

An Archaeological Resource Assessment and Research Agenda for the Medieval Period in the East Midlands (850-1500)

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1 Introduction

1.1 Historical overview

The period 850-1500 was one of great change which saw the East Midlands transformed from a conglomerate of localised chiefdoms or small kingdoms in the middle Saxon period to become part of the much larger and more powerful medieval kingdom of England, at its height during the period of the Angevin empire when it was one of the largest and most powerful forces in medieval Europe.

In the east midlands by 850 AD, Lindsey and the other Middle Anglian kingdoms of the region had come largely under the control of Mercia. This powerful overlord provided no guarantee against Viking raids from Denmark, for which the first was documented at Lindsey (Lincs) in 841 AD. By the 870s the east midlands was almost entirely (with the exception of Northamptonshire west of Watling Street) under Danish control. The extent of Danish immigration and settlement remains contentious, but the area was administered and defended by the Danes from five fortified towns or burhs, Leicester, Nottingham, Derby, Lincoln and Stamford, whose territories became the medieval shires. From the second decade of the 10th century control of the region was wrested from the Danes by the Saxon kingdom of Wessex, although briefly recovered by them in the 940s. Even after its amalgamation with Saxon England the area of former Danish control, termed the Danelaw, retained many legal and social distinctions.

The last centuries of the Anglo-Saxon era were ones of explosive change, upon which (in the East Midlands) the impact of the years of Viking rule remains a major subject of debate. Many of these changes appear to be part of widespread developments engulfing much of England and even Europe. The early administrative system of the church in the East Midlands, which took place from a small number of minster churches, changed by around 1100 into a system of smaller parish units each with its own church, via a process which seems to have been different from that in much of the rest of England. Religious developments were mirrored in secular landholding, where large middle Saxon estates devolved into numerous smaller manorial holdings. Both processes continued after the Wessex 'reconquest' of the Danelaw. The extent to which secular and religious authority promoted each other is unclear, but is likely to have been significant. The period from 850

AD seems to have been one of considerable population growth and expansion of settlement in the region, a pattern sustained until the fourteenth century.

Any or all of these factors may have impacted on the system of agrarian production and settlement, which in many parts of the region saw profound reorganisation, probably in the 9th or 10th century. A communal system of rotational field cropping was instigated in many manors and new crops introduced, and at the same time dispersed settlements in many parts of the region were widely abandoned as populations relocated to nucleated villages usually co-located with the manor house and church. The east midlands was becoming a region largely of champion landscape of open fields and nucleated villages, but with more thinly populated pastoral landscapes of dispersed settlement and mixed economies remaining prevalent in the more wooded, moorland and fenland areas of south-east Lincolnshire, north-west Leicestershire, north-west Derbyshire and west Nottinghamshire. Economic growth was considerable, and as commercial production for the market revived from the 9th century, fortified sites such as the burhs and other trading centres, some newly founded, became urban settlements which were the foci for production and commerce.

In 1066 the East Midlands came, along with the rest of England, under the rule of William Duke of Normandy, and most of the Saxon lords' holdings were transferred to William's followers. The impact of this on the higher echelons of a feudal society is visible in the appearance of castles and a renewed burst of monastic foundations along with the introduction of new religious orders from the continent. The impact may have been less on lower levels of society, but everywhere the period 1066 to c. 1300 was one of intensification, building on the earlier foundations.

In the post-Conquest period the region, remote from national borders, was relatively secure, although the Anarchy of Stephen's reign (1135-54) caused a brief spurt of new castle building. Throughout the period up to c. 1250 population continued to grow rapidly in both champion and pastoral regions and a high level of wealth and confidence is evident in the landscape. Many nucleated villages were relaid out into regular plans with vacant space left for future expansion, and elsewhere new settlements were founded. Most existing towns such as Leicester, Lincoln and Northampton expanded and built or rebuilt expensive walls. Many new towns were founded, mostly as commercial ventures such as Market Harborough and Castle Carleton. Increasing numbers of farms and small hamlets continued to be carved out of existing field systems or woodland which was also extensively assarted to make way for new fields. Continental contact was evidence in the appearance of houses of new religious orders including one which was exclusive to the East Midlands. During the 13th and early 14th centuries a fashion for moated residences among lords ranging from bishops to humble holders of a single small manor was widespread. An increasingly intensively exploited and formally bounded landscape was supplemented by deer parks which were built by wealthier lords to provide some of the amenities of royal hunting chases. By 1300 much of the region, notably the champion landscapes of most of Northamptonshire, north and west Lincolnshire, east and south Leicestershire, east and south Nottinghamshire and south Derbyshire, were densely populated and exploited. In the pastoral regions levels of population and exploitation were rising fast on the back of a mixed economy of agriculture, pastoralism and industrial activity such as iron smelting and potting.

By the late 13th century the foundation of new towns had peaked and many towns suffered as industries such as potting and fulling moved out into the country. There, an over-exploited landscape suffered as a series of poor harvests in the second decade of the 14th century was followed by the Black Death of 1348-9 which killed perhaps around a third of the population. Lordly control was weakened as demand for peasant labour exceeded supply, and the feudal bonds of medieval society were terminally weakened. Many rural settlements, particularly those in less favoured sites, suffered severe depopulation as peasants moved to other villages or to the towns. But despite this influx, many towns also shrank in size as mortality rates

remained high. During the 15th century corn prices fluctuated wildly and many lords turned to sheep farming as a more reliable source of profit requiring fewer workers. Many arable fields were turned over to pasture. These developments all had a profound effect on the champion regions, where any further problem could lead to the abandonment of the more unfortunate villages. The impact was more muted in pastoral areas. By the end of the 15th century the battle of Bosworth (1485) in Leicestershire ended the reign of Richard III, and ushered in the Tudor period, but the region was still in the grip of a decline that would not be reversed for a century or more

1.2 The evidence

There are two major distinguishing features of the evidence for the period 850-1500 in the East Midlands. One is the extent to which the archaeological evidence is preserved as visible remains, across and within the landscape. The second is the range of sources beyond the archaeological which must all be brought to bear on the period. Both of these place high expectations on the level of resolution that can be derived from the evidence.

The medieval period is the first for which archaeological evidence for entire landscapes survives, in some cases, more or less as they were left when the last field was turned over to pasture or the last croft abandoned, as has been graphically demonstrated by air photography. Such survival is an exceptional characteristic of the south of the region, particularly in Northamptonshire and Leicestershire. The potential exists to analyse such landscapes holistically, not as a series of 'sites' surviving as isolated islands in a much later sea, and this is an immense privilege rarely granted to researchers into other regions or earlier periods.

The corollary of this is, of course, the problem of the immense costs of investigating such vast tracts of evidence. Moreover there is no scope for complacency, as the resource is diminishing before our eyes, falling victim to modern cultivation, extractive industry and building development. The challenge lies in identifying avenues for investigation which will not result in our creating for ourselves a partial view when we could see the whole picture.

The period 850-1500 is the first for which there is archaeological, historical and architectural evidence available reasonably widely. Documentary and architectural evidence is very much less common before c. 1200, but from then on these resources increase significantly. Indeed it is one of the ironies of the period that although archaeological preservation is so much better than more remote periods, in some areas it has so far contributed very much less to our understanding than have documents and its use has often been restricted to merely 'illustrating' documentarily-derived history.

It is axiomatic, therefore, that in this period evidence from a variety of disciplines including, especially, archaeology, history and historical architecture, should be used together.

2. Urbanism

Although a number of towns such as Leicester and Lincoln probably remained in continuous occupation from the Roman period onwards, it is unlikely that post-Roman settlement at these or other foci, such as minsters, could be considered in any way truly urban before the late Anglo-Saxon period. Only from the 9th century did a number of settlements begin to acquire urban characteristics stimulated by the development both of formal weekly markets, mostly at important manorial and estate centres, and the founding of fortified burhs during the Danelaw and the subsequent Reconquest.

- *The unusual co-existence in the East Midlands of a number of towns where occupation has been continuous since the Roman period, combined with a relatively well-preserved wider historic landscape provides considerable potential for looking at aspects of change and continuity in the urban context within the wider context of settlement nucleation, the origins of the manor and complex field systems.*

2.1 Pre-Norman towns

The earliest identifiable urban settlements in the region were the fortified burhs founded in the ninth and tenth centuries. Stamford, Leicester, Derby, Lincoln, Nottingham and Northampton were all fortified by the Danes, rebuilding Roman defences where available (as at Leicester where there is no evidence for other Danish or Wessex refortification). This appears primarily to have been a response to the threat of a Wessex 'Reconquest' rather than part of a plan of settlement development (Stafford 1985, 114-5). Towcester was fortified in 917 by Edward of Wessex who captured Derby in 917 and Leicester, Nottingham and Stamford in 918, although the 'five boroughs' of the Danelaw (Stamford, Leicester, Derby, Lincoln and Nottingham) were briefly retaken by the Danes in the 940s. Lindsey and perhaps Lincoln may have remained under Viking control (from York) into the late 9th or early 10th century. Newark (Notts) was another new burh of the late Saxon period.

Most of the towns which developed from the Anglo-Scandinavian burhs have seen repeated excavation (eg RCHME 1977; Rogers 1965; Perring 1981; Mahany et al 1982; Mahany and Roffe 1983; Stafford 1985, 46-7; Steane and Vince 1993; Vince and Young 1991; Jones and Vince forthcoming), ranging from major research ventures to more limited responses to development. However, little is known of the character of occupation within or defences around them. Pre-Norman buildings have been found at Nottingham and Northampton (Williams 1981; Williams and Farwell 1983; Williams 1984; Williams undated; Williams et al 1985; Foard 1995; Welsh 1996; Soden forthcoming), but early occupation elsewhere has proved more elusive (Hall and Coppack 1972) as, generally, has evidence of distinctively Danish character. Even the nature of the defences remains obscure. In Leicester, the only known Danish items are four carved bone objects, a bronze pendant and a few ring-headed pins (Liddle 1983, 13).

- *Review of existing material to assess impact and nature of Danish occupation and the Danelaw on occupation in and fortification of the towns of the region.*
- *Clarification of the nature of urbanism in the pre-Norman era generally is a priority, including assessment of the level of distinction between the Danish burhs, non-Danish burhs and other settlements which might be considered urban at this date.*

2.2 Towns in the post-conquest period

The defining nature of urban settlements is as densely-occupied centres of trade and industry. Documented evidence shows that Leicester, Northampton and Brackley (Northants) were among many centres of cloth manufacture and wool and leather working, while excavation at towns such as Stamford, Torksey (Lincs) and Northampton shows them to be among the major urban pottery-producing centres either side of the Conquest. Map analysis at places such as Market Harborough (Leics) shows a common urban plan with a large central market place fringed by long narrow plots. Excavation in a number of sites reveals such plots to have contained shops and houses fronting onto the street, with working areas behind.

Most of the major medieval towns of the region have seen some, albeit often piecemeal, archaeological investigation. Leicester has seen extensive excavation on several sites (eg Hagar (unpubl), Lucas et al 1989, Lucas and Buckley 1989, Finn 1994,). Excavation inside the city walls of Leicester at Causeway Lane has revealed a densely occupied urban

settlement in the 12th and 13th centuries set within regularly laid out planned plots and pits within these have produced a large corpus of ceramic, environmental and faunal material relating to diet, health and living conditions (Monkton 1995, Connor and Buckley 1999). Excavation combined with regressive plan analysis has thrown new light on the development of the town and post-Conquest formal market place (Courtney 1996, 1998). Northampton has also seen excavation in several areas including Woolmonger and St Giles Street, but work has focussed mainly on the area of the Saxon burh (Williams 1979, Shaw 1987, Shaw and Steadman 1993, Foard 1995, Shaw 1996, Welsh 1996). In Nottingham most excavation has concentrated around the castle area. Standing building survey work has complemented excavation in Lincoln and shown that a much greater number of standing buildings than formerly supposed are of medieval date (Nat Alcock pers comm) and a similar phenomenon is considered likely in other towns (eg Hagar and Buckley 1990).

Many of the larger towns such as Leicester had walls in the middle ages (eg Buckley and Lucas 1987, Lucas 1978-9). These were important status symbols as much as defensive features, and also often functioned to demarcate privileged borough holdings from the suburbs beyond the walls. The suburbs, which expanded rapidly from the 12th and 13th centuries and were the loci of extensive occupation, industry and even trade (Foard 1995), have generally seen little investigation and their organisation remains poorly understood. In Leicester, excavation within the south medieval suburb has revealed domestic occupation and industrial activity including leatherworking and dyeing (Finn 1994, Gossip 1998), while in Northampton some excavation has taken place within the suburb of St Edmunds End.

In general, the urban archaeological evidence of the East Midlands has to date provided glimpses of the past rather than any bigger picture. Although urban deposits are often rich and deeply stratified, they are severely compromised by subsequent and continuing occupation, whereby foundations and cellars destroy evidence and standing buildings make large areas inaccessible. The resulting 'keyhole' excavations have been recorded in a diversity of places and sources and are difficult to bring together, hampering understanding of the character and development of medieval towns, although this problem is being addressed for major towns by the Urban Archaeological Database project (eg Vince forthcoming). A review of the evidence for late medieval towns in the East Midlands by the Centre for Urban History at Leicester University has so far published an account for Northampton (Jones, Laughton and Clark), which has evidence for a pre-Norman regular planned layout completion of more of these will be useful. Notwithstanding, archaeology however has not contributed as much as might be expected to understanding of commerce, manufacturing and standards of living in towns in the region.

- *Better understanding of the chronology of development of major towns from Anglo-Scandinavian origins through subsequent growth and later medieval decline is vital.*
- *More evidence needed for industrial activity and standards of living in major towns*
- *Investigation of medieval suburbs is important subject which has seen little attention.*

2.3 Smaller medieval towns

Most smaller towns developed as market centres. The earliest documentary evidence for most towns dates to the post-Conquest era: only a few towns are recorded in the region by 1086, including Higham Ferrers, Oundle, Kings Sutton (Northants), Torksey, Grantham and Louth (Lincs), Melton Mowbray (Leics). In some cases established settlements, usually those associated with major manorial centres, were 'promoted', as at Oundle where documentary and topographical analysis shows that rows of burgage tenements were added to an earlier agricultural settlement. The date of this extension is unclear, although Oundle is one of the few town recorded in 1086. Other towns were new foundations, mostly of the 12th or 13th

centuries, set up as commercial ventures, such as at Langworth (Lincs) (Everson et al 1991), Castle Carleton (Lincs) (Everson 1986; Owen 1992) or Market Harborough (Leics) (Beresford 1967). In many cases, where the date of the original market charter is unknown, it is unclear to what extent and for how long settlements first documented with markets in the 12th or 13th century were already functioning as market centres before this date.

Smaller towns are generally less well understood than the major towns. Brackley (Northants) and Chesterfield (Derbys) (Ellis 1989) have both seen extensive excavation although in the latter case the medieval evidence remains unpublished. Most towns have received some sort of historical synthesis, but these vary widely in scope and quality, some have no more than a local guide book, In Lincolnshire Louth (Field 1978), Boston (Harding 1978), Barton-on-Humber (Bryant 1984; 1994) Horncastle (Field and Hurst 1983) and Sleaford (Mahany and Roffe 1979; Elsdon 1997) have useful studies synthesising archaeological data, but other towns such as Grimsby (Gillett 1970) Gainsborough (Beckwith), Grantham (Manterfield 1981) are less archaeologically focused. Important sites which have seen little investigation and for which no useful synthesis exists include Caistor (Lincs) and Torksey (Lincs) (Barley 1964; 1981). The small towns of medieval Leicestershire have received little attention (Liddle 1983, 23), although those in Northamptonshire have fared better (Brown 1991; Soden 1996; Brown and Taylor 1974). Little information is available for Derbyshire and Nottinghamshire.

- *The origins of market towns in the region is poorly understood and a high priority for research, comparison of select market sites including examples which were and were not Anglo-Scandinavian burhs*
- *Synthesising accounts should be available for all towns in the region, as a step to reviewing medieval urbanism generally - Should an Urban Archaeological Database-style approach be applied to smaller towns?*

2.4 Town and countryside

The relationship between towns and the countryside is crucial to understanding of the medieval period, but is difficult to elucidate. The predominance of deserted settlements near to larger Leicestershire and Northamptonshire market towns in areas such as river valleys not otherwise prone to desertion (Lewis et al 1997) provides some corroborative evidence for the suggestion that a higher urban mortality rate may have been balanced by immigration from the country although the dating of such a phenomenon is not always easy. Study of faunal remains in Lincoln (Dobney et al 1996) and Leicester (Albarella 1997; Gidney 1999, 2000) has thrown light on the provisioning of these towns from the countryside, although Northamptonshire, Derbyshire and Nottinghamshire have seen little of this kind of investigation (see also A Monkton, this volume). Study of the distribution of pottery around market centres is one way of tracing interactions between town and country, and comparison of urban and rural skeletal populations for disease and nutritional variation would be illuminating both of the quality of life in towns and its comparison with the country (see below, section 5). Research of this sort has not been widely carried out in the region.

- *Clarification of the nature and extent of urban catchment areas, hinterlands and spheres of influence should be sought through selected case-studies across the region.*

2.5 Late medieval towns

The later 13th century saw a major crisis in towns when the cloth industry moved out to the country, while further problems were caused by agricultural crises in the second decade of the

14th century and the Black Death of 1348-9. Recovery was not firmly on track until the 16th century or later. Despite these economic fluctuations, most medieval market towns ultimately survived as such, although in many cases severely reduced in size and wealth.

Others did not survive. Failed towns in many cases were new foundations which did not succeed commercially and were abandoned. Such settlements often lacked extensive fields of their own (on the grounds that the occupants would be traders not farmers) and so had no other form of support if the market failed to attract enough custom. Such sites are of interest and more easily accessible for excavation because of the lack of later occupation, but the extent to which information gleaned can be extrapolated to towns in general is limited. Market villages which had the right to hold a market but remained village-like in form, still largely dependent on agriculture but with the benefits of revenue from trade, occupy a transitional place in the medieval settlement hierarchy.

2.6 Standing buildings

The medieval period is the earliest for which domestic urban buildings survive upstanding, and these represent a vital part of the resource for the East Midlands. Widespread use of timber allows for dating by dendrochronology, and a distinctive vernacular architectural tradition is the early use of brick in the east of the region. Vernacular building traditions are an important element through which regional identity is expressed and study of such can contribute towards the identification of such identities in the medieval period.

Few towns have large numbers of known surviving medieval buildings, particularly pre-dating 1350, although additional examples have been revealed by intensive survey in some towns, most notably Lincoln (Alcock pers com). The survival of a medieval undercroft fronting the market place in Northampton is one of several which were recorded in the 19th century while Flore's house in Oakham (Leics) dates to c. 1250 (Liddle 1983, 25). Buildings of 15th century or later date constitute a greater, although hardly immense, resource, with significant numbers in Oundle, Higham Ferrers, Brackley (Northants). Such buildings are crucial to understanding not only the nature and wealth of medieval construction, but also for the light they throw on excavated building foundations and the chronology of town planning. Crosses survive in many towns in the region of which some are market crosses or butter-crosses.

- *A programme of identification, recording and dating of standing medieval urban buildings is a high priority, as the size of this resource is unclear but the information it can yield is vitally important.*
- *The requirements of PPG15 must be rigorously and consistently applied across the region, and include non-listed buildings.*

2.7 Ports

The East Midlands includes a significant stretch of coastline, and its ports were a vital part of the regional, and even national economy. Towns which were coastal ports were sited at Skegness, Spalding, Wainfleet and Wrangle while inland ports, connected to the coast by river, lay at Lincoln, Gainsborough and Stamford. Boston, Grimsby and Saltfleet were sited slightly inland but functioned as coastal ports. Boston was for much of the period the most important port in the region, and was pre-eminent nationally for a while. But to date only Lincoln has seen any extensive archaeological investigation and little of this has focussed on the wharf areas.

- *Ports were a vital part of the economy of the East Midlands and beyond and the archaeological potential of such places should be investigated, Boston being a particularly important case study.*

2.8 Fairs

Fairs were held once or twice a year, often on open sites, and may have been the earliest sites of regularised commercial exchange developing from Anglo-Scandinavian or Saxon moots or other significant places. Increasingly in the post-Conquest period, fairs became an adjunct to markets, with many new fair grants given in the 13th century. Little is known about such sites, although one possible fair site in Northamptonshire has been identified at Boughton Green, associated with a holy well and a turf maze. The existence of good documentary evidence for much of the East Midlands, combined with the generally better-than-average survival of the medieval landscape indicates a potential for the identification and investigation of this difficult subject.

- *Fair sites, if identifiable, should be a priority for investigation, particularly if on open ground, as potential for illuminating early development of commercial activity in the region.*

3. Rural settlement

Rural settlements, whether classified as settlements or villages (often qualified as deserted, shrunken or shifted), hamlets, farmsteads or crofts, tend to form a substantial proportion of medieval SMR records in the East Midlands. Around 450 medieval rural settlements (23 classified as farms, 113 as hamlets and 312 as villages) are recorded in Northamptonshire, 82 in Derbyshire (60 classified as deserted medieval villages and 22 as shrunken medieval villages), 87 in Nottinghamshire (68 as deserted villages, 14 as shrunken villages and five as shifted villages), 117 (221 on map) in Lincolnshire (deserted medieval villages and shrunken medieval villages taken together. (Leics?)) However, these omit large numbers of dispersed and continuing settlements. The East Midlands region is distinctive for the study of rural settlement not only because much of it was under Danish control during the early part of the critical period for nucleation, but also because the survival of both physical remains and documentary sources for rural settlement in the period 850-1500 is unusually good.

3.1 Nucleated villages

The most familiar form of medieval rural secular settlement is the nucleated village, where all settlement within the manor or township is located in one place with its fields around it. National work by Thorpe (Lewis et al 1997, 4) and Roberts and Wrathmell (1994, fig 2) both show that settlement in the East Midlands in the 19th century (the first period when mapping is available country-wide with a suitable level of detail) was predominantly nucleated. Nucleated villages dominate Northamptonshire, Lincolnshire, southern and eastern Leicestershire, southern and eastern Nottinghamshire and eastern Derbyshire.

Field survey has been carried out on many medieval nucleated settlements in Leicestershire, Northamptonshire and North Lincolnshire (RCHME 1975; 1981; 1982; 1984; Hartley 1983; 1987; 1989; Everson et al 1991 John 1998) and has shown that nucleated settlement was mostly similarly distributed in the middle ages. However, even high-level research has shown the complexity and high degree of local variation inherent in the medieval settlement pattern of the region (Lewis et al 1997, 118-157). Much evidence remains to be discovered: recent reconnaissance in Nottinghamshire, where such remains were less well known, focussed on the areas in and around occupied settlements and raised the number of known settlement earthwork sites from 27 to 329 (Bishop and Challis 1998, 27).

3.1.1 The origins of the nucleated village

Evidence for early nucleated settlements has been tentatively identified at some sites from pottery scatters recorded during fieldwalking, including Eaglethorpe in Warmington (Northants) (Medieval Settlement Research Group Annual Report 6, 20), Newton-in-the-Willows (Northants) (Webster and Cherry 1973, 147), Higham Ferrers (Northants) (Shaw 1991), Millfield near Bloston (Leics) (Youngs et al 1988) and the Vale of Belvoir (Leics) (Hills and Liddon 1981). But it remains difficult to generalise as to quite what form of occupation these scatter represent: at Raunds (Northants) (Cadman 1983) early occupation proved to be manorial rather than village remains.

Fieldwalking in Northamptonshire and Leicestershire has shown that the nucleated village may have been very much less common in the region before c. 850 AD. Then the settlement pattern was predominantly one of small dispersed hamlets mostly sited on the best land and away from heavy clay subsoils (Foard 1978; Hills and Liddon 1981; Lewis et al 1997, 92-4). Furthermore, late Saxon material is in most cases closely associated with later medieval nucleated settlements. Less work has been done in other parts of the region, but occasional examples such as Girton (Notts) show a similar pattern. This has led to the suggestion that sometime in or after the 9th century the dispersed settlements in parts of the East Midlands were reorganised during a 'great replanning' into nucleated villages with open field systems, founded on sites that are still mostly occupied today. Suggestions as to the reason or impetus for this reorganisation have included a range of factors: explanations have ranged from the need to reorganise the field systems to increase productivity necessitating concomitant reorganisation of the settlement pattern, to a simple fashion among lords for model planned villages (Lewis et al 1997, 202—23; 235-8).

The presence of the Danelaw is a major feature of the East Midlands region and its impact on settlement development either during or after the period of Danish control (a critical period for village evolution) must be better understood. There is a high density of Danish place-name elements such as '*thorp*' (meaning secondary settlement) or the suffix *-by* (meaning village or estate) in settlements in parts of the East Midlands, particularly east of the river Trent and north of the Welland (Hill 1981, 45), most of which are likely to date to the period of Danish control or the subsequent Danelaw (Fellows Jensen 1999a, b). In a number of cases such as Market Bosworth, Hurcaston, Heather, Exton Huncote and Burbage (Leics) the discovery of Danish items gives some support to the toponymic evidence for a significant level of Danish settlement in the region. However, the distribution of Danish place names does not correlate well with the distribution of nucleated settlements or even with the boundaries of the Danelaw: overall, the impact of the Danelaw on the development of settlement and land use remains poorly understood although crucial to understanding of the period.

- *Investigation of the relationship between settlement development and the Danelaw is a high research priority, within the wider framework of investigation of the impact of the Danelaw generally. Ideally this should encompass areas within and beyond the Danelaw, although scope for this is limited in the East Midlands region which is almost entirely within the Danelaw.*
- *Listing, mapping and assessment of all Danish place-names in the region carried out and assessed against the range of archaeological data and compared with other sites within and beyond the Danelaw would aid understanding of the impact of the period of Danish administration.*
- *The East midlands is particularly well-suited to research into the origins of the nucleated village as the surviving evidence is so good across a range of different landscapes*

3.1.2 Nucleated settlement plans

Largely as a result of earthwork survey the later medieval layout of many nucleated settlements has been well established in much of the region. Most comprise regularly planned properties containing houses, yards and gardens arranged either in a linear form as a single or double row along a central street or as a cluster, usually gridded around a cross-roads. Others are more complex polyfocal settlements, being made up of a number of component parts (Lewis et al 1997, 120-127).

Few have been dated archaeologically, but the regular plans exhibited by many nucleated villages such as Isham (Northants) (RCHME 1979, 99-101, Lewis et al 1997, 124) seem to be of post-Conquest origin, sometimes as late as the 12th or 13th century date and appear to be roughly contemporary with the planned layout of many small towns. Documentary evidence gives a likely date for the replanning of the row settlement at Rockingham (Chants) as 1271 when a market charter was granted (Taylor 1982; RCHME 1979, 126-30). Some examples are earlier: Raunds, West Cotton, Warrington, Daventry, Stanwick, Higham Ferrers, Rothwell, Yardley Hastings, Naseby and Culworth (Northants) show regular tofts and crofts, laid out but not always fully occupied, dating to the mid 10th century (Auduoy 1993; Mudd 1995; Soden 1996;). Excavation at Barton Blount (Derbys) revealed regular tofts and crofts which may have originated in the eleventh century (Beresford, 1975), while at Isham (Northants) 9th century settlement near the parish church appears to have been replanned into a regular row after the Conquest (RCHME 1979, 99-101).

- *A programme of trial excavation at selected sites is required to establish more accurately the date of the regular settlement plans recorded so widely from field survey is a priority, particularly in view of the apparent differences in village plans between the north and south of the region.*
- *Understanding of the detailed pattern and evolution of rural settlements is still limited. Recording of settlements on SMRs as entities including archaeological, architectural, historical and cartographic evidence would allow evidence to be synthesised and compared on a regional scale.*
- *The quality of documentary evidence for many villages raises the possibility of identifying the status of individual tenements on the ground.*

Excavation of nucleated villages has favoured deserted sites where access is not impeded by existing settlement and these, by definition, followed exceptional developmental trajectories in the medieval and post-medieval, as the majority of medieval settlements have continued in occupation to the present day. Riseholme (Lincs) examined one house and its well within a regularly planned double row settlement (Thompson 1960). Extensive long-term excavations in the nucleated village of Raunds (Northants) (Cadman 1983) highlighted the difficulty of correlating complex documentary and tenorial history with archaeological evidence. Various other smaller excavations carried out on nucleated villages include Little Newton (Northants) (Bellamy 1996) and Thorpe in Earls Barton (Northants) (Halpin 1982).

- *Archaeological investigation into medieval settlements which are still in occupation is a high priority as knowledge of medieval rural settlement is presently seriously biased towards sites deserted in the medieval or later periods. Every possible opportunity to excavate within existing medieval villages, particularly near the centres, should be taken. The nature and impact of the 'great replanning' cannot be understood until more is known about the early development of continuing settlements.*

3.2 Peasant buildings

Excavation has revealed some evidence for the types of peasant buildings in rural settlements (Challis 1999; Beresford 1975), which do not as a rule survive upstanding in the region. Post-medieval standing building evidence can be used to indicate likely zones of varying medieval building tradition, which include construction in a variety of different types of stone, and also timber, cob and turf, with roofing comprising thatch, stone, slate, tile or turf. The limited evidence from excavation for the medieval period suggests that local variations may be considerable, particularly in chronology of the transition to stone building. At West Cotton (Northants) building entirely in stone is attested in the 13th century, while at Faxton cob building was replaced by timber framing in the 12th-13th century and subsequently in some examples, by stone in the 14th. As in towns, survey to date indicates that many more medieval standing buildings survive than are presently known, such as the Royal George in Cottingham which has been dated to 1262 by dendrochronology (Alcock pers com). 12 cruck-framed buildings of late 14th century date have recently been identified in Leicestershire (ibid). The dating of stone buildings, of which greater numbers of medieval date are, by implication, also likely to survive than is presently recognised, presents more problems than those of timber.

- *Further investigation into the form and development of peasant buildings in the regions should be a long-term research aim following synthesis of the existing evidence.*
- *Dendrochronology of timbers in standing buildings has high potential for both dating structures and provenancing timber (in both rural and urban contexts), illuminating fluctuations in the regional economy demonstrable by phases of house building, the development of various traditions of vernacular architecture across the East Midlands, and the trade in timber which ranged from Sherwood Forest to the Baltic.*
- *Investigation into methods of dating stone vernacular buildings of medieval date would be valuable.*

3.3 Dispersed settlement

Not all medieval settlement in the region comprised nucleated villages, but other forms of settlement are under-recorded and poorly understood. A distinctive feature of the East Midlands is the way in which regions of dispersed settlement occur in close proximity to those of nucleated settlement. Hamlets and farmsteads are also common within the nucleated regions, but as they tend to be small and have often continued in occupation they lack large and impressive earthworks which would lead to their inclusion on county SMRs. Place-name evidence such as 'end' names have also been used to try and identify dispersed settlement elements which have been subsumed into later nucleated villages.

- *Dispersed settlement elements within primarily champion regions remain under recorded, and are a crucial clue to understanding the development and functioning of the medieval settlement pattern.*

In some regions, including Charnwood (Leics), Whittlewood (Northants), the Lincolnshire coastal margins and fenland fringes, the north and west Derbyshire, Sherwood Forest (Notts) and the coal measures (Notts and Derbys) the post-medieval settlement pattern is primarily dispersed. Corroboration that settlement was similarly disposed in the Middle Ages is less easy than in the nucleated regions as these areas have been less thoroughly studied. Few dispersed medieval settlements are included on existing SMRs, archaeological investigation of such sites has been minimal and the nature of medieval settlement in these areas and the process of woodland and marshland colonisation and exploitation remains poorly understood. Many medieval settlements in these areas probably remain to be discovered, a suspicion confirmed by surveys already undertaken or underway (Jones 1988; Bishop and Challis 1998, Barnatt and Smith 1997). There is however, an marked absence of evidence for medieval

nucleation that may be regarded, *pro tem*, as a significant indicator that the settlement pattern in the Middle Ages was indeed, as in later periods, largely dispersed.

- *Dispersed medieval rural settlements are a high priority for research including primary documentary recording, field reconnaissance and trial excavation as they represent a significant proportion of settlement in the region but have seen very little investigation.*
- *Isolated farmstead sites suspected to be of medieval date should be investigated for corroborative evidence of medieval activity.*
- *Settlement in the upland areas of the region is a high priority for research in the East Midlands where the distinctive medieval extractive industry was so important.*

3.4 Settlement desertion

Deserted medieval settlements are common across the region, but most known examples are nucleated villages concentrated in the areas of nucleated settlement. This is due, at least in part, to the greater visibility of deserted large villages compared with small dispersed hamlets or farmsteads. In Northamptonshire, Leicestershire and north Lincolnshire these have mostly been recorded by field survey, but few have been excavated (RCHME 1975; 1981; 1982; 1984; Hartley 1983; 1987; 1989; Everson et al 1991). The reasons for desertion remain unknown in most individual cases and it seems likely that different factors are involved at different sites and in different areas. Despite widespread citing of economic problems of the fourteenth and fifteenth centuries, which were certainly a major factor fatally weakening many settlements, many so-called deserted medieval villages continued in occupation well into the sixteenth and seventeenth centuries. Dispersed regions appear very much less prone to settlement desertion than champion regions such as east Leicester and north-west Northamptonshire, but it is unclear whether this observation in fact reflects merely the difficulty of recognising deserted elements of the dispersed settlement pattern.

- *The phenomenon of settlement desertion requires further attention, particularly in areas of dispersed settlement.*

Although the pattern and form of nucleated settlement regions is well recorded, the majority of medieval settlements, particularly those where occupation is continuing, have seen little or no archaeological investigation. In most cases, if there is no corroborative physical evidence for documented medieval settlements other than the presence of a medieval building such as church, such sites are not included on SMRs as medieval settlements. This problem is particularly serious in areas of dispersed or mixed settlement.

- *Ensuring that all medieval settlements are recorded on SMRs, NMR etc, not just those which have yielded archaeological evidence, is a high priority. This is an exercise where historical, architectural and archaeological evidence must be used together.*
- A review of SMR records is needed to ascertain the exact extent and nature of desertion of all sites recorded on SMRs as 'DMV' or 'SMV'.

4. The manor

The manor was the basic unit of medieval lordly landholding: the lord could be the king himself, a bishop or abbot in the case of manors granted to ecclesiastical establishments, or a lay lord who might hold just one manor, or scores of them across the country. The East Midlands was divided into several thousand manors which ranged in size from a few hundred hectares to a thousand or more. Each was managed from a centre which included the lord's

residence (or that of his bailiff, representative or subinfeudated tenant) and a range of other structures which might include, stock houses, barns, granaries, malting houses and breweries, mills, yards, gardens, orchards and fishponds.

There are a number of contradictions inherent to the study of medieval manorial centres. They appear in many different forms: in some cases the manorial centre of an estate might be a monastic grange or castle (see below, sections 5 and 6.1.5). Some, but by no means all manorial sites are moated, but not all moated sites are manorial residences. The majority of medieval secular standing remains are manorial and many manorial sites remain in occupation, but few have significant surviving fabric from either the manor or its ancillary buildings. Many of the best-documented manors belonged to monastic houses, with the corollary that the manors of lay lords are less accessible to the historian and remain more poorly understood. The vast majority of manor sites remain unlocated or incorrectly identified, often as village remains, and, despite their ubiquity, such sites remain poorly understood

4.1 Pre-Conquest Manorialisation

Historical evidence, including Domesday Book, makes it clear that the manor existed as an institution in essentially its later medieval form by the 11th century, and originated well before that. But only a few excavated manorial sites in the East Midlands have produced evidence of pre-Conquest occupation. The well-known excavations at Goltho (Lincs) illustrate the creation and development of the buildings of the manorial site from c. 850 AD up to its transformation in the 12th century into a small castle (Beresford 1982; 1987), importantly showing the manorial site bridging the Norman Conquest, an aspect for which further evidence has come from several other sites in the region. At Furnells in Raunds (Nthants) extensive excavation of a manorial complex covering the whole site revealed several phases of building, including a post-in-trench hall in the second phase c. 700 AD and an aisled hall with associated church built in the 9th or 10th century (Cadman 1983). At nearby West Cotton (Nthants) a substantial pre-Conquest building adjacent to a 9th or 10th century mill is thought to be the forerunner of the 12th-century manor house on the same site (ibid; Lewis et al 1994, 102). Higham Ferrers castle (Nthants) overlies the remains of a late Pre-Conquest post-in-trench building, and a series of late 8th-century buildings in Northampton itself have been tentatively identified as a palace (Williams et al 1985).

- *The development of the medieval manor from the Anglo-Saxon period is a major theme of historical research in the East Midlands where significant work has provided a base for more advanced investigation.*
- *There is a need to complement excavated examples of pre-Norman manorial sites with landscape studies of early manorial estates*

4.2 Early Estates

The development of medieval land-holdings from large pre-Conquest (or earlier) estates has been investigated in several case studies in the East Midlands including Brixworth (Northants) and Claybrooke (Leics) (Phythian-Adams 1978; Brown et al 1977; Lewis et al 1997, 106-10 and refs). The administrative system in Northamptonshire has been particularly well investigated (Foard 1985). Other counties have seen less work. Research in progress at the University of Leicester suggests an association between church and chapel dedications to Peter and Paul and early estate centres (Graham Jones, pers comm). In general, comprehension of the process by which late Saxon manors evolved out of Anglo-Saxon estates remains limited. In particular, the degree to which the multiple estate model first propounded in Wales (Jones 1979) existed in the East Midlands and formed the starting point

for later manors remains the subject of debate, and the role of the Danelaw may have significantly affected estate and parish development in the East Midlands (Hadley 2000).

- *Research into the extent to which the process of estate development in the Danelaw followed a distinct pattern is vital to understanding the development of the region and identifying important sites.*
- *Many monastic estates in the East Midlands have a particularly good range of historic documents, making them a good avenue for the investigation of English medieval estates.*

4.3 Moated manorial sites

In some cases manorial sites were surrounded by a moat: a wide, shallow ditch, usually intended to be water filled, most dating to c. 1250-1350 AD. On a national scale, the East Midlands is not particularly heavily moated (Aberg 1978, 2), but moats here are much more common in the east on heavy clay subsoils and commensurately rarer in the west. Of the five East Midland counties, Lincolnshire contains the greatest number, even taking its size into account. Exact numbers of recorded sites tend to fluctuate as definitions change but there are in total a maximum of perhaps around 600 moats in the East Midlands region.

A number have been excavated, including Saxilby (Lincs), which revealed a modest manorial complex comprising a timber hall and solar within a levelled moat (Whitwell 1969), and Epworth (Lincs), a stone manorial complex which may be typical of many smaller manorial sites (Hayfield 1984). In Derbyshire a few small, largely unpublished trenches have been opened on moated sites (Monk 1951), although Callow Hall Farm contains a 13th- or 14th-century stone vaulted undercroft and fireplace. At Padley Hall (Derbys) only the gatehouse survives from the 14th-century house and although the footings of the rest of the complex were uncovered in 1933 no archaeological record was made (Hart 1981, 154). Other excavated moated sites include Mill Cotton, Ringstead, Irchester (Northants), Somerby (Lincs), Glen Parva, Sapcote, South Croxton and Long Whatton (Leics) (Liddle 1983, 29-31)

- *Synthesis of the evidence for moated sites in the region would be timely*
- *Moats potentially provide an important source of well preserved waterlogged deposits relating to seigneurial occupation which could throw light on the standards of living of the medieval lordly class, and, by comparison with material from other rural settlements and towns, illuminate social differences across class and the region generally.*

4.4 Non-moated manorial sites

The discrepancy between the number of manors in the region and the number of known moated sites, even allowing for the destruction of many moats in the post-medieval period, indicates that the great majority of medieval manorial sites were not moated. As such, and in the absence of standing remains, they can be difficult to identify, which may explain why 'manorial site' is not presently included as a monument type on many SMRs (eg Nottinghamshire and Lincolnshire), while 'manor house' is. At some manorial sites moats are only revealed by excavations, as at 'The Bedehouse' in Lyddington (Leics) (Woodford 1981).

Holyoaks (Leics) is one of the few non-moated manorial sites in the regions to have been excavated (Brown 1972), revealing a two-storey main building 20m by 7m housing a ground-floor kitchen and upper-floor living quarters and garderobe, with stables, stores and other buildings across a courtyard. All was apparently of 13th-century date, and the complex bears some similarities with moated manor complexes such as Donington-le-Heath (Liddle 1983, 31).

In some cases the status of manorial sites changed as land was transferred from one lord to another or the site was upgraded: some manorial sites mutate into castles, as has been demonstrated by excavation of the manorial site of Bullington at Goltho (Lincs) (Beresford 1982; 1987; Everson 1988) and this is inferred at Mablethorpe moated site (Lincs) which acquired a licence to crenellate in the 15th century.

- *Classification of moated and manorial sites should be reviewed, to include 'moated manorial site', 'manorial site', 'garden moat' etc*

4.5 Standing buildings

Manorial sites form the bulk of standing secular buildings such as Donington-le-Heath manor house (Leics) and Medbourne Manor (Leics), some of which have seen thorough and systematic review (eg Woodfield 1981; RCHME 1984). Few have seen associated excavation: Nassington Prebendal Manor (Nthants) has been the subject of major excavation, and although as yet unpublished has highlighted the great potential such sites have for providing a sequence of development from the late Saxon to the post-medieval. Other sites such as Bradden Manor House (Nthants) were recorded in detail before demolition but have not been subject to archaeological excavation. At Irthlingborough (Northants) excavation included the nearby church: the close link between churches and manors is evident at many site where manorial sites occur in close proximity to churches, including pre-Conquest sites such as Raunds Furnells and Earls Barton (Northants).

- *There is a need for an up-to-date corpus of standing building remains of manorial sites for those parts of the region where one is lacking*

4.6 The manorial landscape

Manorial complexes were the centre of landholdings, and the manor cannot be understood without considering its landscape context: manorial appurtenances included gardens, parks, arable fields, meadow, woodland, fishponds, mills and warrens. Many manorial complexes are preserved as earthworks, and field survey has made good progress recording these in Northamptonshire (RCHME 1975; 1979; 1981; 1982), Leicestershire (Hartley 1983; 1987; 1989) and north Lincolnshire (Everson et al 1991). In many cases sites formerly thought to be the remains of medieval village settlement have been shown to be manorial sites as at West Firsby (Lincs), and at Rand and North Ingelby (Lincs) where survey identified associated manorial features beyond the moated platform. Survey has also proved an effective tool in differentiating between manorial moats and those fulfilling other functions. Isolated moated sites, or those in areas of dispersed settlement are less likely to be manorial, while those within villages can be more confidently associated with a manorial centre (Lewis et al 1997, 140). Some moats associated with manors may be garden features. However, it is rarely possible to be certain as to the function of many specific elements of the manorial site from survey alone, and understanding of the layout of medieval manorial sites is still limited as long as survey is not tested by excavation.

- *Trial excavation is needed at a sample number of manorial sites to ascertain the function of features whose function as manorial appurtenances has been suggested by earthwork survey.*

5 Castles and military sites

The East Midlands region was not generally heavily castellated, with an average of around one castle per 50 square miles. This however conceals marked intra-regional differences. The northern counties have particularly low densities – Derbyshire with one castle per 63

square miles, and Lincolnshire and Nottinghamshire both with one to around 70 square miles. Leicester and Northamptonshire, on the other hand both have densities of around 30-35 square miles per castle (Cathcart King 1983) – remarkably high for counties far from the border regions: this is probably due more to the nature of lordship in the area than any real differences in the need for defences. A concentration of castles along the River Trent may reflect the role of this waterway as the last line of defence from the often unruly north of England and Scotland.

Many castles sites are well documented and have a long history of research, often, however, itself of some antiquity, such as Duffield Castle (Derbys), excavated in 1900 (Manby 1957), or Hallaton (Leics) excavated in the late 19th century (Dibbin 1882). Some such as Castle Donnington (Leics), have seen only minimal excavation (Liddle 1983, 19), others none at all. There has been a predictable favouring of the more visually arresting and historically visible sites. Opportunities for more up-to-date excavation continue to present themselves occasionally as a result of refurbishment or consolidation (eg Reynolds, 1975; Drewett and Freke 1974). Most known castle sites survive as earthworks, all of which have been recorded, although at varying levels from rudimentary Ordnance Survey antiquity models to detailed analytical surveys by RCHME or others (RCHME 1975; 1981; 1982; 1984; Everson et al 1991; Hartley 1983; 1987; 1989).

5.1 Pre-Norman castle precursors

The introduction of the castle to England is conventionally ascribed to the Norman conquest, but the East Midlands region contains several notable pre-conquest defended sites. Excavation at Stamford (Lincs) revealed a late Saxon ditch thought to indicate pre-Conquest fortification of the site of the Norman ringwork (Mahany 1977; Webster and Cherry 1977, 235-7; Mahany 1978). A similarly early date has been proposed for Sulgrave (Nthants) where excavation recorded a Saxon hall and possible perimeter ditch, also underlying a Norman ring-work (Webster and Cherry 1973, 147; Cathcart King 1983, 318 and refs). A ringwork at Hathersage (Derbys) was excavated in the 1970s (Hodges 1980) while excavation at Groby (Leics) showed the castle motte was constructed over a pre-existing building, for which the date is not yet clear (Leics Museums 1964, 51).

- *The issue of the origins of the castle in England is important yet unresolved: the East Midlands contains some key sites and further targeted research would be well-placed to build on this base.*

5.2 Post-Conquest castles

The first post-conquest castles in the region were built to assert Norman authority: to suppress the local populace and discourage uprisings against the new king. Nottingham and Lincoln (Lindley, forthcoming) are two of the most important castles in the region, both built in 1068 (Higham and Barker 1992, 59) and Leicester may be of the same date (Fox 1943). All three have seen extensive excavations (Cathcart King I, 261-2 and refs; II 380-3 and refs), which continue to throw new light (eg Clarke 1952, 25; Reynolds 1975). The construction of Lincoln is documented as causing the destruction of 166 houses, and excavation has revealed the foundations of Saxon houses underneath Northampton Castle, which appeared, like Belvoir (Leics), Bytham (Lincs), Stamford (Lincs) and Rockingham (Nthants) within twenty years of the Conquest. Excavation has shown the potential of such sites to supplement the often rich documentary history, even where little survives above ground. Although just ‘a few fragments remain’ at Stamford (Lincs) (Cathcart King 1973, 262), five seasons of excavation in the 1970s revealed a hall, solar, cellars, arcade, grain drying kilns, a pottery kiln and garderobe, and untangled the development of the hall complex comprising six phases from the mid 12th century to the 14th (Mahany 1977), all within the ringwork bailey.

Other castles in the region are much less well documented, some lacking any written record of their existence. Many of these may date to the anarchy of Stephen's reign (1135-54), when large numbers of castles were built without the licences which were required in more orderly times. Most were destroyed when firm government was re-established. Examples include Cuckney (Notts), The Mount at Legsby, Corby, (Lincs), Fleet (Lincs), where fieldwork on a ploughed-out mound produced pottery of late 11th and 12th century date (Cathcart King 1983, 260) and Owston in Axholme (Lincs) where the poor state of the motte is attributed to its documented demolition in 1174/6 (Beckett 1988, 26-7, Cathcart King 1983, 262). Other unlicensed castles fared better: Barrow on Humber (Lincs) is documented in 1189. (ibid, 259), while at Lowden (Notts), excavation indicated that the site was occupied until c. 1400 (ibid, 380). Not all undocumented castles necessarily originated during the anarchy: Castle Dykes (Nthants) has stone structures which suggest it was constructed at leisure, while Weedon Lois (Nthants) was an important estate centre.

- *Undated minor motte and bailey castles represent an important monument type which are a high priority for research to ascertain their chronology and role, and for the light such understanding would throw on issues such as military and seigneurial conduct during the Angevin period and the Anarchy. Such sites are often particularly vulnerable to damage from agricultural and leisure activities.*

Despite occasional flurries of military activity, most castles in the post-conquest period were used increasingly less for military purposes than for administration and display as the residences of lords and the centres of their estates: their construction signified the status of the occupants. Bolingbroke (Lincs) was built by the earls of Chester and lay at the centre of a vast estate until 1608; Higham Ferrers and Brackley also lie at the centre of large, ancient, wealthy estates. Peveril (Derbys) was the royal centre from which the surrounding royal forest in the Peak District was overseen. Other substantial examples include Folkingham, Bourne, Spalding, Carlton (Lincs) Bolsover, Horsely, Codnor, Melbourne, Bretby, Mackworth (Derbys). There is a strong correlation between castles and the estate centres of major lords, which goes some way to explaining the geographical distribution of castles across the region. However, few of these sites have seen excavation that has revealed much about daily life or the standard of living at these sites. At Sleaford and Somerton Castles (Lincs) earthwork survey has shown the emphasis placed on ostentatious display using ornamental gardens and landscapes (see above, episcopal palaces), similar potential appears to exist in earthworks at Bolingbroke and Bytham (Lincs).

- *The landscape context of castles is a high priority for future research.*

Few castles in the region have many surviving standing structures: in Northamptonshire only Barnwell (Audouy 1993; Giggins 1986) and Rockingham (Klingelhoffer 1983) survive to this level while upstanding ancillary structures include those at Fotheringhay, Thorpe Waterville (Northants) and Leicester. In Lincolnshire only Lincoln (Lindley forthcoming) and Tattershall (Thompson 1974) have upstanding remains. The Great Hall of Leicester Castle dates to the 12th century, but little of the original survives.

5.3 Lost castles

A significant minority of documented castle sites in the region cannot be located. Cathcart King (1983) records three such in Leicestershire, seven in Lincolnshire, six in Northamptonshire and one in Nottinghamshire. Other places with hints of lost castles are Irthlingborough where 18th century documents refer to the 'castleyard' and Rothwell (Nthants) where one road is named Castle Street. A number of sites are also listed by Cathcart King as 'possible castles': few of these have been investigated, although Thrapston Castle (Nthants) was identified in the 1970s (Cathcart king 1983, 319; ?Foard 1987 unpubl. report).

Earthworks at Thorpe Arnold and Ridlington (Leics) have been tentatively dated to the Iron Age, but it remains possible that they are in fact medieval (Liddle 1982, 19).

- *The evidence for lost castles in the region should be reviewed and synthesised, and a programme developed to locate as many such sites as possible.*

5.4 Battle sites

Medieval warfare has rarely been the subject of archaeological investigation, but the contribution of archaeology to this subject is potentially high, as excavations at Towton (N Yorks) have recently shown. Pre-conquest battle sites are hard to locate accurately, with the exception of those around burhs (see above section 2.1), but the excavation of 250 males with healed and unhealed wounds at Repton is presumed to be a war cemetery from the winter of 873-4 when the Danes over-wintered at the minster site.

Medieval battle sites in the East Midlands have been little investigated except in Northamptonshire, but can be divided into those taking place around castles, and others. Many castles have seen some military action, mostly either during war of succession such as the Anarchy and the Wars of the Roses or as a result of disputes between lord and king. Rockingham, Fotheringay, Thorpe Waterville (Nthants), Newark, Nottingham (Notts), Bolsover, Harestan, Duffield, Peveril (Derbys), Castle Donnington, Leicester, Mountsorrel, Sauvey (Leics), Bytham, Lincoln, Stamford and Bolingbroke (Lincs) are all documented as having been taken by force, several more than once, in the 12th and 13th centuries (Cathcart King 1983). Archaeology has posited military action at Lilbourne (Nthants), where survey suggests that the second motte may have been constructed to lay siege to the first.

Other than around castles, battles during the Anarchy have gone largely unrecorded. In later centuries, Northampton itself was the site of major action in April 1264, when it was besieged by the king in the struggle against Simon de Montfort (Treharne 1955). Only a small area where action probably took place remains unbuilt up. The town was also the site of the battle of Northampton on 10th July 1460 during the Wars of the Roses, which took place primarily in the area now occupied by Delapre Park, the site now included in the Battlefields register (Smurthwaite unpubl; Foard unpubl). The probable site of the battle of Edgecote (26th July 1469) is also not presently built upon but has not been archaeologically investigated, although a mass grave discovered in the C19th century may relate to this action. The battle of Bosworth (1485) when Henry VII defeated Richard II marked the end of the Wars of the Roses and the beginning of the Tudor period, took place at Dadlington (Leics) and the site is of clear national importance.

- *Archaeological investigation of sites of Edgecote and particularly Bosworth (which has good potential) are a high priority as sites of national importance.*

6) Religion

6.1 Monasteries

Monastic sites are often particularly well documented, in some cases complemented by good survival of archaeological remains. The East Midlands region has a large number of monastic sites, both rural and urban, which includes examples from all the main orders. These are unevenly distributed across the region: Northamptonshire had 65, and Lincolnshire, with 167, had the largest number of monasteries for its size than any English county except Yorkshire, mostly sited in the west and particularly the north-west of the county. Derbyshire on the other hand had around 12, Leicestershire 24 and Nottinghamshire 25. Most monastic sites are well-

documented, with known locations and so new sites are rarely discovered. Exceptions to this rule include Newbo in Sedgebrook (Lincs), and Heynings Priory (Lincs) where field survey recently established the correct location (Everson 1989). The monastic ideal sought rural isolation for peaceful austere contemplation and worship, but often attracted settlement to them, while later orders such as the friars preferred urban settings from which they could preach to and care for the populace.

Excavated sites include Bardney, Thornton (Lincs), Pipewell Abbey, Fotheringay College, Higham Ferrers College (Northants); Grace Dieu nunnery (Leics) (Miller 1969) and Launde (Leics). Much excavation is itself of some age, as at Leicester Abbey, excavated in 1855-64, 1920-23 and 1930 (Liddle 1982, 38) or Croxton Abbey (Leics), dug by the Duke of Bedford c. 1926 (Herbert 1945). A few sites of antiquarian excavations have been revisited including Canons Ashby Priory (Northants) (Taylor 1974; Audouy 1991) and Dale (Derbys) (Cox 1875-9; Drage 1990). However, few monastic sites have been extensively excavated, and fewer still to modern standards including full publication.

6.1.1 Early monasticism

Pre-10th century monasteries such as Repton (Derbys), Oundle (Nthants), Barrow (Lincs) and Breedon-on-the-Hill (Leics) originated as minsters founded, mostly close to royal vill, in the seventh and eighth centuries as centres of Christian learning, devotion and evangelism. Identification of minster sites is rarely straightforward and often has to be inferred from a combination of historical and archaeological sources. Detailed investigation has been carried out at Repton (Derbys), Brixworth (Nthants) (Audouy 1981; Everson 1972; Parsons 1977 although the results have yet to be fully published) and Flawford (Notts), which has been suggested as the site of a lesser minster the church lies at a point equidistant between five villages whose territories are thought to have comprised the minster parochia or parish (Med Arch 1972, 159, 178). Other excavated minster sites include Weedon (Nthants) and Oundle (Nthants) of late Anglo-Saxon date (Johnson 1993), with cemeteries adjacent to St Gregory's in Northampton, at possibly Passenham (Nthants).

- *The identification of lesser minster sites is vital to understanding the role and development of the pre-Conquest church in the region and the impact of the Danelaw*

The wealth of spiritual and artistic monastic life in the late pre-conquest period is evident in the quality of sculptural friezes at Breedon-on-the-Hill (Leics) and Bakewell (Derbys) and ninth-century crosses at Bakewell, Eyam and Bradbourne (Derbys) (Stafford 1985, 104-6). Much of the evidence has been brought together in a single corpus dataset which will throw light on patterns of regional material culture and stylistic contacts.

The political importance of such monasteries is exemplified at Repton, which was the burial site for the Mercian kings Wiglaf and Wigstan in the mid-ninth century (ibid.). Documentary evidence suggests that minster sites were targets for the Danes in the later 9th century. Repton has already been mentioned (above section 5.4), while Lindsey (Lincs), according to the Anglo-Saxon Chronicle, was the victim of the first recorded Danish attack in England, in 814 AD and the monastic library at Breedon was also lost. However, there is little evidence for widespread and severe disruption in the region.

- *Use should be made of the particularly fine corpus of sculptural evidence for this region, to complement other areas of research into issues such as regionality and cultural contact regionally, nationally and internationally.*

6.1.2 Reform and the new orders

In the tenth century the English monastic movement was extensively reformed and revitalised in a Europe-wide revival. Many new monasteries were founded by royalty, churchmen (eg Crowland (Lincs)), or lay nobles (Burton-on-Trent (Derbys), St Mary de Castro (Leics)). Following the Conquest, many new Benedictine monasteries were founded foundations

In the C12th century several new monastic orders originating in Europe came to England, including the Orders of Canons, Cistercians, Carthusians, and the military orders of the Knights Templars and Hospitallers, while hermitages also experienced a renaissance (Gilchrist, 175-7).

The Augustinian order of Canons was particularly enthusiastically supported by Norman lords, with six houses founded before 1200 in Leicestershire alone (Liddle 1983, 21). Of Cistercian houses in the East Midlands only Garendon Abbey has seen extensive modern excavations (1965-71) (Williams 1965; 1969; 1970; Miller 1969), but the region hosted two of the nine Carthusian houses in England, Beauvale (Notts) and Axeholme (Lincs), neither of which have been excavated (?). The only new monastic order to originate in Britain was founded in Lincolnshire by Gilbert of Sempringham: 11 of the 26 Gilbertine houses lie in the county, including the characteristic double houses (for men and women) of Alvingham, Bullington, Catley, Haverholme, Sixhills and Tunstall (Lincs). None of these have had significant excavation.

- *Research into the houses of the Gilbertine order is important.*

The Templars, suppressed more than two centuries before the dissolution, are an elusive order which makes the excavations at South Witham (Lincs), the only Templar preceptory in England to have been excavated almost completely and to modern standards in 1965-7 (Mayes date*), particularly important. These have shown that the site differs significantly from most other monastic orders, reflecting its role as a collecting point for grain and revenue from its estates which funded the activities of the order as military escorts and bankers for the crusades.

South Witham was abandoned after the suppression, but other Templars sites including Stydd, Temple Normanton (Derbys) and Rothley (Leics), where buildings including the chapel and hall are still standing, were transferred to the Knights Hospitallers. The Hospitaller site of Old Dalby (Leics) is not known for certain, although survey has identified a possible candidate (Hartley 1987, 12). Earthworks are also present at the Templars site of Beaumont Leys (Leics). A preceptory of the knights of St Lazarus, lay at Locko (Derbys) where lepers were cared for (Marcombe 1991), as was the case at Burton Lazars (Leics), the senior leper house in England, which was excavated in 1913 although the exact location of these trenches is now unclear. Other hospitals are known at Castleton, Barlborough, Bolsover and Stavely (Derbys).

- *The East Midlands is particularly well endowed with Templars' sites with a high potential for research into this secretive and otherwise obscure order.*

At the communal hermitage at Grafton Regis (Northants) recent (unpublished) excavation (Parker 1981; Med Arch 10, 202-4) they indicate that the site included many of the standard monastic components including a chapel, cloisters, graveyard, domestic accommodation including a garderobe, ovens, drying kiln, a brewery, dovecote and guest house. Other, more solitary, hermetic activity is likely to have been pursued by anchorites located within churches, which are documented at a number of Northamptonshire parishes, although no associated structures have been positively identified.

- *Grafton Regis should be published*

- *A programme should be developed to identify hermetic sites and structures in the region*

6.1.3 Urban Monasteries

Many other orders also had urban houses and numbers increased in the 13th century when several orders of Friars originating in Europe came to the region, setting up urban friaries which allowed the friars to tend to the spiritual needs of the populace. Leicester, like many larger towns, had friaries of 4 different orders: Franciscans, Dominicans, Augustinians and Friars of the Sack. Of the 130 Lincolnshire monastic houses around 50 were urban. Northampton alone had 16 monasteries and most major towns included several monastic houses, as at Derby which had nunnery, a friary and a hospital. Exceptions to this pattern were urban manors held in their entirety by a major monastery, such as Kettering, Wellingborough and Oundle (Nhants). As with the friaries, the remains of these houses have survived poorly. In common with most urban friaries in the region, the sites of all of these have been destroyed by post-Dissolution redevelopment: one of the few sites to have been excavated in the region is the Austin Friars in Leicester (Mellor and Pearce 1981).

6.1.4 Standing buildings

A few sites have remains surviving as upstanding buildings, including St John's hospital, Northampton, St John's hospital, Brackley, Higham Ferrers College (Nhants). In other instances, parish churches which were integral to monasteries survive, as at Canons Ashby Priory, Irthlingborough and Cotterstock (Nhants). In few cases have the standing remains been thoroughly investigated, although useful work has been carried out in Lincoln (Stocker 1990).

6.1.5 Monastic appurtenances and the rural landscape

Although standing remains of monastic houses are relatively rare, many survive remarkably well preserved as earthwork sites, and in Leicestershire (Hartley 1983; 1987; 1989), north Lincolnshire (Everson et al 1991) and Northamptonshire (RCHME 1975; 1981; 1982; 1984) where these have been subject to comprehensive earthwork survey, details of the plan and layout can be reconstructed in considerable detail, as at Topholme, Kirkstead (Lincs) (Everson et al 1991), Owston or Belvoir (Leics) (Liddle 1983, 45; Hartley 1987, 19). In most cases, where they survive, earthwork remains include not only the main monastic ranges, but also evidence for the other features which supported most monastic life although these cannot always be fully understood (Everson 1989; Everson et al 1991, 46-7). These provide evidence for the nature of the complexes attached to monasteries and for the impact of monasteries on the landscape.

At the Premonstratensian site of Barlings (Lincs) the only surviving masonry comprises part of the northern arcade and one pier, but earthwork survey revealed the precinct boundary, the gatehouse, an approaching causeway, a ferry point and numerous ponds and leats providing both fish and sanitation to the occupants, both vital to the correct conduct of monastic life (Everson et al in prep.). The impact of the rural landscape here is clearly evident. Earthwork survey complimented by geophysical prospection has proved particularly useful at Axholme Carthusian Priory (Lincs) (RCHME 1977?)

The landscape context of monasticism is an important aspect as the impact of monastic houses on the landscape is vital to understanding both the economic underpinning of the monastic houses themselves and the development of the landscape they controlled. Not all the abbeys which held land in the region were actually located within it: Crowland, Peterborough, Ramsey and Westminster were all major landowners in the East Midlands region (Martin 1978; 1980; Beckett 1988).

Detached monastic farms termed granges often had a significant impact in reclaiming, improving and exploiting land, particularly in marginal zones. Survey in north Derbyshire has identified 41 possible grange sites owned by at least 20 different houses, most of which belonged to the Cistercian or Augustinian orders (Hart 1981); survey in Leicestershire identified more than 40 (Liddle 1983, 38). Field survey in Northamptonshire (RCHME 1975; 1981; 1982; 1984), Lincolnshire (Everson 1991) and Leicestershire (Hartley 1983; 1987; 1989) has identified, recorded and interpreted the layout of many grange sites, such as that at Sysonby (Leics) (Liddle 1983, 38-9) and Collow (Everson et al 1991, 123). In some respects the plans are similar to secular manorial sites (see below) with building platforms, yards, paddocks, gardens, and fishponds, all frequently defined and bounded by enclosure ditches or banks, although a gridded layout is particularly clear at many grange sites.

Excavated granges include Badby Grange (Northants), which remains unpublished, Stanley Grange (Derbys) (Challis 1998), Lings, Bardney and Thornton (Lincs). Roystone Grange (Derbys) (Hodges 1991) lies in the Peak District, a region devoid of monastic houses but where a number of monasteries held estates. Extensive excavation and survey here have revealed the layout of the elaborate grange buildings and shown how systematically the landscape was colonised and exploited for profit, mainly from sheep and lead mining. In contrast to the mainly pastoral and extractive activities at Roystone, at Needham Grange (Derbys) open field strips attest to arable cultivation.

- *Grange sites are a priority for research for their impact on the landscape, both in their own right and as often well-preserved and documented sources of evidence for medieval land management.*
- *More case studies of monastic estates would be useful.*

6.1.4 The Dissolution

The limited extent of the remains of most monastic houses bears mute witness to the effectiveness with which the Dissolution of 1536-8 was carried out. Excavation has revealed little more than the church at Lenton Priory (Notts), which held land in seven counties and was the most powerful monastery in Nottinghamshire. Field survey on many sites, notably in Lincolnshire, has shown the extent to which monastic sites continued in occupation as country houses, selectively reusing the buildings and laying out or remodelling gardens (Everson 1996). A similar fate is evident in the west of the region, at Welbeck, Rufford and Newstead (Notts) (Pevsner and Williamson 1979, 19).

6.2 Cathedrals

The major episcopal centre in the East Midlands for most of the period under review was Lincoln, although the later Anglo-Saxon period was one of shifting episcopal territories, with bishops' seats frequently being transferred from one location to another for reasons that had less to do with religion than with politics. Leicester was the original seat of the bishopric created around 679 for the Kingdom of the Middle Angles and Lindsey too had a long history as an independent see covering much of Leicestershire. Much of the rest of the region was under the control of Dorchester-on-Thames (Berks), York (Yorks) or Lichfield (Staffs). Lindsey was incorporated into Dorchester shortly after 900 AD, and although Leicester on the eve of the Norman Conquest was within Dorchester-on-Thames, it retained an episcopal seat (Hill 1981, fig 254-6). In the centuries after the Conquest, the majority of region the lay within the see of Lincoln, which reached from the Humber to the Thames and included most of Lincolnshire, Leicestershire and Rutland. Nottinghamshire however remained within the see of York (Yorks), with Derbyshire within Lichfield (Staffs).

At Lincoln Cathedral, the only major surviving ecclesiastical building in the East Midlands region, many of the standing buildings have been subject to extensive historical, structural and topographical investigation (Major 1953-74; Jones, Major and Varley 1984; 1987; 1990; Jones, Major, Varley and Johnson 1996). This shows that the cathedral was repeatedly the focus of architectural and artistic innovation which then acted as an inspiration of ecclesiastical building elsewhere in the region (Stocker and Vince 1988; Stocker and Everson in prep.).

6.3 Ecclesiastical palaces

The palace of the Bishop of Lincoln in Lincoln has been extensively investigated, although some of the results remain unpublished (Faulkner 1974; Chapman et al 1975). Excavation of the Bishop's palace of The Bedehouse in Lyddington (Leics) revealed a great hall and associated buildings to be surrounded by a 5.5m-wide moat, beyond which lay a park and fishponds (Simms 1955; Woodford 1981). Earthwork survey at the bishop's houses outside Lincoln, at Nettleham, Stow and Sleaford Castle (Lincs), none of which have any upstanding masonry remains, has revealed much of their layout and function. Nettleham was a retreat and lodging for important guests with an attached enclosed garden situated close to Lincoln, while Stow and Sleaford Castle are both set within elaborate ornamental landscapes incorporating contrived expanses of water and parkland. A similar emphasis on ornamental landscape settings for episcopal houses in the East Midlands is evident at the Bishop of Durham's residence of Somerton Castle (Lincs), where some standing remains also survive.

6.4 Churches

Despite shifting episcopal responsibilities for the region, church building was carried out rapidly as the system of large minster parochiae administering to many communities was broken up into smaller local units serving single villages, manors or more localised dispersed settlements. The way that this process took place at local level in the east midlands is not yet well understood, but its correlation with the transition in secular land units from large multiple estates to smaller manors has been noted and was one subject of investigation at Raunds (Nhants), where a pre-Conquest church was excavated adjacent to Furnells manor (Cadman 1983). Recent research on the Danelaw has suggested that the model widely used for the development of the minster and parochial systems may not be applicable within the Danelaw

- *The development of minster parochiae into parishes within the Danelaw must be a high priority in the region, and research building on the important excavations already carried out is important.*

Nearly all medieval churches were in existence by the second quarter of the twelfth century, and new church foundations possibly peaked as early as the decades immediately after 1000 AD (Morris 1989, 140-167). Few of these can be identified from the existing archaeological or, indeed, the historical, record; excavations at Raunds Furnells unexpectedly uncovered extensive remains of a church dating to the 9th or 10th century (Cadman 1983). Just 10 of the 195 medieval churches in Nottinghamshire have evidence for their existence before the Conquest, while of 150 medieval churches in Derbyshire only xx can be dated to the pre-Conquest era. The Domesday Book in Northamptonshire records just 59 priests and one church out of 380 churches known to have existed by the end of the middle ages. The extent to which existing records underestimate the number of late Saxon and early Norman churches has been demonstrated, if proof were needed, by architectural investigation at sites such as Greens Norton and Earls Barton (Nhants) which have revealed Saxon stonework in manors for which no priest or church is recorded.

Few of the huge number of churches in the region have been the subject of archaeological investigation, and it is sobering that most of the work that has been carried out is itself of some antiquity. None of the 150 medieval churches in Derbyshire, with the exception of Repton, have been excavated recently. Some excavations in the region, however, have been carried out to a very high standard and in recent years. Examples in Lincolnshire include St Peter's, Barton on Humber, St Mark in Wigford, Lincoln, and St Paul in the Bail, Lincoln. However refurbishment provided an opportunity for only very limited investigation at Holton Le Clay (Sills 1982), Healing (Bishop 1978, Keelby (Field 1986 and Stow (Field 1984). Similarly, only four of the 24 church excavations recorded on the Northamptonshire SMR were of any significant extent, and two of those were antiquarian investigations. Even the wave of rural church redundancies in the 1970s and 1980s seem to have provided only limited scope for investigation, mostly restricted to recording of standing remains, such as at Miningsby (Lincs) (Everson 1980). Exceptions where more detailed investigation was carried out, include Cumberworth (Lincs) (Greene 1993). In Northamptonshire 28 churches including Catesby, Clopton, Boughton Green and Brackley St James were abandoned in the 16th to 19th centuries, but few of these have been excavated. The discovery of the previously lost church of Raunds Furnells (Nthants) in the 1970s suggests that other unknown medieval churches remain to be discovered.

Churches might seem to be ideal subjects for methodical architectural investigation but little detailed investigative work has in fact been carried out, while a survey of all standing medieval churches in Northampton by RCHME/EH remains unpublished. County overviews (Pevsner and Harris 1964; Pevsner and Williamson 1978; 1984; 1986) record main architectural phases and stylistic elements such as the decorated 1160-70 chancel at Tickencote (Leics) (Pevsner 1960, 273 and 327). Brixworth and Earls Barton (Nthants) have been subject to more detailed architectural investigation.

- *Further identification of evidence for early church building in the region is needed.*
- *Suspected lost church sites are a particular priority, both to enhance understanding of medieval parochial provision, and for the higher potential they offer for undisturbed deposits.*

6.5 Chapels

Chapels appear frequently in church and manorial records, but are more elusive than churches as they are commonly smaller, in use for less long, or integrated within another building such as a manor house. Chantry chapels, of which 3 are recorded on the Nottinghamshire SMR would be sited within parochial or monastic churches. In Nottinghamshire 195 medieval churches are recorded on the SMR, but only 32 chapels, and it is difficult to know if this small number is a reflection of the true situation or simply the difficulty in identifying sites.

At Burham (Lincs) an entire parochial chapel was excavated (Coppack 1986), and excavation at a chapel in Brentingby (Leics) showed a structural sequence commencing in the early 12th century with several phases of rebuilding and elaborate decoration (Liddle 1983, 21). A small square enclosure at Legsby (Lincs) overlying arable and containing a small rectangular building may be the chapel erected in the 13th century to serve the small settlement of Caldecotes (Everson et al 1991, 126). Excavation of a circular moated site at Brockey Farm (Leics) revealed 2 stone coffins suggesting that this site, presumably manorial, may have had its own chapel (Clarke 1952, 41). However, the sites of many documented medieval chapels are now lost, such as at North Marefield (Leics), documented from 1166 until at least the 14th century (Everson 1994).

- *Review of the evidence for chapels and investigation when the opportunity arises would improve understanding of this element of medieval religious provision.*

6.6 Human remains

Most medieval churches were, or are, associated with burial grounds, but few have been excavated. The few exceptions include St Peter's, Barton on Humber, St Mark in Wigford, Lincoln and St Paul in the Bail, Lincoln none of which have yet been published. At Raunds (Northants) both church and graveyard were completely excavated, and excavations at Repton (Derbys) included church and burials. The results from St Peters, Barton on Humber, would be of particular interest as the early medieval material from the nearby Castledykes cemetery is available for comparison (Drinkall and Foreman 1998). Too few populations are available to allow comparisons between rural and urban sites, and monastic cemeteries have fared even worse.

- *Human remains represent the only direct evidence for many aspects of life in the medieval period and as such analysis of human remains should be a high priority when these are discovered. In particular it is desirable that populations should be available that would allow comparison of populations over time, or between town and county, monk and peasant including aspects such as health, stature, diet, morbidity and mortality.*
- *A programme of DNA analysis of cemetery populations of pre- and (more commonly) post-Conquest date could indicate the extent of sustained Danish settlement in the region.*

7. Industry

Industrial activity was important to the region in the middle ages, when it was an important source of coal and iron ore: the foundations of the industrial nature of the north-west of the region were laid in the medieval period. The most visible industries in the region were those involved in potting, iron production, lead mining, coal mining, cloth manufacture, leather working, potting, stone quarrying, milling, salt production, fishing, and timber management. Some, such as cloth manufacture, leather working and potting, are found widely across the country, but other such as iron, coal and lead mining and salt production, are more constrained by natural availability of resources and are more geographically limited. Any archaeological consideration of industry faces the problem that some processes leave much more trace than others, and activities such as woodworking, lace-making or metalworking are rarely detectable.

- *Greater understanding of the way in which these industries, particularly the extractive mineral industries, were controlled and organised by royal, monastic and lay lords is very important.*

7.1 Pottery

Pottery manufacture is attested at a number of sites in the region, both before and after the Norman Conquest, but by no means all production sites suspected to have existed in the region have been located. Kilns have been found in both rural and urban situations, although rural situations seem to be common only from the 12th century onwards. National reviews (McCarthy and Brooks 1988; Hurst date) have provided very useful syntheses of the evidence for pottery manufacture and distribution in the region.

7.1.1 Pre-Conquest pottery

The late Saxon period in the east midlands saw a transition from hand-made largely locally-produced hand-made, clamp-fired pottery to specialist-produced wares fired in kilns. Important pottery production sites of pre-Conquest date have been found in Northampton (Williams 1974; Blinkhorn 1996), Lincoln (Coppack 1973), Torksey (Lincs) (Barley 1964; 1981), Stamford (Lincs) (Kilmurray 1980; Mahany et al 1982), Leicester (Hebditch 1968; Woodland 1981) and Nottingham (Coppack 1980; Wildgoose 1961), (McCarthy and Brooks 1988). Several production sites have more than one kiln. All identified production sites in the East Midlands are in urban contexts, although pre-Conquest production may have occurred at Lyveden (Nthants) (McCarthy and Brooks 1988, 74). Generally it is unclear whether or not pottery was produced outside the emerging towns of the region in the late pre-Conquest era.

The production sites of a number of fabrics of this date are unknown, including those of Derby ware (Coppack 1972; 1980), Derby Brown Sandy and Grey Gritty wares, Nottingham Splashed ware, Goltho Shelly ware and Orangeware from Barton-on-Humber (McCarthy and Brooks 1988, 156-7; 171). The production sites for these are suspected to lie in towns, and it is suspected that the kilns for the Derby wares lay in Derby, those for Nottingham Splashed ware in Nottingham etc.

- *Identification of production sites for all pottery wares remains important*

The impact of the Danelaw on the development of pottery production is unclear (McCarthy and Brooks 1988, 65-6). Wheel throwing (at Stamford and Torksey), use of updraught kilns and production of red-painted continental wares (at Stamford and Northampton) are all more common in the Danelaw and around its borders and have been attributed to Scandinavian influence. However, these trends are not unknown elsewhere in England, and it may be significant that there was no contemporary tradition of pottery manufacture in Denmark (McCarthy and Brooks 1988).

Potting in this period was a commercial activity producing for a wide market: by the mid 10th century pottery including cooking pots, storage vessels, bowls, pitchers and lamps was in use by all levels of society. Stamford ware in particular is found widely across the region (and beyond). However, the relatively small number of findspots makes reconstruction of the means by which pottery was distributed difficult, although it must be assumed that itinerant peddlars and the nascent market centres were both important. On analogy with Roman and Medieval patterns, it could be suspected that transportation relied on waterways as much if not more than roads.

- *Thorough review of late Anglo-Saxon pottery across the region is critical for understanding crucial issues such as the impact of the Danelaw, the emergence of the market economy, and the character of early commercial production and distribution.*

7.1.2 Post conquest pottery

In the post-Conquest period pottery is much more widespread and the number of production centres and wares increased from the early 12th century.

Although urban centres such as Northampton and Nottingham continued in production, a number of new rural production sites appear for the first time. At Toynton All Saints (Lincs), Potter Hanworth (Lincs), Stanion (Nthants) (Bellamy 1983) kilns and wasters have been found within nucleated villages (Healey 1984; 1975). Dispersed regions such as Charnwood (Leics), Rockingham Forest (Nthants) (Foard 1991) and Whittlewood (Nthants) (Jope and Ivens 1995) also played host to pottery manufacture. At Lyveden (Nthants) extensive pottery production was attested within a dispersed (subsequently deserted) settlement in Rockingham

Forest (Steane 1967; Bryant and Steane 1969; 1971; Steane and Bryant 1975). Excavation of a number of structures illuminated on the organisation of rural pottery production, revealing a highly organised complex including demarcated manufacturing, drying, storage and firing areas, and showed also that such settlements were also agricultural villages, not wholly dependent on potting, which seems to have been a cottage industry regarded as lowly, hard work for little reward (Dyer 1982).

The role of the market in the distribution of pottery in the post-Conquest era was considerable (Moorhouse 1981), evident in areas such as the Peak District which were more remote from markets. Water transport was also important, as is evident in the distribution of Humber wares across Lincolnshire (Moorhouse 1983).

- *Systematic regional study of the distribution of post-Conquest ceramics, including those produced in the region and those imported into it, could elucidate the modes of distribution and spheres of exchange of rural and urban production centres.*

Wheel throwing and glazing became gradually more widespread particularly from the 13th century onwards, but otherwise there was little innovation in potting in the region. There is a decline in the number of production centres in the 14th and 15th centuries. From the 15th century forms become more standardised across wider areas, and Ticknall (Derbys) was one of many centres producing brown-glazed Cistercian-type wares, Midland Purple and Midland Yellow wares. The midland purple ware transition is distinctly different from the transition to the post-medieval in other regions and.

- *The distinctive midland purple ware transition is an important aspect of regional material culture as it is accessible for archaeological research and should be the subject of further investigation within a wider context.*

7.2 Iron Production

Iron ore is a significant resource in the East Midlands region, and its processing was an important industry in parts of it. Iron working can be adduced by the presence of bloom, slag or charcoal burning, often recorded during field walking or aerial photography. Dating such activity is reliant on C14 or, more commonly, associated finds, and hence little is known of late pre-Norman ironworking for which finds, in particular pottery, are rare.

Iron production required large quantities of timber for fuel and charcoal and hence tended to be restricted to wooded areas. The charcoal burning industry in Northamptonshire has been extensively mapped from air photography, and has been dated by C14 to the centuries either side of the Norman Conquest (Foard forthcoming). A number of slag heaps have been identified, some surviving as earthworks. Well-preserved ironworking sites exist at Fineshade (Nhants) and Oundle Wood (Nhants), the former associated with a castle but unusual in that there is no village. Some limited excavation of iron smelting sites has taken place at Lyveden, Stanion (Nhants) (both also rural pottery producing centres) and Easton Maudit (Nhants), while a possible forge site at Weldon was the subject of an amateur excavation. Ponds at Fineshade and Weldon have been tentatively identified as hammer ponds to power water driven forges although no water-powered sites have been identified for certain. A major 13th century iron smelting site was excavated at Stanley Grange (Derbys), revealing eight furnaces and areas for ore preparation and slag disposal and clay pits (for furnace building) (Challis 1998). However elsewhere in the county it is suspected that the association in Derbyshire of ironstone with coal measures has resulted in the destruction of much of the evidence by coal mining. In Lincolnshire evidence is restricted to that for smithing as at Goltho (Beresford 1975, 34 & 46), but the presence of iron ore in the west of the county suggests that evidence similar to that for NE Northamptonshire may remain to be

discovered. One bloomery is recorded on the Nottinghamshire SMR, which is also likely to considerably under-represent the true extent of evidence for iron-working in the county.

The limited amount of investigation into iron working in the region suggests that it may have been carried out part-time by communities who also supported themselves by farming and pastoralism as part of a mixed woodland rural economy. The Northamptonshire evidence suggests that iron-working here had declined by the later middle Ages, although the reasons for this are unknown. Little is likewise known of the social context of ironworking and the mechanisms for distribution, such as to what extent smelted iron was worked into finished objects on site, or sold on in pig form for finishing elsewhere.

- *Sites associated with iron production are a little understood and threatened resource: their identification and investigation should be regarded as a priority*
- *Clarification of the chronology and social context of ironworking is an important research objective*

7.3 Coal mining,

A distinctive feature of the East Midlands are the significant coal measures which outcrop in east and south Derbyshire, north-west Leicestershire and west Nottinghamshire, where exploitation has been claimed in Roman contexts: the region is recognised as one of the cradles of the coal industry nationwide. The use of coal for smithing, brewing and limeburning was well-established by the mid 13th century in Derbyshire and Nottinghamshire, and increased in subsequent centuries (Nixon 1969, 70). References to a number of early 14th century deaths and the construction of a drain at Cossall (Notts) suggest that underground working may have been more extensive than simple bell pitting. Little archaeological evidence is known for medieval coal mining, but excavations at Lounge (Leics) revealing 15th-century pillars and stalls show that evidence can and does survive.

- *The development of strategies for identifying, recording and investigating coal mining is important as such sites are a threatened and little understood resource but represent a distinctive element in the region's, and indeed the country's, historical development.*

7.4 Lead mining

Lead mining is uncommon in the region generally, but evidence of such activity is widespread across the Peak District in Derbyshire (any others?). Important in the Roman period, it rose to prominence again in the late Anglo-Saxon period: 'lead works' are recorded in all the royal manors of the Derbyshire Peak in Domesday Book. Documentary evidence for formal laws in the mid 13th century attest to the continuing value of lead in the middle ages (Ford and Rieuwerts 1975; Barnatt and Smith 1997, 99). Nine lead mines are recorded on the Derbyshire SMR, but archaeological evidence for this activity remains under-recorded as early mines are commonly reworked, destroying evidence, and underground workings are difficult to date. At Bonsall (Derbys) extensive pit workings survive as earthworks of which some must pre-date 1620, when complaints were made about the danger the pits posed to grazing animals (Beresford and St Joseph 1979, 259-60). More detailed investigation might reveal a medieval date for sites such as this.

- *As with coal mining, the development of strategies for identifying, recording and investigating lead mining is an important priority in the region. Much recording to date has been from the air, and further ground-based follow up is needed.*

7.5 Cloth production

The production of woollen broadcloth was one of the most important industries in the region in the middle ages, being the major industry in towns such as Northampton. Fulling, tentering and dyeing were all carried out manually, mostly in towns until the later 13th century when fulling was carried out by mills more commonly on rural sites.

Little archaeological evidence for cloth-working has been found in the region to compliment the extensive documentary evidence for cloth-working in towns such as Leicester and Northampton. Place names provide hints as to the physical reality of the documented record, such as Walkergate in Louth (Lincs), Walkers Lane in Leicester ('walkers' referring to fullers) or Scarlet Well Street in Northampton, which may refer to a dyeworks. Fulling mills in Northamptonshire are documented at Wellingborough and Kettering.

Linen working is indicated by records of flaxlands at Higham Ferrers and Kettering (Nthants), with 14th century linen shops at the former. Flax retting evidence has been excavated at West Cotton.

- *A review of place-name and documentary evidence for activities related to the cloth industry would provide a springboard for archaeological investigation of this important aspect of the medieval economy of the East Midlands*

7.6 Leather working,

Leather working is another important medieval industry for which the documentary record is much greater than the archaeological evidence. In towns such as Northampton it may have become the most important industry in the town by the 16th century. However the scale of the industry is not well understood. In Leicester, finds in waterlogged deposits suggest leatherworkers worked in the north-west part of the town, a disposition which is supported by documentary evidence. This appears to be the same area where fullers worked, and it seems likely that smelly activities were deliberately concentrated in this one part of the town. No archaeological investigation has been undertaken in this area, although excavation on the Austin Friars site produced shoes, knife sheaths, belts and clothing fragments attesting to the quality of items produced (Allin 1981; 1981b).

- *A regional review of the archaeological and documentary evidence for leather working would be timely as part of a review of industrial activity in town generally.*

7.7 Stone quarrying,

Several regions of the East Midlands are sources of building stone or more than merely local importance. Stone from Barnack (Nthants) was used in medieval buildings as far afield as Cambridge and Norwich and remains of the quarry, which was virtually worked out by the 16th century, are preserved as earthworks west of the village (Beresford and St Joseph 1979, 254-5). The same limestone outcrop was also worked from Lincoln, Ancaster, Clipsham and Ketton (Lincs). At Weldon (Nthants) and Collyweston (Nthants) stone and slate respectively were quarried from the open field, and remains of such extraction may survive among earthworks at Helmdon, Collyweston and Easton (Nthants) (Steane 1967; Parry 19??). None of these sites have seen any archaeological investigation.

7.8 Salt production

Salt was highly valued for its preservative qualities in the Middle Ages. The only available natural sources of salt in the region comes from the sea and thus medieval salt production was restricted to Lincolnshire, where there was a major industry from at least the 11th century which survived into the post-medieval period. Extensive remains survive around Lindsey and

the Wash and the industry has been frequently the subject of research (Hallam 1960; Rudkin and Ownen 1960; Beresford and St Joseph 1979, 262-5; Rudkin 1975; De Brisay and Evan 1975; Sturman 1984; Healey 1993. The location and extent of salterns in the county have been mapped from aerial photography by the RCHME National Monuments Programme, and excavations of structures and processes carried out at Bicker (Healey 1975) and Wainfleet (McAvoy 1994).

7.9 Fishing

Fish was an important part of the medieval diet and fisheries are extensively documented in the region. Sea fishing was carried out off Lincolnshire's coastline from ports such as Grimsby and Boston, as well as numerous other smaller settlements. Silting up of some of the creeks on which these lay suggest a high potential for investigation for associated harbour facilities such as slipways, boatyards and processing buildings, as has been demonstrated by investigation elsewhere on the English North Sea Coastline (Aberg and Lewis 2000).

Boat building and repair must have been a significant activity in coastal regions, but no archaeological evidence for this has yet been found.

Riverine fisheries on the Witham (Lincs) and the Trent (Notts) have seen some archaeological investigation (White 1985; Salisbury 19??), but have otherwise received little attention: their occurrence difficult to predict.

- *Review of the documentary evidence for medieval fishing would provide a better framework for future management of potential resource of sites associated with the fishing industry*
- *The archaeology of the coastline is a urgent priority (see below)*

7.10 Milling

Corn milling was carried out everywhere across the region, invariably in mills owned by manorial lords which peasants were bound to patronise. 168 are recorded in Domesday Book in Northamptonshire alone, and they have been the subject of review nationally (Holt 19??). Despite this, no detailed survey has been carried out of medieval mills across the region, and little excavation or fieldwork, although the sites of abandoned documented water mills can often be identified from earthwork evidence. A rare exception is the water mill at West Cotton (Nthants). From the 12th century onwards windmills supplemented the capacity provided by water mills for grinding the grain of a rising population. Windmill sites survive most commonly as round mounds, usually at field corners. Many may remain unrecognised within areas of other earthworks such as ridge and furrow. At Lamport (Nthants) the windmill has been completely excavated (1956 J Nthants Nat Hist Soc and Field Club ref missing) while that at Strixton (Nthants) has seen more limited investigation (Hall 19??).

8. The agrarian landscape

The land supported the population of the East Midlands and was increasingly intensively exploited up to the late fourteen century as the population grew, and there was little of the landscape that was could not be used in some way for food production.

8.1 Fields

8.1.1 Regular open fields

The majority of the region in the middle ages was champion landscape with nucleated settlement (qv) and arable land organised as communal open strip field systems. These strips were cropped under a two or three year rotation, and were once extensively attested as ridge and furrow, and although much of this has been destroyed by modern cultivation, the East Midlands retains some of the best-preserved areas of midland ridge and furrow field system in the country which represent a nationally important resource.

The medieval open field systems of Northamptonshire have been extensively recorded and analysed using a combination of documentary sources and fieldwork (Hall 1995) and sample areas have been recorded but not extensively analysed in other counties including Lincolnshire and Leicestershire (Hayes and Lane 1992; Lane 1993; Hartley 1983; 1987; 1989). The field systems of Derbyshire and Nottinghamshire have received little attention.

8.1.2 The origins of the open field system

The question of the origin of the medieval open field system has received considerable attention, particularly in Northamptonshire. Documentary research, fieldwalking and settlement pattern analysis suggests that introduction of the system predates the Norman conquest, and occasional charters support this, such as that for Southwell (Notts), apparently dated AD 956, which may refer to open field organisation (Whitelock 1955, 513-4). However, the exact chronology remains unclear, as do the reasons for and mechanisms behind such a comprehensively disruptive reorganisation as the inception of the system must have involved (Lewis et al 1997, 170-7; 202-4 and see 3.1.3 above). Most documentary evidence for field systems is much later, dating to the twelfth century and later: regular open field systems continued to be reorganised on a local sporadic scale throughout the middle ages.

- *More detailed archaeological evidence is needed to refine dating of the origins of the regular midland open field system in the region which has the best-surviving evidence in England.*
- *Recovery of environmental evidence from open field systems is needed to help ascertain the impact of the introduction of the open field system and associated changes in land use. Such evidence would also throw new light on the introduction of new crop species such as rivet wheat and new combination of cropping such as dredge, and their impact on field use.*

8.1.3 Irregular field systems

Fields and field systems of non-champion regions such as Charnwood (Leics), Whittlewood and Rockingham (Northants), the Lincolnshire Fenland, north and west Derbyshire and Nottinghamshire have generally been little studied. Field systems in such areas tend to be less regular and organised in a variety of different ways which remain poorly understood. Documentary evidence suggests that waste and woodland regions in these areas saw extensive assarting and clearance continuing up to the fourteenth century, long after the limits of arable in the champion regions had been largely limited and fixed.

- *There is an urgent need for research into field systems of non-champion landscapes of the region, both to establish the nature and extent nature of the resource and to record the evidence. The East Midlands is an ideal area for such research as it has good survival of regular open field systems near to a variety of different landscape with less regular systems*
- *Better understanding of the pattern of land use and field systems in the upland areas particularly the Peak District is important*

Not all fields were used for arable cultivation. Meadowland, lying almost exclusively on alluvial floodplains was the most valuable land and was defined by boundaries to prevent stock getting in and ruining the crop that would otherwise sustain those beasts kept alive over the winter. Pasture land could be enclosed or open, and animals were also pastured on the fields that were fallowed each year in the open field systems. A proportion of enclosed fields within less regular field systems may have been semi-permanent paddocks rather than arable land.

8.2 Woodland and waste

Woodland was an important resource providing (among other things) fuel, timber for building and working, and pannage for pigs. By perhaps the 13th century, woodland was scarce in the champion regions, particularly the main river valleys, but elsewhere it remained extensive despite clearance for arable and settlement. Woodland was carefully managed, and it must be suspected that the complex system of divisions into areas for rotational coppicing which is detailed in royal forests such as Rockingham (Nthants) in the early post-medieval period must also have been in use before 1500.

Some research into woodland in the region has been carried out, notably in Northamptonshire and Lincolnshire (Foard forthcoming; Gibbons 1975, 27-35; Peterken 1971; Rackham 19??; Lane 1995), but has been dominated by non-archaeological study. Woodland banks, subdivisions, ponds, coppices stool and flora are all well-preserved in places and form a valuable and under-investigated resource.

Although sustainable harvesting was the aim of much medieval woodland management, the extent of woodland was much reduced across the region between 850 and 1500 by clearance, attested by documents and place-names. In areas such as these it should be possible to observe the formation process of a distinctively dispersed pattern of land use and settlement using evidence from a range of disciplines including archaeology, history and ecology

- *Detailed fieldwork should be carried out to record and analyse woodland features in sample woodlands of medieval date to try and understand the character of such archaeological remains and the activities they represent, ideally in both royal forest land and manorial woodland.*
- *There is a need for more case studies of landscape development in woodland regions.*
- *Sherwood Forest is a area of woodland whose investigation to date has not reflected its regional economic importance or its place in popular history.*

The role of land described as waste is not well understood as documentary sources are largely uninformative, but is unlikely to have been unused, perhaps providing additional rough pasture or fuel in the form of turf or furze.

8.3 Stock Rearing

Archaeological evidence for livestock management is known sporadically across the region, but has not been systematically recorded or reviewed. Most of the evidence is manorial in origin, relating to specialised structures created for specific purposes, and most comes from counties where extensive earthwork survey has been conducted, namely Northamptonshire, Leicestershire and north-east Lincolnshire. The range of evidence includes rabbit warrens,

sheep folds, sheep pens, dew/stock ponds shielings, vaccaries, fishponds, dovecotes, duck decoy ponds and deer parks.

8.3.1 Rabbit farming

Rabbits were introduced to England by the Normans, and farmed by lords as a source of fur and fresh meat. Of Mediterranean origin, rabbits preferred well-drained sandy soils. Rabbit warrens can be evidenced by maps, place names and the survival of warrens with earthworks. In some cases these comprise small ditched or walled (as at Whiston (Nthants)) enclosures, but are more commonly recognised as low cigar-shaped earthworks termed pillow mounds. A complex of at least eleven mounds within a ditched enclosure was identified during survey at North Carlton (Leics) (Everson et al 1991, 137-9), apparently belonging to the Premonstratensian monastic grange of Barlings, and other pillow mounds are known from RCHME survey at Easton Maudit, Gretton, Hardwick, Rockingham, Sulgrave, Benefield, Collyweston, Fotheringay, Stoke Doyle, Weekley, Fawsley, Hollowell and Sulby, all in Northamptonshire. The coincidence with higher status lordly possessions, including castles, is apparent, but a considerable amount of further evidence for rabbit farming doubtless remains unrecorded or unrecognised. Most known examples are of later medieval date and a number overlie ridge and furrow, but the economic implications of this are unexplored.

- *Synthesis of archaeological and documentary evidence for rabbit farming in the region would be useful.*

8.3.2 Sheep farming

Sheep farming, supplying as it did the wool and cloth trade, was of vital importance to the East Midlands. Sheep folds, otherwise known as sheep cotes (Dyer 1995) were buildings thought to be used for housing sheep during winter, lambing, or for storing fodder, usually sited remotely from settlements. They have been identified occasionally during survey, as at Kelmarsh (Nthants) (RCHME 19??) or West Firsby (Lincs) (Everson et al 1991, 211-3), but many more examples doubtless remain unrecognised or unrecorded in the region, particularly in upland areas. Sheep pens are larger unroofed enclosures thought to be used for cooping sheep for short periods of time. Such pens in some cases contain folds. There seems to be little recorded evidence for penning in the region, although it is likely that such features were once widely in use. Dew ponds are small clay-lined artificial ponds used for watering animals grazing pasture land remote from other water sources. Many ponds exist in the region, but there has been little research to identify the date and function of these

Vaccaries and bercaries were specialised units for cow- and sheep- rearing. Most known examples belonged to monastic institutions (qv), but little investigation has been carried out into their layout, function and chronology. Shielings were seasonally occupied shelters for shepherds on high pastures such as the Peak which sometimes formed the nucleus of permanent settlement.

- *The evidence for sheep farming has not been given the attention commensurate to its importance to the medieval economy of the East Midlands.*

8.3.3 Pig keeping

Pigs, such an efficient means of turning refuse into meat that could be cured for the winter, were kept widely in the Anglo-Saxon and medieval periods in back yards of peasant dwellings or grazed collectively in woodland. Pigs are the third-commonest bone find on most Saxon and medieval settlement excavations, but the nature of archaeological evidence for associated sties, pens or enclosures is almost unknown, in the East Midlands as elsewhere. Such feature doubtless existed and may well survive unrecognised.

- *Evidence for pig rearing and management in the landscape should be sought.*

8.3.4 Fish farming

Fish was important in the medieval diet as providing variety and was an alternative source of protein during Lent and other times when meat-eating was proscribed. The extent to which fish was available to the inland peasant is unclear from documentary source, and archaeological evidence for fish consumption is difficult to identify. However fishponds are common in association with manorial sites, monastic complexes, parks and warrens. Earthwork survey, particularly in Northamptonshire and Leicestershire has recorded hundreds of fishponds, ranging from small moated ponds at Higham Ferrers College (Nthants) to large complexes of five or more fed and drained by a network of leats and sluices as at Braybrooke and Harrington (Nthants). There remains a major problem in both classifying and dating fishponds, with many known examples probably of post-medieval date. Riverine fisheries were probably as important as fishponds, but tend to leave very little trace in the archaeological record.

8.3.5 Birds

Dovecotes housed doves or pigeons which provided further variety for the lordly diet, although evidence for dove or pigeon bones is occasionally found during excavation of peasant dwellings. Dovecotes occur not uncommonly in historical documents, but only a few have been excavated such as at Raunds Furnells (Nthants). The sites of others have been identified by earthwork survey, as at Mallows Cotton (Nthants)

8.3.6 Deer keeping

Venison was one of the most exclusive meats in Saxon and medieval England and its management is particularly pertinent to the East Midlands: the penalties incurred by poachers of deer are nowhere more famous than in the tales of Sherwood Forest (Notts). Hunting is attested by 1086 in Rockingham and Whittlewood Forest (Nthants) (others?), and such royal forests contained a number of private hunting reserves such as Geddington Chase and Yardley Chase (Nthants), attached to medieval manors. Within the Royal forests of Rockingham, Whittlewood (Nthants), Charnwood (Leics), Sherwood (Notts) and the Peak (Derbys) deer were exclusively owned by the king, but during the medieval periods lords increasingly aped royalty by creating deer parks on their manors (Steane 1973). Deer parks are widely distributed across the region, but notably absent from areas of royal forest such as the Peak. As with Royal forests and chases, the deer in the parks were both a carefully managed and farmed source of meat, and a source of entertainment when they were hunted with dogs or from horseback.

Deer parks are not uncommon across the region – thirty-seven are recorded on the SMR for Nottinghamshire and seventeen in Derbyshire. Most were established in the 13th century, with smaller number coming into existence in the 12th, 14th and 15th centuries. Archaeological evidence for the date of park creation comes from ridge and furrow and charcoal hearths used prior to clearance. Most remained in use until the post-medieval period. Deer parks were bounded by boundaries termed pales usually consisting of earthen banks with inner ditches, although some such as Moulton Park (Nthants) have stone walls. Deer parks vary widely in size across the region. The extent of most of the larger examples is known, and have been mapped in Northamptonshire (and Leics?). Even here, however, it is suspected that some smaller parks may yet remain to be discovered, and most lodge sites are lost. More detailed research can add considerable information, by identifying the sites of lodges (some moated) and deer leaps (allowing deer into, but not out of, the park) and showing the nature and extent of survival of park pales, internal divisions and other features.

- *Detailed assessment of the structures associated with medieval deer management and hunting would clarify understanding of this aspect of the medieval lordly economy.*
- *The potential of parks for preserving pre-13th century medieval remains including field systems and evidence for aspects of the woodland economy, should be assessed.*
- *Review and synthesis of the evidence for stock management in the landscape generally is needed to illuminate different regional traditions and changes over time.*

9. Communications

The study of communications is important to understanding the nature and economy of the region in the middle ages, but has been rather overlooked to date. Street and tracks provided links within settlements, and between settlements and fields, while roads linked settlements to each other. In some cases these reused Roman roads including Watling Street on Leicester's south-western border and either side of Towcester, Ermine Street north of Lincoln, the High Dyke through Ancaster, and Tillbridge Lane in western Lindsey and Nottinghamshire. Evidence for roads originating in the early Anglo-Saxon period comes from names such as *herepath* and King's Roads. But many other roads must have developed after this, both in champion regions which saw extensive late Anglo-Saxon reorganisation of settlement and field systems at this date, and in non-champion areas where settlement, colonisation and land use remained more fluid into the post-Conquest period

Many medieval roads remain in use to this day, but many others fell out of use due to factors such as settlement abandonment, emparkment, industrial failure or relocation and enclosure (piecemeal or parliamentary) and survive as archaeological features such as hollow ways, found widely across the region or causeways, such as the Fen Causeway linking the island of Stickney to the mainland (Lincs). Wide droeways were used to drive stock and can be identified from maps and are often detectable in earthwork and landscape surveys. In areas of high moor such as the Peak, routes may be marked by stones (?). Points where roads crossed waterways can be identified from place names containing the element *ford* or *brig* and often remained fixed in the landscape. Bridges such as at High Rasen (Lincs), the triangular bridge at Crowland (Lincs) or the High Bridge at Lincoln, all recorded in the MPP industrial STEP report, represented a substantial investment and often attracted other features such as chapels. Bridges do not however appear to be consistently recorded on the county SMRs: Nottinghamshire has just four, and Lincolnshire only one.

Use of inland and coastal waterways as communication routes is indicated by distributions of pottery but has not been analysed in detail. The Trent is of major importance in the region as both a barrier and a trade route.

Archaeological and documentary evidence combined with regressive map analysis should allow the communication system of the region to be reconstructed a fairly high level, identifying distinctions and regional types which would refine understanding of regional diversity in the middle ages (Fairclough et al 1999), but this has not yet been attempted.

- *Archaeological and documentary evidence combined with regressive map analysis should allow the communication system of the region to be reconstructed a fairly high level, identifying distinctions and regional types which would refine understanding of regional diversity in the middle ages should be carried out.*

10. Summary

The East Midlands sweeps from the high summit of the Derbyshire Peak to the low saltmarshes of the Lincolnshire coastline, from the edges of the Humber watershed to the Fens. In the period 800-1500 AD the region in some ways typifies other parts of England in the middle ages, and is in other regards very distinctive. And this is perhaps its essence.

The East Midlands typifies other areas in being a region of lowland mixed champion and pastoral landscapes with a varied topography and geology while its economic highs and low were, by and large, those shared by the rest of the country. It lies in the middle of the England, looking both to the north and to the south for economic and cultural contacts. While it is a rural area, not completely overshadowed by London and with its own independent economy and trade routes, the economic impact of that growing city would have gradually impinged more on the region as the middle ages progressed, although some parts would always have remained more isolated than others. This all could be said of much of England, and as such the region can in certain instances act as an archaeological test-bed for other parts of the country.

But the East Midlands does in other respects have a quite distinct regional identity in this period. Perhaps more important than any other factor is the secession of most of it to the Danes in the later Anglo-Saxon period, a time of crucial importance to the development of many of the institutions of medieval England, including the village, the field system, the town and the parish, all of whose formative period seem to have lain in the later pre-Conquest era. Regional artistic traditions may also owe much to this period. But however large the impact of the Danish period looms in the regional history of the region, there are other factors shaping its distinctive regional identity. It has a remarkable combination of natural mineral resources including coal, lead, iron and stone variously outcropping in each of the five counties. Through the centre of the region runs the great arterial waterway of the River Trent, which both unites and divides the East Midlands region.

In terms of the heritage resource, the region is pre-eminent in the quality and range of its medieval earthworks, ranging from individual monuments to entire landscapes of settlements and fields stretching for miles. It is also a region which benefits from a good range of historical evidence for the pre- and post-Conquest periods.

Some of the research priorities identified in this report have been deemed important because of the way in which study of that subject in the East Midlands can be extrapolated to other regions where the primary evidence may not be not as good or research is not as far advanced. Others have been identified because of the light they can throw on the unique character of the East Midlands region and its distinctive historic trajectory. Others again may have elements of both as, for example, in the study of the agrarian landscape: Leicestershire and Northamptonshire contain the best-preserved and most fully studied examples of the medieval open field system in the world, a system which can be seen less clearly in many other regions of England and parts of Europe. However, it may be that the system ultimately developed in a different manner way in the midlands contributing to the region's distinctive regional identity.

Below are listed the research priorities identified in this report distilled from the main body of the text, listed under the main sectional heading used in the report:

- **Urbanism:**

The impact of the Danelaw in the development of towns in the pre-Norman era is a crucial problem for which strategies are needed to recover more evidence. Better understanding of

the early origins of towns is a priority, both for larger county towns and smaller market towns, particularly as archaeological deposits in towns where occupation is continuing are highly vulnerable. Detailed synthesising of evidence is needed for all towns which should be treated as single entities on record systems so that information is kept together. The suburbs and extra-mural areas of towns should not be neglected, including industrial areas. We need to know what is the impetus behind urbanism, how towns are supporting themselves. Strategies for the investigation of the relationship between town and hinterland and trading networks must be developed. Boston is an important port for which an archaeological strategy should be developed.

- *The unusual co-existence in the East Midlands of a number of towns where occupation has been continuous since the Roman period, combined with a relatively well-preserved wider historic landscape provides considerable potential for looking at aspects of change and continuity in the urban context within the wider context of settlement nucleation, the origins of the manor and complex field systems*
- **Pre-Norman towns.**
- *Review is needed of existing material to assess impact and nature of Danish occupation and the Danelaw on occupation in and fortification of the towns of the region.*
- *Clarification of the nature of urbanism in the pre-Norman era generally is a priority, including assessment of the level of distinction between the Danish burhs, non-Danish burhs and other settlements which might be considered urban at this date.*

Towns in the post-conquest period

- *Better understanding of the chronology of development of major towns from Anglo-Scandinavian origins through subsequent growth and later medieval decline is vital.*
- *More evidence needed for industrial activity and standards of living in major towns*
- *Investigation of medieval suburbs is important subject which has seen little attention.*

Smaller medieval towns

- *The origins of market towns in the region is poorly understood and a high priority for research, comparison of select market sites including examples which were and were not Anglo-Scandinavian burhs*
- *Synthesising accounts should be available for all towns in the region, as a step to reviewing medieval urbanism generally - Should an Urban Archaeological Database-style approach be applied to smaller towns?*

Town and countryside

- *Clarification of the nature and extent of urban catchment areas, hinterlands and spheres of influence should be sought through selected case-studies across the region.*

Standing buildings

- *A programme of identification, recording and dating of standing medieval urban buildings is a high priority, as the size of this resource is unclear but the information it can yield is vitally important.*

- *The requirements of PPG15 must be rigorously and consistently applied across the region, and include non-listed buildings.*

Ports

- *Ports were a vital part of the economy of the East Midlands and beyond and the archaeological potential of such places should be investigated, Boston being a particularly important case study.*

Fairs

- *Fair sites, if identifiable, should be a priority for investigation, particularly if on open ground, as potential for illuminating early development of commercial activity in the region.*

Rural settlement

We must assess the nature and extent of Danish settlement in the region particularly to address the archaeological significance of Danish place names in the region. Also we must investigate existing nucleated villages to trace early history and development is need to understand development of settlement landscape and the scope of the 'great replanning'. We need to know the early settlement history of many more continuing nucleated villages in order to establish what, if anything, lay on these sites before the late Saxon period. It is particularly important that we also investigate dispersed settlement elements (including hamlets and farmsteads) – both within champion regions and pastoral areas, because such elements are so widespread and therefore vital to understanding the medieval landscape. While they are going unrecognised and unrecorded they are unprotected and vulnerable to destruction, which will compromise our ability ever to understand and protect them

Nucleated villages

- *Investigation of the relationship between settlement development and the Danelaw is a high research priority, within the wider framework of investigation of the impact of the Danelaw generally. Ideally this should encompass areas within and beyond the Danelaw, although scope for this is limited in the East Midlands region which is almost entirely within the Danelaw.*
- *Listing, mapping and assessment of all Danish place-names in the region carried out and assessed against the range of archaeological data and compared with other sites within and beyond the Danelaw would aid understanding of the impact of the period of Danish administration.*
- *The East midlands is particularly well-suited to research into the origins of the nucleated village as the surviving evidence is so good across a range of different landscapes*
- *A programme of trial excavation at selected sites is required to establish more accurately the date of the regular settlement plans recorded so widely from field survey is a priority, particularly in view of the apparent differences in village plans between the north and south of the region.*
- *Understanding of the detailed pattern and evolution of rural settlements is still limited. Recording of settlements on SMRs as entities including archaeological, architectural, historical and cartographic evidence would allow evidence to be synthesised and compared on a regional scale.*

- *The quality of documentary evidence for many villages raises the possibility of identifying the status of individual tenements on the ground.*
- *Archaeological investigation into medieval settlements which are still in occupation is a high priority as knowledge of medieval rural settlement is presently seriously biased towards sites deserted in the medieval or later periods. Every possible opportunity to excavate within existing medieval villages, particularly near the centres, should be taken. The nature and impact of the 'great replanning' cannot be understood until more is known about the early development of continuing settlements.*

Peasant buildings

- *Further investigation into the form and development of peasant buildings in the regions should be a long-term research aim following synthesis of the existing evidence.*
- *Dendrochronology of timbers in standing buildings has high potential for both dating structures and provenancing timber (in both rural and urban contexts), illuminating fluctuations in the regional economy demonstrable by phases of house building, the development of various traditions of vernacular architecture across the East Midlands, and the trade in timber which ranged from Sherwood Forest to the Baltic.*
- *Investigation into methods of dating stone vernacular buildings of medieval date would be valuable.*

Dispersed settlement

- *Dispersed settlement elements within primarily champion regions remain under recorded, and are a crucial clue to understanding the development and functioning of the medieval settlement pattern.*
- *Dispersed medieval rural settlements are a high priority for research including primary documentary recording, field reconnaissance and trial excavation as they represent a significant proportion of settlement in the region but have seen very little investigation.*
- *Isolated farmstead sites suspected to be of medieval date should be investigated for corroborative evidence of medieval activity.*
- *Settlement in the upland areas of the region is a high priority for research in the East Midlands where the distinctive medieval extractive industry was so important.*

Settlement desertion

- *The phenomenon of settlement desertion requires further attention, particularly in areas of dispersed settlement.*
- *Ensuring that all medieval settlements are recorded on SMRs, NMR etc, not just those which have yielded archaeological evidence, is a high priority. This is an exercise where historical, architectural and archaeological evidence must be used together.*
- *A review of SMR records is needed to ascertain the exact extent and nature of desertion of all sites recorded on SMRs as 'DMV' or 'SMV'.*

- **The manor**

We need strategies for developing a better understanding of the early development of the manor and manorial estate. We must establish how we can best carry out landscape studies to establish the estates of known early manorial sites in order that significant features can be recognised in future. Understanding of the function and layout of many manorial complexes need to be improved so that we can identify priorities for preservation/mitigation in face of threat.

Pre-Conquest manorialisation

- *The development of the medieval manor from the Anglo-Saxon period is a major theme of historical research in the East Midlands where significant work has provided a base for more advanced investigation.*
- *There is a need to complement excavated examples of pre-Norman manorial sites with landscape studies of early manorial estates*

Early Estates

- *Research into the extent to which the process of estate development in the Danelaw followed a distinct pattern is vital to understanding the development of the region and identifying important sites*
- *Many monastic estates in the East Midlands have a particularly good range of historic documents, making them a good avenue for the investigation of English medieval estates.*

Moated manorial sites

- *Synthesis of the evidence for moated sites in the region would be timely*
- *Moats potentially provide an important source of well preserved waterlogged deposits relating to seigneurial occupation which could throw light on the standards of living of the medieval lordly class, and, by comparison with material from other rural settlements and towns, illuminate social differences across class and the region generally.*

Non-moated manorial sites

- *Classification of moated and manorial sites should be reviewed, to include ‘moated manorial site’, ‘manorial site’, ‘garden moat’ etc*

Standing buildings

- *There is a need for an up-to-date corpus of standing building remains of manorial sites for those parts of the region where one is lacking*

The manorial landscape

- *Trial excavation is needed at a sample number of manorial sites to ascertain the function of features whose function as manorial appurtenances has been suggested by earthwork survey.*
- **Castles and military sites**

Evidence for antecedent occupation at castle sites is a high priority for understanding the origins of the castle in England, the impact of the Norman conquest on lordship and for bridging the gap between pre- and post-conquest eras. The symbolic and aesthetic landscapes

of castles as centres of lordship are vital to understanding these monuments in their wider non-military light. Excavations should be targeted to the relationship between a castle and its hinterland. Smaller mottes are vulnerable to attritional damage particularly from ploughing, and while many remain undated their function and role cannot be understood, and any light they can throw on historical events such as the Anarchy remains unshed and may be lost forever if damage continues. If only the mound is protected evidence of ancillary structures will be lost, which weakens the case for protection elsewhere. The potential for battle sites in the region must be adequately assessed and a strategy developed for the site of the Battle of Bosworth

Pre-Norman castle precursors

- *The issue of the origins of the castle in England is important yet unresolved: the East Midlands contains some key sites and further targeted research would be well-placed to build on this base.*

Post-Conquest castles

- *Undated minor motte and bailey castles represent an important monument type which is a high priority for research to ascertain their chronology and role, and for the light such understanding would throw on issues such as military and seigneurial conduct during the Angevin period and the Anarchy. Such sites are often particularly vulnerable to damage from agricultural and leisure activities.*
- *The landscape context of castles is a high priority for future research.*

Lost castles

- *The evidence for lost castles in the region should be reviewed and synthesised, and a programme developed to locate as many such sites as possible.*

Battle sites

- *Archaeological investigation of sites of Edgecote and particularly Bosworth (which has good potential) are a high priority as sites of national importance.*

Religion

Strategies must be developed to address the evolution of parishes during the Danelaw in the east midlands which has a strong base of excavation at key sites and would therefore be a good area in which to do this. The region also has a number of Templars sites with potential for detailed investigation building on the results of South Witham. A robust programme of investigation to identify all evidence (historical, architectural and archaeological) for early churches is a high priority. Lost church sites are a particular priority as they are needed to help complete the picture of medieval parochial provision, and abandoned sites they offer the potential of less disturbed deposits. Analysis of all human remains should be completed and reviewed across the region, or even beyond, for comparisons of dietary/mortality/morbidity patterns between rural/urban/monastic populations

Monasteries

- *The identification of lesser minster sites is vital to understanding the role and development of the pre-Conquest church in the region and the impact of the Danelaw*

- *Use should be made of the particularly fine corpus of sculptural evidence for this region, to complement other areas of research into issues such as regionality and cultural contact regionally, nationally and internationally.*
- *Research into the houses of the Gilbertine order is important.*
- *The East Midlands is particularly well endowed with Templars' sites with a high potential for research into this secretive and otherwise obscure order.*
- *Grafton Regis should be published*
- *A programme should be developed to identify hermetic sites and structures in the region*
- *Grange sites are a priority for research for their impact on the landscape, both in their own right and as often well-preserved and documented sources of evidence for medieval land management.*
- *More case studies of monastic estates would be useful.*

Churches

The development of minster parochiae into parishes within the Danelaw must be a high priority in the region, and research building on the important excavations already carried out is important.

- *Further identification of evidence for early church building in the region is needed.*
- *Suspected lost church sites are a particular priority, both to enhance understanding of medieval parochial provision, and for the higher potential they offer for undisturbed deposits.*

Chapels

- *Review of the evidence for chapels and investigation when the opportunity arises would improve understanding of this element of medieval religious provision.*

Human remains

- *Human remains represent the only direct evidence for many aspects of life in the medieval period and as such analysis of human remains should be a high priority when these are discovered. In particular it is desirable that populations should be available that would allow comparison of populations over time, or between town and county, monk and peasant including aspects such as health, stature, diet, morbidity and mortality.*
- *A programme of DNA analysis of cemetery populations of pre- and (more commonly) post-Conquest date could indicate the extent of sustained Danish settlement in the region.*

Industry

Industry is one of the most important aspects of the east midlands region, in particular iron, coal and lead working are all distinctive to the region and very important to it. The remains of such industry should be sought and thoroughly investigated as experience shows that more

evidence often remains for medieval activity than is initially supposed. Sites where survival is good must be a high priority for detailed research. Industrial areas must be investigated also within their wider landscape context, viz. the settlement and land use patterns of the Iron working industry, the Derbyshire lead-mining industry and the Nottinghamshire coal industry are little understood but vital. A thorough review of the pottery industry from the late Anglo-Saxon to at least 1300 is critical for understanding the impact of the Danelaw, the emergence of the market economy and early commercial production and distribution.

- *Greater understanding of the way in which these industries, particularly the extractive mineral industries, were controlled and organised by royal, monastic and lay lords is very important.*

Pottery

- *Identification of production sites for all pre-Conquest pottery wares remains important*
- *Thorough review of late Anglo-Saxon pottery across the region is critical for understanding crucial issues such as the impact of the Danelaw, the emergence of the market economy, and the character of early commercial production and distribution.*
- *Systematic regional study of the distribution of post-Conquest ceramics, including those produced in the region and those imported into it, could elucidate the modes of distribution and spheres of exchange of rural and urban production centres.*
- *The distinctive midland purple ware transition is an important aspect of regional material culture as it is accessible for archaeological research and should be the subject of further investigation within a wider context.*

Iron Production

- *Sites associated with iron production are a little understood and threatened resource: their identification and investigation should be regarded as a priority*
- *Clarification of the chronology and social context of ironworking is an important research objective*

Coal mining,

- *The development of strategies for identifying, recording and investigating coal mining is important as such sites are a threatened and little understood resource but represent a distinctive element in the region's, and indeed the country's, historical development.*

Lead mining

- *As with coal mining, the development of strategies for identifying, recording and investigating lead mining is an important priority in the region. Much recording to date has been from the air, and further ground-based follow up is needed.*

Cloth production

- *A review of place-name and documentary evidence for activities related to the cloth industry would provide a springboard for archaeological investigation of this important aspect of the medieval economy of the East Midlands*

Leather working

- *A regional review of the archaeological and documentary evidence for leather working would be timely as part of a review of industrial activity in town generally.*

Fishing

- *Review of the documentary evidence for medieval fishing would provide a better framework for future management of potential resource of sites associated with the fishing industry*
- *The archaeology of the coastline is a urgent priority (see below)*

The agrarian landscape

More detailed archaeological evidence is needed to refine dating of the origins of the open field system, and strategies developed for recovering environmental data for the impact of the change in agrarian system. There is an urgent need for research into the field systems of the non-champion regions, as while the evidence is not understood it is not adequately protected, and for mapping of the landscape of upland areas including the Peak. The archaeological resource in areas of woodland is hardly known at all, and must be regarded as a high priority for recording as the high potential has been demonstrated by areas such as Rockingham which have been investigated. Evidence for sheep farming seems likely to have been widely under-recorded and thus vulnerable to loss. A programme of identifying and recording sheep-farming features should be a priority for the importance the activity had for the region

Fields

- *More detailed archaeological evidence is needed to refine dating of the origins of the regular midland open field system in the region which has the best-surviving evidence in England.*
- *Recovery of environmental evidence from open field systems is needed to help ascertain the impact of the introduction of the open field system and associated changes in land use. Such evidence would also throw new light on the introduction of new crop species such as rivet wheat and new combination of cropping such as dredge, and their impact on field use.*
- *There is an urgent need for research into field systems of non-champion landscapes of the region, both to establish the nature and extent nature of the resource and to record the evidence. The East Midlands is an ideal area for such research as it has good survival of regular open field systems near to a variety of different landscape with less regular systems*
- *Better understanding of the pattern of land use and field systems in the upland areas particularly the Peak District is important*

Woodland and waste

- *Detailed fieldwork should be carried out to record and analyse woodland features in sample woodlands of medieval date to try and understand the character of such archaeological remains and the activities they represent, ideally in both royal forest land and manorial woodland.*

- *There is a need for more case studies of landscape development in woodland regions.*
- *Sherwood Forest is a area of woodland whose investigation to date has not reflected its regional economic importance or its place in popular history.*

Stock Rearing

- *Synthesis of archaeological and documentary evidence for rabbit farming in the region would be useful.*
- *The evidence for sheep farming has not been given the attention commensurate to its importance to the medieval economy of the East Midlands.*
- *Evidence for pig rearing and management in the landscape should be sought.*
- *Detailed assessment of the structures associated with medieval deer management and hunting would clarify understanding of this aspect of the medieval lordly economy.*
- *The potential of parks for preserving pre-13th century medieval remains including field systems and evidence for aspects of the woodland economy, should be quantified.*
- *Review and synthesis of the evidence for stock management in the landscape generally is needed to illuminate different regional traditions and changes over time.*

Communications

- *Archaeological and documentary evidence combined with regressive map analysis should allow the communication system of the region to be reconstructed a fairly high level, identifying distinctions and regional types which would refine understanding of regional diversity in the middle ages should be carried out.*

A number of issues transcend the thematic structure of this report and are outline below:

- Current understanding of the medieval period in Northamptonshire and Leicestershire (and Lindsey in Lincolnshire) benefits enormously from the vast amount of research, in particular earthwork survey, that has been carried out. A programme to bring other areas of the East Midlands up to this standard must be a high priority, using air survey, air photo mapping, ground reconnaissance and field survey. The National Mapping Project will provide a base for this.
- The high level of knowledge some areas should not lead to the conclusion that further work there is contraindicated while other regions ‘catch up’, rather that it provides an excellent base for advanced research to tackle unresolved issues.
- The impact of the Danelaw is a critical priority, but consideration should be given to the boundaries for this as comparison with regions outside the Danelaw may be merited
- Setting of research themes in a wider landscape context is a priority for almost all areas of research in the region.
- It is essential that any investigation into this period is planned as a multi-disciplinary approach which combines archaeology, history, historical architecture and other specialisms as appropriate from the outset.

- The archaeology of the coastline is an urgent priority in face of continuing threats of erosion from the sea. An assessment of the resource is urgently needed, to allow a programme of preservation by record or investigation to be brought in where needed.
- A extensive rigorous programme to identify and date standing buildings of medieval date is a high priority in settlements and sites of all types across the region.
- A programme of selective excavation of unidentified surveyed earthwork features, especially on manorial sites and in pastoral regions is needed to expand the knowledge base when extrapolating findings to other sites.
- A GIS database system for the region, forming part of a national system is urgently required.
- A number of seminal excavation sites and surveys have not been published eg (Grafton Regis, Northamptonshire churches, Brixworth), and publication of this backlog must be carried out.
- Many excavations have been carried out by antiquarians; some assessment of the value of these would help in assessing the nature of the resource and priorities for the future.

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