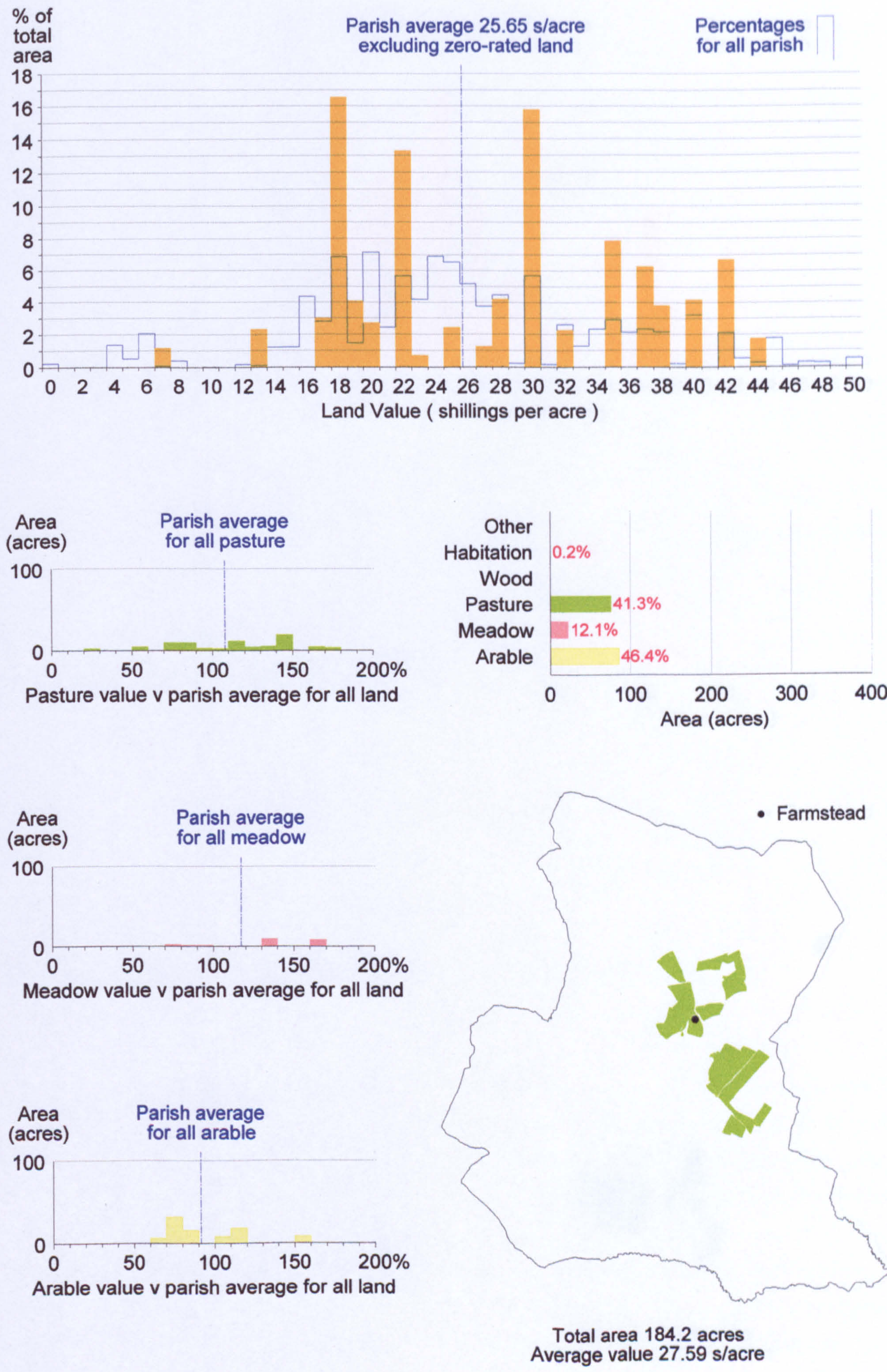


Fig. 5-23 The Holding Occupied by William Burton in Allesley Parish in 1809



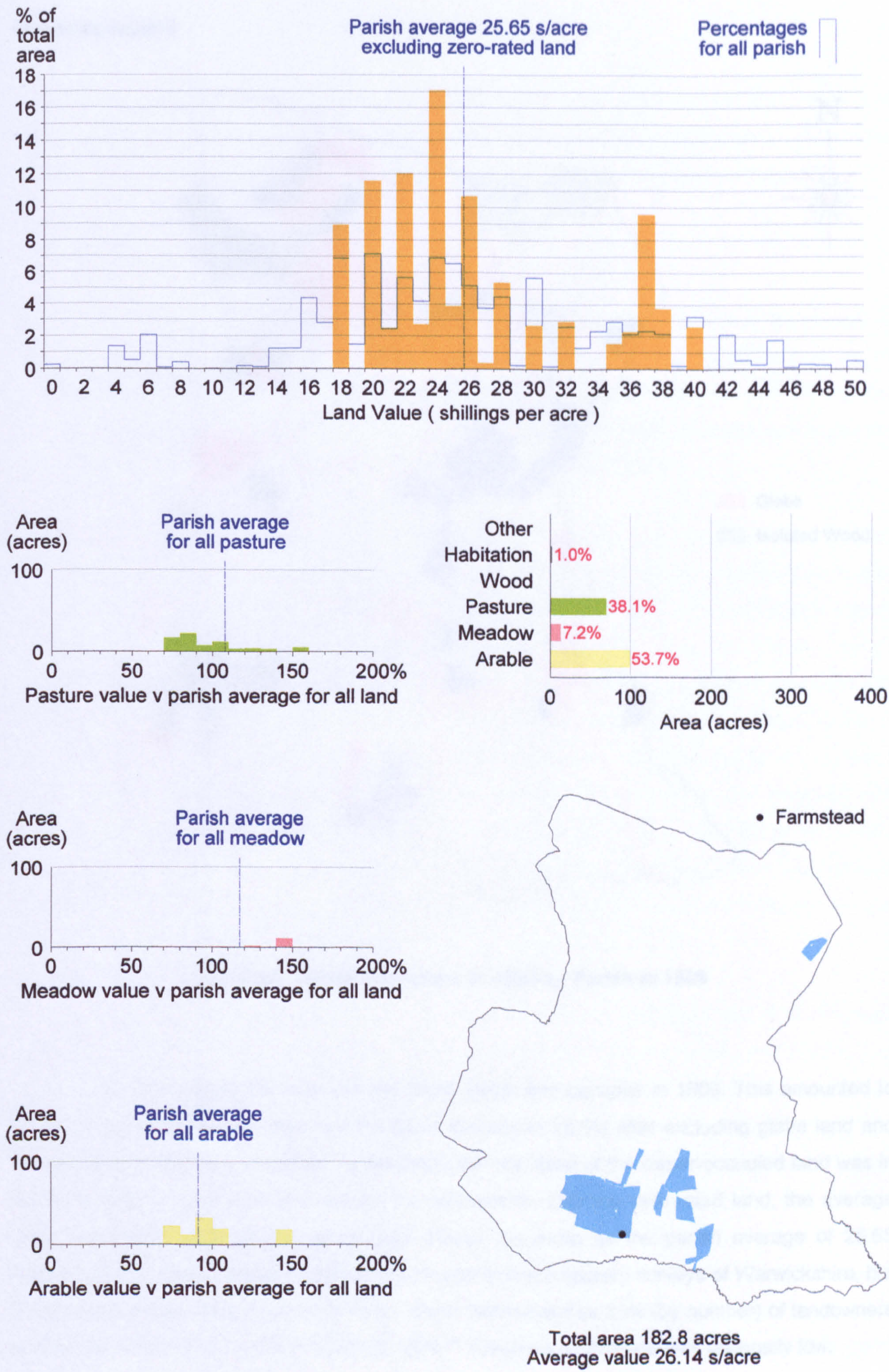
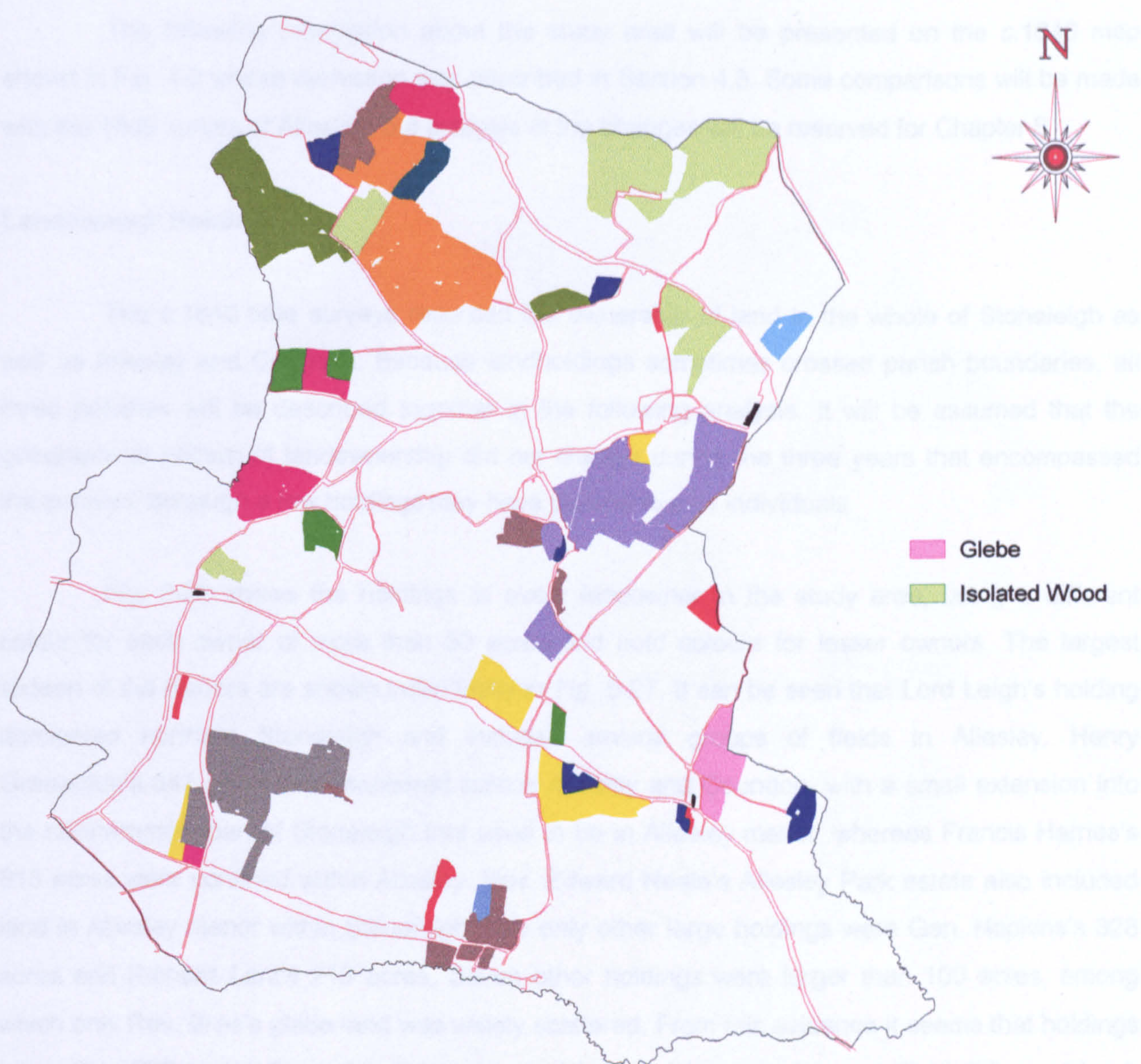


Fig. 5-24 The Holding Occupied by Ann Wright in Allesley Parish in 1809



## Owner-occupiers



**Fig. 5-25 Owner-occupiers in Allesley Parish in 1809**

Fig. 5-25 shows the land with the same owner and occupier in 1809. This amounted to 19.4% of the total area surveyed but the figure reduces to 15.5% after excluding glebe land and isolated woods that were 'occupied' by absentee owners. Most of the owner-occupied land was in the north-west of the parish and around the settlements. Omitting zero-rated land, the average value was 26.02 shillings/acre, which was almost the same as the parish average of 25.65 shillings/acre. Owner-occupiers were not mentioned in contemporary surveys of Warwickshire, but for old-enclosed parishes such as Allesley, Martin estimates that 23% (by number) of landowners were owner-occupiers in 1780 and 34% in 1825.<sup>11</sup> Allesley's percentage was unusually low.

<sup>11</sup> Marshall (ed.), *Review and Abstract*, 4 (1815; York, 1818); J. M. Martin, 'The parliamentary enclosure movement and rural society in Warwickshire', *Agric. Hist. Rev.*, 15 (1967), pp.19-39.



### 5.3 The Study Area in about 1840

The following information about the study area will be presented on the c.1840 map shown in Fig. 4-3 whose derivation was described in Section 4.3. Some comparisons will be made with the 1809 survey of Allesley, but analysis of the changes will be reserved for Chapter 8.

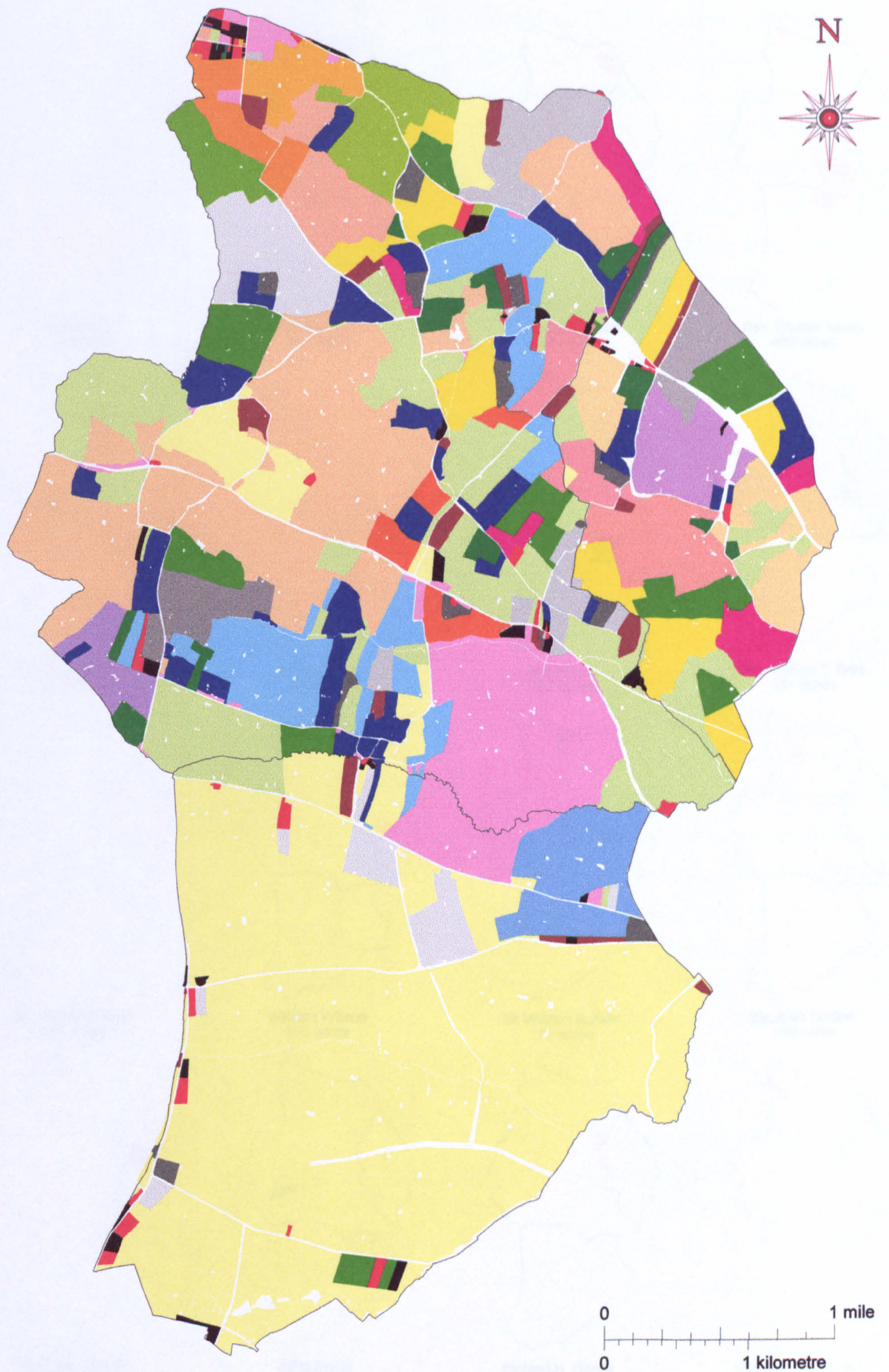
#### Landowners' Holdings

The c.1840 tithe surveys recorded the ownership of land in the whole of Stoneleigh as well as Allesley and Coundon. Because landholdings sometimes crossed parish boundaries, all three parishes will be described together in the following analysis. It will be assumed that the geographical pattern of landownership did not change during the three years that encompassed the surveys, although a few holdings may have passed to new individuals.

Fig. 5-26 shows the holdings of every landowner in the study area, using a different colour for each owner of more than 50 acres and bold colours for lesser owners. The largest sixteen of the owners are shown individually in Fig. 5-27. It can be seen that Lord Leigh's holding dominated northern Stoneleigh and included several groups of fields in Allesley. Henry Greswolde's 847 acres were scattered across Allesley and Coundon, with a small extension into the northernmost part of Stoneleigh that used to be in Allesley manor, whereas Francis Harries's 815 acres were confined within Allesley. Rev. Edward Neale's Allesley Park estate also included land in Allesley manor within Stoneleigh. The only other large holdings were Gen. Hopkins's 328 acres and Richard Lant's 216 acres. Seven other holdings were larger than 100 acres, among which only Rev. Bree's glebe land was widely scattered. From this evidence it seems that holdings larger than 200 acres often extended across parish boundaries, whereas smaller holdings did not, although a much wider study area would be needed to allow firm conclusions.

From Figs 5-26 and 5-5 it can be seen that the pattern of landownership in Allesley was as complicated in 1840 as it was in 1809, although with many detailed changes and a little more complexity in some places. The many small rectangular enclosures on Corley Moor are prominent in Fig. 5-26. Comparing the large 1840 landholdings within Allesley in Fig. 5-27 with the 1809 holdings shown in Fig. 5-6 it can be seen that the Leigh, Greswolde, Harries, Neale and Hopkins holdings within Allesley were essentially unaltered, despite some new personalities. Neale's holding as lord of the manor now included numerous small enclosures on Corley Moor and beside roads. Below this size the Martha Smith and John Lant and Soden holdings had been broken up, while those of Bree, Burton and Shakespear had grown. The Arnold holding had contracted and only the Docker property was unchanged (except for a small enclosure on Corley Moor). Three of the larger 1840 landholdings were entirely within Coundon, so no comparison can be made with the 1809 survey.





**Fig. 5-26 Landowners' Holdings within the Study Area in about 1840**





Fig. 5-27 The Larger Individual Landowners' Holdings within the Study Area in about 1840



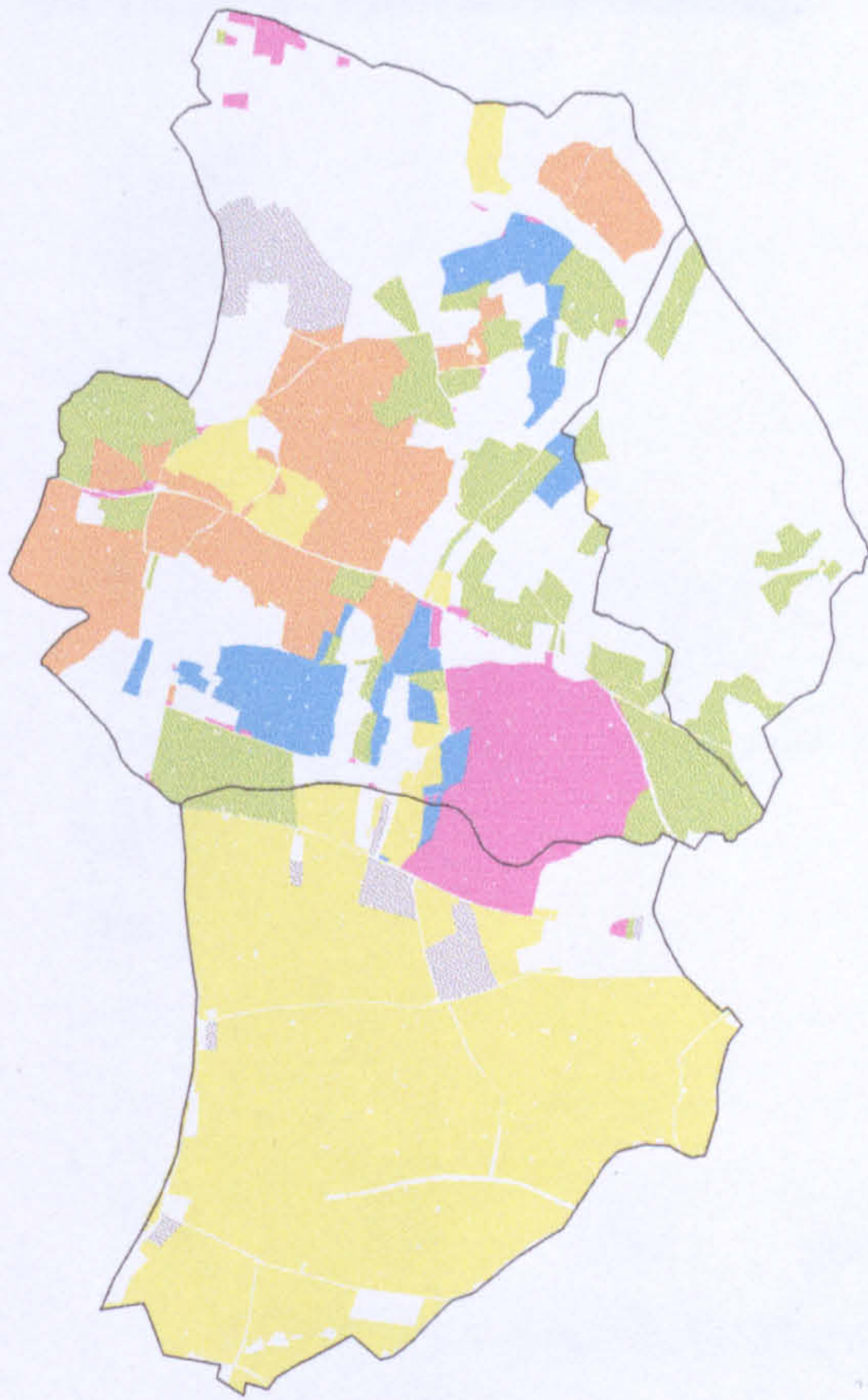
Fig. 5-28 shows the c.1840 distribution of landowners' holdings across the study area in four size ranges. The holdings of more than 200 acres were concentrated in Stoneleigh and most of Allesley except the north-west corner. Coundon only had fragments of the Greswolde holding. The reverse of this arrangement applied to the holdings between 50 acres and 200 acres, which were heavily concentrated in north-west Allesley and central Coundon, with only a few properties in central and southern Allesley and the solitary Wade holding at Whoberley in the north-east corner of Stoneleigh. The holdings between 10 acres and 50 acres were most common in Coundon and north-east Allesley, with others around Eastern Green. The smallest holdings of less than 10 acres were grouped around Allesley village, Corley Moor, Brownhill Green and Hawkes End. The few in Stoneleigh were mostly recent roadside enclosures.

There seem to be obvious differences between Fig. 5-28 and the equivalent 1809 picture shown in Fig. 5-7, but the comparison should be made with care. Because the 1809 survey was limited to Allesley parish, it underestimated the size of all holdings that extended into Coundon or Stoneleigh. Evidence of this is provided by the sixteen large holdings shown in Fig-5-27 which ranged between 2,372 acres and 70 acres, whereas the sixteen large 1809 Allesley holdings in Fig. 5-6 ranged between 786 acres and 48 acres. It has already been shown that this distortion became less important for holdings below 200 acres.

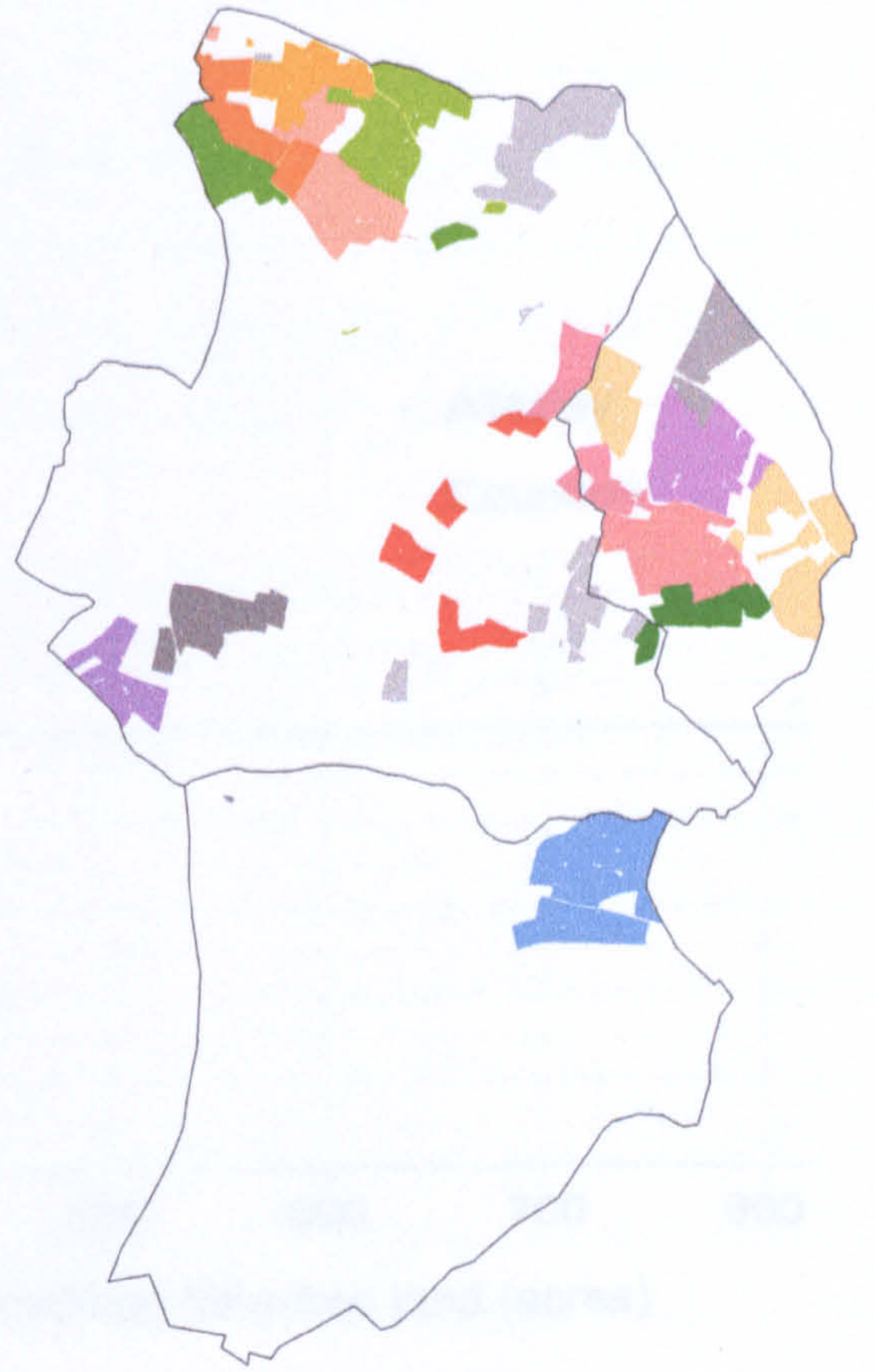
Comparing the size distribution in 1840 and 1809, it seems that the holdings above 200 acres had advanced further to the north, although this may be a false impression caused by the altered scope. However, it seems clear that the holdings of between 50 acres and 200 acres had been squeezed into the north-west corner of Allesley, with fewer remaining elsewhere. This north-west corner near Corley Moor was the highest part of the parish but Chapter 7 will show that it was not poor land, so this was not merely a symptom of big landowners acquiring the best land near the village. Neither can this area be viewed as the remote corner of an island, as it appears on the map, because Allesley was only part of a wide area of similar countryside. Perhaps the presence of traditional old family landowners such as the Dockers was the reason why the north-west corner of Allesley retained this size of landholdings longer than elsewhere.

Parish boundaries were almost irrelevant to landowners' holdings below 50 acres, so the lower pair of maps in Figs 5-28 and 5-7 can be compared directly for Allesley. This comparison shows a general increase in the number of holdings in the 10 - 50 acre range between 1809 and 1840, but a reduction in the north-west corner. The latter equates to the local increase in the 50 - 200 acre range. The smallest holdings below 10 acres increased across the whole parish, not just by new enclosures at Corley Moor and elsewhere but also within old fields in the northern part of the parish. A detailed analysis of these changes in relation to social change would be informative, but was not possible in this thesis.





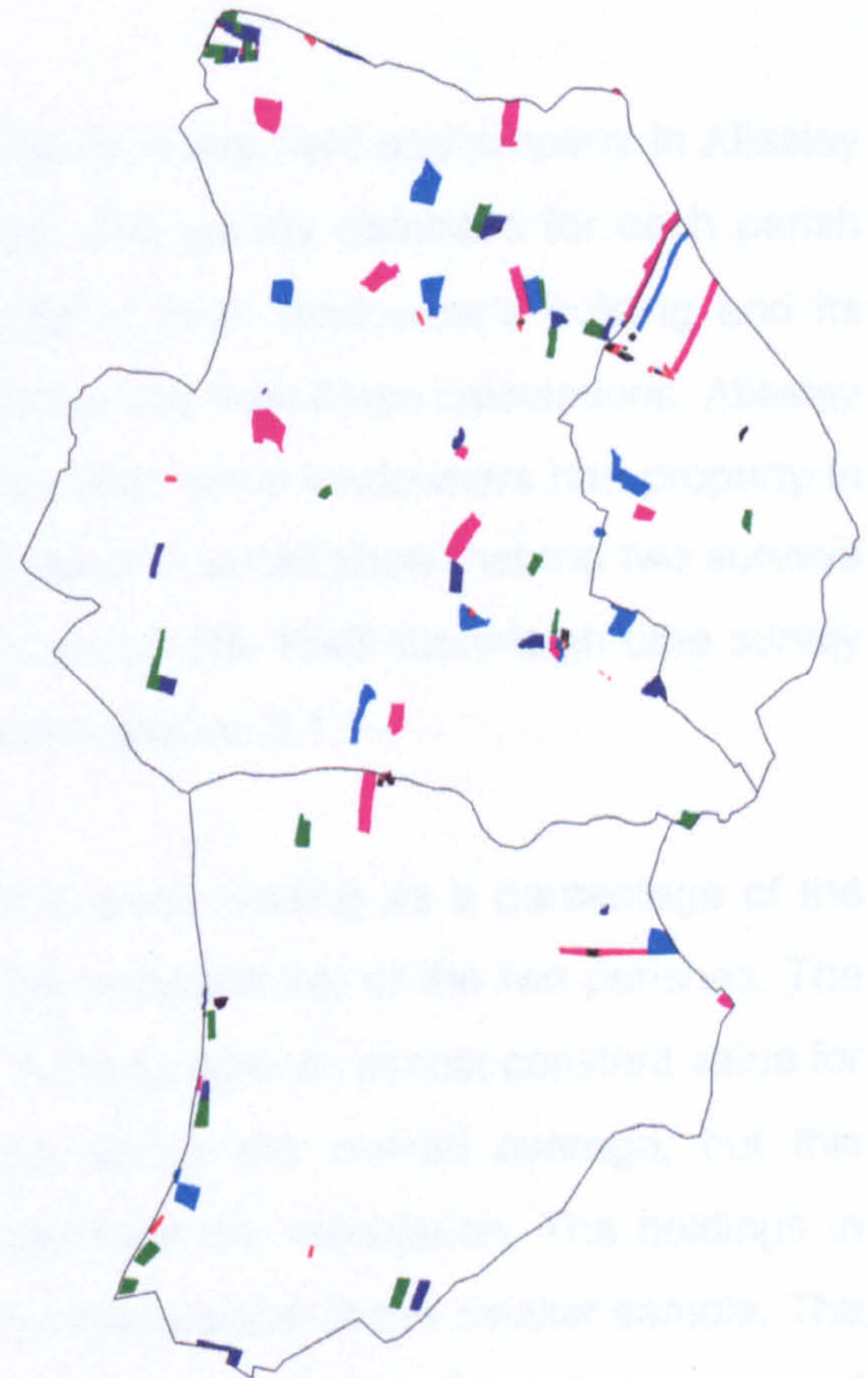
More than 200 acres



50 - 200 acres



10 - 50 acres

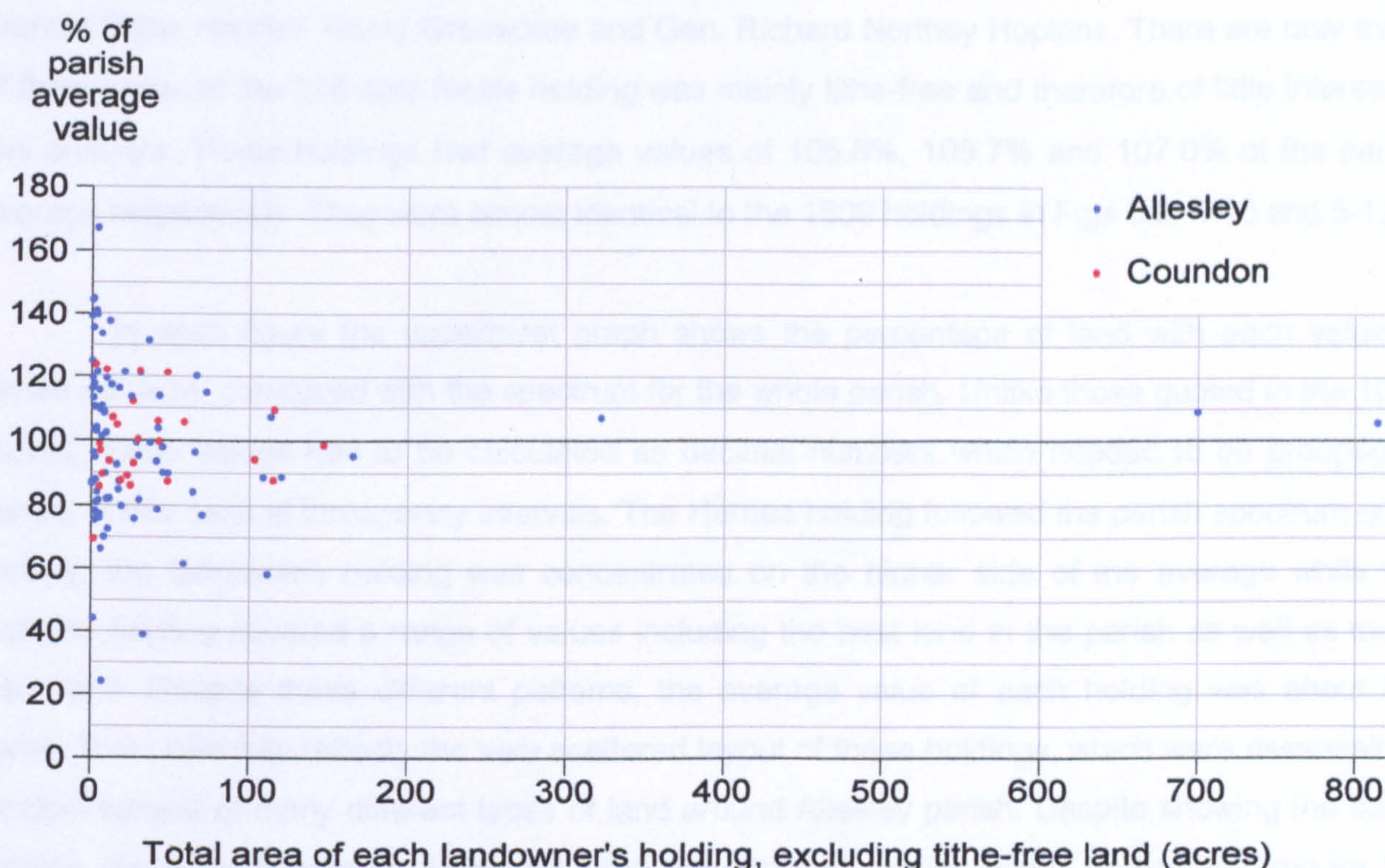


Less than 10 acres

**Fig. 5-28 Size Distribution of Landowners' Holdings within the Study Area in about 1840**



### The Value of Landowners' Holdings



**Fig. 5-29 The Value of the Total Holdings of Landowners in Allesley and Coundon c. 1840**

The 1840–41 tithe surveys gave a value and area for every field and property in Allesley and Coundon parishes, except for the tithe-free holdings. The survey database for each parish was therefore used to calculate the total value and area of each landowner's holding and its average value in pence per acre. All tithe-free items were omitted from these calculations. Allesley and Coundon were considered separately, despite the fact that some landowners had property in both parishes, because detailed analysis described in Chapter 7 would show that the two surveys were not exactly comparable. No equivalent work was done on the 1843 Stoneleigh tithe survey because of the shortcomings in its data that are described in Section 3.1.

Fig. 5-29 shows the average value of the land in each holding as a percentage of the overall average for that parish. This approach restored the comparability of the two parishes. The graph shows a wide variation in average value for small holdings and an almost constant value for holdings above 150 acres. The latter value is slightly above the overall average, but this advantage would reduce if low-value woods were omitted from the calculation. The holdings in Coundon were less variable than those in Allesley, but that may be due to the smaller sample. The variation in Allesley was less than in 1809 (Fig. 5-8), reflecting the greater factor between good and poor land in that survey. Fig. 5-29 confirms that there was no relationship between the size and average value of owners' holdings in the c.1840 tithe surveys.



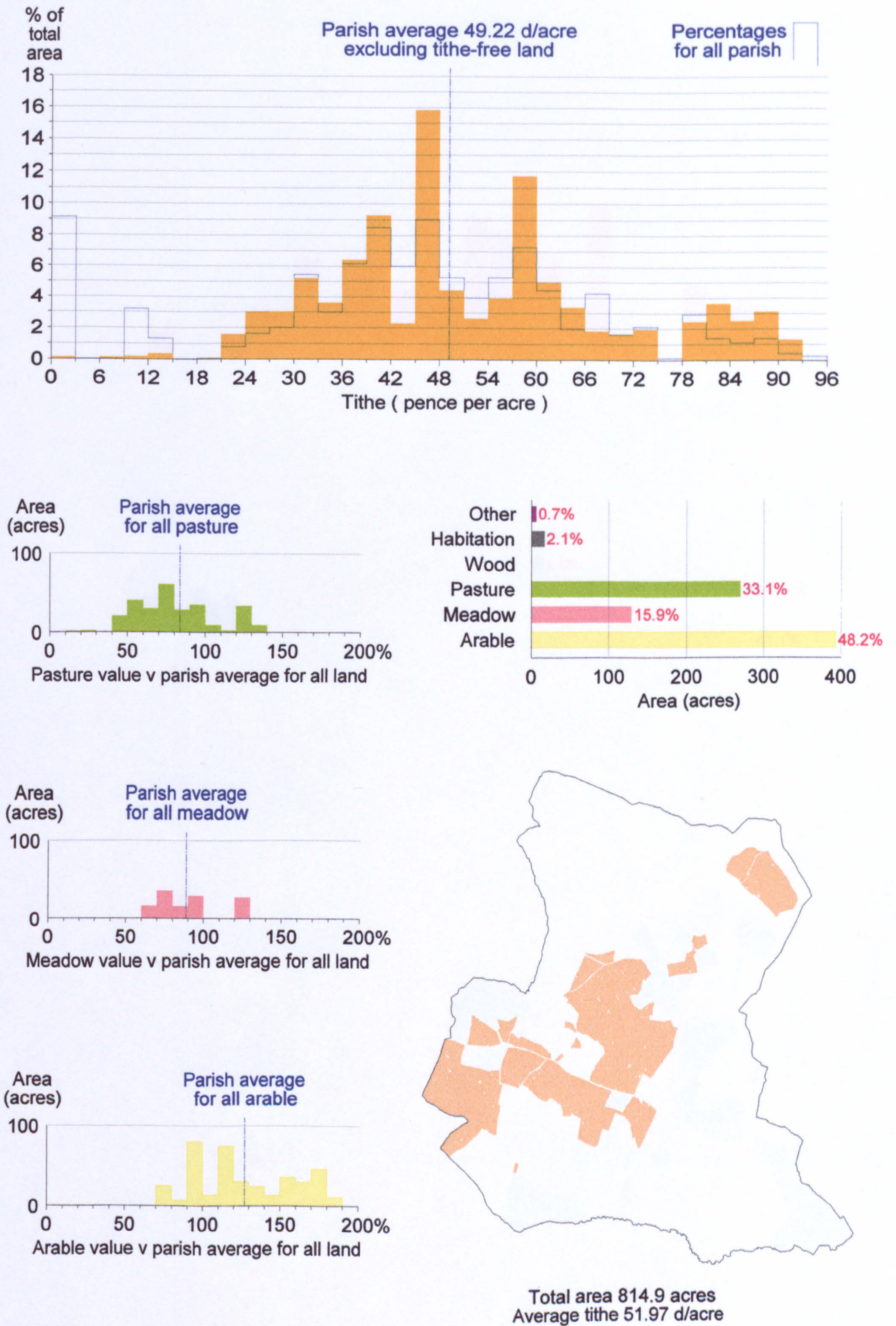
The value of the holdings of individual landowners within Allesley parish is analysed in detail in Figs 5-30 to 5-32, which show the large holdings of more than 300 acres that belonged to Francis Blithe Harries, Henry Greswolde and Gen. Richard Northey Hopkins. There are only three of them because the 376 acre Neale holding was mainly tithe-free and therefore of little interest in this analysis. These holdings had average values of 105.6%, 109.7% and 107.0% of the parish average respectively. They were almost identical to the 1809 holdings in Figs 5.9, 5-10 and 5-12.

In each figure the uppermost graph shows the percentage of land with each value in pence per acre, compared with the spectrum for the whole parish. Unlike those quoted in the 1809 survey, these values had to be calculated as decimal numbers which needed to be grouped in bands, in this case at threepenny intervals. The Harries holding followed the parish spectrum quite closely, the Greswolde holding was concentrated on the higher side of the average while the Hopkins holding covered a range of values including the best land in the parish as well as much poor land. Despite these different patterns, the average value of each holding was about the same. This uniformity reflects the very scattered layout of these holdings, which were essentially a random sample of many different types of land around Allesley parish. Despite showing the same estates, the value graphs for 1809 and 1840 are rather dissimilar; this is particularly true for the Hopkins holding, which was concentrated below average in 1809 but widespread in 1840.

The changes in these graphs are due to the weighting of value by land use in the tithe surveys and also to changes in the areas put down to each use. Comparing the charts of land use on the right-hand side with those for 1809, it will be seen that all three holdings moved towards arable, which Section 7.3 will show to have been rated more highly in 1840. This move was at the expense of meadow in Harries's holding and mostly at the expense of pasture for the other two. The complexity of these changes is confirmed by the three graphs on the left-hand side, none of which shows much resemblance to the equivalent plots for 1809. In Harries's holding the arable shifted from below average to above average, the better meadow disappeared and the pasture was about the same. There were similar changes in the estates owned by Greswolde and Hopkins, except that their pasture changed from having widespread values in 1809 to being concentrated around the average in 1840. For Greswolde the change was striking.

A simple conclusion may be drawn from the analysis of these three large holdings : a landowner could see an increase in the value of his fixed estate through changes in the balance between the different land uses in it. Between 1809 and 1840 Harries's estate increased from 97.8% to 105.6% of the parish average, Greswolde's from 108.3% to 109.7% and Hopkins' from 94.2% to 107.0%. For Hopkins those changes increased the value of his estate by more than one eighth, which was presumably reflected in the rents he charged to the farmers. It is not known if these changes were encouraged by the landowners or were merely the effect of market forces.





**Fig. 5-30 The Holding Owned by Francis Blithe Harries in Allesley Parish in 1840**



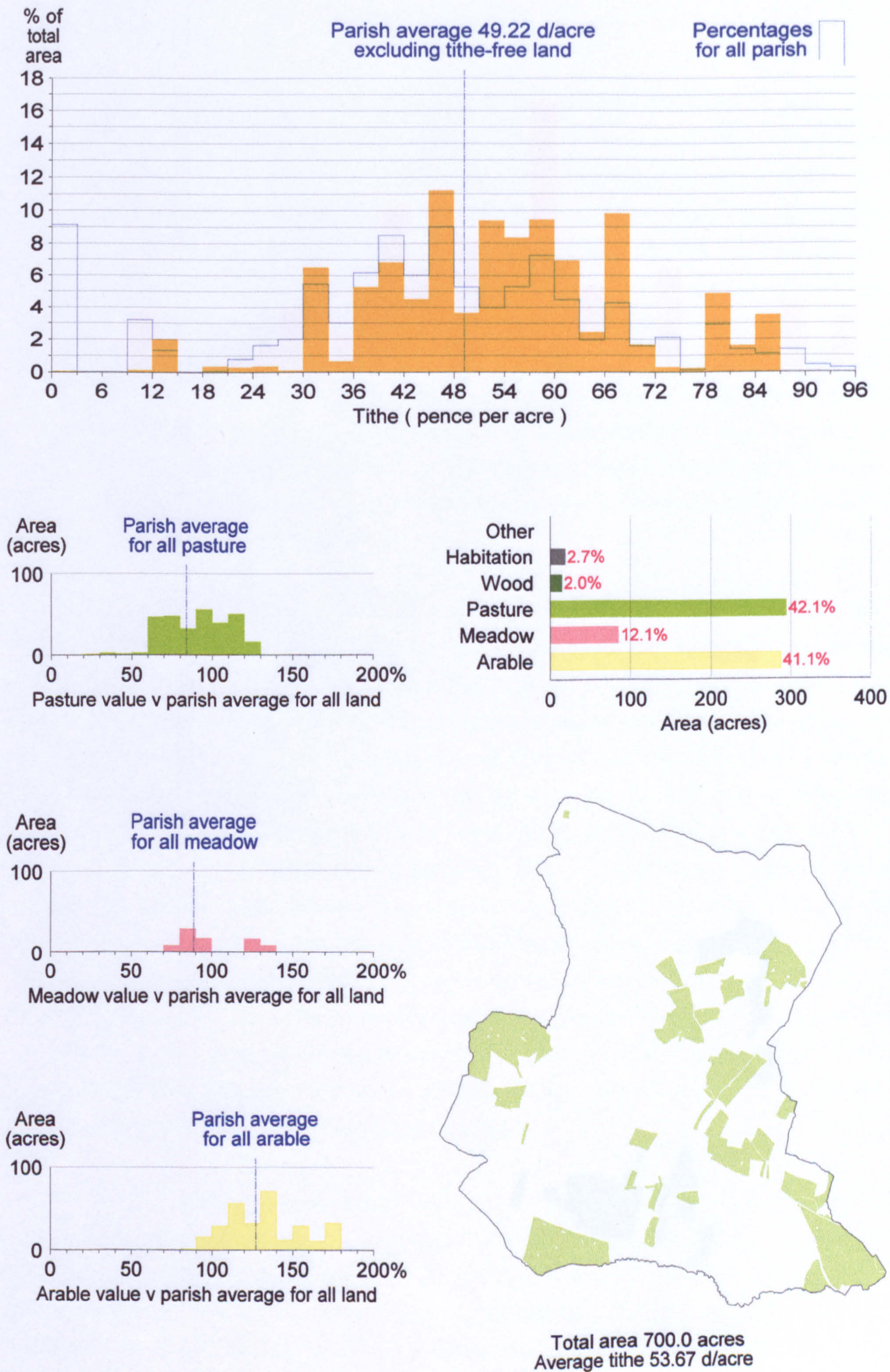


Fig. 5-31 The Holding Owned by Henry Greswolde in Allesley Parish in 1840



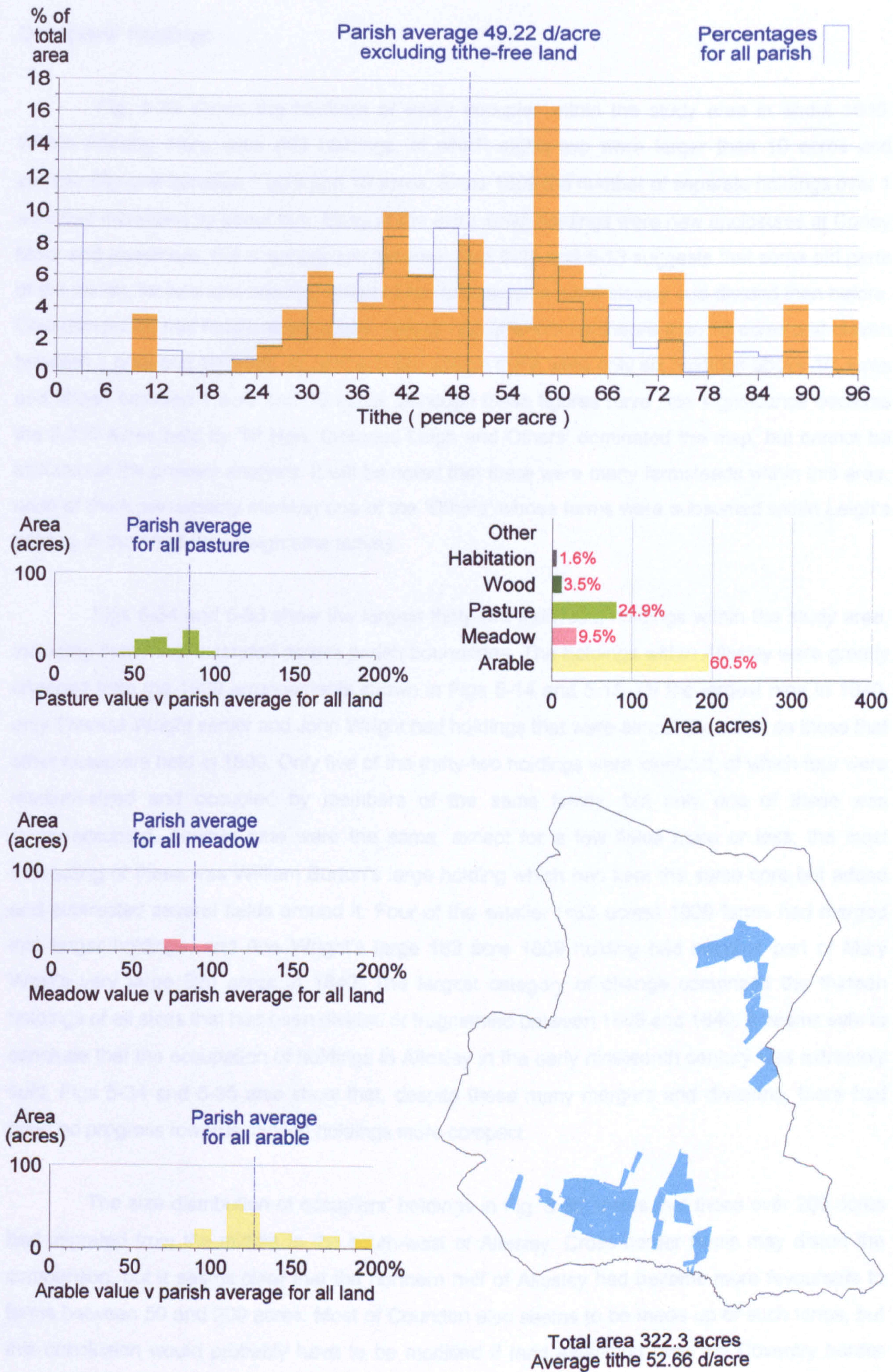


Fig. 5-32 The Holding Owned by Gen. Richard N. Hopkins in Allesley Parish in 1840



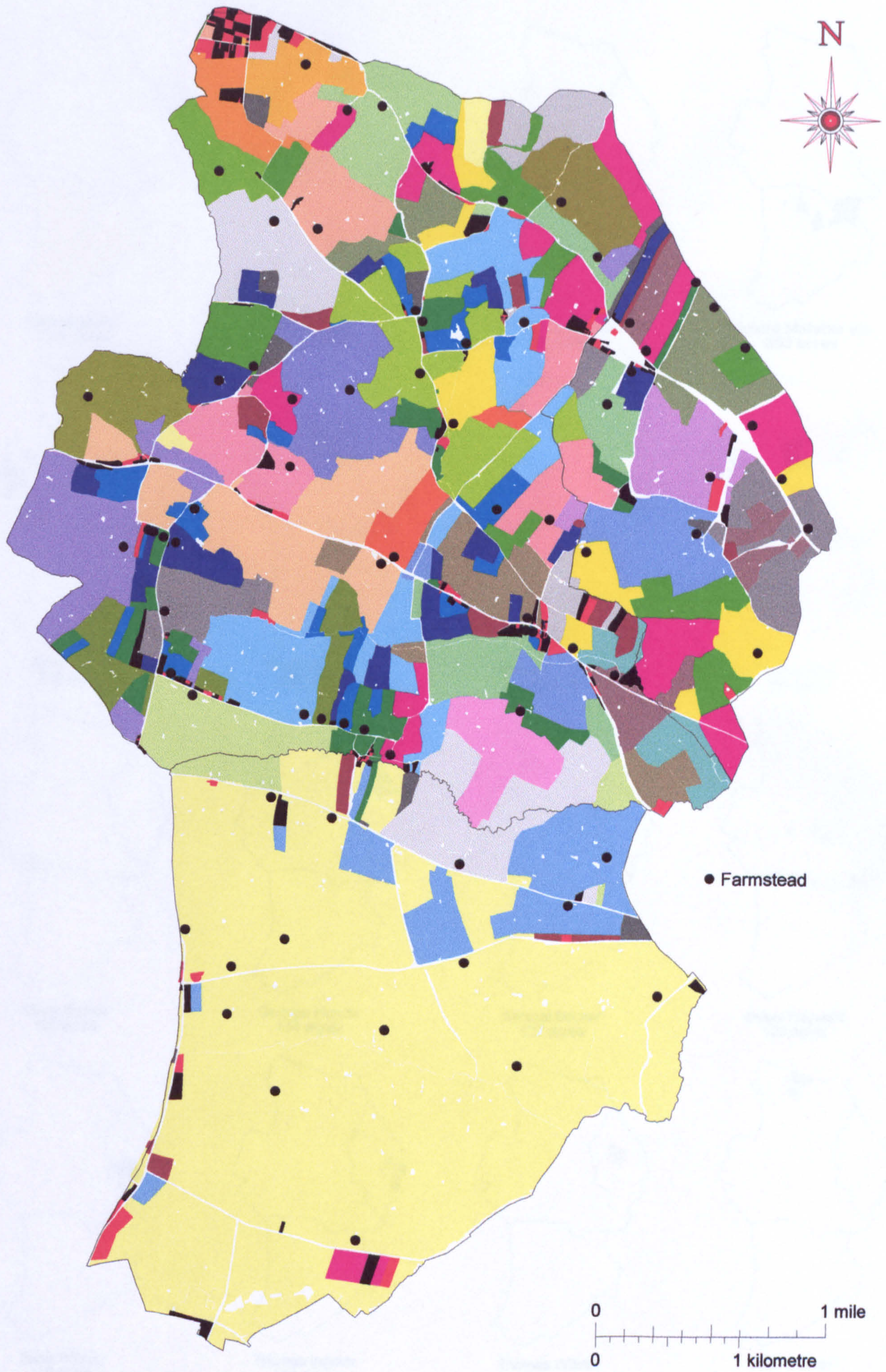
## Occupiers' Holdings

Fig. 5-33 shows the holdings of every occupier within the study area in about 1840. Within Allesley there were 243 holdings, of which eighty-two were larger than 10 acres and another fifty-one between 1 acre and 10 acres. Since 1809 the number of separate holdings over 1 acre had increased by about half. Many of the extra small holdings were new enclosures at Corley Moor and elsewhere, but a comparison between Figs 5-33 and 5-13 suggests that some old parts of the parish, for example around Hawkes End, had become more closely sub-divided than before. Coundon parish had forty-one occupiers, twenty-one of whom held more than 10 acres and eleven between 1 acre and 10 acres. In northern Stoneleigh there were only six holdings above 10 acres and fifteen between 1 acre and 10 acres, although these figures have little significance because the 2,230 acres held by 'Rt Hon. Chandos Leigh and Others' dominated the map, but cannot be included in the present analysis. It will be noted that there were many farmsteads within this area, each of them presumably marking one of the 'Others' whose farms were subsumed within Leigh's holding in the 1843 Stoneleigh tithe survey.

Figs 5-34 and 5-35 show the largest thirty-two individual holdings within the study area, including those that extended across parish boundaries. The holdings within Allesley were greatly changed from the 1809 arrangements shown in Figs 5-14 and 5-15. Of the largest nine in 1840, only Thomas Wright senior and John Wright had holdings that were almost the same as those that other occupiers held in 1809. Only five of the thirty-two holdings were identical, of which four were medium-sized and occupied by members of the same family, but only one of these was owner-occupied. Another nine were the same, except for a few fields more or less; the most interesting of these was William Burton's large holding which had kept the same core but added and subtracted several fields around it. Four of the smaller (<65 acres) 1809 farms had merged into larger holdings, and Ann Wright's large 183 acre 1809 holding had become part of Mary West's very large 320 acres in 1840. The largest category of change comprised the thirteen holdings of all sizes that had been divided or fragmented between 1809 and 1840. It seems safe to conclude that the occupation of holdings in Allesley in the early nineteenth century was extremely fluid. Figs 5-34 and 5-35 also show that, despite these many mergers and divisions, there had been no progress towards making holdings more compact.

The size distribution of occupiers' holdings in Fig. 5-36 shows that those over 200 acres had migrated from the middle to the south-west of Allesley. Cross-border farms may distort the comparison, but it seems clear that the northern half of Allesley had become more favourable to farms between 50 and 200 acres. Most of Coundon also seems to be made up of such farms, but this conclusion would probably have to be modified if land extending over the Coventry border were to be taken into account, because Coundon was attached to Holy Trinity parish in Coventry.

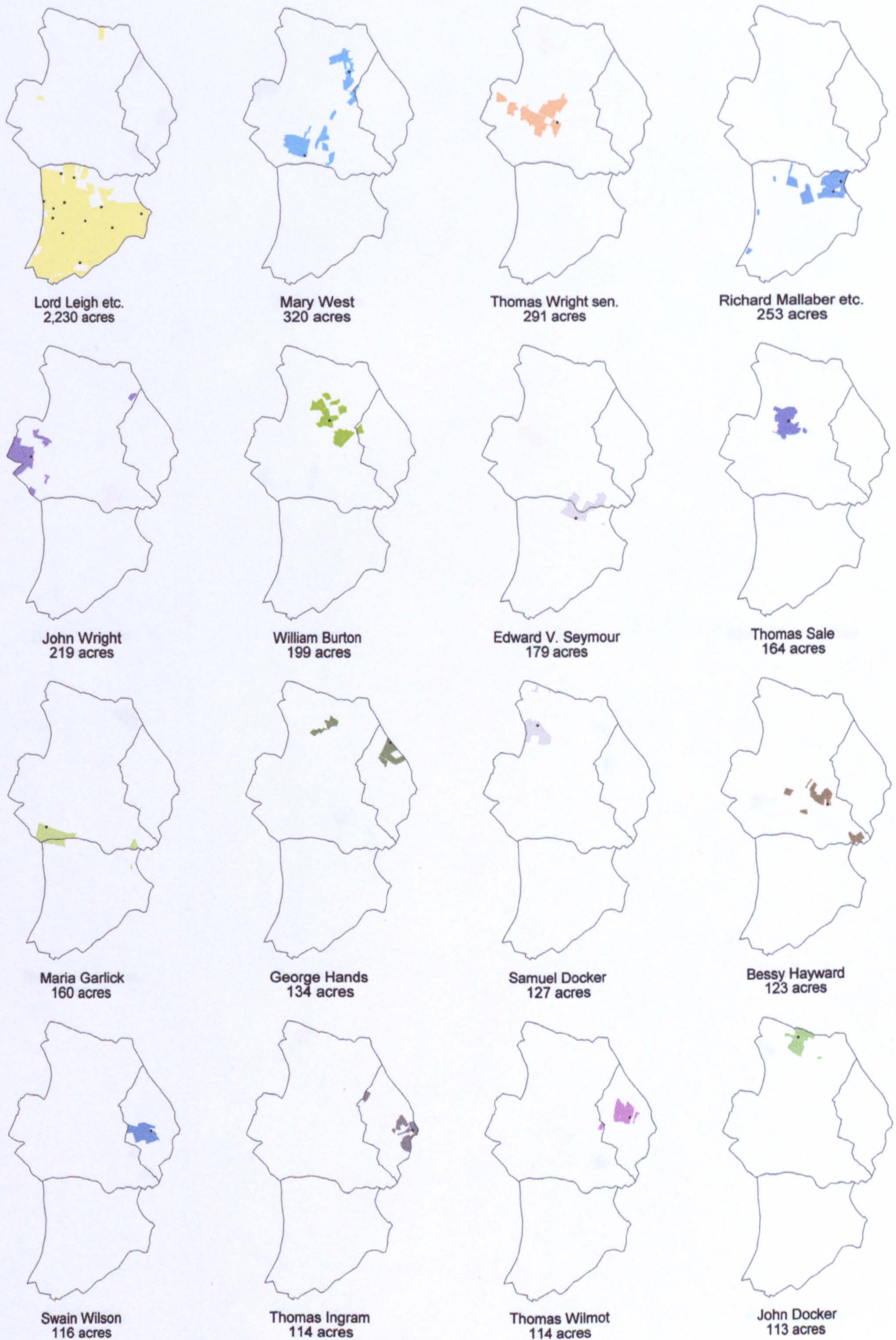




**Fig. 5-33** Occupiers' Holdings within the Study Area in about 1840

The farmsteads are represented by black circles.





**Fig. 5-34 Individual Occupiers' Holdings within the Study Area c.1840 (110+ acres)**

The farmsteads are represented by black dots.

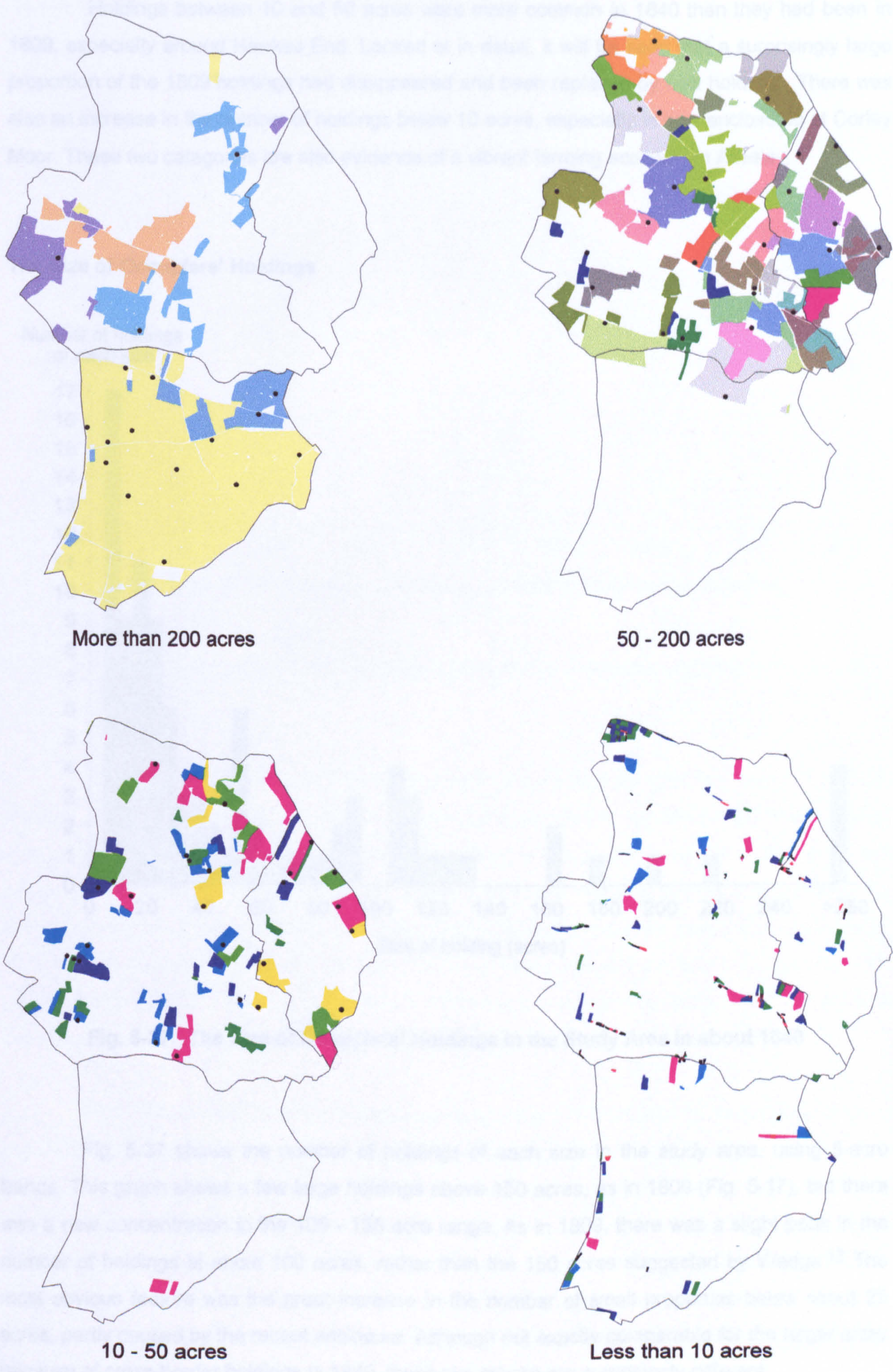




**Fig. 5-35 Individual Occupiers' Holdings within the Study Area c.1840 (57-110 acres)**

The farmsteads are represented by black dots.





**Fig. 5-36** Size Distribution of Occupiers' Holdings within the Study Area in about 1840



Holdings between 10 and 50 acres were more common in 1840 than they had been in 1809, especially around Hawkes End. Looked at in detail, it will be seen that a surprisingly large proportion of the 1809 holdings had disappeared and been replaced by new holdings. There was also an increase in the number of holdings below 10 acres, especially in new enclosures at Corley Moor. These two categories are also evidence of a vibrant farming economy in Allesley.

The Size of Occupiers' Holdings

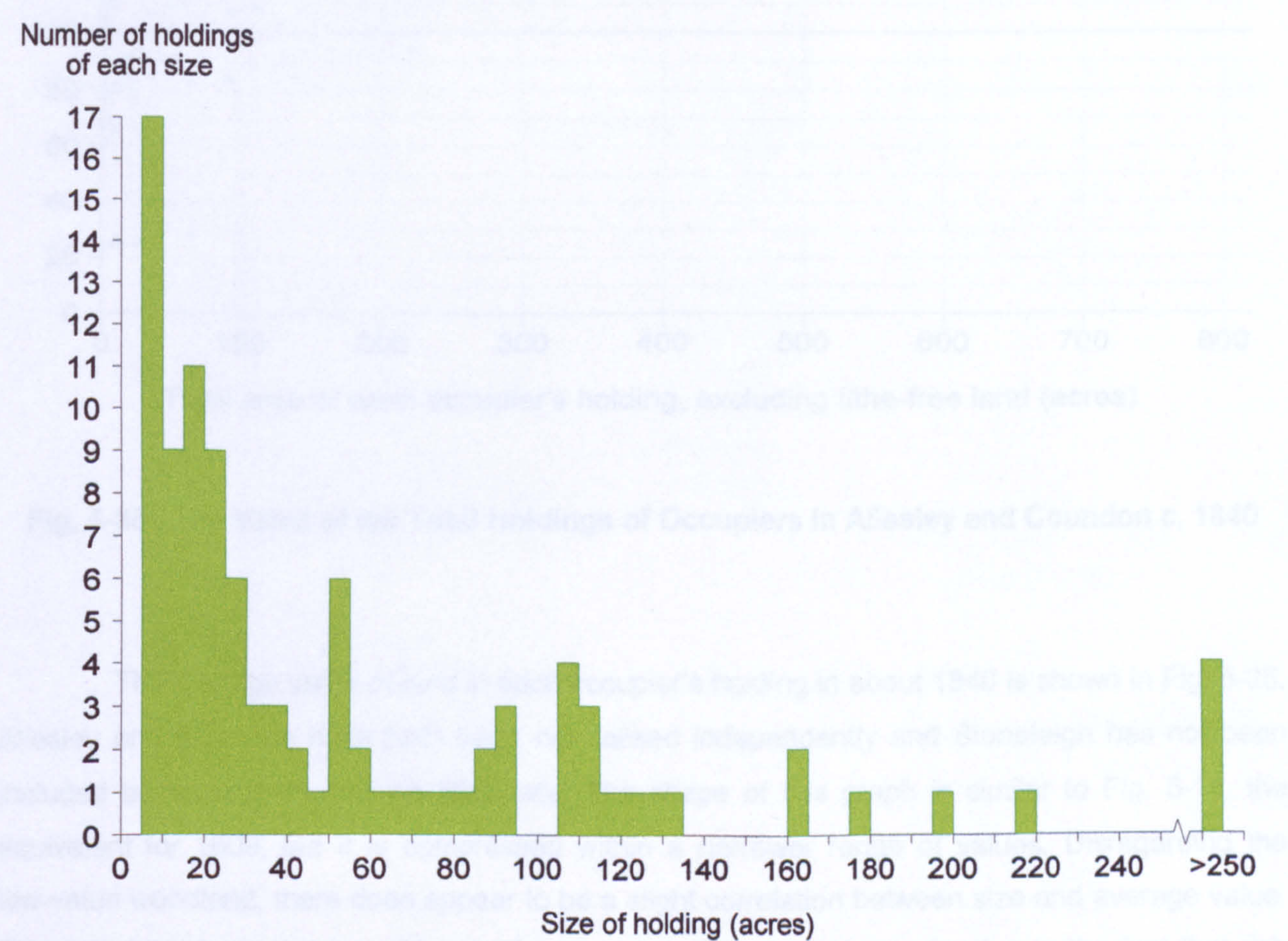


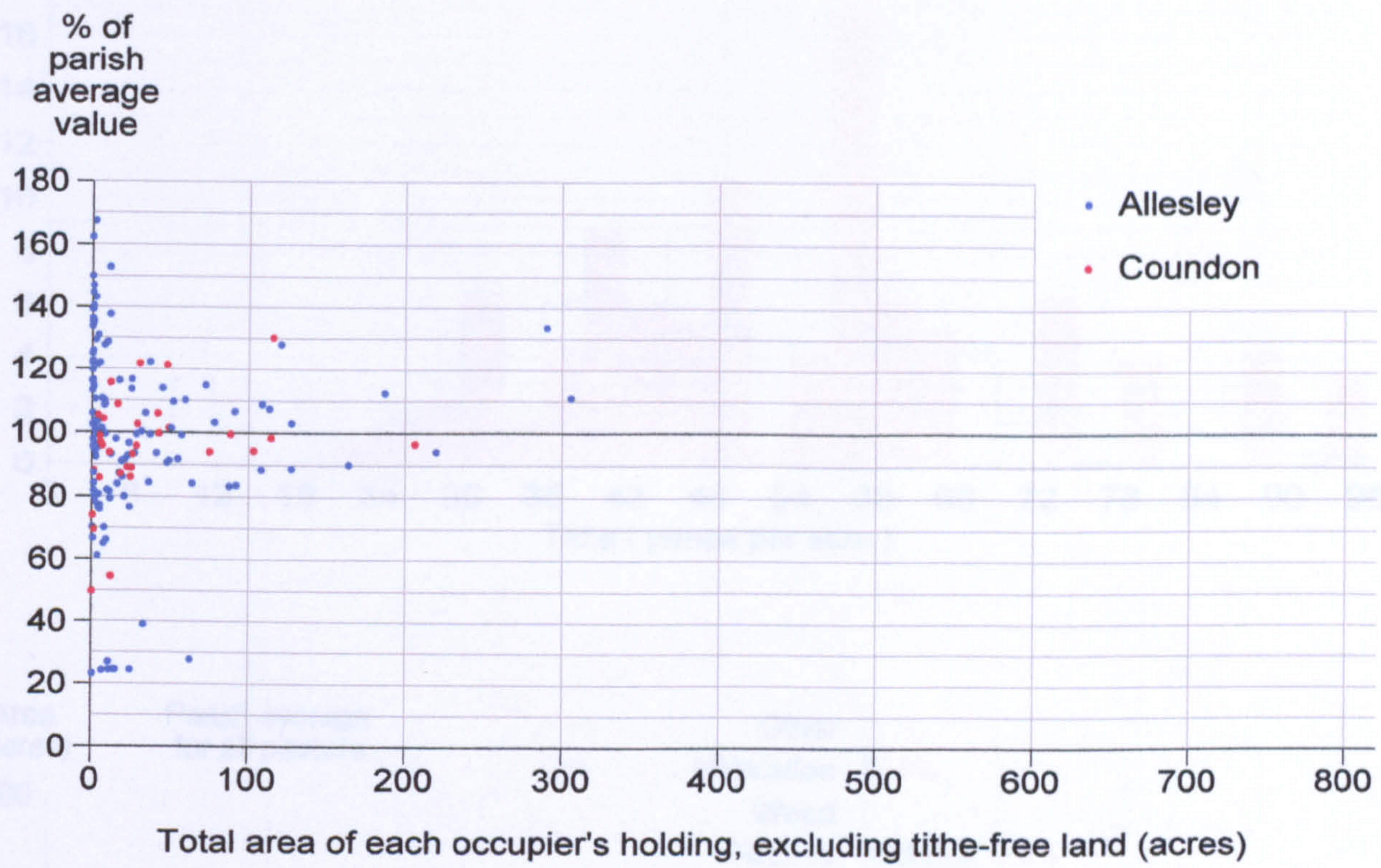
Fig. 5-37 The Size of Occupiers' Holdings in the Study Area in about 1840

Fig. 5-37 shows the number of holdings of each size in the study area, using 5-acre bands. This graph shows a few large holdings above 150 acres, as in 1809 (Fig. 5-17), but there was a new concentration in the 105 - 135 acre range. As in 1809, there was a slight peak in the number of holdings at about 100 acres, rather than the 150 acres suggested by Wedge.<sup>12</sup> The most obvious feature was the great increase in the number of small properties below about 25 acres, partly caused by the recent enclosure. Although not exactly comparable for the larger sizes because of cross-border holdings in 1840, these two graphs are surprisingly different.

12 Wedge, 'General view of the County of Warwick', in Marshall (ed.), *Review and Abstract*, 4, p.294.



### The Value of Occupiers' Holdings



**Fig. 5-38 The Value of the Total Holdings of Occupiers in Allesley and Coundon c. 1840**

The average value of land in each occupier's holding in about 1840 is shown in Fig. 5-38. Allesley and Coundon have both been normalised independently and Stoneleigh has not been included because there was so little data. The shape of this graph is similar to Fig. 5-18, the equivalent for 1809, but it is compressed within a narrower range of values. Disregarding the low-value woodland, there does appear to be a slight correlation between size and average value. This may be interpreted as evidence of economies of scale, but may be due to the fact that rich farmers could afford to rent large farms on the better land. The following analysis will also point to differences in the proportions of arable, meadow and pasture being an important factor.

Figs 5-39 to 5-43 provide detailed analyses of the five unusually large holdings of more than 150 acres within Allesley that were occupied by Mary West, Thomas Wright senior, John Wright, William Burton and Thomas Sale and had average values that were 111.0%, 133.7%, 94.2%, 112.5% and 90.1% of the overall parish average respectively. The wide variation in these percentages and the anomalously high value of Thomas Wright's holding need to be explained. Unfortunately it will not be possible to deduce much by comparisons with the 1809 holdings because only two of the five equate to the same pieces of land, and then not precisely.



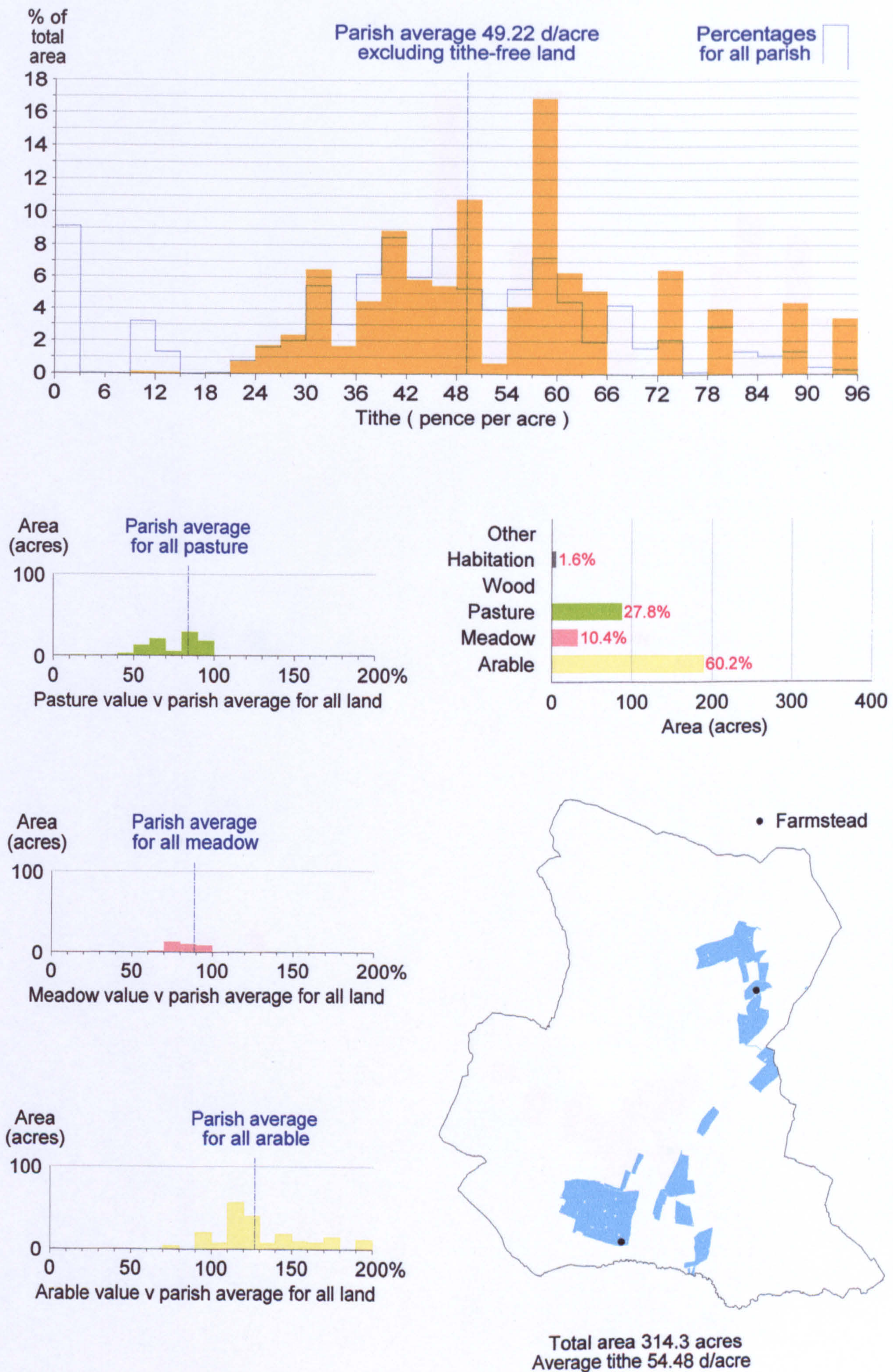
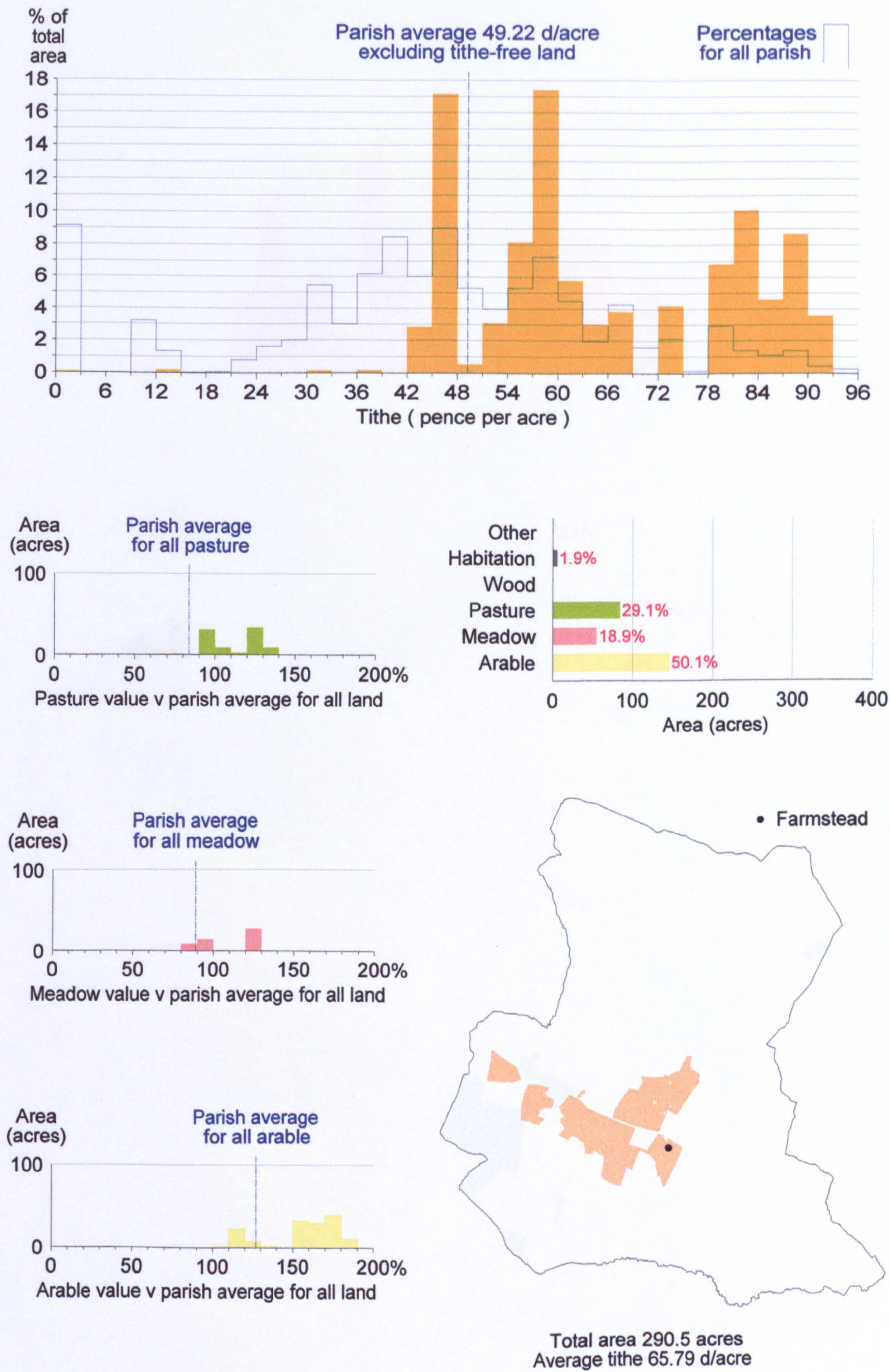


Fig. 5-39 The Holding Occupied by Mary West in Allesley Parish in 1840





**Fig. 5-40 The Holding Occupied by Thomas Wright sen. in Allesley Parish in 1840**



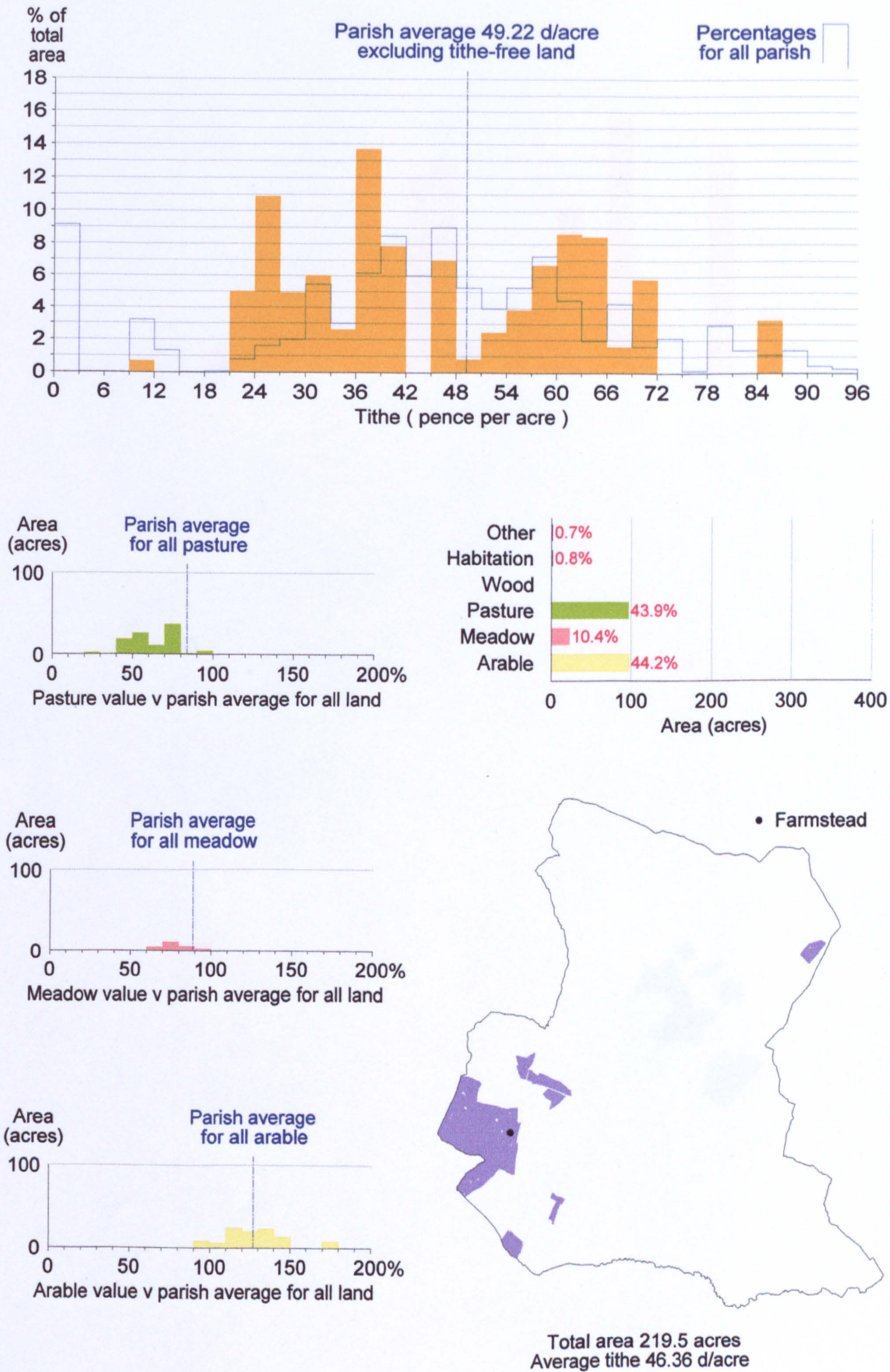


Fig. 5-41 The Holding Occupied by John Wright in Allesley Parish in 1840



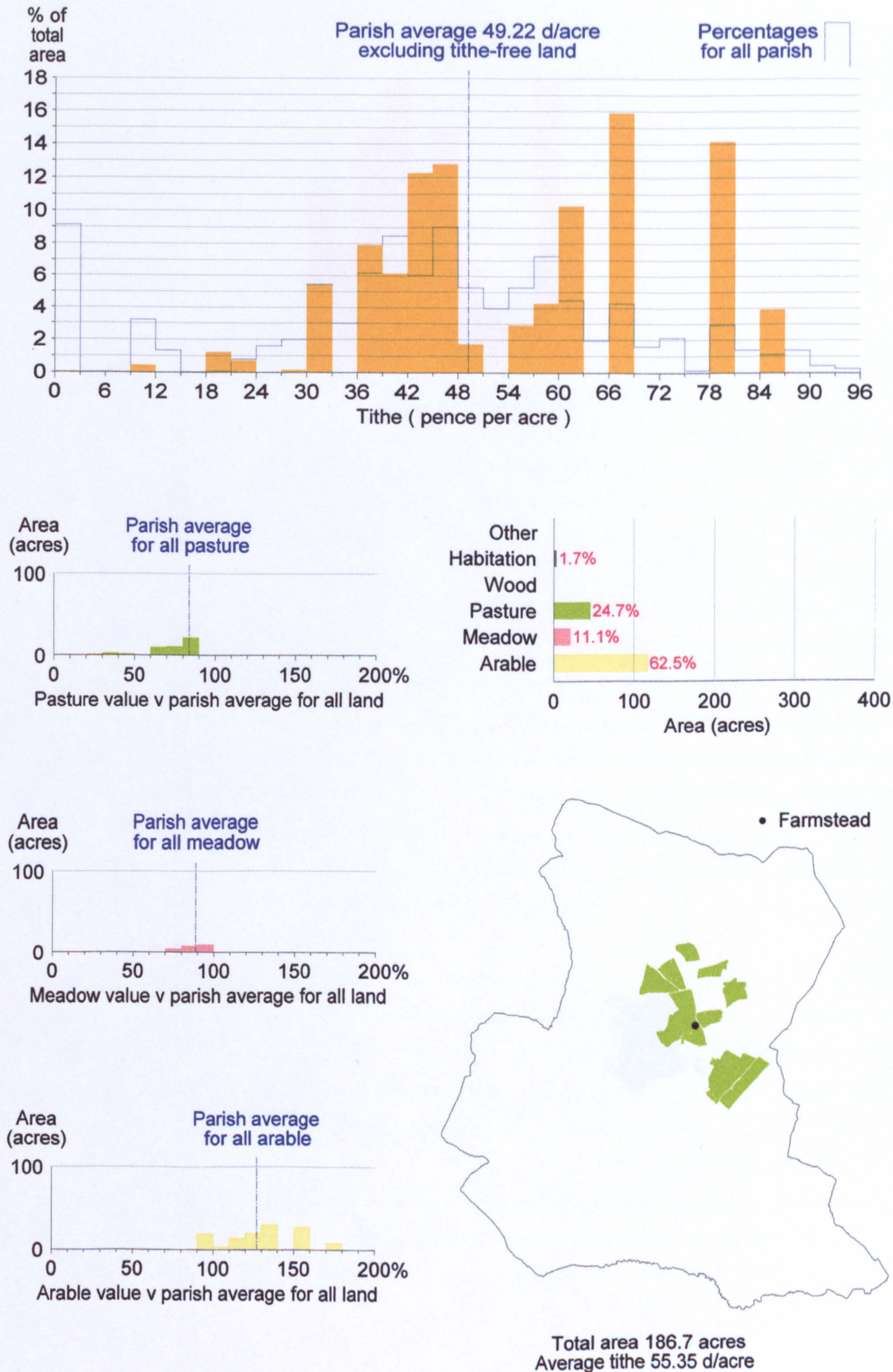


Fig. 5-42 The Holding Occupied by William Burton in Allesley Parish in 1840



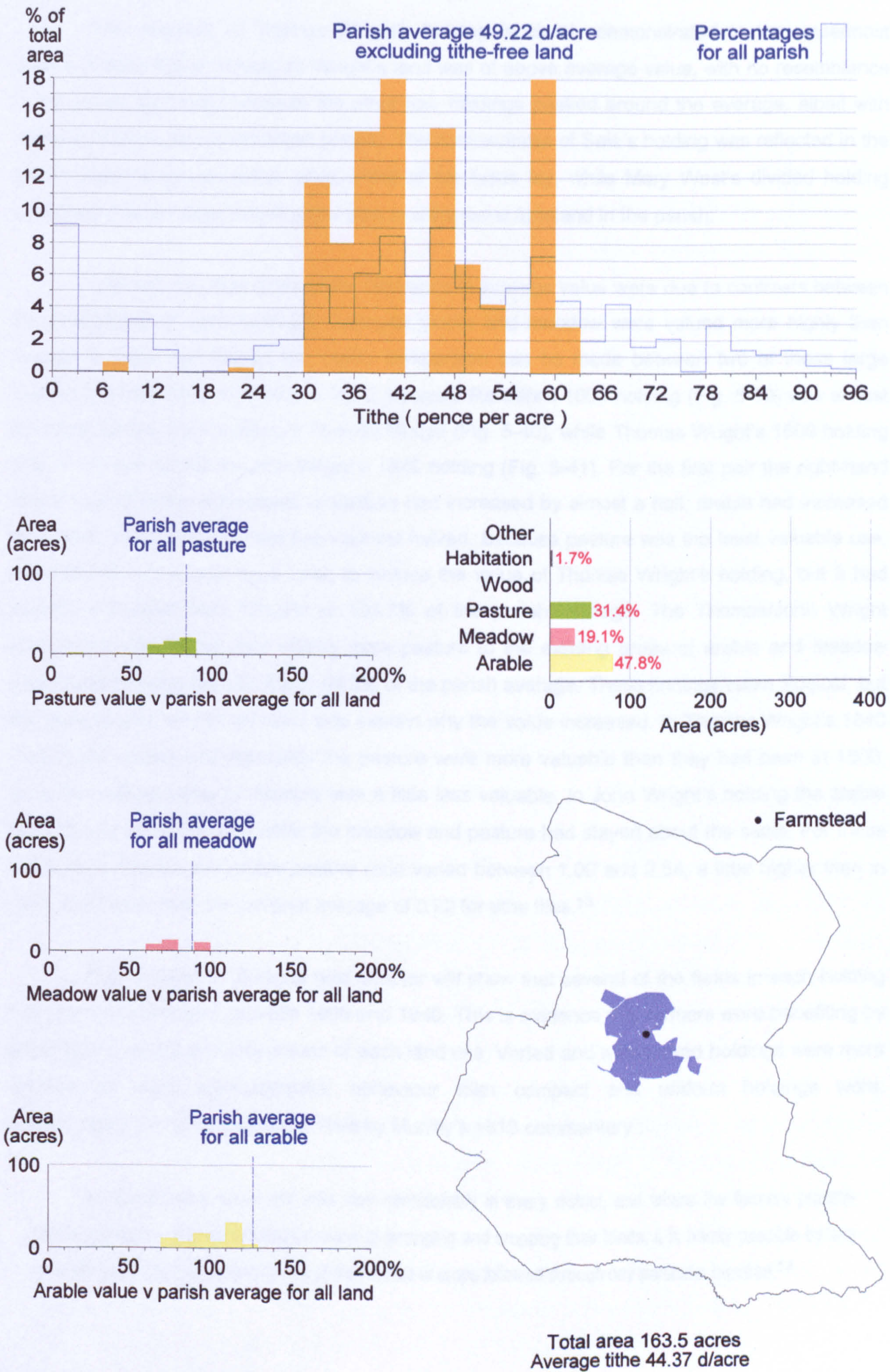


Fig. 5-43 The Holding Occupied by Thomas Sale in Allesley Parish in 1840



The anomaly of Thomas Wright's holding is clearly demonstrated in the uppermost graphs in each figure. Almost all Wright's land was of above average value, with no resemblance to the parish spectrum, whereas the other four holdings peaked around the average, albeit with large oscillations due to the small sample. The compactness of Sale's holding was reflected in the narrow band of values within which most of his fields lay, while Mary West's divided holding contained a wide range including the best and the worst farmland in the parish.

It is possible that some of the difference in average value were due to contrasts between the proportions of each land use, because arable and meadow were valued more highly than pasture in 1840. An inexact but useful comparison can be made between two of these large holdings as they were in 1809 and 1840, because Ratcliffe's 1809 holding (Fig. 5-19) was almost the same as the 1840 holding of Thomas Wright (Fig. 5-40), while Thomas Wright's 1809 holding (Fig. 5-22) was similar to John Wright's 1840 holding (Fig. 5-41). For the first pair the right-hand charts show that the percentage of pasture had increased by almost a half, arable had increased by a tenth, while meadow had been almost halved. Because pasture was the least valuable use, the effect of this should have been to reduce the value of Thomas Wright's holding, but it had actually increased from 121.9% to 133.7% of the parish average. The Thomas/John Wright comparison also shows that adding more pasture to the existing areas of arable and meadow increased the value from 81.3% to 94.2% of the parish average. These findings seem illogical, but the three graphs on the left-hand side explain why the value increased. In Thomas Wright's 1840 holding the arable and especially the pasture were more valuable than they had been in 1809, while the reduced area of meadow was a little less valuable. In John Wright's holding the arable had become more valuable while the meadow and pasture had stayed about the same. For these five large occupiers the arable:pasture ratio varied between 1.00 and 2.54, a little higher than in 1809 and higher than the national average of 0.92 for tithe files.<sup>13</sup>

Figs 6-6 and 6-10 in the next chapter will show that several of the fields in each holding had their uses changed between 1809 and 1840. This is evidence that farmers were benefiting by adjusting the layout and proportions of each land use. Varied and widespread holdings were more suitable for such entrepreneurial behaviour than compact and uniform holdings were. Unfortunately, no light was shed on this by Murray's 1813 commentary :

In Warwickshire, where the soils vary considerably in every district, and where the farmers practise different systems, and follow different plans of arranging and cropping their lands, it is hardly possible by any general remarks to give a correct idea of the rotation of crops followed through any particular hundred.<sup>14</sup>

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<sup>13</sup> Thirsk, *Agrarian History*, 6, p.31.

<sup>14</sup> A. Murray, 'General view of the agriculture of the County of Warwick 1813', in Marshall (ed.), *Review and Abstract*, 4, p.318.



## Owner-occupiers

Fig. 5-44 shows the land with the same owner and occupier in the c.1840 tithe surveys of Allesley, Coundon and Stoneleigh parishes. Most of the northern part of Stoneleigh was owned by Lord Leigh and occupied by 'Rt Hon. Chandos Leigh and Others', although it is unlikely that Lord Leigh was a true occupier, bearing in mind his huge holding and his frailty.<sup>15</sup> The Leigh holding has therefore been excluded from consideration. This map allows comparisons to be made between the parishes and with the situation in Allesley in 1809, as shown in Fig. 5-25. Most of the owner-occupied farmland c.1840 was in the north-west of Allesley, the northern half of Coundon, around Eastern Green and Pickford Green and in some small enclosures in Stoneleigh. There were many small parcels at Brownshill Green and Corley Moor, some of which belonged to small tradesmen. Between 1809 and 1840 owner-occupiers had tended to move further away from Allesley village, probably in response to commercial pressure and increasing problems with trespass on farmland nearer to Coventry.

In Allesley the owner-occupiers accounted for 16.8% of the total area, but this figure reduced to 13.0% when the glebe land and isolated woods were excluded. This represented a reduction of one sixth in percentage terms and more than one tenth in actual area, despite the extra land enclosed at Corley Moor and elsewhere in the parish. Excluding tithe-free land, the average value of the owner-occupied land was 48.48 d/acre, which was a little less than the parish average of 49.22 d/acre. The difference is probably not significant because, as will be shown in Chapter 7, the value was mainly determined by location and use. The owner-occupied land in Coundon accounted for 17.7% of the total area of the parish, excluding only one small piece of glebe land, which was a higher percentage than in Allesley. Excluding tithe-free land, the average value was 57.15 d/acre, again a little less than the parish average of 60.29 d/acre. Because of the Leigh holding there were only 15 acres of known owner-occupied land in northern Stoneleigh, which was 3.3% of all the tithable land not owned by Leigh. This percentage is not significant because of the small area and incomplete data, although it does support the preconception that a parish dominated by one man would be unattractive to owner-occupiers.

It is interesting to look for these owner-occupiers in the 1841 census, to discover whether they actually lived locally.<sup>16</sup> In Allesley only nineteen out of thirty-eight (50%) could be found in the parish and in Coundon the figure was 67%. Although most of the large owners were present, the amount of land held by genuine owner-occupiers was obviously less than even the low percentage derived above, but more detailed analysis was not possible here. Further complications would come where the occupier had a different name but belonged to the same household as the owner, for example a married daughter and father or a son-in-law and father-in-law.

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<sup>15</sup> R. Bearman, *Stoneleigh Abbey - The House, Its Owners, Its Lands* (Stoneleigh, 2004), pp.185-190.

<sup>16</sup> 1841 censuses are on open display at Warwickshire C.R.O.



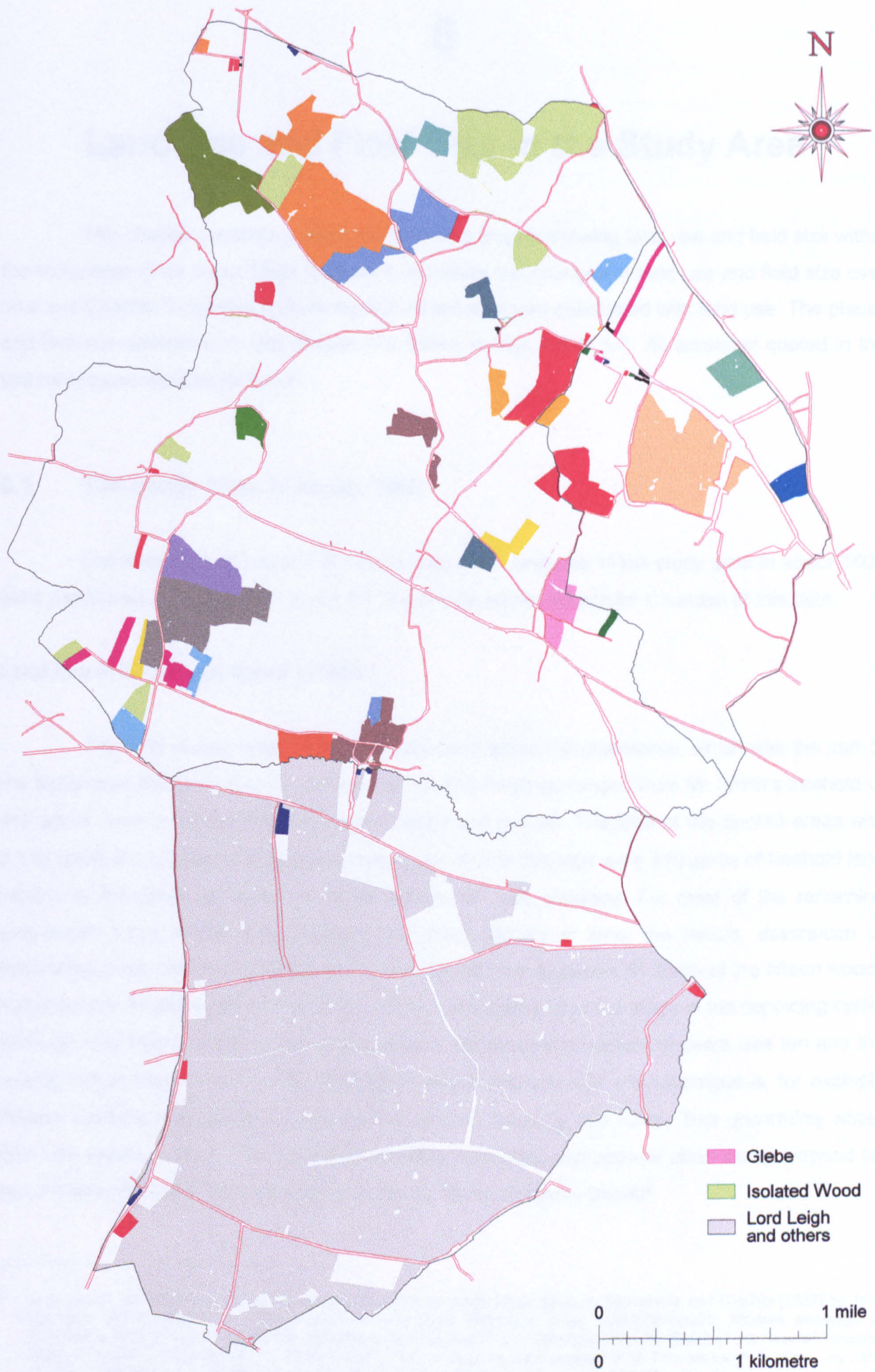


Fig. 5-44 Owner-occupiers within the Study Area in about 1840



## 6

# Land Use and Field Size in the Study Area

This chapter presents a series of maps and graphs showing land use and field size within the study area since about 1600. Chapter 8 describes the changes in land use and field size over time and Chapter 9 includes an investigation of some factors associated with land use. The places and features referred to in this chapter are shown in Figs 1-4 to 1-7. All acreages quoted in the text have been rounded for clarity.

## 6.1 The Study Area in About 1600

The three known sources of information about land use in the study area in about 1600 were introduced in Sections 3.1 and 4.8.<sup>1</sup> There is no known source for Coundon at this date.

### Land Use in Stoneleigh Manor in 1597

The 1597 survey listed seventy-seven items within Fletchamstead, which was the part of the study area that lay within Stoneleigh manor. The holdings ranged from Mr Smith's freehold of 415 acres down to Widow Watson's little cottage and garden. The total of the quoted areas was 2,112 acres, but this figure is probably inaccurate. Within this total were 910 acres of freehold land (43.0% of the total), for which no other information was provided. For most of the remaining sixty-seven items, which were probably individual parcels of land, the tenant, description or field-name, area, rent and/or yearly value were stated (see Appendix B). Each of the fifteen woods had a number of years quoted beside the name, corresponding to the stage in the coppicing cycle, although only seven of them were called copses; the maximum number of years was ten and the unweighted average was 4.9. The information about land use was often ambiguous, for example William Clarke's nine pieces of 'pasture and arable', totalling 116 acres. This uncertainty about land use seems to have been typical of Arden at that time, with pasture often being cropped for two or three years and then returned to grass for fifteen or twenty years.<sup>2</sup>

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1 A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a; [Map] of the Severall Grounds Lying in Hurste, Flechamstead, and Candley being The Lands of the right worshipfull Sir Thomas Leigh Knight . . . by John Goodwin, Practicioner in the Mathematiques, Shakespeare Birthplace Trust, DR18/25/69a; The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14; Allesley Parke - Survey According to Mr Comptons Booke & his val[uati]on, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey].

2 J. Thirsk (ed.), *The Agrarian History of England and Wales, 5-1, 1640-1750 Regional Farming Systems* (Cambridge, 1984), pp.182-183.



The use of the term 'field' was initially thought to indicate arable but this assumption was thrown into doubt by the existence of Drapers feild meadow and Drapers feild pasture without an arable Drapers feild. Because of the ambiguous descriptions and the fact that land use was ill-defined in 1597 it was not thought worthwhile to distinguish between arable and pasture in Table 6/1, which shows the percentage of the total area with each land use, excluding freehold land. Absolute areas have not been quoted because they are known to be unreliable in the 1597 survey. The percentages have been rounded to the nearest integer because the inaccuracy of the survey does not justify greater precision.

Description	% of total area	% of total area excluding waste
Waste	44	--
Wood	23	41
Pasture and arable	22	39
Meadow	5	9
House and/or croft	3	6
Not known	3	6

**Table 6/1    Land Use in the 1597 Survey of Part of Stoneleigh Manor**

It will be seen that only 33% of the area was used for pasture, arable, meadow, housing, crofts and unknown uses. These percentages cannot be extrapolated to the whole of Stoneleigh manor because waste was concentrated within the study area, while common fields and common land only existed outside it. The freehold land within the study area probably contained little or no waste and a smaller percentage of woodland, so the proportions in Table 6/1 are not even likely to be typical of the part of Stoneleigh manor that lay within the study area.

The second column of percentages in Table 6/1 excludes waste as well as freehold land in order to provide a more representative picture of land use in the northern part of Stoneleigh manor. The high proportion of woodland (41%) is not surprising because this general area was often known as Westwood, but it was certainly not typical of the whole of Stoneleigh manor. Despite these caveats, the percentages in Table 6/1 should be representative enough of the study area within Stoneleigh, including freehold land, to allow comparisons with the adjacent Allesley manor.



Field Size in Stoneleigh Manor in 1597

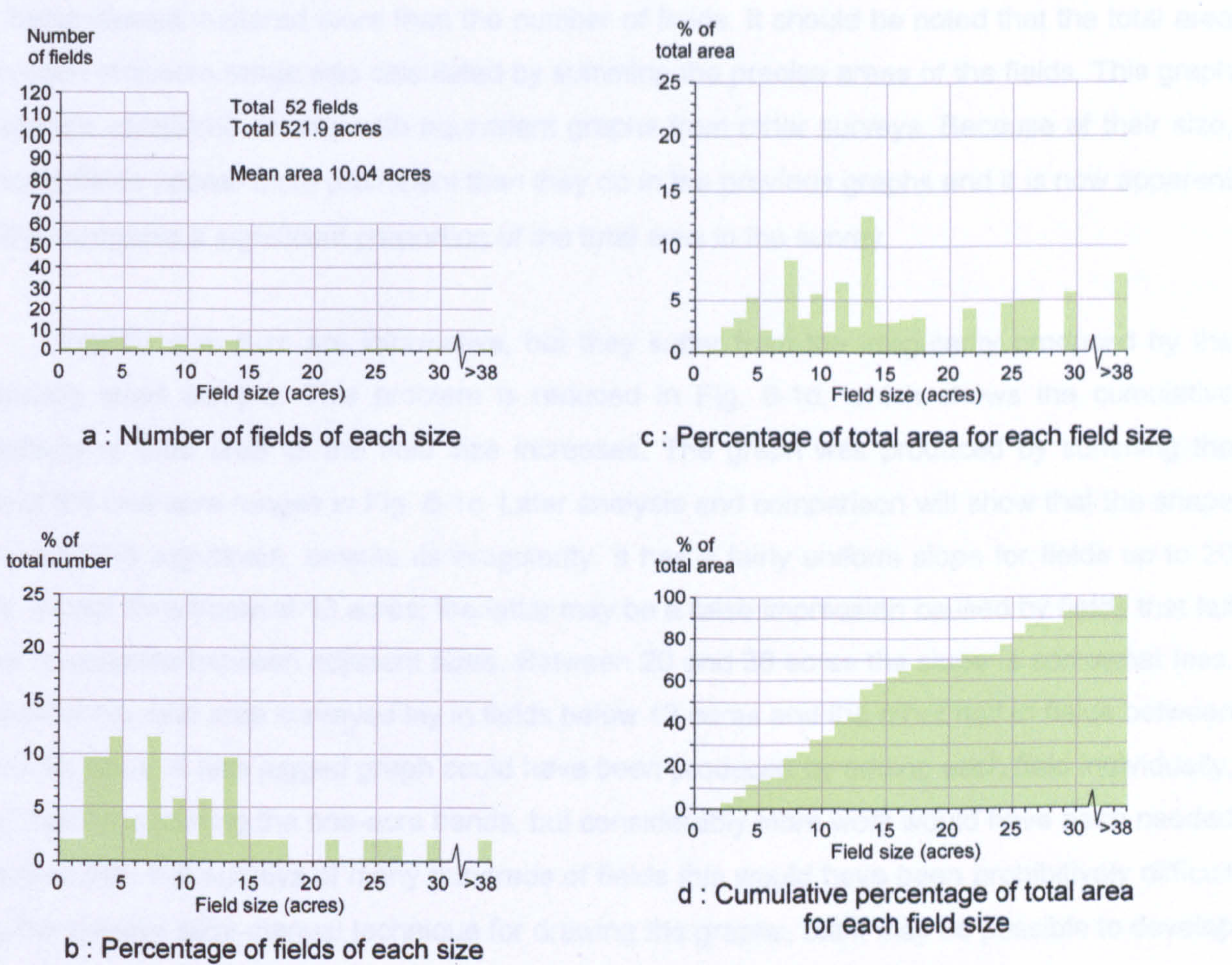


Fig. 6-1 Field Size in Northern Stoneleigh Manor in 1597

The 1597 survey quoted areas for sixty-seven individual pieces of land in the part of Stoneleigh manor that lay within the study area, excluding woodland, housing, Westwood Heath, freeholdings and fields that were lumped together in groups. Fig. 6-1 shows the variation in the sizes of these pieces of land by means of four graphs - a) the number of fields of each size, b) the percentage of fields of each size, c) the percentage of the total area for each field size and d) the cumulative percentage of total area for each field size. It was decided to group together all fields within one-acre limits to suppress the rapid variations that would come from a finer limit, while preserving the real, more gradual, variations that were being looked for. Because there are few fields in the sample, Fig. 6-1 has a coarser saw-tooth pattern and is less informative than the equivalent graphs for other surveys that are described later in this chapter.

Fig. 6-1a shows the number of fields of each size, but the small total number makes this particular graph too flat to be comprehended easily. This problem is corrected by Fig. 6-1b, which shows the same data as percentages which can be compared directly with other surveys. This graphs show that most fields were less than 18 acres, but there were a few ranging up to 38 acres. The mean area was 10.04 acres. The small size of the sample would be expected to produce an irregular graph, so it is not safe to draw other conclusions from this irregularity.



Fig. 6-1c shows the percentage of total area for each field size, reflecting the fact that the area being farmed mattered more than the number of fields. It should be noted that the total area within each one-acre range was calculated by summing the precise areas of the fields. This graph can also be compared directly with equivalent graphs from other surveys. Because of their size, the larger fields appear more prominent than they do in the previous graphs and it is now apparent that they comprise a significant proportion of the total area in the survey.

Figs 6-1a to 6-1c are informative, but they suffer from the irregularity produced by the statistically small sample. This problem is reduced in Fig. 6-1d, which shows the cumulative percentage of total area as the field size increases. The graph was produced by summing the areas of the one-acre ranges in Fig. 6-1c. Later analysis and comparison will show that the shape of this graph is significant, despite its irregularity. It has a fairly uniform slope for fields up to 20 acres, except for a hump at 13 acres; the latter may be a false impression caused by fields that fall on the boundaries between adjacent sizes. Between 20 and 38 acres the slope is somewhat less. One half of the total area surveyed lay in fields below 13 acres and the other half in fields between 13 and 38 acres. A less jagged graph could have been produced by adding each field individually, rather than by summing the one-acre bands, but considerably more work would have been needed to achieve this. For surveys of many hundreds of fields this would have been prohibitively difficult using the present semi-manual technique for drawing the graphs, but it may be possible to develop more automated methods of drawing such graphs in future projects of this type.

The four graphs in Fig. 6-1 can be seen as a statistical fingerprint of the farmed land in the northern part of Stoneleigh manor in 1597. A study of the equivalent fingerprints from other areas and eras could provide a numerical basis for classifying landscapes, so that contrasts and similarities will become more evident. This idea is explored further in Chapter 8, but it will be noted here that the 1597 survey was unusual because the mean field area was larger and the slope of the graph of cumulative area (Fig. 6-1d) was much closer to being linear than for the other surveys. A straight-line graph would, of course, show that each size of field contributed an equal proportion to the total area of the survey. It is unclear whether there could be any intentional or accidental explanation for this equitable arrangement of field sizes.



Land Use in Allesley Manor in 1626

The 1626 survey stated that : ‘The said Mannor is well situate and lyeth within one Myle of the Citty of Coventry. It is indifferently well compounded of pasture Meadow Coppice woods and arrable Lands.’ The summary at the end of the survey said that the demesne lands of the manor totalled 577 acres, the copy lands 1,398 acres of pasture and meadow, the woods 175 acres and the common field 261 acres. The total of demesne and copy lands was stated to be 2,412 acres. However, an automatic calculation using the database gave a total of 2,508 acres, including 583 acres of demesne, 370 acres of common field and about 276 acres of wood, allowing for 8 acres with shared use and excluding herbage, which would have led to the area of one wood being counted twice. The disparity in the area of woodland can be explained by the summary’s inclusion of some of it within the total area of demesne land. Half of the disparity in the common field area can be explained in the same way, but some of the land in the open field is difficult to identify because it was not listed under this heading. The names of some parcels such as *Ash Furlong* and *North Field Meadow* suggest that they belonged with the open field; others such as *Pickford Meadow* were listed with the open field in the 1652 enclosure. It is therefore clear that a substantial proportion of the open field was included in the 1626 survey.

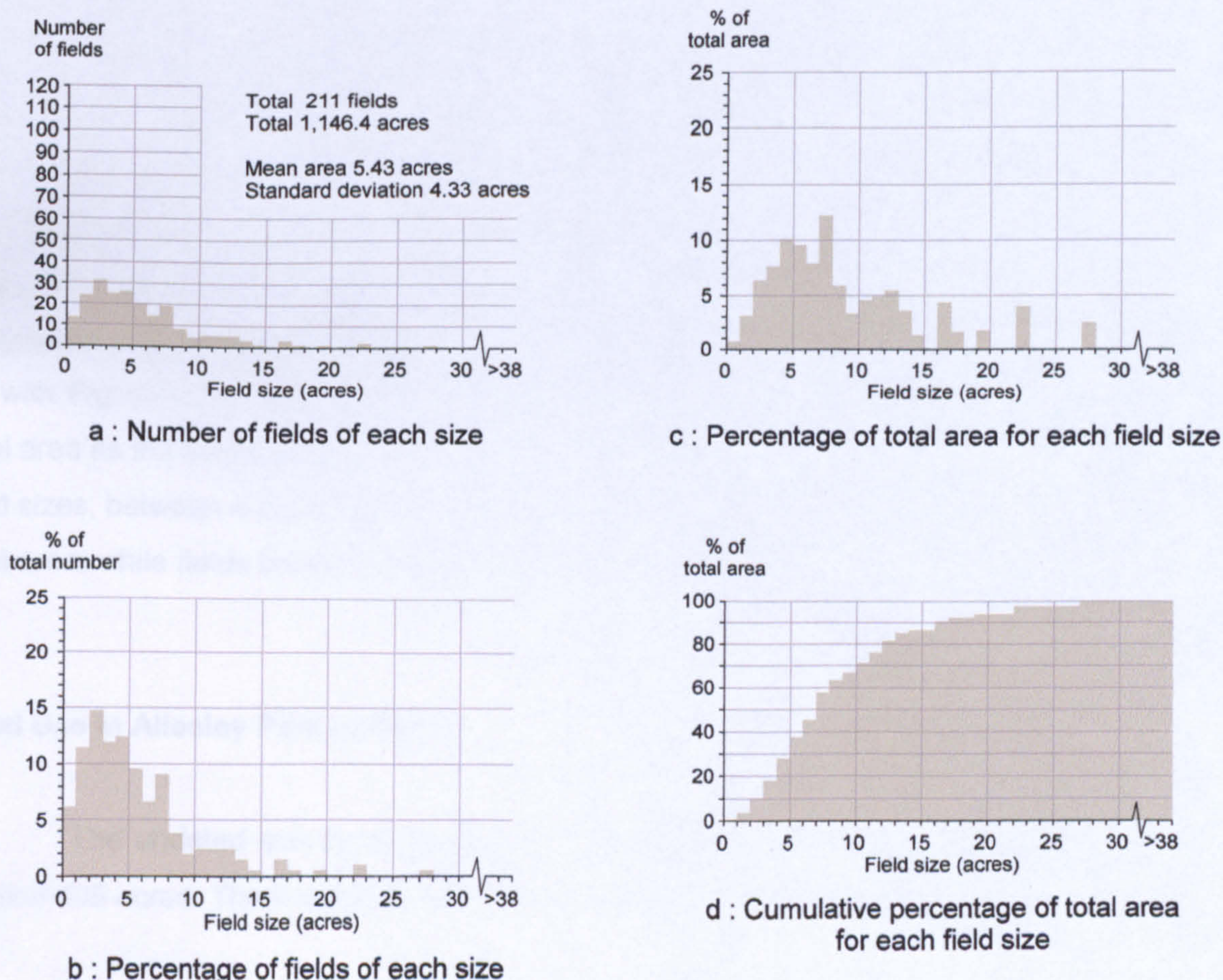
As with Stoneleigh, land use was not always stated and was sometimes ambiguous. Many of the items were only described as closes, which would have implied pasture in a later survey but may have had no such association in 1626, when closes would be needed to protect all types of farming that adjoined open land such as the common field. Some items were merely described as ‘land’. The use of all this land is therefore uncertain, but Table 6/2 shows the areas and percentages for each known land use within Allesley manor in 1626.

Description	Area (acres)	% of manor
Uncertain	678	27
Common field	370	15
Pasture	329	13
Wood	277	11
Meadow	272	11
Field	237	9
Leasow	174	7
Waste	132	5
Housing	40	2
TOTAL	2,508	100

Table 6/2 Land Use in the 1626 Survey of Allesley Manor



### Field Size in Allesley Manor in 1626



**Fig. 6-2 Field Size in Allesley Manor in 1626**

The 1626 survey quoted precise areas for 211 individual fields in Allesley manor, excluding woodland, housing, the common field and fields that were lumped together in groups. Although the work described in Section 4.8 did not succeed in locating all these fields, most of them are known to have been within Allesley parish, with a small proportion in adjoining areas of Coundon and Stoneleigh parishes. The uncertainty about locations had no effect on the creation of Fig. 6-2, which shows the variation of field size in the 1626 survey, using the same procedure that had already been used for the 1597 survey of Stoneleigh manor. From Fig 6-2b it will be seen that the number of fields of each size was an approximation to the bell-shaped curve of a statistically normal distribution, albeit truncated at zero area.<sup>3</sup> Most fields in 1626 were between 1 acre and 8 acres, with the commonest size being between 2 acres and 5 acres. There were very few fields larger than 15 acres. The database was used to calculate that the average field area was 5.43 acres, with a standard deviation of 4.33 acres.<sup>4</sup> This graph lends support to the intuitive conclusion that the irregularly-shaped fields of the older landscape of Allesley parish were the result of semi-random assarts, rather than being planned.

<sup>3</sup> W. J. Reichmann, *Use and Abuse of Statistics* (1961; Harmondsworth, 1977), pp.208-226.

<sup>4</sup> Reichmann, *Use and Abuse*, pp.315-318.



Fig. 6-2c, the graph of the percentage of total area for each field size, shows that most of the area surveyed lay in fields between 1 acre and 14 acres, with a peak between 4 acres and 8 acres. Because of their size, the few fields larger than 15 acres are more prominent than in Fig. 6-2b. As with the 1597 survey, Figs 6-2b and 6-2c suffer from the irregularity produced by the statistically small sample. There is also some evidence of rounding-off by the surveyor, for example the five fields with an area of exactly 7 acres which have the effect of creating a peak between 7 acres and 8 acres and also a deficit between 6 acres and 7 acres. This type of irregularity would become more extreme if the range were narrowed, for example to half an acre. As with Fig. 6-1, Fig. 6-2d overcomes this irregularity by showing the cumulative percentage of total area as the field size increases. The sigmoid (lazy S) curve is steepest for the most important field sizes, between 4 acres and 8 acres. Fields larger than 15 acres account for about 13% of the total area, while fields below 7 acres account for about 50%.

**Land Use in Allesley Park c.1660**

The undated survey of Allesley Park listed the uses of eighteen parcels of land, which totalled 405 acres. There were too few parcels to justify an analysis of field size.

Description	Area (acres)	% of Park
Pasture and arable	352	86.8
Meadow	49	12.1
Housing	4	1.1
	<hr/>	<hr/>
<b>TOTAL</b>	<b>405</b>	<b>100</b>

**Table 6/3    Land Use in the c.1660 Survey of Allesley Park**



## Map of Land Use

Tables 6/1 to 6/3 show few similarities between land use in the three surveys. Waste and woodland covered two thirds of Stoneleigh but only one sixth of Allesley, while Allesley Park had none. Another sixth of Allesley was common field, but none existed in the other two. In proportion to its area, Stoneleigh had only half as much meadow as Allesley had. To illustrate these contrasts, the land uses defined in the surveys of Stoneleigh, Allesley and Allesley Park have been combined in Fig. 6-3. This map may be criticised because these surveys were spread over more than fifty years which included the Civil War. The surveys of Stoneleigh manor and Allesley manor were separated by twenty-nine years, which is almost the same as the interval between the 1809 and 1840 surveys that are described later. Since the percentages of each land use did not change greatly between the latter dates, it will be assumed that the same applied between the 1597 and 1626 surveys, although there must have been changes of use in individual fields.

Another problem with Fig. 6-3 is the lack of data for large areas. This applies to the whole of Coundon, the freeholdings in Stoneleigh and Allesley, as well as the areas of Allesley which have not been located in the 1626 survey. Since only the last of these omissions may be reduced by further work, it is necessary to return to the analogy of a landscape viewed through patchy cloud, although it cannot be assumed that the visible portion was typical of the hidden areas. The latter contained no open field, little or no waste and probably a smaller proportion of woodland. It should, however, be safe to assume that arable, meadow and pasture were similarly distributed within the hidden and visible parts of each manor.

The final criticism of Fig. 6-3 is that its categories of land use were too imprecise to be useful. Although all three surveys defined housing, woods, waste and meadows specifically, they did not distinguish clearly between arable and pasture, for example describing a group of fields as 'pasture and arable'. It has already been noted that this uncertainty reflected the current farming practices, rather than being a faulty record, so these shared uses are represented on the map.<sup>5</sup>

Despite being incomplete and asynchronous, Fig. 6-3 provides a detailed picture of land use in some parts of the study area in about 1600. The contemporary roads have been shown, although those in Allesley cannot be reconstructed with complete confidence. This map also includes the streams that were there in the early nineteenth century. In 1600 these streams would have followed slightly different routes, but constrained within narrow limits by the topography of the study area.

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5 Thirsk, *Agrarian History*, 5-1, pp.182-183.



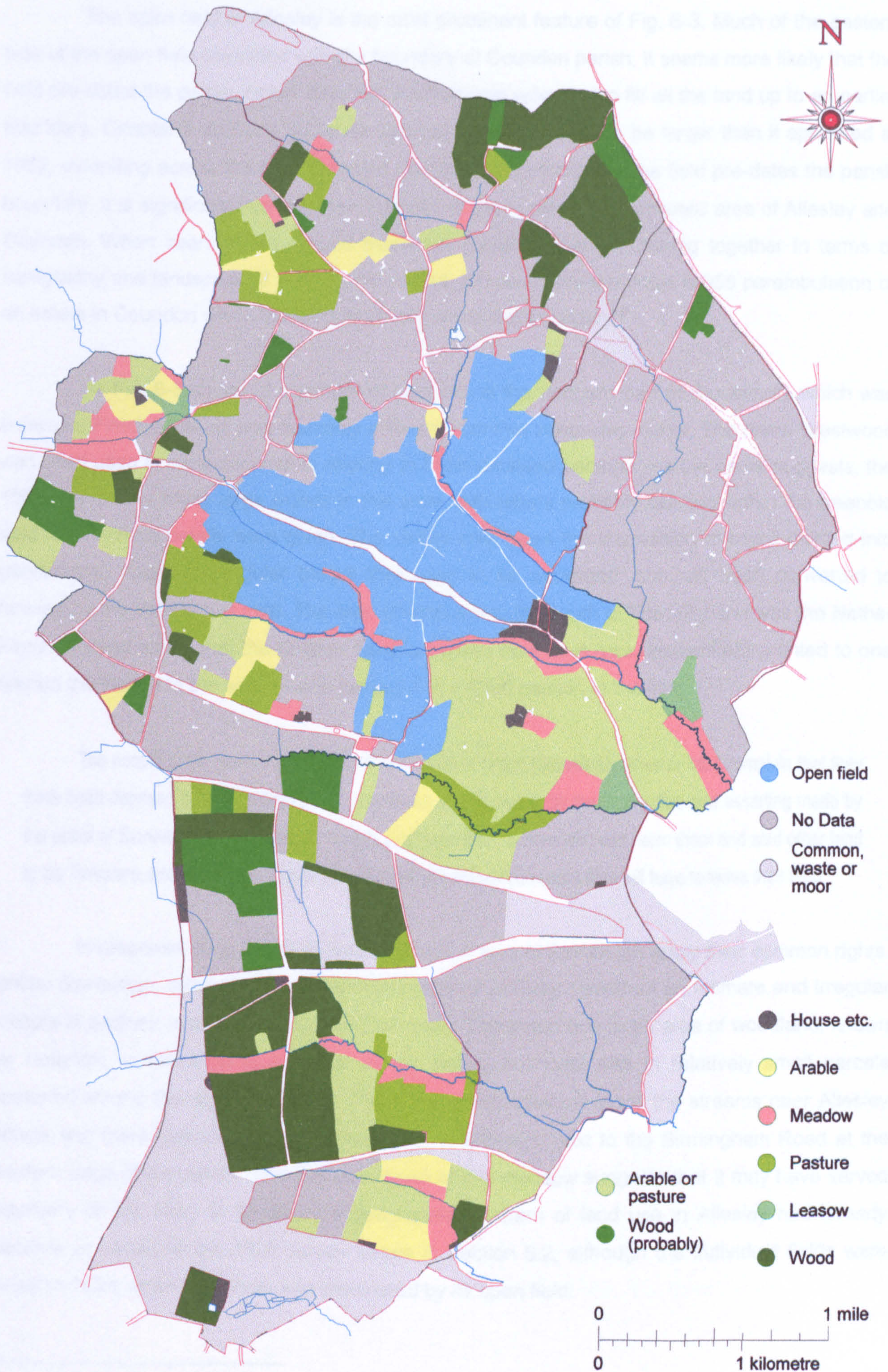


Fig. 6-3 Land Use in the Study Area in about 1600



The open field of Allesley is the most prominent feature of Fig. 6-3. Much of the eastern side of the open field coincided with the boundary of Coundon parish; it seems more likely that the field pre-dated the parish, rather than that the field was extended to fill all the land up to an earlier boundary. Chapter 9 contains evidence that the open field used to be larger than it appeared in 1652, extending across the later Coundon boundary. Assuming that the field pre-dates the parish boundary, it is significant that the open field lies at the heart of the combined area of Allesley and Coundon. When seen on the ground these two parishes seem to belong together in terms of topography and landscape. If such a unit existed, it presumably pre-dated a 958 perambulation of an estate in Coundon which followed much of the modern boundary.<sup>6</sup>

As Fig. 6-3 shows, the pattern of land use in the northern part of Stoneleigh, which was known as Fletchamstead, was markedly different from that in Allesley manor. The name Westwood was often used in early documents relating to Fletchamstead because, as the name suggests, the 1597 map shows many large woods in this area, with others probably existing within the freehold land for which no details were given. The visible area gives the impression of being divided into geometrical, nearly-rectangular blocks that used to be woodland, but had been converted to farming by the date of this map. The area of farmland to the south of Tile Hill Lane was the Nether Fletchamstead estate that the Knights Templar seized from land (use unspecified) granted to one Gerard the Hermit in the early twelfth century.<sup>7</sup> In a 1290 petition to the king :

The people of the ancient demesnes of Stoneleigh in Arden [Stoneleigh, Allesley etc.] complain that they have been deprived of their reasonable . . . commons in their woods by the destruction and assarting made by the abbot of Stoneleigh, who has made assarts and given them to men who can harm them and sold other land to the Templars, and without the king's aid in the defence of their commons they will have to leave their land.<sup>8</sup>

In response, King Henry III ordered that the men of Stoneleigh enjoy their common rights. Unlike Stoneleigh, most of the reconstructed parts of Allesley contained an intimate and irregular mixture of pasture, arable, woodland and meadow. There was one large area of woodland, known as Hollyfast, in the north-east corner of the parish, but most was in relatively small parcels scattered among the other land uses. There was much meadow along the streams near Allesley village and there was another concentration at Waterways, next to the Birmingham Road at the western edge of the parish. The site and shape of this meadow suggests that it may have served travellers on the road. In general the geographical pattern of land use in Allesley had already become as varied as the 1809 survey shows in Section 6.2, although the individual fields were larger in 1626, when the manor was dominated by its open field.

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6 D. Hooke, *Warwickshire Anglo-Saxon Charter-Bounds*, Studies in Anglo-Saxon History, 10 (Woodbridge, 1999), pp.61-64.

7 R. H. Hilton (ed.), *The Stoneleigh Leger Book*, Dugdale Society, 24 (Stratford-upon-Avon, 1960), p.180; E. Gooder, *Temple Balsall - The Warwickshire Preceptory of the Templars and their Fate*, (Chichester, 1995), p.129.

8 Petition to the king by the people of . . . Stoneleigh in Arden (1290), T.N.A., P.R.O., SC 8/269/13404.



6.2 Allesley Parish in 1809

The 1809 Poor Law survey contained comprehensive information about land use in the whole of Allesley parish and a few fields in Coundon parish. There was no equivalent information for Stoneleigh parish. The following information about land use will therefore be restricted to Allesley parish, which will be presented on the 1809 map shown in Fig. 4-4 whose derivation was described in Section 4.5. The application of the information contained in the 1809 Poor Law survey of Allesley is similar to the methods established by Kain and Prince (see Section 2.2), using the computer database methods described in Section 3.2.

Land Use

Table 6/4 summarises the land use in Allesley parish in 1809, as defined in the survey and listed in size order. Coundon has been excluded because the survey recorded so little of the parish. Where more than one use was stated for a field, its area has been shared between the uses; this applied to 57 acres.

Land Use	Area (acres)	% of parish
Old pasture	1330.7	33.8
Arable	947.0	24.0
Meadow	420.6	10.7
Convertible pasture	318.7	8.1
Seeds	288.1	7.3
Upland meadow	190.5	4.8
Wood	170.2	4.3
Wheat	135.3	3.4
Housing	97.1	2.5
Second seeds	35.2	0.9
Other	5.6	0.1
TOTAL	3,938.9	100.0

Table 6/4 Land Use in the 1809 Survey of Allesley Parish



In order to make comparisons with the 1840 tithe surveys it was necessary to combine some of the uses in Table 6/4 into arable, pasture and meadow. Unfortunately it was not clear what some of the land uses meant in 1809. The dictionary defines arable as 'being or capable of being tilled for the production of crops'. The wider sense seems implausible in this survey because most of the good soil of Allesley would have qualified. Two clues were provided by the separate entry for wheat and by the fact that the survey was carried out during the winter of 1808/1809. It was therefore assumed that the wheat had already been sown while the arable fields had been ploughed and were to be sown with other crops in the spring.

Although old pasture was unambiguous in its meaning, convertible pasture could have been grouped under pasture or arable. However, convertible pasture that had already been cultivated should have been listed as arable and it was too late for ploughing that year, so this land was intended to remain pasture for at least another year. There was no doubt that upland meadow belonged with meadow and Murray wrote about turnip seeds in Warwickshire in 1813.<sup>9</sup>

Table 6/5 shows the areas and percentages of the simplified land uses that were obtained by grouping convertible pasture with old pasture, wheat, seeds and second seeds with arable, and upland meadow with meadow. Wood, housing and other uses were not affected.

Land Use	Area (acres)	% of parish
Pasture	1649.4	41.9
Arable	1405.5	35.7
Meadow	611.1	15.5
Wood	170.2	4.3
Housing	97.1	2.5
Other	5.6	0.1
	<hr/>	<hr/>
TOTAL	3,938.9	100

**Table 6/5    Land Use in the 1809 Survey of Allesley Parish (Simplified Categories)**

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9    M. Murray, 'General view of the agriculture of the County of Warwick 1813', in Marshall, W. (ed.), *The Review and Abstract of the County Reports to the Board of Agriculture from the Several Agricultural Departments of England*, 4 (1815; York, 1818), p.325.



Field Size

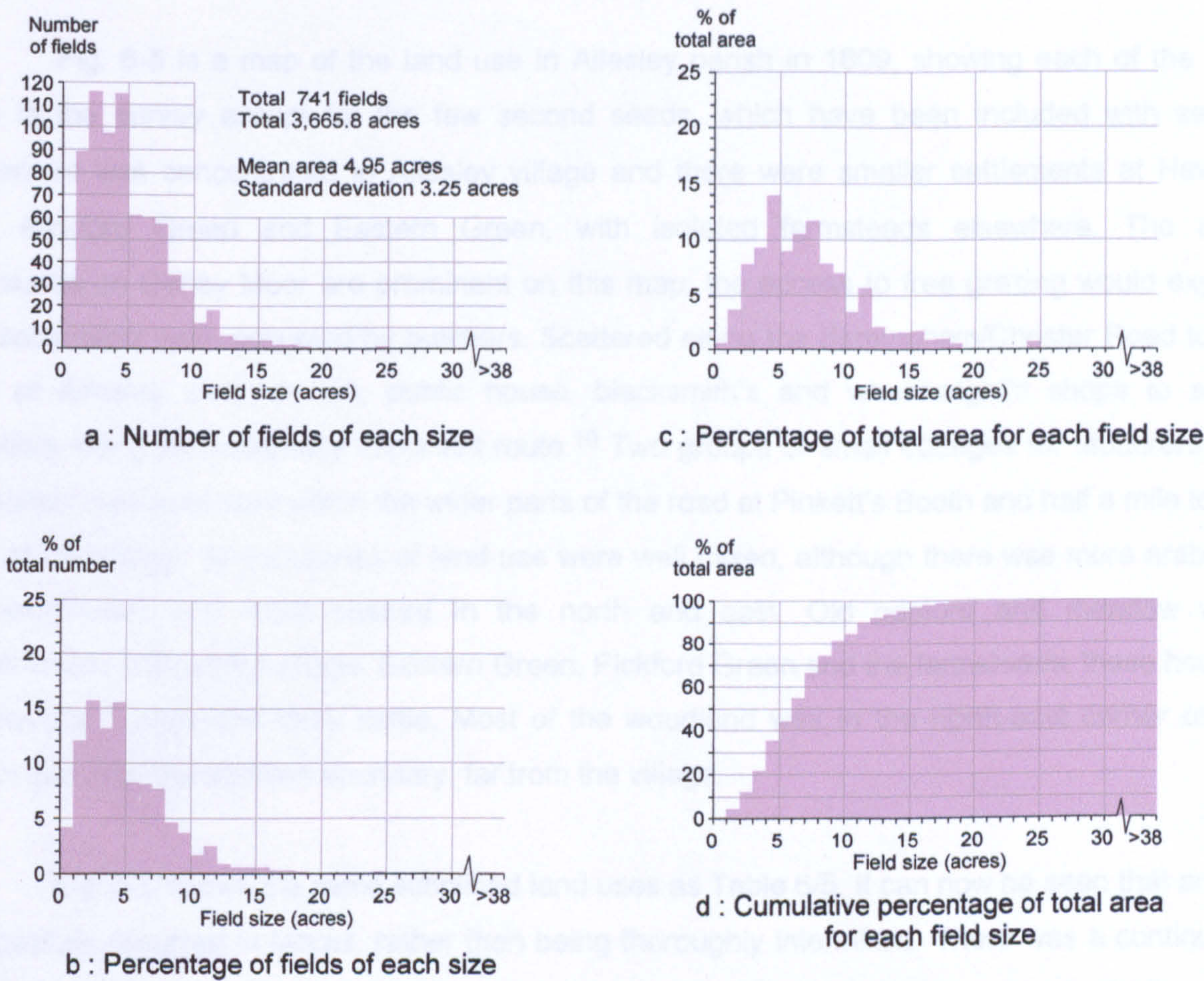


Fig. 6-4 Field Size in Allesley Parish in 1809

The 1809 Poor Law survey quoted the areas of 741 fields in Allesley, excluding woodland, housing and miscellaneous minor uses. Fig. 6-4 shows the variation in the size of these fields, plotted in four ways like the earlier surveys. From Fig. 6-4b it will be seen that the graph of the number of fields of each size follows a truncated bell-shaped curve. Most fields were less than 10 acres, with the commonest size being less than 5 acres. There were only a few fields larger than 15 acres and most of these appear to be amalgamations of smaller fields. Using the database to perform the calculations it was found that the mean field area was 4.95 acres, with a standard deviation of 3.25 acres.

Fig. 6-4c, the graph of the percentage of total area for each field size, shows that most of the area surveyed lay in fields between 1 acre and 12 acres, with a peak lying between 4 acres and 8 acres. The graph of cumulative percentage of total area in Fig. 6-4d is a sigmoid curve, which is steepest for the most important field sizes between 4 acres and 8 acres. Fields larger than 11 acres accounted for about 10% of the total area, while fields below 6 acres accounted for about 50%.



## Map of Land Use

Fig. 6-5 is a map of the land use in Allesley parish in 1809, showing each of the land uses in the survey except for the few second seeds, which have been included with seeds. Settlement was concentrated in Allesley village and there were smaller settlements at Hawkes End, Pickford Green and Eastern Green, with isolated farmsteads elsewhere. The early enclosures on Corley Moor are prominent on this map; the access to free grazing would explain why some plots were occupied by butchers. Scattered along the Birmingham/Chester Road to the west of Allesley were an inn, public house, blacksmith's and wheelwright's shops to serve travellers along this nationally important route.<sup>10</sup> Two groups of small cottages for labourers and tradesmen had been built within the wider parts of the road at Pinkett's Booth and half a mile to the west of the village. All categories of land use were well mixed, although there was more arable in the south-west, and more pasture in the north and east. Old pasture and meadow were concentrated around the village, Eastern Green, Pickford Green and the farmsteads; these housed the working horses and dairy cattle. Most of the woodland was in the north-east corner of the parish and near the western boundary, far from the village.

Fig. 6-6 shows the same simplified land uses as Table 6/5. It can now be seen that arable and pasture occurred in blocks, rather than being thoroughly intermixed. There was a continuous band of arable fields, interrupted only by narrow meadows, extending for one and a half miles from Guphill Brook northwards to the centre of the parish. Meadows were concentrated along streams, as expected, but there were some upland sites. The two types combined to give an impression of a sparse but uniform overall distribution across the map. It will be seen that pasture usually adjoined a road, while the less accessible fields were arable. Presumably this reflected the need for easy access to cattle and horses, whereas arable fields required a few periods of intensive cultivation. The demand in nearby Coventry must also have favoured the development of dairying along the major roads that radiated from the city through the study area.

The correlation between land use and other factors will be explored in Chapter 9, but some preliminary observations can be made here. The salient feature of Fig. 6-6 is the relative uniformity of land use in Allesley parish, despite the wide variations in land value that will be shown in Fig. 7-2. Elevation did not seem to affect the balance between arable and pasture, or even the density of meadows, despite the increase from 250 feet in the south-east to 550 feet in the north. Neither were the steep slopes on the south side of Allesley Park used exclusively for pasture, as would be expected. It appears that the only influences on land use that were of any importance were the proximity of waterways, settlements and roads.

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<sup>10</sup> The old inn survives today, with its grounds developed into the Windmill Village Hotel and Golf Club.



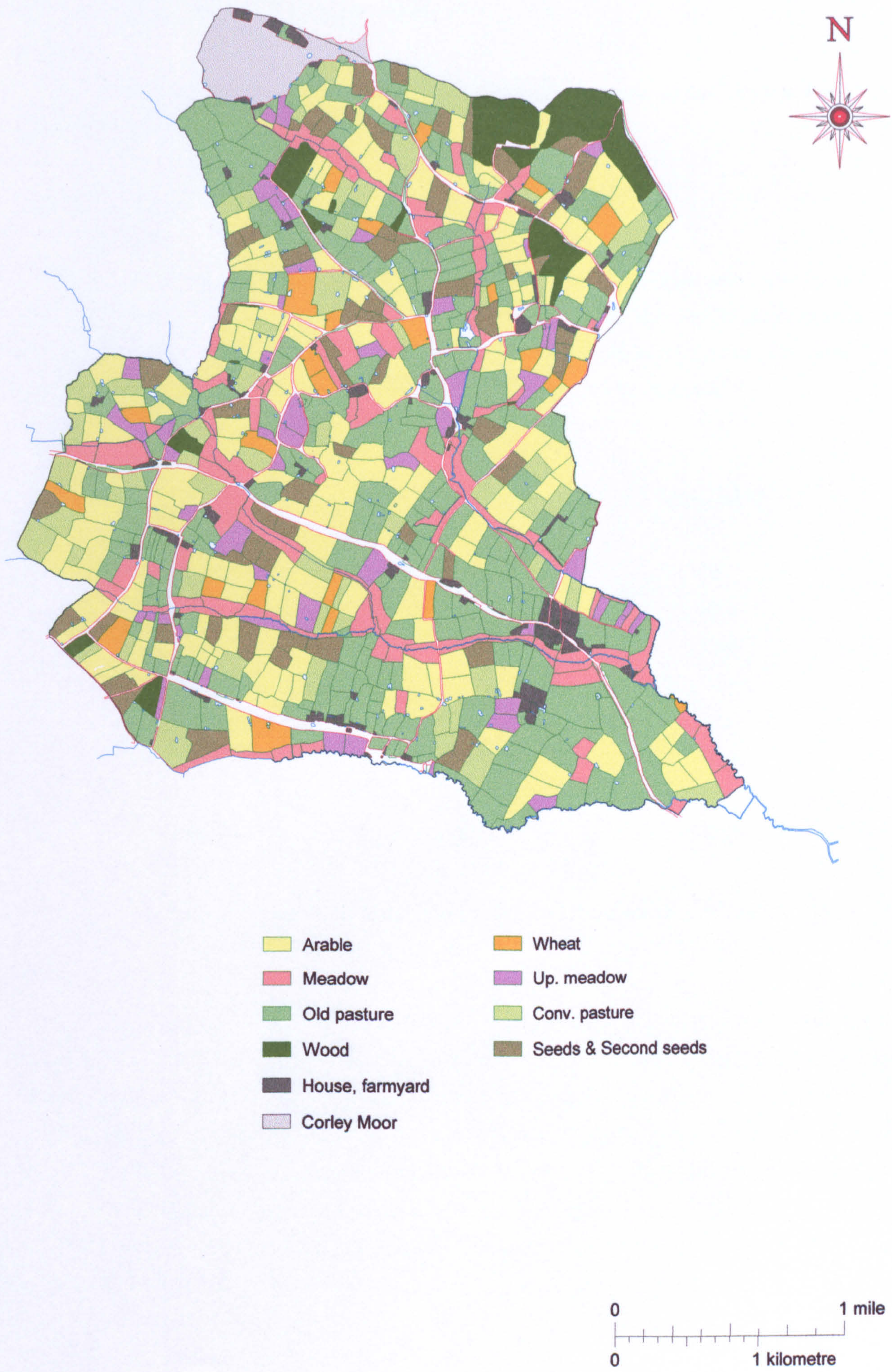


Fig. 6-5 Land Use in the 1809 Survey of Allesley Parish



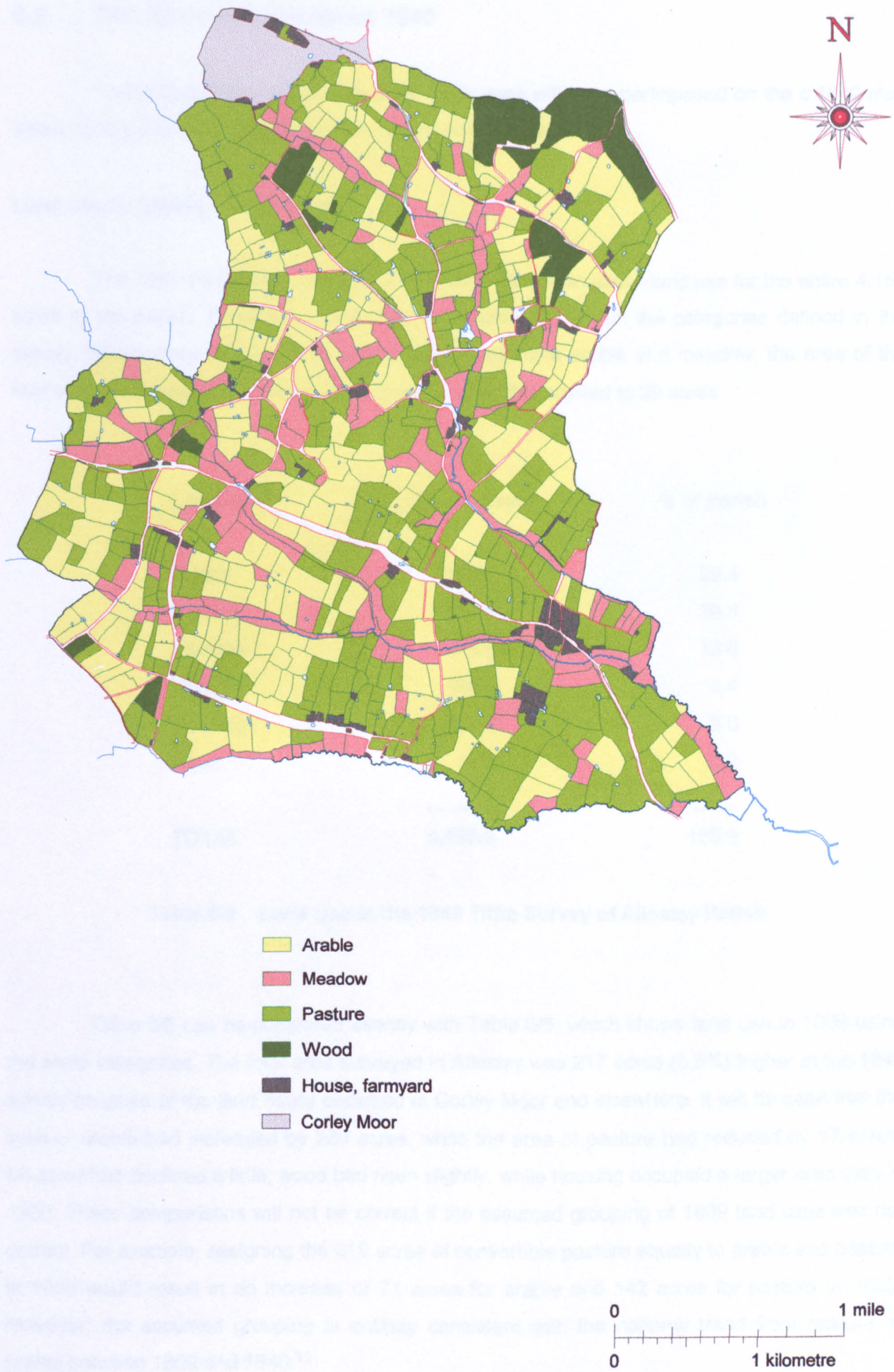


Fig. 6-6 Land Use in the 1809 Survey of Allesley Parish with Simplified Categories



6.3 The Study Area in about 1840

The following information about the study area will be superimposed on the c.1840 map shown in Fig. 4-3 whose derivation was described in Section 4.3.

Land Use in Allesley Parish in 1840

The 1840 tithe survey of Allesley provided information about land use for the entire 4,156 acres of the parish. Table 6/6 summarises these uses, based on the categories defined in the survey. Where more than one use was stated, for example arable and meadow, the area of the field was divided equally between each of these uses; this applied to 29 acres.

Land Use	Area (acres)	% of parish
Arable	1635.6	39.4
Pasture	1632.4	39.3
Meadow	573.9	13.8
Wood	180.9	4.4
Housing	123.0	3.0
Other	10.1	0.2
<b>TOTAL</b>	<b>4,155.9</b>	<b>100.0</b>

Table 6/6 Land Use in the 1840 Tithe Survey of Allesley Parish

Table 6/6 can be compared directly with Table 6/5, which shows land use in 1809 using the same categories. The total area surveyed in Allesley was 217 acres (5.5%) higher in the 1840 survey because of the land newly enclosed at Corley Moor and elsewhere. It will be seen that the area of arable had increased by 230 acres, while the area of pasture had reduced by 17 acres. Meadow had declined a little, wood had risen slightly, while housing occupied a larger area than in 1809. These comparisons will not be correct if the assumed grouping of 1809 land uses was not correct. For example, assigning the 319 acres of convertible pasture equally to arable and pasture in 1809 would result in an increase of 71 acres for arable and 142 acres for pasture in 1840. However, the assumed grouping is entirely consistent with the national trend from pasture to arable between 1809 and 1840.<sup>11</sup>

11 J. Thirsk (ed.), *The Agrarian History of England and Wales*, 6, 1750-1850 (Cambridge, 1989), p.31.



Field Size in Allesley Parish in 1840

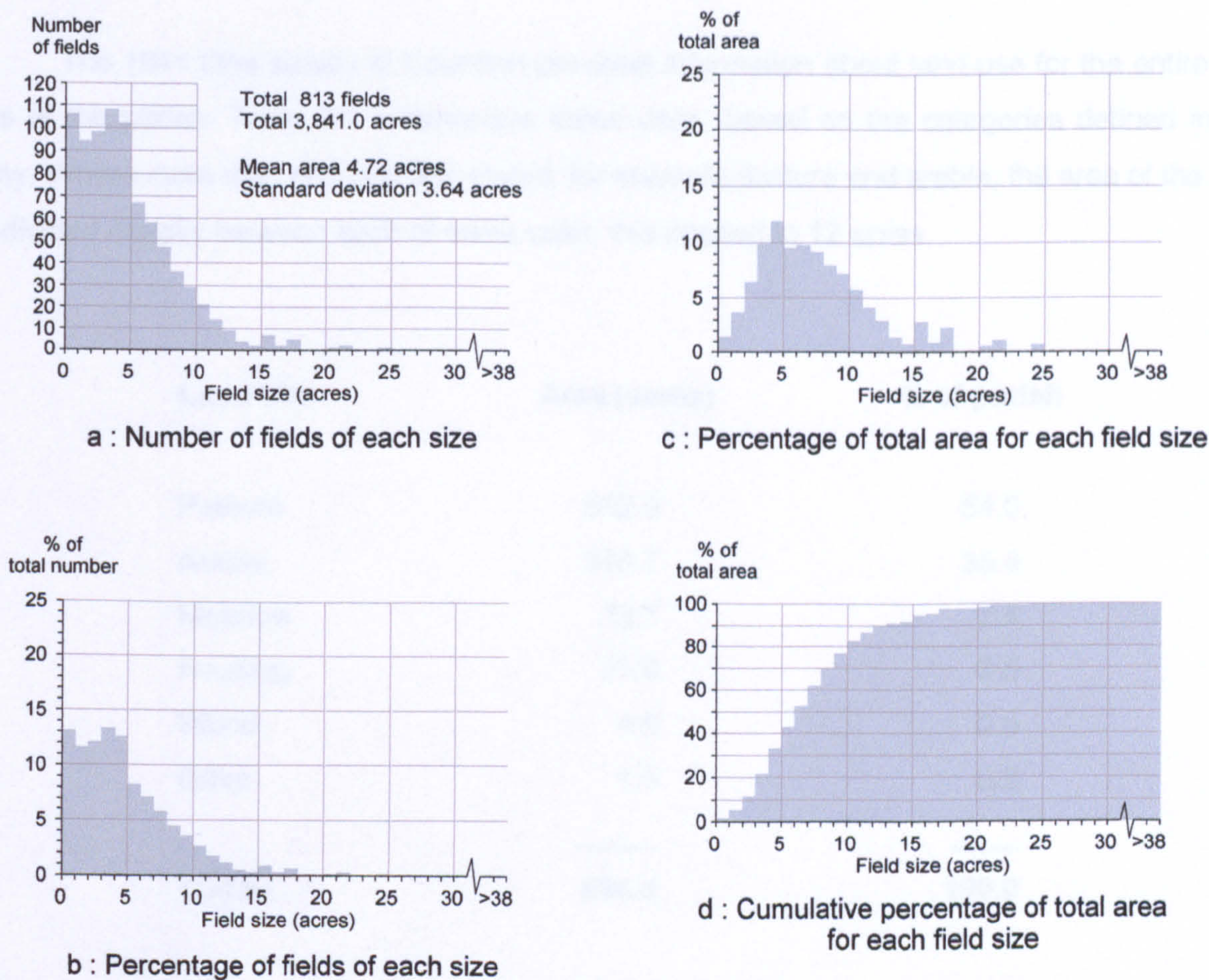


Fig. 6-7 Field Size in Allesley Parish in 1840

The 1840 tithe surveys quoted the areas of 813 fields in Allesley, excluding woodland, housing and miscellaneous minor uses. Fig. 6-7 shows the variation in the size of these fields, plotted in four ways like the earlier surveys. From Fig. 6-7b it will be seen that the graph of the number of fields of each size follows a truncated bell-shaped curve. Most fields were less than 10 acres, with the commonest size being less than 5 acres. There were only a few fields larger than 15 acres and most of these appear to be amalgamations of smaller fields. Using the database to perform the calculations it was found that the mean field area was 4.72 acres, with a standard deviation of 3.64 acres. The average would be higher if one chose to ignore the large number of small fields created by the 1824 enclosure.

Fig. 6-7c, the graph of the percentage of total area for each field size, shows that most of the area surveyed lay in fields between 1 acre and 15 acres, with a peak between 4 acres and 10 acres. The graph of cumulative percentage of total area in Fig. 6-7d is a sigmoid curve, which is steepest for the most important field sizes between 4 acres and 10 acres. Fields larger than 12 acres accounted for about 10% of the total area, while fields below 6 acres accounted for about 50%. The significance of these graphs of field size will be investigated further in Chapter 8.



**Land Use in Coundon Parish in 1841**

The 1841 tithe survey of Coundon provided information about land use for the entire 986 acres of the parish. Table 6/7 summarises these uses, based on the categories defined in the survey. Where more than one use was stated, for example pasture and arable, the area of the field was divided equally between each of these uses; this applied to 12 acres.

Land Use	Area (acres)	% of parish
Pasture	532.9	54.0
Arable	348.7	35.4
Meadow	73.7	7.5
Housing	25.0	2.5
Wood	4.6	0.5
Other	1.5	0.2
	<hr/>	<hr/>
<b>TOTAL</b>	<b>986.4</b>	<b>100.0</b>

**Table 6/7    Land Use in the 1841 Tithe Survey of Coundon Parish**

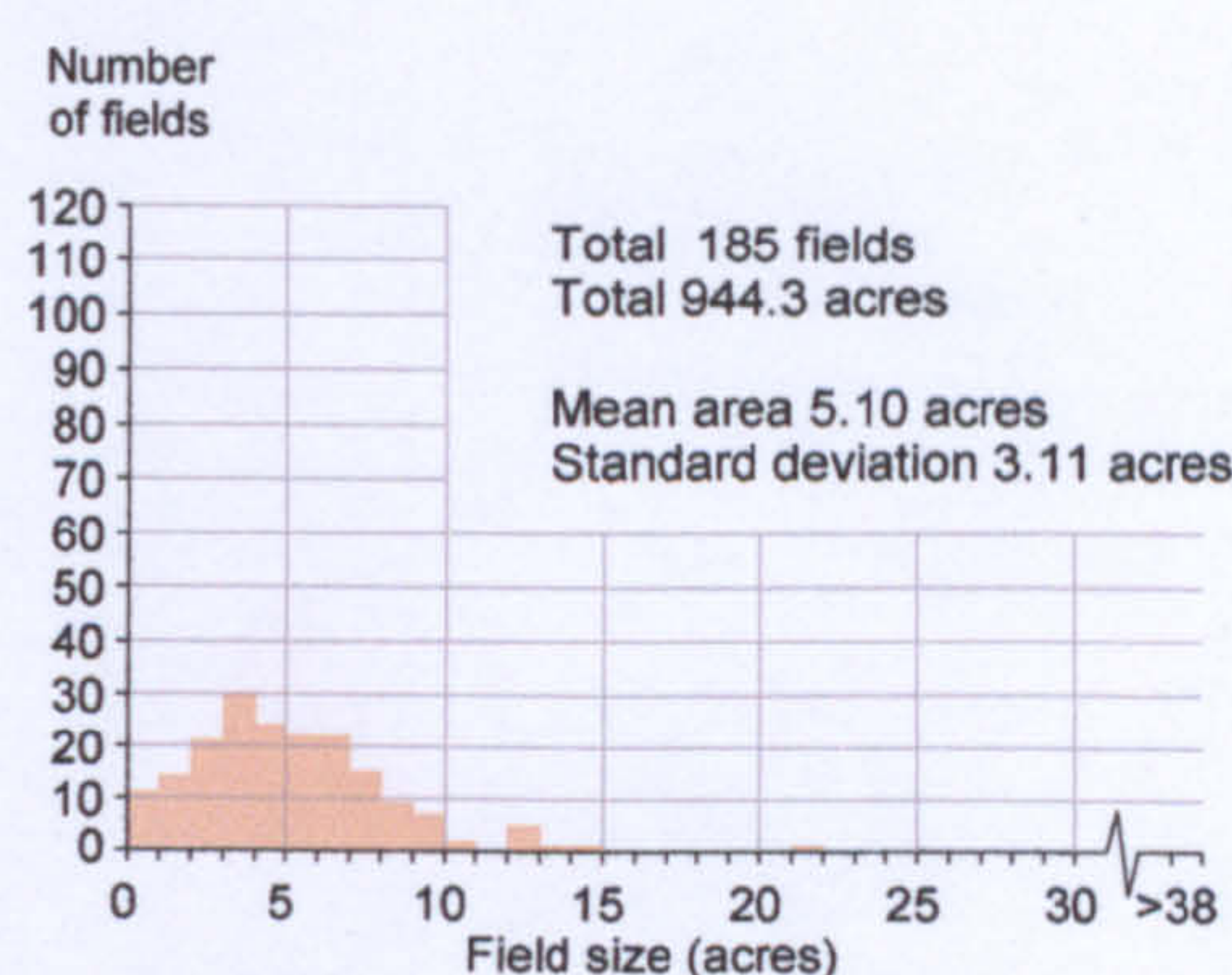
Comparing these figures with Table 6/6, it will be seen that Coundon had a much higher percentage of pasture, much less meadow and a little less arable than was the case in Allesley parish. The percentages devoted to housing and other uses were about the same, but Coundon had almost no woodland. These differences between two adjacent and otherwise similar parishes require an explanation. The predominance of pasture may be explained by Coundon’s position on the boundary of Coventry, straddling three of the good roads that led downhill to the city centre only two miles away. Thirsk points out that all Birmingham’s milk came from within a radius of two or three miles as late as 1850, despite the railway, so Coundon’s situation favoured dairying.<sup>12</sup> Across Tamworth Road on the eastern boundary of Coundon lay Keresley village, which had its own need for pasture. The almost complete absence of woods is surprising in view of the extensive Domesday woodland and others that still survived further along the same ridge in Allesley. However, there used to be a Coundon Waste (see Waste Lane in Fig. 1-6), so it is likely that this area just inside the rural boundary of Coventry had its tree cover denuded by centuries of heavy grazing. Evidence of this is provided by the similarly-placed Hearsall Common, as shown in Appendix F.

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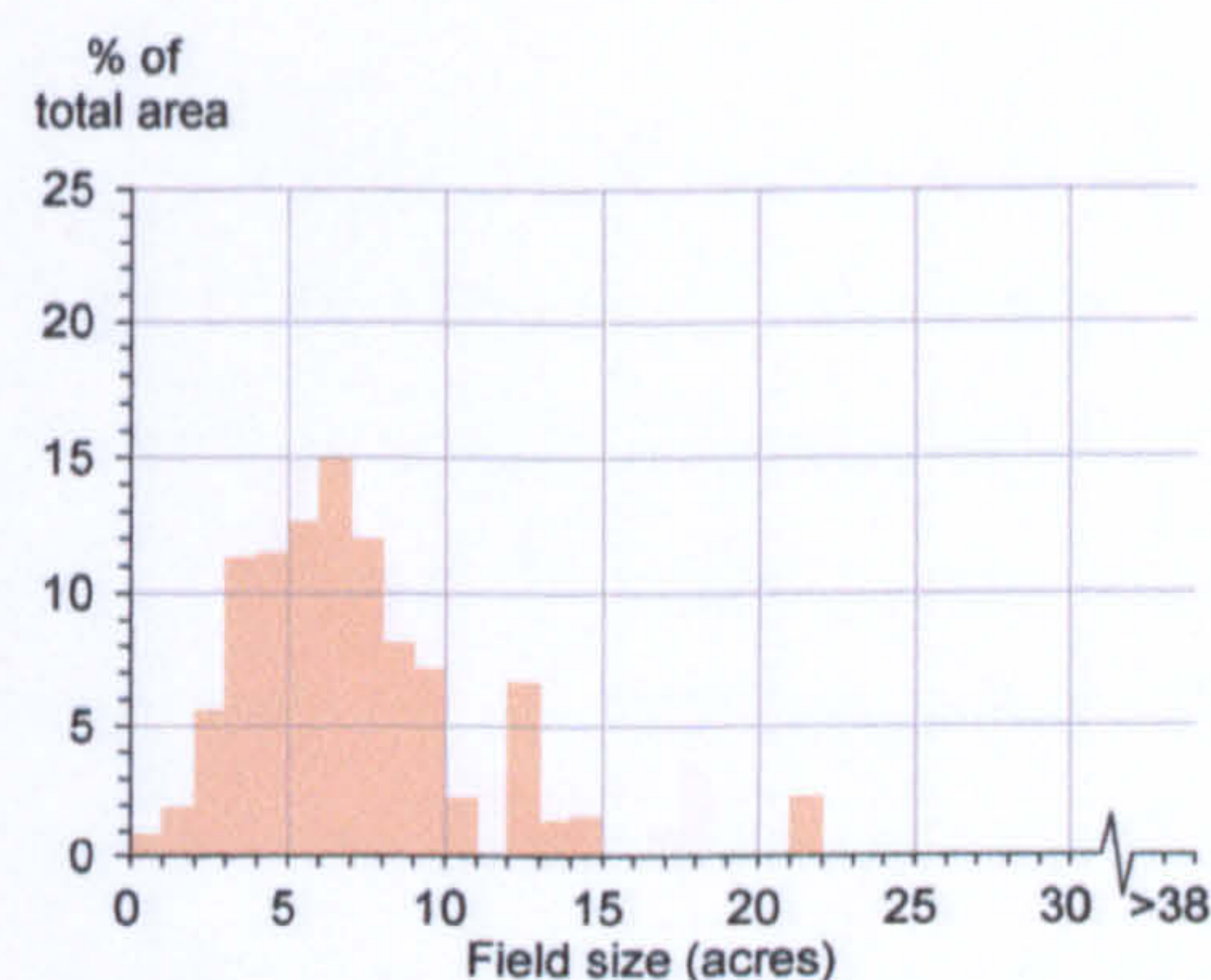
12    Thirsk, *Agrarian History*, 6, p.199.



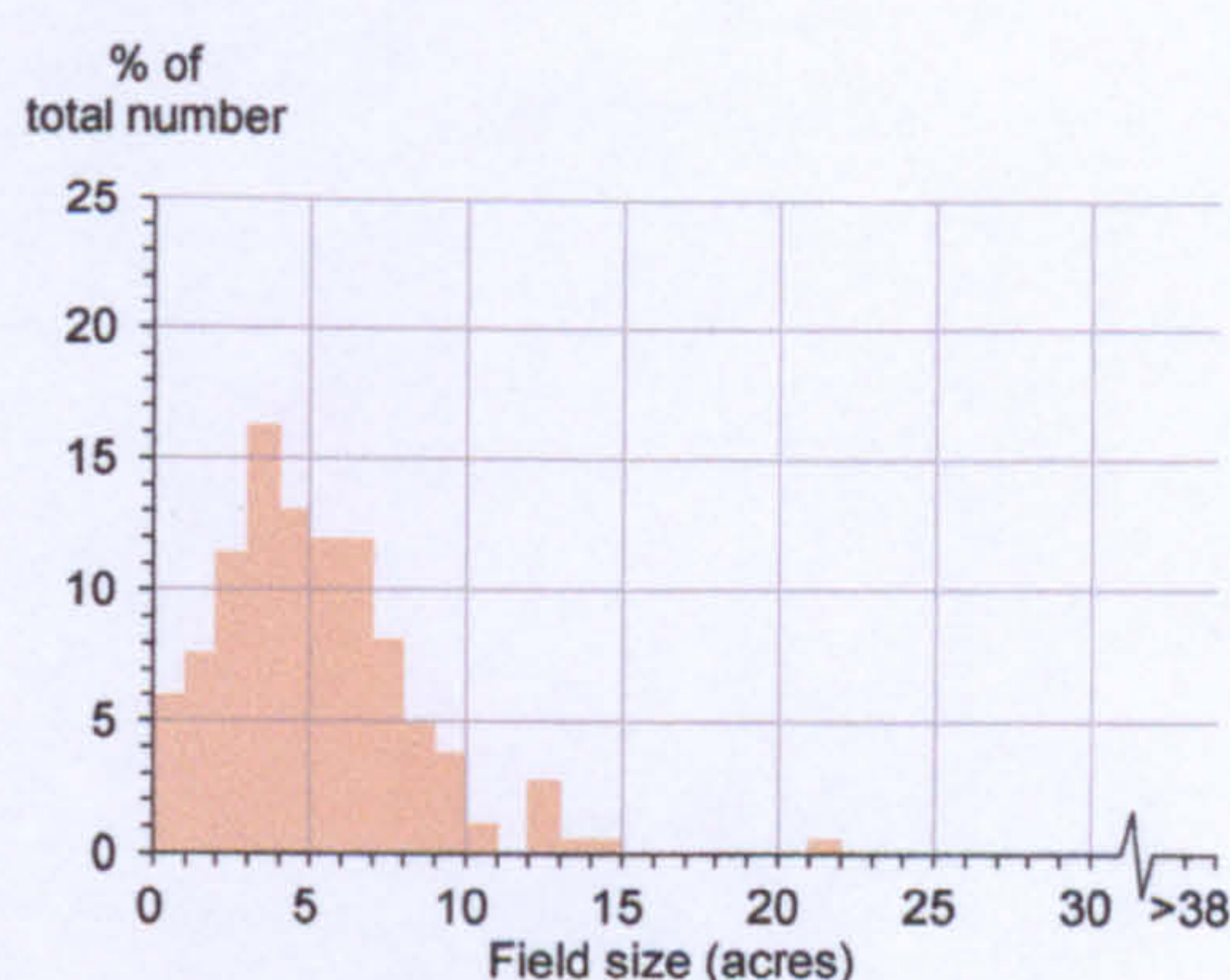
### Field Size in Coundon Parish in 1841



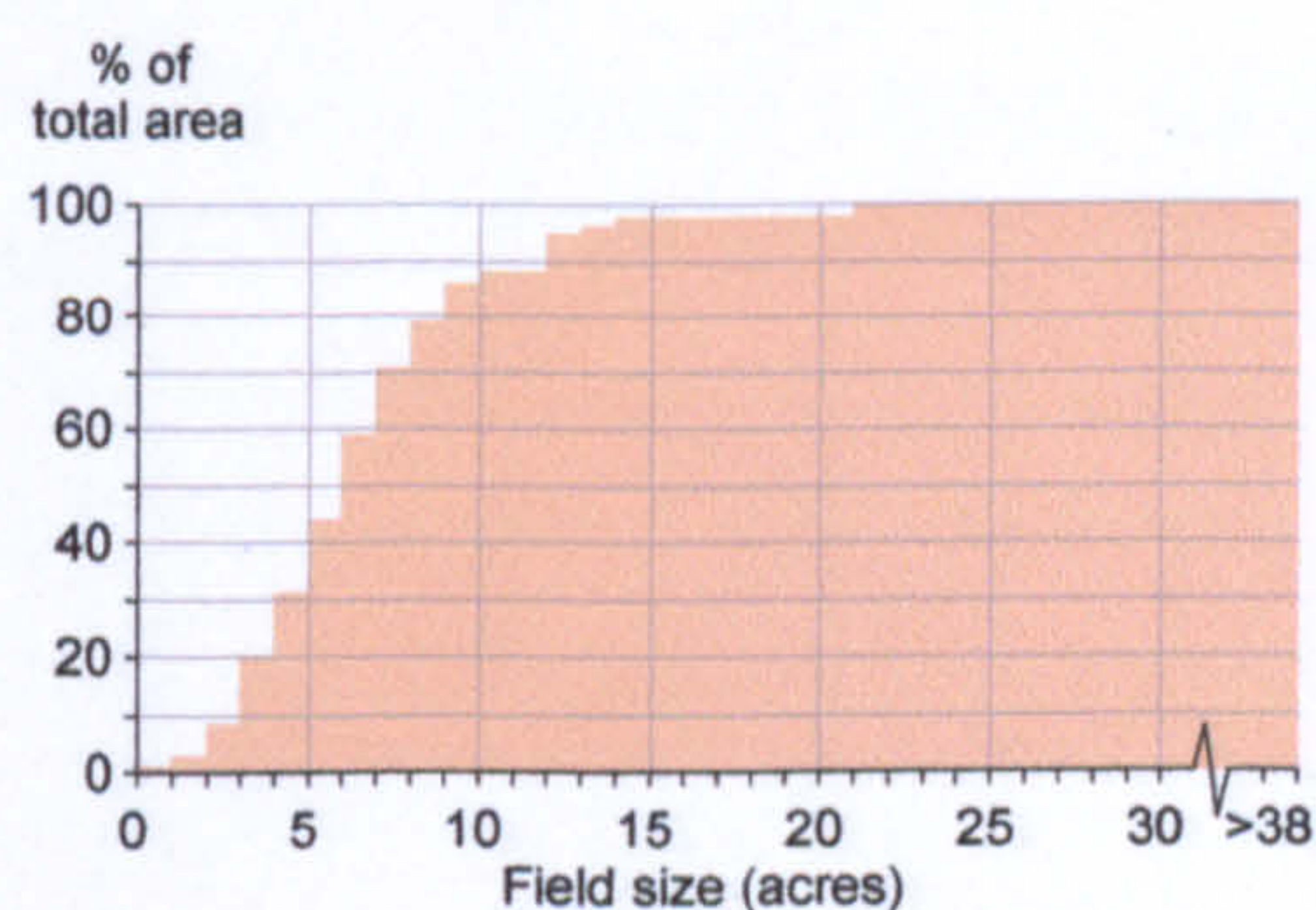
a : Number of fields of each size



c : Percentage of total area for each field size



b : Percentage of fields of each size



d : Cumulative percentage of total area for each field size

**Fig. 6-8 Field Size in Coundon Parish in 1841**

The 1841 tithe survey quoted the areas of 185 fields in Coundon, not including woodland, housing and miscellaneous minor uses. Fig. 6-8 shows the variation in the size of these fields, plotted in four ways like the earlier surveys. From Fig. 6-8b it will be seen that the graph of the number of fields of each size follows a truncated bell-shaped curve. Most fields were less than 10 acres, with the commonest size being between 3 acres and 7 acres. There were only a few fields larger than 15 acres, most of them probably amalgamations of smaller fields. Using the database to perform the calculations it was found that the mean field area was 5.10 acres. The standard deviation was 3.11 acres.

Fig. 6-8c, the graph of the percentage of total area for each field size, shows that most of the area surveyed lay in fields between 1 acre and 15 acres, with a peak between 4 acres and 8 acres, as for Allesley. The graph of cumulative percentage of total area in Fig. 6-8d is a sigmoid curve, which is steepest for the most important field sizes between 4 acres and 8 acres. Fields larger than 12 acres accounted for about 10% of the total area, while fields below 6 acres accounted for about 50%.



Field Size in Stoneleigh Parish in 1843

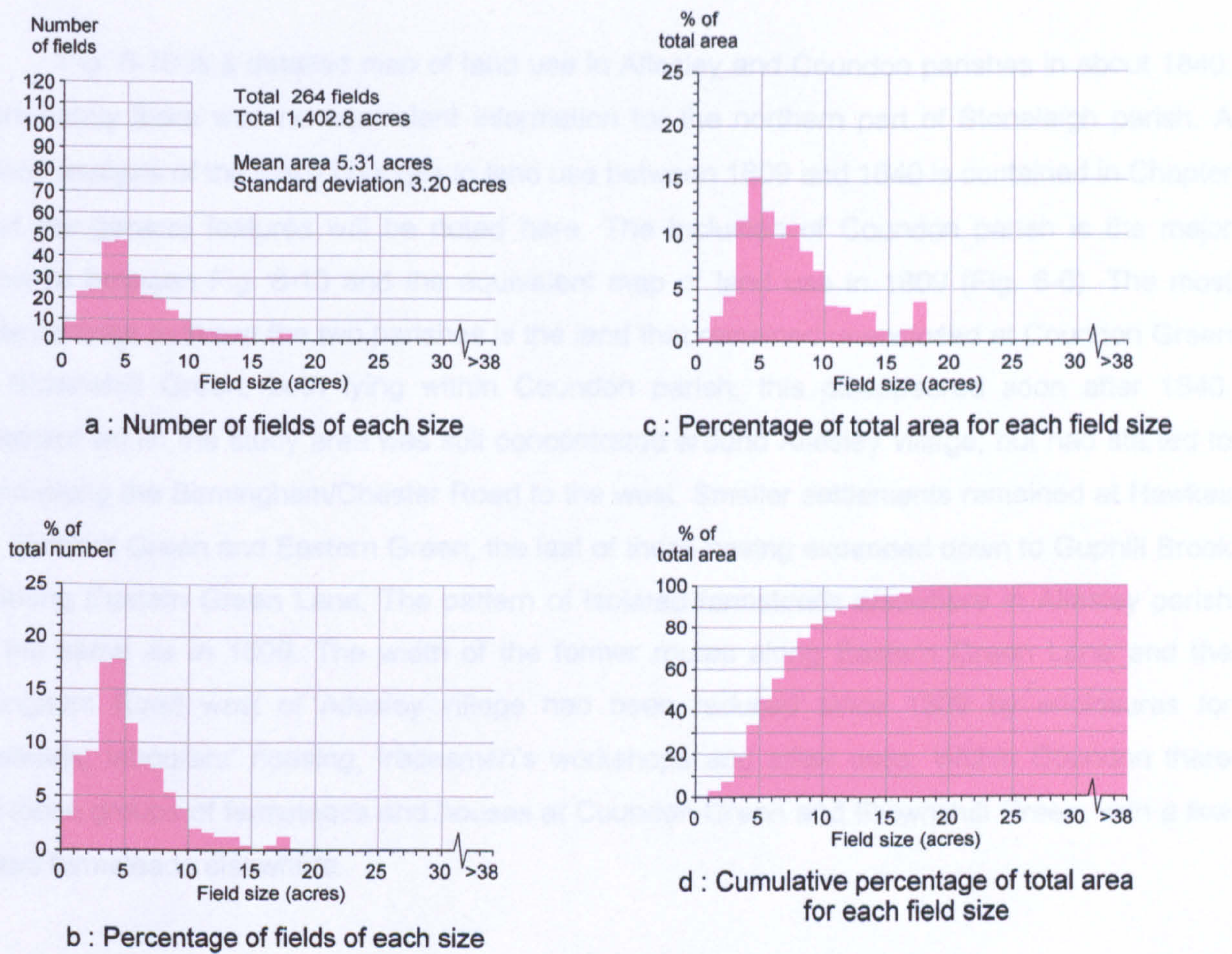


Fig. 6-9 Field Size in Stoneleigh Parish in 1843

The 1843 Stoneleigh tithe survey did not give any information about land use but it quoted the areas of 264 fields occupying 1,403 acres within the study area, excluding woodland, housing, miscellaneous minor uses and the large parcels enclosed after 1816. Fig. 6-9 shows the variation in the size of these fields, plotted in four ways like the earlier surveys. From Fig. 6-9b it will be seen that the number of fields of each size follows a truncated bell-shaped curve similar to those for Allesley and Coundon. Most fields were less than 10 acres, with the commonest size being between 4 acres and 6 acres. There were only a few fields larger than 15 acres, most of them probably amalgamations of smaller fields. Using the database to perform the calculations it was found that the mean field area was 5.31 acres. The standard deviation was 3.20 acres.

Fig. 6-9c, the graph of the percentage of total area for each field size, shows that most of the area surveyed lay in fields between 1 acre and 15 acres, with a peak between 4 acres and 8 acres, as for Allesley and Coundon. The graph of cumulative percentage of total area in Fig. 6-9d is a sigmoid curve, which is steepest for the most important field sizes between 4 acres and 8 acres. Fields larger than 12 acres accounted for about 10% of the total area, while fields below 6 acres accounted for about 50%.



## Map of Land Use in Allesley and Coundon Parishes

Fig. 6-10 is a detailed map of land use in Allesley and Coundon parishes in about 1840. Unfortunately there was no equivalent information for the northern part of Stoneleigh parish. A detailed analysis of the many changes in land use between 1809 and 1840 is contained in Chapter 8, but the general features will be noted here. The inclusion of Coundon parish is the major difference between Fig. 6-10 and the equivalent map of land use in 1809 (Fig. 6-6). The most visible contrast between the two parishes is the land that remained unenclosed at Coundon Green and Brownhill Green, both lying within Coundon parish; this disappeared soon after 1840. Settlement within the study area was still concentrated around Allesley village, but had started to extend along the Birmingham/Chester Road to the west. Smaller settlements remained at Hawkes End, Pickford Green and Eastern Green, the last of these having expanded down to Guphill Brook and along Eastern Green Lane. The pattern of isolated farmsteads elsewhere in Allesley parish was the same as in 1809. The width of the former routes along Eastern Green Lane and the Birmingham Road west of Allesley village had been reduced since 1809 by enclosures for farmsteads, labourers' housing, tradesmen's workshops and other uses. Within Coundon there were loose groups of farmsteads and houses at Coundon Green and Brownhill Green, with a few isolated farmsteads elsewhere.

Arable, meadow and pasture remained well mixed in both parishes. The 1840 map shows a concentration of pasture around Coundon Green, which probably housed horses to serve the mansions of prosperous businessmen and factory owners from Coventry. Their presence also explains the narrow plantations of trees which beautified the roads in this area. The equivalent small areas of trees in Allesley may already have existed in 1809 but were not thought worthy of individual listing; many of them may have arisen through natural regeneration on unused land.<sup>13</sup> The arable and pasture fields were still arranged in blocks, but these were a little smaller than in 1809. There was a notable concentration of pasture in Coundon, lining the Tamworth Road and Brownhill Green Road next to the boundary with Coventry. There was a group of small pasture fields on the northern side of the poor cottages at Brownhill Green, no doubt for the same practical reason as for the settlements in Allesley parish. The pattern of meadows concentrated along streams was less continuous than it had been in 1809, but the larger woods in Allesley parish were the same. There was only one small grove in Coundon. Both parishes now contained some small osier beds, none of which was recorded in the 1809 survey of Allesley.

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13 O. Rackham, *The History of the Countryside* (1986; London, 1990), p.68.



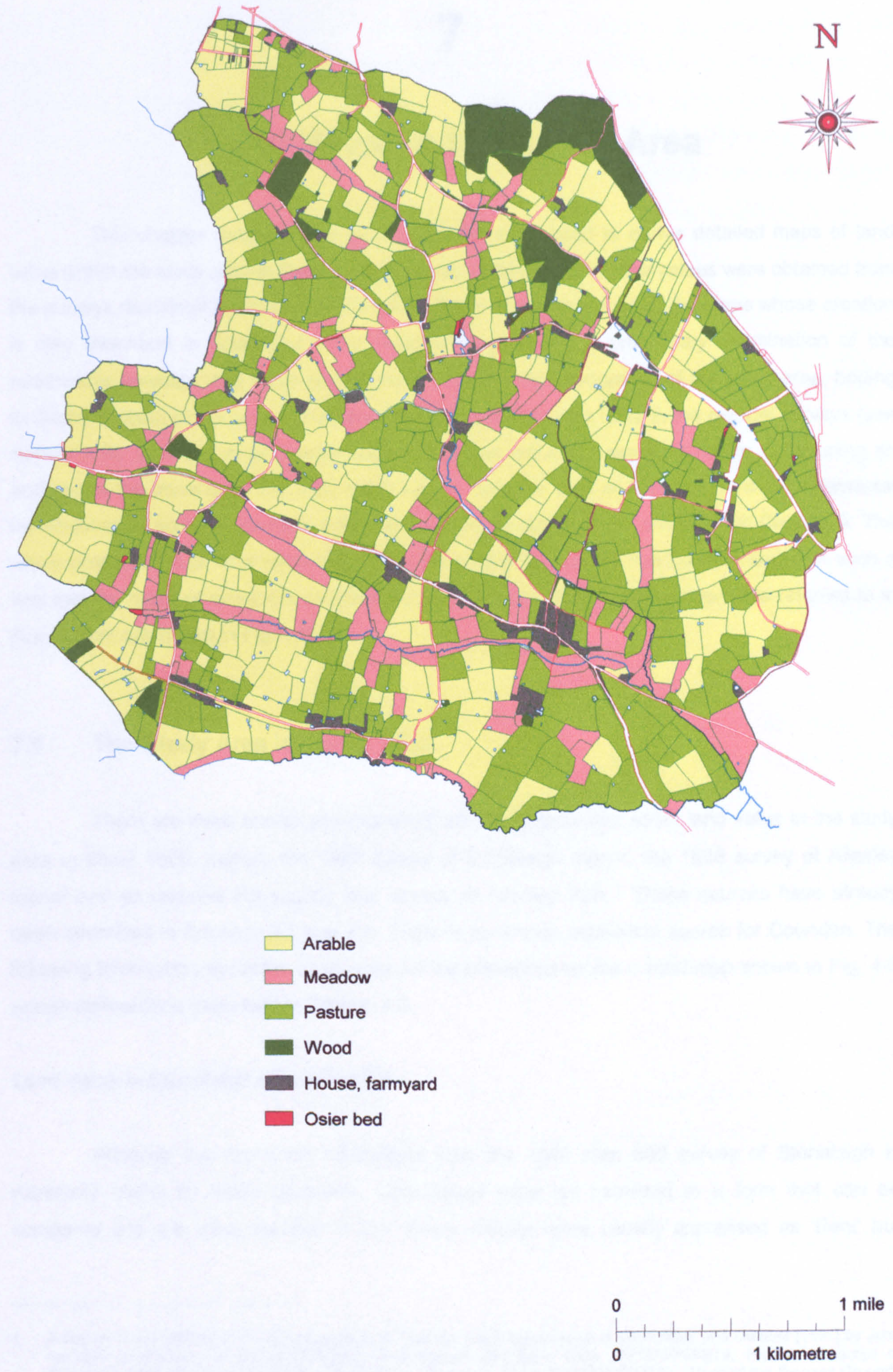


Fig. 6-10 Land Use in Allesley and Coundon Parishes in about 1840



# 7

## Land Value in the Study Area

This chapter describes the techniques that were used to derive detailed maps of land value within the study area at three dates between 1600 and 1840. The values were obtained from the surveys described in Chapter 4 and their presentation was based on the maps whose creation is also described in Chapter 4. This chapter includes only a preliminary examination of the relationship between land value and the natural and human geography of the study area, hoping to discover which of the several possible types of valuation were used in the original surveys (see Appendix B). Changes in land value between surveys will be covered in Chapter 8, including an analysis of the benefits of the 1652 enclosure of the open field of Allesley. A more fundamental investigation of some of the factors that define intrinsic land value is contained in Chapter 9. The visual presentation of land value in this and the following chapters has been arranged in such a way that the maps of every era can be compared directly. The places and features referred to in this chapter are shown in Fig. 1-6.

### 7.1 The Study Area in about 1600

There are three known sources which contain information about land value in the study area in about 1600, namely the 1597 survey of Stoneleigh manor, the 1626 survey of Allesley manor and an undated but slightly later survey of Allesley Park.<sup>1</sup> These sources have already been described in Sections 3.1 and 4.8. There is no known equivalent source for Coundon. The following information about the study area will be presented on the c.1600 map shown in Fig. 4-6 whose derivation is described in Section 4.8.

#### Land Value in Stoneleigh Manor in 1597

Although the combined information from the 1597 map and survey of Stoneleigh is extremely useful for many purposes, land values were not recorded in a form that can be compared with the other surveys in this thesis. Values were usually expressed as 'Rent' but

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<sup>1</sup> A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a; [Map] of the Severall Grounds Lying in Hurste, Flechamstead, and Candley being The Lands of the right worshipfull Sir Thomas Leigh Knight . . . by John Goodwin, Practicioner in the Mathematiques, Shakespeare Birthplace Trust, DR18/25/69a; The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14; Allesley Parke - Survey According to Mr Comptons Booke & his val[ua]tion, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey].



sometimes as 'Yearly value'. Occasionally both forms were used for the same holding, with different amounts, but for some holdings no value was given at all. Presumably the rent was the amount actually paid, which would not necessarily be the same as the current yearly value. The former would not be comparable with the land values quoted in the 1626 Allesley survey; the latter might be if it were not for the consistent understating of land areas in the 1597 survey (see Section 4.8). It is not known whether the values were calculated from the areas, using various values per acre as in Allesley, or whether they were decided using another method or perhaps fixed arbitrarily. Values per acre were not stated specifically but must be derived from the quoted values and understated areas. In this survey the values were only given as totals for complete holdings, which usually consisted of several fields of different types, perhaps including a messuage or cottage. The average value extracted from the total value and area of a holding which consisted of scattered fields will obviously be unreliable if the value per acre varied, as it probably would. The final deficiency in the 1597 survey is the complete lack of information about the value of the large areas of freehold land and woodland.

When the land values in Stoneleigh were calculated from the available information, it was found that they were in the same range as those for Allesley, although generally a little lower. It is significant that none of the calculated values per acre agreed with the standard integer numbers, such as 60 or 80 d/acre, that were found in the Allesley surveys, so it seems unlikely that Stoneleigh's yearly values had been calculated from the quoted areas. A preliminary mapping of the calculated values per acre produced a confused and unconvincing picture, with many sudden changes between adjacent fields. Although this effect was accentuated by the averaging of scattered holdings, it was concluded that the 1597 survey of Stoneleigh was not based on intrinsic land value and was therefore unsuitable for comparisons with the other surveys. Further work in this era therefore concentrated on the two surveys covering Allesley manor.

### **Land Value in Allesley Manor in 1626**

The reliability and usefulness of the 1626 survey of Allesley manor is enhanced by having the value per acre for many of its fields stated specifically, thereby avoiding the errors and approximations that would be introduced by calculating from the quoted values and areas. The survey quoted values per acre for 156 of its 303 items, covering 47% of the total area. These ranged between 40 and 160 d/acre, with meadow having the highest values, so it appeared that the survey used intrinsic land values that should be consistent within the manor. As a check, the database described in Section 4.8 was used to recalculate the rent for each field based on its quoted area and value per acre. This showed that the rents quoted in 1626 were within 1% of the correct value for seventy-seven out of eighty-eight fields. For two fields the difference exceeded 2%, both of them obviously due to clerical errors made in 1626.



For improved accuracy, further analysis of the survey was based on these corrected rents. No such recalculation was possible for the quoted areas, which must be assumed to be a measure of what was actually there at the time. The work on reconstructing the 1626 map had already shown that there was surprisingly little difference between the sizes of identified fields, the 1626 values being about 3% smaller than those quoted in 1809. It therefore seemed likely that the 1626 areas would be more or less uniformly understated by the same percentage. Apart from helping to identify the fields, the only use for the 1626 areas was in calculating the average value per acre for all the fields in the survey. This average would be reliable insofar as it was only compared with values from the same source, which shared the same inaccuracy.

The coverage of Allesley manor was increased to more than 76% by using the database to calculate values per acre from the values and areas of individual fields and groups of fields for which no value per acre had been quoted. The grouping of fields introduced some inaccuracy, but this was reduced by the fact that the groups usually lay together. Most of the calculated values were close to the standard values that were already known, with any difference accounted for by rounding errors, especially with small fields. All the calculated values per acre were therefore rounded up or down to the closest standard value, except in a few cases where the calculated value seemed to belong to a new standard value, typically in multiples of a shilling or six pence.

The average value of land within this 76%, excluding plots with housing, was 71.81 d/acre. Despite the many different categories of land use it was possible to find the average value for at least 200 acres of each of the later standard uses, namely field (arable), meadow, pasture and wood. Meadow had easily the highest average value, the ratio for field:meadow:pasture:wood being 100:152:96:61. Equivalent ratios will be derived for the later surveys in this chapter.

A more complicated process was needed to find the value per acre of the demesne land, which only had a total rent quoted for each of the two large tenants. The first step was to subtract the waste and open field, whose total value could be calculated from the standard values per acre quoted elsewhere. Since meadow was consistently more valuable than adjacent land with other uses, the area of meadow was nominally increased by a suitable factor before calculating the average value of all the remaining land. This procedure resulted in most land values being close to the widespread 80 d/acre, with meadow at 144 d/acre and good continuity with adjacent fields whose value was known. Although this process could only give a broad-brush picture of the demesne land, it was preferable to leaving these areas blank.

The survey included a large part of the common field of Allesley, which was shared among nineteen holdings. Twelve of the shares were in multiples of 10.5 acres (e.g. 31.5 acres), worth £1-13s-4d (400 pence) with a calculated value of 38.1 d/acre. On reflection it was obvious that both the non-standard value and the unit of area were irrational, because the same total of 400 pence would come from 10 acres with the standard value of 40 d/acre. Perhaps the remaining



half an acre was the tenant's share of the common access ways, for which he was responsible but not charged. One 10.5 acre holding and two smaller pieces had lower values per acre, which probably shows that they contained some inconvenient parts of the open field, for example the triangular butt to the north-west of Allesley village that is today commemorated by Butt Lane.<sup>2</sup> The only discordant evidence came from one piece of 66 acres with the extraordinarily low value of 16 d/acre. The value of this item was not listed in the same format as the other pieces of common field, so it may have been a mistake. Since none of these pieces of the common field can be located with confidence, it was decided to give all of them a value of 40 d/acre. This was less than the 48 d/acre valuation of most woodland.

By including the demesne land and common field, the coverage of Allesley manor exceeded 92%, leaving only the small plots containing messuages and cottages. Table 7/1 shows the frequency distribution for adjusted land value in Allesley manor in 1626 :

Value (d/acre)	Area (acres)	% of manor
40	535	23.0
48	330	14.2
56	4	0.2
60	288	12.4
66	9	0.4
72	4	0.2
80	753	32.4
90	17	0.7
96	45	1.9
120	216	9.3
144	91	3.9
160	33	1.4
<hr/>		
Total	2326	100

Table 7/1 Land Value in the 1626 Survey of Allesley Manor

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2 O. Rackham, *The History of the Countryside* (1986; London, 1990), pp.165-166.



### **Land Value in Allesley Park c.1660**

The survey of Allesley Park, loosely attached to the 1626 survey of Allesley manor, was entitled 'Allesley Parke - Survey According to Mr Compton's Booke and his Valuation', which suggests a date before 1660 when the property was bought from Richard Compton by Thomas and Martha Flynt. Although the listed tenants related to a later date, the title implies that the survey and valuation were as in 1626. If this is the case, the valuations of Allesley Park and Allesley manor can be analysed together.

The survey listed eighteen parcels of land within Allesley Park and six parcels outside it. One of the latter was described as The North Field New Inclosure, which confirms that the date was not long after the c.1652 enclosure. Each parcel had a specified value per acre, so this survey is more consistently useful than the 1626 survey of the manor. There were no gaps in the coverage of the 405 acres of Allesley Park, so no modifications or assumptions were needed.

### **Map of Land Value in Allesley Manor in 1626**

The techniques needed to identify the parcels listed in the 1626 survey of Allesley manor and the slightly later survey of Allesley Park have already been described in Chapter 4. The mapping of land value was actually simpler than the mapping of field boundaries because land value was often constant within a landholding, whose boundaries could be identified with more certainty than those of the fields within it.

It has already been noted that meadow was more valuable than other land in the 1626 survey. The ratio ranged from 150 to 200% of the value of adjacent pasture and arable. A preliminary attempt to map all the land values showed that this contrast produced a rather too patchy picture of land value, while requiring unwelcome precision in locating the boundaries of the meadows. To avoid these problems it was decided to adjust the values of the meadows so that they agreed with the surrounding pasture and arable. It was hoped that the map produced using this adjustment would give a better overall picture of land values within Allesley manor in 1626.

Fig. 7-1 is a map of the variation in land value in pence per acre within Allesley manor, based on the values quoted in the survey and incorporating the adjustments described previously. The value per acre is represented by a colour scale which varies between dark pink (highest) and dark blue (lowest). Because both surveys stated the land values as integer pence per acre it has been possible to use a different gradation of colour to represent each of the twelve possible values. The range of colours on the map has been arranged so that land of average adjusted value in the 1626 survey would be colourless.



The calculation of this average value excluded the plots that contained messuages or cottages. The remaining land comprised the several types of arable, pasture and meadow in Allesley manor that are listed in Chapter 6; the total was 2,326 acres with an average adjusted value of 66.7 d/acre. Increasingly intense shades of pink were used for values of 67 d/acre and above and increasingly intense shades of blue for values of 66 and below. Most types of land are represented on Fig. 7-1, including woodland, waste and the common field. For consistency, the average value and colour scale calculated for Allesley manor were also used to show the land values in Allesley Park. The map also indicates the areas where the land value is unknown, namely the freehold land and the areas that have not been reconstructed.

Because of the large proportion of the parish that was not in the survey or has not been identified, Fig. 7-1 is like a view through partial cloud. It will be seen that there is a concentration of the most valuable land in Allesley Park, facing Allesley village. The area of fairly good land to the east of it is one of the blocks of demesne land whose value was estimated, and was probably not in fact so uniform. The open field shows up as the large area of poor land to the north-west of Allesley Park in the middle of the parish, and there was an equally poor area of waste at Corley Moor. In the north-east corner of the parish were large blocks of woodland with almost as low a value. In the south-west corner the land also appears to be rather poor. Elsewhere there was a pattern of land with varying value but few sudden changes. One isolated area of very valuable land was Waterhouses, a meadow on the northern side of the Chester Road / Birmingham Road / A45 near the western boundary of the parish. Surprisingly, both this land and the best land in Allesley Park lay on a moderate north slope rather than the warm south slope that would be expected.

The high value of land in Allesley Park is so outstanding that one must question whether the Allesley Park survey was in fact compatible with the 1626 survey, or whether it was actually compiled at a later date after land values had risen considerably (it will be remembered that Allesley was suffering from bubonic plague in 1626). In fact there is proof of continuity on the western side of Allesley Park, where the value of fields on each side of the boundary was the same. The favoured part of Allesley Park would also benefit from its position on Pickford Brook, providing the nearest land to Allesley village that was not in the open field. Despite these justifications, it is probable that Allesley Park did not enjoy quite such an advantage as it appears to do in Fig. 7-1 although the next section will show that it was still valued highly in 1809.



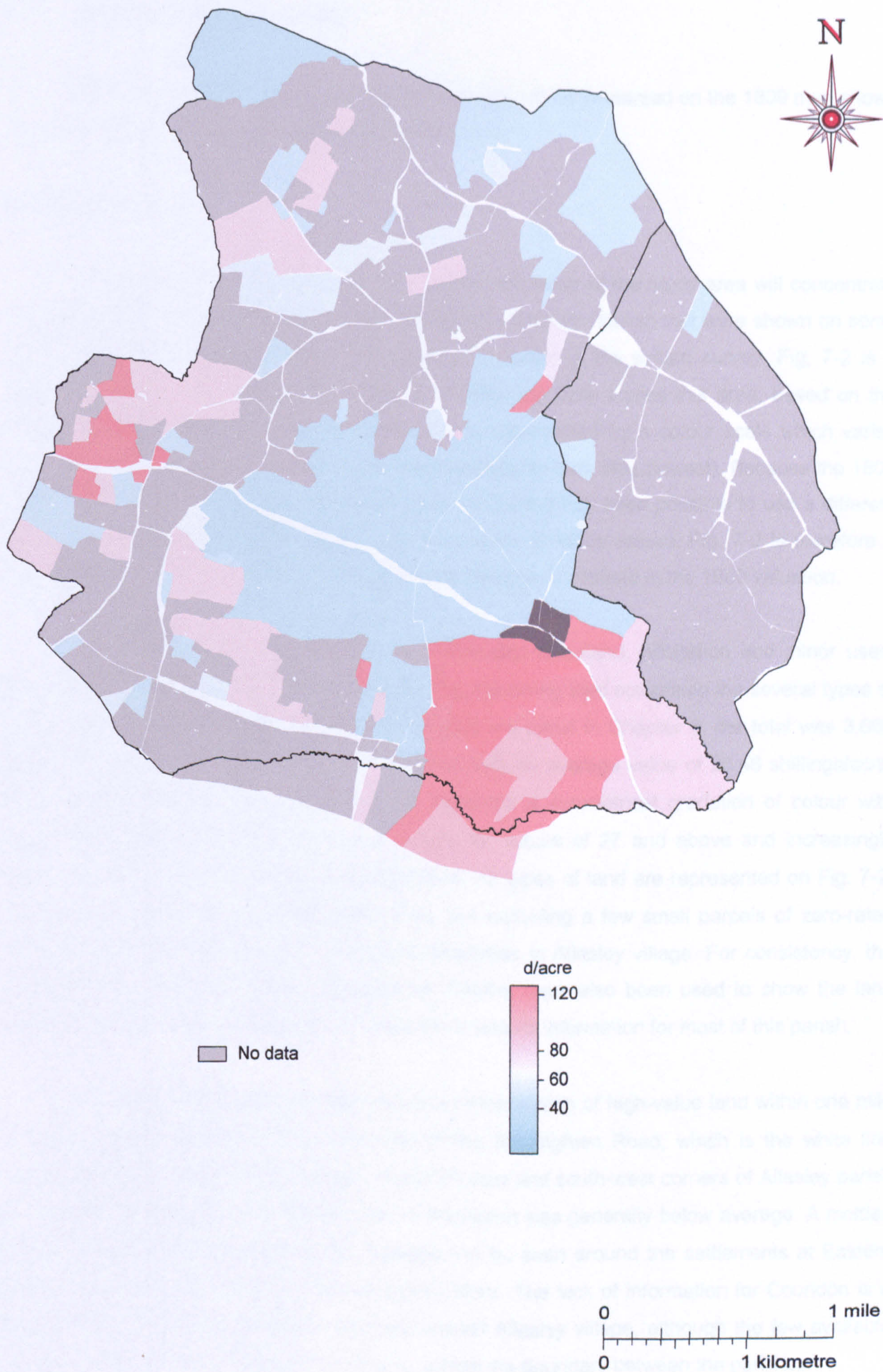


Fig. 7-1 Adjusted Land Value within Allesley Manor in about 1626



## 7.2 Allesley Parish in 1809

The following information about Allesley parish will be presented on the 1809 map shown in Fig. 4-4 whose derivation is described in Section 4.5.

### Map of Land Value

The presentation and analysis of the 1809 land value of the study area will concentrate on Allesley parish, with the addition of the few fields in Coundon parish that were shown on some of the fragmentary maps, although they were not included in the written survey. Fig. 7-2 is a detailed map of the variation in land value in shillings per acre across this area, based on the values quoted in the survey. The value per acre is represented by a colour scale which varies between dark pink (highest) through colourless (average) to dark blue (lowest). Because the 1809 survey stated the land values as integer shillings per acre it has been possible to use a different gradation of colour to represent each of the forty-seven possible values. Fig. 7-2 is therefore a definitive representation of all the subtle detail and variation contained in the 1809 valuation.

The calculation of the average value excluded woodland, habitation and minor uses, zero-rated land and the few fields in Coundon. The remaining land comprised the several types of arable, pasture and meadow in Allesley parish that are listed in Chapter 6; the total was 3,666 acres (93% of the total area surveyed in Allesley) with an average value of 26.46 shillings/acre. This average, serendipitously close to 26.5, permitted a symmetrical gradation of colour with value, using increasingly intense shades of pink for values of 27 and above and increasingly intense shades of blue for values of 26 and below. All types of land are represented on Fig. 7-2, including woodland, habitation and other uses, but excluding a few small parcels of zero-rated land such as the churchyard and some glebe properties in Allesley village. For consistency, the average value and colour scale calculated for Allesley have also been used to show the land values for the few fields in Coundon, although there was no information for most of this parish.

The map of land value in 1809 shows a concentration of high-value land within one mile of Allesley village and along the south side of the Birmingham Road, which is the white line running west-north-west from the village. The north-east and south-west corners of Allesley parish had the lowest values and the northern half of the parish was generally below average. A mottled pattern of values above and below the average can be seen around the settlements at Eastern Green, Pickford Green, Hawkes End and Corley Moor. The lack of information for Coundon is a handicap to comprehending the overall trend around Allesley village, although the few available values suggest that there was some continuity across the boundary between the parishes.



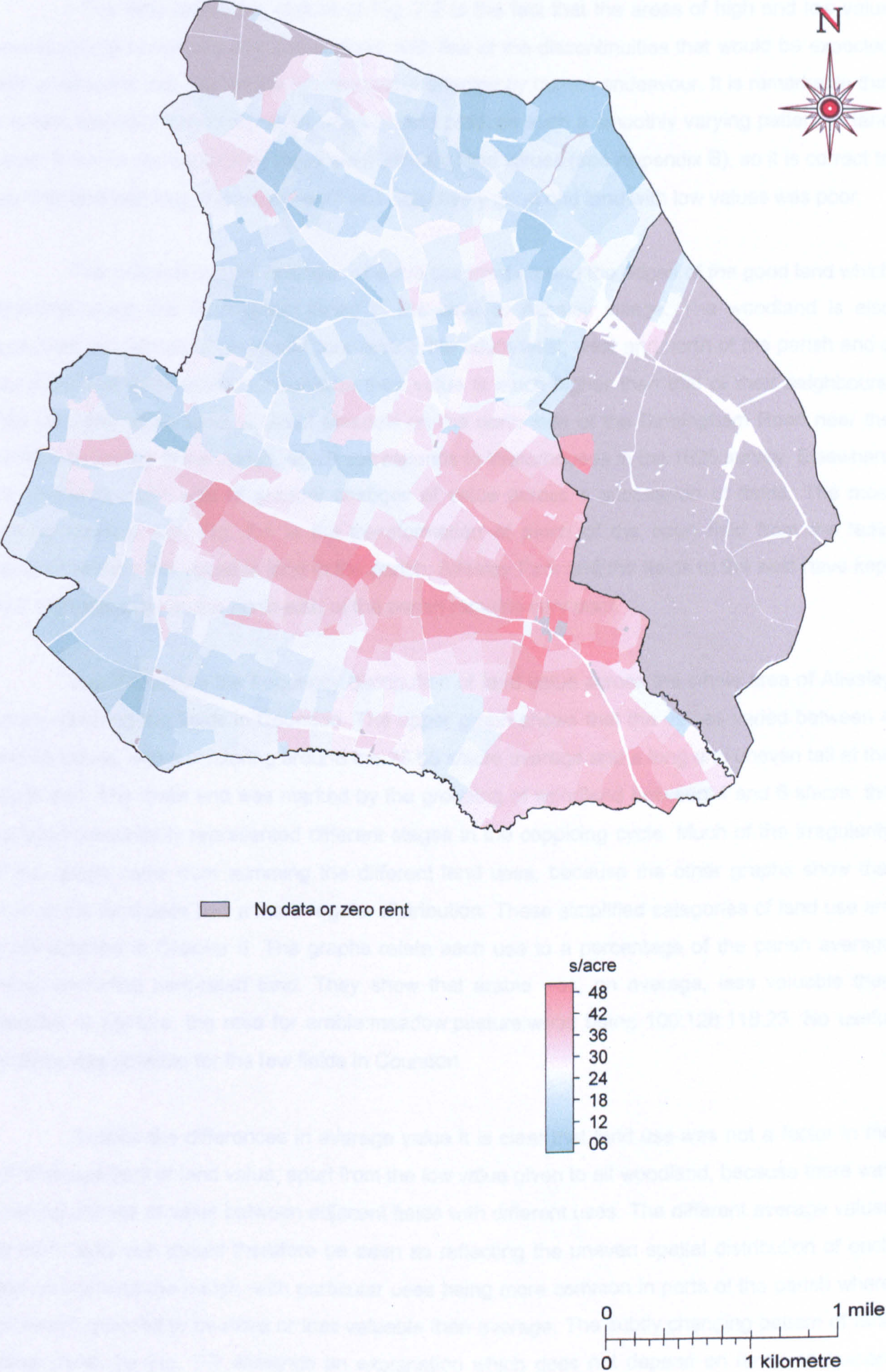


Fig. 7-2 Land Value in Allesley and Coundon Parishes in 1809



The most significant feature of Fig. 7-2 is the fact that the areas of high and low value usually merged gradually into one another, with few of the discontinuities that would be expected from a valuation that was arbitrary, historical or affected by human endeavour. It is remarkable that a written valuation based on rough maps should produce such a smoothly varying pattern of land value. It will be concluded that these were intrinsic land values (see Appendix B), so it is correct to say that land with high values per acre was objectively good and land with low values was poor.

The greatest sudden changes of value occurred around the edges of the good land which stretched along the Birmingham Road to the west of Allesley village. The woodland is also prominent as patches of unusually poor land in the south-west, west and north of the parish and a few individual fields stand out because their value is much higher than that of their neighbours. One example of the latter is Great Meadow on the north side of the Birmingham Road near the western boundary of the parish, which corresponds to Waterhouses in the 1626 survey. Elsewhere the general pattern was of gradual changes of value across a succession of fields. The most striking contrast with Fig. 7-1 is the transformation of much of the open field from the least valuable to the most valuable land in the parish. Allesley Park and the fields to the east have kept their high value, while the north-east of the parish remains very poor.

Fig. 7-3 shows the frequency distribution of land value across the whole area of Allesley parish, ignoring the fields in Coundon. The upper graph shows that the values varied between 4 and 50 s/acre, with a clustering around the 25.65 s/acre average and a long and uneven tail at the upper end. The lower end was marked by the grouping of woodland between 4 and 8 s/acre; the variation presumably represented different stages in the coppicing cycle. Much of the irregularity of this graph came from summing the different land uses, because the other graphs show that each of the land uses had a more regular distribution. These simplified categories of land use are those adopted in Chapter 6. The graphs relate each use to a percentage of the parish average value, excluding zero-rated land. They show that arable was, on average, less valuable than meadow or pasture, the ratio for arable:meadow:pasture:wood being 100:128:118:23. No useful analysis was possible for the few fields in Coundon.

Despite the differences in average value it is clear that land use was not a factor in the 1809 assessment of land value, apart from the low value given to all woodland, because there was often no change of value between adjacent fields with different uses. The different average values for each land use should therefore be seen as reflecting the uneven spatial distribution of each land use around the parish, with particular uses being more common in parts of the parish where the land happened to be more or less valuable than average. The subtly changing pattern of land value shown by Fig. 7-2 demands an explanation which does not depend on land use (except woodland) and which is probably not connected with the merits and practices of individual farmers or owners. Some of the factors involved will be investigated in Chapter 9.



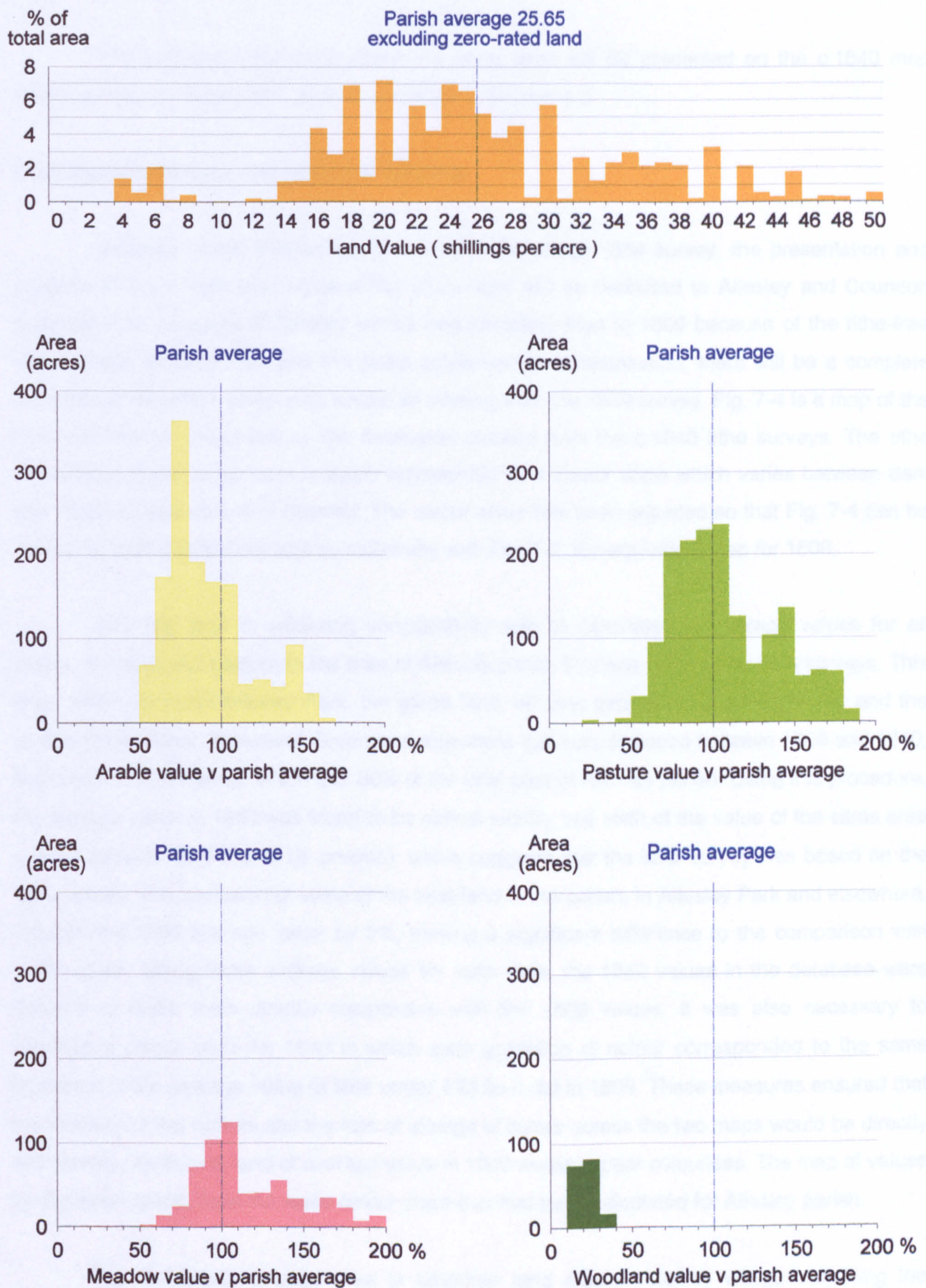


Fig. 7-3 Frequency Distribution of Land Value in Allesley Parish in 1809



### 7.3 The Study Area in about 1840

The following information about the study area will be presented on the c.1840 map shown in Fig. 4-3 whose derivation is described in Section 4.3.

#### Land Value in Allesley and Coundon Parishes

Because of the deficiencies of the 1843 Stoneleigh tithe survey, the presentation and analysis of the c.1840 land value of the study area will be restricted to Allesley and Coundon parishes. The coverage of Allesley will be less complete than in 1809 because of the tithe-free land, notably Allesley Park and the glebe properties. In compensation, there will be a complete coverage of Coundon, which was almost all missing from the 1809 survey. Fig. 7-4 is a map of the tithe rent-charge, calculated by the databases created from the c.1840 tithe surveys. The tithe rent-charge in pence per acre is again represented by a colour scale which varies between dark pink (highest) and dark blue (lowest). The colour scale has been adjusted so that Fig. 7-4 can be compared both qualitatively and quantitatively with Fig. 7-2, the equivalent map for 1809.

The first step in achieving comparability was to calculate the average values for all arable, meadow and pasture in the area of Allesley parish that was covered by both surveys. This area, which excluded Allesley Park, the glebe land, all land zero-rated in either survey and the land at Corley Moor, Brownhill Green and elsewhere that was enclosed between 1809 and 1840, amounted to 3,344 acres, which was 80% of the total area of Allesley parish. Using this procedure, the average value in 1840 was found to be almost exactly one sixth of the value of the same area in 1809 (a factor of 5.992 to be precise), which suggests that the tithe survey was based on the 1809 survey. The exclusion of some of the best land in the parish, in Allesley Park and elsewhere, reduced the 1809 average value by 3%, making a significant difference to the comparison with 1840 values. Using these average values for each date, the 1840 values in the database were factored to make them directly comparable with the 1809 values. It was also necessary to establish a colour scale for 1840 in which each gradation of colour corresponded to the same increment of the average value (a little under 4%) as it did in 1809. These measures ensured that the intensity of the colours and the rate of change of colour across the two maps would be directly comparable. As before, land of average value in 1840 would appear colourless. The map of values for Coundon parish used the same colour scale that had been calculated for Allesley parish.

Fig. 7-4 shows a large area of tithe-free land around Allesley village. Adjoining the southern border of the parish was the large Allesley Park estate belonging to Rev. Edward Neale, the lord of the manor. Extending to the north of this was the glebe land, grouped around the churchyard. Numerous small pieces of zero-rated land are just visible at this scale, most of them plots for cottages that had been built on land recently enclosed alongside the wider roads and at Corley Moor, Brownhill Green and Coundon Green.



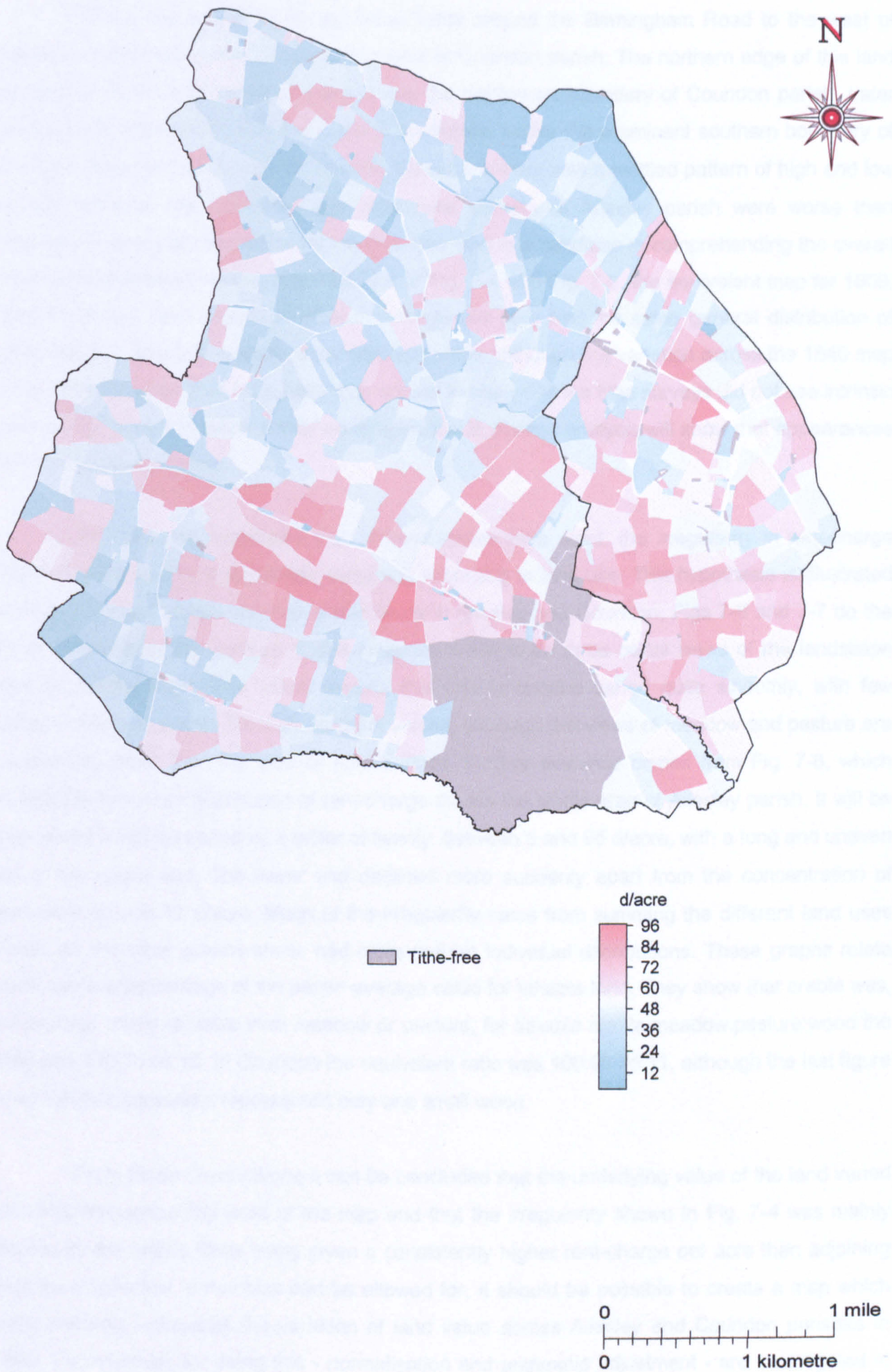


Fig. 7-4 Tithe Rent-Charge in Allesley and Coundon Parishes in about 1840



There was a swathe of high-value fields around the Birmingham Road to the west of Allesley, to the north of the village and in most of Coundon parish. The northern edge of this land appears to follow a curve which merges into the north-west boundary of Coundon parish. Later analysis will demonstrate that this curve is an illusion, unlike the prominent southern boundary of the high-value land to the west of Allesley. Elsewhere there was a mottled pattern of high and low values, although the north-east and south-west corners of Allesley parish were worse than average. The lack of information for the tithe-free land is a handicap to comprehending the overall trend around Allesley village. A comparison of Fig. 7-4 with Fig. 7-2, the equivalent map for 1809, shows that the 1840 pattern of tithe-rent-charge per acre had the same general distribution of good and bad land in the areas shown on both maps, although the variation across the 1840 map is far more extreme. This irregularity may appear to show that the tithe surveys did not use intrinsic land values, for the reasons explained in Appendix B. Further analysis will show that appearances can indeed be deceptive.

Pursuing the hypothesis that intrinsic values were used, the irregularity in rent-charge might be explained by a systematic weighting according to land use. This hypothesis is illustrated by Fig. 7-5 which shows only the arable fields in Allesley and Coundon; Figs 7-6 and 7-7 do the same for meadow and pasture. If one imagines these to be three aerial views of the landscape through patchy cloud, one would deduce that this landscape varied quite smoothly, with few sudden changes despite the wide range of values, although the views of meadow and pasture are consistently bluer than the view of arable fields. Further evidence comes from Fig. 7-8, which shows the frequency distribution of rent-charge across the whole area of Allesley parish. It will be seen that the values varied by a factor of twenty, between 5 and 95 d/acre, with a long and uneven tail at the upper end. The lower end declined more suddenly apart from the concentration of woodland around 12 d/acre. Much of the irregularity came from summing the different land uses which, as the other graphs show, had more regular individual distributions. These graphs relate each use to a percentage of the parish average value for tithable land. They show that arable was, on average, more valuable than meadow or pasture; for tithable arable:meadow:pasture:wood the ratio was 100:70:66:19. In Coundon the equivalent ratio was 100:93:75:11, although the last figure is not reliable because it represented only one small wood.

From these observations it can be concluded that the underlying value of the land varied smoothly throughout the area of the map and that the irregularity shown in Fig. 7-4 was mainly caused by the arable fields being given a consistently higher rent-charge per acre than adjoining pasture or meadow. If this bias can be allowed for, it should be possible to create a map which more correctly represents the variation of land value across Allesley and Coundon parishes in 1840. Two methods for doing this - normalisation and arithmetic adjustment - are investigated in the following sections.



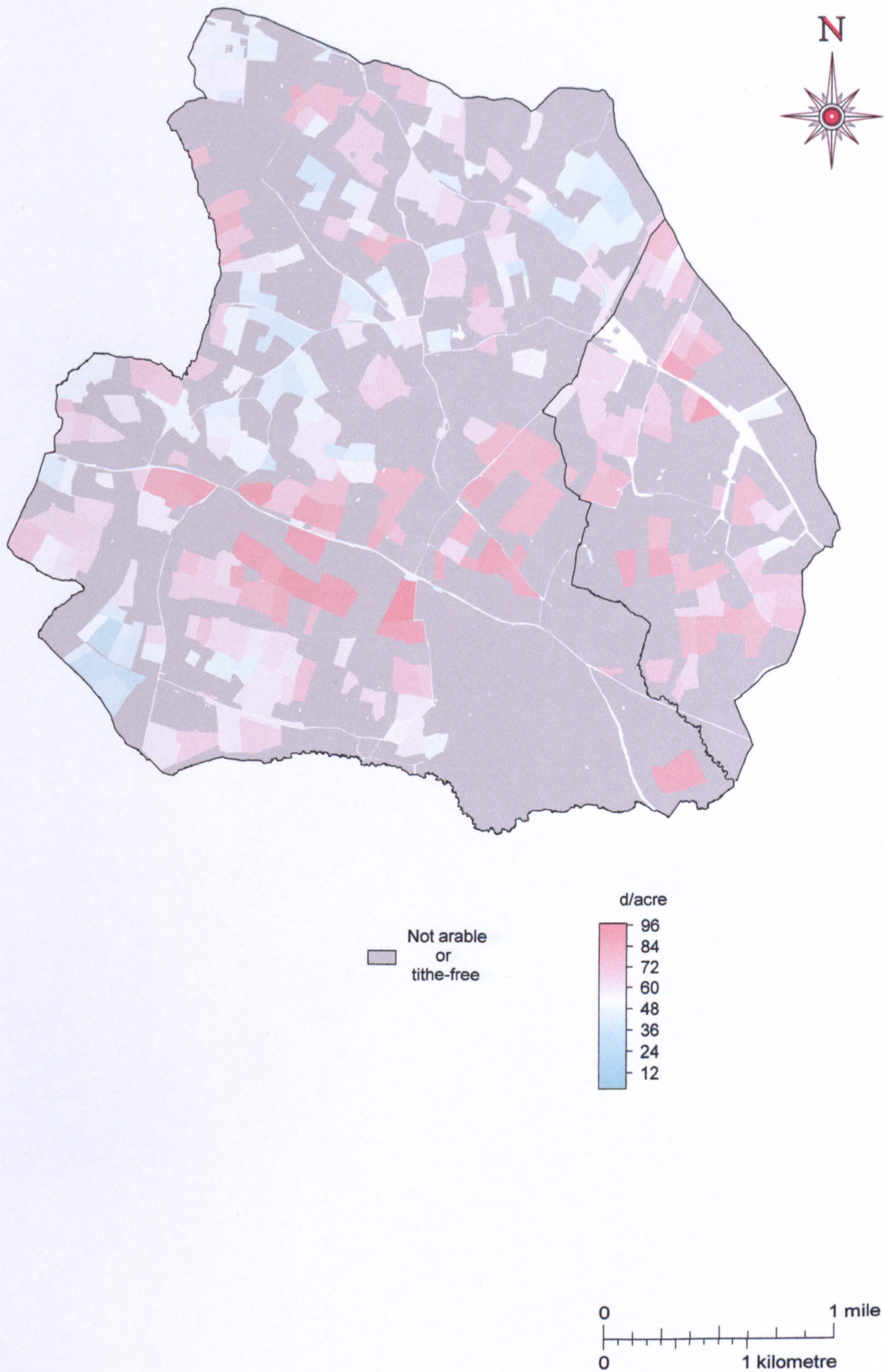


Fig. 7-5 Tithe Rent-Charge in Allesley and Coundon Parishes c.1840 for Arable Only



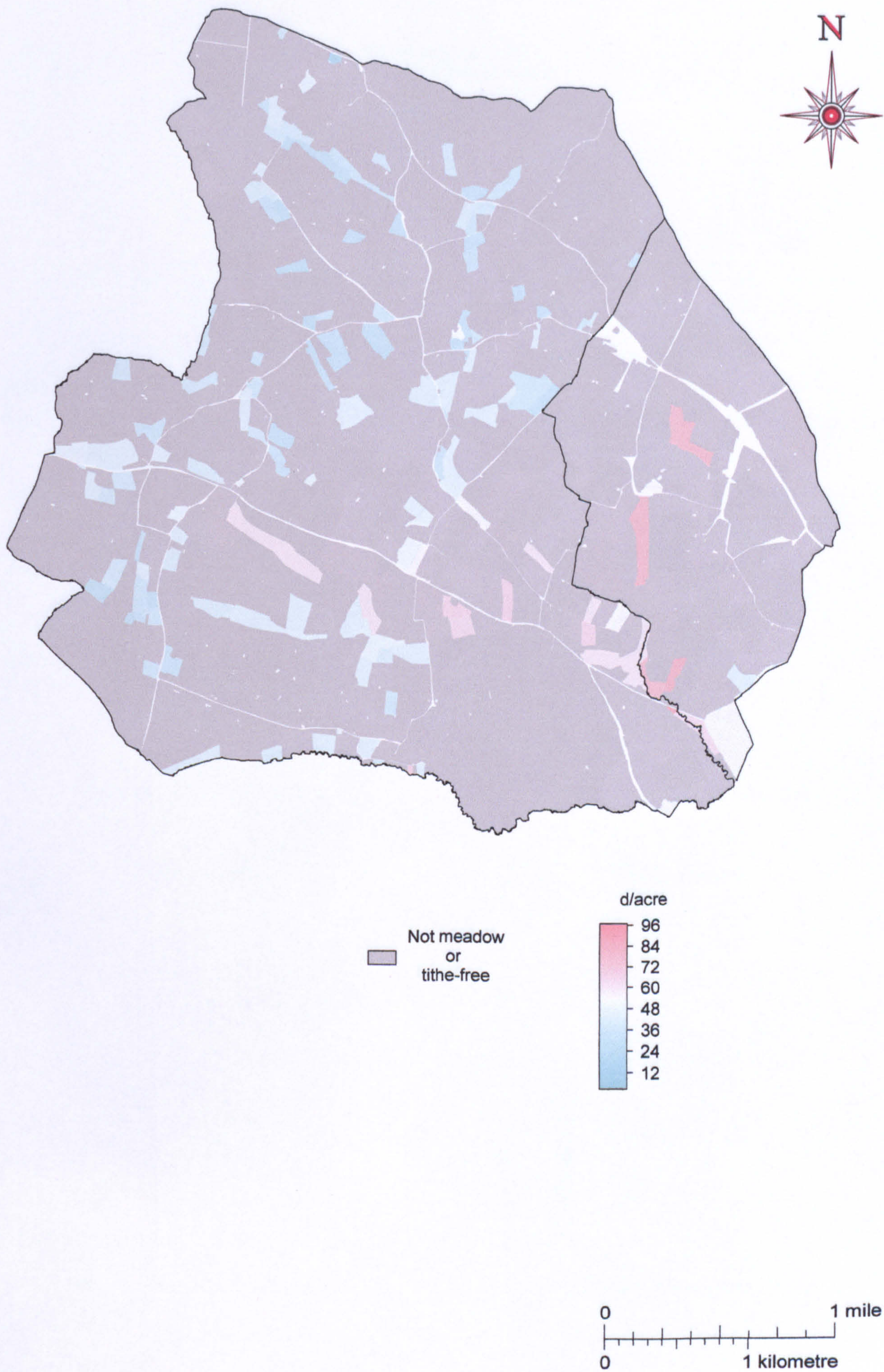


Fig. 7-6 Tithe Rent-Charge in Allesley and Coundon Parishes c.1840 for Meadow Only



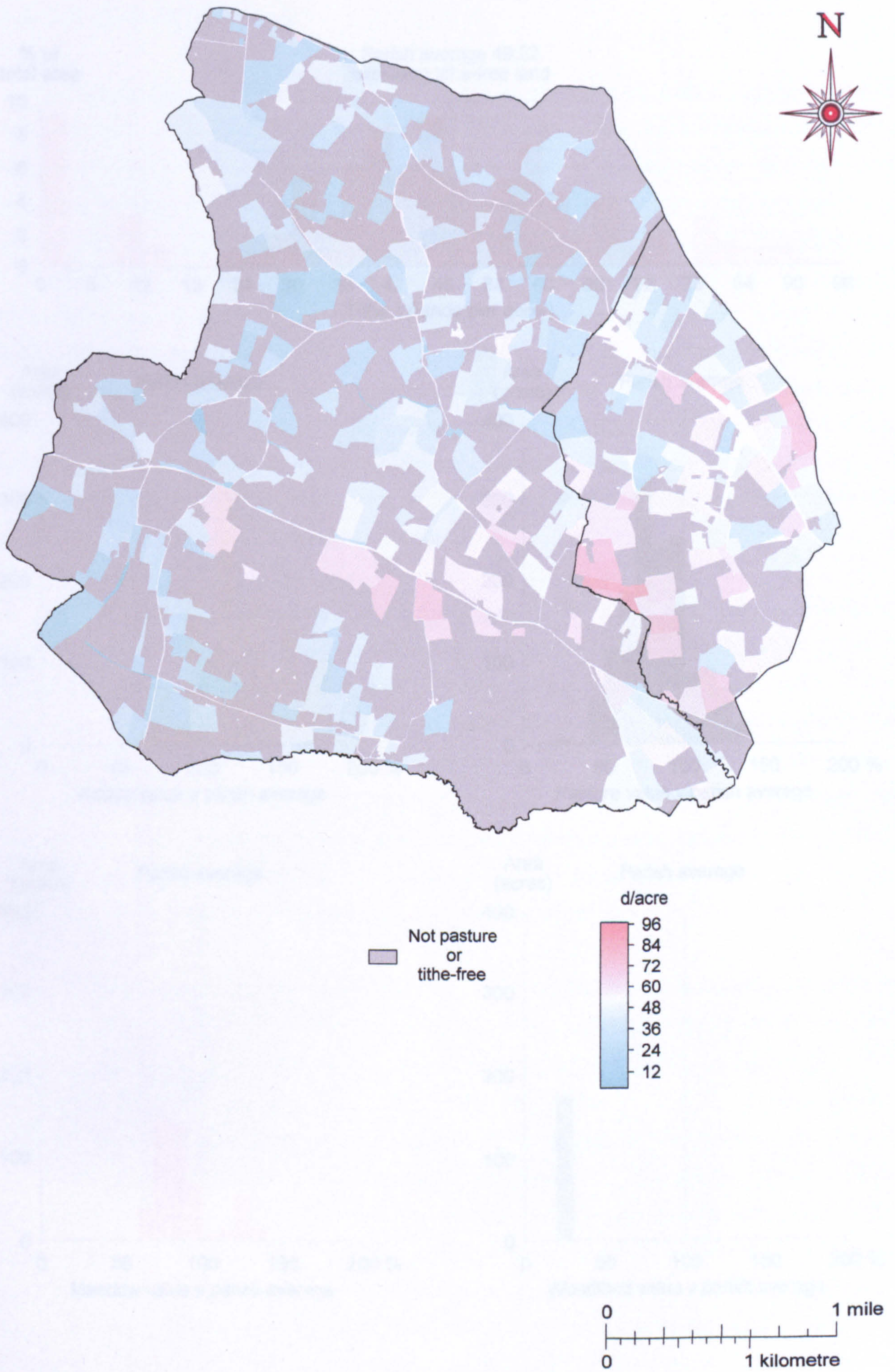


Fig. 7-7 Tithe Rent-Charge in Allesley and Coundon Parishes c. 1840 for Pasture Only



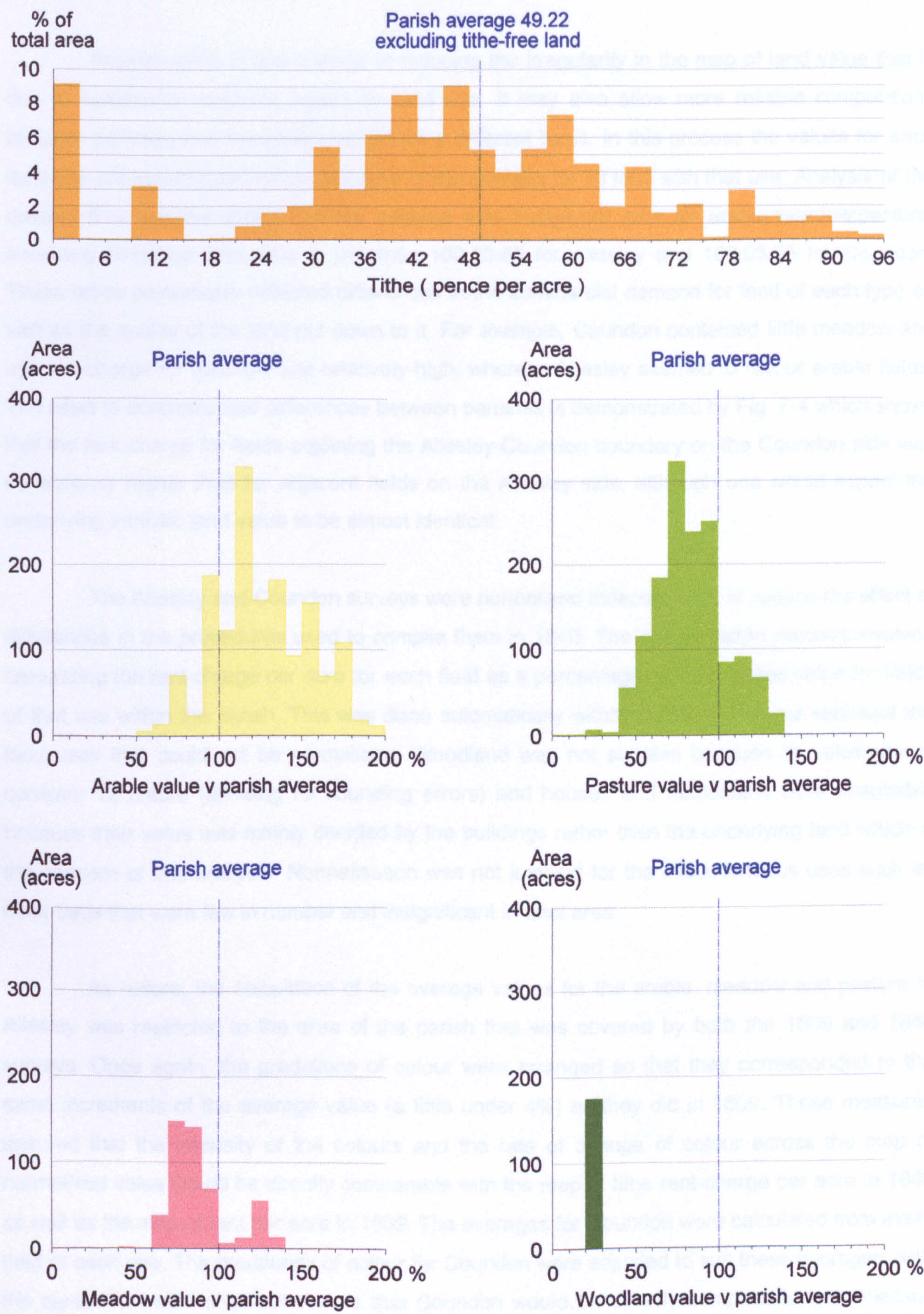


Fig. 7-8 Frequency Distribution of Land Value in Allesley Parish in 1840



## Map of Normalised Land Value

Normalisation is one method of reducing the irregularity in the map of land value that is due to systematic weighting based on land use. It may also allow more reliable comparisons between parishes that have been valued on a different basis. In this process the values for each land use are recalculated as percentages of the average for all land with that use. Analysis of the present tithe surveys shows that the average rent-charge per acre for arable:meadow:pasture, excluding tithe-free land, was in the ratio 100:70:66 for Allesley and 100:93:75 for Coundon. These ratios presumably reflected differences in the commercial demand for land of each type as well as the quality of the land put down to it. For example, Coundon contained little meadow and the rent-charge for meadow was relatively high, whereas Allesley seemed to favour arable fields. The need to accommodate differences between parishes is demonstrated by Fig. 7-4 which shows that the rent-charge for fields adjoining the Allesley-Coundon boundary on the Coundon side was consistently higher than for adjacent fields on the Allesley side, although one would expect the underlying intrinsic land value to be almost identical.

The Allesley and Coundon surveys were normalised independently to reduce the effect of differences in the procedures used to compile them in 1840. The normalisation process involved calculating the rent-charge per acre for each field as a percentage of the average value for fields of that use within the parish. This was done automatically within the database, but excluded the land uses that could not be normalised. Woodland was not suitable because its value was a constant 12 d/acre (allowing for rounding errors) and houses and farmsteads were unsuitable because their value was mainly decided by the buildings rather than the underlying land which is the concern of this analysis. Normalisation was not justified for the miscellaneous uses such as osier beds that were few in number and insignificant in total area.

As before, the calculation of the average values for the arable, meadow and pasture in Allesley was restricted to the area of the parish that was covered by both the 1809 and 1840 surveys. Once again, the gradations of colour were arranged so that they corresponded to the same increments of the average value (a little under 4%) as they did in 1809. These measures ensured that the intensity of the colours and the rate of change of colour across the map of normalised value would be directly comparable with the map of tithe rent-charge per acre in 1840 as well as the map of rent per acre in 1809. The averages for Coundon were calculated from every field of each use. The gradations of colour for Coundon were adjusted to suit these averages, with the same increment of about 4%, so that Coundon would be directly comparable with Allesley. Fig. 7-9 shows the resulting map of normalised rent-charge per acre for both Allesley and Coundon parishes. The normalised rent-charge per acre is shown by a colour scale which varies between dark pink (highest) and dark blue (lowest) as a percentage of the average normalised value, which is colourless. Woodland and the areas that were not normalised are also indicated.



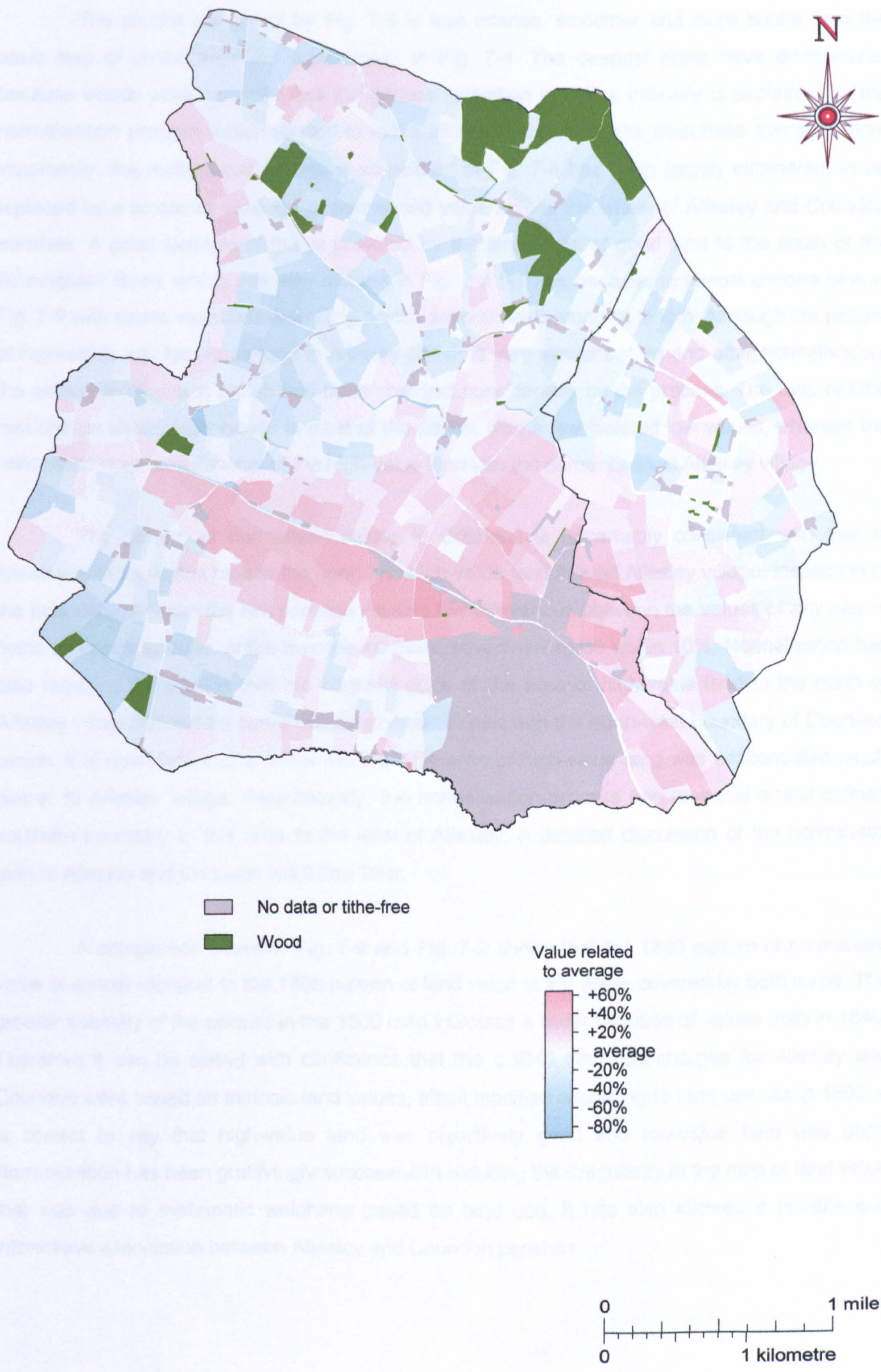


Fig. 7-9 Normalised Land Value in Allesley and Coundon Parishes in about 1840



The picture presented by Fig. 7-9 is less intense, smoother and more subtle than the basic map of rent-charge per acre shown in Fig. 7-4. The deepest blues have disappeared because woods were excluded, but the general reduction in colour intensity is explained by the normalisation process, which tended to move all values closer to the colourless average. More importantly, the mottled pattern that is so evident in Fig. 7-4 has been largely eliminated, to be replaced by a smoother variation of normalised value across the whole of Allesley and Coundon parishes. A good example of this is provided by the large area of good land to the south of the Birmingham Road, which was very mottled in Fig. 7-4 but has become an almost uniform pink in Fig. 7-9 with subtle variations extending across several fields along its length. Although the pattern of high-value and low-value land in Allesley parish is very similar before and after normalisation, the pattern in Coundon parish has been changed considerably by the process. The map of tithe rent-charge shows high values in most of the parish, with a few isolated low values, whereas the normalised map retracts most of the high-value land into the corner nearest Allesley village.

The pattern of normalised values in Coundon is remarkably consistent with that in Allesley, with low-value land in the north and high-value land around Allesley village. Inspection of the boundary between the two parishes reveals few differences between the values of any pair of fields on opposite sides; of the twenty-nine pairs, seventeen agree within 10%. Normalisation has also removed the illusion that the northern edge of the area of high-value land to the north of Allesley village followed a curve which coincided in part with the north-west boundary of Coundon parish. It is now clear that a rather more diffuse area of high-value land was concentrated much nearer to Allesley village. Paradoxically, the normalisation process has revealed a well-defined southern boundary to this area to the west of Allesley. A detailed discussion of the normalised map of Allesley and Coundon will follow later.

A comparison between Fig. 7-9 and Fig. 7-2 shows that the 1840 pattern of normalised value is almost identical to the 1809 pattern of land value in the areas covered by both maps. The greater intensity of the colours in the 1809 map indicates a wider variation of values than in 1840. Therefore it can be stated with confidence that the c.1840 tithe rent-charges for Allesley and Coundon were based on intrinsic land values, albeit modified according to land use. As in 1809, it is correct to say that high-value land was objectively good and low-value land was poor. Normalisation has been gratifyingly successful in reducing the irregularity in the map of land value that was due to systematic weighting based on land use. It has also allowed a reliable and informative association between Allesley and Coundon parishes.



## Map of Adjusted Land Value

Although the normalisation procedure greatly improved the presentation of land value from the tithe surveys, further reflection suggested that it could have nothing to do with the valuation procedure that was actually used in 1840. The normalisation procedure depends on the assumption that the average value should be exactly the same for arable, meadow and pasture. The 100:128:118 arable:meadow:pasture ratio in the 1809 survey shows that this assumption is very improbable. Even if neighbouring fields with different uses had the same intrinsic value, the variations in land use on the different soils of the parish would ensure that the overall averages were not the same. This is particularly true for the pasture category, which had to include the least valuable odds and ends of the parish, such as enclosed lanes. The second objection to normalisation comes if one imagines oneself in 1840, calculating values in pounds, shillings and pence for fields that were measured in acres, roods and perches. Working with pencil and paper without benefit of calculators or computers would have been extremely time-consuming and prone to errors. Then imagine having to adjust the valuation for all fields by an arbitrary percentage. It would be possible, but certainly very tedious and an expensive way of using a valuer's time.

In practice, the consistently higher values for arable would be most easily derived in 1840 by addition rather than by multiplication. Evidence for this was found by manually plotting the values on a map, noting which fields were arable, meadow or pasture. Working across the map, close inspection of the relationship between adjoining fields showed that a much smoother pattern would be obtained by reducing the value of all arable fields by 24 d/acre in 1840, in relation to both meadow and pasture. This assumption worked satisfactorily all across Allesley and Coundon parishes, but for Coundon it was found that the value of all meadow also needed to be reduced by 12 d/acre. This manual method may seem rather arbitrary, but it has the virtue of simplicity. There is no proof that it was used by the valuer, and on whose authority, but the circumstantial evidence suggests that it was. The first application of this method resulted in the adjusted values on the Coundon side of the boundary being consistently higher than those for adjacent fields on the Allesley side. From analysis of the difference between the two parishes, it was therefore decided to make an overall reduction of 6 d/acre in the adjusted value of every field in Coundon.

An alternative method would be to use a mathematical procedure such as linear programming to determine the use-related adjustments which minimise the total of all the changes of values between adjoining fields.<sup>3</sup> This application would be difficult because of the variable geometry of the interfaces at field boundaries. Any automatic method would also fail to cope with the fact that there should be some sudden changes in land value where soil or topography change. The southern edge of the area of good land in Fig. 7-9 is one clear example of this.

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3 W. J. Reichmann, *Use and Abuse of Statistics* (1961; Harmondsworth, 1977), pp.299-314.



Automated adjustment does not seem beneficial for the present application, although it could be useful in a landscape consisting of rectangular fields.

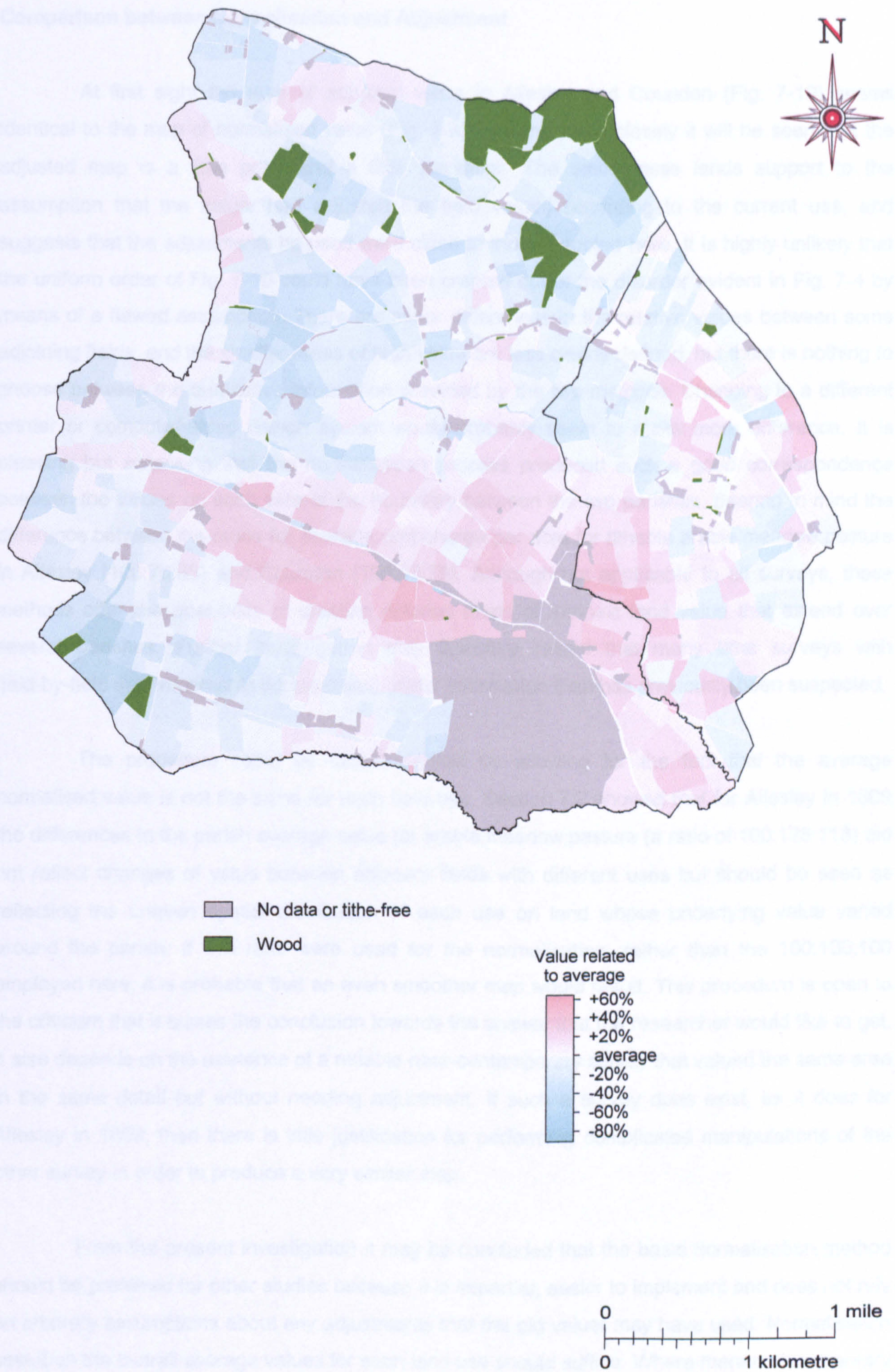
The adjustment of tithe rent-charge was carried out semi-automatically within the databases for the Allesley and Coundon tithe surveys. Some manual intervention was needed to highlight the fields that needed adjusting and to set the values. It was decided to treat the adjustments as additions to the values for pasture and meadow rather than as subtractions from the values for arable fields, because subtraction would have reduced the values for poor arable fields by an excessively large proportion. In Allesley, the rent-charges of pasture and meadow were adjusted upwards by 24 d/acre. All fields in Coundon were reduced by 6 d/acre after adjusting the pasture upwards by 24 d/acre and the meadow by 12 d/acre. For fields with shared uses, the adjustments appropriate to each use were averaged.

Fig. 7-10 shows the resulting map of adjusted rent-charge per acre for both Allesley and Coundon parishes. The colour scale between pink and blue has again been modified so that a colourless field equates to the (increased) average of the Allesley values after adjustment, while each gradation of colour corresponds to the same proportion of the average as it does in Figs 7-4 and 7-9, the maps of tithe rent-charge and normalised value. The woods, houses and farmsteads, land with miscellaneous uses and tithe-free land are shown specifically to allow a direct comparison with the map of normalised value. The Allesley average and colour scale have also been used for Coundon, because they both relate to absolute monetary values.

Inspection of the fields on opposite sides of the boundary between Allesley and Coundon reveals that, of the twenty-eight pairs, twelve agree within 5% and nineteen within 10%. The larger differences all seem to be explained by local circumstances. The best example of this is the unusually low value of Warwickshire Meadow at the southern tip of Coundon, which is easily explained by the disruption caused by the construction of the new Holyhead Road turnpike across it around 1828 and possibly by the near-contemporary straightening of the meanders in the nearby River Sherbourne. To the north-east of Allesley village, where the Sherbourne runs east-west, the warmer Coundon fields on the south-facing slope were all about 25% more valuable than the fields that lie opposite them on the north-facing slope in Allesley. The agreement is also worse than average, for an unknown reason, where the two parishes are separated by Brown's Lane.

There is one example of a frustration to the adjustment method in the shape of Home Meadow, which was mainly in Allesley but partly in Coundon, with the same owner and occupier. Each part was given the same rent-charge per acre, although the Coundon part should have been rated more highly in line with the remainder of the parish. This results in an inconsistently low value after adjustment or normalisation. This anomaly was probably due to pressure being applied on the Coundon valuer by Henry Greswolde, one of the largest landowners in the area.





**Fig. 7-10** Adjusted Land Value in Allesley and Coundon Parishes in about 1840



### Comparison between Normalisation and Adjustment

At first sight the map of adjusted value in Allesley and Coundon (Fig. 7-10) seems identical to the map of normalised value (Fig. 7-9). Looking more closely it will be seen that the adjusted map is a little paler and a little smoother. The smoothness lends support to the assumption that the valuer had adjusted the field values according to the current use, and suggests that the adjustments he used were close to those adopted here. It is highly unlikely that the uniform order of Fig. 7-10 could have been created out of the disorder evident in Fig. 7-4 by means of a flawed assumption. There are minor differences in the relative values between some adjoining fields, and the smaller areas of high value are less clearly defined, but there is nothing to choose between the qualitative information provided by the two methods. Changing to a different printer or computer-aided design system would probably seem to make more difference. It is pleasing but surprising that the normalisation process produced such a good correspondence between the values on each side of the boundary between the two parishes, bearing in mind the difference between the ratios for average rent-charge per acre for tithable arable:meadow:pasture in Allesley (100:70:66) and Coundon (100:93:75). Although not applicable to all surveys, these methods offer the possibility of creating detailed maps of intrinsic land value that extend over several parishes. Further investigation may therefore reveal that many tithe surveys with field-by-field apportionments contain more useful information than has previously been suspected.

The procedure could be further refined by allowing for the fact that the average normalised value is not the same for each land use. Section 7.2 showed that for Allesley in 1809 the differences in the parish average value for arable:meadow:pasture (a ratio of 100:128:118) did not reflect changes of value between adjacent fields with different uses but should be seen as reflecting the uneven spatial distribution of each use on land whose underlying value varied around the parish. If this ratio were used for the normalisation, rather than the 100:100:100 employed here, it is probable that an even smoother map would result. This procedure is open to the criticism that it biases the conclusion towards the answer that the researcher would like to get. It also depends on the existence of a reliable near-contemporary survey that valued the same area in the same detail but without needing adjustment. If such a survey does exist, as it does for Allesley in 1809, then there is little justification for performing complicated manipulations of the other survey in order to produce a very similar map.

From the present investigation it may be concluded that the basic normalisation method should be preferred for other studies because it is impartial, easier to implement and does not rely on arbitrary assumptions about any adjustments that the old valuer may have used. Normalisation based on the overall average values for each land use should suffice. Where there is documentary evidence of land values being adjusted according to land use, the adjustment method should produce results which are academically sounder and a little more informative.



### Features of the Normalised and Adjusted Maps

The map of normalised value (Fig. 7-9) and the map of adjusted value (Fig. 7-10) will both be referred to in the following discussion because the greater intensity of the colours makes the former easier to comprehend while the latter is probably more accurate in its fine details. An analysis and interpretation of the changes in land value between 1809 and 1840 will be provided in Chapter 8, but the significant similarities and changes will be noted here.

The inclusion of Coundon parish allows the 1840 maps of land value to set Allesley village within its geographical context, unlike the map of land value in 1809 (Fig. 7-2). Unfortunately the 1840 survey did not provide any information about the value of the tithe-free lands, notably the large area of Allesley Park which forms the southern boundary of the village, and the glebe land to the north and west. By combining the results of the 1809 and 1840 surveys, however, it will later be possible to draw qualitative conclusions about the variation of value in the whole area around Allesley village.

At first sight, the 1840 maps show a pattern of land values that was very similar to the pattern in 1809, although the proportional variation, as represented by the intensity of the colours, was less extreme at the later date. Closer inspection reveals many other qualitative and quantitative differences, which are interpreted in Chapters 8 and 9, so the 1840 survey was not merely a copy of the 1809 survey. As in 1809, the most significant feature of the 1840 maps is the fact that the areas of high and low value crossed roads and streams, usually merging gradually into one another, with few of the discontinuities that would be expected to result from arbitrary or human-related factors. This is especially true of Fig. 7-10, the map of adjusted value, which reduces or eliminates many of the anomalies in Fig. 7-9, the map of normalised value. The smoothness of these maps implies the use of intrinsic land values, as is explained in Appendix B.

The highest values occurred within one mile of Allesley village, with an extension of the very best land along the Birmingham Road to the west of the village. The 1840 maps show a sudden change of land value along the southern edge of this extension; the reason for this discontinuity will be explored in later chapters. Smaller pockets of good land associated with settlements also existed on the Tamworth Road next to Keresley village and on the land between Coundon Green and Brownhill Green. The settlements at Eastern Green, Hawkes End and Coundon Green were on average land, whereas those at Upper Eastern Green, Pickford Green and Brownhill Green were on poor land. There was a distinct line of fairly good land bordering Pickford Brook on the north-west boundary, and on some of the old fields adjoining the recent enclosure at Corley Moor. The areas of lowest value occurred in the northern half of Allesley and in the south-west corner. These areas were usually associated with woodland that existed in 1840. The reasons for the pattern of high and low values will be explored further in Chapter 9.



## 7.4 The Modern Map of Land Classification

It is obviously of interest to compare the maps of land value in 1600, 1809 and 1840 with a modern map of land value. In the absence of a simultaneous valuation equivalent to the earlier surveys, the most relevant source seems to be the agricultural land classification map that was published by M.A.F.F. in 1972.<sup>4</sup> Unfortunately the area of this map excludes about one quarter of the study area on the western side and the adjoining map is not available.<sup>5</sup> Although published in 1972, the map was based on the 1961 Ordnance Survey map. Some of Allesley, much of Coundon and most of northern Stoneleigh was already defaced by housing and industry, so no land classification was shown in these areas. Because of these limitations it was decided to restrict the modern map to Allesley and Coundon. By chance a copy was obtained of a Coventry Council planning document which includes a map of land classification showing more detail than the M.A.F.F. map.<sup>6</sup> The source of this map is not known. Since the Coventry map is consistent with the M.A.F.F. map, it was decided to use the former to create a computer-based map for use in the present research. The standard procedures were used to transcribe this map and superimpose it on the 1937 framework map of Allesley and Coundon, with later built-up areas added to make it correspond to 1961. This transcription was less accurate than for the earlier maps because the outlines of the soil grades did not relate to precise references such as roads or field outlines.

Fig. 7-11 shows the resulting map of land classification in Allesley and Coundon parishes in 1972. It will be seen that the areas of Allesley and Coundon parishes that had not become urbanised are mainly Grade 3 land. There is one large area of Grade 2 land in the middle of Allesley parish, with smaller areas near to Corley Moor, Hawkes End, Brown's Lane and Eastern Green. Intermediate areas of High Grade 3 land lie near Hawkes End, Brown's Lane and along the east-west ridge that runs to the north of Eastern Green Lane.

Acknowledging its limitations, Fig. 7-11 is accurate enough to compare with the maps of land value in 1809 and 1840 (Figs 7-2, 7-9 and 7-10). It will be seen that there is almost no agreement between the early and modern maps and that the 1972 classification is far cruder than the detailed and subtle valuations in 1809 and 1840. The large area of modern Grade 2 land was a mixture of poor, average and fairly good land in 1809 and 1840, while the best land on the earlier maps is all Grade 3 on the modern map. An explanation is needed for the fact that the 1972 land classification map is almost a negative of the earlier maps, despite the fact that all of them are concerned with some form of intrinsic land value. Paradoxically, the small area of Grade 2 land near Corley Moor and the areas of Grade 2 and High Grade 3 land to the north of Brown's Lane all correspond closely to areas of better land in 1809 and 1840. The High Grade 3 land to the north of Eastern Green Lane was about average on the earlier maps.

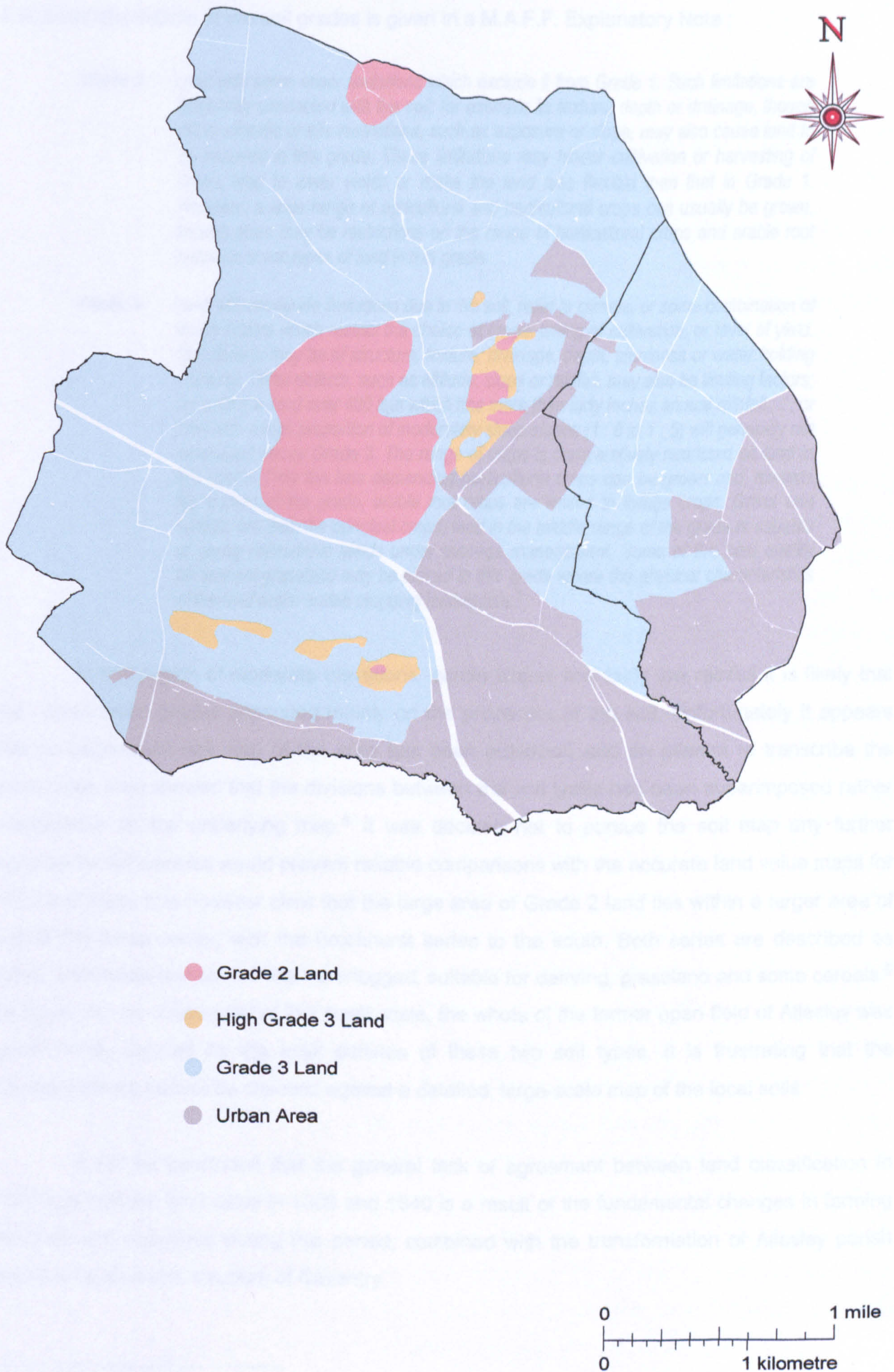
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<sup>4</sup> M.A.F.F. *Agricultural Land Classification of England and Wales, 1 inch : 1 mile map, Sheet 132* (Pinner, 1972).

<sup>5</sup> Information about the availability of maps was supplied by the Geography Department Library at Leicester University.

<sup>6</sup> Coventry City Council, *Green Belt Control Plan* (Coventry, June 1977).





**Fig. 7-11 Agricultural Land Classification in 1972**



A detailed description of the soil grades is given in a M.A.F.F. Explanatory Note :

**Grade 2 :** *Land with some minor limitations which exclude it from Grade 1. Such limitations are frequently connected with the soil; for example its texture, depth or drainage, though minor climatic or site restrictions, such as exposure or slope, may also cause land to be included in this grade. These limitations may hinder cultivation or harvesting of crops, lead to lower yields or make the land less flexible than that in Grade 1. However, a wide range of agricultural and horticultural crops can usually be grown, though there may be restrictions on the range of horticultural crops and arable root crops on some types of land in this grade.*

**Grade 3 :** *Land with moderate limitations due to the soil, relief or climate, or some combination of these factors which restrict the choice of crops, timing of cultivation, or level of yield. Soil defects may be of structure, texture, drainage, depth, stoniness or water holding capacity. Other defects, such as altitude, slope or rainfall, may also be limiting factors; for example land over 400 feet which has more than forty inches annual rainfall . . . or land with a high proportion of moderately steep slopes (1 : 8 to 1 : 5) will generally not be graded above Grade 3. The range of crops is comparatively restricted on land in this grade. Only the less demanding horticultural crops can be grown and, towards the bottom of the grade, arable root crops are limited to forage crops. Grass and cereals are thus the principal crops; land in the middle range of the grade is capable of giving reasonable yields under average management. Some of the best quality permanent grassland may be placed in this grade where the physical characteristics of the land make arable cropping inadvisable.<sup>7</sup>*

In this region of moderate elevations, gentle slopes and fairly low rainfall it is likely that the classification grades depended mainly on the properties of the soil. Unfortunately it appears that no large-scale soil map of the area has been published and an attempt to transcribe the small-scale map showed that the divisions between the soil types had been superimposed rather inaccurately on the underlying map.<sup>8</sup> It was decided not to pursue the soil map any further because its deficiencies would prevent reliable comparisons with the accurate land value maps for 1809 and 1840. It is however clear that the large area of Grade 2 land lies within a larger area of soil of the Salop series, with the Brockhurst series to the south. Both series are described as slowly permeable and seasonally waterlogged, suitable for dairying, grassland and some cereals.<sup>9</sup> As far as can be determined at this small scale, the whole of the former open field of Allesley was quite closely defined by the local outlines of these two soil types. It is frustrating that the correspondence cannot be checked against a detailed, large-scale map of the local soils.

It will be concluded that the general lack of agreement between land classification in 1972 and intrinsic land value in 1809 and 1840 is a result of the fundamental changes in farming methods and objectives during this period, combined with the transformation of Allesley parish from a rural area into a suburb of Coventry.

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7 Ministry of Agriculture Fisheries and Food, *Explanatory Note on the Agricultural Land Classification of England and Wales* (Pinner, 1968).

8 Soil Survey of England and Wales, *Soils of Midland and Western England, Sheet 3* (Southampton, 1983).

9 J. M. Ragg et al., *Soils and their Use in Midland and Western England*, Soil Survey of England and Wales (Harpenden, 1984).



# 8

## Changes in the Study Area since about 1600

This chapter investigates the ways in which some aspects of the study area have changed since about 1600. The sections are arranged by topic and usually limited in their timescale and geographical area because of the rarity of exactly comparable information during this period. The maps derived in Chapters 4 to 7 are used to show the changes.

### 8.1 Field-names

When this thesis was planned it was expected that field-names would play an important role in helping to identify fields that were recorded in early written surveys without maps and also because the names themselves were expected to contain information about the contemporary local landscape. Both of these uses depended on the assumption that a large proportion of the field-names in the study area would remain unchanged or at least recognisable. After completing the research it was possible to test whether this assumption was correct.

#### Changes in Stoneleigh Manor between 1597 and 1843

The 1597 Stoneleigh survey and 1843 tithe survey provided data for assessing the rate of survival of field-names over a long time-span of almost 250 years.<sup>1</sup> Within the northern part of Stoneleigh that lay within the study area there were fifty-eight field-names, of which eleven (19%) survived until the 1843 tithe survey. The survivors included the memorably exotic Slow beards / Sloe berds / Slee birds (from sloe trees), which was still called Slow Beards in 1843.<sup>2</sup> Another three 1597 field-names had probably survived until 1843, but so corrupted that the researcher using only written evidence would probably not recognise them as being the same. These were Innings / Hemmings, Sownes / Sewings and the mundane Four Acres that had metamorphosed into the mysterious Furry Close by 1843. Of the three woods that had retained their outlines between 1597 and 1843, two had essentially the same name and one had changed. The 19% survival rate was uncomfortably low, but an even worse conclusion came from a retrospective comparison, as is normally used in research. The eleven or fourteen names accounted for about 3% of the 405 fields in the 1843 survey, although a little more information can be obtained from associative names that have survived in adjoining fields. This evidence from Stoneleigh suggests that field-names should not be relied upon for identifying land in much earlier documents.

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1 A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practicioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Stoneleigh Parish tithe survey 1843, War. C.R.O., CR569/213.

2 J. Field, *English Field Names - a Dictionary* (Newton Abbot, 1972).



## Changes in Allesley Parish between 1809 and 1840

Allesley parish provided the best opportunity for comparing field-names because the 1809 and 1840 surveys were equally competent and comprehensive and were accompanied by maps. The maps were important because they made it possible to distinguish those fields whose outlines were unchanged from others that had changed and therefore might deserve to be renamed. The databases for 1809 and 1840 were compared to discover how much the field-names of Allesley parish had changed between the two dates. The comparison was restricted to the fields that were in both surveys, excluding those created in the 1824 enclosure and others that had been merged, divided or changed enough to justify their renaming. Unfortunately little relevant information about Allesley's field-names is contained in the Warwickshire 'Place-names' volume.<sup>3</sup>

Of the 696 fields that were compared, 276 (39.7%) had kept the same name and 156 (22.4%) had a trivial modification, for example replacing 'close' by 'field'. Another twenty-nine (4.2%) had their names corrupted to a greater or lesser extent, while 235 (33.8%) had been given completely different names. Adding the first two categories together shows that only 62.1% of field-names survived for the thirty years that separated the two surveys. If typical, this rapid loss of names would have serious implications for any attempt to identify fields in old surveys. The same rate of decay applied between 1626 and 1809 would lead to only about 6% of the 1626 field-names surviving until the next complete survey. However the fluidity of landownership and occupation in Allesley between 1809 and 1840 (see Chapter 5) probably accelerated the rate of change. Less vigorous areas and those with more freehold land, especially when passed down through the same family, would be likely to preserve a higher percentage of field-names.

It is puzzling that 4.2% of field-names appear to have been corrupted between the 1809 and 1840 surveys, for example : Oughton's Wood / Hooton's Wood, Fortune's Field / Fortnight Field, Holy Land / Holly Land, Brandwood's Close / Brandall's Close, Cat Croft / Scratch Croft, Garner's Meadow / Garnets, Bull Field / Bell Field, Big Den / Big Dale, Cockshoot / Cock's Head, Crooks Meadow / Cooke's Meadow, Hoodlands / Wood Lands, Great Dee Field / Day Field, Great Fowlers / Big Foul Wards, Pease Close / Piece Close and Little Lime Close / Bottom Line Field (the last presumably chosen by an accountant). Several of the 1809 names had been the same in 1626, suggesting that the 1840 tithe survey introduced some errors. This conclusion is surprising because the survey was so well done in all other respects and because the surveyor Charles Oakley was a resident of Allesley who must have had access to the 1809 survey and the intervening valuation notebooks that led up to the tithe survey.<sup>4</sup> Perhaps some of his 1840 names were reinstatements of much earlier versions which Oakley knew. It is understandable that the surveyor would get some of his information verbally, but one would expect him to make use of

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3 J. E. B. Gover *et al.*, *The Place-Names of Warwickshire*, English Place-Name Society, 13 (Cambridge, 1936), p.361.

4 Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1; Allesley Tithe Valuation Books c.1830, Cov. A., 295/2/1-9.



previous surveys and other written documents. As was shown in Chapter 5, Allesley had an unusually mobile population, with many of those in the tithe survey being outsiders who may have had no knowledge of the correct form, meaning or pronunciation of the field-names on their land. One may, for example, detect a Scottish accent in the change from Piker's Field to Pycra Field. Whatever the cause, it is clear that such corruption of field-names could prevent their being identified in early surveys, unless there were maps for confirmation.

Apart from the accidental corruptions, it is difficult to see the logic behind changing the name of a field that had been in use for centuries. For a new landowner or farmer to change the names of his fields would be as pointless and confusing as rearranging all the house numbers in a street. With few owner-occupiers, Allesley's farmers must have relied on local agricultural labourers. The 1841 census shows 114 of them (above one quarter of the named occupations), many of them born in Allesley and probably set in their local ways.<sup>5</sup> New field-names would have created many genuine misunderstandings as well as opportunities for being unhelpful to newcomers. The changes between 1809 and 1840 also meant the loss of many of the oldest and most colourful field-names in Allesley parish, for example the replacing of Paywaters, Hillocky Field, Homeward Cockshead, Great Stockall and Preachers by Seed Close, Far Four Acre Close, Grazing Close, Hollyfast Rickyard Field, Cow Pasture and Odd Close respectively.

A rare and curious phenomenon was the migration of field-names, for example Gorsey Piece and Strawberry Field of 1809 becoming Strawberry Field and Wood Field in 1840. These two were separated by a large field, all of them with the same occupier and owner. Why would anyone relinquish one Strawberry Field and replace it with another nearby? A clerical error is the most likely explanation, yet casual mistakes were unlikely because the locally-resident surveyor wrote the 1809 names on his maps, while the 1840 names were referred to by field numbers written on the tithe map. The reason for these mobile names is not clear, but they would obviously lead to confusion among contemporary farm workers and land agents as well as modern researchers. One possible example of malicious humour was provided by the 1809 Hollyfast House and two fields named Cockshead which were all re-named Cuckold's Croft in the 1840 survey.

The two conclusions that will be drawn from this study of Allesley's field-names apply equally to the previous comparison of field-names in Stoneleigh. The first is that field-names may be too ephemeral to use for identifying the same fields in different surveys, unless contemporary maps are available for both. This conclusion is especially applicable to leasehold land with short-term owners who do not live locally. The second conclusion is that even the most conscientiously-done surveys will contain errors in field-names, often in the spelling of individual names and sometimes in the attribution of names to particular fields. The correct fields may be difficult to identify with confidence.

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5 Transcribed from microfilms of the 1841 census on open display at Warwickshire C.R.O..



## 8.2 Landholdings

### The Size of Landowners' Holdings

The maps of landowners' holdings in Figs 5-6 and 5-27 showed that there was some grouping of sizes in both 1809 and c.1840, but it was not possible to compare the two sets because those for 1809 were only for Allesley parish whereas the latter included holdings that extended across into Coundon or Stoneleigh. A direct comparison will here be made between the 1809 survey and the 1840 tithe survey of Allesley alone. Fig. 8-1 divides the holdings into five-acre bands and each graph is presented as the change in the number of holdings of each size between 1809 and 1840 rather than the absolute numbers at each date. Despite its variability, the upper graph of owners' holdings clearly shows that there was a decrease in the larger holdings and an increase in the holdings of less than 75 acres. The large increase below 15 acres was partly accounted for by the smallholdings created by the 1824 enclosure of Allesley.<sup>6</sup> Although it would not be wise to place too much reliance on a single-parish comparison, these findings suggest that landownership in Allesley was becoming more divided in the early 1800s.

### The Size of Occupiers' Holdings

Figs 5-17 showed the distribution of the size of occupiers' holdings in Allesley parish in 1809 and Fig. 5-37 showed the distribution in the study area in about 1840. Although not directly comparable because of the cross-border holdings in 1840, these two graphs were surprisingly different. Comparability is restored by the lower graph in Fig. 8-1, which shows the change in the size of holdings within Allesley parish alone, between 1809 and 1840. Even more than for the owners, this graph shows a large increase in the number of small holdings, especially below 30 acres. Despite the 1824 enclosure, there had not been a large increase in the smallest band (5-10 acres), unlike the graph for landowners. This is because many of the newly-enclosed holdings were very small residential properties, within the 0-5 acre band that has not been shown.

Some of the variability of this graph, for example between 30 acres and 45 acres, may be explained by slight changes to the area of a holding which pushed it into an adjacent band. Other changes seem to be significant, notably the increase of holdings between 85 and 90 acres and around 120 acres, despite the general decrease in sizes between 60 acres and 140 acres. This may be evidence that local occupiers were belatedly seeking to create the farms of 150 acres, or a little less, that Wedge claimed to be typical of Warwickshire in 1794.<sup>7</sup>

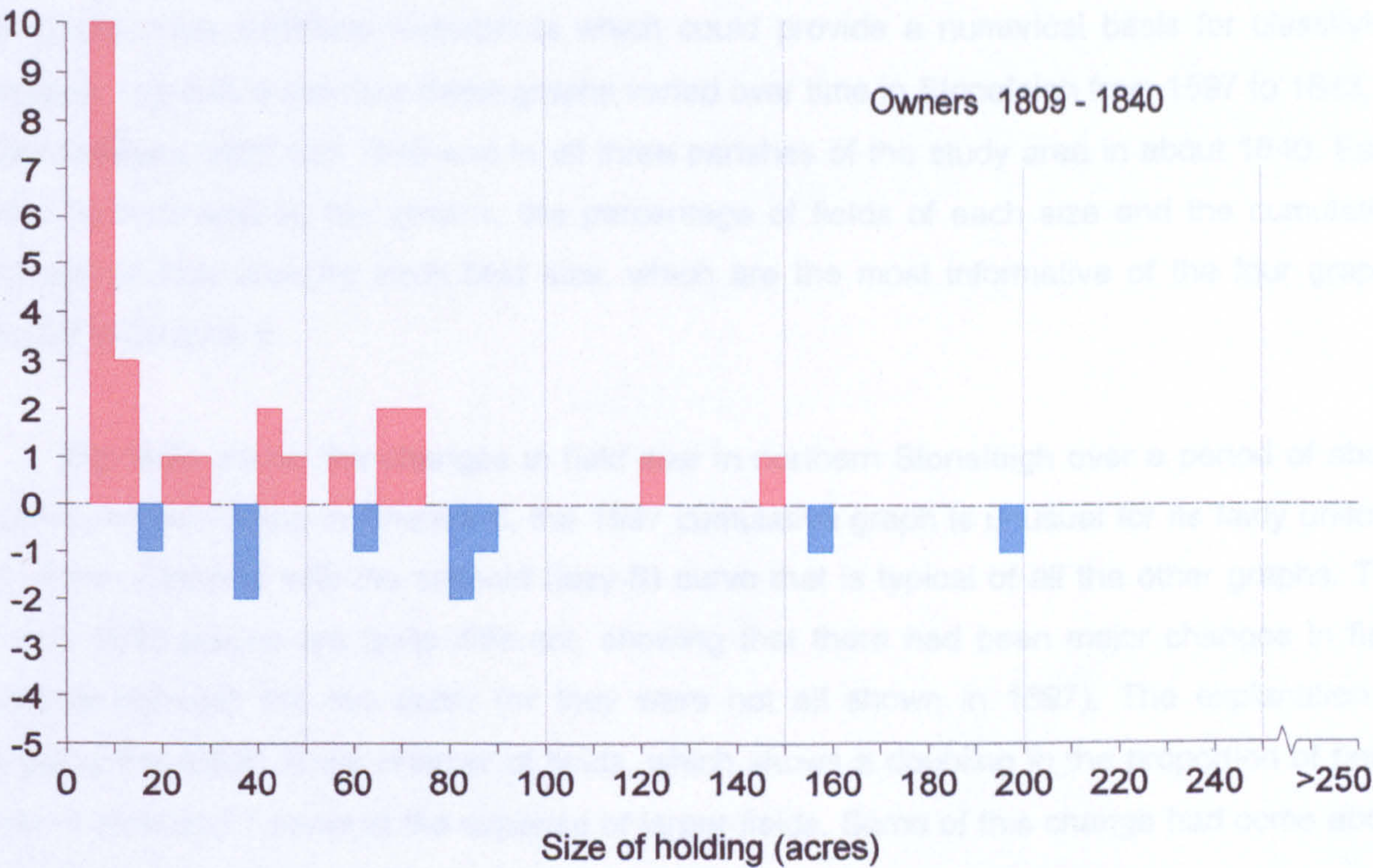
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<sup>6</sup> Allesley Inclosure Award Map 1824, War. C.R.O., CR467.

<sup>7</sup> J. Wedge, 'General view of the agriculture of the County of Warwick 1794', in W. Marshall (ed.), *The Review and Abstract of the County Reports to the Board of Agriculture from the Several Agricultural Departments of England*, 4 (1815; York, 1818), p.294.



Change in the  
number of holdings  
of each size



Change in the  
number of holdings  
of each size



Fig. 8-1 Changes in the Size of Landholdings in Allesley Parish between 1809 and 1840



### 8.3 Field Size

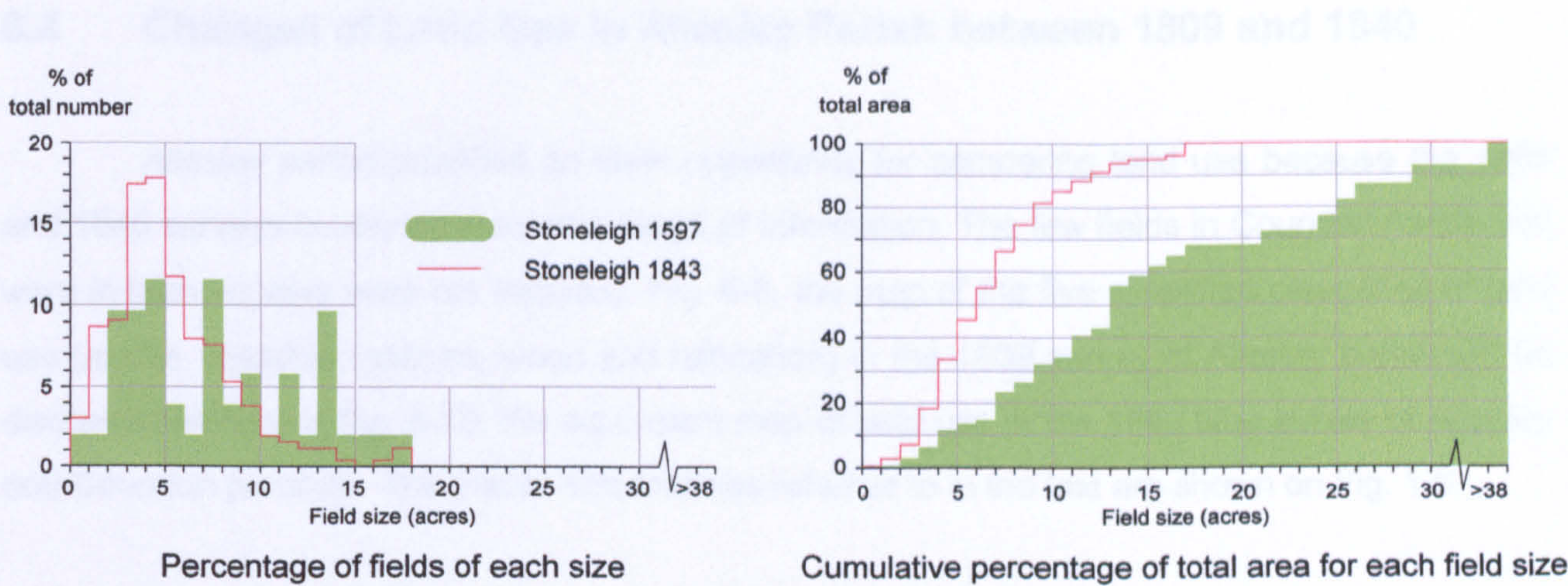
Chapter 6 included graphs of the variation in the number of fields of each size within Allesley, Coundon and Stoneleigh at several dates between 1597 and 1843. It was suggested that these graphs were statistical fingerprints which could provide a numerical basis for classifying landscapes. Fig. 8-2 shows how these graphs varied over time in Stoneleigh from 1597 to 1843, in Allesley between 1626 and 1840 and in all three parishes of the study area in about 1840. Each variation is illustrated by two graphs, the percentage of fields of each size and the cumulative percentage of total area for each field size, which are the most informative of the four graphs presented in Chapter 6.

Fig. 8-2a shows the changes in field size in northern Stoneleigh over a period of about 250 years. As was noted in Chapter 6, the 1597 cumulative graph is unusual for its fairly uniform slope, which contrasts with the sigmoid (lazy-S) curve that is typical of all the other graphs. The 1597 and 1843 graphs are quite different, showing that there had been major changes in field boundaries between the two dates (or they were not all shown in 1597). The explanation is provided by the graph of the number of fields, which shows a doubling in the proportion of fields between 1 acre and 7 acres at the expense of larger fields. Some of this change had come about by dividing the larger fields, but there had been some significant boundary changes.

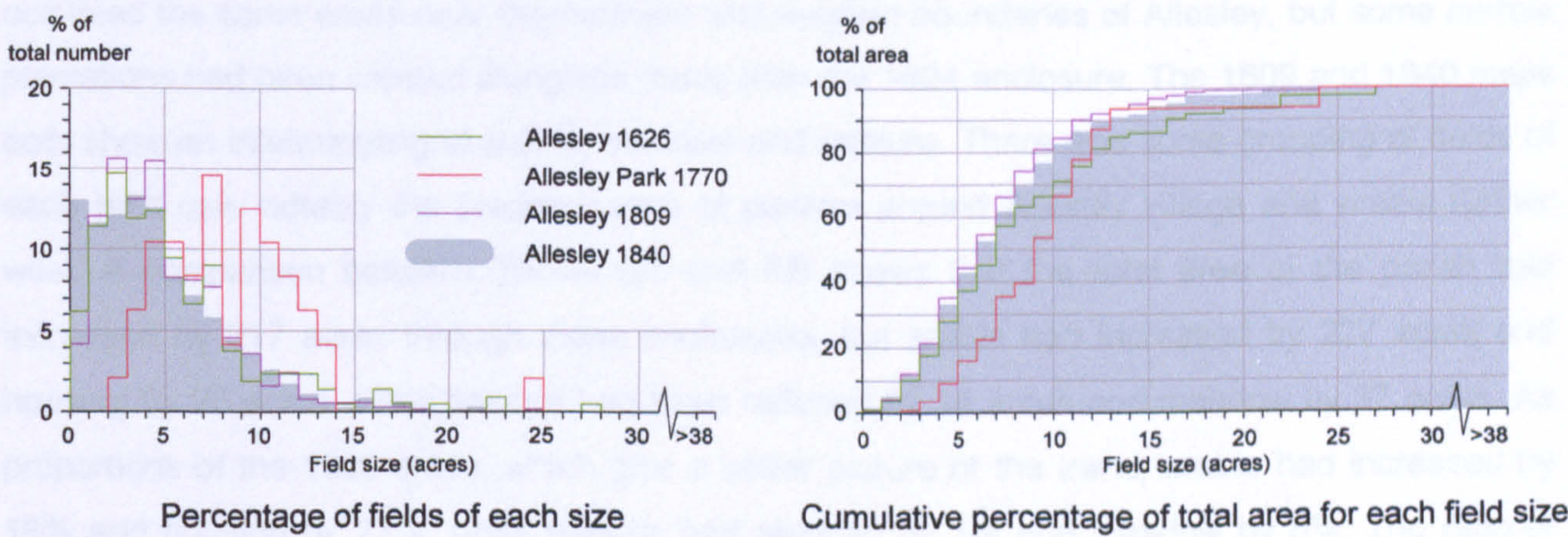
The changes in Allesley between 1626 and 1840 are shown in Fig. 8-2b, together with Allesley Park in 1770. It will be seen that the cumulative graphs for 1626, 1809 and 1840 were very similar for fields of less than 8 acres, but the 1626 graph diverged for larger fields. The smaller area of Allesley Park probably shows how the fields were first set out in about 1660, at the final stage in the planned division of the medieval deer park. This graph differs from the other three, especially for the smaller fields and the graph of the percentage of fields of each size clearly shows that Allesley Park was discordant, with its atypically symmetrical hump between 2 acres and 14 acres. Because the Allesley Park field layout was very different from those for Allesley in 1626, 1809 and 1840s, which were similar to each other, it can be concluded that the 1840 field pattern preserved a semi-random layout which dated from long before 1626.

Fig. 8-2c shows that the c.1840 distribution of field sizes was very similar in Allesley, Coundon and the northern part of Stoneleigh (excluding its recent enclosures). In fact the graph for Allesley in 1809, before its late enclosure, gave a closer agreement with the other two, as was shown in Chapter 6 by the mean areas of 4.95 / 5.10 / 5.31 acres and the standard deviations of 3.25 / 3.11 / 3.20 acres for Allesley 1809 / Coundon 1841 / Stoneleigh 1843. This agreement suggests that a similar semi-random process had been at work creating the fields in all three parishes, despite their different origins and ownership.

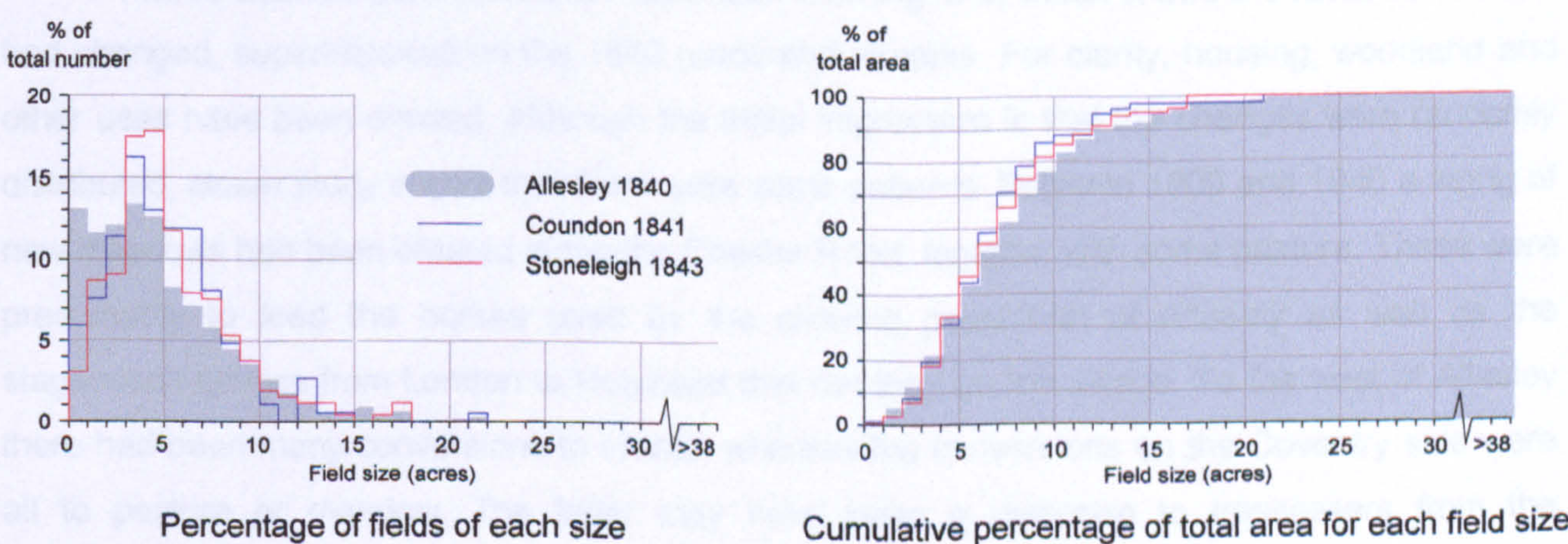




a) Stoneleigh 1597 - 1843



b) Allesley 1626 - 1840



c) Study Area c.1840

Fig. 8-2 Changes in Field Size in the Study Area between about 1600 and 1840



## 8.4 Changes of Land Use in Allesley Parish between 1809 and 1840

Allesley parish provided an ideal opportunity for comparing land use because the 1809 and 1840 surveys contained the same range of information. The few fields in Coundon parish that were in both surveys were not included. Fig. 6-6, the map of the five simplified categories of land use (arable, meadow, pasture, wood and habitation) in the 1809 survey of Allesley parish will be discussed alongside Fig. 6-10, the equivalent map of land use in the 1840 tithe survey of Allesley and Coundon parishes. The places and features referred to in the text are shown on Fig. 1-6.

The 1840 and 1809 maps of land use appear similar, apart from the 1824 enclosure of Corley Moor and Brownhill Green at the north-west and eastern edges of the parish. The areas of settlement had become a little more extensive in 1840, especially to the west of Allesley village and in Upper Eastern Green, but the basic pattern of farmsteads was unchanged. Woodland occupied the same areas near the northern and western boundaries of Allesley, but some narrow plantations had been created alongside roads after the 1824 enclosure. The 1809 and 1840 maps both show an intermingling of arable, meadow and pasture. There was some grouping of fields of each land use, notably the predominance of pasture around Allesley village and arable further west. A comparison between Tables 6/5 and 6/6 shows that the total area of the parish had increased by 217 acres through these enclosures, but arable had increased by 227 acres and housing by 26 acres, while pasture had been reduced by 14 acres and meadow by 37 acres. As proportions of the 1809 areas, which give a better picture of the trend, arable had increased by 16% and housing by 27%, while pasture had reduced by 1% and meadow by 6%. The ratio of arable to pasture had risen from 0.852 in 1809 to 1.002 in 1840, ahead of the average for England and Wales which changed from 0.66 in 1808 to 0.92 in the 1836 tithe files and 1.02 in 1851.<sup>8</sup>

More detailed conclusions can be drawn from Fig. 8-3, which shows the fields whose use had changed, superimposed on the 1840 roads and streams. For clarity, housing, woodland and other uses have been omitted. Although the initial impression is that the changes were randomly distributed, closer study shows that there were some patterns. Between 1809 and 1840 a string of new meadows had been created along the Chester Road, together with some pasture. These were presumably to feed the horses used by the growing population of Allesley as well as the stagecoach service from London to Holyhead that ran through the village. To the west of Allesley there had been many conversions to arable, whereas the conversions on the Coventry side were all to pasture or meadow. The latter may have been a response to trespassers from the industrialising city. Changes of land use in the north-west of Allesley parish were less common and did not favour any of the three land uses. This could be because much of the area was occupied by old farming families with conservative ideas. This map also shows that most of the farmland added by the 1824 enclosure of Corley Moor had been put down to arable.

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8 J. Thirsk (ed.), *The Agrarian History of England and Wales*, 6, 1750-1850 (Cambridge, 1989), p.31.



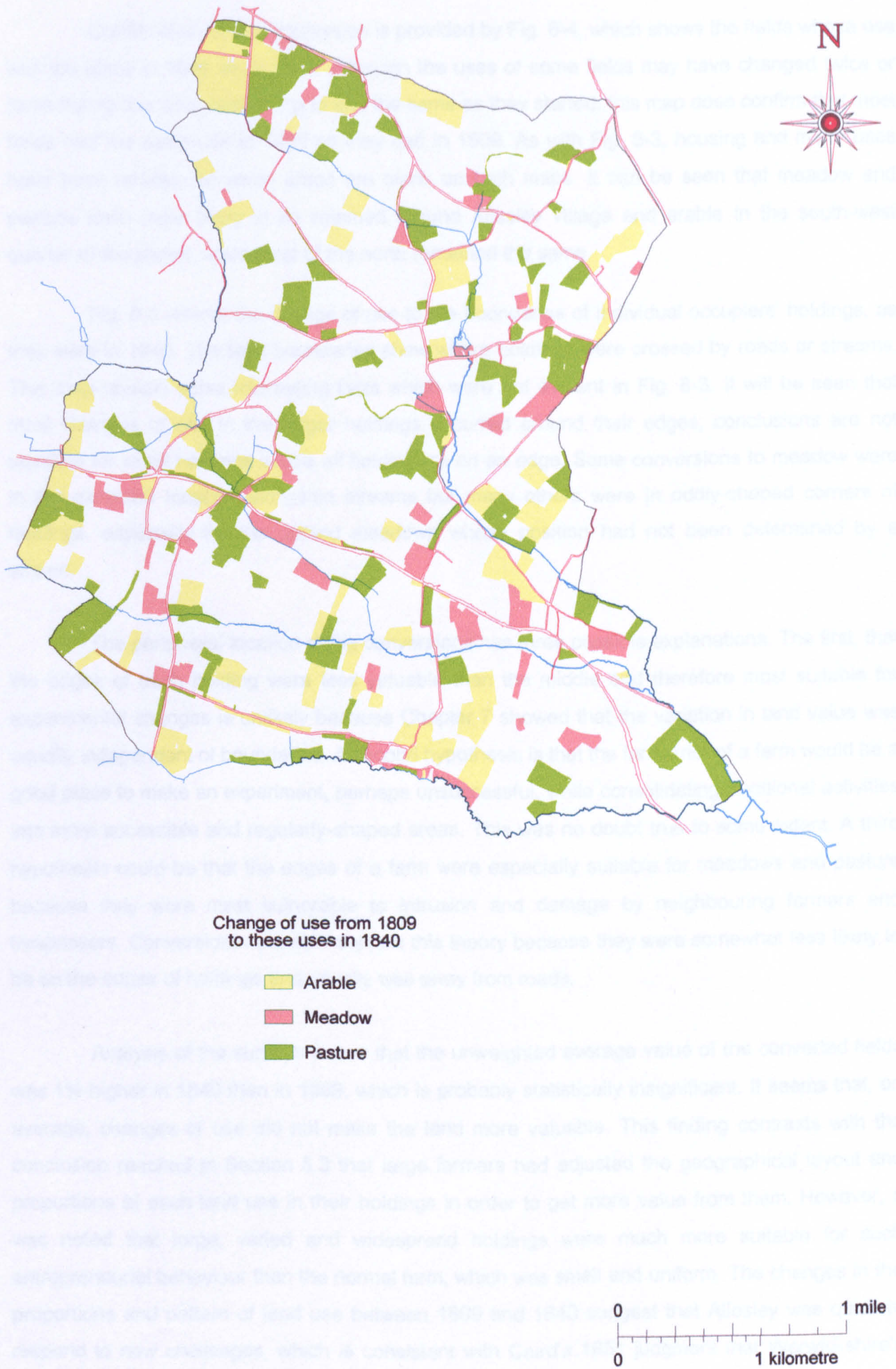


Fig. 8-3 Changes of Land Use in Allesley Parish between 1809 and 1840



Confirmation of this impression is provided by Fig. 8-4, which shows the fields whose use was the same in 1840 as in 1809. Although the uses of some fields may have changed twice or more during this time, happening to end the same as they started, this map does confirm that most fields had the same use in 1840 as they had in 1809. As with Fig. 8-3, housing and minor uses have been omitted, so some areas are blank on both maps. It can be seen that meadow and pasture were more likely to be retained around Allesley village and arable in the south-west quarter of the parish, while most of the north remained the same.

Fig. 8-5 relates the change of use to the boundaries of individual occupiers' holdings, as they were in 1840. The faint boundaries show where holdings were crossed by roads or streams. This map reveals some interesting facts which were not evident in Fig. 8-3. It will be seen that most changes of use in the larger holdings occurred around their edges; conclusions are not possible for small holdings where all fields were on an edge. Some conversions to meadow were in the expected location alongside streams but many others were in oddly-shaped corners of holdings, especially for the upland meadows whose position had not been determined by a stream.

The peripheral location of the conversions has three possible explanations. The first, that the edges of each holding were less valuable than the middle and therefore most suitable for experimental changes is unlikely because Chapter 7 showed that the variation in land value was usually independent of boundaries. A second hypothesis is that the far corner of a farm would be a good place to make an experiment, perhaps unsuccessful, while consolidating traditional activities into more accessible and regularly-shaped areas. This was no doubt true to some extent. A third hypothesis could be that the edges of a farm were especially suitable for meadows and pasture because they were most vulnerable to intrusion and damage by neighbouring farmers and trespassers. Conversions to arable support this theory because they were somewhat less likely to be on the edges of holdings and usually well away from roads.

Analysis of the surveys shows that the unweighted average value of the converted fields was 1% higher in 1840 than in 1809, which is probably statistically insignificant. It seems that, on average, changes of use did not make the land more valuable. This finding contrasts with the conclusion reached in Section 5.3 that large farmers had adjusted the geographical layout and proportions of each land use in their holdings in order to get more value from them. However, it was noted that large, varied and widespread holdings were much more suitable for such entrepreneurial behaviour than the normal farm, which was small and uniform. The changes in the proportions and pattern of land use between 1809 and 1840 suggest that Allesley was quick to respond to new challenges, which is consistent with Caird's 1851 judgment that Warwickshire's agriculture had greatly improved during the previous thirty years.<sup>9</sup>

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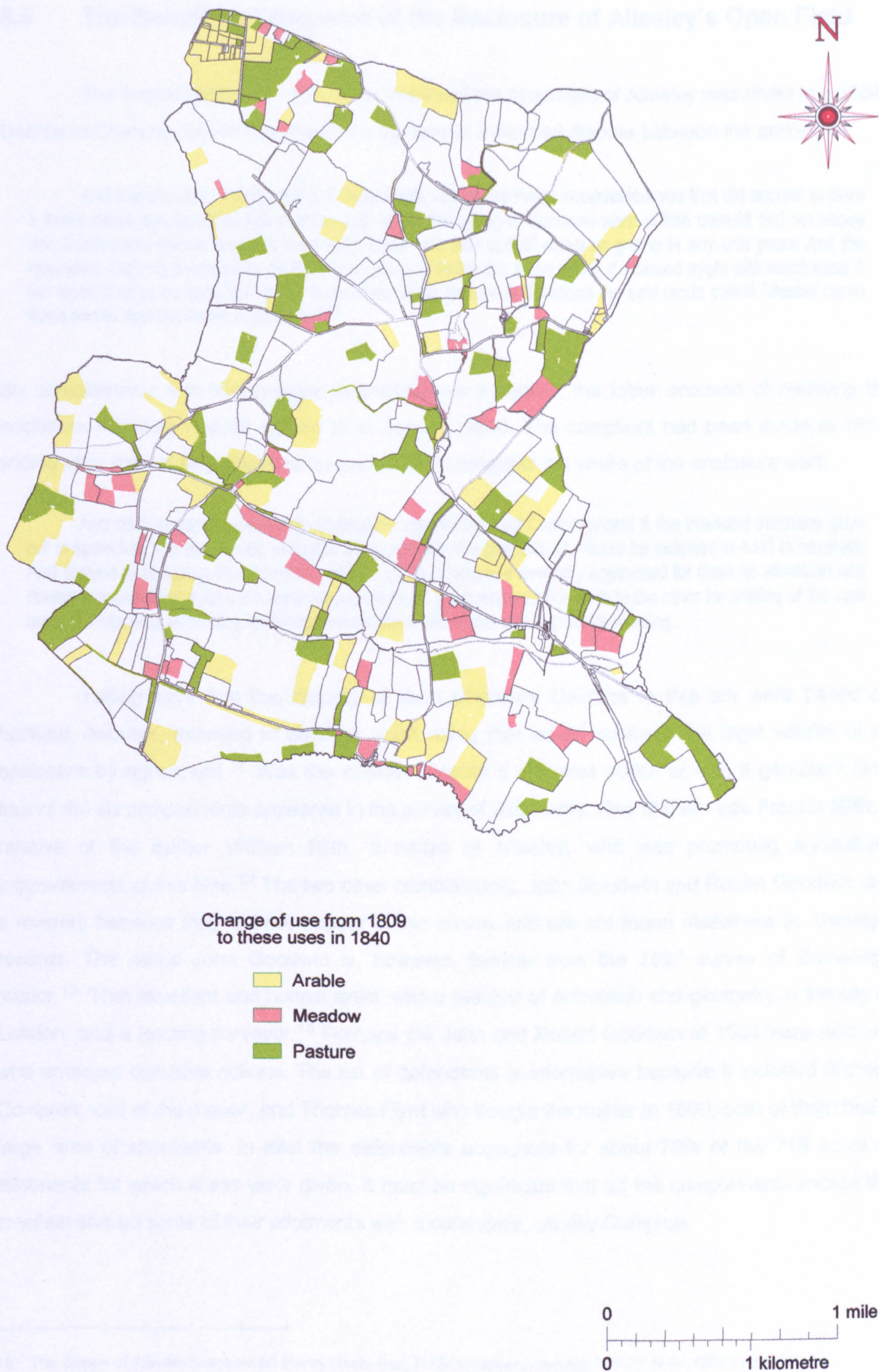
9 J. Caird, *English Agriculture in 1850-51* (1852; London, 1967), p.223.





Fig. 8-4 Land with the Same Use in Allesley Parish in 1809 and 1840





**Fig. 8-5** Changes of Land Use in Allesley Parish between 1809 and 1840  
Related to the 1840 Boundaries between Occupiers



## 8.5 The Benefit or Otherwise of the Enclosure of Allesley's Open Field

The formal justification for the enclosure of the open field of Allesley was given in a 1654 Decree in Chancery which was the final judgment in a claimed dispute between the parties.

And that the said Complaynants & Defendants seeing the many inconveniencies that did accrew to them & their respective tenants And that the said lands soe lying in Common were of little benefit and not above one fourth parte thereof was manured and sowed with any sort of corne or greine in any one yeare And the respective Owners & occupiers disabled to improve or better the same which if inclosed might with much ease & farr lesse charge be done did joyntly & severally agree to take in & inclose the said lands called Allesley corne feilds and to hold the same in severalty.<sup>10</sup>

Six complainants and twenty-eight defendants were named, the latter accused of resisting the enclosure that they had all agreed to in January 1650. The complaint had been made in 1652, shortly after the 1st May deadline for each man to complete his share of the enclosure work.

And taking some causelesse displeasure against the said Complaynants & the intended inclosure gave out in speeches that they never assented or agreed that the [pre]misses should be inclosed or held in severalty And denyed to accept of their severall peices & plotts of land soe severally appoynted for them as aforesaid and denied to make & execute such legall assureances as were required from one to the other for settling of the said lands & inclosures according to the agreement aforesaid drawn upp & putt into writeing.

Yelling says that the majority of such Chancery Decrees in this era were based on fictitious disputes, intended to obtain a court ruling that would reinforce the legal validity of an enclosure by agreement.<sup>11</sup> Was the Allesley dispute a collusive action or was it genuine? Only four of the six complainants appeared in the survey of allotments. One of them was Francis Blith, a relative of the author William Blith, a native of Allesley, who was promoting agricultural improvements at this time.<sup>12</sup> The two other complainants, John Goodwin and Robert Goodwin, are a mystery because they did not appear in the survey and are not found elsewhere in Allesley's records. The name John Goodwin is, however, familiar from the 1597 survey of Stoneleigh manor.<sup>13</sup> 'That excellent and honest artist' was a teacher of arithmetic and geometry in the city of London, and a leading surveyor.<sup>14</sup> Perhaps the John and Robert Goodwin of 1654 were relatives who arranged collusive actions. The list of defendants is informative because it included Richard Compton, lord of the manor, and Thomas Flynt who bought the manor in 1660; both of them had a large area of allotments. In total the defendants accounted for about 70% of the 715 acres of allotments for which areas were given. It must be significant that all the complainants except the smallest shared some of their allotments with a defendant, usually Compton.

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10 The Coppy of Allesley Inclosure for Henry Neale Esq. [1654 Chancery decree], War. C.R.O., CR623 Box 13.

11 J. A. Yelling, *Common Field and Enclosure in England 1450-1850* (London, 1977), p.8.

12 W. Blith, *The English Improver Improved* (1649; London, 1652) quoted by J. Thirsk (ed.), *The Agrarian History of England and Wales, 5-1, 1640-1750 Regional Farming Systems* (Cambridge, 1984), p.182.

13 A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practitioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279.

14 E. G. R. Taylor, *The Mathematical Practitioners of Tudor and Stuart England* (Cambridge, 1954), p.194.



### Did the Enclosure Benefit Allesley as a Whole?

Yelling refers to 'the hazardous venture of attempting to estimate the economic benefit that the actual changes brought about by enclosure produced'.<sup>15</sup> The attempt will now be made for Allesley, using the land values in the 1626 and 1809 surveys.<sup>16</sup> As far as is known, the 1809 valuation was the first to be undertaken since Allesley manor was surveyed in 1626. In Chapter 7 it was demonstrated that both of these surveys quoted intrinsic land values, so a comparison will show how the perceived value of each field changed. It will be assumed that the pattern of values within the manor, including the open field, was the same in 1650, just before the enclosure began, as it had been in 1626. The 1809 valuation covered the whole of Allesley parish, including all the land in the manor that lay within the parish. The 155 years or thereabouts that separated this survey from the final enclosure would have been enough for the true potential of the enclosure of the open field to show itself. Needless to say, any tardiness in adapting to the new situation by those opposed to the enclosure would have been corrected by later generations of farmers. Noting its admirable detail and consistency, the 1809 valuation was without doubt a true representation of intrinsic land values at that date.

The database for the 1626 survey was used to calculate the total area and value of all the land that was listed as 'common field', excluding the pieces whose values could not be extracted from lump sums. All the land that was not common field was then totalled, excluding the pieces whose values could not be determined and one area of herbage which had already been counted as a wood. A simple calculation from these two pairs of figures showed that land within the open field was, on average, only 46% as valuable as land outside the open field in 1626. Although a little of the land outside the open field was actually in Coundon or Stoneleigh parish, this percentage is probably an accurate indication of the low value ascribed to the common field at the time. It will be remembered that the 1626 survey was a private valuation commissioned by the new lord of the manor, so its honesty cannot be questioned, unlike the 1654 decree.

Similar information was obtained from the 1809 survey by means of a longer procedure. The outline of the 1652 open field (Fig. 4-5) was first superimposed on the 1809 CAD map of Allesley (Fig. 4-4) and the numbers of the fields lying within the outline were noted down. The database for the 1809 survey was then amended to include an extra item of data which indicated that these field numbers corresponded to the open field. It was then a simple matter to use the database to calculate the total area and value of the land within the open field, excluding a tiny piece that was zero-rated. The same was done for the remainder of the parish that lay outside the open field. The average values calculated from these two pairs of figures showed that land within the area of the 1652 open field was, in 1809, 43% more valuable than land outside the open field.

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<sup>15</sup> Yelling, *Common Field and Enclosure*, p.210.

<sup>16</sup> Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1; The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14.



From the inside/outside ratios in 1626 and 1809 it is therefore possible to state with confidence that the 1652 enclosure led to a threefold increase in the relative value of the land within the open field of Allesley (3.11 to be precise). That was equivalent to increasing the total value of Allesley parish by 26%. These figures are open to some criticism because the 1626 and 1809 surveys did not cover exactly the same area, the former concerning the manor and the latter the parish, but the manor seems to have comprised a large part of the parish, with a cross-section of its land. The conclusion must therefore be that the 1652 enclosure of the open field of Allesley was highly successful in improving the farming economy of Allesley parish.

Was the Enclosure Fair?

If the 1654 decree records a genuine dispute, it was probably due to the defendants' suspicion that some large landowners had arranged the enclosure to suit themselves rather than the whole community. Thirsk points out that some enclosures at this time, such as that agreed in 1648-50 at Clifton-upon-Dunsmore in eastern Warwickshire, had been agreed by all parties, with a careful concern for the small freeholders and the rights of cottagers.<sup>17</sup> In contrast, Martin has shown that later parliamentary enclosure in Warwickshire led to a decline in small landowners, so they may have been right to be suspicious.<sup>18</sup> The surviving records will now be used to show whether such suspicions were justified for the 1652 enclosure of Allesley's common field.

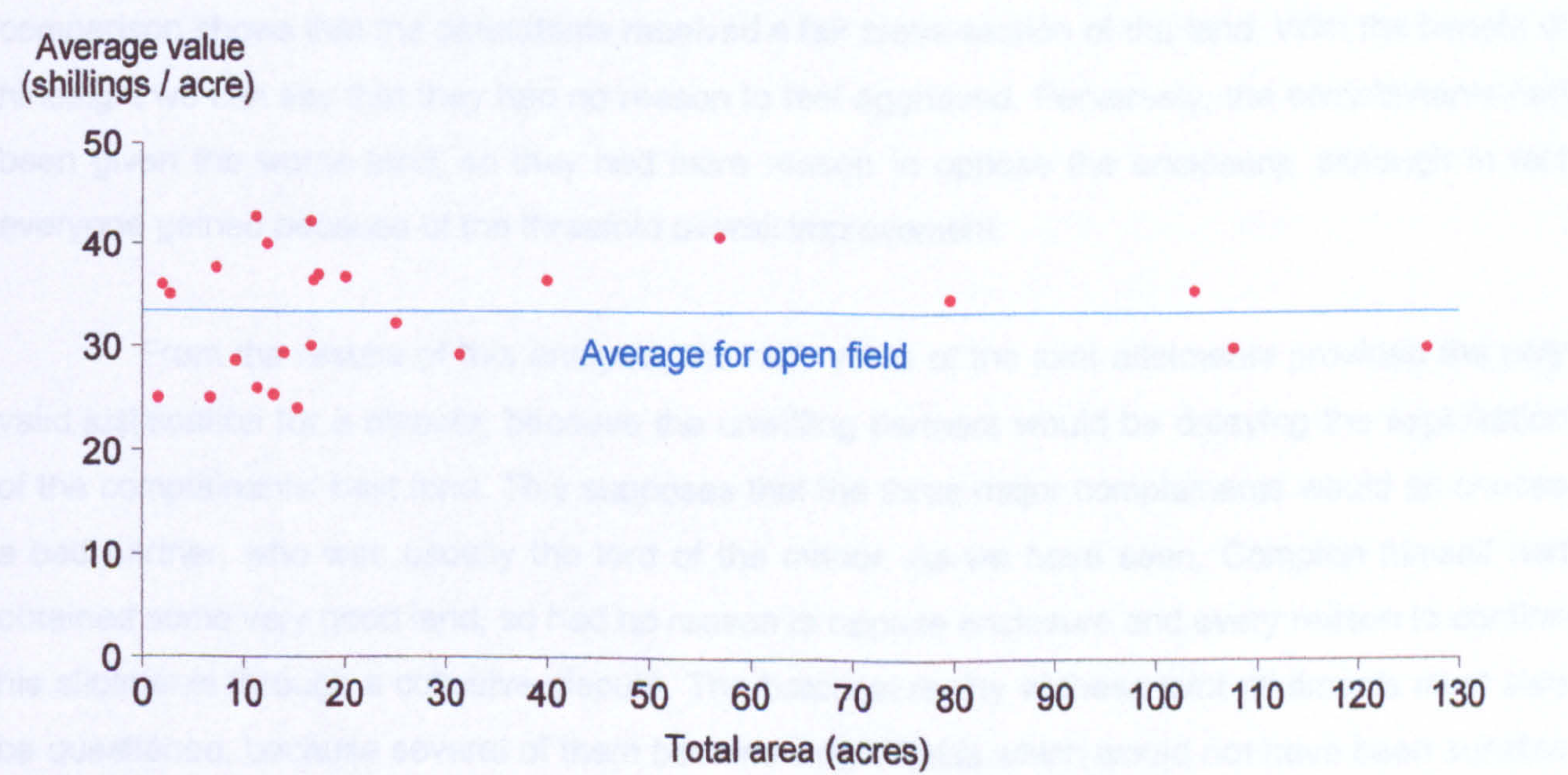


Fig. 8-6 Average Value of the Allotments of Each Party to the Enclosure

17 J. Thirsk (ed.), *The Agrarian History of England and Wales, 5-1, 1640-1750 Regional Farming Systems* (Cambridge, 1984), pp.181-182.  
18 J. M. Martin, 'The small landowner and parliamentary enclosure in Warwickshire', *Econ. Hist. Rev.*, 32 (1979), pp.328-343.



Section 4.7 and Appendix E show where almost all the allotments listed in the 1654 decree were located on the 1809 map. From this it was possible to amend the 1809 database to show the fields that were within the allotments of each man (and two women) named in the 1654 decree. The database was then used to calculate the total area and value (measured in 1809) of the land allocated to these individuals, and hence the average value per acre. Where an allotment belonged to two people, as it did in one sixth of the total area of the open field, it was allocated equally to their individual holdings. Fig. 8-6 shows the average value of each man's holding, plotted against its size. The points on this graph fall symmetrically around the average value for the whole open field, with no bias against those with smaller holdings. If anything, the largest holdings tended to fall a little below the average. The enclosure therefore appears to have been surprisingly fair, the only exception being the high value of the 57 acres allocated to Henry Compton, who just happened to have been lord of the manor.

### **Was the Dispute Collusive?**

A similar procedure was used to amend the 1809 database to show the fields that were given to complainants, defendants and jointly to a complainant and a defendant. Most of the complainants' allotments were concentrated in the western half of the open field, with some of the best land but also some of the worst. The joint holdings were mainly in the east. Calculations of the average values for each category showed that complainants' allotments had 91.7% of the average value of the whole open field, defendants 99.8% and joint holdings 115.5%. This comparison shows that the defendants received a fair cross-section of the land. With the benefit of hindsight we can say that they had no reason to feel aggrieved. Perversely, the complainants had been given the worse land, so they had more reason to oppose the enclosure, although in fact everyone gained because of the threefold overall improvement.

From the results of this analysis, the high value of the joint allotments provided the only valid justification for a dispute, because the unwilling partners would be delaying the exploitation of the complainants' best land. This supposes that the three major complainants would all choose a bad partner, who was usually the lord of the manor. As we have seen, Compton himself had obtained some very good land, so had no reason to oppose enclosure and every reason to confirm his allotments through a collusive dispute. The practical reality of these joint allotments must also be questioned, because several of them became single fields which would not have been suitable for joint use by two powerful owner-occupiers. The final argument in favour of collusion is that all three of the local men who were chosen to 'direct the said inclosure and the divisions exchanges grants & surrenders touching the same' were listed among the defendants, nominally resenting everything that they themselves had done. All this evidence supports the idea that the landowners of Allesley colluded in a fictitious dispute in 1654.



## 8.6 Changes of Land Value in Allesley Parish between 1809 and 1840

Allesley parish provides a good opportunity for studying changes in land value over time because there were thorough field-by-field valuations in 1809 and again in 1840. The few fields from Coundon parish that were in both surveys will not be included. Fig. 7-10, the map of adjusted land value from the c.1840 tithe survey of Allesley and Coundon parishes will be discussed alongside Fig. 7-2, the equivalent map from the 1809 survey. Both these maps show intrinsic land values, as they were perceived at the time, so they are directly comparable. Adjusted values have been used in preference to the normalised values in the 1840 survey, for the reasons given in Section 7.3. The places and features that are referred to in the text are shown on Fig. 1-6.

The analysis of changes in land value between 1809 and 1840 was rather complicated, despite the thoroughness of the data. It will be remembered that Fig. 7-2 is a detailed and definitive map of the variation in intrinsic land value, based on the integer values per acre quoted in the 1809 survey. These values are represented by a colour scale which varies between dark pink (highest), through white (average) to dark blue (lowest). The treatment of the 1840 tithe survey was more complicated because it had to relate to values after they had been adjusted for land use rather than the actual values given in the survey. The adjustment procedure described in Section 7.3 involved modifying the colour scale between pink and blue so that white in Fig. 7-10 represented the average of the 1840 Allesley values after adjustment and each gradation of colour corresponded to the same percentage of the average as one shilling did in 1809.

The percentage-based intrinsic values for the same fields in 1809 and 1840 were used to calculate the change in percentage value between these dates by subtracting the first percentage from the second. This required the 1809 and 1840 databases to be merged into another that was larger and more unwieldy. Difficulties arose because there was only partial correspondence between the field boundaries in the two surveys. Some fields had been divided, others had been merged and a few boundaries had changed completely. The areas of intervening inclosure at Corley Moor and Brownhill Green were, of course, excluded from the combined database. Merging the databases involved much moving of blocks of data, in order to position the information for the same fields and parts of fields in the correct records. When this laborious process was complete, the change of percentage-based values between 1809 and 1840 were calculated automatically using the database software.

It must be emphasised that this method shows the difference between the percentages of the parish average at 1809 and 1840, not the absolute change of value between these dates. Average rents in Warwickshire rose until 1813, stabilised and then fell during the 1820s, with prolonged difficulties until the 1830s.<sup>19</sup> It is therefore likely that rents in the study area fell between

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19 J. Thirsk (ed.), *Agrarian History*, 6, p.622; J. R. Walton, 'Agriculture and rural society 1730-1914', in R. A. Dodgshon and R. A. Butlin (eds), *An Historical Geography of England and Wales* (1978; London, 1990), pp.323-350.



1809 and 1840. Exclusion of the valuable Allesley Park and church land from the 1840 valuation would certainly decrease the average. The new enclosures at Corley Moor would not make much difference because they were about average. The net effect of these differences was to lower the average value of the land surveyed in 1840, which made the surveyed area appear more valuable. Because there is no evidence for the actual price of local farmland, a comparison of percentages, as used here, offers a more reliable picture of how land value changed.

The percentage-based changes of intrinsic land value in Allesley parish between 1809 and 1840 are shown in Fig. 8-7, with the 1840 roads superimposed. Although this map is a little more mottled than Figs 7-2 and 7-10, it provides a surprisingly consistent picture. The most prominent feature is the area of sharply-reduced land value around Allesley village and Allesley Park and on the south side of the Chester Road. This was the most valuable part of the parish in 1809, so the change may in part be due to a general contraction in the range of values used in the 1840 valuation. If this were the entire explanation, then the poorest land in 1809 should show a large increase in its value, but the north-east and south-west corners of the parish are actually about the same. Clearly there must be more specific explanations for the pattern of changes.

One obvious explanation for the decline around the village and beside the Chester Road would be damage caused by trespassers who lived in the expanding village and in Coventry. By 1840 the latter had a choice of pleasant walks into the country along the Allesley Old Road or the new Holyhead Road. This explanation is contradicted by the fields on the north side of the Chester Road which showed a large increase, and the slight positive change around the newly-built Holyhead Road in the south-east corner. It may, however, explain the uniform decline to the north of the village which, as Fig. 1-1 shows, is a very attractive landscape that trespassers would like. When combined with the change of land use described in Section 8.4, it seems safe to conclude that trespass was a major factor in the decline of the more accessible areas of Allesley. In contrast, some minor increases of land value can be seen near the expanding but less accessible rural settlements, for example around Hawkes End and to the north of Eastern Green Lane.

The greatest increases in land value occurred in the remoter northern and western parts of the parish that were served by narrow country lanes, unlike the broad, fast route through the village. This may show that poor roads deterred trespassers without handicapping contemporary farming, especially with the arable crops that were favoured in those parts. The increase could also be due to improvements to those lanes that accompanied their narrowing by enclosure in 1824. Although there seems to be some correlation between watercourses and changes in value, this is negative in the southern half of the parish and positive in the northern half, so the correlation is probably coincidental. It is more significant that the improved regions were on the higher land, typically above 400 feet, which may reflect changes in climate or farming methods.



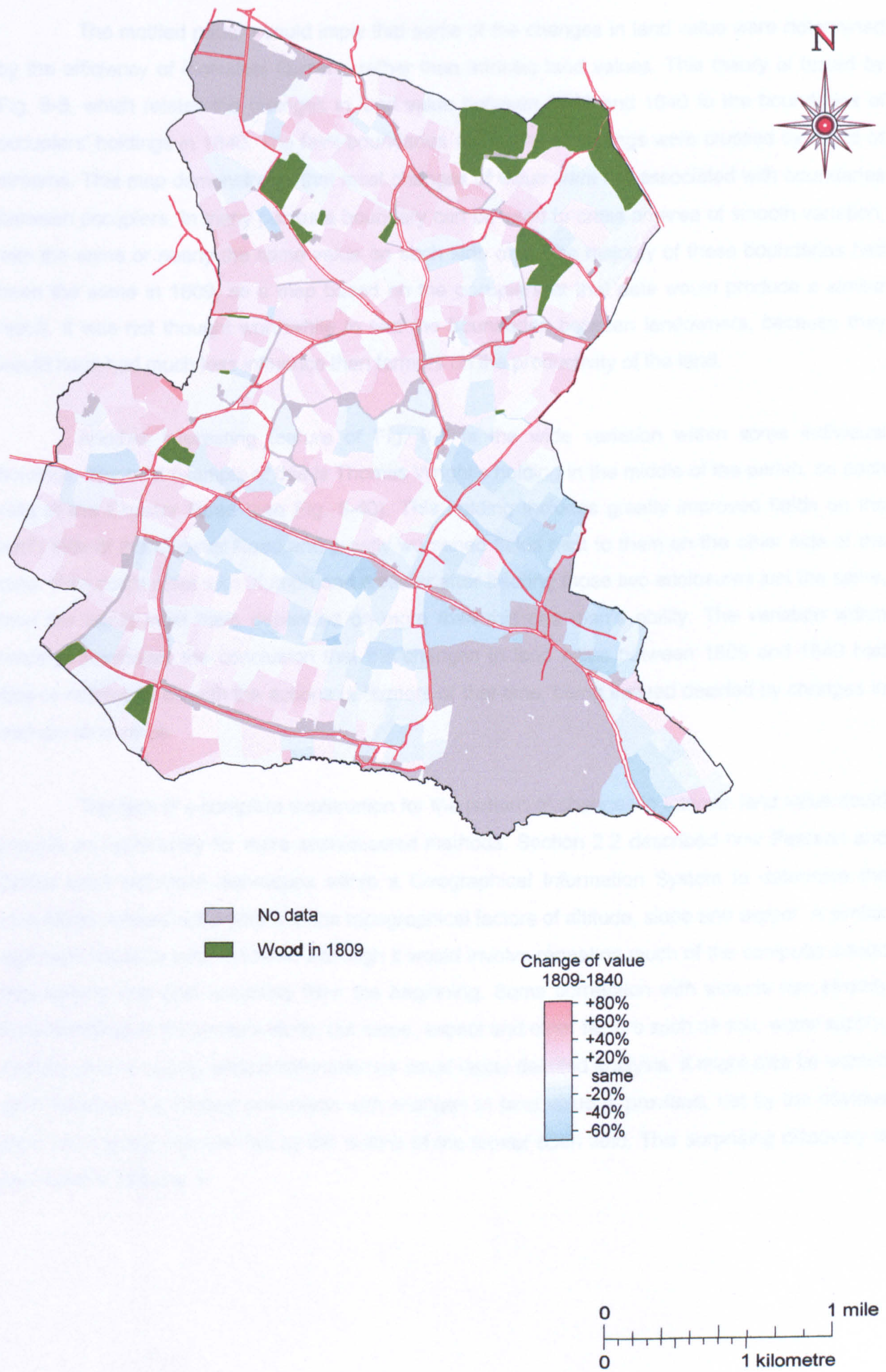


Fig. 8-7 Changes of Land Value in Allesley Parish between 1809 and 1840

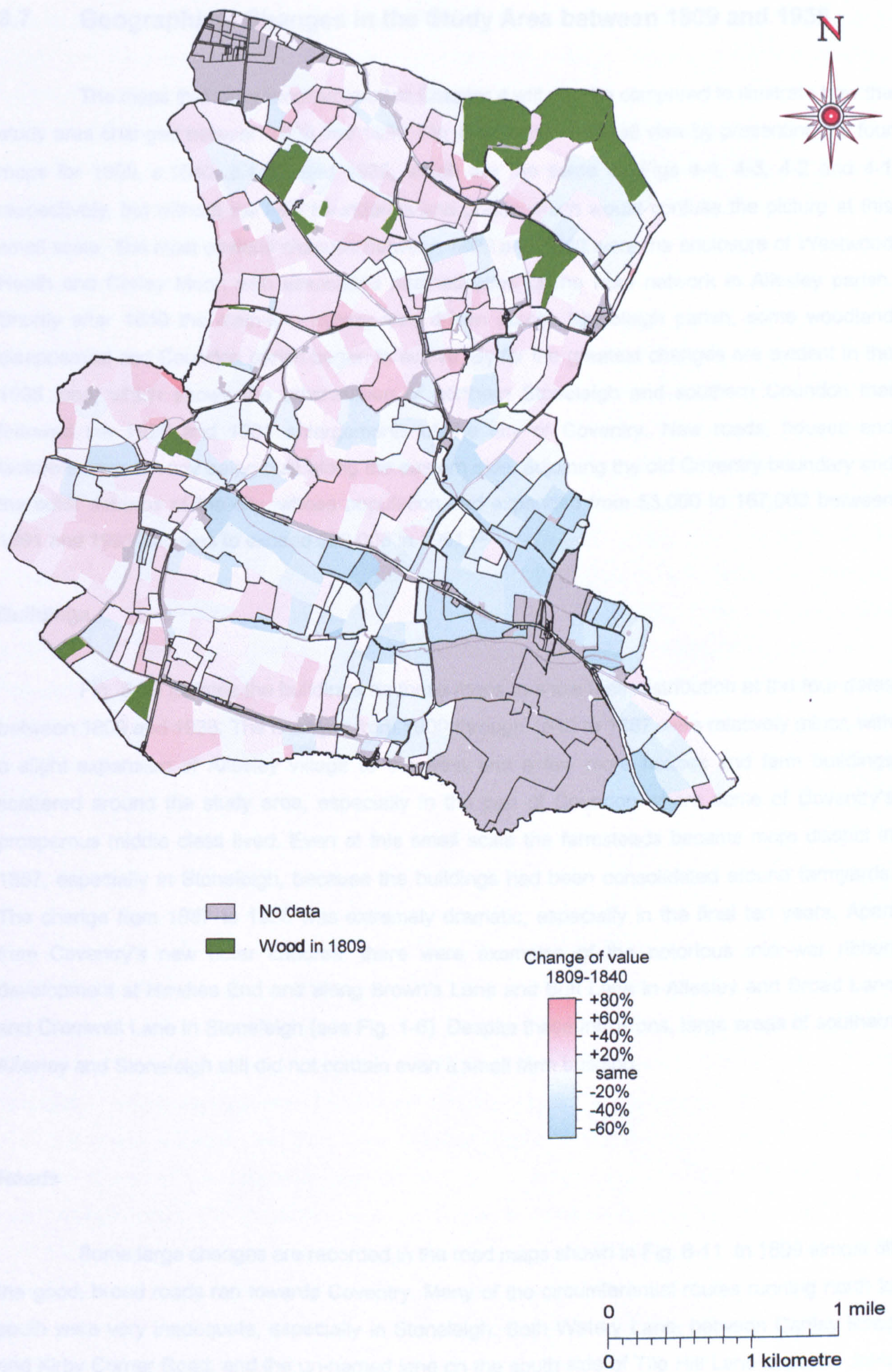


The mottled pattern could imply that some of the changes in land value were determined by the efficiency of individual farmers, rather than intrinsic land values. This theory is tested by Fig. 8-8, which relates the changes in land value between 1809 and 1840 to the boundaries of occupiers' holdings in 1840. The faint boundaries show where holdings were crossed by roads or streams. This map demonstrates that most changes of value were not associated with boundaries between occupiers. In many places a boundary can be seen to cross an area of smooth variation, with the same or nearly the same value on each side of it. The majority of these boundaries had been the same in 1809, so a map based on the occupiers at that date would produce a similar result. It was not thought worthwhile to test the boundaries between landowners, because they would have had much less influence than farmers on the productivity of the land.

Another interesting feature of Fig. 8-8 is the wide variation within some individual holdings. The best example of this is Thomas Wright's holding in the middle of the parish, on each side of the Chester Road (see Fig. 5-40). This holding includes greatly improved fields on the north side of the Chester Road and greatly worsened fields next to them on the other side of the road. If he could meet with triumph and disaster after treating those two enclosures just the same, then the result must have depended on more than this one man's ability. The variation within holdings reinforces the conclusion that the changes in land value between 1809 and 1840 had little or nothing to do with the actions of farmers of that time, being instead decided by changes in intrinsic land value.

The lack of a complete explanation for the pattern of changes in intrinsic land value could provide an opportunity for more sophisticated methods. Section 2.2 described how Pearson and Collier used statistical techniques within a Geographical Information System to determine the correlation between tithe data and the topographical factors of altitude, slope and aspect. A similar approach could be adopted here, although it would involve repeating much of the computer-based map-making and data assembly from the beginning. Some correlation with altitude has already been identified in the present study, but slope, aspect and other factors such as soil, water supply, markets, labour supply and communications could repay detailed analysis. It might also be wasted effort because the closest correlation with changes in land value is provided, not by the obvious physical or human factors, but by the outline of the former open field. This surprising discovery is discussed in Chapter 9.





**Fig. 8-8** Changes of Land Value in Allesley Parish between 1809 and 1840  
Related to the 1840 Boundaries between Occupiers



## 8.7 Geographical Changes in the Study Area between 1809 and 1938

The maps that were reconstructed in Chapter 4 will now be compared to illustrate how the study area changed between 1809 and 1938. Fig. 8-9 gives an overall view by presenting the four maps for 1809, c.1840, c.1887 and 1938, which are the same as Figs 4-4, 4-3, 4-2 and 4-1 respectively, but without the field boundaries and ponds which would confuse the picture at this small scale. The most obvious changes between 1809 and 1840 were the enclosure of Westwood Heath and Corley Moor, with associated rationalisation of the road network in Allesley parish. Shortly after 1840 the main-line railway was driven across Stoneleigh parish, some woodland disappeared and Coundon parish began to evolve. By far the greatest changes are evident in the 1938 map, which shows the urbanisation of northern Stoneleigh and southern Coundon that followed the 1928 and 1931 enlargements of the city of Coventry. New roads, houses and factories were already being built along the eastern side, adjoining the old Coventry boundary and the outer suburbs of the city, whose population had expanded from 53,000 to 167,000 between 1891 and 1931 and was to exceed 300,000 in 1961.<sup>20</sup>

### Buildings

Fig. 8-10 isolates the buildings on these maps to show their distribution at the four dates between 1809 and 1938. The changes from 1809 through 1840 to 1887 were relatively minor, with a slight expansion of Allesley village to the west and a few more houses and farm buildings scattered around the study area, especially in the part of Coundon where some of Coventry's prosperous middle class lived. Even at this small scale the farmsteads became more distinct in 1887, especially in Stoneleigh, because the buildings had been consolidated around farmyards. The change from 1887 to 1938 was extremely dramatic, especially in the final ten years. Apart from Coventry's new outer suburbs, there were examples of the notorious inter-war ribbon development at Hawkes End and along Brown's Lane and Butt Lane in Allesley and Broad Lane and Cromwell Lane in Stoneleigh (see Fig. 1-6). Despite these intrusions, large areas of southern Allesley and Stoneleigh still did not contain even a small farm building.

### Roads

Some large changes are recorded in the road maps shown in Fig. 8-11. In 1809 almost all the good, broad roads ran towards Coventry. Many of the circumferential routes running north to south were very inadequate, especially in Stoneleigh. Both Watery Lane, between Canley Road and Kirby Corner Road, and the un-named lane on the south side of Tile Hill Lane opposite Job's Lane were partly confined within the banks of narrow streams. This is evidence that the

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20 R. B. Pugh (ed.), *V.C.H. Warwickshire*, 8 (London, 1969), pp.3-5.



northernmost part of Stoneleigh parish beyond Tile Hill Lane was more integrated with Allesley parish and Coventry than it was with the remainder of Stoneleigh. Between 1809 and 1840 the tangle of small lanes in Stoneleigh and in northern and western Allesley was simplified by the late enclosures, leaving the network that remains today.<sup>21</sup> The broad old lanes radiating from Coventry were narrowed at the same time and the new Holyhead Road turnpike running through Coventry and Allesley village was built. The later maps show that there was very little difference between the road networks in 1840 and 1887, although the arrival of the railway reinforced the separateness of northern Stoneleigh.

The remoter rural lanes remained unchanged in 1938, but the area around Coventry was having its old roads widened, with new suburban roads filling the land between them. The most important new road was the A45 dual carriageway, known as 'the bypass', which was designed as a fast route for long-distance traffic and to serve the large 'shadow factories' that were being built around Coventry for the pre-war rearmament programme, but immediately became a focus for suburban development and congestion. It will be noted that the railway line and the A45 had created separate suburbs which, even today, have contrasting social and economic identities. Despite the phenomenal economic and physical growth of Coventry, there had been little improvement to the roads leading to the city centre, apart from the Holyhead Road. This may be because Coventry retained its small and congested medieval heart until 1940, with development banished to the edges of the city. Even in the 1960s Coventry was notable for having rush-hours in reverse, with people heading out of the city centre to work.

## Footpaths

Fig. 8-12 shows how the network of footpaths in the study area changed between 1809 and 1938. For clarity, roads have been excluded from these maps, although many of the paths ran between them. At all dates there was a clear contrast between the dense tangle of paths in Allesley and the sparse, more regular layout in Stoneleigh. Although many of the paths remained throughout this period, there were some significant changes and much fragmentation. In 1809 and 1840 there was a pattern radiating from Allesley village, including three of the four paths in Coundon (the other ran alongside a narrow lane, presumably impassable at times). This pattern was disintegrating by 1887, probably because the area had changed from a local rural economy to one that looked to Coventry's new industries for employment.<sup>22</sup> By 1887 the already sparse network of long routes in Stoneleigh was focused on one path on the north side of the railway, which led from Tile Hill to Coventry. By 1938 the network was diminished and fragmented, even in those areas that were not directly affected by Coventry's suburbs.

<sup>21</sup> Stoneleigh Inclosure Map 1816, War. C.R.O., CR523/2; Allesley Inclosure Map 1824, War. C.R.O., CR467.

<sup>22</sup> The 1891 censuses of Allesley, Coundon and Stoneleigh show people employed in the manufacture of watches, silk and bicycles. Several of the company owners also lived there, especially in Coundon.





Fig. 8-9 Changes in the Study Area between 1809 and 1938





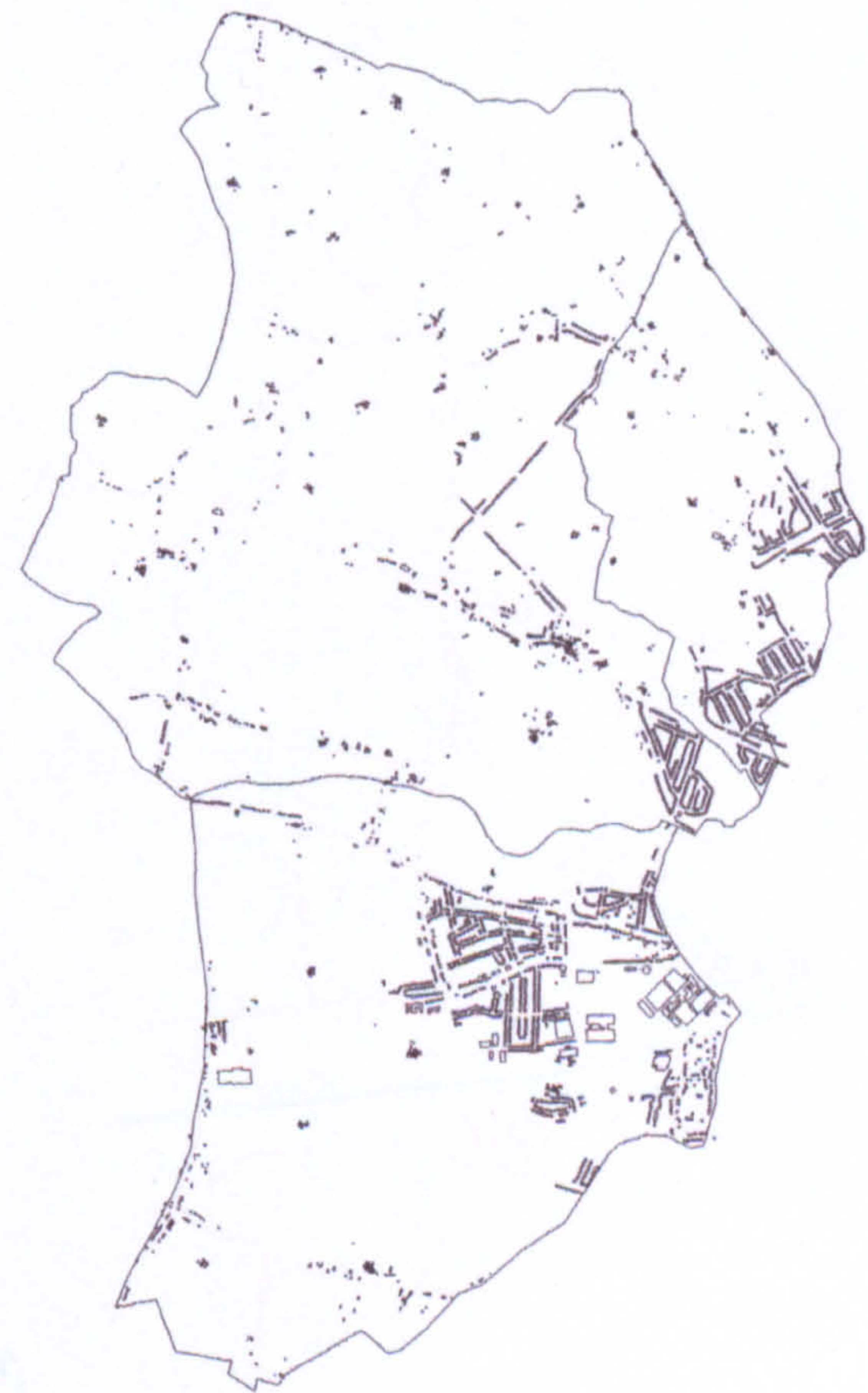
1809



c. 1840



c.1887



1938

**Fig. 8-10 Buildings in the Study Area between 1809 and 1938**





1809



c. 1840



c.1887

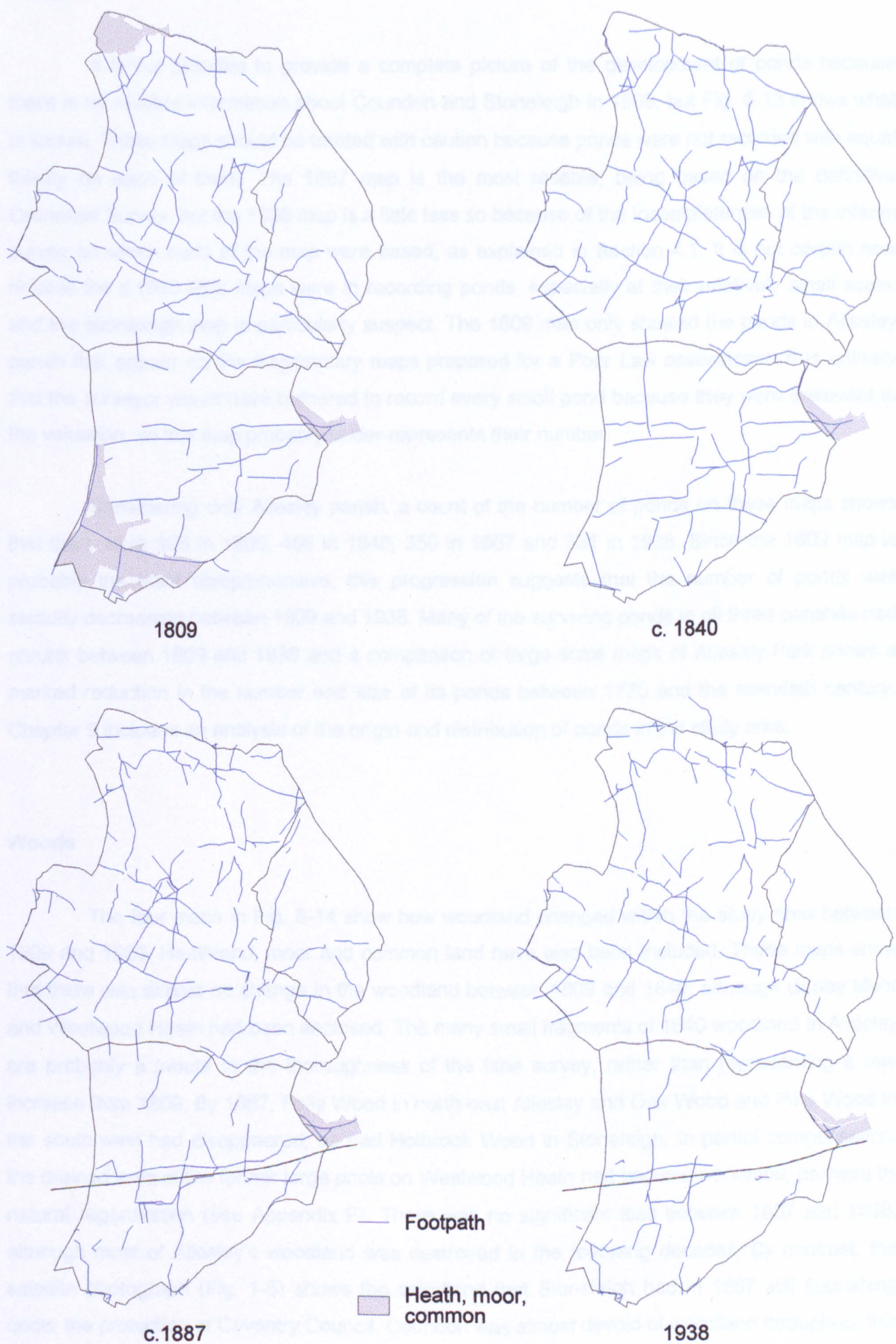


1938

Heath, moor, common

Fig. 8-11 Roads in the Study Area between 1809 and 1938





**Fig. 8-12 Footpaths in the Study Area between 1809 and 1938**



## Ponds

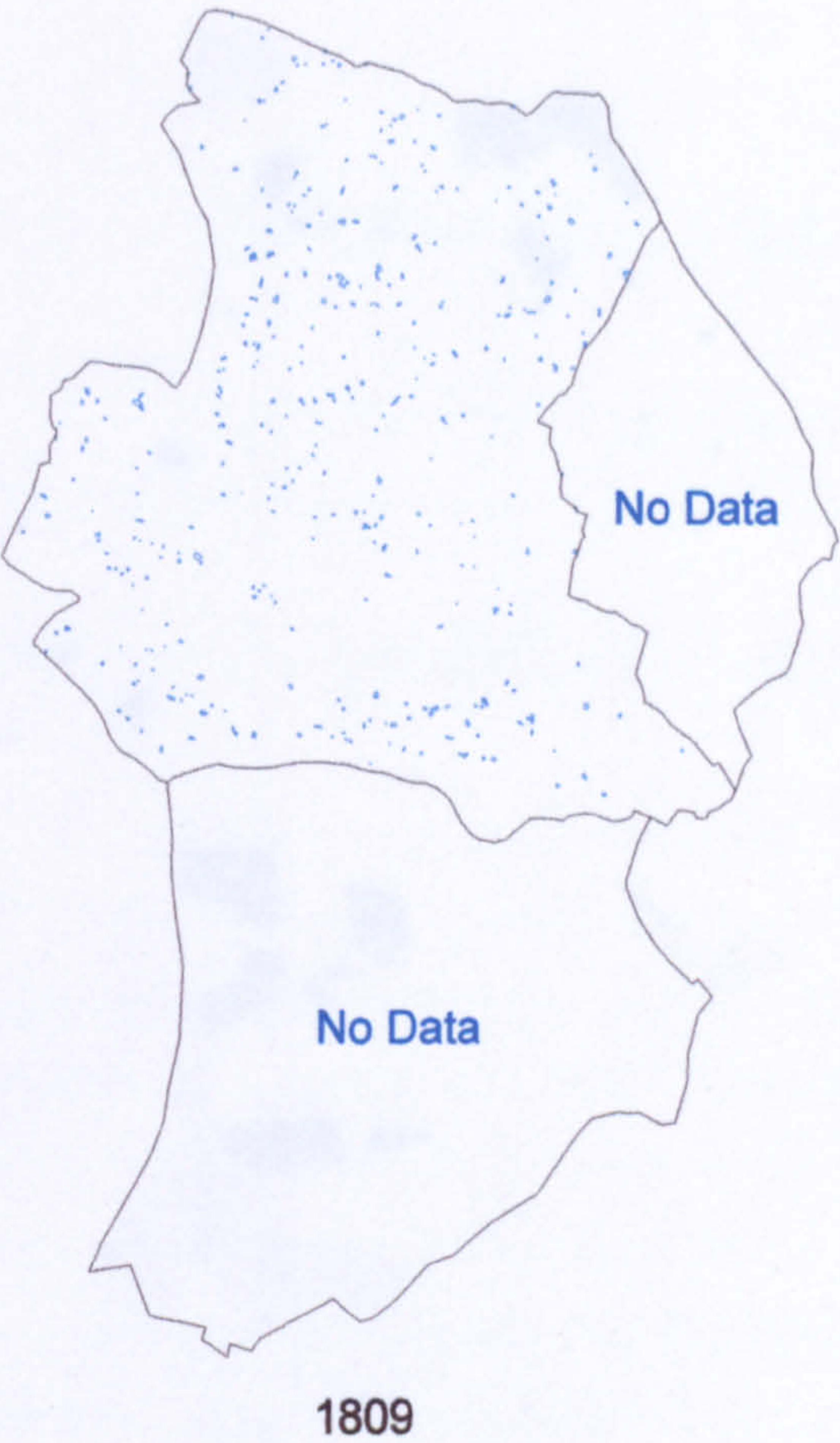
It is not possible to provide a complete picture of the development of ponds because there is no reliable information about Coundon and Stoneleigh in 1809, but Fig. 8-13 shows what is known. These maps should be treated with caution because ponds were not recorded with equal fidelity on each of them. The 1887 map is the most reliable, being based on the definitive Ordnance Survey, but the 1938 map is a little less so because of the incompleteness of the interim survey on which parts of the map were based, as explained in Section 4.1. It is not certain how reliable the c.1840 tithe maps were in recording ponds, especially at their relatively small scale, and the Stoneleigh map is particularly suspect. The 1809 map only showed the ponds in Allesley parish that appear on the fragmentary maps prepared for a Poor Law assessment. It is unlikely that the surveyor would have bothered to record every small pond because they were irrelevant to the valuation, so this map probably under-represents their number.

Considering only Allesley parish, a count of the number of ponds on these maps shows that there were 396 in 1809, 486 in 1840, 350 in 1887 and 331 in 1938. Since the 1809 map is probably the least comprehensive, this progression suggests that the number of ponds was steadily decreasing between 1809 and 1938. Many of the surviving ponds in all three parishes had shrunk between 1809 and 1938 and a comparison of large-scale maps of Allesley Park shows a marked reduction in the number and size of its ponds between 1770 and the twentieth century. Chapter 9 includes an analysis of the origin and distribution of ponds in the study area.

## Woods

The four maps in Fig. 8-14 show how woodland changed within the study area between 1809 and 1938. Heathland, moor and common land have also been included. These maps show that there was almost no change in the woodland between 1809 and 1840, although Corley Moor and Westwood Heath had been enclosed. The many small fragments of 1840 woodland in Allesley are probably a tribute to the thoroughness of the tithe survey, rather than representing a real increase from 1809. By 1887, Folly Wood in north-east Allesley and Oak Wood and Pike Wood in the south-west had disappeared, as had Holbrook Wood in Stoneleigh. In partial compensation, the drained area of the former large pools on Westwood Heath had become woodland, perhaps by natural regeneration (see Appendix F). There was no significant loss between 1887 and 1938, although most of Allesley's woodland was destroyed in the following decades. By contrast, the satellite photograph (Fig. 1-5) shows the woodland that Stoneleigh had in 1887 still flourishing under the protection of Coventry Council. Coundon was almost devoid of woodland throughout this period, although the modern visitor will find a rural landscape with many trees.





**Fig. 8-13 Ponds in the Study Area between 1809 and 1938**



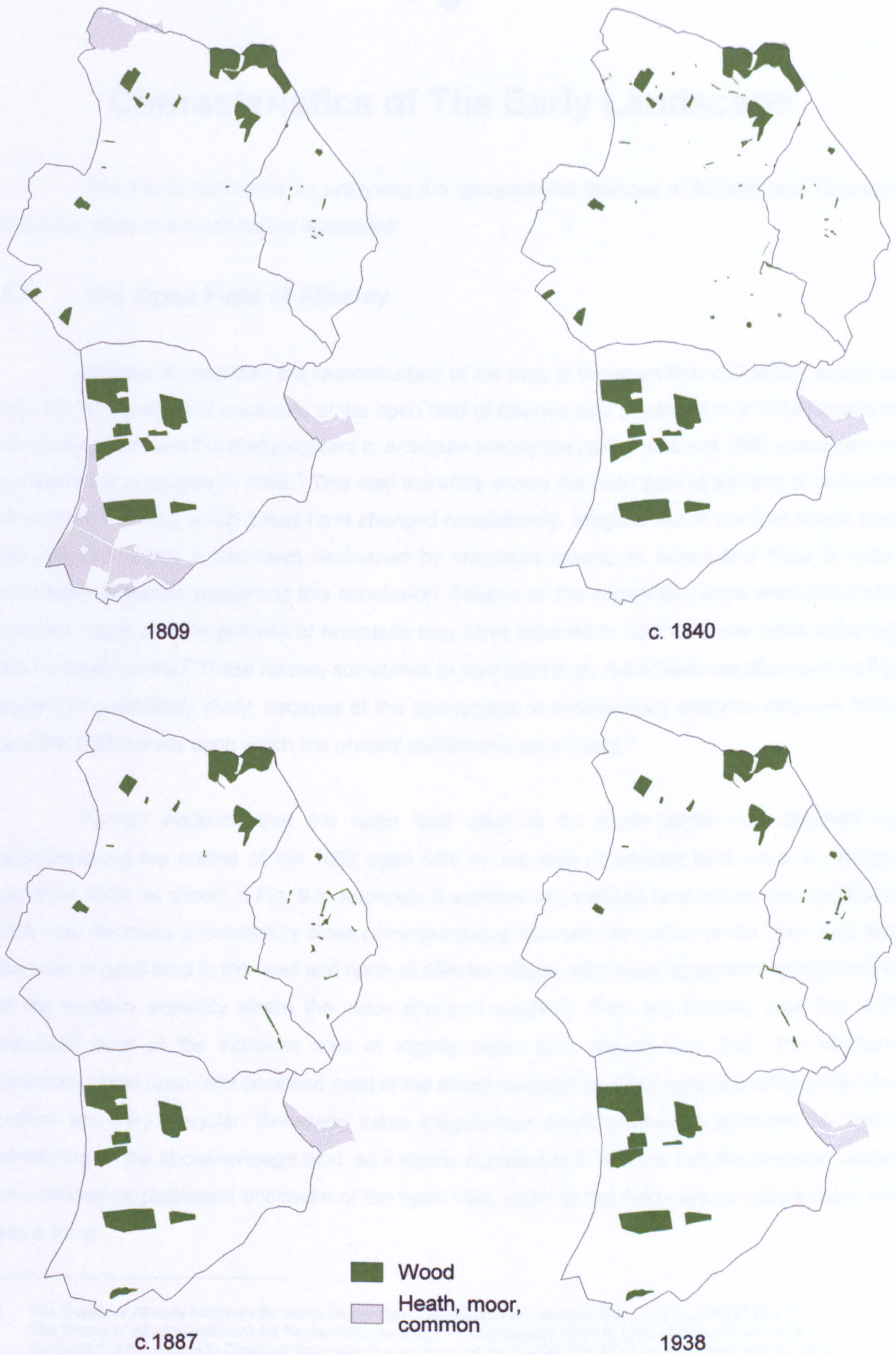


Fig. 8-14 Woods in the Study Area between 1809 and 1938



## 9

## Characteristics of The Early Landscape

This thesis concludes by analysing the geographical features of Allesley and Coundon that may relate to a much earlier landscape.

### 9.1 The Open Field of Allesley

Chapter 4 described the reconstruction of the map of the open field of Allesley shown in Fig. 4-5. The pattern of enclosure of the open field of Allesley was described in a 1654 Decree in Chancery which was the final judgment in a dispute among the parties to a lost 1650 agreement to complete the enclosure in 1652.<sup>1</sup> This map therefore shows the open field at the end of centuries of existence, during which it may have changed considerably. Irregularities in the final shape give the impression that it had been diminished by enclosure around its edges and there is some field-name evidence supporting this conclusion. Several of the names that were associated with common fields and the process of enclosure may have survived to 1809 in some fields adjoining the northern outline.<sup>2</sup> These names, sometimes in corrupted form, have been identified without the benefit of a scholarly study, because of the sparseness of documentary evidence between 1652 and the 1809 survey upon which the present deductions were based.<sup>3</sup>

Further evidence that the open field used to be much larger was obtained by superimposing the outline of the 1652 open field on the map of intrinsic land value in Allesley parish in 1809, as shown in Fig. 9-1. Appendix B explains why intrinsic land values are significant. This map discloses a remarkably close correspondence between the outline of the open field and the area of good land to the west and north of Allesley village, with exact agreement along the line at the western extremity where the value changed suddenly. Park Hill Furlong (see Fig. 4-5) occupied most of the indistinct area of slightly better land around East End. The northern boundary of the open field enclosed most of the above-average land but excluded some where the outline was very irregular. Removing these irregularities would produce a smoother boundary containing all the above-average land, so it seems reasonable to assume that the irregular outline was caused by piecemeal enclosure of the open field, close to the fields whose names imply the same thing.

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- 1 The Copy of Allesley Inclosure for Henry Neale Esq., [1654 Chancery decree], War. C.R.O., CR623 Box 13; The Copy of Allesley Inclosure for Richard Eburne Esq., [1654 Chancery decree], War. C.R.O., CR299/583/1; An Extract of the decree in Chancery toucheing the inclosure of the Come feilde of Allesley in hiliary tearme 1653, War. C.R.O., CR299/583/2.
  - 2 J. Field, *A History of English Field-Names* (1993; London 1998), pp.10-28. The 1809 field-names were First and Second Hickens, which may derive from *Inhoke* (a partial enclosure) and two Cockshoots, which may derive from *sceat* (a projecting piece of land).
  - 3 Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1.



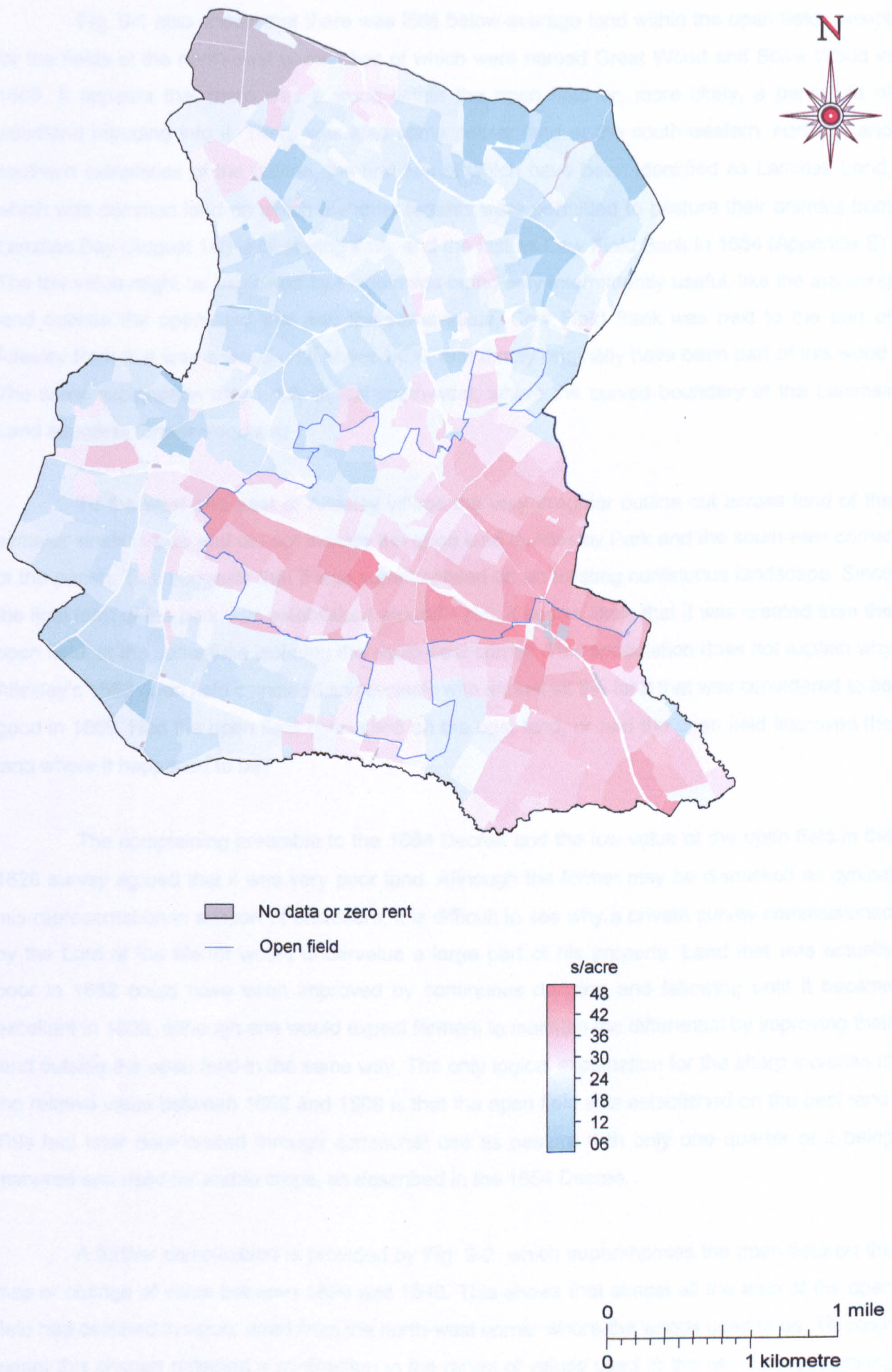


Fig. 9-1 The 1652 Open Field and the Map of Land Value in Allesley Parish in 1809



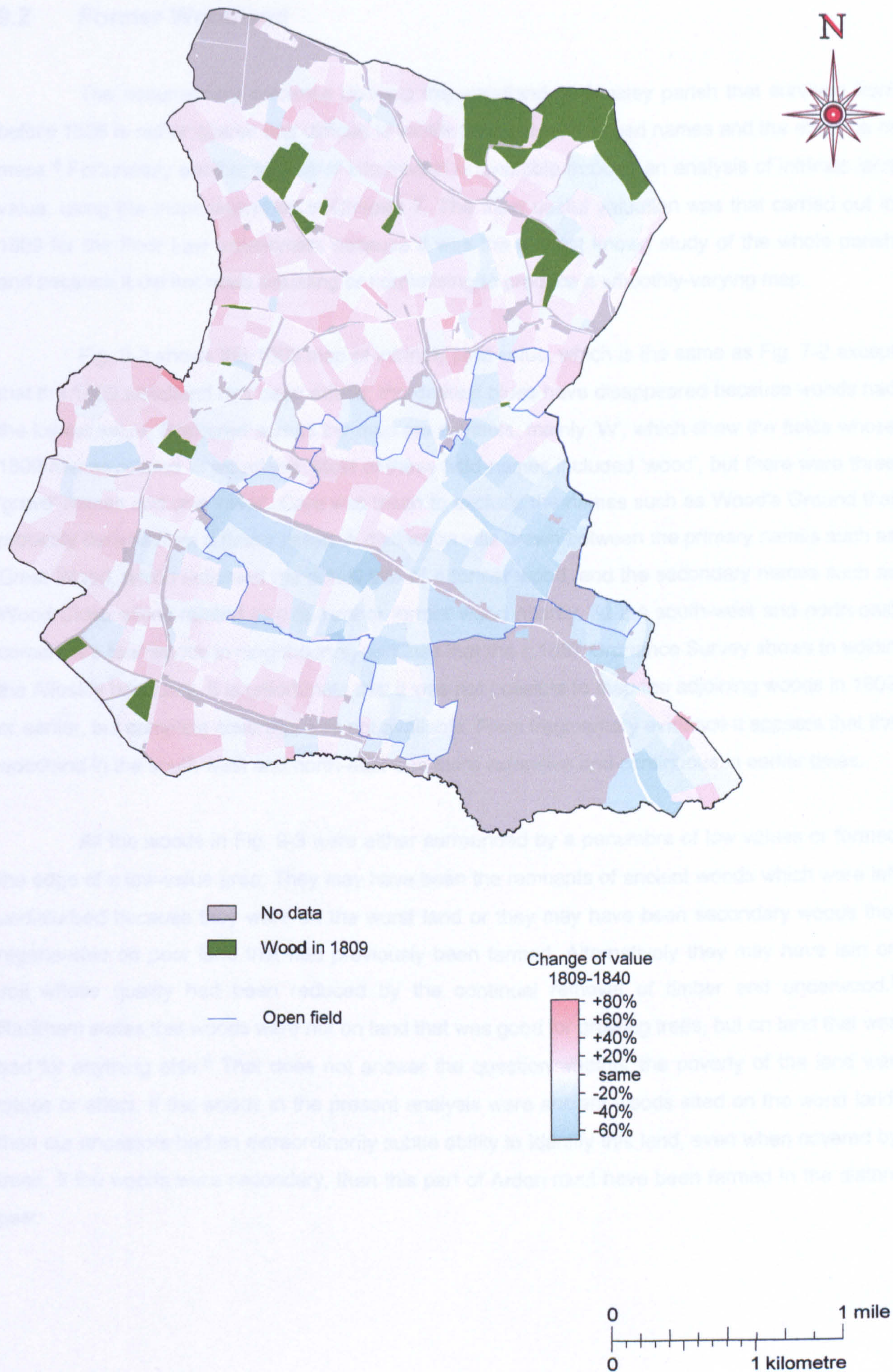
Fig. 9-1 also shows that there was little below-average land within the open field, except for the fields at the north-west corner, two of which were named Great Wood and Shaw Wood in 1809. It appears that there was a wood within the open field or, more likely, a peninsula of woodland intruding into it. There was also some poorer land at the south-western, northern and southern extremities of the outline, the first two of which have been identified as Lammas Land, which was common land on which manorial tenants were permitted to pasture their animals from Lammas Day (August 1st) until sowing time, and the last as Cow Field Bank in 1654 (Appendix E). The low value might be explained by these fields being only intermittently useful, like the adjoining land outside the open field that had the same value. Cow Field Bank was next to the part of Allesley Park that was a wood until about 1400, and it may originally have been part of this wood. The same explanation may apply in the south-west, where the curved boundary of the Lammas Land suggests former woodland.

To the west and east of Allesley village the very irregular outline cut across land of the same or similar value and did not include the good land in Allesley Park and the south-east corner of the parish. This suggests that it was superimposed on an existing continuous landscape. Since the final form of the park was established around 1250, it seems likely that it was created from the open field, at the same time isolating the south-east corner. This speculation does not explain why Allesley's 1652 open field coincided so precisely with almost all the land that was considered to be good in 1809. Had the open field been sited on the best land, or had the open field improved the land where it happened to be?

The complaining preamble to the 1654 Decree and the low value of the open field in the 1626 survey agreed that it was very poor land. Although the former may be dismissed as cynical mis-representation in support of enclosure, it is difficult to see why a private survey commissioned by the Lord of the Manor would undervalue a large part of his property. Land that was actually poor in 1652 could have been improved by continuous dunging and fallowing until it became excellent in 1809, although one would expect farmers to maintain the differential by improving their land outside the open field in the same way. The only logical explanation for the sharp increase in the relative value between 1652 and 1809 is that the open field was established on the best land. This had later deteriorated through communal use as pasture with only one quarter of it being manured and used for arable crops, as described in the 1654 Decree.

A further complication is provided by Fig. 9-2, which superimposes the open field on the map of change of value between 1809 and 1840. This shows that almost all the area of the open field had declined in value, apart from the north-west corner where the woods used to be. To some extent this change reflected a contraction in the range of values used in the two surveys, making Fig. 9-2 a paler negative of Fig. 9-1, but there were many local exceptions to this.





**Fig. 9-2 The 1652 Open Field and the Change of Land Value in Allesley Parish Between 1809 and 1840**



## 9.2 Former Woodland

The documentary evidence defining the woodland in Allesley parish that survived from before 1626 is rather sparse and difficult to locate because of changed names and the absence of maps.<sup>4</sup> Fortunately another source of information is available through an analysis of intrinsic land value, using the maps described in Chapter 7. The most useful valuation was that carried out in 1809 for the Poor Law assessment because it was the earliest known study of the whole parish and because it did not need adjusting or normalising to produce a smoothly-varying map.

Fig. 9-3 shows the 1809 map of intrinsic land value, which is the same as Fig. 7-2 except that the 1809 woodland has been added; the darkest blues have disappeared because woods had the lowest value. Scattered across the map are symbols, mainly 'W', which show the fields whose 1809 names related to woodland. Most of these field-names included 'wood', but there were three 'grove' names and one 'hurst'. Care was taken to exclude the names such as Wood's Ground that probably derived from a man's name. A distinction was drawn between the primary names such as Great Wood, which indicated the actual site of a former wood, and the secondary names such as Wood Close which related to a current or former wood nearby. At the south-west and north-east corners are four woods in neighbouring parishes that the c.1887 Ordnance Survey shows to adjoin the Allesley boundary. It is unfortunate that it was not possible to map the adjoining woods in 1809 or earlier, but complete coverage was not available. From fragmentary evidence it appears that the woodland in the south-west and north-east was more extensive and continuous in earlier times.

All the woods in Fig. 9-3 were either surrounded by a penumbra of low values or formed the edge of a low-value area. They may have been the remnants of ancient woods which were left undisturbed because they were on the worst land or they may have been secondary woods that regenerated on poor land that had previously been farmed. Alternatively they may have lain on soil whose quality had been reduced by the continual removal of timber and underwood.<sup>5</sup> Rackham states that woods were not on land that was good for growing trees, but on land that was bad for anything else.<sup>6</sup> That does not answer the question whether the poverty of the land was cause or effect. If the woods in the present analysis were ancient woods sited on the worst land, then our ancestors had an extraordinarily subtle ability to identify this land, even when covered by trees. If the woods were secondary, then this part of Arden must have been farmed in the distant past.

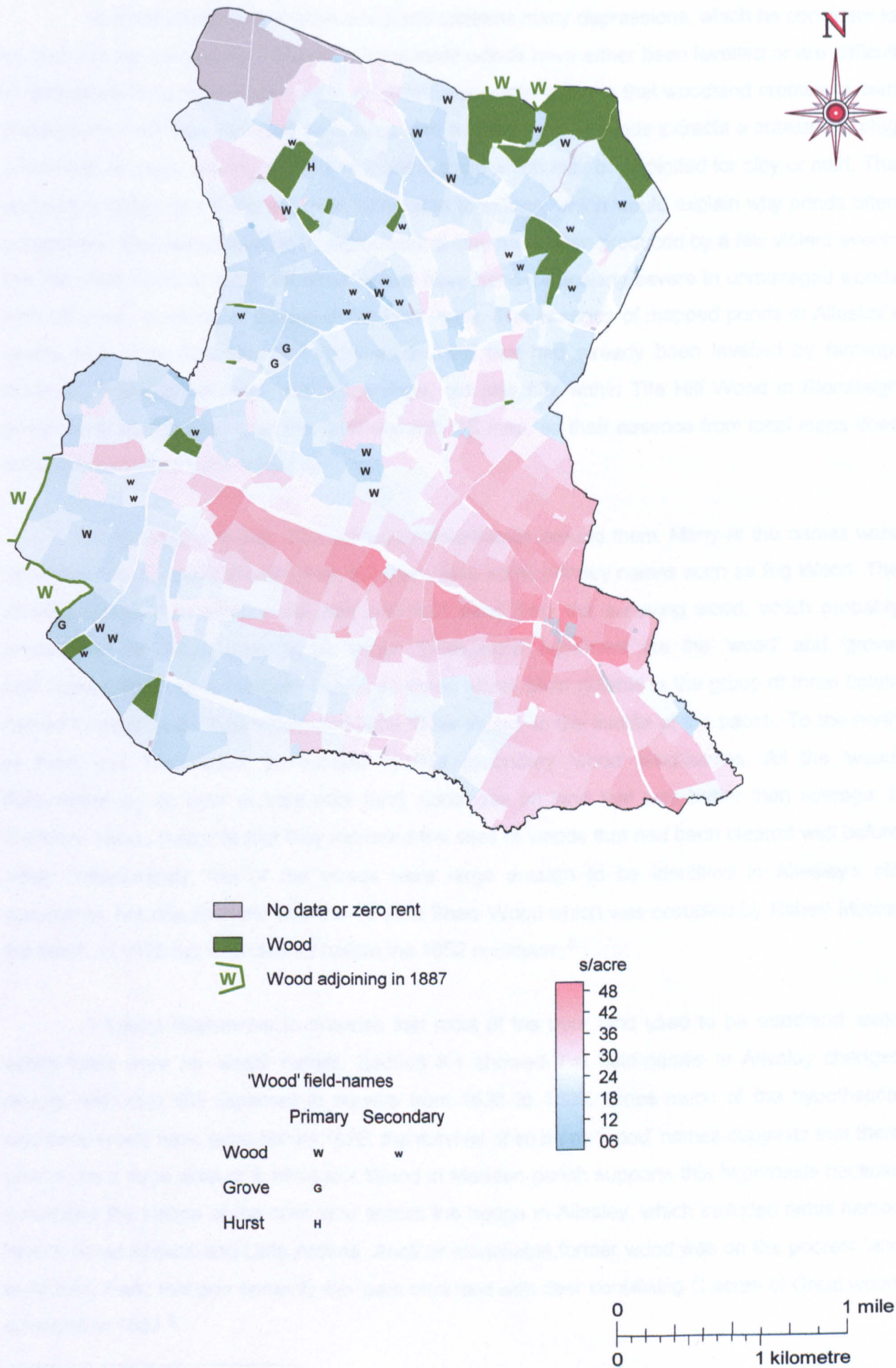
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4 S. J. Wager, *Woods, Wolds and Groves: the Woodland of Medieval Warwickshire*, B.A.R. British Series, 269 (Oxford, 1998), pp.52-54, 199-200.

5 O. Rackham, *Ancient Woodland, its History, Vegetation and Uses in England* (London 1980), pp.35-8.

6 O. Rackham, *The History of the Countryside* (1986; London, 1990), p.98.





**Fig. 9-3 Woods and 'Wood' Field-names in Allesley Parish in 1809, Related to Land Value**



Rackham notes that ancient woodland contains many depressions, which he considers to be their natural topography.<sup>7</sup> Depressions outside woods have either been levelled or are difficult to distinguish from man-made ponds. An alternative explanation is that woodland creates its own depressions over time, because each large tree toppled by high winds extracts a substantial plug of soil with its roots, leaving a crater of loose subsoil which may be exploited for clay or marl. The accessible edges of a wood are most vulnerable to storms, which would explain why ponds often occur there. The uneven ground in old woodland may have been produced by a few violent events like the great storm of 1987; the effect would have been particularly severe in unmanaged woods with tall trees, as probably existed in the Dark Ages. The absence of mapped ponds in Allesley's woods may show that they had regrown on land that had already been levelled by farming. However, it should be noted that some large, old clay pits within Tile Hill Wood in Stoneleigh parish were also omitted from the 1887 six-inch OS map, so their absence from local maps does not prove that there were none.

All the woods in Fig. 9-3 had 'wood' field-names around them. Many of the names were secondary, for example Wood Close, but there were some primary names such as Big Wood. The primary names were often more than one field away from the surviving wood, which probably proves that the wood used to be larger. Even more significant are the 'wood' and 'grove' field-names which were nowhere near a surviving wood. Most notable is the group of three fields, named Great Wood, Shaw Wood and Little Shaw Wood, in the middle of the parish. To the north of them was The Wood, surrounded by five secondary 'wood' field-names. All the 'wood' field-names lay on poor or very poor land; none was on land that was better than average. It therefore seems probable that they indicated the sites of woods that had been cleared well before 1809. Unfortunately, few of the woods were large enough to be identified in Allesley's old documents, but one example was the 10 acre Shaw Wood which was occupied by Robert Moore, the bailiff, in 1626 but was cleared before the 1652 enclosure.<sup>8</sup>

It seems reasonable to propose that most of the poor land used to be woodland, even where there were no 'wood' names. Section 8.1 showed that field-names in Allesley changed rapidly, with only 6% expected to survive from 1626 to 1809. Since much of the hypothetical woodland would have gone before 1626, the survival of so many 'wood' names suggests that there used to be a large area of it. Millison's Wood in Meriden parish supports this hypothesis because it matches the outline of the poor land across the hedge in Allesley, which included fields named Wood, Great Ardens and Little Ardens. Another identifiable former wood was on the poorest land in Allesley Park; this was certainly the 'park enclosed with deer containing C acres of Great wood' surveyed in 1387.<sup>9</sup>

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7 Rackham, *Ancient Woodland*, p.13.

8 Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14, fo. 1; The Coppy of Allesley Inclosure for Henry Neale Esq., [1654 Chancery decree], War. C.R.O., CR623 Box 13.

9 Inquisition *post mortem* for Allesley etc. 1387, T. N. A., P. R. O., DL43/14/3. I live on the site of this wood.



The final evidence supporting the theory that woodland was related to poor land is the uniformly low value, regularity and distinctness of these areas in 1809. One such outline next to Hollyfast Lane among the woods in the north-east corner agrees very closely with the 52 acre Hollyfast Wood of 1626.<sup>10</sup> Near to Corley Moor was an oval shape with Elkin Wood and Belcher's Wood at its western and eastern ends and two small woods within it. The 1946 aerial photograph in Fig. 3-14 shows what looks like a wood bank running around this shape.<sup>11</sup> To the south of this is an arrowhead-shaped zone of almost uniformly poor land containing several 'wood' and 'grove' field-names. Both of these sites were in the area of Allesley parish to the north-west of the open field that was known as Ridings End, which signified clearance of woodland.<sup>12</sup>

The influence of topography is shown by Fig. 9-4, which superimposes the 25-foot contours on the previous map of woodland and land value in Allesley in 1809. Rackham states that ancient woods in lowland England tended to be on high ground, on flat hilltops and plateaux, where there are patches of infertile sands and gravels or specially wet clays.<sup>13</sup> Deferring consideration of geology to Section 9.4, it is immediately obvious from Fig. 9-4 that the 1809 map of Allesley provides mixed evidence for the correlation with high ground. Nowhere did a wood or 'wood' name occupy the top of a poor hill; indeed, the three isolated hills at Allesley Park and Eastern Green in the south and at Hollyberry Hall in the north-west were all of above average value. A positive pattern was evident in the south-west corner of the parish, where all the woods and 'wood' names were on a ridge of poor land lying above 400 feet. Likewise the 'wood' names near to Millison's Wood lay above 450 feet on the same ridge and the three primary names in the middle of the parish were near the summit of the ridge that used to be occupied by a windmill.

Elsewhere in Allesley parish the woods lay on slopes, with no preference for any compass direction. Both Elkin Wood and Belcher's Wood ran down to the upper reaches of the River Sherbourne, which was as low a site as could be found locally. It is significant that, without exception, the 1809 woods and 'wood' names all lay on or above the 400 feet contour. This line also enclosed almost all the really poor land, with only a few higher fields enjoying above average value. In the north-east corner there was a great deal of woodland and former woodland on the poor land near the 500 feet contour, but none on the fairly good land around 500 feet next to Corley Moor. Figs 7-9 and 7-10 show that Corley Moor, which lay across the Severn-Trent watershed, was uniformly poor land in 1840, shortly after its enclosure, so presumably the same applied in 1809.

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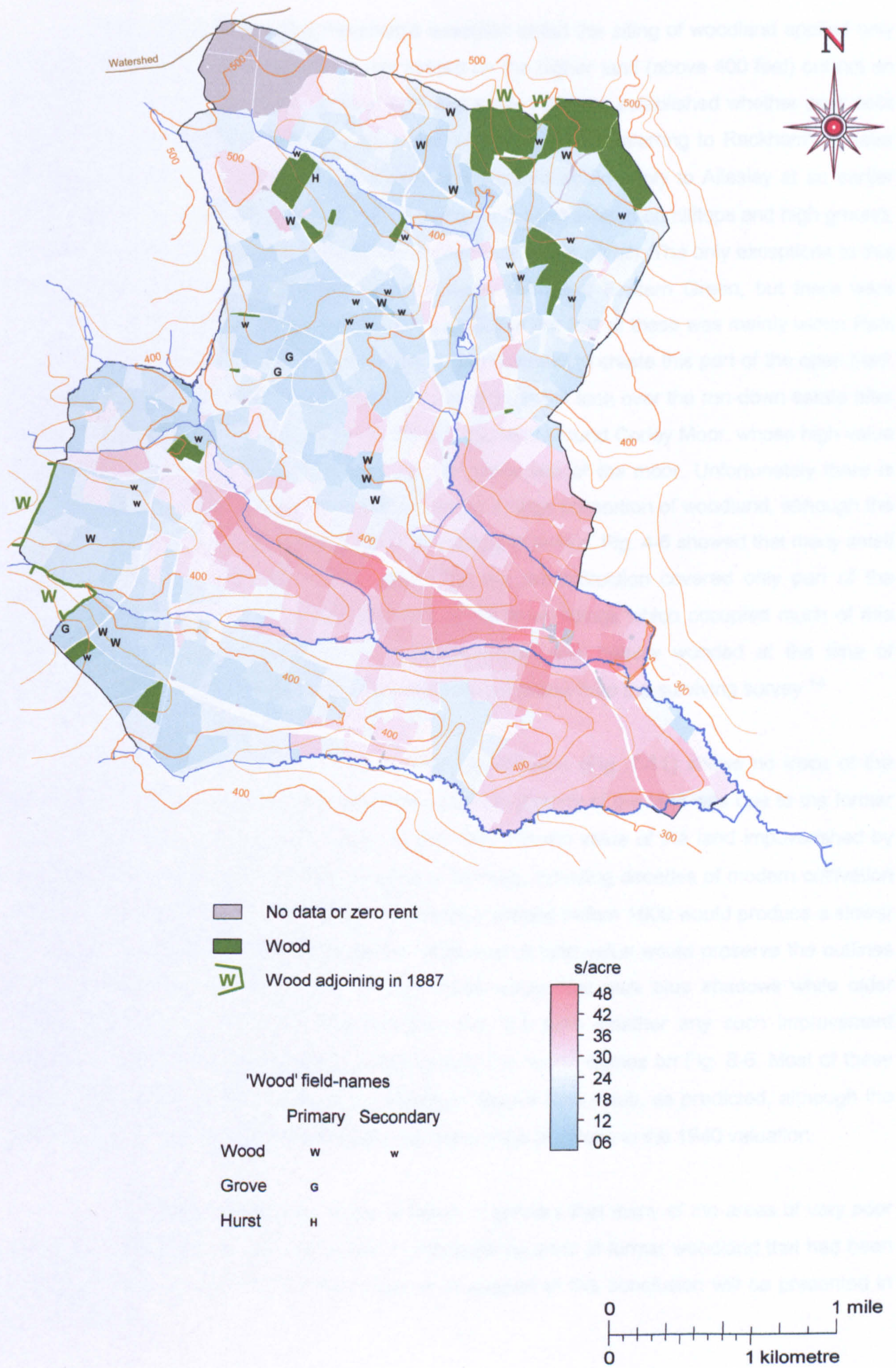
10 Survey of the Mannor of Allesley . . . 1626, War. C.R.O., CR623 Box 14, fo.1; Wager, *Woods, Wolds and Groves*, has transcribed this incorrectly on p.199.

11 Rackham, *History of the Countryside*, pp.98-101.

12 Field, *English Field-Names*, p.67.

13 Rackham, *History of the Countryside*, p.98.





**Fig. 9-4 Woods and 'Wood' Field-names in Allesley Parish in 1809, Related to Land Value with 25 feet Contours Superimposed**



This analysis shows that Rackham's assertion about the siting of woodland applied only loosely to Allesley in 1809. Woodland was indeed on the higher land (above 400 feet) but not on the tops of hills. It did occupy the poorer land, but it has yet to be established whether poor soils were the reason for having woods or the result of having them. Deferring to Rackham's greater knowledge, however, it will be assumed that his statement would apply to Allesley at an earlier date before most of the woods were felled. If earlier woodland existed on hilltops and high ground, then this would be consistent with the areas of poor land in the parish. The only exceptions to this were on the better land near Corley Moor, Allesley Park and Eastern Green, but there were reasons for each of these anomalies. Fig. 9-1 shows that the last of these was mainly within Park Hill furlong in 1652, so any woodland must have been cleared to create this part of the open field. Allesley Park probably lost its wood when the Earl of Warwick took over the run-down estate after the 1387 survey. Hollyberry Hall lay on an arc of good land around Corley Moor, whose high value may have reflected long-established farming that made use of the moor. Unfortunately there is little documentary proof that Allesley used to contain a large proportion of woodland, although the circumstantial evidence, including the name, is strongly in favour. Fig. 4-6 showed that many small woods existed within the poor land in 1626, but the reconstruction covered only part of the demesne and copyhold land and almost none of the freeholdings which occupied much of this area. The adjoining northern part of Stoneleigh parish was heavily wooded at the time of Domesday and for centuries afterwards, but Allesley is missing from the surviving survey.<sup>14</sup>

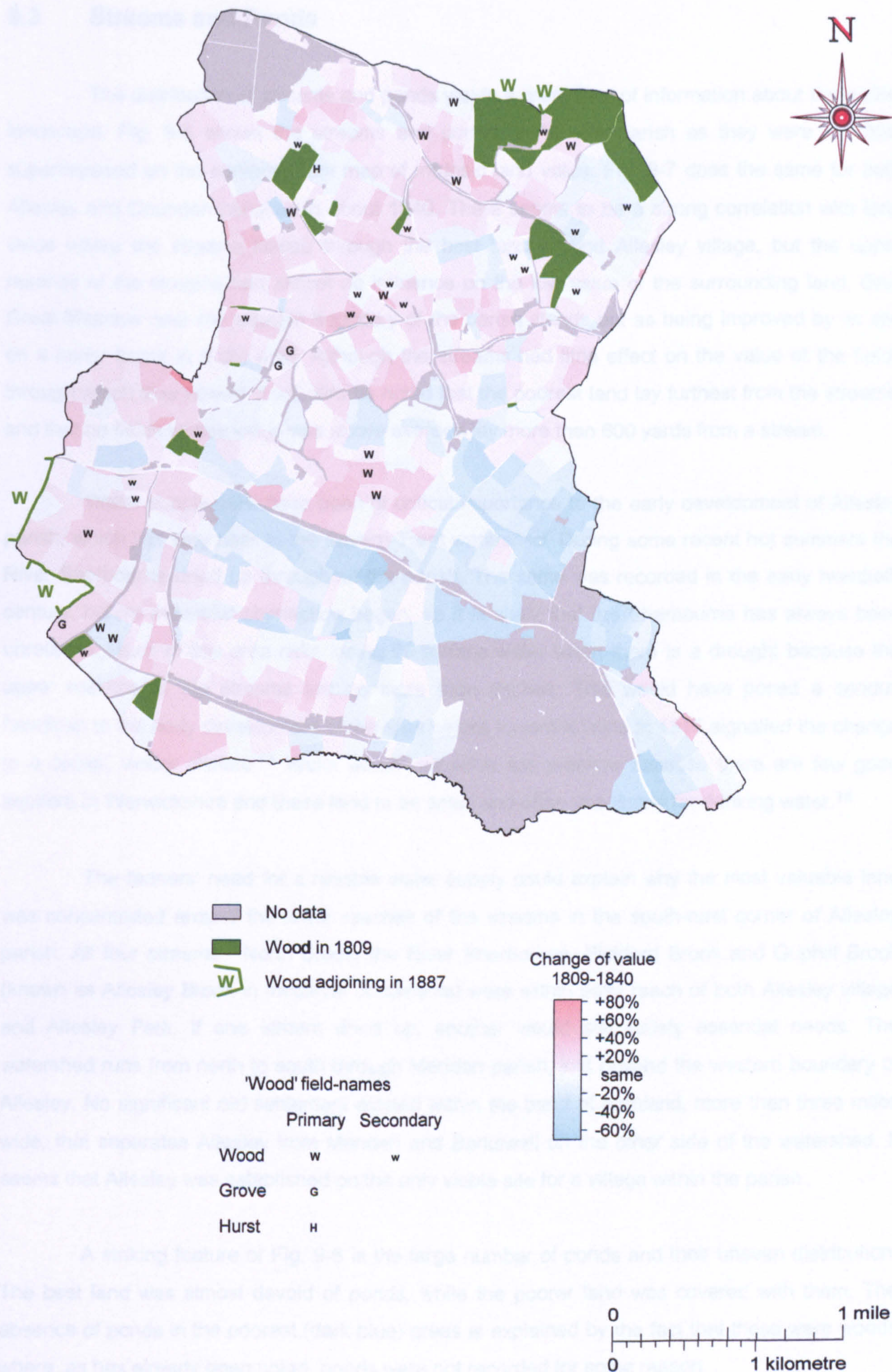
The fact that the modern map of land classification (Fig. 7-11) shows no trace of the poorer land in Fig. 9-4 supports the hypothesis that the poverty of the land was due to the former presence of woodland rather than being natural. The intrinsic value of the land impoverished by woodland has been restored by two centuries of farming, including decades of modern cultivation with artificial fertilisers. The non-intensive methods practised before 1809 would produce a slower improvement of the former woodland, so the 1809 map of land value would preserve the outlines of much earlier woods. Those most recently felled would cast dark blue shadows while older clearances gradually paled into insignificance. Fig. 9-5 tests whether any such improvement occurred between 1809 and 1840 by superimposing the 'wood' names on Fig. 8-6. Most of these names can be seen to occupy areas of increased relative land value, as predicted, although the change may partly be due to the generally narrower range of values in the 1840 valuation.

To summarise the results of this analysis, it appears that many of the areas of very poor land in the 1809 valuation of Allesley parish indicated the sites of former woodland that had been felled many years previously. Further evidence in support of this conclusion will be presented in the next section.

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14 A. Williams and G. H. Martin (eds), *The Warwickshire Domesday, Facsimile and Translation*, Alecto Historical Edition (London, 1991); R. H. Hilton (ed.), *The Stoneleigh Leger Book*, Dugdale Society, 24 (Stratford-upon-Avon, 1960).





**Fig. 9-5 Woods and 'Wood' Field-names in Allesley Parish in 1809, Related to the Changes of Land Value between 1809 and 1840**



### 9.3 Streams and Ponds

The distribution of streams and ponds yields a great deal of information about the earlier landscape. Fig. 9-6 shows the streams and ponds of Allesley parish as they were in 1809, superimposed on the contemporary map of intrinsic land value. Fig. 9-7 does the same for both Allesley and Coundon parishes in about 1840. There seems to be a strong correlation with land value where the streams flowed through the best land around Allesley village, but the upper reaches of the streams had almost no influence on the low value of the surrounding land. Only Great Meadow near the western boundary of the parish stands out as being improved by its site on a minor brook in a dry area. Although the streams had little effect on the value of the fields through which they flowed, it will also be noted that the poorest land lay furthest from the streams, and that no fields whose value was above average lay more than 600 yards from a stream.

Water supply must have been of critical importance to the early development of Allesley parish, which lies very near to the Severn-Trent watershed. During some recent hot summers the River Sherbourne dried up throughout the parish. The same was recorded in the early twentieth century, before industrial abstraction began, so it is likely that the Sherbourne has always been unreliable. Much of this area risks losing its surface water when there is a drought because the upper reaches of the streams are no more than ditches. This would have posed a serious handicap to the early development of the area before torrential rains in 1315 signalled the change to a cooler, wetter climate.<sup>15</sup> Wells would not solve the problem because there are few good aquifers in Warwickshire and these tend to be small and often unsuitable for drinking water.<sup>16</sup>

The farmers' need for a reliable water supply could explain why the most valuable land was concentrated around the lower reaches of the streams in the south-east corner of Allesley parish. All four streams - North Brook, the River Sherbourne, Pickford Brook and Guphill Brook (known as Allesley Brook in medieval documents) were within easy reach of both Allesley village and Allesley Park. If one stream dried up, another would still satisfy essential needs. The watershed runs from north to south through Meriden parish, just beyond the western boundary of Allesley. No significant old settlement existed within the band of farmland, more than three miles wide, that separates Allesley from Meriden and Berkswell on the other side of the watershed. It seems that Allesley was established on the only viable site for a village within the parish.

A striking feature of Fig. 9-6 is the large number of ponds and their uneven distribution. The best land was almost devoid of ponds, while the poorer land was covered with them. The absence of ponds in the poorest (dark blue) areas is explained by the fact that these were woods where, as has already been noted, ponds were not recorded for some reason.

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15 B. M. S. Campbell, 'People and land in the middle ages', in R. A. Dodgshon and R. A. Butlin (eds), *An Historical Geography of England and Wales* (1978; London, 1990), pp.100-102.

16 L. Richardson, *Wells and Springs of Warwickshire*, Memoirs of the Geological Survey, England (London, 1928), p.1.



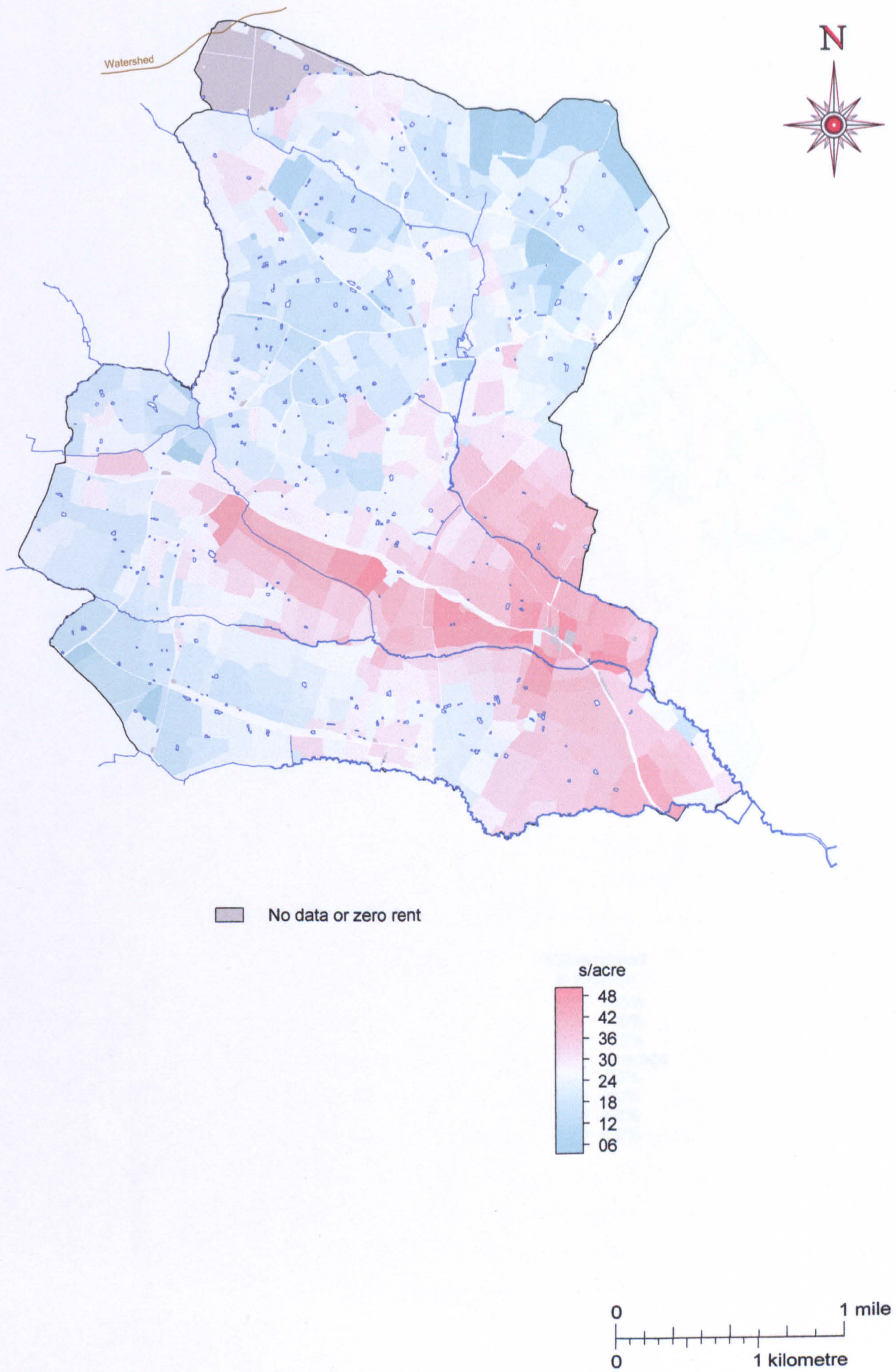
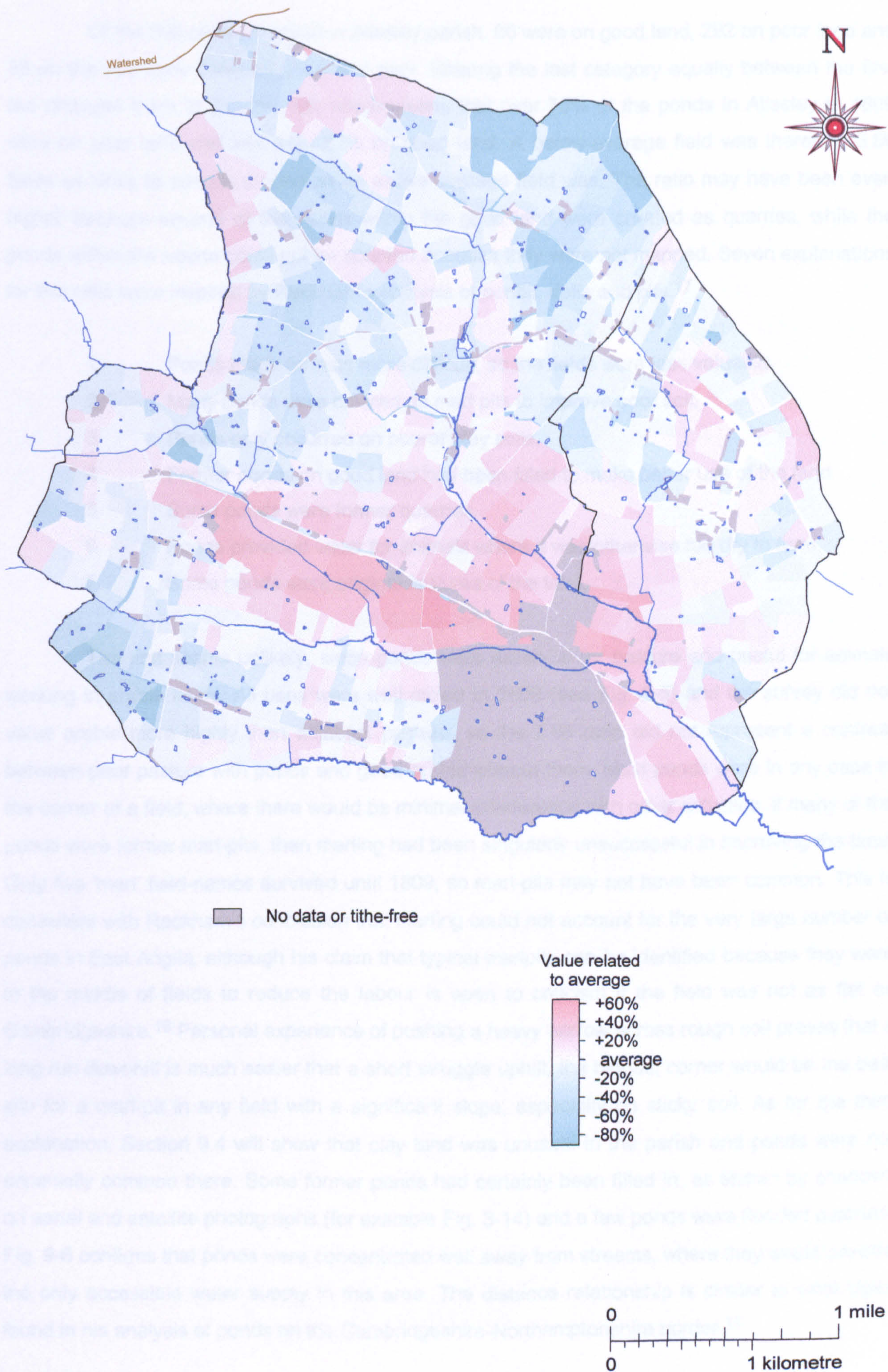


Fig. 9-6 Streams and Ponds in Allesley Parish in 1809, Related to Land Value





**Fig. 9-7 Streams and Ponds in Allesley and Coundon Parishes in about 1840, Related to Normalised Land Value**



Of the 396 ponds mapped in Allesley parish, 66 were on good land, 292 on poor land and 38 on the boundary between good and poor. Sharing the last category equally between the first two changes them to 311 and 85, which means that over 78% of the ponds in Allesley in 1809 were on poor land and less than 22% on good land. A below-average field was therefore 3.66 times as likely to contain a pond as an above-average field was. The ratio may have been even higher because several of the ponds within the good land were created as quarries, while the ponds within the woods could not be counted because they were not mapped. Seven explanations for this ratio were inspired by Rackham's analysis of ponds, dells and pits.<sup>17</sup>

- 1 Ponds made farming more difficult, so the fields were less valuable.
- 2 Many ponds were created as marl pits to improve poor soil.
- 3 Ponds only occurred on poorer clay soils.
- 4 Former ponds on good land had been filled to make better use of the land.
- 5 Some ponds were former quarries.
- 6 Ponds provided water for animals where it was otherwise too dry to farm.
- 7 Some ponds were original features of the land.

The first seems unlikely, since ponds were essential for pasture and useful for animals working in arable fields. All uses were well mixed in 1809 (see Fig. 6-5) and the survey did not value arable more highly than adjacent pasture, so the 3.66 ratio did not represent a contrast between poor pasture with ponds and good arable without them. Most ponds were in any case in the corner of a field, where there would be minimal interference with other activities. If many of the ponds were former marl-pits, then marling had been singularly unsuccessful in improving the land. Only five 'marl' field-names survived until 1809, so marl-pits may not have been common. This is consistent with Rackham's conclusion that marling could not account for the very large number of ponds in East Anglia, although his claim that typical marlpits can be identified because they were in the middle of fields to reduce the labour is open to criticism if the field was not as flat as Cambridgeshire.<sup>18</sup> Personal experience of pushing a heavy barrow across rough soil proves that a long run downhill is much easier than a short struggle uphill; the highest corner would be the best site for a marl-pit in any field with a significant slope, especially on sticky soil. As for the third explanation, Section 9.4 will show that clay land was unusual in the parish and ponds were not especially common there. Some former ponds had certainly been filled in, as shown by shadows on aerial and satellite photographs (for example Fig. 3-14) and a few ponds were flooded quarries. Fig. 9-6 confirms that ponds were concentrated well away from streams, where they would provide the only accessible water supply in this area. The distance relationship is similar to what Upex found in his analysis of ponds on the Cambridgeshire-Northamptonshire border.<sup>19</sup>

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<sup>17</sup> Rackham, *History of the Countryside*, pp.345-373.

<sup>18</sup> Rackham, *History of the Countryside*, p.371.

<sup>19</sup> S. G. Upex, 'The uses and functions of ponds within early landscapes in the east midlands', *Agric. Hist. Rev.*, 52 (2004), pp.130-131.



That leaves the question whether some of the ponds were original features of the land. More information is provided by Fig. 9-8 which shows the 25 feet contours superimposed on the 1809 streams and ponds in Allesley parish. Clearly there was a strong correlation between ponds and elevation. Of the 396 ponds, 283 (71.5%) were in the half of the parish that lies above the 400 feet contour. Only four ponds lay within the area below 325 feet that surrounds Allesley village, presumably because the nearby streams supplied all the water that was needed. The density of ponds was fairly constant in the large area between 400 and 475 feet, but declined at higher levels. The ponds tended to be larger where they were furthest from a stream, a sensible precaution against drought. Many of the ponds in this area lay in chains, some of which bordered lanes. These could have begun as craters from toppled trees or, as Rackham suggests, natural dells in ancient woods.<sup>20</sup> In the south of the parish there were several ponds on the top of the ridge next to Eastern Green Lane. If man-made these ponds were poorly sited because they would collect little groundwater; perhaps they too indicated former woodland.

Averaged over the whole of Allesley parish there were 64 ponds per square mile in 1809, 75 in 1840 and 54 in 1887. The 1809 figure probably understates the number because it is based on maps created for the purpose of raising a tax, rather than recording the landscape. These totals include every pond, although many small ponds were in tight groups which may have been one larger pond in the process of drying up. Ponds were most common between the 400 and 425 feet contours, where their density was 81 per square mile in 1809; this rose to 86 per square mile in 1887. The latter figure and the parish average of 54 ponds per square mile in 1887 contrast with Rackham's estimated average of 14 ponds per square mile for England and Wales in about 1880. His count was based on six-inch Ordnance Survey maps, as with the present work.<sup>21</sup> Rackham considers that very high densities like those in Allesley were typical of ancient woodland.

Fig. 9-9 shows the 25 feet contours superimposed on the c.1840 streams and ponds in both Allesley and Coundon parishes. There were more recorded ponds than in 1809, with 486 in Allesley and 112 in Coundon; the overall densities were 75 and 73 ponds per square mile. The map confirms that the ponds in both parishes were concentrated above 400 feet, with the pattern in Allesley and Coundon being continuous. Joint development cannot explain this continuity because few 1840 landholdings crossed the parish boundary. The most likely explanation is that the ponds pre-dated the boundary, perhaps being of natural origin.

These analyses have shown that, in 1809, a field of below-average value in Allesley was 3.66 times as likely to contain a pond as an above-average field was. Most ponds lay above the 400 feet contour in both Allesley and Coundon, where their very high density was typical of former woodland.

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<sup>20</sup> Rackham, *History of the Countryside*, p.357.

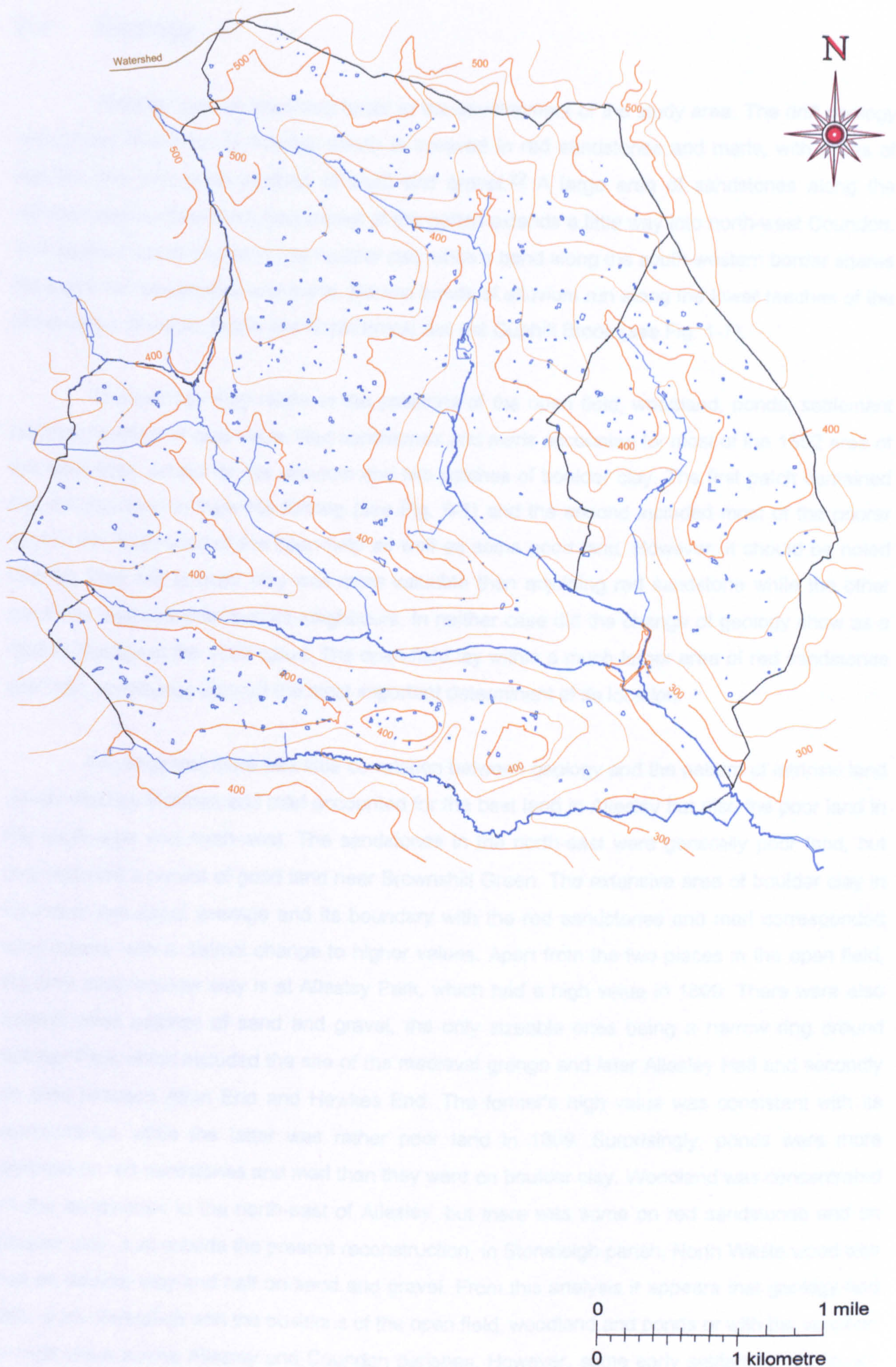
<sup>21</sup> Rackham, *History of the Countryside*, p.346.





**Fig. 9-8 Streams and Ponds in Allesley Parish in 1809, Related to Contours**





**Fig. 9-9 Streams and Ponds in Allesley and Coundon Parishes in about 1840, Related to Contours**



## 9.4 Geology

Geology was an important factor in the development of the study area. The drift geology map shows that most of Allesley parish is covered in red sandstones and marls, with areas of boulder clay and small pockets of sand and gravel.<sup>22</sup> A large area of sandstones along the northern and north-eastern boundaries of the parish extends a little way into north-west Coundon. The eastern half of Coundon has boulder clay while a band along the south-western border shares Allesley's red sandstones and marls. Narrow bands of alluvium run along the lower reaches of the Sherbourne, Pickford Brook and North Brook, but not Guphill Brook (see Fig. 1-7).

The geology may relate to the positions of the open field, woodland, ponds, settlement and the variation of land value. Red sandstones and marls accounted for most of the 1652 area of the open field, except for the alluvium and two patches of boulder clay. The first patch contained the average land in Park Hill furlong (see Fig. 9-1) and the second included most of the poorer land in the north-west of the open field as well as some good land. However, it should be noted that the Park Hill boulder clay was more valuable than adjoining red sandstone while the other zone was less valuable than its neighbours. In neither case did the change of geology show as a distinct change in the 1809 value. The open field lay within a much larger area of red sandstones and marl, so geology was not the most important determinant of its location.

It is clear that there was little correlation between geology and the pattern of intrinsic land values. Red sandstones and marl accounted for the best land in Allesley but also the poor land in the south-west and north-west. The sandstones in the north-east were generally poor land, but they included a pocket of good land near Brownhill Green. The extensive area of boulder clay in Coundon was about average and its boundary with the red sandstones and marl corresponded fairly closely with a distinct change to higher values. Apart from the two pieces in the open field, the only other boulder clay is at Allesley Park, which had a high value in 1809. There were also several small patches of sand and gravel, the only sizeable ones being a narrow ring around Allesley Park which included the site of the medieval grange and later Allesley Hall and secondly an area between Alton End and Hawkes End. The former's high value was consistent with its surroundings, while the latter was rather poor land in 1809. Surprisingly, ponds were more common on red sandstones and marl than they were on boulder clay. Woodland was concentrated on the sandstones in the north-east of Allesley, but there was some on red sandstones and on boulder clay. Just outside the present reconstruction, in Stoneleigh parish, North Waste wood was half on boulder clay and half on sand and gravel. From this analysis it appears that geology had little or no correlation with the positions of the open field, woodland and ponds or with the variation of land value across Allesley and Coundon parishes. However, some early settlement did favour the few patches of sand and gravel.

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<sup>22</sup> Geological Survey of Great Britain, *Coventry Drift Sheet 169, 1 inch:1 mile* (1922; Southampton, 1969).



These conclusions will be compared with Skipp's study of the evolution of settlement and open fields in five Arden parishes around Elmdon, only eight miles to the west of the study area.<sup>23</sup> He draws attention to the significance of the 400 feet contour in his area, with higher land forming a plateau almost exclusively overlain by boulder clay while Keuper marl predominates below this level. Woods and open waste were fairly evenly distributed over all types of geology and Skipp believes that the distinction between wood and waste was unlikely to be based on geology. These conclusions confirm those reached in this chapter, although Allesley has too little boulder clay for it to be associated with the 400 feet contour. In the five parishes, land below 400 feet was the main area of growth at the time of Domesday, while higher settlements were on spurs at the edges of the plateau, analogous to the site of Allesley village. Primary settlement favoured isolated patches of sand and gravel. The whole of the plateau was devoid of ancient nucleated settlement and accompanying open fields, as was the case in Allesley and Coundon.

Skipp identifies the locations of many small open fields in the five parishes in 1300. Most were between 100 and 200 acres and they tended to occur in groups of between two and four, but sometimes more than five fields. In this area they were located on restricted areas of sand and gravel or boulder clay. The situation in Allesley was completely different in 1652, with one large open field of more than 900 acres sited on sandstones and marl with a small proportion of boulder clay. Of course, the open field surveyed in the 1654 decree actually consisted of more than one field. A three-year rotation was mentioned in 1387; North Field (183 acres) was defined in the decree and West Field and South Field were mentioned elsewhere. Although Allesley's field was completely unlike the small rectangles that were typical of Skipp's parishes, it will be shown that Allesley and Coundon also had two of the latter, which were separate from the main field.

There is controversy about the age of Arden's open fields. Skipp says that the lack of evidence for prehistoric and Roman settlement makes it difficult to propose an origin for the open fields, or even forest clearance, before the Saxon settlement. He believes that the open fields or their clearings probably dated from the seventh or eighth century, so they must be regarded as Saxon creations that continued to be developed after 1066. In contrast, and writing at the same time, Taylor uses an archaeologist's perspective to point out that most of late Roman Britain was densely settled by technically advanced farmers, with fields of some sort over much larger areas than those of the twelfth century.<sup>24</sup> He believes that the Saxons moved into this pre-existing landscape, albeit neglected, that some medieval furlongs preserved the Roman arrangement of fields and that prehistoric fields may have been open fields. Fowler also believes that part of the Romano-British settlement pattern has survived as farms, hamlets and villages.<sup>25</sup> Perhaps some of these will eventually be identified in Allesley and Coundon.

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23 V. Skipp, 'The evolution of settlement and open-field topography in north Arden down to 1300' in T. Rowley, *The Origins of Open Field Agriculture* (London, 1981), pp.162-183.

24 C. C. Taylor, 'Archaeology and the origins of open field agriculture' in Rowley, *Open Field Agriculture*, pp.13-21.

25 P. J. Fowler, 'The countryside in Roman Britain: a study in failure or a failure in study?', *Landscape History*, 5 (1983), pp.5-9.



## 9.5 The Pattern of Boundaries

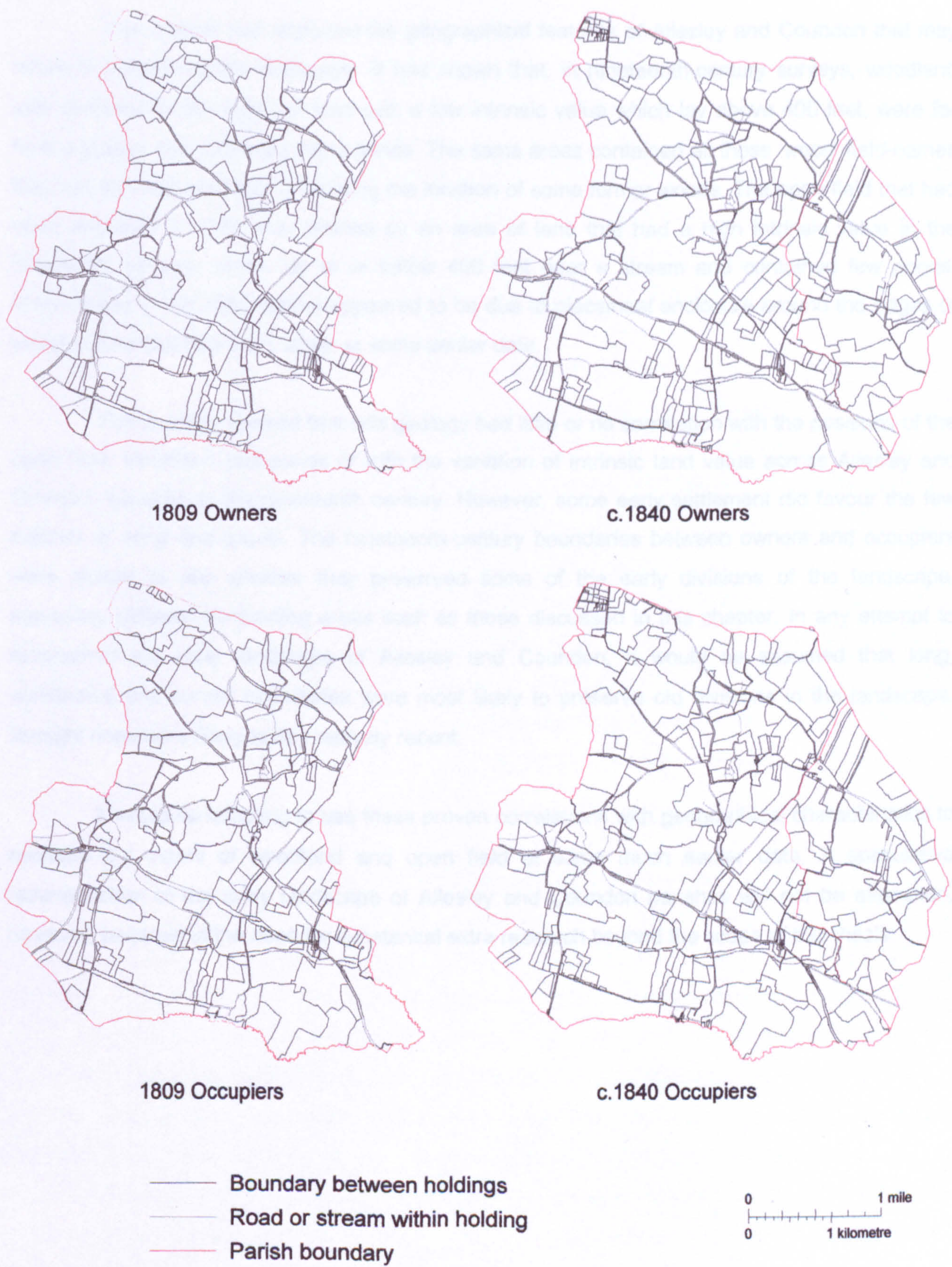
The later pattern of ownership and occupation should preserve some of the early divisions of the landscape, especially between contrasting areas such as those discussed in this chapter. The first map in Fig. 9-10 shows the boundaries between landowners in Allesley in 1809, which was the earliest reliable map. Each parcel of land had one owner but might include all or part of the holdings of several occupiers. The boundaries between occupiers are also shown in Fig. 9-10; each parcel had one occupier but could encompass some or all of the land of more than one owner. On both maps, roads and streams are shown as solid lines where they formed boundaries, but as dotted lines where the owner held land on both sides.

The first impression may be that the boundaries had no logic, but detailed analysis reveals some patterns. The area of the former open field is shown by the straight lines to the west and north of Allesley village, with orthogonal boundaries pointing roughly north-east and north-west which gradually changed direction around the village to follow the topography. The boundaries between occupiers in Allesley Park were discordant with those in the open field, despite being of a similar age. Straight boundaries are also evident in the south-west corner, where there used to be woodland. The middle of the parish had a pattern of curved boundaries, perhaps preserving the outlines of assarts in former woodland, and there is a suggestion of concentric assarts around Hawkes End and Corley Moor. Pickford Green has a square of fossilised furlongs from a small open field. At Eastern Green the landscape was closely divided, with irregular boundaries, despite its being part of Park Hill Furlong in the 1652 enclosure.

Fig. 9-10 also shows the boundaries between landowners and occupiers in Allesley and Coundon parishes in about 1840. Although similar to 1809, these maps show the layout all around the village. The impression that the Coundon fields nearest to Allesley were arranged around it reflects the fact that Allesley lies on a hill. Some of the boundaries in Coundon were continuous with those in Allesley, while others stopped at the border. Along the eastern side the pattern conformed to the roads heading towards Coventry. Of particular interest are the fossilised furlongs adjoining the Tamworth Road to the north of Brownhill Green. These were entirely in Coundon, adjoining the Allesley boundary so they seem to mark a former field that defined the parish boundary. In the far north-west corner of Allesley was the small-scale rectilinear landscape resulting from the 1824 enclosure of Corley Moor.

In any attempt to reconstruct the early landscape of Allesley and Coundon, it would be assumed that long, continuous and curved boundaries were most likely to preserve old divisions in the landscape. Straight lines were likely to be relatively recent, although the close arrays of parallel lines at Pickford Green and Brownhill Green probably marked old features.





**Fig. 9-10 Boundaries between Landholdings in Allesley and Coundon Parishes in 1809 and about 1840**



## 9.6 Synopsis

This chapter has analysed the geographical features of Allesley and Coundon that may relate to a much earlier landscape. It has shown that, in nineteenth-century surveys, woodland was restricted to the areas of land with a low intrinsic value which lay above 400 feet, were far from a stream and contained many ponds. The same areas contained all those 'wood' field-names that had survived until then, indicating the location of some former woods. The open field that had been enclosed in 1652 was defined by an area of land that had a high intrinsic value in the nineteenth century, which lay at or below 400 feet near a stream and contained few ponds. Irregularities in the 1652 outline appeared to be due to piecemeal enclosure around the edges of an open field that had been larger at some earlier date.

The analysis showed that drift geology had little or no correlation with the positions of the open field, woodland and ponds or with the variation of intrinsic land value across Allesley and Coundon parishes in the nineteenth century. However, some early settlement did favour the few patches of sand and gravel. The nineteenth-century boundaries between owners and occupiers were plotted to see whether they preserved some of the early divisions of the landscape, especially between contrasting areas such as those discussed in this chapter. In any attempt to reconstruct the early landscape of Allesley and Coundon, it would be assumed that long, continuous and curved boundaries were most likely to preserve old divisions in the landscape. Straight lines were likely to be relatively recent.

It would be tempting to use these proven correlations with geographical characteristics to estimate the extent of woodland and open field at some much earlier date. A speculative reconstruction of the early landscape of Allesley and Coundon parishes will not be attempted, however, because of the need for substantial extra research beyond the scope of this thesis.



# 10

## Conclusions

This thesis aimed to demonstrate that private researchers with limited resources can use computer-based methods to reconstruct and understand old landscapes in the greatest detail and to the highest accuracy that the documentary evidence allows. The most important feature was the development of a new technique which uses inexpensive computer-aided design software to transcribe, analyse and present maps that are accurate, detailed and informative.<sup>1</sup> It was hoped that these methods would be found useful by private researchers who are reconstructing and analysing the landscapes of other study areas which possess a similar quantity and quality of documentation. Despite the continuing growth in the power and versatility of computers, it is believed that these methods will remain valid because they deal with the difficult interface between manuscript sources and digital methods.

The development of these methods was based on a study area in north Warwickshire which comprises the historical parishes of Allesley and Coundon and the northern part of Stoneleigh parish, almost all of which now lies within the modern boundary of the city of Coventry. The new technique was used to reconstruct a series of accurate maps which show the changing landscape of this area from about 1600 to the early twentieth century, based on the framework of the Ordnance Survey and working backwards in time.

The maps in Chapters 4 to 9 show what was achieved by the new technique for using CAD software to transcribe old maps. Two programs were employed, Autosketch version 2 and Turbocad version 10, each of which was bought for about £50 and operated on a typical home computer. The same CAD programs were used to print coloured maps showing selected aspects of the changing landscape in an accurate, detailed, attractive and easily-understood form. The simple and inexpensive Microsoft Works was used to create databases from several surveys of parts of the study area, from which selected information was presented on the CAD maps. The methods developed in this thesis are therefore suitable for most private researchers, without incurring the expense and difficulty of employing a Geographical Information System.<sup>2</sup> The required fluency in the use of CAD software should be easily achieved, especially by those with a background in engineering, technical drawing or graphical design.

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<sup>1</sup> Computer-aided design is hereafter abbreviated as CAD.

<sup>2</sup> Geographical Information System is hereafter abbreviated as GIS.



The only major drawback is the large amount of computer work that the technique involves. Several thousand hours of painstaking transcription and adjustment were needed to create the CAD maps in this thesis. That amount of work might only suit unpaid researchers, but use of a modified approach should reduce the burden enough to make the method more widely applicable. If the legal and financial obstacles can be overcome, it would be highly desirable to import modern digital Ordnance Survey maps into a CAD program in order to create the geographical framework for reconstructing earlier maps. This is not feasible in all projects, including the present thesis, where a large proportion of the historical landscape of the study area had been obliterated by housing and industry before the era of digital mapping. In these cases there is no alternative to transcribing old maps, but future studies of areas that remain rural should start by exploring the possibility of importing digital data. Large savings could also be made by reducing the detail and accuracy of the CAD maps, both in the original transcription and in modifications to represent earlier eras. This is particularly relevant to a study area which cannot be based on a digital map. The scale of the maps in this thesis (about 1: 40,000) does not do justice to the details that they contain, which means, with the benefit of hindsight, that a less conscientious transcription would have sufficed. The intention had been to reproduce most of the information shown on six-inch Ordnance Survey maps as accurately as possible, but future users of this method are advised to be less perfectionist. Even without digital maps it should be possible to reduce the computer work to a few hundred hours in future research of this type.

Experience showed that c.1887 six-inch Ordnance Survey maps provide the most reliable framework for reconstructing old landscapes and that it is important to work with the best available prints. Careful measurement revealed that most printed maps contain distortions; photocopying or photography makes them worse. This even applies to original modern Ordnance Survey maps, where the grid squares are not always square and the colours representing different features are not superimposed exactly. These distortions need to be removed if the CAD map is to be very accurate, so accepting a lower accuracy makes it possible to dispense with the difficult geometrical manipulation that is otherwise needed. Since manuscript maps are often very distorted and even printed maps are fallible, it would not be possible to duplicate the present research by superimposing bitmap images of maps of the same area at different dates. Only a vector-based CAD program permits the refined adjustments needed to reconcile old maps.

The power of the present approach is best demonstrated by the highly-detailed maps such as Figs 9-4 and 9-6, which superimpose selected geographical features upon a plot of the variation of land value across Allesley parish. It is hoped that these products of a home computer will stand comparison with professionally-produced illustrations. The emphasis on detail and presentation in these maps revealed subtle patterns in the landscape which are highly significant, yet would not be suspected using traditional methods.



The technique developed for this thesis was used to create fully-detailed CAD maps of the study area in 1937, 1887, c.1840 and 1809, as shown in Chapter 4; a map of the area in about 1600 was less detailed and incomplete because of gaps in the documentary evidence. Several sources including parish maps, estate maps, surveys and aerial photographs were consulted when modifying each map to represent the previous era. There were few old maps showing large areas at the same date and there was a surprising lack of geographical information about some areas, for example Coundon parish before 1841. The familiarity with these old maps that was engendered by their transcription revealed some disquieting faults, most notably the fact that the 1843 tithe map of Stoneleigh included many field outlines that had actually disappeared decades earlier. Despite these problems, the reconstruction of the later maps showed all the features within five yards (or metres) of their true positions, with even greater accuracy in local details and the relationship between nearby features. As far as is known, the c.1840 and 1809 maps are the first to include all details of the study area, such as field outlines and ponds, at these early dates.<sup>3</sup>

Although incomplete, parts of the c.1600 map are detailed enough to show that many modern roads, woods and field boundaries already existed. The reconstruction of this map depended on interpreting the information about fields contained in a written survey of Allesley manor in 1626. This task proved to be more difficult than expected because only a few percent of the 1626 field-names survived until 1809, as later analysis showed. Lacking enough clues, many of the fields needed to be identified by establishing the chain of ownership between the dates. This task was only partly successful because of gaps in the documentation. A future project to reconstruct the geography of an area would benefit from a comprehensive database of surveys and land transactions, so that fields and changes of name could be tracked over time.

The reconstructed maps were used to present many types of information from several surveys dating from between 1597 and 1843. These surveys were first transcribed into databases, using the Microsoft Works program. Despite its basic nature, this database package proved indispensable for converting acres, roods and perches into decimal areas and pounds, shillings and pence into decimal values, and then doing all sorts of calculations and selective editing that processed the data into the forms that were most suitable for statistical analysis and graphical presentation. Although most researchers will be familiar with this type of work, it is worth confirming how much time it saved in this thesis and how much it improved the reliability and usefulness of the information contained in the surveys.

The procedure developed for this thesis is an alternative to the GIS-based approach that is now widely used for studies of past landscapes. Recent publication of the latter research allows comparisons to be made with the present techniques, which were developed in 1998. Many of the published GIS projects rely on field boundaries and other data that have been digitised from old

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3 The field boundaries on the two-inch Ordnance Survey of 1814 were fictitious.



maps, particularly those accompanying the c.1840 tithe surveys, but the present work has shown that such maps may be inaccurate, incomplete and perhaps unrepresentative of parts of the landscape. These defects will only be evident if the maps are evaluated in their historical context. Although these faults may not compromise the small-scale mapping of data related to the same maps, notably the tithe surveys, they should exclude these maps from consideration as a geographical framework for deriving earlier or later landscapes. The present thesis shows that six-inch first edition Ordnance Survey maps provide the best framework, supplemented where possible by digital data from the modern Ordnance Survey.

As in the present thesis, the GIS projects require a great deal of manual tracing of lines in order to create computer-based maps. Some of the GIS projects have used digitising tablets with original maps or manual tracings of original maps. The former method would not be available to private researchers and both of them must be inaccurate, particularly the latter, when tracing small features from original maps. The present approach improves the accuracy by tracing from a magnified image of the map. Although photography and scanning slightly distort these images, the errors can be reduced or eliminated by subsequent processing of the CAD map. Working with original maps is not always possible because they are too large, fragile or inflexible, so an approach based on photography may be unavoidable. Even if the researcher is allowed to digitise an original map, experience with the present work suggests that the results will be less accurate and reliable than those that are obtained from photographs and photocopies that can be transcribed, measured, marked and checked in the researcher's own office.

The present approach is cheaper than the GIS-based alternative because it needs no expensive software or hardware; its CAD programs are inexpensive and have other uses on a home or office computer. As far as can be determined, the GIS projects have been content with less detail than the present thesis, for example omitting ponds and individual buildings. Although these details could presumably be included, it would not be feasible to trace them accurately at the small scale of most original maps. From what has been published, it appears that the present method produces final illustrations that are as informative and attractive as those that come from a GIS. The latter have more technical options, for example being able to superimpose data on three-dimensional perspective representations of the land contours, but these do not appear to be relevant to the present type of work. It will be concluded that the technique in this thesis offers several advantages over the GIS approach that should commend it to the private researcher.

Chapters 5 to 7 show how the information in surveys was presented on contemporary maps of the study area. The CAD-based approach allowed features of the maps and surveys to be shown selectively, in order to illustrate particular themes in the thesis. Chapter 5 was concerned with the landholdings of owners and occupiers throughout the study area since about 1600. By plotting numerous maps of individual landholdings, it is evident that most of them were confined within one parish. A surprising proportion were scattered rather than compact, especially in the



larger sizes, and this applied as much to occupiers as to owners. Graphs of the value of estates showed a great deal of variation for small holdings, but no proof that larger holdings were, on average, worth more per acre than small ones. Owner-occupiers were rare. Chapter 6 was concerned with land use and field size. The coloured CAD maps were particularly useful for giving an immediate impression of the distribution of different land uses, alongside tables showing the percentages. Graphs of the distribution of field size were prepared for several of the dates, including sets for each of the parishes in about 1840; these provided insights into the development of the field pattern within contrasting parts of the study area.

The analysis and presentation of land values in Chapter 7 is probably the most interesting part of the historical research. A definitive map derived from the 1809 Poor Law survey of Allesley shows a subtle pattern of land values across the parish, with a remarkably smooth gradation between the areas of high and low value. The area around Allesley village had the highest value. This smoothness is characteristic of intrinsic land values, which are not affected by the circumstances or efforts of individual farmers (see Appendix B). Land use was not a factor, apart from the low values given to woodland. The map derived from the c.1840 tithe surveys of Allesley and Coundon showed a similar but much more mottled pattern. Stoneleigh could not be included because its tithe survey was related to total holdings and demonstrably unreliable. Further analysis of the data showed that the tithe values had been modified according to land use, so two methods were devised to compensate for these modifications in order to reveal whether the land had an underlying value. The normalisation method recalculated the value of each field as a percentage of the parish average value for its land use. The second method adjusted the field values arithmetically according to their uses; the adjustments were arrived at by observing the changes between adjacent fields but had no formal basis. The map of adjusted value was very similar to the normalised map, but a little smoother. Both maps showed a surprising consistency between the values in the two parishes, which had been surveyed independently.

The pattern of values in both 1840 maps was very similar to that for 1809, but not identical, which is compelling evidence that the c.1840 tithe rent-charges for Allesley and Coundon were based on intrinsic land value, albeit modified according to land use. Although it is less academically sound than the adjustment method, the normalisation method can be recommended to other researchers because it is easy to apply, without an intimate knowledge of the parish in question. This method allows the researcher to derive the variation in intrinsic land value across a survey area, typically a parish, using a valuation that has been modified by another factor, typically land use. Independent surveys of adjoining parishes can be linked in this way. Although not applicable to all surveys, this method offers the possibility of creating detailed maps of intrinsic land value that extend over several parishes. Further investigation may reveal that many tithe surveys with field-by-field apportionments contain more useful information than has previously been suspected.



Chapter 8 analysed some of the changes in the study area since about 1600. A comparison between the field-names in Stoneleigh parish in 1597 and 1843 showed that 19% of the 1597 names survived, but in only 3% of the more numerous 1843 field-names. Comparing the equally thorough surveys of Allesley parish that were made in 1809 and 1840, only 62% had kept near enough the same name, 4% had been corrupted (for example Cat Croft / Scratch Croft), but 34% had changed completely. This rapid rate of change would lead to only 6% of names surviving from the previous 1626 survey until 1809. Both comparisons show that field-names should not be relied upon when identifying the fields in much earlier surveys that lack maps, unless the land has remained with the same owner or occupier. This discovery suggests a new line of research into the reason why new owners or occupiers would change field-names that had been known and mapped for centuries, causing confusion to local farmworkers and administrators alike.

The two surveys of Allesley were also used to compare the sizes of landholdings in 1809 and 1840. Against expectations, it was found that there had been an increase in the number of smaller holdings below 75 acres for owners, and 60 acres for occupiers, at the expense of the large holdings. A comparison of land use in Allesley parish in 1809 and 1840 showed that there had been an overall increase in the proportion of arable, although the area to the east of Allesley village had seen a decrease, perhaps caused by trespassers. A comparison of field sizes throughout the study area showed that there had been a steady reduction between about 1600 and the c.1840 tithe surveys, with fields of 3 to 5 acres becoming most common. A surprising discovery was that the statistical distribution of field sizes within Allesley, Coundon and northern Stoneleigh had become almost identical by the early nineteenth century, despite the contrasting histories of these parishes. Applying this type of statistical analysis across a much wider area could be a fruitful topic for future research because it would provide a numerical basis for cataloguing field patterns and perhaps associating them with particular historical developments.

The benefit or otherwise of the 1652 enclosure of Allesley's open field was investigated using personal and geographical data from the 1654 decree and intrinsic land values from the 1809 survey. This work showed that the value of the open field had increased by a factor of three relative to the land outside it, so the enclosure had been highly successful in improving the farming economy of Allesley parish. A graph of the value of each man's allotments showed no bias in favour of the most important parties, except for the lord of the manor. This showed that the design of the enclosure was surprisingly fair to all concerned. The final conclusion from the investigation was that the 1654 dispute was fictitious, being intended to obtain a court ruling that would reinforce the validity of this enclosure by agreement.

A map of the change of intrinsic land value between 1809 and 1840 showed a decline in the relative value of the area around Allesley village that was most valuable in 1809. Although partly explained by a general contraction in the range of values in the later survey, this decrease also points to damage by trespassers. Further analysis in relation to the boundaries between



occupiers' holdings proved that the change in land value was not due to the endeavours of individual farmers. This lent further support to the conclusion that the land values were intrinsic. Chapter 8 concluded with sets of maps for 1809, 1840, 1887 and 1838, which illustrated the changes in buildings, roads, paths, ponds and woods in the finest detail.

Chapter 9 united all the work done so far to present and analyse the geographical characteristics of Allesley and Coundon that relate to an earlier landscape. The outline of Allesley's former open field was shown to correspond closely to the area of high intrinsic value in the 1809 and 1840 surveys. Irregularities in this outline combined with field-name evidence to suggest that the open field used to be larger at some date before the 1650 enclosure agreement. By superimposing woodland and 'wood' field-names on the 1809 map of intrinsic land value it was shown that both lay on areas of very poor land. Some of the field-names corresponded to documented former woods but others related to woodland that had left no trace in the records. Noting that the modern map of land classification does not show this land as being poor, it was proposed that its low value in 1809 was the result of impoverishment by woodland, not the reason why it had been reserved for woodland. From this it followed that many of the other areas of low intrinsic value may once have contained woods, despite the lack of field-name or documentary evidence. This conclusion was supported by a map which showed that the surviving woods and 'wood' field-names did not occupy the highest land, as expected, which suggested that the traditional hill-top woods had been felled early in Allesley's history.

Consideration then turned to the number and siting of ponds on the maps of Allesley and Coundon. There were very many ponds within this area, but unevenly distributed. The land with the highest intrinsic value had almost no ponds, while the poorest land was covered with them. In 1809 Allesley, fields of below-average value were 3.66 times as likely to contain a pond as above-average fields were. Of the several explanations for this anomaly, the most plausible is that many of the ponds were original features of the land. Over 70% of the ponds were in the half of the parish that lies above 400 feet. In 1887 there was an average of 54 ponds per square mile in Allesley, with a maximum of 81 per square mile between the 400 and 425 feet contours. These high densities are considered to be typical of ancient woodland. Coundon had an almost identical density and the areas with most ponds were continuous with those in Allesley. Since the histories of Allesley and Coundon were largely independent, with few landholdings crossing the boundary between them, the ponds are most likely to precede the parish boundary or to be of natural origin.

It would be tempting to use these proven correlations with geographical characteristics to estimate the extent of woodland and open field at some much earlier date. A speculative reconstruction of the early landscape of Allesley and Coundon parishes was not attempted, however, because of the need for substantial extra research beyond the scope of this thesis.



# Appendix A

## The Pronunciation of Local Place-names

The study area contains several unusual place-names which cause difficulties to visitors asking for directions. The following pronunciations are used by Coventrians.

Coventry	Coventry	As in <i>hover</i> . The aberrant BBC pronunciation <i>Caf'ntray</i> causes great irritation locally. Thankfully it is now almost extinct.
Allesley	Awls-lee	The pronunciation tends towards Awe - slee because the repeated 'l' sound is difficult.
Berkswell	Burks-well	Not <i>Barks-well</i> .
Cheylesmore	Cha(r)les-moor	
Coundon	Cow-n-d'n	Not <i>Coon-don</i> .
Guphill	Gupp-ill	Not <i>Guffil</i> . The name comes from the medieval Gopil family.
Hearsall	Her-sull	
Keresley	Curs-lee	Not <i>Cars-lee</i> .
Stivichall / Styvechale	Sty-chull	Both spellings are still used today.
Whoberley	Woe-b'-lee	

It will be noted that both Berkswell and Keresley have resisted the polite shift from an 'er' to an 'ar' sound. They are pronounced like Berkhamstead rather than Berkshire. Ekwall's claimed pronunciations are wrong.<sup>1</sup>

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1 E. Ekwall, *The Concise Oxford Dictionary of English Place-names* (1936; Oxford, 1991).



## Appendix B

### The Value of Land

The archives contain many valuations which define the perceived variation in the value of land across a large area, typically a parish or a tithe district. The 1597 survey of Stoneleigh manor listed the values of some parcels of land (probably individual fields) held by named tenants, quoting a rent but sometimes including a yearly value for the same item.<sup>1</sup> The predominant type of tenancy was not stated, although it was probably copyhold because there were a few exceptional references to demesne and freehold land. This thesis only covers the northern part of Stoneleigh, where the large freeholdings were listed without any valuation. Many individual fields and some groups of adjacent fields were given a value per acre in the 1626 survey of copyholders in Allesley manor and the slightly later valuation of tenants' land in Allesley Park.<sup>2</sup> The 1809 Poor Law survey of Allesley parish listed the value per acre of every field.<sup>3</sup> In the c.1840 tithe surveys, the rent-charge and area was listed for every tithable field and piece of land in Allesley and Coundon parishes and a few groups of fields in Stoneleigh parish.<sup>4</sup> A cruder modern equivalent to these old valuations is provided by the map of agricultural land classification that was published by M.A.F.F. in 1972.<sup>5</sup> These valuations are described in more detail in Section 3.1.

This summary shows that the word 'value' should be interpreted with care because it does not always mean the same thing. When a major landowner such as the lord of the manor commissioned a valuation, he was primarily interested in what the land was worth as a source of annual rent. However, the listing of rent as well as yearly value in the 1597 Stoneleigh survey, sometimes with different amounts for the same holding, shows that there could be complications. Presumably the rent was what was actually paid, whereas the yearly value was what it would be worth with a new tenancy. Large differences would be expected for copyhold and leasehold land for which the annual payment had been fixed many years previously.

The Stoneleigh survey shows that the value of a particular piece of land could vary with time. In most cases the yearly value was higher than the rent, in some cases twice as high, but a few fields had a yearly value that was lower than the rent. General inflationary or deflationary trends in the national and local economy cannot explain these contrasting changes; some must

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- 1 A Survey of the Manner of Stonly belonging to Sr Thomas Leygh knight taken in September and October [1597] by John Goodwin Practitioner in the Mathematick, Shakespeare Birthplace Trust, DR18/30/24/279; Modern transcript of Goodwin's 1597 survey of Stoneleigh, Shakespeare Birthplace Trust, DR18/30/24/279a.
  - 2 The Survey of the Mannor of Allesley in the Countie of Coventrie being the Lands of the Right Ho. Henry Lord Bergavenny taken in Anno 1626, War. C.R.O., CR623 Box 14; Allesley Parke - Survey According to Mr Comptons Booke & his val[ua]tion, War. C.R.O., CR623 Box 14 [loosely attached to the 1626 survey].
  - 3 Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1.
  - 4 Allesley Parish tithe survey 1840, War. C.R.O., CR569/3; Coundon Hamlet tithe survey 1841, War. C.R.O., CR569/80; Stoneleigh Parish tithe survey 1843, War. C.R.O., CR569/213.
  - 5 M.A.F.F. *Agricultural Land Classification of England and Wales, 1 inch : 1 mile map, Sheet 132* (Pinner, 1972).



have related to the virtue or otherwise of individual fields. Neither can general trends explain the differences in contemporary value per acre between nearby fields with the same landowner and occupier and the same form of tenancy. Clearly some fields were worth more than others, presumably in their potential for yielding a profit. At that time, most farmers were local men who knew what the land could produce and were therefore well placed to judge the level of rent that would make farming each field worthwhile.

These observations reinforce the idea that fields had an intrinsic value which was the sum of many factors such as soil fertility and workability, exposure to sunshine, wind and frost, local micro-climate, access to water, distance from markets, nearness of labour and the usability of local roads in all weathers. The modern map of soil classification covers some of these factors with a broad brush, but the understanding of intrinsic land value must have been far more subtle in the era of traditional farming, before it became possible to make radical improvements through the use of artificial fertilisers and irrigation and when failure meant destitution or starvation.

Evidence that land values were intrinsic may be obtained by mapping a valuation. In general the natural environment varies smoothly, the only discontinuities being where soils or slopes change within a short distance, whereas human-related factors such as individual enterprise and the types of tenancy will result in a patchwork. If the valuation used current rents, the map will show sudden changes of value which reflect different types of tenancy and the change in prices since each rent was fixed. If there is a smooth and gradual variation across the map, it is very likely that the valuation represents intrinsic value. A good example of this is provided by the 1809 Poor Law survey of Allesley, where it is found that the field values per acre took no account of land use and the map showed a gradual variation of value per acre across the parish which was not influenced by boundaries between landholdings.

Alternative forms of valuation may be encountered in the c.1840 tithe surveys.<sup>6</sup> The apportionment of total rent-charge among the properties within a parish could be based on the whole estate held by a landowner or occupier, or it could be related to individual fields. The former approach was simpler, but contemporary guides favoured a field-by-field apportionment which, although more expensive in the short term, would benefit landowners when the land was sold. It is usually assumed that it was difficult to apportion the rent-charge equitably among land of differing quality and use, since both the use and the tithable produce was likely to change from time to time. If this assumption is correct, then the only alternative to rating all fields at the same value would be to differentiate them on the basis of their observed state of cultivation. In most tithe surveys, regularly-ploughed arable was, on average, rated more highly than pasture, with meadow being the most valuable of all, although there could be a wide range of values in each category and a considerable overlap between the ranges.

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6 R. J. P. Kain and H. C. Prince, *Tithe Surveys for Historians* (Chichester, 2000), p.23.



In this thesis, the tithe surveys of Allesley and Coundon were carried out on a field-by-field basis, whereas the Stoneleigh survey showed only the total holding of each combination of landowner and occupier. Chapter 7 shows that, if the effect of land use is allowed for, the field-by-field valuations were much more subtle and consistent than would be expected from the simple procedure that is often assumed to have been used. The close correlation across the parish boundary is particularly striking. This suggests that the valuation actually involved a sophisticated understanding of the intrinsic value of all the land in Allesley and Coundon.

Pearson and Collier analysed the statistical importance of land-ownership and natural factors in determining rent-charges in the c.1845 tithe survey of Newport parish in Pembrokeshire.<sup>7</sup> Their computer-generated maps, which made use of modern topographical data, showed that tithe rent-charge per acre tended to vary continuously across wide areas, proving that it was not apportioned randomly but was probably related to agricultural productivity. The authors found that rent-charge per acre fell with increasing distance from Newport town, which may have been due to environmental factors or the distance of the fields from the labour supply and market. Pearson and Collier did not draw any firm conclusions from their use of statistical techniques to find correlations with the topographical factors of altitude, slope and aspect, although they found that the average rent-charge per acre of a landowner's holding had no correlation with its size.

Baker has examined the relationship between tithe rent-charge and agricultural production in England and Wales in the mid-nineteenth century, noting that there is no direct method of measuring agricultural production before 1866.<sup>8</sup> Her analysis was based on tithe files for 269 out of 285 tithe districts in Dorset, which cover a wide variety of agricultural ecosystems, including poor sandy heaths, chalk downland and heavy clay vales, and thereby provided a useful test for the existence of systematic variation in tithe rent-charge. Baker demonstrated a strong relationship between tithe rent-charge per acre and rent, although particular circumstances could be all-important for individual tithe districts. From the evidence of Dorset, Baker suggests that the relationship of tithe rent-charge to agricultural output may have been underestimated.

Going further than Pearson and Collier and Baker, the present thesis presents evidence that, in some parishes during the early nineteenth century, valuations were based on a subtle knowledge of intrinsic land value, rather than by applying the relatively crude procedures that legislation allowed and that other researchers have identified elsewhere. In valuations based on intrinsic value, land may be described as objectively 'good' or 'poor'.

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7 A. Pearson and P. Collier, 'The integration and analysis of historical and environmental data using a geographical information system: landownership and agricultural productivity in Pembrokeshire c.1850', *Agric. Hist. Rev.*, 46 (1998), pp.162-176.

8 J. R. Baker, 'Tithe rent-charge and the measurement of agricultural production in mid-nineteenth-century England and Wales', *Agric. Hist. Rev.*, 41 (1993), pp.169-175.



## Appendix C

### Comparison between the Reconstructed 1809 Map and the 1814 Two-inch OS Map

The map of the study area in 1809 was reconstructed before the 1814 two-inch Ordnance Survey map became available for study.<sup>1</sup> Because the 1809 map had been reconstructed independently it was therefore possible to judge the accuracy of the method by comparing Fig. 4-4 with Fig. 3-5. It must be emphasised that no changes of any sort were made to Fig. 4-4 as a result of this. For easier comparison, Fig. C-1 shows the 1809 roads superimposed on a monochrome version of the 1814 map. Because of the absence of a north symbol and scale bar on the OS map it was not possible to determine the exact scale and orientation of the digital image that was supplied by the British Library. It was therefore necessary to estimate the rotation, scale and reference points on the OS map that would give the best agreement with the reconstructed 1809 map. Uniform scaling and rotation were used, although better agreement would have been obtained by using slightly different scales in the north-south and east-west directions to compensate for uneven shrinkage of the map during storage and for the fact that the map may not have been entirely flat when it was photographed.

From Fig. C-1 it will be seen the two maps agree well qualitatively, but rather poorly in absolute positions. This comparison used the Birmingham/Chester road through Allesley as its reference feature because, as a major national route, this was likely to be the most reliable part of the 1814 map (see Fig. 1-6 for road-names and place-names). The two maps agree well between Chapel Fields and Pickford Bridge, although the OS map tended to exaggerate the width of the road. There is also good agreement between the roads to the north-west of Allesley village, at the south-west corner of Westwood Heath and the exit from Wall Hill Road onto Corley Moor. Around Broad Land and Tile Hill Lane the consistent difference between the maps would be resolved by translating this area of the 1814 map by a small distance to the north-east. The same applies to the area around Brownshill Green, Coundon Green and the Tamworth Road. These consistent differences suggest that several fairly accurate but independent surveys within this area had been assembled without sufficient care.

Some minor roads such as Brown's Lane and Clay Lane had been mapped very poorly, presumably from a freehand sketch. The shapes of the woods were also inaccurate. Although not evident from this comparison, it should be noted that the fields shown on the 1814 map were entirely fictitious.

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1 Ordnance Survey Drawings, Birmingham Sheet, Surveyed 1814, British Library, OSD 256,24 (c.1831-35).



MISSING PAGES  
REMOVED ON  
INSTRUCTION  
FROM THE  
UNIVERSITY



## Appendix D

### A Secret Code Used in the 1809 Poor Law Valuation of Allesley

Every field on the surviving maps from the c.1809 Poor Law valuation of Allesley parish contains a hand-written two-letter code such as *ud mr* or *cl*.<sup>1</sup> Woodland has a one-letter code, usually *a* or *b*. The written survey does not show these codes, so there is no information for fields whose maps are missing from the 1809 series.<sup>2</sup> The code letters for adjoining fields are often the same, so it seems likely that they represented a system for classifying the land, although neither the maps nor the written survey gave any clue to the meaning.

Some detective work was needed to discover the significance of this secret code. The first problem was to read the code letters with confidence, because they were written in several casual hands which were sometimes over-written or amended. There was a mixture of upper case and lower case, ornate and simple, neat and untidy, bold ink and pencil that is almost too faint to discern. Sometimes the writing is defaced or lost in a fold. Lacking a volume of text for comparison, each isolated letter was difficult to read with confidence; this was especially true of one writer's ornate *u* which looked very similar to another writer's plain *M*.

By compiling a list of all the code letters it became clear that they are combinations of the letters *a b c d e l m n r u*. What could these letters indicate? A first guess would be that the letters *a b c d e* defined some quality of the land, such as land use or soil type, with *a* being the best and *e* the worst. The sequence *l m n* could define another progression, with *u* perhaps meaning *unknown* and *r* yet to be explained. This initial speculation proved to be entirely mistaken.

Since all the information from the 1809 maps and survey had already been entered into a database, it was easy to check for correlations between these codes and the other data. Simple sorting showed that there was no correlation between code letters and land use, except that small or rough pieces of land were restricted to a few codes. Neither were there any significant correlations with field size, land ownership or land occupation. Plotting the codes on the 1809 map revealed some grouping of similar codes, but not enough to deduce the reason. The final check using the database was for any correlation between the code letters and the Poor Law charge, in shillings per acre, that was stated in the written survey. Sorting the data by code letters, then by value, produced a strong correlation. For each two-letter code, most of the fields had the same value per acre, and the few others usually differed by one shilling per acre.

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<sup>1</sup> Sketch Maps of Allesley Parish 1809, War. C.R.O., CR1709/75/27.

<sup>2</sup> Survey and Valuation of Allesley Parish 1809, Cov. A., 111/1.



This suggested that the codes had a numerical rather than a qualitative basis. The most frequent two-letter codes, beginning with **u**, were used to investigate the correlation further. The following values, in shillings per acre, were found to be the most common for each of the **u** codes :

<b>ua</b>	<b>ub</b>	<b>uc</b>	<b>ud</b>	<b>ue</b>	<b>ul</b>	<b>um</b>	<b>un</b>	<b>ur</b>	<b>uu</b>
<b>28</b>	<b>24</b>	<b>21</b>	<b>20</b>	<b>25</b>	<b>27</b>	<b>23</b>	<b>?</b>	<b>26</b>	<b>22</b>

Sorting the codes by increasing value produced the following sequence :

<b>ud</b>	<b>uc</b>	<b>uu</b>	<b>um</b>	<b>ub</b>	<b>ue</b>	<b>ur</b>	<b>ul</b>	<b>ua</b>	<b>un</b>
<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>?29</b>

Knocking off the initial **u** in each code and switching the first letter to the end gave :

<b>c</b>	<b>u</b>	<b>m</b>	<b>b</b>	<b>e</b>	<b>r</b>	<b>l</b>	<b>a</b>	<b>n</b>	<b>d</b>
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Repeating this process for the two-letter codes beginning with **c** (range 10 to 19) **m** (range 30 to 39) and **b** (range 40 to 49) confirmed the same result. The single **e** code - **ed** (value 50, the maximum value per acre for any field in the survey) - was also consistent. **Cumberland** was therefore, rather surprisingly, shown to be an anagram of **a b c d e l m n r u**. This analysis showed that **Cumberland** was used as the keyword in a 'substitution cipher' which was intended to disguise the numerical values.<sup>3</sup> Each of its ten letters represented a number :

<b>c</b>	<b>u</b>	<b>m</b>	<b>b</b>	<b>e</b>	<b>r</b>	<b>l</b>	<b>a</b>	<b>n</b>	<b>d</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>0</b>

As examples of using this cipher, **ua** meant **28**, **mc** meant **31** and the single-letter code **b** meant **4**. The use of this substitution cipher must have been an effective and simple way of disguising the numerical data. Unless one knew the keyword **Cumberland** and its precise application, or did some intensive analysis of all the facts contained in the maps as well as the written survey (as done here), it would be quite impossible to deduce the detailed significance of the two-letter codes. The choice of keyword was ingenious; although any ten-letter word without repeated letters would do, the **a b c d e** sequence in **cumberland** made it ideally misleading.

The use of a cipher is an exciting discovery, but there remains the question why it was used. Perhaps the assessor needed to make notes in the field or other public places without worrying about being spied upon. One can imagine the assessor happily allowing a landowner to persuade him to 'downgrade' an assessment from, say, **cd** to **ce**, which was actually an increase from 10 to 15 shillings per acre! A more selfish reason for using a cipher would be to oblige the parish to re-employ the same man if the valuation needed modifying.

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3 S. Singh, *The Code Book - The Secret History of Codes and Code-breaking* (1999; London, 2000), pp.9-14.



# Appendix E

## Reconstruction of Allesley's Open Field in 1652

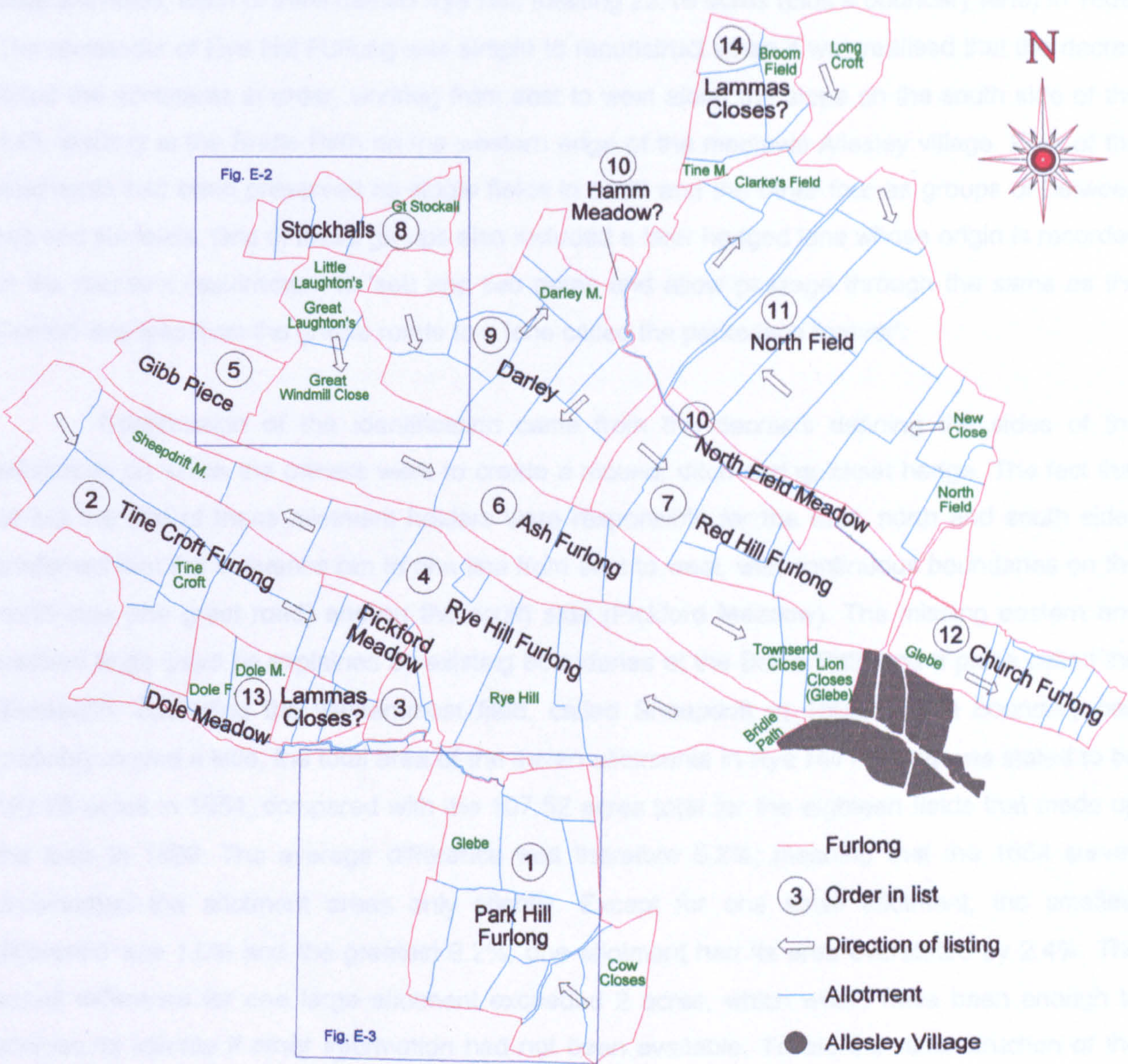


Fig. E-1 Order of Listing of the Furlongs in the Open Field

### Gibb Piece

The first individual allotments to be identified were those for which there was most evidence. This was better than starting with the first-mentioned Park Hill Furlong which lacked several of its allotment areas. To start the process, the 24 acre Gibb Piece was easily equated with the four Gibbs Closes, totalling 24.67 acres in 1809.



## Rye Hill Furlong

Within Rye Hill Furlong, reference to the adjoining 'greate roade' and 'parke lane' (A45 and Park Hill Lane) confirmed that Richard Hopkins' 23 acre allotment was made up of three adjacent fields, each of them named Rye Hill, totalling 22.16 acres (plus a boundary lane) in 1809. The remainder of Rye Hill Furlong was simple to reconstruct when it was realised that the decree listed the allotments in order, working from east to west along the slope on the south side of the A45, starting at the Bridle Path on the western edge of the medieval Allesley village. Four of the allotments had been preserved as single fields in 1809 and the other four as groups of between two and six fields. One of these groups also included a later hedged lane whose origin is recorded in the decree's requirement to 'sett upp two gates and allow passage through the same as the Comon way lyes from the greate roade to a lane called the parke lane forever'.

Confirmation of the identification came from the decree's defining the sides of the allotments on which the owners were to create a mound, ditch and quickset hedge. The fact that all but the first of these allotment holders were responsible for the east, north and south sides confirmed that the sequence ran in one line from east to west, with continuous boundaries on the north side (the great road) and on the south side (Pickford Meadow). The missing eastern and western ends could be explained by existing boundaries at the Bridle Path and a place called the Sheepdrift. Excluding the westernmost field, called Sheepdrift in 1809, whose boundary had probably moved a little, the total area of the seven allotments in Rye Hill Furlong was stated to be 102.25 acres in 1654, compared with the 107.52 acres total for the eighteen fields that made up the area in 1809. The average difference was therefore 5.2%, meaning that the 1654 survey understated the allotment areas only slightly. Except for one small allotment, the smallest difference was 1.0% and the greatest 9.2%; one allotment had its area overstated by 2.4%. The actual difference for one large allotment exceeded 2 acres, which would have been enough to confuse its identity if other information had not been available. To aid the reconstruction of the remainder of the open field, the average difference of 5.2% for Rye Hill Furlong and 3.1% for Gibb Piece suggested that the nominal areas of all the other allotments could be increased by up to 5% in the search for fields with the same area in 1809. It remained to be seen whether the other furlongs had been surveyed as accurately as Rye Hill Furlong. The successful reconstruction of two out of the fifteen furlongs and other pieces of land in the enclosure gave hope that the same method could be used for the whole of Allesley's open field. It was decided to give priority to the furlongs, on the assumption that each of them, like Rye Hill Furlong, would comprise a single line of allotments on the same slope.



## Ash Furlong

In view of the clockwise sequence that was apparently being followed in the survey, it was assumed that Ash Furlong, listed after Rye Hill Furlong and Gibb Piece, would be the strip of land running west to east along the slope between the A45 and the crest of the ridge behind it on the north side. It was hoped that the allotments in Ash Furlong would be easy to identify using the method that had worked for Rye Hill Furlong, but in practice two of the allotments could not be reconstructed with complete confidence. The problems encountered here will be described in detail because they are typical of those encountered later in the reconstruction.

The first allotment of 'two peices of land lyeing togeather as they were then marked out the one containing eight & forty acres or thereabouts the other six acres or thereabouts called the mill field and Loughton' corresponded to an area containing Great Windmill Close, Little Windmill Close, Great Laughton's and Little Laughton's in 1809. The total 1809 area was almost exactly 54 acres, the same as in 1654, but the two Laughton's account for 11 acres rather than the 6 stated in 1654. Neither field was of the right size by itself and they appear to belong together. James Sherriff's 1777 map showed the same boundaries for the two Laughton's as in 1809 and the clear 1946 aerial photograph (Fig. E-2) shows them combined into one field with a pattern of faint ridges in several directions.<sup>1</sup> There were hedges on all sides, with the most substantial one separating the Laughton's from Great Windmill Close. The pattern of ridges did not extend into the surrounding fields, so there is no evidence of the Laughton's having grown at the expense of the latter. The pattern could indicate that the 1654 boundary between the two pieces was somewhere further north, within the 1809 area of the Laughton's, but the other evidence argues in favour of the boundary of the 1809 Laughton's being the same as for the 1654 Loughton. Applying Ockham's Razor to this conflicting evidence it was decided to adopt the known 1809 boundary rather than any guessed alternative which would certainly be inaccurate. This meant that the 54 acres of the 1654 allotment would be divided 11:43 instead of the 6:48 quoted in the decree. It is possible that such an error could occur in the original survey because it only concerned divisions within one man's allotment rather than the all-important divisions between the allotments belonging to different men. Even if the assumed boundary is in the wrong place it will not compromise the overall reconstruction of the open field.

The second problem occurred at the east end of Ash Furlong next to Allesley village. Working from west to east, all the allotments seemed to match closely with the 1809 fields, but this left the 1809 Townsend Close unaccounted for. This close, lying at the western end of Allesley village, should have appeared as the penultimate allotment, to be followed by some glebe land whose area was not given in the 1654 decree.

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<sup>1</sup> A Map of Several Estates . . . [of] Rev. Mr. Edw. Harries, by Jas Sherriff 1777, War. C.R.O., CR2554/1.



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suggestion would mean that a close already existed within the open field, isolating the Lion Closes from the remainder of Ash Furlong. This would have been inconvenient if the former were part of the open field, but the fact that the decree does not quote an area for the glebe land suggests that it too was already enclosed. Whichever explanation is correct, Townsend Close and the two Lion Closes will be assumed to have been enclosed before the 1650 enclosure agreement, but will be treated as forming part of the original Ash Furlong.

Excluding Townsend Close and the known glebe land, the total area of the eight allotments in Ash Furlong was stated to be 105.25 acres in 1654, compared with the 106.84 acres total for the twenty fields that made up the area in 1809. The average difference was therefore only 1.5%. Except for one small allotment, the smallest difference was 0.2% and the greatest 4.4%, with one allotment having its area very slightly overstated. The agreement between 1654 and 1809 areas was therefore closer than for Rye Hill Furlong.

### **Red Hill Furlong**

The next reconstruction to be tackled was the north-facing Red Hill Furlong, which lay north-west of Allesley village, on the northern side of the eastern half of Ash Furlong. The allotments in Red Hill Furlong were listed from west to east, proving that the sequence obtaining so far was not immutable. The allotments were particularly easy to identify with the 1809 fields because of surviving field names, some church land and references to borders defined by roads and the Running Brook (the River Sherbourne, which is only a brook at this point). Despite this firm identification, the five allotments totalled 51 acres whereas the eleven equivalent 1809 fields totalled more than 55 acres, a difference of 8.6%. The largest increase for any allotment was 15.9%, with an adjoining allotment showing a decrease of 3.4%. This might suggest that the 1654 boundary had moved slightly before 1809, but the straightness of the shared boundary and the practical arguments against such a small adjustment make it more likely that these allotments were laid out inaccurately after 1654. Local re-routing of the Sherbourne where it forms the northern boundary of Red Hill Furlong could explain the difference in total area. Section 4.5 describes similar re-routing that occurred between 1809 and 1840. Unfortunately the 1946 aerial photographs could not supply any evidence of changed boundaries because this area had already been defaced by housing. The apparent inaccuracy of the reconstruction of this furlong confirmed that it might not be possible to reconstruct other areas with any confidence, unless there was supporting evidence from other sources.



## Stockhalls

The 21 acres of land named Stockhalls in the decree consisted of two allotments already divided into five pieces lying together. The 1809 survey showed a Great Stockall and a Stockall lying almost next to each other at the north-west corner of Ash Furlong. Without this field-name evidence it might have been impossible to locate Stockhalls, because it was described out of sequence. The 1809 Stockalls lay amid five small fields, totalling over 25 acres, which are the obvious candidates to be the pieces of the allotment. One of these 1809 fields was called Noble Croft which, according to Field, suggests an origin no later than the seventeenth century.<sup>3</sup> Because the total area seemed too large to be a plausible approximation, it was decided to exclude Noble Croft from the 1654 Stockhalls so that the difference was reduced to 7.7% overall. Removing this 1809 field left one too few pieces in the 1654 allotment. The aerial photograph showed several contrasting ridge patterns within Great Stockall, suggesting that it may once have been the two fields required for the total number to remain at five, although it was decided not to guess where the division might have been.

## Darley

The general location of Darley, the next piece of land described in the decree, was shown by the 1809 Darley Meadow. The fact that it was not called a furlong may be explained by its being a broad area to the north of Ash Furlong rather than a strip of land along a slope. Despite containing more than one line of allotments, it was found possible to match the ten allotments totalling 75 acres with thirteen fields in 1809; the overall difference in area was only 2.6%. This agreement was obtained after extending two of the 1809 fields across the later Washbrook Lane to the Sherbourne to match the allotments leading down to the Running brooke of water. It seems that the Sherbourne may have run alongside Washbrook Lane in 1654 (or shared the same route, as the name suggests), following one of the old watercourses shown on an 1946 aerial photograph.<sup>4</sup> The change of area between 1654 and 1809 varied for individual allotments, with four achieving better than one percent difference but the other, smaller allotments ranging as high as twenty-five percent.

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<sup>3</sup> J. Field, *A History of English Field-Names* (1993; London, 2001), p.194.

<sup>4</sup> RAF aerial photo 3G/TUD/UK/65, frame 5156, 9th February 1946.



## North Field

For reasons that will become clear later, the reconstruction now moved to North Field, which was an area to the north of Allesley village that is still known as North Field. The large total area of 183 acres suggested that the old North Field may have comprised several smaller furlongs whose names have not survived. Some difficulty was expected in the restoration because of the shape of this area, which ruled out a listing of allotments in linear order. In all known maps the area was crossed by Browns Lane, which runs south-west to north-east.<sup>5</sup> In 1674 the inhabitants of Coundon were wrongly indicted at Warwick Quarter Sessions for failing to repair Brownes lane, which was said to be two yards wide, so it was only a path in 1654.<sup>6</sup>

The first allotment listed in North Field supplied evidence of the potential accuracy of surveying methods in 1650. William Jelliffe's allotment contained 8 acres, 1 rood and 9 perches in the eastern corner of the furlong; it is recorded as New Close of 8 acres, 1 rood and 7 perches in 1809, a difference of only 0.15%. This difference, corresponding to a 2.5 inch (63mm) expansion of the boundary, would not disgrace two independent surveys made at the same time, and is surprisingly small when one considers the changes that are certain to occur in any organic boundary over a period of more than 150 years. This consistency suggests that New Close was older than the enclosure and that surveying could be very accurate in 1650.

After New Close the larger allotments were found to follow a clockwise sequence within North Field, with smaller pieces added at the end. Some of the identifications were easy, with John Clarke's allotment still known as Clarke's Field in 1809 and Long Croft retaining its name. Other allotments were commemorated by the pattern of land ownership in 1809, and most of the remainder could be identified by the sequence, area and references to neighbours who needed access. Although most allotments were identified with confidence, there was some uncertainty about the boundary of one allotment next to the River Sherbourne. The fourteen allotments in North Field totalled 183.3 acres in 1654; the thirty-one 1809 fields totalled 187.5 acres, including the area of Browns Lane, which is a 2.3% difference. This close overall agreement concealed some local variations, with the worst agreement (13.6%) being for a 5-acre allotment adjoining Coundon. In contrast to the consistent understating of sizes in the other furlongs reconstructed so far, five of the allotments in North Field had their size overstated by up to 5% in 1654. This variation of local accuracy within an accurate total is most easily explained by later errors in setting out and constructing the allotments rather than unreliable surveying.

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<sup>5</sup> Brown's Lane contained the famous headquarters of Jaguar Cars until 2006.

<sup>6</sup> S. C. Ratcliff and H. C. Johnson (eds), *Quarter Sessions Records 1674-1682*, Warwick County Records, 7 (Warwick, 1946), p.10.



## Hamm Meadow and North Field Meadow

Attention now turned to the previous item in the decree, which was about 8 acres of Hamm Meadow and North Field Meadow. Neither name survived to 1809 but it seemed reasonable to associate the latter with the 1809 Long Meadow, on the southern boundary of North Field. Because of the sequence Hamm Meadow should be on the River Sherbourne to the west of Browns Lane. A common meaning of hamm was 'land in the bend of a river', which exactly suited the situation.<sup>7</sup> Unfortunately, the boundaries of the four small allotments cannot be located because they related to the 1654 course of the River Sherbourne, which is not known.

## Church Furlong

Church Furlong was the last piece of land conforming to the geographical sequence in the decree. It obviously occupied the north-facing slope between Allesley church and the River Sherbourne, where it runs from west to east (see Fig. 1-1). The detailed reconstruction of the allotments was made difficult by the absence of any areas for the glebe land and three little pieces which constituted the furlong. Fortunately a 1682 terrier identified three 1809 fields as glebe land.<sup>8</sup> Without this document it would have been difficult to distinguish these fields from those around it that belonged to the vicar in 1809. The three other pieces of land were assumed to be some or all of the eight small fields, totalling 17 acres in 1809, that lay to the east of the glebe land. It appears that some of these fields were already enclosed, being listed in the 1626 survey of copyholders in Allesley Manor that is described in Section 4.7, but they will be included as part of the open field.

## Park Hill Furlong

Having reached the end of the clockwise sequence of listing the furlongs and other pieces of land described in the 1654 decree it was possible to return to the items whose restoration had been deferred because of its difficulty. The first piece of land in the decree was Park Hill Furlong, which can be located by the surviving Park Hill Lane which defines the western end of Allesley Park. From a preliminary analysis it was clear that Park Hill Furlong was a broad area, not a long slope, so the sequence of allotments would probably not follow a single line. The restoration was made difficult by the omission of areas for four of its ten allotments. One of the four was glebe land but the other three had conspicuous blank spaces (in both full copies of the decree) where an area should have been entered. These allotments were probably already enclosed, so they only needed to be indicated; their areas were irrelevant to the setting-out of new

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<sup>7</sup> A. Mawer (ed.), *The Chief Elements Used in English Place-names*, 2 (Cambridge, 1930), p.32.

<sup>8</sup> Bundle of thirty-four glebe terriers for Allesley, 1682-1836, War. C.R.O., DR72A.



allotments. The first allotment to be reconstructed was the glebe land which could be identified from the 1682 and later glebe terriers. Although the decree refers to 'the whole peice of gleibe' as if it were one field, a step change in the profile of its west side suggests that the 10 acres comprised at least two fields, and possibly the three that were listed in 1809. Based on the experience gained in the reconstruction so far, this land was expected to provide a reference point for identifying the allotments on each side. Unfortunately, the three previous allotments had no quoted area and the two following allotments were too small to be distinctive. Several of the larger allotments should have been identifiable from the areas of 1809 fields, but no really convincing correspondence was found within the few percent tolerance that sufficed elsewhere in the reconstruction. There was also a lack of landmarks and field-names in Park Hill Furlong, the only instance being Cow Field Bank, which was obviously associated with the 1809 Cow Closes, which lay upon a bank adjoining Allesley Park.

Many of the fields in this area were irregular in 1809, unlike most of Allesley's enclosure landscape. Traces of former boundaries are also visible within some of these fields in a 1946 aerial photograph (Fig. E-3), so it is possible that there were enough changes between 1654 and 1809 to alter the former field pattern, although there were almost no changes during the equal interval between 1809 and 1946. One explanation for these changes could be the concentration of farmsteads along the southern edge of Park Hill Furlong, each of them reshaping its immediate surroundings to include cattle pens and other small enclosures. Another confusing factor in the restoration of Park Hill Furlong was the presence of several closes that were listed in the 1626 survey described in Section 4.7. The sequence of allotments in the 1654 decree seemed to include some of these existing closes as though they were still to be created, while others were not mentioned. This uncertainty added to the difficulty of identifying the genuine enclosure allotments.

Sequence, areas, landmarks and names had been found to be the most reliable evidence for identifying allotments in the other furlongs, but none of these had borne much fruit in Park Hill Furlong. Some clues came from the sides on which the allotments were to be hedged, although the probable presence of existing hedged closes confused the picture. The stated accesses for other landowners were also ambiguous because the sequence was not linear and because the decree did not made clear whether an access was to another allotment or to land bordering the open field which happened to have the same owner as one of those with an allotment. The only remaining hope was to associate the geographical patterns of landownership in 1654 and 1809, using the notes compiled by Philpott.<sup>9</sup> This process was less reliable than usual because sales of land in this area often involved individual fields rather than traditional groups of fields. Despite all these limitations, enough clues were assembled for a tentative restoration of the allotments in Park Hill Furlong which, where areas were given, agreed within a few percent with the 1809 survey.

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9 L. C. Philpott, 'Allesley Lands and Peoples, Being a Brief History of Some Properties and Their Owners', (3 manuscript vols at Warwickshire C.R.O., 1970 - 1974).



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within it rather than elsewhere along Pickford Brook. The picture was further complicated by the fact that 9 acres of Pickford Meadow, arranged in two parcels, appeared in the 1626 survey of demesne land. It was uncertain whether the two surveys described the same or complementary areas. The area within which Tine Croft Furlong lay had evolved contrasting field patterns by 1809, with large rectangular fields to the west and small elongated fields across the eastern end. On the southern boundary next to Ash Brook there was a pattern of very small fields called Dole Meadow, together with two large rectangular fields named Dole Field and Dole Meadow. It appeared that many of the smaller fields could pre-date the enclosure and might not be included in the decree. Although the decree mentioned the Dole Meadows, there is nothing to show where they were or how large they were. The eighteen listed dole beneficiaries, all of them large or medium-size landholders, were enjoined that they

should severally well & sufficiently ditch & mound their severall peices of meadow soe severally appoynted before the first day of May in the yeare aforesaid on the east sides & should allow severall passages each & every one to the other thorow the severall peices of meadow soe severally appoynted to each & every ones severall peices forever.

In keeping with this, several attempts were needed to produce a plausible reconstruction of the allotments in Tine Croft Furlong and Pickford Meadow. The largest of them were matched to the large 1809 fields on the north slope near the western end of the ridge, using access conditions and one known adjacent farmstead as confirmation. Surprisingly it was found that one allotment lay on the southern slope of the ridge, filling the area between the large Dole Field and the boundary of the old copyhold land. It was not possible to locate all the allotments without using one or both of the large meadows containing Pickford Brook, including the 1809 Pickford Meadow. A consistent restoration of Tine Croft Furlong was achieved with all the allotments in one rectangular block, except for the appendage on the southern slope. This arrangement satisfied all the stated access requirements and generated all but one of the 1809 boundaries; this omission may show that the reconstruction is incorrect but is more likely a sign that this boundary already existed within the open field as a continuation of the eastern side of Tine Croft. This reconstruction suggests that the word furlong was not always restricted to land on the same slope in 1654.

The reconstruction of Tine Croft Furlong included the 1809 field named Pickford Meadow, so the decree's Pickford Meadow had to be placed elsewhere. The narrow meadow containing the eastern end of Pickford Brook fitted two of the allotments. Another was stated to be at the upper end of the meadow, with its access clause showing that it was surrounded by Tine Croft Furlong, although there was no way of locating it because the boundary did not survive until 1809. The last 6-acre allotment in Pickford Meadow could be the 1809 Allesley Meadow at the confluence between Pickford Brook and Ash Brook. The total area of all the allotments in Tine Croft Furlong and Pickford Meadow, together with the named Doles could not account for the whole area of the ridge in question. The missing area of about 11 acres is consistent with the 9 acres of Pickford



Meadow listed in the 1626 survey, but it would be unwise to equate the two with any confidence because of the obvious inaccuracy of the areas given in this part of the 1654 decree.

### **Lammas Closes**

The final item in the 1654 survey came under the heading Lammas Closes. Their location was not given, but the field-names Little Lammas Close, the Broom Fields, Marston Closes and the Tine Meadows were specified, together with seven beneficiaries. Unfortunately, no field-name including 'Lammas' or 'Marston' survived until the 1809 survey, although there were several Broom Fields and one Tine Meadow. The latter and one Broom Field lay next to each other adjoining the northern edge of North Field. This area contained allotments belonging to five of the beneficiaries and one other was named in a clause granting access to this area. It therefore seemed reasonable to assume that one group of Lammas Closes lay in this position, probably served by short lanes at the north and south ends that appeared on the 1809 map. References in the 1626 survey suggest that there may have been another group of Lammas Closes on the ridge occupied by Tine Croft Furlong at the opposite end of the open field. They could account for the surplus 11 acres described in the previous paragraph.



## Appendix F

### Natural Regeneration of Woodland

The local rate of natural regeneration of tree cover is shown by Hearsall Common, which lies on the old western boundary of Coventry which adjoins the study area. Fig. F-1 shows the appearance of this area in 1888, 1946 and 2000.<sup>1</sup> Its traditional use as grazing land for the freemen of Coventry was reduced by Coventry Council in 1860, again in 1875 and finally removed in 1927.<sup>2</sup> The surrounding farmland was sold to developers in 1928 and the suburbs were built soon afterwards.<sup>3</sup> From Fig. F-1 it will be seen that Hearsall Common changed from rough commonland into woodland within one hundred years. This change was entirely the result of natural regeneration and despite the contrary efforts of generations of local children, including the author, who have used it as an adventure playground.

The 1888 map may not be entirely reliable because it does not show a few ancient coppice stools that still grow there; presumably they had just been harvested and were not visible in 1888. Although the 1946 and 2000 views are not exactly equivalent because the former was taken in winter and the latter in summer with the trees in full leaf, it is obvious that the tree cover was sparse in 1946, except along the western and northern boundaries.<sup>4</sup> Most of the larger trees visible on the satellite photograph are oaks, despite their slow rate of growth and there is a profusion of other species such as hawthorn and birch. In places the trees grew so close together in 2000 that there was no room to squeeze between their trunks. The area that remained open in the 2000 photograph was being mown several times a year to keep it that way. The wartime allotments in the adjoining field still survived but the large 1888 pond was probably filled in to suit pre-war theories about tidy landscapes.<sup>5</sup>

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1 Ordnance Survey, *Six-Inch First Edition Without Contours, Warwickshire, Sheet 21 N.E.* (1888);  
Aerial photograph RAF sortie No. 3G/TUD/UK/65, Frame 5342, 9th February 1946;  
Satellite photograph c.2000 by Getmapping plc (West Midlands CD).

2 D. McGrory, *The Illustrated History of Coventry's Suburbs* (Derby, 2003), p.57.

3 McGrory, *Coventry's Suburbs*, p.159.

4 I played there in the 1950s, when it was a wild open place, excitingly concealed within a dense border of trees.

5 The rectangular shape near the bottom of the 1946 photograph was a static water tank for fighting wartime fires at the Standard car factory, a small part of which is visible at the bottom left corner.



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