Chapter 5
An Archaeological Resource Assessment and Research Agenda for the Later Bronze Age and Iron Age (The First Millennium BC) in the East Midlands

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1 Introduction

1.1 The Resource

Archaeological remains of the first millennium BC are both widely and liberally distributed across the East Midlands. In places these remains are dense, multi-phase and artefactually rich. In some areas there is exceptionally good preservation which is often not limited to isolated sites, but indeed represents the extensive remnants of past occupied and experienced landscapes, for instance, in the major valleys of Northamptonshire, in the Fens of Lincolnshire, and in some parts of north Derbyshire. The character of the remains in terms of site, monument and feature type, and morphology is varied, leading to differing modern approaches (different archaeologies) as the particular nature of the remains requires. Everywhere the archaeological record attests to variation; some variations are differences of detail within broader trends and themes; others represent contrasts of substance and (presumably) meaning. Interest lies in exploring the balance of these strands of difference, as well as in the patterns of similarity and uniformities. Tracing and interpreting these patterns is the prerogative, challenge and reward of the archaeologist and of those sharing a curiosity in the period. The first millennium BC in Britain was an era of comparatively rapid social and cultural developments, engendering a dynamic archaeological record. The East Midlands is a key area for observing and understanding these broad changes (cf. Haselgrove 1999), for it contains, a diverse matrix of evidence for this past, constituting a substantive resource.

Recent years have seen a series of projects, initiatives and publications that have greatly enhanced the quality of our documentation and interpretations of the period, though our comprehension of the nature of society and its forms during the period in the region remains, markedly, patchy. There are areas of considerable weakness in our knowledge. That engagement with these remains has been partial and variable across the region has been determined by familiar factors such as the visibility of the record, the degree of archaeological input, the incidence of modern developments (eg. building and infrastructure projects), and the extents of arable cultivation (as this agriculture is, of course, conducive to the production of cropmarks and surface collectable artefacts), plus endemic difficulties encountered by attempts to develop chronologies, with attendant complications.

The Assessment attempts to characterize the nature of the record for the period, as known to date, following a chronological path. It sketches the extent of its exploration and something of its potential. The Assessment highlights strengths, weaknesses and imbalances in our knowledge. It is only recently that approaches and models have appeared which seem in any way sufficiently sophisticated to enable us to begin to do justice to the quality of the record for this period in the region (cf. Haselgrove 1999; Knight in press; Lane and Morris 2001). These are noted, as is the fact that for some domains (that is for some sub-regions and periods) the known record is, as yet, too limited to permit any synthesis. As the content of the Assessment demonstrates the remains thus far recorded, via excavation, sampling, survey, collection, and so forth, and those undoubtedly present, but yet to be explored, comprise an

extremely valuable and complex resource. The record for the period, recovered to date, in the region, demonstrates the terrific potential for future engagement with this past, via fieldwork, analysis, interpretation, education and display. Through this can come a robust and nuanced understanding of practice, experience, environment and society at this formative time.

1.2 Chronology

Unlocking the potential of the archaeological remains of the first millennium BC in the region is highly dependent upon our ability to construct a satisfactory chronological framework. It is axiomatic to the archaeologist that chronological frameworks allow us to place remains, in order to comprehend contemporary similarities and differences, developments and trajectories, and to undertake valid comparison. Since, in terms of human history, the first millennium BC was not an especially long period, was an era that witnessed comparatively rapid fundamental developments, and preceded a period in which dating can be quite precise, one might in principal anticipate the development of a subtle chronology. In fact, conversely, dating in the first millennium BC is far from straightforward and precise. Rather it has proved an 'Achilles Heel' for studies of the period, both broadly (cf. Willis in press) and in the region (cf. Knight in press) and, perhaps especially for the Iron Age. This is due to several factors, including the conservatism of regional pottery traditions and their lack of elaboration, the paucity of metalwork finds (which when present has often been accorded a determining chronological status, that may not always be justified), the well known problems with regard to the radiocarbon calibration curve (Barnett 2000; 2001; Knight in press; Willis in press) and, indeed, the erstwhile methodologically weak and sporadic sampling strategies aimed at collecting absolute dates (see Haselgrove et al. in press, where recommendations are made with regard to sampling procedures). In consequence dates attributed to excavated sites and phases have been broad (and vague), the 'precision' being stated in terms of centuries or half centuries. This phenomenon thus constitutes a fundamental difficulty for our connection with the resource and its interpretation.

It should be appreciated that archaeological remains lie in 'drifts' through human lived pasts. That is to say the landscape of the archaeological past is uneven: there are periods and places where the remains are quantitatively thicker (and perhaps more studied), and there are others where the record is thin. This is very evidently the case with the East Midlands during the first millennium BC. The uneven character of the record in temporal terms has previously been demonstrated and considered (Willis 1997), while the imbalance in geographic terms is readily apparent from the present document. Our ability to build chronological frameworks and to date sites and phases is determined by the nature of the 'drifts' in the archaeological record, the *qualities* of those remains, that is whether, for instance, there is typological development such that we can determine sequences, or components suitable for absolute dating, and the utility of our methodologies (eg. typologies and 'scientific' dating).

In this assessment the evidence for the period is divided into 4 phases in order to structure the data, aid the identification of trends and to assist interpretation and discussion. These four phases are conventional and equate to the Late Bronze Age, the Late Bronze Age/Early Iron Age Transition and the Early Iron Age, the Middle Iron Age, and the Late Iron Age; (see below, Table **AAA** for their approximation to 'dates'). This separation is attempted for the settlement and artefactual evidence, in their broadest definition, though some areas are considered under separate headings (cf. Sections 7-12). Of course these 4 phases do not correspond with neat discernible changes in site types and forms. Much of the data for this millennium are not closely dated, and here, as with other works covering the period, dates and attributions are inexact (though one may note that all archaeological dates are inherently 'fuzzy' (cf. Millett 1987)). Generally this is not problematic for the present review which aims to unite the various strands of data into a broad picture of the nature and development of the

region through this era, and, crucially, define areas of strength and weakness within the archaeological dataset presently available. The 4 phases conform to Hill's chronological structure for the period (Hill 1995a), and they are 'ideal' categories in the Weberian sense. The chronological attributions used in the present document largely follow from (i) the labelling of the evidence in the county by county assessments, which except in the case of Northamptonshire, essentially accord with the four phase division, and (ii) those employed elsewhere, for instance in site reports; in other words they may be considered conventional.

A difficulty arises however from the fact that the pottery sequences for the region clearly do not change in close step with this 4-fold conventional division of the millennium (Knight in press). (There is though a broad correspondence between the four sequential ceramic phases of the region (cf. Knight in press) and the periodization followed in this text). This is problematic since pottery is the main recovered artefact class of the millennium, on which reliance has been, indeed has had to be, placed for dating. Specific difficulties exist in the possibility of distinguishing 'Late Bronze Age pottery' from 'Early Iron Age pottery'. Hence it is particularly difficult to separate out sites of the Late Bronze Age, and of the Early Iron Age from an amalgam which can be broadly labelled Late Bronze Age - Early Iron Age. The situation is exacerbated due to the fact that other dating evidence is very infrequent. Equally the debut of pottery styles associated with the Middle Iron Age of the East Midlands is not securely anchored, while the styles certainly endured across parts of the region well into, and indeed, through the era we normally understand as the Late Iron Age (eg. Pryor 1984, 155; Rollo 1988; cf. Knight in press). Consequently a proportion of sites occupied during the period c. 100 BC to AD 50, which would normally be considered as Late Iron Age, have Middle Iron Age cultural associations (cf. Kidd in press). This phenomenon raises interesting questions of those studying cultural forms and practice during the period, and 'awkward questions' *vis-à-vis* the typological approach to chronology. It may be, for instance, that sites actually occupied during the chronologically Late Iron Age are 'mis-dated' because they seem earlier on the basis of the cultural associations of their pottery. In other words there is a mismatch between the 'ideal' periodization and the cultural actuality. For this reason, in the case of the Resource Assessment for Northamptonshire, Kidd places some sites into the Middle Iron Age bracket or a Middle/Late Iron Age bracket, at variance to their periods as assigned by their excavators (eg. some Wotton Hill style enclosures such as Aldwincle and Brigstock), specifically where they lack Late Iron Age cultural indicators. It should be emphasized that there are few excavated sites of the period within the region with long stratified sequences of the type to assist sophisticated relative dating.

Issues relating to first millennium BC pottery and chronology generally are discussed by Willis (in press), and for the region specifically in a key contribution by Knight (in press). Issues relating to radiocarbon dating and sampling are discussed in 'Agenda-ing the British Iron Age' (Haselgrove, et al. in press).

Conventional Label for Era during the first millennium BC in Britain	**Some Diagnostic Indicators in the East Midlands**	**Approximate Date Range**
The Late Bronze Age (LBA)	Post Deveral-Rimbury Plainware Pottery; Ewart Park Metalwork; 'Ringfort' sites; Absolute Dating	c. 1000 BC - 700 BC
The Late Bronze Age - Early Iron Age Transition and the Early Iron Age (LBA-EIA)	Plainware Pottery (not chronologically specific); Metalwork styles; Absolute Dating	c . 700 BC - 450 BC

The Middle Iron Age (MIA)	Ancaster - Breedon Style Pottery; Metalwork styles, including certain Brooch forms; Beehive querns appear; Absolute Dating	c. 450 BC - 100 BC
The Late Iron Age (LIA)	More visible settlement and material culture record; Elaborate Pottery Forms, some wheel-made, in some places; Metalwork styles, including certain Brooch forms; Coinage; Absolute Dating	c. 100 BC - AD 50

Table AAA: 'Ideal' Chronology of the First Millennium BC in the English East Midlands

Conventional Label for Era and Evaluation of Dating Indicators	Dating Outcome
The Late Bronze Age (LBA) • Dating indicators are generally infrequent, but more readily diagnostic than for the succeeding era • Post Deveral-Rimbury Plainware pottery is identifiable with some confidence, though recovered groups are uncommon • The possibility that LBA tradition pottery may have endured in the Peak region for centuries into the first millennium BC (cf. Bevan 2000) requires consideration • Ewart Park metalwork is widespread across the region, but only occassionally recovered from settlement sites and is rarer still as a stratified site find • Confidence in previous radiocarbon dates may be questionable in terms of what was dated and given the implications of some relatively recent programmes in southern Britain (Needham and Ambers 1994; Bell 1990)	• Allocations of sites, phases and evidence to this period are probably reasonably reliable, though the beginning and end of the Late Bronze Age is chronologically fuzzy; neither was abrupt, both evidently being processes unfolding over many decades

The Late Bronze Age - Early Iron Age Transition and the Early Iron Age • Generally dating indicators are infrequent and 'weak' • Settlements attributable to the period are not numerous • Plainware pottery styles predominate and are not chronologically specific • Metalwork (such as stylistically Hallstatt items) is very uncommon; some iron artefacts could be Bronze Age • Major problem with radiocarbon calibration curve begins • Absolute dating has been crucial in some cases, but suitable samples are sometimes elusive; some old samples are now considered unreliable	• The umbrella nature of this broad phase reflects a characteristic vagueness in the record and our present ability to chronologically categorize its associated sites / evidence
The Middle Iron Age (MIA) • Pottery styles are conservative • Ancaster - Breedon Style pottery continues in use into the first century AD • Metalwork, including brooches, is very rare, and often 'unusual' / atypical / 'selected' for deposition • generally the artefact range is limited and chronologically unspecific • C14 dating continues to be problematic, while erstwhile sampling 'strategies' were unrobust before the 1990s	• Attribution of sites to this period has placed them within broad date ranges • C14 (and Luminescence) dating has been imprecise • erstwhile reliance on a few metalwork items for dating now seen as suspect • at some sites, viewed on the basis of their material culture, the MIA extends to c. AD 50

The Late Iron Age (LIA): • More visible settlement remains and numerous material culture remains characterize the LIA in some parts of the region; these are varied and relatively 'well studied' • LIA 'finger-prints' are far from universal • Coinage, where present is very rarely stratified in unequivocally IA contexts • Metalwork finds are everywhere rare before the first century AD • Brooches, more common during the first half of the first century AD, are often not closely dateable; their dating is frequently not in accord with dates ascribed to the pottery • Not all LIA sites yield LIA evidence • In contrast to areas to the S. the East Midlands only sees a modest (relatively late) influx of datable imports from the Roman world at this time	• Dating is generally more readily accomplished, and is comparatively more reliable and 'precise' during this phase than during any other phase of the first millennium BC • Dating, nonetheless, lacks definition, with, particularly, a difficulty in attributing evidence to dates within the first century BC, rather than simply ascription to broad ranges • Changes in pottery styles (where these occur) are useful indices • The Roman 'Conquest' is not readily identifiable

Table BBB: 'Actual' Chronology of the First Millennium BC in the English East Midlands

Many key archaeological questions and worthwhile aspects can, of course, be addressed without the need for discrete and relatively precise dating. In most cases though the quality and subtlety of the answers is improved by the existence of a refined chronological framework and 'closely' dated site evidence.

1.3 Acknowledgement

This regional assessment draws upon the substantive county assessments for the period produced by D. Barrett, M. Bishop, P. Clay, A. Kidd and S. Membery, and it is indebted to their commendable work and that of their teams. Particular thanks are extended to the following for their comments on an earlier draft of this text: J. Barnatt, B. Bevan, C. Haselgrove, A. Kidd, D. Knight, A. Monckton and all who attended the discussion day at the Snibston Centre on 23 May 2001, as well as the original meeting in the spring of 1999 (especially J. Collis, J. Cowgill, J. Rackham and J. Taylor). This Assessment would not have been possible without the existence of the county SMRs and the County Journals, and indeed, all those responsible for the creation of the record for this period. Nick Cooper offered much practical advice, help, and patience and was superb at all times.

2. The Nature of the Evidence, Archaeological Visibility, Sub-regional Differences.

There are two inherent factors ('problems' if one wishes to see them in that light) which structure the evidence for this millennium in the East Midlands and consequently its analysis and interpretation. Firstly, there are marked sub-regional differences in the quantity of evidence available to archaeologists in SMRs and other databases. These differences arise

from a variety of reasons. A major variation, emphasized by M. Bishop, is between the 'lowland' and 'highland' zones within the region (Bishop 2000). This is a major theme for the assessments of all periods. Investigating these differences is a matter of considerable archaeological interest and potential. 'Highland' zone areas have much less arable land, with today pasture predominant, even in valley floors, plus forest. This is significant as arable regimes are conducive to the generation of cropmarks, and site detection via fieldwalking. The paucity of Iron Age sites identified in parts of the uplands of north-western Nottinghamshire and Derbyshire (especially the Peak region) may be partly due to the lack of arable cultivation in these areas, resulting in non-detection (cf. Bevan 2000). In the valleys of these areas, other means of site detection might be systematically undertaken.

Secondly, a series of factors operate against the identification of settlement and other sites of the first half of the 1st millennium BC. These factors are fairly well understood (e.g. Kidd 2000; cf. Pryor and French 1985, 306). They include a general lack of archaeological visibility resulting from the inherit nature of such sites, aspects which are far from unique to the East Midland region. Typically Late Bronze Age and Earlier Iron Age settlements will have been characterised by wooden buildings, potentially leaving only post hole traces and/or shallow gullies, arranged in perhaps open settlements (as perhaps at Gamston (Knight 1992) and on the Peak District Eastern Moors (Barnatt 1999; cf. Ainsworth 2001)) or within palisaded enclosures that may leave only narrow, relatively ephemeral, traces. Such archaeology had not been readily detected by standard prospection techniques like aerial photography and geophysical survey. Likewise pottery at such sites is likely not to have been numerous and its friable character, as is well known, means that it is unlikely to survive long within ploughsoils. In addition, it is a widely accepted probability, that the population at this time was lower than during the later Iron Age. Population appears to have begun to increase during the Iron Age, though this apart, the characteristics of settlements of the Late Bronze Age that affect their recognition remain extant, in large part, well into the Iron Age. These characteristics have confounded the regular identification of settlement sites of these periods (ie. before the Middle Iron Age). Detection methods are, though becoming more sophisticated, especially in the domain of geophysics. The fact that the latter approach and/or evaluation trenching is now often routine, even where no previous archaeological remains are recorded on SMRs, will increase the possibility of identifying sites of this period - where they exist.

3. The Late Bronze Age *c.* 1000 BC - 700 BC

3.1 Settlement evidence

Settlement sites of the later Bronze Age, as revealed by features, layers and stratified finds, are far from numerous across the region (cf. O'Brien 1979, 301). This pattern broadly reflects the national picture, and arises from an interplay of familiar factors discussed above. A number of the known later Bronze Age settlement sites of the region have come to light only because they were found to underlie settlements of later date that were much more readily apparent, as at Gamston, Nottinghamshire (Knight 1992), and at Kirby Muxloe, Leicestershire, which was located following fieldwalking, the results of which had indicated Iron Age and Roman activity (Cooper 1994). Within the East Midlands there are, unsurprisingly, regional variations in the frequency of known sites. Whether the limited current distribution of known sites across the region is representative of the actual picture - in terms of sub-regional trends - is a matter for further research, but seems improbable. Settlement sites of the later Bronze Age are considered elusive in Leicestershire and Rutland (Clay 2000), though the number known for these two counties compares well with the tallies of the other East Midlands counties.

The identification of sites of the earlier 1st millennium BC amongst cropmark enclosures is not straightforward as there is a paucity of diagnostic indicators with which to discriminate between sites of earlier or later 1st millennium BC date. Generally there has perhaps been a tendency to ascribe cropmark enclosures to the Later Iron Age or perhaps Roman eras in preference to the Later Bronze Age - Earlier Iron Age.

There are relatively few major defended sites in the region of attested or potential Bronze and/or Iron Age date. Only a small number of these have yielded indications of occupation in the later Bronze Age. On the whole, these sites are not well-characterized nor explored (see below) so it may be that further indications of Late Bronze Age occupation will be forthcoming (though the prospect is far from assured). Occupation within certain of these sites, however, during the later Bronze Age period is confirmed or thought probable in the case of Derbyshire where the Peak District moorlands contain a range of surviving earthworks relating to settlement and agriculture (see below). In addition, the multivallate contour hillfort at Borough Hill, Daventry, in Northamptonshire (RCHME 1981, 63-5; Jackson 1994a; 1997) may have been occupied during this period. This site has produced Ewart Park metalwork, though pottery collected from the interior can not be categorised more closely than Late Bronze Age - Early Iron Age.

Important evidence comes from the hilltop complex of Mam Tor, in the Peak District, an extraordinary site which has been the 'magnetic north' of later Bronze Age studies in the north Midlands. Some 200 'house platforms' occur on its exposed and inaccessible summit, indicating a large community. Pottery and other finds, including a socketed axe, found in association with the house platforms seem to attest occupation during this period, though questions concerning the nature of this occupation, and regarding the chronology of the ramparts and occupation sequence remain areas for debate and future work (Coombs 1977; Coombs and Thompson 1979; Barnatt 1995; Bevan 2000; Barrett 2000). The occupation at Mam Tor during this period is consistent with a pattern seen elsewhere, as, seemingly, on a smaller scale, at Breedon Hill, Leicestershire (cf. below), and further afield at, for example, Eildon Hill North, Borders (Rideout et al. 1992). This occupation of what might be considered marginal locations, could have been seasonal and relate to patterns of movement, perhaps tied to annual and/or agricultural cycles. More dramatically they may be places of security in what has been cast as an endemically Hobbesian period of violence and threat (cf. Parker Pearson 1993). Despite concerted fieldwork and scholarship at Mam Tor, this colossus of later prehistory remains enigmatic at a number of levels, and in a manner that is metaphorical for our presently limited understanding of the archaeology of the earlier first millennium BC in the region.

A positive advance has been forthcoming from the recent work conducted at Gardom's Edge by the Peak District National Park Authority and Sheffield University. Fieldwork investigating 'house sites' and field systems has yielded much artefactual material, dating the settlement to the Late Bronze Age, and/or Early Iron Age (Barnatt et al. 1995; 1996; 1997; 1998; 2000; Barnatt and Smith 1997; Ainsworth and Barnatt 1998); three timber built round houses have been excavated. New understanding of the material culture from Gardom's Edge has implications for chronology and interpretation of the period in northern Derbyshire, not least in the case of Mam Tor. Gardom's Edge is believed to be typical of the surviving prehistoric archaeological remains, including field systems, on the East Moors. These remains can now be broadly dated from the Bronze Age to the Iron Age via comparison with Gardom's Edge, and as a result of recent C14 dating of environmental samples from settlements (cf. Barnatt 1999; Bevan 2000; Long et al. 1998). They seem to have been occupied over a prolonged period. The fort at Ball Cross, likewise in the Peak District, has produced pottery tentatively identified as Late Bronze Age to Early Iron Age, again suggesting settlement during this period (cf. Section 9).

Elsewhere in Derbyshire and Nottinghamshire evidence for later Bronze Age and/or Early Iron Age settlement is insubstantive. In Derbyshire several sub-regions, such as the Coal Measures, presently lack firm evidence for settlement in the Late Bronze Age. That such sites may exist on the Coal Measures is suggested by the limited evidence from Tibshelf (Manning 1995; Barrett 2000)). A round house dating to the first half of the millennium has been excavated in the Trent valley at Swarkestone Lowes (Elliott and Knight 1999; Guilbert and Elliott 1999). In Nottinghamshire several very small collections of pottery (including post-Deverel-Rimbury plainwares) seem to indicate Later Bronze Age and/or Early Iron Age settlement; this pottery is essentially insufficiently diagnostic to facilitate close dating. A little of this material is associated with features and stratified contexts. In these instances, though, as elsewhere, the tendency is for these artefact yielding features to be isolated or loosely grouped, and not to represent clear structural evidence (cf. Pryor and French 1985, 306). These Nottinghamshire finds mainly come from sites with extensive later occupation of Iron Age and/or Roman date. Although constituting 'glimpses' these collections are significant in so far as they evidently represent forms of settlement activity. Occuring mainly on the eastern side of the county, they are otherwise dispersed. Cases include Dorket Head, Arnold, on the Mercian Mudstone Hills (Turner and Swarbrick 1978; Turner and Turner 1997), Gamston on the gravels of the Trent valley (Knight 1992), Epperstone in the valley of a tributary of the Trent (*EMAB* 1964, 25; *EMAB* 1966, 35-6; Challis and Harding 1975; pers. comm S. Elsdon) and Red Hill, Ratcliffe-on-Soar on the Keuper Marl by the Soar-Trent confluence, where post holes and gullies were revealed by Greenfield (Elsdon 1983). The ceramics from the latter site may be Early Iron Age rather than Late Bronze Age. Scratta Wood, on the Magnesian Limestone, also produced pottery that is understood to be Late Bronze Age/Early Iron Age (Bishop 2000).

Contrastingly a comparatively good (if disparate) sample of Later Bronze Age – Earlier Iron Age settlement sites with buildings have been identified via excavations in Leicestershire and Rutland. Later Bronze Age settlement is recorded at Bardon Hill, Barkby Thorpe, Eye Kettleby (Melton Mowbray), Glenfield, Glen Parva, Kirby Muxloe and apparently Ridlington (Clay 2000; Cooper 1994; Beamish 1997; Finn 1998; Liddle 1982, 19), while settlement of Later Bronze Age – Earlier Iron Age date is known at Castle Donington (Coward and Ripper 1998). At Ridlington in Rutland settlement is attested by the double-ring roundhouse (Beamish 1997; firm chronological attribution waits a C14 determination). Contemporary occupation is presumed likely at the hilltop site of Budden Wood, and possibly Beacon Hill, Woodhouse Eaves (Liddle 1982). Pottery scatters indicate a further 15-20 sites that may be settlements of this date.

In Northamptonshire there are again very few sites that can be attributed firmly to the Late Bronze Age. Presently a series of sites are here too pigeon-holed as Late Bronze Age - Early Iron Age and these are noted below (cf. 3.2 and 4.1 below). Flag Fen / Fengate, in north-west Cambridgeshire (Pryor 1974; 1978; 1980; 1984; Pryor et al. 1992), was evidently a (?major) focal point at this time and it and others like it perhaps may have been significant in the politics and culture of the Nene Valley and its hinterlands.

From the valleys and terraces approaching the Fens several important settlement sites of the period are now know, and others doubtless exist. Billingborough (Chowne et al. 2001) has yielded a ceramic sequence showing a progression from Deveral-Rimbury to post Deveral-Rimbury styles, albeit with some qualification (Knight in press). In some cases preservation has been found to be exceptionally good. In the Lower Welland Valley recent work conducted in advance of gravel extraction by APS at Deeping St. James has revealed a well preserved settlement sealed by alluvium. The site was defined by a substantial boundary ditch; within, the remains of post built roundhouses, four-posters and rectangular buildings occur, with extant floor contexts, hearths and associated pottery and faunal assemblages (absolute dates are anticipated). Evidence for a field system was encountered, thought to

relate to stock management. In Bourne Fen Later Bronze Age - Early Iron Age pottery was found together with evidence of occupation including a hearth and fired daub (Lincolnshire SMR). In the north of the county identification and investigation of Late Bronze Age settlement has been very limited (Lincolnshire SMR). A possible site of this date was located on the Lincolnshire Wolds at Kirmond Le Mire, in the form of a rectangular enclosure complex. Sherds attributed to the Deverel-Rimbury and post Deverel-Rimbury ceramic traditions were found suggesting activity related to the time of transition, though it may pre-date the 1st millennium BC (Field and Knight 1992).

Few cases of smaller defended settlement enclosures, often termed 'Ringforts', of the type known at Springfield Lyons and Mucking (north ring) in Essex and at Thwing, Yorkshire, during its final, Late Bronze Age phase (cf. Parker Pearson 1993) are known in the region. In Northamptonshire, a ringfort at Thrapston (Hull 1998) belongs to this era, having yielded a post-Deveral Rimbury plainware pottery assemblage and a single radiocarbon date centred on the 8th century BC. Other possible or likely ringforts of this date exist, such as that at Thenford (RCHME 1982, 143-4). Potential candidates exist amongst the small number of uninvestigated earthwork enclosed sites in Leicestershire and Lincolnshire, at least (cf. Section 9). The possibility remains that such sites had a ceremonial dimension.

3.2 Settlement Morphology

The sample of settlement sites known for this period is very limited and diverse which renders the distillation of trends difficult. In truth comparatively little can be said regarding the arrangement and organization of settlements during this period, and in principal the capture of such information via excavation of occupied sites of the period is a priority.

It is likely that many sites of the Late Bronze Age were either enclosed by palisading or unenclosed. Several examined settlement sites lying within the Late Bronze Age - Early Iron Age envelope were unenclosed, as evidently on the East Moors of the Peak District (pers. comm. B. Bevan) and probably at Crick, Northamptonshire (Hughes 1998) where several of the occupation/building clusters have yielded ceramics of this date. The site is yet to be published, but interim information (Hughes 1998) indicates that occupation clusters with associated ceramics equating to Knight's Group 1 LBA/EIA pottery (pers. comm. A. Woodward) include circular structures and D-shaped enclosures, with a high proportion of entrances on the eastern side. A series of luminescence dates have been obtained for this site but its early chronology is still under review, so its start date is uncertain. Another unenclosed settlement within this chronological envelope is that at Wilby Way, near Wellingborough (Enright and Thomas 1998; 1999). The nature of the site at Swarkestone Lowes is uncertain as no features contemporary with the round house were encountered (Elliott and Knight 1999; Guilbert and Elliott 1999); it is entirely possible that this Late Bronze Age - Early Iron Age settlement (if such it was) was likewise unenclosed.

Ditched enclosures of the Late Bronze Age are known in the region (as at Billingborough and Kirmond le Mire (cf. above) and elsewhere (cf. Pryor 1996). Better evidence is required to clarify how frequently such features are settlement boundaries, are to do with the management of herds, are communal meeting areas, etc. Phase 1 at Billingborough (Middle to Late Bronze Age) is thought to represent the remains of a settlement, defined by a u-shaped enclosure containing 4-post structures, pits, an occupation layer and a fence (Chowne et al. 2001); evidence for buildings was absent, probably due to site erosion.

3.3 Buildings and Structures

Some variety in building types occurs amongst the sample from the region. A rectangular building, of post hole and beam slot construction, has been recorded at Eye Kettleby, Leicestershire (Finn 1998), where post-Deveral Rimbury plain wares (of approximate 11th-9th century BC date) were associated. Rectangular buildings are also reported at the APS site at Deepng St. James (cf. Section 3.1). Circular structures occur at a series of sites in the south of the region (that is Leicestershire, Rutland and southern Lincolnshire): including Kirby Muxloe, Glen Parva and Deeping St. James (Cooper 1994; Liddle 1982, 19; Lincolnshire SMR); a proportion of the circular buildings at Crick may too, prove to be of this date (Hughes 1998). Double-ring roundhouses occur at several sites, specifically Willow Farm, Castle Donington, Leicestershire, at Ridlington in Rutland (Beamish 1997), and at Swarkestone Lowes, Derbyshire (Guilbert and Elliott 1999), where the structure dates to the Late Bronze Age or Early Iron Age. The post hole ring of the latter, representing its (inner ring) roof supporting timbers is c. 7m in diameter. In the north of the region the recent work at Gardom's Edge, Derbyshire, has produced evidence of 3 circular buildings with stake-hole walls and post-hole doorways (Barnatt et al. 1995; 1996; 1997; 1998; 2000).

A post-built structure approximately of this date was also identified at Gamston (Knight 1992); this may have been of semi-circular type. 'D' shaped structures are a known later prehistoric type, often thought to represent working areas.

3.4 Environment

Clay highlights the fact that the palynological information garnered from the Leicestershire and Rutland sites of Croft (Rosseff et al. forthcoming), Hemington, Kirby Muxloe (Brown forthcoming) and Oakham (Greig et al. forthcoming) identify a pattern of increasing clearance from the Later Bronze Age and a predominance of grassland (Clay 2000). Many instances of erosion across the region dated to or attributed to the early and middle centuries of the first millennium BC are seen as a consequence of concerted clearance and farming.

As is well known the early part of the first millennium BC was a period of comparatively poor climate, with, for instance increased ground wetness and lower temperatures. Flooding and inundation occurred in the Fens and Fen margins (Pryor 1984; Pryor and French 1985, 305-6). Contrastingly, the work of Long and others has shown that on the East Moors of the Peak District pockets of arable cultivation associated with field systems and settlement continued in use from the second into the first millennium BC, with pastoral activity also likely (Long et al. 1998). This finding, together with other work, 'corrects' earlier interpretations suggesting the abandonment of upland areas in Britain generally around the end of the second millennium BC (cf. Burgess 1985).

3.5 Material Culture

Metalwork: One of our main sources of knowledge of the Later Bronze Age in the region remains metalwork. This is especially significant for those parts of the region where documented settlement evidence is, for whatever reason, meagre. The regional collection, as might be expected is an eclectic ensemble, deriving from piecemeal discoveries and reporting, as for instance, in the case of the fine Ewart Park type sword recovered by a digger operator during gravel extraction at Church Wilne, Derbyshire (Hughes 1999, 6, Fig. 18). Comparatively few items have come from modern controlled fieldwork. A number of Later Bronze Age hoards are known, for instance, in the case of Leicestershire and Rutland, the important groups from Beacon Hill, Cottesmore and Welby (cf. Liddle 1982, 17, Fig. 8); in Northamptonshire a Late Bronze Age hoard has recently been recovered at Ecton (Kidd 2000). The Nettleham hoard from near Lincoln is also of regional importance (cf. May 1976, 103), as are the Hallstatt Gündlingen type swords found together near Tattershall (Cowen

1967, Nos 189-90). The corpus covering Lincolnshire published by Davey (1973) includes much Later Bronze Age metalwork recorded from the historic county, while May's volume on Lincolnshire (May 1976) continues to provide a valuable and eloquent summary of a series on pieces from that county. The latter work includes a distribution map of Late Bronze Age bronze objects from the historic county (1976, Fig. 63), which shows clearly areas of numerous finds (e.g. the middle Witham and its immediate hinterland) and those for which there is an absence of finds (e.g. the Lincolnshire Marsh (that is the Middle and Outmarsh areas bordering the North Seas coast), the Fens and, essentially, the middle and northern Wolds).

Riverine contexts for such metalwork are frequent, consistent with contemporary patterns observed more widely across northern Europe (Bradley 1990). Of the 19 instances of Late Bronze Age metalwork on the Nottinghamshire SMR, for instance, most are associated with the River Trent. From this river have come both local and imported Hallstatt swords (Cowen 1967, Nos 191-3; MacCormick 1966, 36, Fig. 7.7-8). Finds are also known from the Witham, including the extra-ordinary antennae-hilted sword (Hawkes 1946, 12, Pl. 3a-b; Davey 1973, Fig. 20 No. 199). Chowne (1980) has noted the comparatively high number of Later Bronze Age metal finds from the peat fen between Lincoln and the Slea. He eschewed an interpretation of these items as part of a ritual phenomenon, forwarding the suggestion that, since these items were particularly associated with the edge of this fen where the peat layer was thinner, they came from settlements, which were subsequently buried by peat growth.

Elsewhere metalwork has indeed been found at several sites where domestic occupation is presumed or evident. Late Bronze Age metalwork has, for example, been recovered from the ridge top settlement at Glenfield, Leicester and at Gardom's Edge, Derbyshire, while in Northamptonshire, Ewart Park phase metalwork has been found in the interior of the multivallate hillfort at Borough Hill, Daventry (RCHME 1981, 63-5; Jackson 1994a; 1997).

Assessing the evidence from Lincolnshire May (1976, 103) pointed out that the frequency with which bronzes of Late Bronze Age date have come to light indicates that bronze must have been plentiful in the region during this period. A case could be made for this being so for the whole of the East Midlands. Significantly, May deduced, that this situation indicated: "a well-organized and secure supply of metal, since there were no local sources either of cooper or tin" (1976, 103).

In sum the region has yielded a large number of Late Bronze Age metal artefacts, some of which are magnificent items by any standard. Certain types of tools, martial equipment and ornamental pieces predominate, as they do elsewhere in Britain. These bronzes indicate the wealth of the region, and its cultural and economic articulation with southern Britain and the northern continent. A proportion of these pieces at least were presumably fashioned locally and as such constitute an index of technological awareness within Late Bronze Age communities in the region. Both the nature of many of these pieces and that of their find-spots suggests attention to symbolism and ritual. They remain important items for materials analysis research and also for considering society and social practice (cf. Section 12).

Pottery: Assemblages and collections of Late Bronze Age pottery from the region are not numerous, nor are they well characterized. Key 'ports of call' in considering pottery of this phase from the region are Knight's discussion (Knight in press) and the Gazetteer of Later Prehistoric Pottery Collections (First Millennium BC) covering England, accessible through the University of Southampton website.

Spanning the very end of the second millennium BC till c. 800 BC are the post-Deverel-Rimbury plainware styles, which are succeeded by (overlapping) Late Bronze Age -

Early Iron Age styles. From the present region post Deverell-Rimbury plainware is known from a select number of sites particularly from the Peak District or the Fen hinterland (which may or may not be significant); these sites include Ball Cross, Derbyshire (Stanley 1954) and Mam Tor (see below), Billingborough (Chowne et al. 2001), Deeping St. James and Hagnaby near Stickford (Knight in press). Recent large plainware assemblages from Langtoft and Welland Bank in south Lincolnshire (pers. comm. D. Knight; Pryor 1998) may be dated via radiocarbon determinations on associated organics. In Leicestershire comparatively little Late Bronze Age pottery is known. A reassessment of the pottery from Mam Tor is believed to be required in the light of the finds from Gardom's Edge (Barrett 2000; Bevan 2000). Thin-sectioning of pottery samples from the collection forthcoming from the 1960s fieldwork at the site has provided new insight with regard to the typology and other aspects of this important collection (Guilbert and Vince 1996), demonstrating, again, the research potential of archived materials.

3.6 Agriculture

A few Later Bronze Age sites have yielded evidence for cereals, spelt being noted on drier sites, with there having been an increase in the identification of such remains of this date in recent years (Monckton, this volume). Elsewhere spelt is not so apparent. Deeping St. James, Lincolnshire, has produced evidence of barley, bread wheat, and emmer cultivation during the Late Bronze Age (pers. comm. A. Monckton), with flax and hazel nutshell also represented. Emmer and nutshell were also recovered at the Lincolnshire Fen-edge site at Hagnaby Lock near Stickford (Murphy forthcoming). Emmer, barley and nutshell were present at Eye Kettleby (Monckton forthcoming). Querns come from a number of sites or contexts believed to date to this period, as at Tibshelf (Manning 1995) and Gardom's Edge (pers. comm. B. Bevan). In the valleys leading to the Fens, livestock, particularly cattle, appear to have become increasingly important (Pryor and French 1985, 306; though see below, this Section). At Washingborough, Lincolnshire, cattle comprised half of the bone, with the remainder of the faunal assemblage consisting a mixture of domestic and wild animals, birds and fish. In a cogent article Pryor (1996) has outlined a case for identifying large-scale sheep raising on the western Fen margin during the Later Bronze Age, with many of the enclosures and ditches of this landscape seen (in terms of this argument) as relating to flock management. He suggests the regime did not continue much into the first millennium BC due to flooding of summer grazing areas with sea level change and climatic deterioration. Salt 'winning' at this time within the region (cf. below) may in part have been directed towards the provision of licks for sheep (and other animals) providing them with vital dietary supplements (Pryor 1996, 322). Likely mixed agricultural regimes were evidently practised at this time in favourable pockets on the East Moors, Derbyshire (cf. Long et al. 1998; cf. Section 3.4), and indeed continued through the first millennium BC.

4. The Late Bronze Age to Iron Age Transition, and the Early Iron Age *c.* 700 BC - 450 BC

The lack of chronological precision that is endemic through much of the first millennium BC, and particularly through its first half, means that it is often difficult or impossible to assign archaeological evidence from that era as either Late Bronze Age or Early Iron Age; besides, the shift from the use of bronze to iron tools, and the other changes associated with the emergence of the Iron Age, was an unfolding process, that did not occur at a fixed moment in time but was made over several centuries. In this section, therefore, the evidence from the region lying within the approximate parameters of the Transition and the Early Iron Age is

grouped together. Finds and sites of this period are infrequent (cf. Willis 1997; Clay 2000; Kidd 2000).

4.1 Settlement evidence

The archaeological visibility of settlements is at best only marginally higher during the Earlier Iron Age than during the Late Bronze Age, largely because the character of sites is not markedly different and it is clear that they are not readily detected. Defended settlements of the Late Bronze Age - Iron Age Transition and Early Iron Age might be thought to be more readily identifiable, though in this case there has been only very limited investigation of potential sites, with a concomitant lack of diagnostic material culture forthcoming.

As noted above there are a number of sites that have produced modest evidence for occupation during the Late Bronze Age and/or the Early Iron Age across the region: in the Trent Valley these sites include Dorket Head, Epperstone, Gamston, Red Hill and Willington, Derbyshire, while also in the north-east of the region, evidence assigned a similar date has been forthcoming from Scratta Wood, on the southern slopes of the Ryton valley west of Worksop, and at Gardom's Edge (cf. above). Further south both Crick and Wilby Way, Wellingborough (Enright and Thomas 1999), in Northamptonshire, and Empingham, Rutland, have yielded evidence of activity/occupation of this period (attribution to this phase in the case of Wilby Way is confirmed by radiocarbon dates). In all of these cases this evidence represents the earliest phase of settlement which is long-lived, with either apparent continuous occupation through the Iron Age and into, in some cases, the Roman period, or where subsequent occupation through these periods is evident but not necessarily unbroken. At least some of these sites were, during this initial period, unenclosed.

Two major hillfort sites in Leicestershire, namely Breedon Hill and Burrough Hill appear to have earlier Iron Age origins (Clay 2000). However, the chronology of these two important sites is obscure. A Late Bronze Age start date is possible in the case of Breedon Hill; while concerted activity and occupation at Burrough Hill could have started in the Bronze Age or earlier Iron Age (cf. Liddle 1982, 22). Kenyon's seminal work at Breedon Hill (Kenyon 1950) indicated that occupation at the site pre-dated the construction of the defensive works (1950, 20), which may also have been the case at Mam Tor. Whilst the sequence of the defensive works at Breedon Hill is fairly well understood, the dating of the periods of site development during the first millennium is vague, and the nature of the remains inside the works is not clear (Wall 1907, 246-7; Wacher 1964; 1977: Liddle 1982; plus reports in the Leicestershire *Transactions* Vols 39, 41, 62). In Northamptonshire occupation at several hillforts is attributable to this phase (as at, for instance, Hunsbury and Rainsborough (cf. Kidd 2000)).

Away from the hillforts earlier Iron Age occupation/activity has been identified at several sites in the south-east of the region namely at Empingham (Cooper 2000, 46-8), Stamford Road, Oakham, and perhaps Ridlington (Beamish 1997), all in Rutland, while settlement of this period is also attested on the Welland and Nene Valley gravels. Just beyond the Lincolnshire border, in Cambridgeshire, recent work on the Deeping's By-Pass has revealed the remains of Early Iron Age settlement with circular structures, in the Welland Valley; pottery from the site is transitional, from Early to Middle Iron Age (? 6th-5th centuries BC). In Lincolnshire, at Washingborough, by the Witham, a series of significant finds dating to the period of the Later Bronze Age - Early Iron Age transition were recovered in the early 1970s and subsequently. These items are presumed to derive from an adjacent settlement (Coles et al. 1979; Elsdon 1994a). Extensive use of this river margin during the first half of the millennium is likely.

In Northamptonshire sites of Late Bronze Age - Early Iron Age date occur along the Nene valley. Small scale sites are also known at Gretton by the Welland (Jackson and Knight

1985), and in the undulating terrain, between Corby and Kettering, specifically at Weekley Hall Wood (Jackson 1976) and Great Oakley (Jackson 1982), where the subsoil, notably, is clay. In sum, within Northamptonshire, sites attributed to this date concentrate on the permeable geologies of the Nene valley, but as in Leicestershire and Rutland occupation on claylands is precedented. In western Northamptonshire defended sites on the higher ground are believed to be occupied during this period. Presently few sites are known on the clay subsoils of southern and western Northamptonshire and Leicestershire, but this may be due to difficulties of archaeological visibility and non-intensive research input.

Kidd notes that the distribution of likely domestic activity is very much broadened when the incidence of Late Bronze Age - Early Iron Age pottery collections is plotted from the Gazetteer of Later Prehistoric Pottery Collections database (cf. above; Kidd 2000). This is potentially helpful, but applies particularly to Northamptonshire, and to a lesser degree to Leicestershire, Rutland and parts of Nottinghamshire and Lincolnshire where such material occurs and has been collected, especially via surface survey.

4.2 Settlement Morphology

With such a small sample of settlement sites known for this period the identification of trends, as during the Later Bronze Age is difficult. One deduction can be made: the morphology of occupation sites during this period is not distinctive or prominent enough to make them regularly visible to present archaeological survey and prospection methods.

Sites excavated in Northamptonshire may be broadly typical of non-upland sites in the region as a whole. In Northamptonshire the small number of sites of this period recorded to date, at Gretton, Great Oakley and Weekley Hall Wood (see above and Kidd 2000) demonstrate that settlements are often unenclosed and of small scale, containing perhaps only one to a few timber structures and pits. This pattern is seen also in areas to the south of the present region at this time, as at Bancroft, Milton Keynes (Williams and Zeepvat 1994, 20-40). At Weekley Hall Wood a probable circular, or possible semi circular structure was recorded; of the six 4-post structures discerned, 5 occurred in an east-west string indicating zoning; 2-post structure were also present, but pits were few (Jackson 1976).

4.3 Buildings and Structures

The evidence from Weekley Hall Wood (Jackson 1976) may not be atypical for much of the region. Here, the probable circular structure was represented only by an incomplete ring of post holes defining a semi-circle; this structure may have been a shelter if merely semi-circular (as at Gamston, cf. above), though the other half of the potential circle of post holes may have been lost; if it was a circular building a south-east facing entrance is possible (Jackson 1976), and its diameter will have been c. 13m, which is at the larger end of the size range of such structures. The 4-post structures at this site are of broadly similar dimensions with a long axis of c. 2.5-3.8m, bar one which is c. 1.5m square. Four-post structures are normally thought to represent granaries, though other functions/purposes have been suggested: drying frames, funerary platforms, shrines and towers (Ellison and Drewett 1971; Gent 1983; Knight 1984, 154; Beamish 1998, 29).

4.4 Material Culture

Metalwork: Metalwork of this broad period is scare across central eastern England. One of the few recovered items is a socketed axe from Mam Tor which has been attributed to the late 7th century BC (cf. Bevan 2000, 147).

Brooches attributable to the Early Iron Age are rare finds; one of the few examples comes from Dragonby, to the north of present region, but within the historic county of Lincolnshire. This piece comprises part of a copper alloy brooch of La Tène I type, represented by the lower bow and foot, and it probably dates to the first half of the fifth century BC, or slightly later (May 1976, 125; 1996); there is no evidence of occupation or activity at Dragonby at this time (May 1996).

In Northamptonshire a Swans Neck pin attributable to this period was recovered at Wilby Way, Wellingborough (report forthcoming).

Pottery: (See above under 3.5). Towards the very end of the Bronze Age an increase in finger decoration occurs, as evidenced by assemblages from further south in England. However, the East Midlands lacks sites where this shift of emphasis from post Deverel-Rimbury plainwares to decorated post Deverel-Rimbury vessels occurs (cf. Thrapston (Hull 1998)).

The pottery groups from Washingborough, although small and only ascribed to a Late Bronze Age - Early Iron Age bracket are of regional note (May 1976, 111, Fig. 61; Elsdon 1994a). Fine and coarse wares are represented and include a number of sherds from very fine burnished vessels that are unusual for the East Midlands.

4.5 Agriculture

Comparatively few saddle querns have been forthcoming from the East Midlands. Examples are known from Breedon Hill and Wanlip, Leicestershire, Ancaster Quarry, Lincolnshire and Swarkestone Lowes, Derbyshire. The improvised use of locally available stones (eg. river and Boulder Clay cobbles) seems to have been a common pattern.

Late Bronze Age / Early Iron Age contexts at Crick have produced spelt, plus some emmer and barley (Monckton 1998).

5. The Middle Iron Age *c.* 450 BC - 100 BC

5.1 Introduction: the 'identity' of the Middle Iron Age and the nature of the record of this phase in the East Midlands

As Clay and others have pointed out the Middle Iron Age is as much a cultural phenomenon as a chronological entity (Clay 2000; Kidd 2000; Hill 1997a). As with the preceding periods it does not have hard and universal chronological parameters but relates to a set of practices that were of comparatively long duration and which were replaced gradually and at differing times across the region. A large number of sites attributable to this phase are known from Northamptonshire where they may be described as ubiquitous (Kidd 2000). Elsewhere in the region far fewer have been identified. The corpus of sites of this phase is steadily accruing, particularly as a consequence of PPG 16 interventions, as for instance, in Lincolnshire, a county with an erstwhile tiny number of sites of this period (cf. May 1976). Nonetheless there is such a profound imbalance in the numbers of sites of this date recorded (and published) for Northamptonshire compared to the rest of the region, that the question arises as to whether this is more than a matter of differential archaeological input, being potentially reflective of an actual difference in settlement density (pers. comm. A. Kidd). This is an important matter for investigation.

With the exception of one or two sites in Northamptonshire and Leicestershire few sites in the region have yielded the quantity of settlement remains and information, as has been the case elsewhere, outside of the region, where sizeable interventions have taken place, for

instance, at Little Waltham (Drury 1978), Wetwang and Garton (Brewster 1980) and in the Upper Thames Valley.

5.2 Settlement evidence

Rectangular ditched enclosures, covering not more than c. 0.5 hectares and containing one or two circular buildings, together with ancillary structures have been seen as the typical site type of the Middle and Late Iron Age in central Britain. Evidently they represented the farmsteads of small family/kin groups. Sites of this type dated to the Middle Iron Age have been excavated across the central band of England and further north (cf. Haselgrove 1984), for instance at Bursea Grange in the south-eastern Vale of York (Halkon and Millett 1999, 67-74), Weelsby Avenue, Grimsby (see below) and at Fisherwick, Staffordshire (Smith 1977; 1979), a site which became particularly influential in our understanding of the Iron Age in this region of Britain.

Sites of this type are well-known from aerial reconnaissance and field survey in Northamptonshire, where a number have been excavated (Kidd 2000); some continue into the Roman era, for instance at Weekley (Jackson and Dix 1987). However, the modest sample of sites of this period that have now been investigated within the East Midlands display considerable variation, so much so that attempts at generalisations should proceed with caution (given the size of the sample and the variety). This degree of variation mirrors the pattern observed in adjacent Cambridgeshire (pers. comm. C. Evans). The sites mentioned below, for instance display little consistency in morphology.

Although it is yet to be fully published one of the most well known sites of this period in the region is the settlement at Ancaster Quarry, situated on a shelf on the Limestone slope overlooking the Ancaster Gap. The site was excavated in the early 1960s and a detailed useful summary of the evidence has appeared (May 1976, 133-41). This apparently open settlement was discovered following quarrying operations, not via archaeological detection. Features recorded included two circular structures, with, remarkably, ovens and fireplaces, and a series of pits, most of which contained occupation 'refuse'. Bell shaped pits are reported which may parallel the familiar grain-storage pits of Wessex and elsewhere. The pottery recovered, being typical of the Middle Iron Age East Midland handmade tradition, of course, constitutes one of the 'type-collections' of Cunliffe's Ancaster-Breedon style, also referred to as 'Scored Ware' (Cunliffe 1978, 43; 1991; see below). In Northamptonshire another open settlement of Middle to Late Iron Age was fully excavated in the 1990s at "The Lodge", Crick (Chapman 1995); c. 20 circular structures were recorded, relating to several phases.

Several other important sites dating to the Middle Iron Age have been examined in the region, and some are now fully published. Excavations at Wanlip, near Leicester, in advance of road construction, revealed a variety of occupation features without of a comparatively small enclosure, c. 20 by 17m, with the enclosure thought to have been associated with cattle/stock management rather than occupation (Beamish 1998). This site, lying on sand and gravel was recorded previously as a cropmark via aerial photography. An integrated programme of C14 and luminescence dating was relatively successful (see below), indicating that the settlement was in use c. 450 to 350 BC. A further important addition to the corpus of Middle Iron Age sites also lies within Leicestershire, specifically Elms Farm, Humberstone (Charles et al. 2000), where the evidently open settlement of Phase 1b is clearly of this era. Again the subsoil was clay.

A significant Middle Iron Age site of different type was discovered by chance in 1990 at Sleaford. This comprised a large palisaded enclosure (Elsdon 1997), which, partially exposed, measured at least 50m in one of its dimensions. Excavation revealed massive close-set post-holes, an entrance and a 'cross-wall'. Only a small proportion of the interior was excavated, with no evidence of domestic structures coming to light. Ancaster-Breedon type

pottery was recovered in association, and contributes to a presumed date of c. 4th to 2nd Century BC. Monuments of this type and date may not have been particularly rare in Eastern England during the Early and Middle Iron Age but their identification and excavation is a rare occurrence; the author (Elsdon 1997) suggests that the site might parallel that investigated at Fisons Way, Thetford, Norfolk (Gregory 1992). The function of this enclosure at Sleaford is not certain, partly because of the lack of archaeological features within the enclosure, and the lack of excavated parallels; Elsdon suggests it may have been defensive or ritual, though did not rule out a domestic function. There are indicators that the enclosure included stock management and arable crop processing.

Middle Iron Age occupation is reasonably well attested in Northamptonshire, the greatest concentration of known sites occurring, unsurprisingly, along the Nene and Ise valleys and some instances on the clay subsoils (Knight 1984; Taylor 1996; Kidd 2000). Again less sites are logged in the south and west of the county, probably due to limited survey possibilities and intervention needs (cf. Kidd 2000). There are around ten palisaded enclosures of the period known in Northamptonshire; for example, that at Briar Hill, which is sub-rectangular, measuring 20 by 10m.

Overall, the Iron Age was poorly represented in the results attained from the fieldwalking of the Fenland Survey (pers. comm. T. Lane; Hall and Coles 1994). In consequence it has been specifically targeted in follow-up work to establish whether this was a reliable pattern. Now a different picture is, indeed, emerging as excavation in the 1990s has revealed a series of sites of first millennium BC, while sites examined previously have been recently published. Hence, along the Linclonshire Fen edge (particularly along the western and southern Lincolnshire Fen) an array of sites are known, yielding evidence for salt production (salterns) and domestic settlement. Data from the Survey implied that perhaps a third of the sites, that is those yielding no pottery only briquetage, could be satellite salterns worked away from the domestic base. Where occupation evidence occurs, it is possible that such 'settlements' were sporadically occupied, perhaps seasonally (cf. Lane and Morris 2001). These sites have been sampled rather than extensively examined by excavation but a fairly consistent picture is emerging. This is perhaps exemplified by the small scale work undertaken at Helpringham Fen in the 1970s, and that at Cowbit Wash, which have recently been published (Healey 1999; Lane and Morris 2001). At Helpringham Fen, in addition to structural and artefactual evidence for salt production, pottery, quern and animal bone was recovered indicating domestic activity at the site or close by. Two C14 dates were obtained (Healey 1999, 19 and Appendix) and together with the pottery lead to an estimated date for the site as 3rd century BC. The salterns at Cowbit also produced associated pottery and animal bone. This complex site yielded evidence of various phases of use, principally during the Middle Iron Age (as denoted by radiocarbon and archaeomagnetic dating), with fairly strong indications that this was seasonally organized (Lane and Morris 2001); the chronology of the earlier phases could not be established. Similarly, excavations at Langtoft, Outgang Road, north of Market Deeping (Lane 2001) which produced ceramics indicating a saltern of Middle Iron Age phase, also revealed a circular structure c. 8m in diameter, indicated by a gully with a series of post-holes within. The function of this structure is uncertain but it may well represent the remains of a domestic building; again the faunal record is consistent with other indices suggestive of occupation. At Hoe Hills, Dowsby, on the Fen edge, two comparatively well-preserved successive circular structures of first millennium BC date were also excavated as part of the Fenland Survey follow-up programme. Ancaster-Breedon type pottery was recovered in association and hence indicates a probable Middle and/or Late Iron Age date (pers. comm. T. Lane; Lane and Trimble 1995). These interventions have established that stratified remains of salterns dating to the first millennium BC (and Roman period) are often extensive, can be comparatively well preserved, with a variety of cultural and palaeo-environmental indicators represented, with some level of domestic occupation. The

results are unequivocal: The Fens are an important resource for studies of the first millennium BC in eastern England. However, these sites are clearly subject to serious threats from ploughing and the drying out of the Fens (Hall and Coles 194; Lane and Morris 2001). The environmental circumstances and histories of these sites mean that their excavation and post-excavation, when intervention occurs, are likely to be complex and this requires careful attention when costing such work. The past two decades have seen interventions of modest scale; there is a strong case for wider area excavation at these 'sites' for results to date suggest these are extensive complexes with dispersed functional areas.

Less work has been undertaken along the North Sea coast. Here cover deposits evidently mask ancient land surfaces at many locations (Kirkham 2001; pers. comm. J. Rackham). A cluster of salterns, however are recorded in the vicinity of Ingoldmells, via piecemeal work and discovery over decades (Baker 1960; 1975; Kirkham 2001). There is some likelihood that circular features c. 9-12m in diameter recorded by Warren (1932) by salterns at Ingoldmells Point, represented buildings of this period, associated with salt-production. Again, these may not have been domestic structures in continual use, but seasonally occupied dwellings, or they may have served some other purpose, perhaps specifically related to the salt-production process.

Turning to the defended sites, Breedon Hill and Burrough Hill in Leicestershire and Crow Hill, Hunsbury and Rainsborough in Northamptonshire were evidently in use during this period (cf. above; Thomas 1960; Brown and Simpson 1968; Liddle 1982; Parry forthcoming; Jackson 1994b; Avery et al. 1967). The hillfort at Castle Yard, Northants (Knight 1987), as well as the plateau fort at Honington Camp (Lincolnshire) may have been constructed during this era. The sizeable enclosure at Tattershall Thorpe, Lincolnshire, was apparently in use at this time too, as indicated by radiocarbon dates and ceramics (Chowne et al. 1986; Seager Smith 1998). Its interpretation is doubtful, in part because of a lack of exploration of its interior (and for that matter, its immediate exterior). A central agricultural-functional role in a pastural economy was the interpretation favoured by its excavator (Chowne et al. 1986), but now it might be suggested that the identity of the site was potentially other than that, involving domestic, high status and/or ceremonial functions. To raise the possibility that the site may be considered a 'marsh fort' analogous to those at Burgh, Suffolk (Martin 1988) and Sutton Common, South Yorkshire (Parker Pearson and Sydes 1997), is entirely legitimate, though this only raises further questions. Very significantly information about the interiors of these East Midlands forts and enclosures generally is meagre, hindering understanding of their chronology, character and function/s.

There is little firm evidence for Middle Iron Age settlement in the Peak District, but this impression needs qualification. It may be that the apparent absence of occupation at this time derives from a lack of archaeological input and an inability to recognise diagnostic Middle Iron Age material and to discriminate types from those thought to be Late Bronze Age / Early Iron Age (cf. Radley and Radford 1969). Bevan, and Chadwick and Evans, have discussed these aspects of the nature of the evidence (Bevan 2000; Chadwick and Evans 2000, especially 118-9; see above) and the impact of old assumptions on erstwhile and existing conceptions of the area during this period which they see as flawed. Small amounts of pottery of typologically Middle Iron Age tradition (though possibly still current into the early Roman era) have been recovered from a few locations in the Peak region though, as yet, not associated with substantive settlement features (Bevan 2000, 147).

In the Trent valley the enclosure of settlements during the Middle Iron Age via ditching has assisted in their recognition in recent years. It may be that Site 1 at Holme Pierrepont on the valley gravels, and Aslockton, further east in the Devon valley, both began in the Middle rather than the Later Iron Age (O'Brien 1979; Palmer-Brown and Knight 1993). Contrastingly there has been little identification and investigation of sites dating to the Middle

Iron Age in Lincolnshire, particularly in the middle and north of the county, perhaps due to an enduring absence of enclosure via ditching, as at Ancaster Quarry and Sleaford.

Just outside the region, in North Lincolnshire, a small settlement enclosure, presumably a farmstead, existed at Weelsby Ave., Grimsby, during the Middle Iron Age (Sills and Kinsley 1978; 1979; 1990; Wise 1990); located on a till spur, the subsoil is clay.

Some degree of continuity is observable in site location, in so far as a high proportion of Middle Iron Age sites either continue into the Later Iron Age at the same location, or nearby, as at Ancaster, Helpringham Fen and Sleaford.

5.3 Settlement Morphology

No standard, regular, pattern of settlement morphology is discernible. Instead sites display a series of familiar elements, as seen in the preceding and succeeding periods within the region (ie. the Late Bronze Age / Early Iron Age and the Late Iron Age) and within other regions at this time. Amongst the sample of this phase from the East Midlands these elements occur in differing combinations and configurations; sometimes certain elements are present, sometimes they are not. No template for settlement morphology appears to have been followed, though some ordering principles were clearly adhered to in the materialisation of individual sites. Some clustering of family/kin/other groups is implied by the larger number of roundhouses of apparent contemporanity in various areas.

The publication of the Wanlip site (Beamish 1998), in many ways a 'state of the art' article, highlights a number of significant aspects in the anatomy and biography of this site which reveal a 'grammar' in the human and social practices undertaken there. Through careful analysis and presentation of the evidence various trends noted elsewhere in the British Iron Age are shown to be reflected in the archaeology of this site: buildings and enclosure entrances were oriented in relation to cosmological events; 2-post structures occur in an east-west band across the site (reminiscent of the band of 4-posters in the case of Weekley Hall Wood (cf. above)) roughly on north-south alignments; there is an overall symmetry to the arrangement of the major site elements; zones with pits occur, with the interior of the enclosure essentially clear of pits.

The settlement at Elms Farm, Humberstone during this phase (Charles et al. 2000) comprises of a cluster of several penannular gullies, plus other gullies, a small enclosure (with no structures or features within), and two 4-post structures; not all features are contemporaneous. The settlement is apparently an open one, but lies within and seemingly respects a Bronze Age enclosure that may have been vestigially manifest at this time. Building orientation is to the east. The largest penannular gully presumably denoted the largest building and this lies to the front of the rest, four out of five of which are in a row. Variety in the morphology of settlement enclosure is further highlighted by sites in Northamptonshire. Enclosure A at Stanwell Spinney, Northamptonshire, dating to this period, was oval in plan and seems to have enclosed a circular building (Dix and Jackson 1989).

It is of course characteristic for settlement sites of this period to include evidence for circular buildings and ancillary structures, particularly 4-post and 2-post structures. These components are present at Wanlip, with one of the 4-posters, which happens to be exceptionally large, having a centrally placed cremation. What 2-post structures represent is often not clear. They may be drying frames, upright looms, or the remains of buildings, potentially denoting the location of entrances to circular buildings where other evidence is not extant (cf. Knight 1984, 159; Ellison and Drewett 1971); at Wanlip it is suggested as possible that some 2-posters represent circular buildings (Beamish 1998, 34-6). During the life of the small sub-rectangular enclosure at Wanlip a south facing entrance continually existed, with a least one other opening to the east during one sub-phase. The Weelsby Ave. site, Grimsby, also had a south facing entrance during its Middle Iron Age phase. (This farmstead was

enclosed by a single ditch and bank which demarcated an interior c. 40m square; within were two circular structures and a 4-poster).

The palisaded enclosure at Sleaford had an entrance (perhaps the main entrance) facing south-east (though the function/s of this enclosure are uncertain). The morphology of the settlements associated with salt winning on the Lincolnshire Fen edge is not well understood. In sum it is apparent that archaeologically valuable information can be readily gathered on the layout of sites of the broad period in a way that seems rarer for the Late Bronze Age and Early Iron Age.

5.4 Buildings and Structures

In contrast to the variations seen in the morphology of sites of this period, the buildings and structures are more coherent, in type and size. The one certain circular structure at Wanlip was manifest in a ring groove suggesting polygonal construction (Beamish 1998). It was c. 13m across within, and had a clear entrance facing east-north-east, and perhaps a second aligned due west; post-holes within the ring groove were probably related to its construction and use. Of the two circular structures at Ancaster Quarry, one was defined by a gulley with a diameter of c. 12.5m, which according to the excavator could have been for the inner (load bearing timbers) or the outer wall (May 1976, 133). Whatever, this building is fairly large and of a similar magnitude as the structures at Wanlip and (of probably earlier date) Weekley Hall Wood (see above). It had an entrance facing north-west, providing a panoramic view, looking out from this doorway. The other circular structure (lying nearby) was much smaller at 4.6m in diameter for its outer wall. The Weelsby Ave., Grimsby, enclosure, during its Middle Iron Age phase, also contained two circular structures, their diameters being c. 9.5 and 5.5m (Wise 1990). (The settlement enclosure at Fisherwick also contained two circular structures, one being 11m in diameter (Smith 1979)). The largest circular structure at Elms Farm was represented by an eavesdrip gully, the internal diameter being a substantial 18m; no internal features were identified. Of the five or so others from the site of this phase, two are defined by gullies c. 10m in diameter and two others by gullies c. 8m in diameter.

Four post-structures, of the type understood to normally represent granaries, are recorded at the Sleaford, Elms Farm, Humberstone and Wanlip sites, as well as Weelsby Ave, Grimsby, though not at Ancaster Quarry, where, possible grain storage pits occur. Two-post structures are know from the sites at Ancaster Quarry, Sleaford, and Wanlip, as well as elsewhere.

5.5 Material Culture

Metalwork: One of the earliest La Tène items found in Britain seems likely to have been unearthed on the Lincolnshire-Cambridgeshire border before the mid 19th century. The item comprises part of a bronze scabbard and iron blade now in Wisbech Museum (Jope 1961a; 1961b; May 1976). The scabbard is decorated in early La Tène style. It may be considered a harbinger of the nationally significant ensemble of fine Middle and Late Iron Age metalwork that has been forthcoming from the East Midlands, particularly from its eastern side.

The series of important metalwork finds from the regions' rivers, particularly the Witham and Trent, which date to this period (some may possibly be Late Iron Age) are generally interpreted as 'votive' losses in the style of the Llyn Cerrig Bach or La Tène itself. A finely decorated bronze sword scabbard plate from the Trent at Sutton (May 1976, 128-9, Pl. 4) belongs to this period, as do 3 iron swords from the Witham, two having plain bronze scabbards and a third, an elaborately fashioned bronze scabbard mount (May 1976, 129-30, Pl. 3). Also recorded from the Witham is a iron bladed dagger with a hilt fashioned with a anthropoid figure as a pommel, which was recovered with its bronze scabbard; May suggests

a second, or possibly first century BC date for this unusual find (1976, 130, Pl. 5). In addition parts of two shields, well-known and magnificent by any measure, have been recovered: the Witham Shield (May 1976, 130-3) and the La Tène style decorated shield boss from Ratcliffe-on-Trent (Watkin et al. 1996). Collectively these pieces add much to our understanding of the Iron Age in Britain at a series of levels - in terms of technology, art and cultural practice - and are of international significance. It is likely that further items will be forthcoming from these rivers in future years.

Many of these riverine finds are 'old' discoveries (May 1976), though a more recent important collection of martial finds and tools was made at Fiskerton, east of Lincoln (Field and Parker Pearson forthcoming). Such finds have great potential for insight into many aspects of life in later prehistory, not least because they are often complete or largely so and in a good state of preservation. They may come to light at any moment, during controlled archaeological fieldwork or otherwise, as chance discoveries. Howsoever they are found, many of them have the power to thrill, excite and animate the public, and the imagination of the archaeological community.

Brooches of this period are rare finds in the region as has been demonstrated by a recent survey (Willis 1997). An iron brooch was recovered from excavations at Burrough Hill (Thomas 1960, 52), presumably the iron La Tène I variant brooch from this site illustrated by Challis and Harding (1975 (ii) Fig. 11 No. 1). A copper-alloy brooch of La Tène I affinity has come from Ancaster Quarry (May 1976, 140, Fig. 69.1), together with an iron long involuted brooch of La Tène I/II (May 1976, 140, Fig. 69.2). An early La Tène II iron brooch, dated approximately to the third century BC is recorded from Market Deeping (Lincolnshire SMR). A La Tène style brooch with coral mounting was recovered from a cave at Harborough Rocks (Derbyshire SMR), seemingly more likely to date to the Middle rather than the Late Iron Age.

One of the most well known Iron Age brooches from the East Midlands is the 'bird brooch' from Red Hill, Ratcliffe-on-Soar (Hawkes and Jacobsthal 1945). This is an involuted type and is now thought to date to the fourth century BC (Elsdon 1983, 24). The general vicinity of its find-spot seems to have been a place of special meaning or status through the later prehistoric and Roman periods.

Pottery: A major regional tradition spans the Middle Iron Age in much of the East Midlands, namely the Ancaster-Breedon tradition (Cunliffe 1974; 1991; Elsdon 1992), of which 'Scored Ware' is a major part. In addition there appear two sub-regional decorated traditions which copy La Tène style ornamental patterns: the Dragonby-Sleaford tradition (Willis 1998; Elsdon 1997; Elsdon and May 1996), and the Northamptonshire group (cf. Dix and Jackson 1987). All these wares are considered by Knight (in press). The Dragonby-Sleaford tradition probably dates from the Late Middle Iron Age; the Northamptonshire group may have earlier origins.

5.6 Agriculture

For the Middle Iron Age there is, within parts of the region, much clearer evidence of field systems and trackways than for the preceding period. Establishing the chronology of boundaries and systems largely identified via the digestion of aerial photography and geophysical survey is, of course, problematic. In certain instances, however, these systems have been examined together with settlement sites, wherein Middle Iron Age origins are apparent, or their Middle Iron Age date is deduced from absolute dating, artefacts and/or sequences. These landscapes show strong continuity and evolution through the Late Iron Age and into the Roman period. Of course, Late Iron Age and Roman period systems have been more readily detected (not least since they were probably more numerous *per se)*.

Land boundaries, field systems and trackways of Middle Iron Age date are well documented in Northamptonshire, through survey and excavation, as at Weekley (Jackson and Dix 1987), Wollaston (Meadows 1995), and, evidently Courteenhall (Ovenden-Wilson 1997; Thomas 1998). At Wollaston land divisions apparently initiated in the Early Iron Age developed in the Middle Iron Age with ancillary and settlement enclosures appearing within the established landscape system. Meadows (1995) has argued that this development was connected with a shift from pastoral to mixed agriculture. At Stamford Road, Oakham, a waterlogged deposit dating from the late Middle Iron Age or Late Iron Age (calibrated at 95%: BC 190 BC - AD 5 from charcoal) has yielded evidence of an open occupied landscape with cereal pollen throughout the profile, and some indication of nearby pasture on the basis of the insect assemblage (Greig et al. forthcoming).

Unsurprisingly in the case of Northamptonshire and elsewhere the fullest data for these agricultural landscapes comes from areas of permeable subsoil, productive of cropmarks and also subject to the quarrying of aggregates. Midland clays have been less revealing, though Clay has discussed the growing evidence for agricultural landscapes in the case of Leicestershire, Rutland and beyond (cf. Clay 1989; 1996; in press); at Normanton le Heath in north-east Leicestershire agricultural landscape features on Boulder Clay and mixed geology dating from late in the Middle Iron Age are recorded (Thorpe et al. 1994). Kidd notes that presumed Middle Iron Age enclosures and landscape systems are known on non-permeable sub-soils in the case of Northamptonshire (Kidd 2000), for instance at Brigstock (Foster 1988). Cropmark evidence is newly available for Lincolnshire in the volume edited by Bewley (1998) which constitutes a most valuable resource.

The evidence for an agricultural landscape around the site at Wanlip (cf. above) is limited with few detectable cropmark features (Beamish 1998, 2). From deposits of Middle Iron Age date at this site came spelt, plus a little emmer and bread wheat type grains, together with hulled 6-row barley; typically for this period, quantities were small, with pits the most productive contexts (Monckton 1998). Legumes, possibly beans were also consumed, together with gathered foods (hazel nuts and sloe). A small number of querns occurred at the site, of both saddle and rotary type (Marsden 1998a); all came from a structured deposit. Bone did not survive at this site, though as generally elsewhere in the region, mixed agricultural economy is likely (cf. Beamish 1998, 42). This was evidently the case at Ancaster Quarry where wheat and barley were also recovered, together with a series of saddle and rotary querns (May 1976). According to May (1976, 137) sheep were the most numerous animal represented amongst the faunal remains; cattle were also comparatively well represented, ages at death indicating that these animals were used for meat, with a proportion presumably employed for traction; horses were also present, being the size of ponies.

At Middle Iron Age Elms Farm, Humberstone, spelt was the main cereal, with a little possible emmer, and hulled four or six row barley as a second cereal; a small quantity of hazel nutshell was indicative of wild resources (Pelling 2000). It is probable that mixed farming (arable and pastoral) was, again, undertaken at Elms Farm.

At Helpringham Fen fragments of rotary quern were recovered; amongst the small faunal assemblage sheep predominated, with, next, cattle; pig and horse are were also represented. Butchered animal bone was also recovered at Cowbit (Albarella 2001). There and elsewhere the evidence points to stock rearing occurring alongside salt making, two activities which were likely to be complementary, if meat products were preserved by salting. Data from more sites of this type are required, but on current information it seems that faunal assemblages at these sites are entirely consistent with those from other sites in lowland eastern England: wild animals, including, notably, wild fowl, and fish were evidently not consumed with any regularity, despite the nature of these environs.

(From the Weelsby Ave., Grimsby, enclosure site, during its Middle Iron Age phase, has come a fragment of rotary quern; large quantities of animal bones, including sheep, cattle,

horses are also reported). With only a moderate number of Middle Iron Age sites excavated within the region in recent years, particularly away from Northamptonshire, our understanding of agricultural economies and ecology is limited and provisional.

Beehive Rotary Querns: From the Middle Iron Age, into the Roman period, querns are more conspicuous finds, beehive shaped rotary querns replacing saddle querns. Beehive rotary querns of Hunsbury type have a wide distribution in Leicestershire (Liddle 1982, 22, Fig. 17; Clay 2000), a large proportion of which are likely to be Iron Age (rather than Roman). Some 40 examples are known from Breedon Hill. A more modest corpus of beehive querns is recorded for Derbyshire; examples are documented from the Peak District and its surroundings, coming mainly from the eastern margins (cf. Bevan 2000, 148, Fig. 2). It is likely that arable cultivation continued in the valleys and favourable upland pockets of the Peak region during this period and the occurrence of querns is an indirect indicator of this probability.

6. The Late Iron Age *c.* 100 BC - AD 50

6.1 Settlement Evidence

Visibility and frequency: Across most of the region the Late Iron Age sees far more evidence for settlement and land-use (cf. Willis 1997; Clay in press). Overall the record for this period is much fuller then for the preceding centuries of the 1st Millennium BC; the Leicestershire and Rutland SMR, for example, has over 220 locations list of Later Iron Age occupation. Settlement of this period is identifiable via cropmarks (Pickering and Hartley 1985; Hartley 1989), chronologically diagnostic artefact scatters and other surface survey work, plus excavation. Clay (in press) points out that densities of one Late Iron Age farmstead/enclosure site per 2 sq km can be deduced from the evidence in certain well surveyed areas of Leicestershire and Rutland (cf. Clay 1996); such frequencies mirror patterns discerned in other areas of Britain, for instance, the Upper Thames Valley (Hingley and Miles 1984) and the Tees Valley (Still et al. 1989). Seemingly during this period the majority of farmstead sites were enclosed by ditches, whether they had unenclosed origins or not.

Continuity and Development: There is clearly a fairly strong trend of continuity in so far as many settlements which originated in the Middle Iron Age continued to be occupied into the Late Iron Age. This may be particularly the case in Northamptonshire, as, for instance, at Crick (Hughes 1998) and evidently Kings Heath, Northampton (Shaw et al. 1990). Beyond that county, other cases are apparent: Burrough Hill (Thomas 1960; Brown and Simpson 1968; Liddle 1982), Elms Farm, Humberstone (Charles et al. 2000 Elms Farm), and Sleaford, albeit in an adjacent area (Elsdon 1997). Settlement enclosures making their debut during the Late Iron Age such as Clay Lane (Windell 1983) and Enderby, Enclosure I, (see below) seem to follow Middle Iron Age traditions. Similarly landscapes were not so-much re-ordered, rather existing boundaries divisions were developed and 'filled in' (cf. Kidd 2000). Continuity is not universal: neither the Wanlip nor Ancaster Quarry sites continued into the Late Iron Age, (whilst Weelsby Ave., Grimsby became a different type of site (cf. Section 5.2)).

Farmstead Enclosures and Settlement in the Landscape: Overall the most common type of site is the farmstead, placed within a distinct enclosure and/or placed with a landscape/field system (cf. Jones 1988). Enclosure 1 at Navenby, Lincolnshire (Palmer-Brown 1994), for instance, dated to the Late Iron Age, is a 'classic' sub-rectangular ditched enclosure containing circular structures; nonetheless this is an element within a wider system of land management

features. Contrastingly (or so we may perceive it) farmstead settlements at Normanton le Heath, Leicestershire, during its early phase, and Aylesby, west of Grimsby appear not to have lain within a discrete defining enclosure, but to be placed with a field system (cf. Hingley 1984, 74; Thorpe et al. 1994, 30; Willis 1997). This need not indicate an emphasis upon livestock farming. The partially excavated Late Iron Age farmstead type site at Aylesby, west of Grimsby (Steedman and Foreman 1995) which lies just within the North Lincolnshire district, seems probably to be placed within an agricultural landscape, rather than to occupy its own enclosure. (The identification and publication of this site is highly significant for it is one of the few Iron Age sites known via excavation in the comparatively unexplored area east of the Lincolnshire Wolds where aerial reconnaissance has been frustrated by geology and rigg and furrow. Together with the evidence from Weelsby Ave., Grimsby, it demonstrates occupation and use of the region, and the potential for the existence of other sites and features).

In the Trent Valley Late Iron Age enclosures are well attested as at Chapel Farm, Hemmington (Knight and Malone 1997; 1998), and Holme Pierrepont (O'Brien 1979). Four 'sites' were investigated at Holme Pierrepont, on the gravel terrace, in the 1970s; these have yet to be fully published and are not well dated. The four 'sites' are essentially windows upon an evolving wider system of landscape use and settlement emerging, it would seem, from the end of the Middle Iron Age. The complex is very significant in terms of the Middle Trent Valley: the work revealed the largest number of examined circular buildings of any site in Nottinghamshire (8 were recorded at one of the areas investigated (pers. comm. S. Elsdon)) and is potentially important for understanding the economy of the area, the chronology of Ancaster-Breedon style pottery, and the landscape system in the valley, as well as for comparison with more recent interventions. Since the work was conducted here some while ago sampling and recovery methodology may not be comparable with present approaches, hence the value of results may be lessened.

Areas with presently 'Thin' Settlement Records: Amongst areas which have seen comparatively little identification and/or investigation of Late Iron Age settlements are parts of northern, central and eastern Lincolnshire, though some evidence has come from fieldwork related to infrastructure and pipeline projects. Somewhat more evidence is known from southern Lincolnshire: the enclosure and settlement complex at Mill Drove, Bourne yielded much data. Evidence for settlement in Derbyshire continues to be limited into the Late Iron Age. Evidence of later Iron Age activity in the Peak District is sporadic; finds have been made at Harborough Rocks and cave (Makepeace 1990). On the Mercia Mudstone in Derbyshire, at Little Hay Grange Farm, Ockbrook, Iron Age features and finds underlay a building of Roman date (Palfreyman 2001). Although the nature of this phase is not clear the site was evidently one that witnessed 'activity' with, perhaps, 'domestic' occupation nearby. Ditch fills yielded a sequence of middle and late Iron Age pottery (Ancaster-Breedon style pottery and wheel-turned Late Iron Age pottery) as well as a stratified La Tène III derivative brooch and an Iron Age coin, a Corieltauvian stater (Ebbins 2001). The start date of this site remains obscure.

Earthwork Enclosed Sites: Of the region's large earthwork enclosed sites, a few have yielded evidence of use during this period. Activity, presumed to relate to occupation, is known from limited excavations at Burrough Hill, Leicestershire, where features and finds of Late Iron Age material have been forthcoming (see Section 5.2 for references). 'Refortification' occurred at Crow Hill in Northamptonshire (Parry forthcoming), though there is a lack of evidence from other hillfort sites in the county leading to the suggestion that they were abandoned - or at least not occupied - by this time (cf. Kidd 2000). Hunsbury seems likely to have remained an important site, until around the late first century BC / turn of the millennium.

On the other hand smaller 'defended' sites are well attested for this period in some areas. The sub-rectangular earthwork (3 ha.) at Ratby Bury, Leicestershire, has produced Later Iron Age material (Liddle 1982, 26). At Colsterworth, on the Lincolnshire Limestone, in south Lincolnshire, a small defended settlement (0.5 ha) is known containing a number of circular buildings (Grimes 1961; May 1976); Gallo-Belgic pottery was recovered from this site; excavated during the Second World War this significant site remains unpublished. Elsewhere, especially in Northamptonshire, a distinctive enclosed settlement type is known, being mainly Late Iron Age (cf. c. 25 BC to AD 50), namely the so-called 'Wootton Hill style' enclosures. They have been characterized by Dix and Jackson as: "small enclosures, each surrounded by an exceptionally deep ditch and additionally strengthened by banks, stockades and elaborate gateways" (1989, 158). Sixteen examples of this monument class (confirmed or suspected) have been recorded in Northamptonshire, for instance, Aldwincle (Jackson 1977a), Brigstock (Jackson 1983) and Weekley (Jackson and Dix 1987). Wootton Hill style enclosures have also been identified in Nottinghamshire from aerial photography (Bishop 2000). Dix and Jackson (1989) interpreted the morphology of these enclosures as 'defensive'.

Aggregation and 'Major Settlements': Whilst the majority of settlement sites appear to have been of farmstead type, presumably consisting of family/extended family groups, extensive 'aggregated' settlements clearly existed in the region. Aggregated sites, consisting of clustered but often spatially discrete enclosures and settlement/activity foci may be more common than previously realised (cf. Kidd 2000). New wide-scale geophysical surveying, and the mapping of aerial photographs seems to indicate their existence in some frequency in Northamptonshire, and in parts of Lincolnshire and Leicestershire/Rutland. At Navenby, Lincolnshire, work in 1994 (Palmer-Brown 1994), for instance, exposed only part of what is clearly a much larger site. The origins of this process of aggregation are unclear. In Northamptonshire the aggregated complex at Wilby Way, Wellingborough, covering 5 ha. (Enright and Thomas 1998; 1999) evidently dates from the Middle Iron Age, as may Crick, c. 12 ha. (Chapman 1995; Hughes 1998; Kidd in press). The complexes at Duston (RCHME 1985, 252-7; Friendship-Taylor 1998, 148-70), and possibly Stanwick (Neal 1989) and Twywell (Jackson 1975) appear to be examples of the phenomena dating to the Late Iron Age. A. Kidd (pers. comm.) points out that these apparent contemporary aggregations may conceal subtle dynamics: they could be seasonal, or part-seasonal aggregations (as perhaps at Crick) or the product of a mobile settlement pattern as with some Saxon sites. These considerations are significant matters for investigation.

This recent work has complicated the rudimentary models of settlement hierarchy which previously prevailed. It is now unclear as to what levels of difference existed between intensively farmed, settled and lived landscapes with ladder settlements, groupings of buildings and functions, such as at Crick and in the Trent Valley, (sites which find parallel outside the region, as at Wetwang Slack and other areas of east Yorkshire (Brewster 1980; Stoertz 1997; Halkon and Millett 1999)) and the 'well known' so called 'major centres' of the Late Iron Age, occurring mainly in historic Lincolnshire such as Ludford, Owmby, Ulceby, Sleaford, Dragonby and Kirmington (cf. May 1984). As Jeffrey May (pers. comm.) has stressed, it has never seemed appropriate to term these complexes as oppida. Though they may have some characteristics in common with sites termed oppida they can also now be seen to share other aspects in kind with less exotically cast complexes, as cropmark and aerial photographic evidence confirms. Recorded features at Owmby, for example, in the round, are not dissimilar from the patterns at Wollaston or Holme Pierrepont, or indeed in parts of the vale of York (Halkon and Millett 1999). The presence of numbers of Iron Age coins and brooches at these Lincolnshire sites has made them appear very different from other sites in the region, yet these finds might have more to do with religious activity and ritual deposition than be indices of 'high status'; if subtracted from the picture the record for these 'major centres' seems much more

ordinary. Indeed, perhaps Iron Age Dragonby (May 1996) is best described as an aggregated complex. If there is difference between these sites and other aggregated complexes the difference lies not in the morphology of these sites, but in differing aspects of their material culture, access to 'prestige items' and consumption patterns. It may be that the major sites of the East Midlands during the Late Iron Age were poly-focal, with specialist functions and differing functional areas, as appears to be the case with some large scale sites in the south-east of Britain, as at *Camulodunum* (Millett 1990; Crummy 1997), at Saham Toney, Norfolk (Brown 1986) and sites in Hertfordshire (Bryant and Niblett 1997; Haselgrove and Millett 1997). This, however, has yet to be demonstrated in the case of the East Midlands; insufficient work has been undertaken in order to address this question. Only in the case of Sleaford can an economic specialist function be inferred, in this case a role in the production and distribution of that vital commodity of the period: salt. Again this needs to be demonstrated. There is no evidence yet of a connection between these apparent major aggregated sites and iron smelting and working. There may have been one in some cases as was evidently so with the development of *Ariconium*, by the Forest of Dean (Jackson in press) during the Late Iron Age. It seems very likely that these aggregated, and 'high status' sites were themselves embedded in the agricultural economy.

Clearly these aggregated sites, whether 'high status' or not, are extant by the beginning of the early first century AD and appear largely a Late Iron Age phenomenon. In truth our knowledge is weak regarding their debut and origins, and for that matter their development and detailed morphology. Their sheer scale means that they will only gradually yield their secrets as a result of piecemeal interventions; even then it will be problematic to extrapolate from recovered samples, for, given the likely differences of function and status across such sites particular interventions may not be representative of the site as a whole.

The only intensively examined site of this category is Dragonby, in North Lincolnshire, the start date of which is not chronologically anchored (May 1996). An origin around the turn of the first century BC seems probable, and is likely to be approximately accurate for a proportion, at least, of the other sites.

Leicester and Sleaford seem qualitatively different from the other sites. Both have produced some remarkable material finds, indicative of their site identity. From both have come imported pottery including Arretine ware, and potential evidence of coin manufacture (Clay 1985a; Jarvis 1986; Clay and Pollard 1994; Elsdon 1997). In fact Leicester seems, presently, the only site in the region to which the term 'nucleated centre' seems at all applicable. Here, a density of finds and features indicates an extensive cluster of seeming settlement and activity on the east bank of the Soar, though we have only minute parts of the jigsaw (eg. Clay and Mellor 1985). Sufficient is known of Late Iron Age and early Roman Leicester to suggest that it must have been an exceptionally important site at this formative time. This importance is not as widely appreciated as it should be. All developments in the centre of the city should be monitored in the light of this archaeological potential.

Away from these 'isolated' centres such material is rare (cf. below; cf. Willis 1994; 1996). As Bishop notes in the case of Nottinghamshire (Bishop 2000) there is little artefactual or settlement evidence to suggest differentiation between settlements in the later Iron Age on grounds of status (or function). This 'egalitarianism', which is also seen in Derbyshire, may be a continuation of Middle Iron Age cultural norms (cf. Hill 1995a). The results of new work will test this impression.

Development into the Roman Era?: Some sites occupied during the Late Iron Age in the region did not continue into the Roman era, as for instance, those at Enderby and Humberstone (Elms Farm), in Leicestershire. The general pattern, however, seems to be that most settlement sites occupied during the Roman era overly Late Iron Age occupation (cf. Wainwright et al. 1991, 36; Taylor 1996; Clay in press), with, in most cases where this is so,

there being an apparent uninterrupted development, as Leicester, perhaps at Little Hay Grange Farm, Ockbrook (Palfreyman 2001), Holme Pierrepont (O'Brien 1979), Lockington, where Roman period occupation lies adjacent (Clay 1985b; Ripper and Butler 1999), Sapperton and Navenby (Palmer-Brown 1994). There remains a need though, for a more systematic desk-top study of those sites that continued into the Roman era and those that ended in the mid first century AD (the time of the Roman military conquest). Sufficient data exists from which to distil the actual picture, for what is a fundamental research question.

It certainly seems typical of the region that Roman villa sites have Late Iron Age antecedents, as at Piddington and Weekley in Northamptonshire (Friendship-Taylor and Friendship-Taylor 1989; Jackson and Dix 1987), where, in both cases there is some indication of 'high status' during the Late Iron Age, and perhaps Norton Disney, Lincolnshire (Oswald 1937), and Mansfield Woodhouse, Nottinghamshire (Oswald 1949).

Bevan has pointed to the possibility that it may be common for Iron Age occupation to precede that of the Roman period in parts of upland Derbyshire (Bevan 2000). This was so in the cases of the Romano-British period sites at Ockbrook (cf. above) and Staden, near Buxton (Makepeace 1995), to cite two instances (and perhaps at the settlements at Horsborough and Harborough Rocks (cf. Bevan 2000)). He suggests that since sites of the Roman period have been more readily detected in this region they might be more extensively examined in anticipation of identifying the elusive Iron Age of that region, perhaps underlying Roman phases.

6.2 Settlement Morphology

As noted above a proportion of settlements of this period are enclosed, but settlements and buildings placed in field systems rather than specific enclosures are increasingly coming to light as are open settlements. One cannot say overall that any one of these forms is particularly characteristic of this period; sub-regional trends are, though, discernible to some extent. Of course the morphology of settlements was not static (Hingley 1984; 1990) but evolving and occasionally they were radically altered. The Later Iron Age saw a degree of site re-modelling, as for instance is demonstrated at Normanton le Heath (Thorpe et al. 1994).

With the enclosed settlements, the enclosures occur in circular/oval, D-shaped and sub-rectangular forms. Examples of the latter occur at Navenby, on the Lincolnshire Limestone, where at least two sub-rectangular ditched enclosures have been recorded, belonging to this period. Enclosure 1 at this site measures essentially c. 50m square (its north-east corner is a little stretched out); the main entrance opens due east and there is a probable second opening facing due west; within are at least three circular buildings all facing east (Palmer-Brown 1994). A similarly sized, occupied, sub-rectangular enclosure at Enderby (Enclosure II) has an entrance on its northern side (Meek 1996, Illus. 1), facing towards its companion enclosure (Enclosure I) lying c. 350m to the north. The enclosures at Colsterworth (May 1976, Fig. 96), likewise on the Lincolnshire Limestone, and Enderby, Enclosure I, Leicestershire (Clay 1992, 24) are D-shaped, though of larger scale (c. 80m by 70m in the case of Colsterworth). At Huncote (Leicestershire) an oval enclosure of Later Iron Age date is known, with evidence of two circular buildings. Enclosures of the 'Wootton Hill style' sites vary from square, rectangular, trapezoidal to D-shaped; it is the pronounced nature of these ditches and other works which is a unifying characteristic. Timber circular buildings have been identified within most of these enclosure sites. (A large Late Iron Age trapezoidal feature at Brauncewell Quarry is believed to be a stock management enclosure (Lincolnshire SMR)).

Open settlements are also known, for this period, as at Empingham 'West' (Cooper 2000, 46-8), and apparently Elms Farm, Humberstone (Charles et al. 2000) and at Winterton in North Lincolnshire, which is yet to be published; a period of open settlement is also apparent

from cropmark evidence at Normanton le Heath but is not dated (Thorpe et al. 1994, 30). The farmstead settlement at Enclosure I, Enderby, Leicestershire, was initially open during the early part of this period (Clay 1992).

A pattern of paired circular buildings has been identified at Enderby (Clay 1992; Meek 1996), which is believed to reflect functional differences (ie. living vs. kitchen / agricultural uses). The site at Aylesby, just outside the present region, by Grimsby (Steedman and Foreman 1995) included two adjacent circular buildings which may be a contemporary pair. (Pairing is also strikingly apparent at Bancroft, Buckinghamshire, during Period 2, though only broadly datable as 'Middle' Iron Age (Williams and Zeepvat 1994).

The orientation of circular structures during the Late Iron Age in the region appears to conform with the general trend observed by Oswald (1997), with the majority facing to the east, or south-east. Two circular structures at Empingham 'West', for instance, are oriented to the south-east (Cooper 2000); contrastingly all four structures within Enclosure II at Enderby face north-east (Meek 1996, Illus. 2).

In the case of the so-called major aggregated sites and high status centres, little is known of their specific morphology other than what can be deduced from geophysical and aerial survey (cf. above; for Dragonby and Kirmington see May 1996; Hemblade and Cooper 1989; Jones and Whitwell 1991). There has been only limited excavation at such sites. Work at Sleaford and Leicester (Elsdon 1997; Clay and Mellor 1985; Clay and Pollard 1994) has, due to specific urban circumstances, and mid-20th century strategies, opened only small windows on this archaeology. Area excavations at Dragonby in North Lincolnshire (May 1996) revealed an intensively used system of domestic compounds and trackways. It seems unlikely that the scale of stripping/excavation required to understand something of the detailed morphology of these sites could occur in the foreseeable future, or be justified unless there is a specific threat. In the meantime characterisation of these important sites could proceed via non-destructive sampling and survey as with the English Heritage programme at Owmby (Olivier 1997).

6.3 Buildings and Structures

Far more circular buildings are known for the Late Iron Age than for the preceding periods and the number now recorded has increased considerably in recent years (cf. Willis 1997; Clay in press). Four post and two post structures are also comparatively well attested, especially in Leicestershire and Northamptonshire.

As in preceding periods some circular buildings are represented by substantive post-holes, as at Enderby, Leicestershire (Clay 1992), others by ring grooves, sometimes with post holes (cf. Knight 1984), as with the recently discovered building at Cossington (Sturgess and Ripper 2000), at Colsterworth (May 1976), and those at Elms Farm, Humberstone (Charles et al. 2000), as well as at Holme Pierrepont. At Enderby, Enclosure II, the two largest buildings were represented by pair concentric rings with large central post holes and a likely internal diameter of c. 10m (Meek 1996).

Clay has recently listed the incidence of later Iron Age circular structures in Leicestershire and Rutland (Clay in press). A recent circular building recorded at Crown Hills, Evington, Leicester, is reported as having an extant associated hearth (Chapman 2000). Particularly noteworthy are the structures at Enderby (Clay 1992: Meek 1996; Ripper and Beamish 1997), Elms Farm, Humberstone (Charles et al. 2000) and Normanton le Heath (Thorpe et al. 1994), these being comparatively well preserved, yielding valuable structural details. Three circular structures at Empingham 'West' are now attributed to this period (Cooper 2000, 46-8). All were represented by eavesdrip gullies; 13 post-holes occurred within the area of one of these buildings, some, if not all of which are likely to have been associated. Only two of these buildings were fully exposed, both having entrances facing south-east. The

internal diameters, within the eavesdrip circuits, were closely consistent, measuring approximately 10m across. All three had hearths, two were central placed.

The two circular structures partially exposed at Aylesby (Steedman and Foreman 1995) on the Lincolnshire Middle Marsh were represented by penannular gullies, interpretable as wall trenches; both measured c. 8m in diameter; one had an apparent west facing entrance, which, as pointed out in the report, may have been positioned for sound practical reasons given the proximity of the site to the North Sea and its exposed setting. There is some indication that one of the buildings was of polygonal construction.

The evidence from Enderby (cf. above) suggests that smaller circular structures occurring at settlements may, not infrequently, have been for non-residential activity. Further, in the case of a smaller building at Rampton, Nottinghamshire (Ponsford 1992), an industrial function is apparent. A non-residential use cannot, however, be assumed for smaller circular structures, and, of course, their function has to be a matter for investigation in each case. Such structures may have been domestic, with social status and age differences being potential determinants of who lived where and in what manner.

Clay (in press) suggests that the circular structure at Cossington, Leicestershire (Sturgess and Ripper 2000) may have had a ceremonial function rather than a domestic one since it was sited adjacent to a Bronze Age barrow where successive ritual and burial re-use took place, co-inciding with an absence of domestic debris.

Rectangular buildings are also now unsurprisingly known in the region: at Normanton le Heath (Thorpe et al. 1994) and Leicester (Clay 1985a). At Normanton le Heath construction is unusual in so far as beam plates and post-holes are employed in combination. Contemporary like structures are rare in Britain but are now beginning to be recognized with some regularity; two are now recorded at Stanwick, North Yorkshire (Haselgrove et al. in press); while across northern Gaul they are common-place as domestic loci.

4 and 2-post structures continue through this period. Several 4-post structures were exposed at Elms Farm, Humberstone (Charles et al. 2000). One 2-post structure was recorded at Empingham 'West' (cf. above).

6.4 Material Culture

Metalwork: Metalwork finds, including coins, brooches and cosmetic items, are more frequently found in Late Iron Age contexts in the region, than in those of preceding periods. This is particularly clear with brooches as has been demonstrated (Willis 1997). This is part of general trend across southern and eastern England during the Later Iron Age. In the East Midlands, however, there are highly marked sub-regional differences in the incidence of these finds. Large numbers of metal finds of this period have been recovered by people using metal detectors. This, as is well known, has created a series of problems, dilemmas and potentials.

Lincolnshire has produced a great many Late Iron Age artefacts, coming to archaeological attention by various paths. Leicestershire and Northamptonshire have produced comparatively moderate quantities, spectacular items such as the La Tène III sword from Aldwincle (Megaw 1976) and the Desborough mirror (RCHME 1979, 33) being rare fruit. Sites in the north-west quarter of the region, specifically in Derbyshire and Nottinghamshire have (so far) yielded little in the way of Later Iron Age metalwork, nor indeed coins (with certain exceptions); exploration of this difference should be instructive. (Volumes of pottery recovered from excavations in this area are also perceived to be relatively low (Barrett 2000) but this needs to be tested (cf. Willis 1999, 85-90)). Several items are alluded to here because they, or their find-spot, is unusual. From Normanton le Heath has come a copper alloy hilt or mouth guard from a sword scabbard (Thorpe et al. 1994). A La Tène III brooch is known from Gringley-on-the-Hill, Nottinghamshire (Oswald 1938), in the Lower Trent valley, coming from an area of the East Midlands with

comparatively little First Millennium BC evidence (though a triangular clay loomweight and Iron Age pottery is also reported (Oswald 1938)). From sites in the east of the region, in recent years, have come a series of Nauheim brooches of c. 120-60 BC predating the profusion of brooches dating to the very last decades of the pre-Roman Iron Age. These items perhaps indicate a particular articulation with the Continent at this time.

Pottery: In the east of the region Late Iron Age pottery, including wheelmade vessels, appears perhaps by the start of the first century AD, and, crucially is often mixed in groups with Scored Ware as for instance at Dorket Head, Dunstan's Clump, Gamston, Holme Pierrepont and Rampton (Turner and Swarbrick 1978; Turner and Turner 1997; Garton 1987; Knight 1992; pers. comm. S. Eldson; Ponsford 1992; Knight 2000). Aslockton, Nottinghamshire, is another site yielding stylistically Late Iron Age pottery (Palmer-Brown and Knight 1993). The debut of stylistically Late Iron Age pottery in this part of the region is now seen as a genuinely Late Iron Age occurrence, rather than something happening around c. AD 40/50, the time of the Roman conquest. Similarly Ancaster-Breedon style pottery (aka East Midlands Scored Ware) is now seen to continue in parts of the region till the mid first century AD (Elsdon 1992a; Willis 1998), even in southern Lincolnshire (and north Cambridgeshire); the occurrence of these two styles together can no longer be regarded as problematic.

'Prestige Goods': Clay (in press) points out that the hinterland settlements around Leicester occupied during the same period as the Late Iron Age heyday of Leicester show virtually no evidence of similar exotic and 'high status' material culture consumed at that site (cf. above): there is no imported pottery, virtually no metalwork and just one coin. In fact this pattern is entirely consistent with what one might expect following Haselgrove's 'prestige goods model' (Haselgrove 1982), which although written twenty years ago remains an argument worthy of continued consideration, not least in the case of the East Midlands (Willis 1996). The evidence from this region remains consistent with the tenets of the argument (though the pattern could arise from different factors).

6.5 Agriculture

Monckton (this volume) considers the question of agricultural expansion during the later Iron Age. Mixed agricultural economies existed on the claylands at Enderby during this period (Clay 1992). Clay (in press) suggests that there was here, perhaps, a greater emphasis on a pastoral base, with sheep and cattle predominant. This seems also to have been the case at the 'clothes-line' complex at Tixover, Rutland (Beamish 1992). At Elms Farm, Humberstone, cattle and sheep were present in equal proportion (Charles et al. 2000). Pig was represented amongst the small faunal samples from Late Iron Age contexts at Empingham 'West' (Cooper 2000), and Nettleton, Mount Pleasant (Stallibrass 1999) on the Lincolnshire Wolds, where the species accounts for c. 13% of the faunal assemblage. Domestic fowl bones occur at various sites including Enderby Enclosure I (Clay 1992) and again at Nettleton (Stallibrass 1999).

Cereals are regularly present amongst samples from excavated sites in Leicestershire, Rutland and Northamptonshire. There is less information available for contemporary sites in Lincolnshire, though work to assessment level on samples spanning the first century AD from Nettleton, Mount Pleasant, has identified wheat and barley grains with no chaff present (Willis 2001). Where cereals occur there is a consistent pattern of low frequency for some reason/s. Monckton notes that it is unclear whether this reflects survival, past usage, or a lower emphasis on cereal farming (Monckton 1995, 35). Across the region, the pattern is for spelt to appear most commonly, with barley also represented; only occasionally are grains of bread wheat type found, with no chaff to confirm its presence. Rich deposits of *processed* cereals

are known from Rushy Mead (Pollard 1996; Monckton 2001) and Elms Farm, Humberstone (Charles et al. 2000) both in Leicester.

The unusual enclosure site at Aslockton in the river Devon valley, Nottinghamshire (Palmer-Brown and Knight 1993), which is of Middle and/or Late Iron Age date, is thought likely to have a stock management purpose as it c. 20 ha interior is divided up with sub-rectangular compounds.

In Nottinghamshire the appearance of enclosed field systems appears to be a late development, around the late first century BC, through the first century AD, and perhaps into the earlier second (cf. Garton 1987). As Bishop notes (Bishop 2000) the date of their appearance is a matter of contention; in other words further clarification is required. In southern Nottinghamshire and the Trent Valley the cropmarks conform to a co-axial field system arrangement with integral settlements, reflecting the 'brickwork plan' system on the Sherwood Sandstones of northern Nottinghamshire and south Yorkshire. Doubtless their development was a relatively long process, interspersed with accelerated periods of enclosure and change (perhaps much like the enclosures of 'common land' in more recent times (cf. Bishop 2000)). A standard interpretation is that these systems arose from land pressures and economic changes produced by increasing population and settlement expansion, and perhaps a social imperative to generate surpluses for wealth and status creation.

In parts of Derbyshire a considerable degree of landscape continuity is suggested from the Middle Iron Age through the Late Iron Age (Bevan 2000). As on the Leicestershire claylands, mixed farming was apparently being practised on the Mercia Mudstone (Derbyshire). This seems likely at Little Hay Grange Farm, Ockbrook; the faunal assemblage comprised predominantly cattle and sheep/goat, with horse represented (Palfreyman 2001). More samples are required from such areas to establish and verify trends.

6.6 Coinage

Coins appear in the region during the Late Iron Age. Some non-regional issues occur of 2nd century BC date, however, the majority are issues of two apparent tribal entities existing within the East Midlands by the end of the pre-Roman Iron Age, specifically the Corieltauvi, conventionally associated with Lincolnshire, Nottinghamshire, Leicestershire and possibly parts of Derbyshire, and the Catuvellauni of the region to the south, of which Northamptonshire was a part. The earliest Corieltauvian coins are gold scyphate types presumed to be pre-Caesarian, and possibly much earlier than mid-first century BC in origin. Recent reviews of these coinages and their archaeological distributions and meaning have been published by May (1984; 1992; 1994) and Curteis (1996). Large numbers of coins are known from the region (and (recorded) numbers are likely to continue to rise at a pace) providing a valuable resource for studying a wide range of aspects of the latter part of the present period.

7. Finds: Craft, Industry and Exchange

7.1 Introduction

Evidence for Late Bronze Age and Iron Age crafts and artefact production across the region has grown considerably in the past decade with the recovery of much new material and the publication of finds from the 1960s, 1970s and 1980s. The nature of the evidence within the region largely parallels the picture emerging from elsewhere across central, south and eastern England. Within the region, as nationally, substantive models and interpretations exploring the social organization of these crafts have been slow to emerge, with some exceptions (eg. Henderson 1992; Morris 1994; De Roche 1997; Hingley 1997; Lane and Morris 2001). The

development therefore of such models and understandings in this domain needs to be encouraged. New, exciting, information on exchange systems, over medium and long distance, has also begun to emerge (see Section 7.10 below), commensurate with their embryonic identification in some other regions of Britain for this period.

7.2 Wood

The study of wood-working, carpentry, 'engineering' in wood, wood management, charcoal production and trade in wood has very much been a back-seat passenger in the advance of later prehistoric studies in Britain. Evidence is partial and typically indirect, yet wood held a central role in culture and society at this time. Wood, and its by-products, were fundamental in the great majority of structures (of all types) across the region, and certainly in the case of buildings. Hence the use of wood is apparent at virtually every 'site' of the period in the East Midlands, usually implicit from non-wood remains, though occassionally manifest in preserved wood of some form. Similarly wood and charcoal were, of course, crucial domestic fuel sources, whilst there was a need for these resources on a large scale by the Middle Iron Age, if not earlier, in order to undertake the production of iron, salt and other processing and craft activities. Maintenance of these various supply needs will have been a key social issue (cf. De Roche 1997; Willis 1999).

It seems a certain bet that pockets of managed woodland were maintained across the region during the period (eg. Long et al. 1998). A long range trade in wood and timber products is conceivable, likely even, particularly for specialist wood products, skills and certain timbers, and for particular projects; (it seems likely that wood used in the construction of some of the hillforts of the Welsh Marches derived from a wide hinterland). The huge trunk from which the Hasholme logboat of East Yorkshire was realised (Millett and McGrail 1987) seems to testify to the presence in the region (or wider region) of some ancient magnificent woodlands. Concerted archaeological studies of the many dimensions of the use of wood in later prehistoric societies warrant a higher profile than they currently have.

This summer (2001) two logboats have been excavated by the Witham; one is probably Iron Age, the other probably Iron Age or Roman (Pitts 2001). Given the nature of the environment within the East Midlands there is a strong prospect that wooden boats of the first millennium BC will be encountered from time to time (as has been the case in Humberside (McGrail 1990)); 3 logboats and a wheel have been recovered at Holme Pierrepont (MacCormick 1968).

7.3 Textiles

Evidence for apparent textile manufacture is widespread, but thin. Those sites yielding evidence for textile manufacture at best produce only a few artefactual items. Those items conventionally defined as clay loom-weights, spindle whorls and weaving combs may have been put to a variety of uses but on balance may be regarded as generally indicative of textile production. Not infrequently these types of artefacts occur in association. Clay loom-weights are known from Ancaster Quarry, Aslockton, Billingborough, Elms Farm (Humberstone), Gamston, Gringley-on-the-Hill, Grove Farm (Enderby) and Normanton le Heath. Both the Aslockton site and Elms Farm, Humberstone (Charles et al. 2000, Fig. 53/3) also produced bone weaving combs. Ancaster Quarry also produced spindle-whorls. At Harborough Rocks and Cave, in the White Peak bone pins, spindle-whorls and a weaving comb have been recovered, with the pottery types forthcoming suggesting an Early Iron Age date (Hart 1984, 77). The evidence, in this case, may or may not be taken at face value. No loom-weights were recovered leading Hart to conclude that this: "implies that only the preliminary work was conducted in the cave ... weaving and finishing were carried out elsewhere" (1984, 77).

Quantities of artefacts relating to textile manufacture per site across Britain are likewise typically modest.

7.4 Querns

As well as forming indices of arable economy, querns can often, of course, via petrological study be provenanced, directly enhancing our growing knowledge of trade and exchange in the later first millennium BC (Knight 1992; Ingle 1994; Kidd in press). Querns of Millstone Grit occur across the East Midlands (eg. Wright and Firman 1992) perhaps deriving from Yorkshire. Rotary quern production and/or finishing is suspected at several sites in the region. Some of the querns recovered at the Ancaster Quarry site were sandstone (May 1976, 136) and probably derived from the Lincolnshire Wolds. Indeed, it is now clear that Spilsby Sandstone from the Caistor area was being exploited for quern manufacture during the Iron Age, with examples travelling west and north into the heartland of the East Midlands and to the Humber region (eg. Wright 1996). A rotary quern from Elms Farm, Humberstone, Leicestershire, occurs in Lincolnshire Limestone (Roe 2000). See Section 5.6.

7.5 Bone and Antler

The use of bone and antler artefacts was a regular part of first millennium life. Production of such artefacts was probably undertaken at the sites at which such items were used within the region. (Some specialisation emerged in Britain during the Roman period, and the working of tooth ivory was presumably regionally specific in the first millennium - though not in the East Midlands). The range of worked antler and bone objects recovered at such sites as Billingborough in south Lincolnshire (Bacon 2001), Elms Farm, Humberstone (Allen 2000) and Wakerley (Jackson and Ambrose 1978; Gwilt 1997) is likely to be typical for the East Midlands. Such artefacts appear to have been associated in particular with leather, horn and textile working.

7.6 Iron

The production of iron was likely to have been a major regional industry. Unfortunately to date evidence on as striking a scale as that from the south-eastern Vale of York (Halkon and Millett 1999) and the Forest of Dean area (Jackson in press) is lacking. The strongest evidence of iron smelting comes from Northamptonshire (Kidd 2000). The excavations at Great Oakley demonstrated that nodular ores were being extracted and smelted in the earlier Iron Age (Jackson 1982). Possible smelting furnaces of Iron Age date occur at Great Oakley, Wakerley (Jackson and Ambrose 1987) and Harringworth (Jackson 1981). Significantly Crick has produced an iron bloom (Starley and Tulp 1998) probably brought to the site for further working (this probably represents an alternative to the more frequently encountered currency bars of the period). Much iron-smelting slag has been found at the Castle Yard hillfort (Knight 1987), and a number of slag scatters occurring elsewhere in the county are also thought likely to be of this date.

Only limited evidence for metal *working* is logged for the Middle Iron Age, though such activities were probably common rather than exclusive at this time. Smithing slag was found in association with the Sleaford palisaded enclosure, which might be a significant element of the identity of that site. Industrial residues indicative of iron working are also reported from Wanlip (Beamish 1998, 84). Little is known as regards the likely exploitation of ironstone and other iron sources in the region during the Middle Iron Age, or for that matter during the later Iron Age (Condron 1997).

During the Late Iron Age evidence for iron-working is widespread, but usually limited and indicative of small scale operations such as repair and the fashioning of domestic / everyday tools. Evidence occurs, for instance, at Normanton le Heath (Thorpe et al. 1994) and Elms Farm, Humberstone (Charles et al. 2000). Smithing occurred at Crick (Starley and Tulp 1998). Rampton, Nottinghamshire (Ponsford 1992) has produced particularly important evidence.

7.7 Non-ferrous Metalworking

A series of recent publications by Dungworth represent a major contribution to our understanding of later prehistoric non-ferrous metal working (eg. Dungworth 1996; 1997).

There are some instances of copper alloy working from within the region: for instance at Crick (Starley and Tulp 1998) and Elms Farm, Humberstone (Charles et al. 2000). In North Lincolnshire a major find of copper alloy working debris dating to the later Iron Age was excavated at Weelsby Ave., Grimsby (cf. Section 5.2). Clay mould fragments occassionally occur as site finds such as that from Billingborough (Chowne et al. 2001), while a mould was recovered from the fills of a triple dyke system at Ketton (Mackie 1993). These finds may indicate small scale copper alloy working (in the case of Billingborough perhaps for horse furniture).

7.8 Salt

Salt production on the North Sea coast and in the Fens was clearly a major industry. There is abundant ceramic evidence in Lincolnshire for this activity during the Middle and evidently Late Iron Age (Hall and Coles 1994; Healey 1999; Lane and Morris 2001). On the North Sea coast many sites are known from the Ingoldmells area (cf. above; Kirkham 2001), but, notably, virtually none further north. The exception is a saltern in Tetney parish investigated in the 1990s by Lindsey Archaeological Services (Palmer-Brown 1993a) and dated via a radiocarbon date to the Late Bronze Age, an unusually early date. In the Fens the production of salt was underway during the Late Bronze Age - Early Iron Age, attested at the recently published site at Billingborough (Chowne et al. 2001), with dating supported by a series of radiocarbon determinations. Features associated with salt production were not well persevered in this case, which unfortunately is a common occurrence.

Many Iron Age salt production sites are now known in the Fens (cf. Section 5.2), particularly in the western and southern Fens (Lane and Morris 2001). Dating evidence shows that salt making was an extensive, and presumably economically important, undertaking during the Middle Iron Age and subsequently. In the northern Fens only the area around Wrangle has yielded evidence for this industry. As others have suggested the sustained exploitation of this resource is likely to have been an important commodity for trading and perhaps a means of wealth creation. Lane and Morris (2001, 385-8) have proposed a model of the development of salt production in the Fens beginning with a 'opportunistic' phase during the Middle Iron Age when production was seasonal and centred away from the main domestic based, linked with seasonal animal grazing; later, the landscape is exploited all year round with permanent occupation and economy, this phase tentatively dated to the Late Iron Age.

The recognition of briquetage fabrics for what they are is now resulting in their regular identification on settlement sites across the western part of the region. Mapping these incidences, of course, provides a vital indicator of trade and exchange. In recent years it has become clear that sites in the central Midlands (in Leicestershire, Nottinghamshire and Derbyshire) were receiving salt from south-east Cheshire in stony VCP (eg. Elsdon 1992b, 41; 1994b, 37-8; Knight 1992; Elliott and Knight 1999, 149; Morris 1999). There is, however, an absolute absence of briquetage from settlement sites in the hinterland of the Fens and central

and northern Lincolnshire, the area in which the salt from the Fens would have been consumed (cf. Lane and Morris 2001). In consequence not a single consumer site can be identified (in contrast with some other areas were salt was conveyed in distinctive transport briquetage containers (eg. Morris 1994; Fitts et al. 1999)). It must be the case that the salt from the Fens and the North Sea coast was conveyed by organic containers such as leather bags or baskets, or possibly in coarse pottery vessels.

7.9 Pottery

For the study of first millennium BC pottery groups from the region Challis and Harding's 1975 publication (Challis and Harding 1975) remains a helpful quick point of reference for those new to the subject, particularly in terms of typology and incidence. Several other regional overviews are available (Cunliffe 1974; 1991; Willis 1998). Elsdon's *East Midlands Iron Age Pottery: a Handbook* (1993) is an important reference work for the study of the first millennium in the region, while her article on Ancaster-Breedon 'Scored Ware' (1992a) is another valuable contribution. A new major resource is now available via the Web in the form of the Gazetteer of Later Prehistoric Pottery Collections (First Millennium BC) covering England, accessible through the University of Southampton website. The pottery sections of the Dragonby (May 1996) and Old Sleaford (Elsdon 1997) excavation monographs are key for the study of Late Iron Age pottery in Lincolnshire. Two contributions by Knight (1984; in press) are also particularly important in the study of first millennium pottery from the region, the latter establishing a chronological framework. See also Section 3.5 and Willis (in press). A vital set of guidelines for processing pottery of this era exists (PCRG 1995) while Knight has proposed standardised recording conventions for the region (1997).

The East Midlands has yielded comparatively numerous collections of pottery of first millennium BC date. From Northamptonshire over 500 ceramic collections of this period are documented. Of course there are sub-regional variations to the size and frequency of recovered first millennium pottery assemblages across the East Midlands, and dating is vague. Overall, however, this material is a resource of tremendous promise and potential (Gwilt 1997; Knight in press; cf. Evans 1995).

There is growing evidence from the region of organized production and long and middle distance distribution. Petrological analysis of inclusions within pottery types recovered from East Midland sites is now becoming more routine and has begun to illuminate likely sources of pottery production. Later Iron Age pottery with igneous inclusions found at Swarkestone Lowes, Derbyshire, for instance was probably made in the Charnwood Forest area (of north-west Leicestershire). General models of pottery production and distribution for the period have been discussed recently by De Roche (1997) and Morris (1994), and evidence from the region could be considered against these.

Important pottery publications of the region include: Elms Farm Humberstone (Marsden 2000), Enderby (Elsdon 1992b), Gamston (Knight 1992), Sleaford (Elsdon 1997), Wanlip (Marsden 1998b) and from North Lincolnshire, Dragonby (Elsdon 1996).

Clay notes that an aim of the project at Wanlip was to provide tighter dating for Ancaster-Breedon style pottery (Clay 2000); the outcome has been to lengthen its date range (Marsden 1998b; cf. Barnett 2000). Establishing pottery chronologies remains a central objective (cf. Research Agenda). This apart pottery is a generally numerous richly textured information resource for studying the period (cf. Evans 1995), both in terms of major patterns and nuances in cultural life (cf. Research Agenda).

7.10 Exchange

Our understanding of artefacts as been considerably enhanced by a growing appreciation of their potential to inform, and the now more or less routine use of analytical procedures, such as petrological and scientific analysis (whereas their employment through much of the second half of the 20th century had been sporadic). This work has assisted greatly with provenancing studies which have, for the first time, began to highlight the complex and often wide exchange connections of the East Midlands in the first millennium BC.

The site at Gamston, Nottinghamshire (Knight 1992), for instance, was in receipt of salt from Cheshire, pottery from the Charnwood Forest and querns (probably) from Derbyshire and/or Yorkshire. Doubtless this is the tip-of-the-iceberg in terms of its actual exchange connections. It might be suggested that this site had the possible advantage of location adjacent to the Trent, doubtless a major exchange routeway, nonetheless it is a site of modest status. In the round its exchange connections are unlikely to be untypical. Considering the amalgam of evidence from Northamptonshire (the first millennium archaeology of which is the most thoroughly explored within the constituent counties of the East Midlands) it is apparent that exchange connections detectable during the Iron Age existed with much of southern and central England (at least) and were probably regular and developed, rather than piecemeal (pers. comm. A. Gwilt; Kidd 2000; Kidd in press).

Identifying, mapping and digesting the exchange connections of the region, via the now routine materials analysis and employment of skilled professional finds specialists, is likely to be one of the most important and illuminating aspects of the study of the period in the next 10 to 20 years and beyond.

8. Burial

It has long been established that there are few burials of first millennium date, in absolute and relative terms, in the East Midlands. There is, for instance, on evidence for human remains, burials or cremations of Iron Age date cited in May's study of Lincolnshire (1976). Recent work has not altered this pattern for the East Midlands, which seems invariable through the entire millennium, if it is excepted that the era of Bronze Age monumental burial was broadly over by the Late Bronze Age. Equally, there is no evidence of the adoption of a burial rite in the Late Iron Age mirroring those known from Hertfordshire, not even at Leicester which shares some material parallels with sites in that region at this time. Burials here may of course come to light in due course. The present prevailing presumption is that excarnation was commonly practised (cf. Carr and Knüsel 1997), perhaps with cremation, and that the practices followed left little trace in the record. Some burials and cremations are known, which, since their incidence is against the prevailing trend are generally of considerable potential interest for the evidence they may carry, enlightening a number of areas: diet, origin of the individual, health, cultural practice, and so forth. The direct inference concerning those burials that do occur, is that there must have been something extra-ordinary about the person buried, in their life or manner of death and its meaning to others.

As noted above a cremation burial of Middle Iron Age date was excavated at the settlement site at Wanlip (Beamish 1998, 28-9), occurring centrally within a four- post rectangular building, with evidently an associated, separate special deposit. An unaccompanied cremation of an adult, probably of Middle or Late Iron Age date was excavated at Elms Farm, Humberstone (Boyle 2000). Cremation burials of Later Iron Age date are known from two further locations in Leicestershire: Enderby (Meek 1996), where two occurred, and Market Harborough (Liddle 1982, 27). At Irchester, Northamptonshire, a minimum of four Aylesford-Swarling style cremations are recorded (Hall and Nickerson 1967), but there must be a possibility they are mid first century AD in date.

There are several instances of the 'unusual' treatment of human skulls. A skull fragment of an adult from the Middle Iron Age site at Helpringham Fen displays sawing

marks, where the skull bone has been 'opened'; the sawing was carried out at or after death (Bayley 1999). Billingborough, also on the Fen margin, has produced a series of 'worked' skull fragments, from several individuals, where both a similar process has been undertaken, and indeed other processes have occurred, including drilling and polishing/wear (Bayley 2001). A skull from Hunsbury, Northamptonshire, has a perforated vault. Two skulls from a palaeochannel at Birstall, Leicestershire, dated to the Late Bronze Age (Ripper 1996) may represent decapitation prior to deposition in a watery context. Cut marks identified on the atlas vertebra seems to support this interpretation. Special treatment of the head and deposition of human heads in watery contexts is attested elsewhere during the first millennium BC (eg. Willis 1999, 100; Whimster 1981), as well as in Roman Britain (Crummy 1984, 93-8) and has been an area of archaeological interest and discussion (cf. Merrifield 1987; Bradley and Gordon 1988; Knüsel and Carr 1995). Ritual and ceremony may have lain behind the deposition of these skulls at Birstall. Similarly human skull fragments from a pit alignment at Tallington, Lincolnshire (Gurney et al. 1993; see below) may represent a structured deposit. A number of human skull fragments were recovered from various ditch contexts at Elms Farm, Humberstone (Boyle 2000), where they may or may not have been components of special deposits. Bayley suggests that in the case of the fragments from Billingborough, the evidence is consistent, their employment as amulets (2001, 78).

Turning to inhumations the evidence is equally disparate, and engaging. Early / Middle Iron Age pit burials occur at the Northamptonshire sites of Twywell (Jackson 1975), Wilby Way (Enright and Thomas 1998) and Brackmills, Northampton (Chapman 1998). That at Brackmills is located on the edge of a settlement site, being a female in crouched position and wearing a lead alloy torc; a radiocarbon date was ascertained. In the cases of Twywell and Brackmills dog burials occur in adjacent pits, a rite which is of no small interest since it antedates some better known cases of ritual dog burials of the Roman era in this general area (cf. Merrifield 1987). Other crouched inhumation pit burials are known from Leicester (Clay 1985a, 17) and Rushey Mead, Leicestershire (Pollard 1996). Two burials (crouched inhumations) of approximately Iron Age date were found at Winster in the Peak District in the 19th century during Bateman campaigns; these are now dated as 2nd century BC to 2nd century AD (Beswick and Wright 1991). Putative Late Iron Age burials are also recorded from an evaluation at Towcester, Northamptonshire (Walker 1992) where an apparently enclosed cemetery with inhumations was encountered; unfortunately the results are not published. Recently an inhumation, believed to be Iron Age was found at Stenigot, on the Lincolnshire Wolds, in advance of an infrastructure scheme; an iron nail was associated and it predated a ditched enclosure (LHA 1998, 37). Remarkably, this burial seems to represent the first inhumation of Iron Age date identified in the county (LHA 1998, 37; pers. comm. N. Field).

Disarticulated human bones/incomplete skeletons occur at several sites: Breedon Hill (Wacher 1977), Leicester (Clay 1985a), Mountsorrel, Leicestershire (Walker 1994) and Tixover, Rutland (Beamish 1992), as well as at Aylesby, just within North Lincolnshire (Steedman and Foreman 1995, 34).

A square enclosure at Aston-upon-Trent, Derbyshire, postulated as a square barrow via analogy to the square Iron Age barrows of east Yorkshire (Stead 1991) was examined in 1967 but was found not to contain evidence of a burial (May 1970). This lead to the suggestion that it constituted a cenotaph, which might be considered circular thinking! Square barrows, presumed to represent cemeteries occur at two other locations in Nottinghamshire, at the Ness, North Muskham and Hoveringham. Fully extant these would have been impressive features. The possibility that there was a cart burial at Hunsbury hillfort remains open (cf. Kidd 2000; Baker 1891; George 1917; Knight 1984, 115).

A better, larger, sample of reasonably well dated burials, either cremations or inhumations, is, of course, desirable!

9. Hillforts and Analogous Sites

The term 'hillfort' is an umbrella category of British later prehistory, covering a range of site sizes, types, and functions, with each site having its unique identity and biography (cf. Hill 1995a; 1995b). The criteria used to define hillforts are not firmly set (cf. Cunliffe 1991), hence a variety of sites with earthworks in contrasting landscape settings may or may not be included under the umbrella. The landscape of the East Midlands contains a smattering of sites that may, uncontroversially be defined as hillforts. The larger constituent counties of the East Midlands region each have a few examples (cf. Table **CCC**). To a degree Northamptonshire has somewhat more (or better defined) hillforts than in the other counties, which is of particular interest. The major defended sites of this type in Northamptonshire have been surveyed by the Royal Commission for Historic Monuments (RCHME 1981; 1982; 1985; 1993). That 'the hillfort' is not a common form of the East Midlands, is a contrast to other regions (Cunliffe 1991). One might say that one of the distinctive aspects of the remains of the first millennium in the region is actually the rarity of examples of this category. This pattern, however, reflects that of adjacent regions such as Yorkshire and Warwickshire. Generally the hillforts, potential hillforts and analogous sites within the region are a spatially and morphologically disparate group, both poorly characterised and dated. Moreover, they have remained, with a few exceptions, very largely unexplored, with conspicuously few instances of investigation of interiors and immediate environs. This is readily evident from Table **CCC** and amongst county syntheses. Sites such as Robin a Tiptoe in Leicestershire where earthworks are associated with hill summits could be later prehistoric, post-Roman or multi-period. As Liddle observed 'satisfactory' answers regarding the chronology of such sites will only be forthcoming from excavation (Liddle 1982, 22; cf. Clay 2000). A lack of knowledge of these sites may be considered a hindrance to our broader understanding of the dynamics of the period, especially if these sites (or at least some of them) were significant in peoples lives and practices. On the whole hillfort studies in the region is a subject 'parked'. (Ringfort sites are considered elsewhere in this text (Section 3.1)).

A modest number of hilltop enclosure sites in the Peak District / north Derbyshire can be termed hillforts (Hart 1981, 73-81; Hart and Makepeace 1993; Bevan 2000, 145). Their locations are striking and dramatic. Several are fully undated, while the limited amount of excavation undertaken has not yielded unequivocal indicators as to their date and sequence. Overall, the general pattern for the Southern Pennines is one of limited dating evidence and limited resolution for these sites (Table **CCC**). A pertinent case is Mam Tor. In the case of Mam Tor some have argued that the whole site is Later Bronze Age, while others see the settlement as Late Bronze Age but its earthworks as Iron Age (Bevan 2000, 147). It would not be surprising of course if the actual chronology was complex. A correlation has been noted between the location of the hillforts of the Peak District and the main valley areas in which Iron Age settlement is likely to have occurred (eg. Barnatt and Smith 1997). In other words there is a tendency for these hilltop enclosure sites to be placed adjacent to likely population concentrations and at the threshold of contrasting resource areas.

To some degree this is also true of the small number of defended sites on the Mercia Mudstones above the Trent Valley (cf. Bishop 2000; Table **CCC**). In this area too there has been only limited investigation of apparent 'hillforts', such that the dates and character of the 'familiar candidates' remain as unclear in 2001 as they were 40 years ago (Simmons 1963). They display variety and do not necessarily occupy the most defensive locations; accordingly Bishop (2000) suggests they are unlikely to have been of uniform date and function. Of these upland sites in Nottinghamshire only one has been the subject of recent systematic research via excavation, thanks to the efforts of J. and C. Turner and the Sherwood Archaeological Society. This is the intriguing site at Dorket Head, Ramsdale Park, which has yielded much

data of considerable significance (see Table **CCC**), while raising a series of questions as to the nature of the site over time. The site is multi-period with a complex sequence that has yielded a range of ceramics assignable to various stages during the first millennium BC and into the first century AD and Roman period. How typical is it?

County / Name	Location and 'Type'	Date	Reference
Derbyshire			
Ball Cross*	Peak District; Small ramparted site	LBA and/or IA	Stanley 1954; Hart 1984, 75, Fig. 7.2.7
Borough Hill, Walton on Trent	Trent Valley Hillfort	? Iron Age	Derbyshire SMR
Burr Tor	Peak District Hilltop earthworks, enclosing large area	Not known ? Iron Age	Barnatt and Smith 1997; Hart 1984, 75, Fig. 7.2.3
Castle Naze	Peak District Double ramparted Promontory earthworks enclosing large area	Not known ? Iron Age	Hart 1984, 75, Fig. 7.2.4
Castle Ring	Peak District Small univallate hilltop enclosure of contour type	? LBA and/or EIA ? Iron Age (LBA / EIA finds)	Makepeace 1990, 29; Makepeace 1999, 16
Cratcliff Rocks	Peak District Promontory earthworks enclosing small area; postulated Promontory fort	Not Known ? Prehistoric / Later Prehistoric	Makepeace 1999
Fin Cop	Peak District Promontory earthworks enclosing large area	Not known ? Iron Age	Barnatt and Smith 1997; Wilson and English 1998
Mam Tor*	Peak District Hilltop earthworks, enclosing large area	LBA, ? and EIA	Coombs 1976; Coombs and Thompson 1979; Barnatt and Smith 1997; Guilbert 2001
Markland Grips*	on Magnesian Limestone Promontory fort with triple ramparts	? Iron Age (? EIA finds)	Lane 1969; Hart 1984, 75, Fig. 7.2.6
Leicestershire			
Bardon, 'Castle Hill'	Charnwood Forest Small near circular enclosure defined by extant ditches	Not Known ? LBA - ? IA	Liddle 1982, 22, Fig. 16; Leicestershire SMR
Beacon Hill	Charnwood Forest Hilltop enclosures	Not Known ? LBA - ? IA LBA finds	Liddle 1982, 17, Fig. 9; Leicestershire SMR
Belton Castle, Belton*	Charnwood Forest Area Small near circular earthwork	? Iron Age M/LIA finds	Liddle 1982, 22, Fig. 15
Borough Hill*	East (High) Leicestershire Sub-rectangular single rampart enclosure Hillfort	EIA - LIA LIA finds (Roman finds)	Wall 1907, 247-9; Thomas 1960; Brown and Simpson 1968; Thawley 1973; Liddle 1982, 22, Fig. 12
Breedon Hill*	on Carboniferous Limestone Uplands Hilltop earthworks	(May start in LBA) EIA - MIA ? LIA	See above, Section 4.1

Ratby Bury	Leicester Forest Sub-rectangular earthwork enclosure	Not Known ? Iron Age LIA finds	Wall 1907, 252-3; TLAS 7, 23; TLAHS 47, 73; Liddle 1982, 26
Lincolnshire			
Borough Banks, Old Somerby	Kesteven Uplands	Not Known ?? IA	Lincolnshire SMR
Careby Wood Camp	Kesteven Uplands Double ramparted oval enclosure	Not Known ?? IA	Phillips 1934, 102; May 1976
Honington Camp	Kesteven Uplands Double ramparted sub-rectangular Hillslope / plateau fort	Not Known ?? MIA	May 1976
Round Hills, Ingoldsby	Kesteven Uplands Small circular enclosure with single bank and ditch, putative Hillslope fort	Not Known ?? IA	May 1976
Tattershall Thorpe*****	Lower Bain Valley Lowland enclosure of uncertain function, possible 'marshfort'	MIA to LIA	See above, Section 5.2
Northamptonshire			
Arbury Banks, Chipping Warden	Hillfort	Not Known	RCHME 1982, 27-9
Borough Hill, Daventry*	Large multivallate contour hillfort	LBA / EIA	See above, Section 3.1
Borough Hill, northern hillfort	Hillfort	Not Known ? MIA	RCHME 1981, 63-5
Castle Yard, Farthingstone*	Hillfort	? EIA and/or MIA	RCHME 1981, 86-7; Knight 1987
Crow Hill, Irthlingborough*	Hillfort	? EIA, MIA and LIA	Parry forthcoming
Egg Rings, Salcey Forest	Enclosure, possibly a small hillfort	Not Known	Woodfield 1980
Guilsborough	Hillfort	? EIA and MIA	Cadman 1989; Pattison and Oswald, 1994; RCHME 1993
Hunsbury*	Hillfort	LBA / EIA to LIA	See below; cf. Kidd 2000
Rainsborough*	Hillfort	LBA / EIA and MIA	Avery et al. 1967; RCHME 1982, 104-5; cf. Kidd 2000
Thenford	Circular earthwork	LBA ?? Iron Age	RCHME 1982, 143-4; Northamptonshire SMR
Warden Hill, Chipping Warden	Possibly a small hillfort	Not Known	cf. Kidd 2000
Nottinghamshire			
Burton Lodge, Burton Joyce*	Mercia Mudstone Uplands Earthwork enclosure, located by a hill crest	Apparently Iron Age (IA finds)	Mein and Revill 1951; Simmons 1963; O'Brien 1979, 309
Combs Farm, Farnsfield*	Mercia Mudstone Uplands Promontory fort, defined by extant ditch, with rampart and possible second ditch	Not Known ? Iron Age	Walters 1910, 26-7; Simmons 1963; O'Brien 1979; Bishop 2000

Crow Wood, Styrrup*	Bunter/Sandstone District Lowland enclosure, possible 'marshfort'	? Iron Age	Badcock and Symonds 1994; Parker Pearson and Sydes 1997
Dorket Head, Arnold*	Mercia Mudstone Uplands Plateau earthwork enclosure	LBA and/or EIA; Late Iron Age; (also Roman finds)	Turner and Swarbrick 1978; Turner and Turner 1997
Fox Wood, Woodborough	Mercia Mudstone Uplands Possible hillfort defined by ditch and bank with internal division	? Iron Age; (? IA, plus Roman finds)	Oswald 1939; Simmons 1963; O'Brien 1979, Fig. 6
Old Ox Camp, Oxton	Mercia Mudstone Uplands (overlooked) Multivallate hillslope enclosure	Not Known	Simmons 1963; Bishop 2000
Rutland			
Ridlington	Hillslope enclosure above the Chater valley	? LBA	Clay in press

Table CCC: Some Hillforts and Analogous Sites of the English East Midlands (Excludes some certain 'Ringforts'. *Denotes that a site has been sampled via excavation)

Hunsbury, in Northamptonshire, is a site of considerable regional importance. It is a rare example in the East Midlands of, apparently, a 'developed hillfort' (cf. Cunliffe 1991). During, at least, its 'developed' phase, it was the location for intensive activity, and evidently intensive occupation (Baker 1891; Dryden 1885; Elsdon 1976; Fell 1936; George 1917; Ingle 1994; Jackson 1994b; RCHME 1985). A substantial and regionally important artefact assemblage has been gathered from the site, which continues to offer significant research opportunities. The site is a strong candidate for 'central place' status, and its role in relation to its social hinterland has begun to be explored.

Two possible 'marsh-forts' exist within the region, namely the enclosures at Tattershall Thorpe, Lincolnshire (Section 5.2) and at Crow Wood, Styrrup, in north Nottinghamshire (cf. Table **CCC**). Parker Pearson and Sydes (1997; after Riley 1980, 35, pl.15) claim an example just to the north of the present region at Moorhouse Farm, Tickhill. Further characterization work is required in these instances. There is a good prospect of further sites of this type being identified in the region on 'higher ground' within low lying areas, potentially in the Ancholme, Witham and Trent valleys, or in the Lincolnshire Middle Marsh. There is also a prospect of locating later prehistoric 'defended' sites of various types in the area of the Lincolnshire Outmarsh, conceivably well preserved below marine silts and alluvium (though both the Middle Marsh and the Outmarsh have witnessed little archaeological intervention both in the past and recently).

As was standard in Britain during the 20th century, attention has been focused upon the defences of these hillfort sites, with the research aim of identifying 'sequence and date', as for instance at Breedon Hill (a site with a most chequered biography during the 20th century). Regionally there has been a woeful lack of examination of the interiors of hillforts. Nor has there been much in the way of excavation in their immediate surroundings. In sum it is unclear in most cases how intensively hillforts were used, when and in what manner. We still do not know the answer to the question of whether they included all year round settlements, and to what extent they are comparable, in terms of their social role, with hillforts in the Welsh Marches, Wessex and elsewhere.

Although, nationally our understandings of hillforts have adjusted rapidly since the mid 1980s their potential 'defensive' functions cannot be discarded. Indeed some at least in our region may be the consequence of social tensions during the Late Bronze Age / Early Iron

Age, or a desire to collect and protect (new or different types of) agricultural surplus. A specialised role/s can be assumed (cf. Hill 1993; 1995b).

Summary:

- Hillforts and analogous sites are not a major class in the region.
- The frequency of these monuments varies across the region.
- Their morphology is varied.
- Chronological understanding is variable, from site to site, but generally limited.
- There has been little investigation of their interiors and exteriors.
- Some have yielded evidence of domestic occupation (eg. Breedon Hill (Kenyon 1950), Borough Hill in Leicestershire (eg. Brown and Simpson 1968) and Mam Tor (Barnatt and Smith 1997)).
- In general it is likely that these are complex sites.
- Their relationship to the contemporary social structure and practice is unclear; some appear certainly to have been 'central places'.
- Some sites have been extensively damaged due to extraction (eg. Breedon Hill, Hunsbury, Tattershall Thorpe); almost invariably these sites are now protected, though protection often stops at the fringe of their extant earthworks; present threats to these sites are limited (though 'drying' is seemingly a problem in the case of Tattershall Thorpe).
- The state of preservation of some of these sites may be considered good (eg. at Honington Camp).
- The identification of further hillforts, marsh-forts and other sizeable 'defended' enclosure sites is likely from time to time, perhaps most likely in lower lying areas.
- They remain a valuable resource of the region but the context in which work at these sites may be conducted in the next decade or two is unclear; surface survey is likely to make a valuable contribution to knowledge (see Research Agenda).
- The research potential of these sites, when subject to integrated and structured programmes, is indicated by the results of previous work at Breedon Hill. This potential, however, is a long way from being realized and will need to include related survey of their environs (see Research Agenda).

10. Linear Monuments

Long distance linear boundaries are one of the characteristic features of the first millennium BC in eastern England. These systems include pit alignments and single, double and triple ditch/dyke arrangements. They display diversity, not least in morphology, and so synthesis is not simple. Broadly speaking, these monuments make their debut in the Late Bronze Age. Whilst displaying some diversity of detail and morphology these monuments are grouped together here, not least because they seem to have shared similar functions in bounding the landscape; in a number of specific cases these monument types appear closely related (cf. Fearn 1993; Boutwood 1998). The functions and meaning of these widespread features were doubtless not universally the same; they are, for us, enigmatic and have no firm precursor. Nonetheless, there is patterning to their incidence within the landscape and there are a number of clear examples were they evidently respect existing anthropogenic features. They mark a new episode in the dynamic unfolding of cultural landscapes in later prehistory and there is a tacit consensus that they represent significant boundaries of a political-economic sort. Much of the evidence for these features comes, unsurprisingly, from aerial reconnaissance, though a number have been examined through excavation.

These boundaries are an important component of the later prehistoric record of the region, being germane to any broad attempt to interpret its social relations and development. Nonetheless these features have remained a comparatively untapped resource, receiving

comparatively minuscule investigation until recent years. Before the present fashion for landscape studies these monuments were subject to little attention whilst fieldworkers concentrated upon settlements. That they are linear, of large scale, occur in rural settings and characteristically yield little cultural material mitigates against their detailed investigation. The advent of PPG 16 has of course lead to greater investigation, though this is via evaluation and limited sampling. On the other hand, these monuments are a comparatively well preserved class being the repository of much potential data upon environment and culture during the period. Having received much attention during aerial reconnaissance, several valuable surveys and studies involving their systematic mapping, characterisation and interpretation are now to hand (eg. Pickering 1978; Boutwood 1998; Thomas in press).

Pit Alignments: 'Pit alignments' is a suitably descriptive term, rather than an interpretative one, for strings of pits (variable in scale, but often oval or sub-rectangular in plan and the size of a particularly large desk) normally found arranged in single lines (though sometimes in paired rows), and which can extend for distances of up to c. 1.1km. Such alignments occur across the region, though far from uniformly. Whilst they are not unique to the region they are a comparatively well represented monument class, to the extent that they may be cast as one of its distinctive later prehistoric characteristics. There are, unsurprisingly, both sub-regional differences, and differences in the numbers so far recorded in the constituent counties. There is a strong patterning to their incidence in Linclonshire, for instance, where they are well represented in the Welland valley and on the Limestone uplands, but virtually absent elsewhere; Boutwood (1998) has stressed that this is very likely to be indicative of an actual archaeological trend.

Pit alignments are a form of monument which, it is generally accepted, became popular in the Late Bronze Age and which are, normally, a first millennium BC phenomenon (cf. Fearn 1993). The dating of pit alignments is, however, often not straight forward. Dating evidence is elusive (eg. Boutwood 1998, 39). At Messingham in North Lincolnshire, just to the north of the present region, for instance, a series of alignments were investigated but yielded no artefacts (Laskey 1979, 74). When available, dating evidence typically indicates a Late Bronze Age / Early Iron Age date, as for instance at Eye Kettleby in north Leicestershire (Finn 1998) and Tallington, Lincolnshire (Gurney et al. 1993). When sequences are discernible, it is clear that pit alignments precede settlements of Middle Iron Age date (cf. Kidd 2000). Where encountered though their dating must be considered a priority for investigation (cf. Research Agenda).

While the large majority of examples have been identified via aerial reconnaissance, pit alignments are, not infrequently, unanticipatedly encountered during fieldwork, occurring were no previous indicator was known. Some excavated examples of pit alignments in the region are listed in Table **DDD**.

In Derbyshire and Nottinghamshire pit alignments are present in the Trent Valley. The Nottinghamshire SMR has as many as 74 listed examples (pers. comm. G. Baddeley; RCHME 1960; Whimster 1989), and the total for Lincolnshire is similar (c. 70; cf. Boutwood 1998). In both Nottinghamshire and Lincolnshire, however, only a very few examples have been examined via excavation (cf. Table **DDD**). In Leicestershire and Rutland over 50 pit alignments are recorded on the SMR (cf. Pickering and Hartley 1985). In Northamptonshire the equivalent figure is much higher at 136 (here again principally known, of course, from observed cropmarks). Unsurprisingly, most pit alignments identified in these counties are associated with permeable geologies (as in the Nene valley, and in southwest and north-east Northamptonshire). Differences of geology and the amount of development and quarrying undertaken in these counties probably goes some way towards explaining this differential between them. Small numbers are, however, known on the impermeable geologies, for

instance, at Crick (Kidd 2000). Analysis by Boutwood suggests that there is a strong cultural element to their distribution.

Site	County	Reference
Aston Hill	Derbyshire	Abbott and Garton 1995
Swarkestone Lowes	Derbyshire	Knight and Morris 1997; Elliott and Knight 1999
Eye Kettleby	Leicestershire / Rutland	Finn 1998
Glentham Cliff	Lincolnshire	Jones 1988
Long Bennington	Lincolnshire	Fearn 1993
Tallington	Lincolnshire	Gurney et al. 1993
Messingham	North Lincolnshire	Laskey 1979
Briar Hill	Northamptonshire	Bamford 1985
Crick	Northamptonshire	Hughes 1998
Grendon	Northamptonshire	Jackson 1995
Gretton	Northamptonshire	Jackson 1974
Ringstead	Northamptonshire	Jackson 1978
Wollaston	Northamptonshire	Meadows 1995
Bulcote	Nottinghamshire	MOW 1969, 59; TVARC 1969, 5-6
Rampton	Nottinghamshire	Knight 2000

Table DDD: Some Excavated Pit Alignments of the First Millennium BC in the East Midlands

Some pit alignments occur apparently independently. Often, however, they occur in groups, forming elements within developing landscape systems. One of the best explored examples in the region is the complex at Wollaston, Northamptonshire (Meadows 1995). Here, a co-axial pit alignment system covering an area of c. 2.5km was instituted during the Late Bronze Age / Early Iron Age. There are instances, elsewhere, of two, three and four rows of pit alignments traversing landscape. These multiple alignments may represent 'additions' to an original alignment (cf. J. Pollard 1996).

The interpretation of pit alignments has been a matter of debate (cf. Taylor 1996; 1997). Their origins are not certain, but it has been suggested by Taylor (1996) that they developed from the pit clusters of Later Bronze Age date, as known in Northamptonshire, which were perhaps markers within the landscape. Clay (2000) suggests that the pit groups recorded at Lockington and Castle Donington (Meek 1995; Coward and Ripper 1998) in the Trent valley, may have been clusters of this type. Taylor has pointed out that pit alignments often appear to have been constructed in relation to other 'places' in the landscape, not least ceremonial monuments of earlier prehistory, between which they may extend (Taylor 1997); Boutwood (1998) notes some evidence for this. Whether they were constructed with the intention of describing 'owned' territories or for demarcating certain rights, or not, their appearance points to a major reorganisation of landscape, often in valleys, or a manifestation of existing definitions, perhaps previously expressed or known by other means. Significantly, Boutwood (1998) notes a correlation between pit alignments and water courses in the Lincolnshire area; the explanation for this is unclear but she suggests that this may have both practical and ritual/symbolic elements relating to access to water (for pasture animals) and in emphasizing a natural boundary (cf. Hingley 1989a, 143-4).

Linear Ditch Systems: Monuments of this type are numerous and widely recorded in the East Midlands, in the from of single, double, triple and even quadruple parallel ditches. Triple ditches are particularly well recorded. Jones (1988, 19) and Boutwood (1998) have discussed what the duplication of these linear ditches may represent. Detailed study shows that these are often far from straightforward features. Some were long-lived features, some show re-cutting, some are certainly multiperiod; they occassionally include pit alignments; ditches may have been added in the life of the monument; field investigations have, on occasions, revealed more ditches than are apparent on aerial photographs. The biographies of each system are likely to have varied, while sequences and associations are detailed. Normally they are traceable for a few hundred metres, though some have been traced for as much as 3 km. They are not particularly regular in form and alignment; but typically do not respect topography. Again they are a distinctive, though not unique, aspect of the region during the period. Analogous monuments occur in other parts of eastern England, especially East Yorkshire, Norfolk and Hertfordshire (eg. Stoertz 1997). Most are known from aerial photography, but at 'The Larches', Stowe-Nine-Churches, in Northamptonshire, a length of a triple ditch system is extant as an earthwork over 600m, continuing as a cropmark for a further kilometre (Moore 1973; RCHME 1981, 179-81); two earthworks are recorded by Boutwood (1998) in the case of Lincolnshire. As with pit alignments they are particularly well attested in Northamptonshire, and Leicestershire and Rutland, and south-west Lincolnshire (35 in total are known in the latter county). Some fourteen double or triple ditch systems are documented in the Leicestershire and Rutland SMR.

Without excavation, of course, these ditches are not closely dateable. Yet sampling via excavation does not necessarily result in firm dating evidence, particularly *vis-à-vis* the date of their cutting. Their debut, as a monument type, seems to date to the Late Bronze or Early Iron Age. The primary fill of the dyke system at Ketton, for instance, dates to the earlier Iron Age, though the monument continued in use into the Late Iron Age (Mackie 1993). Radiocarbon dates obtained for the primary fills of two ditches at Rectory Farm, West Deeping, indicate a Late Bronze Age to Middle/Late Iron Age date (Hunn and Rackham forthcoming). Excavations on a triple dyke on the northern outskirts of Lincoln yielded Late Iron Age pottery from lower ditch fills (Palmer-Brown 1993b); between two of the ditches the base of an eroded bank was present. At Greetwell, Lincolnshire, the pottery from one ditch was typologically Middle Iron Age, while another contained Late Iron Age/early Roman pot (Boutwood 1998; Lincolnshire SMR).

The distribution of multiple-ditched linear boundaries includes a band across the east and south of the East Midlands from the Humber to Northampton (cf. Boutwood 1998). The limestone geology here certainly gives rise to particularly responsive soils (eg. Everson 1978; Jones 1988, 13). That these features are essentially absent from eastern Lincolnshire, is a pattern that seems genuine as, for instance, the soils of the Wolds are likewise conducive to cropmarks. Pickering noted what he believed to be a tendency for some of the systems either to follow the alignment of the Jurassic Limestone Ridge, or lie at right angles to it (cf. Pickering 1978; Everson 1978; 1979), that is west to east, and north to south . On the Chilterns in Hertfordshire, multiple ditches are situated at right angles to the Ickneid Way (Bryant 1997), a phenomenon which seemed to offer a parallel for the Jurassic Ridge. Pickering suggested that the features were elements of a widespread network. In fact synthesis of old and new evidence shows that the predominant alignment is not exactly as Pickering had thought, but rather north-west to south-east and south-west to north-east.

Site	**County**	**Date**	**Reference**
Single Linear Dykes:			
Willoughton Cliff	Lincolnshire	Cropmark	Jones 1988, 19
Gretton	Northamptonshire	1st Mill. BC	Jackson 1974

Double Linear Dykes:			
Long Bennington	Lincolnshire	Cropmark	Boutwood 1998
Waddingham	Lincolnshire	Cropmark	Everson 1979
Gretton	Northamptonshire	LBA/EIA	Jackson & Knight 1985
Preston & Ridlington	Rutland	?IA; to be confirmed	Beamish 1997
Tixover	Rutland	LIA	Beamish 1992
Tixover	Rutland	No dating evidence	Mackie 1993
Triple Linear Dykes:			
Brauncewell Quarry	Lincolnshire	? LIA	Boutwood 1998; Lincolnshire SMR
Lincoln, Nettleham & Greetwell	Lincolnshire	Fill in LIA	Everson 1979; Field 1980; Palmer-Brown 1993b
Long Bennington	Lincolnshire	No dating evidence	Fearn 1993
Brampton/Pitsford	Northamptonshire	LBA/EIA	Northamptonshire SMR; cf. RCHME 1981, 16-21
Stowe-Nine-Churches, The Larches,	Northamptonshire	Earthwork	Moore 1973; RCHME 1981, 179-81
Ketton	Rutland	EIA to LIA	Mackie 1993
Quadruple Linear Dykes:			
Allington, Glebe Farm	Lincolnshire	Cropmark	Pickering 1978
Blyborough	Lincolnshire	Cropmark	Everson 1979
Willoughton Cliff	Lincolnshire	Cropmark	Jones 1988, 19

Table EEE: Some Linear Dykes of the First Millennium BC in the East Midlands

There is a general consensus that the multiple boundaries were not 'defensive' in function. Of themselves they would not, in many cases, have presented an effective barrier, though if combined with banks, palisades and hedges they may have been. Nonetheless they seem likely to relate to controlling the movement of people and animals; they may have been both boundaries, and served as trackways. A quadruple linear ditch system is known as a cropmark from near Allington, south Lincolnshire, with a rectilinear enclosure adjoining on one side (Pickering 1978). Indeed, in searching for associations between multiple ditches and other anthropogenic features Boutwood (1998) noted a correlation with 'washing line' enclosures. These small enclosures may have been pounds for stock, as at Brauncewell (Taylor 1998; cf. Pryor 1996). 'Junctions' of these features are known, for instance, at Long Bennington (Pickering 1978; Fearn 1993). In the case of Northamptonshire the association of long linear ditch systems with axial boundaries and settlements is comparatively clear (cf. Kidd 2000), as in the Nene valley at Ecton/Sywell (RCHME 1979, 47-50 and 144-5).

There are no certain cases of dyke systems around or adjacent to aggregated settlements as was the case further south during the Late Iron Age (eg. at Colchester and Chichester). Dykes occur east and north of Lincoln (Everson 1978; 1979; Field 1980; Palmer-Brown 1993b) but these are morphologically no different from the dykes occurring elsewhere in the region, contained Late Iron Age pottery and, besides, no sizeable settlement of any standing is known at Lincoln during the pre-Roman period.

Discussion: There is evidence that these features were a focus for votive and structured deposits during the Iron Age, something which should not occasion surprise given that they

were evidently boundaries (cf. Hingley 1990). Pottery, animal bone and, notably, fragments from two Nauheim brooches and a metalworking mould were recovered from the fills of a triple dyke system at Ketton (Mackie 1993). Turning to pit alignments, at Long Bennington a horse long bone had been inserted vertically into a pit during its silting (Fearn 1993), while at Tallington horse and human skull fragments occurred in pit fills (Gurney et al. 1993). At Gretton the terminal pit of an alignment contained a copper-alloy ring-headed pin probably deposited originally in association with textiles (Jackson 1974).

Pit alignments and parallel linear dyke systems in the region are distributed in similar areas (cf. Boutwood 1998, Figs 2 and 8). Often though they seem to have served different functions, as detailed scrutiny reveals that they often occur in mutually exclusive locations, or so it appears. Caution is required as the relationship between pit alignments and ditch systems is not straight forward, nor, yet, well understood. There are a number of cases where a relationship can be observed. Taylor (1996) has noted cases in the region where pit alignments have been replaced by ditches. An earthwork ditch and bank at Harlestone Firs, Northamptonshire, for example, seems to continue an adjacent pit alignment, known via cropmarks (Cadman 1995). The pit alignment at Eye Kettleby (cf. above) was replaced by a ditch. Additionally, a group of triple ditches in the Brampton/Pitsford area north-west of Northampton that cut across spurs of higher ground, isolating them, may be contemporary with a complex of pit alignments (cf. Kidd 2000). There are cases of parallel ditches associated with parallel pit alignments, of two pit alignments and a parallel ditch.

Whilst not unique to the region, pit alignments and linear dyke systems are particularly well represented, and were clearly significant entities. They hold much potential for investigating social relations and organization, as well as questions relating to the phenomenology of landscape.

Our understanding of long distance linear monuments has improved greatly in recent years. It is now clear that they were long-lived in at least a proportion of cases, and probably severed a variety of functions. Further advances will doubtless be achieved following the plotting of these monuments via the National Mapping Programme of the RCHME, and studying their character and distribution using GIS and other tools. Engaging the matter of their differential visibility, that arises from the nature of subsoils, will be of importance in the immediate future. One obvious question is how these features may relate to agricultural practice and changes in practice, for instance to a putative end to transhumance, and the shift from apparently 'open' land to defined 'domains' of territory (cf. Bishop 2000). Their relationship to the 'brickwork' field pattern of north Nottinghamshire is also a matter for investigation. Their manifestation and large scale are an index of widespread local, communal, organization and political or social structures. Whether they relate to local imperatives to land division amongst comparatively modest sized communities, as Boutwood has suggested (1998), or are manifestations of tribally organized large scale systems of demarcation (cf. Hingley 1989b), or indeed whether they arise from various motivations remains uncertain. Clearly, their investigation is potentially very important for our understanding of society at this time. That they could be brought into being also demonstrates the powerful resource base of the period, demographic, economic and 'political'. The construction of such boundaries if, as is generally surmised, they relate to the definition of 'owned' territories presumably played a role in the generation and maintenance of group-identity.

11. Ritual, Structured Deposition and Religion

As with other regions of the British Isles the corpus of recognized ritual and structured deposits of the first millennium BC in the region is growing, particularly as a consequence of a renewed interest in such phenomena (cf. Merrifield 1987; Hill 1995c; Bradley 1990; Hingley 1992). Many finds that may be attributed this status were found long ago, being 'spectacular'

items of metalwork from riverine contexts in the region (May 1976). Now there is a growing consciousness that intentionally placed and structured deposits were seemingly commonplace within the life and times of later prehistory and that they may take the form of modest, even mundane and highly fragmentary, artefactual or ecofactual items. Hence they are likely to be encountered fairly routinely during interventions into the remains of this period and should be anticipated. They offer a further and potentially highly useful point of access into the belief systems of the period, which only now are we beginning to explore in an sophisticated manner, (and may provide attractive frontispieces for reports). As archaeological awareness of these activities and deposits grows for this period it is possible to detect patterning to their character. On the whole the patterns discernible in the case of the East Midlands echo more widely recognized trends in British later prehistory.

There is a broad chronological configuration in the evidence as regards metalwork. A tradition of deliberate deposition of fine metalwork items (eg. swords) characterises the Late Bronze Age. This, however, ends with the Iron Age transition, with such deposits being highly exceptional during the mid centuries of the millennium. A 'resumption' in the deposition of fine metalwork then occurs in the later Iron Age. This sequence is apparent, strikingly, at Flag Fen, Cambridgeshire on the south-east margin of our region (Pryor et al. 1992). It is evident too, for instance, in the metalwork from the Trent in Nottinghamshire where a series of Late Bronze Age metalwork finds have been recovered from the Trent, as too have La Tène style metal items (cf. Bishop 2000; Phillips 1934, 105; May 1976, 128-9; Watkin et al. 1996). This trend *vis-à-vis* metalwork is recognisable elsewhere in Britain (cf. Hunter 1997). Yet it is not necessarily a reliable guide to chronological trends in structured or ritual deposition generally.

Consideration of the materials and functional types selected for such activities again reveals preferences and patterning. Metal items are prominent in the corpus of such finds. The metalwork selected for ritual and structured deposition very often represents items relating to warfare, 'productivity', status and control. Hence during the Late Bronze Age and Later Iron Age this metalwork includes swords (and their scabbards), spears and shields, representing elegant and often elaborated pieces symbolic of power and martial status. Also occurring are such items as axes and artefacts relating to the production of metal, in other words items that facilitate agricultural production and the ability of manufacture material culture that will help alter and 'control' the natural and social environments. From Billingborough in southern Lincolnshire, for instance, an iron metalworking 'poker', recovered during excavation is an apparent votive deposit (Chowne et al. 2001, 95).

Turning to a different artefact class, it is clear that querns were also deposited in symbolic locations and as selected deposits (cf. Hingley 1992; Willis 1999, 99). This phenomenon has, however, yet to be systematically examined across the region. The role of querns in converting grain to flour is likely to have resulted in their being invested with particular significance, and seems likely to account for their selection as votive and components of structured deposits. The first millennium BC was, of course, a period during which grain production (and management) was especially prominent. At Wanlip a number of querns both saddle and rotary type were found together, evidently forming a structured deposit (Beamish 1998; Marsden 1998a, cf. above, Section 5.6)). Querns found in pits at Ancaster Quarry (May 1976, 136) and Hunsbury hillfort may too perhaps be elements of structured deposits, as too may some of the querns from Breedon Hill. At Crick, Northamptonshire, a 'placed' quern was found at the centre of a supposed ritual structure.

Structured deposits including faunal remains are also coming to be recognized across the region: at Wanlip (Beamish 1998), sheep at Ancaster Quarry, a dog burial and perhaps that of a crane at Billingborough (Chowne et al. 2001) and potentially an assemblage of calf bones from the top fill of a major ditch at Nettleton, Mount Pleasant, Lincolnshire (Stallibrass 1999). Human skeletal material seems likely to have been subject to ritualized processes. The

'unusual' treatment of human skulls is noted above (Section 8), though in truth these are rare instances.

Some groups of varied 'mundane' remains encountered at settlement sites also appear to be special structured deposits. This seems to be the case at the Late Bronze Age ringfort at Thrapston, Northamptonshire, where antler, pig bone (burnt) and pottery was encountered in ditch fills. Similarly at Elms Farm, Humberstone (Charles et al. 2000, 159-60), dating to the Middle to Late Iron Age complete/near complete pottery items, animal bone and metalworking debris occur in groups the contexts of which are suggestive of special areas and boundaries, etc. The site at Wanlip, Leicestershire (Beamish 1998), dating to the earlier Iron Age, shows a combination of settlement, ritual and mortuary activity. As Clay notes (2000) this evidence may be indicative of a trend noted elsewhere in the Early and Middle Iron Age (cf. Hill 1995c) of ritual events and acts occurring within domestic settlements.

Considering the possible use of organic material in such activities, samples routinely collected in order to capture palaeoeconomic / palaeoenvironmental data may well lead to the identification of special / structured deposits of various kinds.

As elsewhere in the British Isles, the contexts of deposition, from which these ritual / votive items have been forthcoming are very often boundaries, thresholds, and 'watery' locations (cf. Fitzpatrick 1984; Hingley 1990). The aforementioned poker excavated at Billingborough had been deposited in a silted Bronze Age boundary ditch. That pit alignments and linear dykes were the focus for structured deposits is noted above (Section 10).

As is widely appreciated thresholds and entrances, of both settlement enclosures and roundhouses are often associated with finds of this type, typically of ceramics (cf. Gwilt 1997). There is, for instance, a clear pattern in the incidence of the main pottery groups encountered within features at Elms Farm, Humberstone: almost invariably they occur at or by the termini of roundhouse ring gullies (Charles et al. 2000, Illus. 42).

The metalwork from the Witham and the Trent indicates an association with running water, and, indeed particularly with the great rivers of the region. On the other hand a La Tène III sword came from a palaeochannel at Aldwincle (Megaw 1976)) of more modest scale. Bogs and 'natural' water sources might also be anticipated repositories for such material. There is a noteworthy absence from the East Midlands of the type of made shafts known from other areas of Britain (cf. Webster 1997). Wells and water pits occur of course at settlement sites (though they are less frequently encountered than on Roman sites). As elsewhere, examples may have been the focus for ritual deposits and when encountered should be excavated with this possibility in mind.

Whilst some areas of southern Britain saw the emergence of numbers of shrines during the later Iron Age there is some lack of identified shrines across the East Midlands. The sites at Wakerley and Weekley, Northamptonshire, may have performed such a function (Kidd in press; Gwilt 1997) whilst the site at Thistleton (Allen 1965; Liddle 1982; Whitwell 1982) evidently had a Late Iron Age pedigree. It is likely that many of the sites identified in Lincolnshire and adjacent areas by May (1984; 1994) as yielding sizeable assemblages of Iron Age coins were shrine / temple sites, the coins being votive deposits (Willis and Dungworth 1999). (Kidd (2000) notes several other possible ritual structures in Northamptonshire: at Crick (Chapman 1995), Stanwell Spinney (Dix and Jackson 1989) and Wilby Way, Wellingborough (Enright and Thomas 1998; 1999)). The enigmatic site at Red Hill, Ratcliffe-on-Soar probably included a late Roman temple; this may well have had its origins as an Iron Age shrine (Challis and Harding 1975; Elsdon 1983).

This short review demonstrates that types of structured deposits and ritual were quite common within the East Midlands, and are to be anticipated in future interventions. Some features and activities, however, noted elsewhere in later British prehistory are not (yet) attested in the region (eg. ritual shafts) or thinly represented (eg. rituals involving heads; shrines). There have been a number of advances in the recognition of these types of remains

in recent years in the region, but recognition remains a challenge in some ways (eg. with the identification of shrines?), perhaps requiring the directed application of particular methodological approaches (cf. Gwilt 1997).

There is perhaps a tendency amongst the archaeological community to conflate structured and selected deposits as representing similar belief systems and 'rituals' in all cases; however, the understandings and meanings of these practices for people in the first millennium BC were doubtless complex and textured. Many such activities are likely to represent strategies (becoming routines) relating to the negotiation of uncertainties in human life, and status passages. Potentially, as others have pointed out, these undertakings were probably often related to food generation/procurement, fertility, productive and transforming undertakings (eg. quern deposition, the Billingborough 'poker' and the tools from Fiskerton (Field and Parker Pearson forthcoming)), and the dynamics of power and will have occurred regularly on a variety of scales. As more examples of these activities are identified and documented from the East Midlands and as our interpretations develop we should be able to recognise more patterns. We will never open the 'black-box' of past belief systems but the archaeological exploration of this domain should define some parameters and play a role in generating interpretations of society and culture at this time.

12. Social Relations and Society in the First Millennium bc

Whilst this resource assessment is not an apt arena for the detailed consideration of questions of social relations during this era this is a fundamental domain for two reasons. Firstly, social relations will have had a formative influence upon the nature of the remains of the period. Secondly, engaging with the 'big picture' and constructing syntheses and interpretations of the period is one key goal of our engagement with the remains of the period.

The early part of the period may have witnessed the decline of 'transhumance' and increased 'permanent' settlement and land division / holding (cf. Bishop 2000). In the East Midlands, as elsewhere in lowland Britain, the first millennium BC was evidently a period of marked population growth particularly (seemingly) from the middle centuries. This probability remains a matter for investigation and raises many questions. A dynamic of population increase and agricultural colonisation, intensification and innovation becomes apparent, leading to changes in landscape use impacting to various degrees across the region. This dynamic is evidently what drove this society forward. Claylands, The Fens and other wetlands were brought into use (or more intense, different usage). An increase in grain production, but also of other products is suggested by the archaeological remains. These perceived patterns require further investigation using the increasing archaeologically recovered evidence we have of this period.

Social relations during the Late Bronze Age are enigmatic and the degree of social continuity from Bronze into Iron Age is equally obscure. Certainly there were particular sources of social stress during the first half of the millennium (due to climatic change, the full debut of iron, demography, etc.).

Mineral exploitation in the form of iron smelting and metal working, and salt production, together with agricultural production and supplement by crafts, will have been major generators of wealth, perhaps conflict and potentially power. How these new levels and types of exploitation and economy were organized and controlled is a key matter for investigation via theory and interpretation grounded in the evidence of the archaeological remains. Centralising control may have existed, or egalitarian structures may have been in place, or there may have been variations in time and space. The tentative general model of a comparatively egalitarian (long) Middle Iron Age in England being replaced by a more differentiated hierarchical system in the Late Iron Age, as proposed by Sharples (1991) and

Hill (1995a) is seemingly not contradicted by the evidence from much of the present region (there are no indicators of 'Chiefs' in the region, not that is until the latest Iron Age, and then this is only inferred). Model building for specific regions remains an important need (cf. Haselgrove 1999; Haselgrove et al. in press; Willis 1999).

Warfare and hostility seem likely to have been highly infrequent from the Middle Iron Age if not earlier; though this remains a matter for investigation. The martial equipment of the region is largely ceremonial, symbolic and impractical as a means of attack or defence, (though what has been recovered could, due to its votive connections be unrepresentative of the everyday), while genuinely defended settlements are essentially absent. An absence of endemic conflict is implicit in the evident success of agriculture and economy: an absence of armed conflict will have enabled productive activities to flourish. In such a world ritual involving weaponry may have been symbolic. Social cohesion must have been maintained through embedded norms, collective ceremonies and notions perhaps of a collective 'project': food production and social reproduction.

Scrutiny of settlement morphology across the region demonstrates that their designers followed entrenched templates in realising particular settlement elements (eg. circular structures, enclosures, settlement entrances). How these elements were configured, however, varied site to site. In consequence a landscape of settlements existed that shared considerable uniformity of elements but diversity in their assembly. This picture is at variance with the patterns seen in some contemporary regions of Britain where less heterogeneity is apparent. Overall this pattern implies common cultural and phenomenological perceptions.

Moving into the Later Iron Age there is greater evidence for differentiation, both in terms of types of site and in material culture and what is implied by the material culture (cf. Hill 1997b). The debut of coinage and the greater use of personal accoutrements (eg. brooches) and attention to the appearance of the self in society implied by cosmetic instrument sets may be bound up with status and a new or more manifest categorisation of individuals (cf. Hill 1995a).

Prospect

The East Midlands is very rich in archaeological remains of the first millennium BC. A very small proportion of these remains have been recovered archaeologically: extensive extant remains are known via, for instance, aerial photography; in places these remains are expansive and dense.

Archaeological evaluations undertaken in locations with no previous record of evidence for the period are regularly finding sites particularly of Middle and/or Late Iron Age date in many areas in the region (though not all areas). A great many new instances of first millennium BC stratified remains, indeed, have come to light following the introduction of PPG 16, while the numbers of finds (especially metal items) of the period being recorded subsequent to recent initiatives is very substantial. There is a received impression amongst those working in the region that there are now more Iron Age settlement sites 'positively' identified than those dating to the Roman period.

The remains are complex and profoundly varied in type and nature. Through study and synthesis they carry tremendous potential for informing us about the 'life and times' of this period: the everyday, the mundane, the special, and the event. The region shared in processes discernible elsewhere in Britain but has distinctiveness and both regional and sub-regional dimensions of variation. The diversity of settlement evidence and of material culture known includes some breath-taking foci of human activity (eg. Mam Tor) and more 'ordinary' domestic settlements, while the latter includes some of the most impressive metal artefacts to have been recovered in Britain, for instance the Desborough mirror and the Witham shield. A great deal remains to be either unearthed or preserved in situ. The rich nature of these

remains, through analysis and (changing) interpretations provides an impression of how people situated and structured their lives, tackled practicalities and negotiated beliefs. Strengths and weaknesses exist in the record and their clarification by means of the present review process has highlighted a series of research priorities.

East Midlands Archaeological Research Framework

An Archaeological Research Agenda for the Later Bronze Age and Iron Age (The First Millennium BC) in The East Midland Counties of England:
comprising Derbyshire, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire and Rutland

Steven Willis

Contents:

Introduction

The contents of this document are arranged under a series of substantive headings which broadly follow the headings appearing in the Resource Assessment. Under each heading three domains are addressed (as appropriate), these being: Key Gaps in Knowledge, Potential for Research and suggested Research Topics. In some cases general statements and observations are recorded, while in other instances, specifics are stated.

This Agenda document was drafted in May 2001. It follows logically from the Resource Assessment, to which it is closely related, and draws on various discussion meetings, not least the original Research Framework meeting held in Leicester in March 1999. The draft of May 2001 was made available to interested parties via the internet and in hard copy. It was presented and discussed at a round-table held at the Snibston Centre, Leicestershire on 24 May 2001. The meeting was organized by Nick Cooper, with approximately 25 people in attendance. Feedback on the content of the Agenda as a result of this meeting and subsequently, via its posting on the internet, was incorporated into a revised draft. The Agenda document was finalised in early April 2002.

Input into the Agenda has come from a wide variety of sources. The author (Steven Willis) is solely responsible for its form and composition; any gaps are to be regretted but to some degree may arise from a lack of proactive feedback in specific cases. The author is particularly grateful to Nick Cooper, JD Hill and David Knight for assistance with various aspects.

A national research framework document for the Iron Age was published in September 2001 entitled *Understanding the British Iron Age: an Agenda for Action*, (Haselgrove et al. 2001). This document identified gaps in knowledge, priorities and ways forward in terms of a British perspective (covering England, Scotland and Wales, but not Ireland). This document is referred to below in several instances, where it is identified as by the abbreviation UBIA.

1. The Resource: Knowledge and Coverage

1.1 Key Gaps in Knowledge

1.1.1 General State of Knowledge

Overall our knowledge is very incomplete and partial. For the period c. 1000-500 BC in particular, and in some areas generally, the available information is very weak.

For various reasons the collected record in the case of Northamptonshire is comparatively strong, while that for parts of Leicestershire (especially in the hinterland of Leicester), parts of the Fens and the Trent valley is reasonably good and for these areas something of a coherent picture is beginning to emerge. Quantitatively, SMR and other records for the East Midlands, with the exception of Northamptonshire, are thin in many categories (eg. circular structures; ceramics) when set alongside those of other counties, such as East Yorkshire, Bedfordshire and Hertfordshire.

Knowledge is thin for much of Lincolnshire and upland Nottinghamshire, while upland Derbyshire has, within in the East Midlands context, an exceptional amount of positive / upstanding archaeology which is yet to be confidently dated. Some points of detailed, qualitatively rich information, however, exist across these areas. More sampling, especially via targeted excavation (including area excavations), is required for these regions if the disparity between them and other areas is not to widen.

1.1.2 Differences in Knowledge

Major sub-regional differences exist in the quantity of information available within counties. Major contrasts exist between information from areas of permeable geology (more sites and data) as opposed to impermeable geology. Over much of the area a comparatively good record exists for valley bottoms and sides. Contrast exists between areas subject and conducive to intense study by a particular method (eg. aerial photography of large areas of Lincolnshire), and relatively 'blank' landscapes (eg. the Lincolnshire Middle Marsh).

That much of our record of settlement and activity for the millennium derives from river valleys and margins is unsurprising and reflects patterns seen elsewhere for the first millennium BC (eg. in Warwickshire). This is clearly, in part, a consequence of the agricultural practices of the period. Recognition of this trend should not of course prejudice investigations away from such areas.

1.1.3 Development, PPG 16 and Variability in Information Collection

Across the counties the quantity of archaeological fieldwork relating to the first millennium BC has been increasing with the pace of data-collection quickening. Indeed, as in some other parts of Britain the archaeology of the first millennium has been the major beneficiary of PPG 16: that is to say more information relating to this era has been forthcoming as a consequence of PPG 16, in the context of the character of modern development, than for other periods. Development has been consistently ongoing in the region via housing and infrastructure projects, etc. but is invariably patchy with 'hot-spot' areas, mainly around existing urban areas and certain routeways. Consequently new sites and information are disproportionately centred around these localities.

1.1.4 The Availability of Information

Many parties stress the need for projects to be seen through to publication, including back-log sites. There is a call for the publication of a greater proportion of the developer-funded PPG16 fieldwork than is often the case presently. The UBIA document calls for greater accessibility to the results of developer-funded PPG16 fieldwork.

1.2 Potential for Research

The potential for research both at and away from the present 'hot-spots' of developer funded fieldwork is apparent from the Resource Assessment. The first millennium BC archaeology of the East Midlands is of great significance for understanding wider patterns and processes of the period in Britain.

2. Chronology

2.1 Key Gaps in Knowledge

2.1.1 The Problem of First Millennium BC Chronology

The problems of dating the archaeology of the first millennium BC are well characterized (Knight 2002; Willis 2002) and are identified as a major challenge in the Resource Assessment. The lack of chronological precision is rightly seen as an 'Achilles Heel' for studies of the period. Establishing greater chronological subtly for the region via the collection of more absolute, and indeed more precise reliable, 'dates' is highly desirable. *Improvement of the chronological framework will assist advancement in most areas of potential research.*

2.1.2 Dating Audit
An audit of the region's radiometric dates needs to be compiled. This will identify weaknesses in the existing record (cf. UBIA, pages 3-4).

2.1.3 Recommendation: Archaeological Project Specifications
It is recommended in the UBIA document (pages 4-5) that sensible dating programmes are written into Archaeological Project specifications for works dealing with remains of this period as prepared by those responsible for enforcement, including local government archaeologists under PPG 16.

Multiple single entity radiocarbon (AMS) dating should be routine on all excavations of first millennium BC sites. This could draw on samples taken for palaeo-botanical evidence to ensure an adequate choice of single entity samples.

2.2 Potential

2.2.1 The potential of radiocarbon dating is improving via more aware sampling strategies, multiple sampling, accelerator dating and Bayesian techniques. Date ranges acquired may well be sufficiently 'tight' in order to begin to address most of our general research questions at present. Tactics for improving the situation have been developed (cf. the Resource Assessment).

2.2.2 'Tight dating' itself brings forward new questions: the more precise the dating, the more specific are the questions and comparisons that may be made.

2.2.3 Improving Ceramic Chronologies
Improving ceramic chronology is a key issue for the future. Our knowledge and awareness is developing through concerted study, confirming the potential of this field for future research. The chronology of the pottery types of the East Midlands, however, has yet to be defined with refined clarity. Ancaster-Breedon style 'Scored ware' is a prime example, while the date(s) of debut of wheelmade pots across the region is also in need of clarification.

The synthesising survey undertaken by Knight (2002) has been beneficial is collating and assessing the erstwhile disparate information on this subject. It provides an heuristic region-wide 'standard'. It will be generally beneficial if this survey is regularly maintained.

2.2.4 Dendrochronology
There is a good prospect of the occasional recovery of samples suitable for dendro dating (cf. the finds from Fiskerton, Lincolnshire). These should prove especially helpful where they are associated artefact types, such as pottery.

2.2.5 Negotiating 'Constraints'
Existing chronological 'constraints' do not preclude the development of a sophisticated archaeological understanding of this dynamic era. There are many worthy and illuminating themes that can be explored for which the present level of chronological awareness is adequate (eg. spatial analysis).

2.2.6 Luminescence Dating
Luminescence dating of both ceramics and soils remains in principle a potentially useful chronological tool for the first millennium BC. The possibility that this method will prove helpful in providing the degree of close and reliable dating felt to be required by those studying the period is presently, however, uncertain. The utility of the method is, by consensus, still regarded as 'experimental'; date ranges forthcoming so far have been generally broad and in

some cases instructive, though in others erratic. Dates arising from luminescence require corroboration. Comparison of the results of different techniques is important.

2.3 Potential Research Topics

2.3.1 Samples for Dendrochronological Analysis
Potential samples for dendro dating should be targeted where feasible, particularly when they are in situ, in 'secure' contexts and associated with other cultural remains. Recent and past work at Fiskerton in the lower Witham Valley demonstrates the potential for such finds and associations. Suitable samples may be forthcoming from a wider exploration project in this promising buried valley.

2.3.2 Hillforts
Generally the chronology of the region's hillforts is poorly understood. Any future work at such sites should include a dating programme (cf. below). This might be sensibly linked to a programme of environmental analysis, not least in the Peak region (cf. Makepeace 1999).

2.3.3 Derbyshire Field-systems
There are many chronological issues relating to the well-preserved field-systems and settlements of the Peak region and its vicinity. Bevan has noted that 'celtic field' systems in the Peak region, mainly on eastern Moors, have been assumed to be Romano-British due to their apparent association with 'dated' settlements (2000). Bevan suggests that this is still a matter for investigation, with better dating information required (2000, 147). Similarly, dating is required for the sub-rectangular and sub-circular enclosures of the region which, morphologically, appear to be Iron Age.

2.3.4 Pottery Chronology
There is consensus that improving ceramic chronology remains a key research topic as enhancement of knowledge in this field will directly benefit future projects where pottery is recovered. Projects aimed at enhancing our understanding of pottery chronologies are considered a priority for funding. Dating of carbonized remains which are often found on vessel surfaces offers the prospect of directly dating the currency of the types.

2.3.5 Strategic Retrospective Absolute Dating Programme
A selective strategic and retrospective absolute dating programme could be useful to the region (cf. Resource Assessment, Table **BBB,** 'Actual' Chronology of the First Millennium BC
in the English East Midlands; cf. Needham and Ambers 1994).

3. Archaeological Visibility, Site Prospection and Landscape Exploration

3.1 Key Gaps in Knowledge

3.1.1 Regional/Sub-Regional Variations in the Record
There are marked regional/sub-regional variations in the 'thickness' of data-sets for the period (cf. above 1.1.1-2). There is considerable variation, for instance, in the number of SMR records for the period county by county, category by category.

3.2 Potential for Research

3.2.1 Preservation and Visibility

Areas for which the known record for the period is apparently thin may actually possess some of the best preserved sites and landscapes. In a number of areas first millennium BC sites and landscapes seem likely to be masked by subsequent sediments, as in the Middle and Outmarsh of Lincolnshire, and the Ancholme and lower Witham valleys. Contrastingly, the uplands of Derbyshire, with many recorded features, have comparatively few sites dated to this millennium; in fact many of the well-preserved remains and monuments within that landscape may have been in use at that time. There is seemingly much potential in such areas.

3.2.2 Investigation beyond Site 'Boundaries'
Clay (in press) has noted that at Wanlip much settlement evidence was situated outside of the cropmark enclosure. This phenomenon is relatively common elsewhere and has implications for those designing mitigation strategies when enclosure sites are threatened. Some level of investigation beyond detected enclosures and site 'boundaries' should be undertaken in most cases as a matter of course.

3.2.3 Objective Site Prospection
An objective approach is required with regard to the drafting of Archaeological Project specifications, in so far as locations due for development should be subject to archaeological evaluation, even if they appear to be 'blank' areas in terms of SMR records.

3.3 Potential Research Topics

3.3.1 Finding Sites on Clays
In recent years an increasing number of sites on clay subsoils have been recorded, with some sampled by excavation (particularly in Leicestershire and Northamptonshire). Such sites have though on the whole been relatively elusive. Prospection on clay subsoils is to be encouraged (cf. Clay 1989; in press). The dynamics of settlement and agriculture on impermeable versus permeable geologies is an instructive issue having implications for our understanding of unfolding general processes. Initial work in this sphere has shown significant potential. Further environmental data for woodland clearance (or otherwise) on claylands is desirable.

3.3.2 Geophysical Prospection on Upland Valley Floors
Bill Bevan and others have suggested that geophysical prospection of largely pastoral upland valley floors in the north-west of the region may reveal hitherto unsuspected first millennium occupation and activity. This possibility relates to the hypothesis of non-abandonment of the Derbyshire uplands during the first millennium BC (Bevan 2000). Such prospection would test this hypothesis.

4. The Late Bronze Age and Early Iron Age c. 1000 BC - 450 BC: Settlement Archaeology

4.1 Key Gaps in Knowledge

4.1.1 The Character of Sites of this Period and their Detection
There are well attested and profound gaps in our data-set for 'settlements' of this period. This is a serious deficiency. Known sites are modest in number and are characterized, very largely, by limited numbers of small scale features and deposits (cf. Resource Assessment). The elusiveness of these sites is in part explained by their character, plus other known reasons true of all counties. This picture contrasts with that for the Middle and Late Iron Age for which the record is fuller. Addressing this imbalance is a fundamental priority. Settlement and activity of the period exists. Although it is often likely to be qualitatively different in

composition to occupation of Middle and Late Iron Age character it is nonetheless there to be found, doubtless somewhat extensively. Soberingly a large proportion of recorded 'sites' of this period have been located by chance rather than by standard archaeological detection: many discoveries of sites and activity areas of this period have occurred because they underlie more readily detected Middle and Late Iron Age sites.

4.2 Potential for Research

4.2.1 Locating Sites of this Period; Priority

The not infrequent discovery of sites and activity areas of this period underlying Middle and Late Iron Age sites suggested that archaeology for this era can be anticipated on a fairly regular basis when sites of the middle and late millennium are being explored.

Close interval geophysical surveying, and evaluation of all green field areas for development using selective mechanical stripping, has been successful in locating sites of this period in north-west and north-east England, as well as the East Midlands.

Since the Late Bronze Age / Early Iron Age is weakly understood all 'sites' or foci of this period, however ephemeral, should be regarded as having a high research potential.

4.2.2 Revisiting Excavation Archives

It is apparent that archaeologists in preceding decades did not extract the levels of information that are forthcoming from excavation and post-excavation work on a regular basis presently. The archives of past excavations are often a valuable dataset and re-visiting them is potentially highly rewarding (cf. Gwilt 1997) as it may be possible to extract more and different information in light of new perceptions and understandings of the period. (A well recorded excavation and a well curated archive are prerequisite in this respect).

4.3 Potential Research Topics

4.3.1 Earlier and Later Millennium Settlements

Why traces of earlier first millennium occupation and activity underlie (more emphatic) settlement remains of the second half of the millennium is a matter of much interest for our understanding of social developments. It is possible that a proportion of Middle and Late Iron Age settlements represent permanent occupation at localities previously familiar and repeatedly visited during transhumance or other perhaps seasonally related movements (leaving only ephemeral traces) during the years of the earlier millennium (cf. Bishop 2000). The possibility of a restructuring of economy and society, in parts of the region at least, from a mobile pastoralist one to a more sedentary one with fixed land 'appropriation' is a major topic for investigation. More widely the nature of any relationships between earlier and later millennium settlements requires study.

5. The Middle Iron Age c. 450 BC - 100 BC: Settlement Archaeology

5.1 Key Gaps in Knowledge

5.1.1 Increasing Information

There has been an increase in the number of sites of this period being investigated via fieldwork and there have been several significant publications of sites of this period in recent years. Nonetheless, Northamptonshire apart, the corpus of sites in print is meagre. Full

publication of some sites excavated in the 1960s and 1970s would be beneficial, including, particularly Holme Pierrepont and Scratta Wood (both Nottinghamshire).

The Middle Iron Age is sometimes cast as having been an undramatic epoch but this appearance conceals its crucial formative character, upon which the cultural changes more visible in the Late Iron Age were predicated (cf. Hill 1995a). For the East Midlands it is important that sites of this period are fully published.

5.2 Potential for Research

5.2.1 Dynamic Approaches

Recent publication of excavated sites (cf. Resource Assessment) has demonstrated the high and diverse quality of evidence that can be yielded from the study of the settlements of this specific period. Something of a vibrant momentum is emerging involving the development and application of a series of valuable methods, ideas and interpretations which are informing post-excavation and publication projects and changing and enhancing our understandings. This work is revealing the rich potential for research in this era.

5.3 Potential Research Topics

5.3.1 Potential Research Topics are Numerous

Numerous research topics are possible and cannot be feasibly listed here at any length. Some obvious areas for investigation are:

(i) the meaning, causation and possible sequences of settlement enclosure, as opposed to open settlements and settlements placed within field systems

(ii) the potential role of hillforts at this time

(iii) the emergence of land divisions, 'filled' landscapes, and the advent of 'ladder settlements' and 'village' like clusters, as now identified in Northamptonshire and in the Trent Valley (eg. at Rampton)

(iv) the relationship of settlement change to agriculture

(v) the prospect of continued occupation within the Peak region and its hinterland through the middle centuries of the millennium, questioning the 'orthodox' model of abandonment of the uplands at this time (cf. Bevan 2000).

Many of these 'locally observed' changes will presumably relate to macro level processes.

6. The Late Iron Age c. 100 BC - AD 50: Settlement Archaeology

6.1 Key Gaps in Knowledge

6.1.1 A Varied Picture

More sites attributed to this period are published than for preceding eras. Nonetheless the corpus is not extensive and thin for large areas of the region.

The character of apparent aggregated settlements of the period, and indeed the reasons for their emergence are not understood.

Full publication of some sites excavated many years ago such as the often referenced Colsterworth site would be welcome. Publication of sites where Roman settlement appears to overlie Late Iron Age occupation, such as at Sapperton and Thistleton would be beneficial for our understanding of settlement development.

6.2 Potential Research Topics

6.2.1 Characterizing the 'Major Aggregated Settlements'.
Sites characterized by May and others as 'major settlements' of the Late Iron Age, especially in Lincolnshire, but also parts of Leicestershire, are poorly characterized. Information from surface collections, survey and detectorists finds from these sites is recorded but not published and there has been little in the way of synthesis using contemporary tools (or for that matter traditional methods). Synthesis and further surveys are a priority if we are to make any headway in understanding these sites and evaluating their significance in settlement dynamics. The trajectory of these sites into the Roman era should also be fully considered by concerted study.

6.2.2 Aggregated Settlements
Comparison of the so-called major aggregated sites of Lincolnshire/Leicestershire with apparently morphologically similar complexes in Northamptonshire and the Trent Valley (which lack profile raising small metal finds) is due. These sites might be instructively compared with potentially analogous types of site present in regions adjacent to the East Midlands.

6.2.3 Aggregated Settlements: Location and Morphology
The location of these settlements within the landscape is a topic worthy of synthetic study (cf. Willis 1997), as are intra-site spatial arrangements and morphology (in so far as this is known).

6.2.4 Coinage
The Iron Age coin assemblages from the so-called 'major aggregated settlements' of Lincolnshire and part of Leicestershire are due for renewed evaluation in the light of revised thinking relating to the role of coinage in society (pers. comm. Colin Haselgrove and Jeffrey May).

7. Settlement and Landscape

7.1 Potential Research Topics

7.1.1 Integrating, Studying and Interpreting new broad Data-sets
Work undertaken under the NMP is proving valuable and insightful, for instance in identifying sites and monuments (and incipient threats), patterning, morphology types, and the relationship between settlements and other foci and landscape systems. There is much potential for studying this data-set and for its integration with other types of survey and databases. The same applies in the case of the joint English Heritage/Prehistoric Ceramics Research Group survey of first millennium BC pottery assemblages completed recently. Excavation and environmental data, recovered from (now) extensive work is also ripe for broad synthesis liked to GIS.

8. The Agricultural Economy

8.1 Key Gaps in Knowledge

8.1.1 General Picture
Systematic environmental sampling made a relatively late debut in the region compared to other parts of Britain, in part because of the limited extent of fieldwork undertaken until the mid 1980s. Fortunately the corpus of sampled sites has been steadily expanding (though with much of this evidence still to be published). Nonetheless there are large swathes of the region

about which we know little due to a lack of sampling, for instance much of Lincolnshire away from the south of the county, the upland areas of Nottinghamshire and eastern Leicestershire.

Sampling for palaeo-environmental evidence must continue as routine. Only via incremental build-up will we come to construct anything like a coherent picture of agriculture, diet and land use/cover during later prehistory.

8.1.2 The Nature of the Evidence

A particularly low frequency of recovery of both faunal remains and grains characterizes samples from sites of the earlier first millennium BC. This is a significant fact. This limits our scope for understanding the economy of the period.

Low frequencies of charred remains are encountered generally with samples of this era (cf. Monckton this volume). In consequence our understanding of the relative importance of cereals and meat as foods at specific sites and in sub-regions and differing periods is accordingly presently unrobust.

8.1.3 Faunal Assemblages

Monckton and Stallibrass (pers. comm.) have stressed the need for more samples of stratified faunal assemblages.

8.2 Potential for Research

Recent work making the best of the evidence for cereals, animal use and environmental indicators has demonstrated the potential for integrated approaches to reporting palaeo-environmental and economic evidence.

8.3 Potential Research Topics. See Monckton, this volume.

The likely relationship between agricultural developments and processes of settlement and social change (and change in other economic spheres) is a key research area.

9. Finds: Craft, Industry and Exchange

9.1 Key Gaps in Knowledge

9.1.1 Limited understanding of Craft and Industry; better Knowledge of Exchange

Existing knowledge of industries and crafts is generally very weak for the region; for instance *vis-à-vis* iron extraction and smelting, and the organization of productive activities. On the other hand the 1990s saw a growing identification of trade and exchange, across the region, especially in the case of the Middle and Late Iron Age. The latter development is a genuinely exciting one, replacing speculation with evidence. Similarly sustained and new work on pottery has been insightful.

9.1.2 Limitations of Earlier Finds Reports

Until recently much artefact reporting for the first millennium was partial, unsophisticated, unimaginative and only poorly integrated with other specialist reports, site stratification and the site synthesis. Hence such reports are of limited value to present finds specialists. The region is far from unique in this experience which, with notable exceptions, was apparent nationally. Attention to recent publications reveals that this situation has been turned round during the 1990s with 'good practice' and state-of-the-art methodologies being broadly followed. This inheritance of, by modern criteria, inadequate old reports means that finding methodologically comparable, reliable and well provenanced finds data is circumscribed.

9.2 Potential for Research

9.2.1 Artefacts in the East Midlands

Comparatively, the East Midlands has a strong corpus of artefacts and there is the prospect of informative finds upon every new excavation and surface collection in more or less all areas. It is appreciated that artefact studies are capable of releasing qualitatively rich and diverse information upon later prehistoric society.

It is recognized that to be fully useful and as a matter of time-less record, site and survey publications should include *complete records* (in some from such as tables) of what was found, with data arranged in such a way as to render it possible for any reader to 're-construct' what was found.

It is essential that the finds reports, environmental reports and stratigraphic/structural reports are fully integrated if the full potential of site evidence is to be realized; some recent publications of sites in Nottinghamshire and Leicestershire have demonstrated such integration resulting in very useful reports (cf. Main 1999 for an extra-regional example of an integrated approach to finds and site reporting). This, of course, is a principle independent of specific time/cultural periods. It is the responsibility of post-excavation managers and principle authors of site reports to ensure integration.

Concern has been expressed that pressures inherent within PPG16, and the sheer volume of work faced daily by practitioners, does not lead to the erosion of the advances in finds work and publishing witnessed in recent years. Any erosion will compromise the potential for understanding the period.

9.2.2 Artefact Conservation and Materials Analysis

Artefact conservation allied with its integral partner, materials analysis, has been providing much new and often surprising and richly insightful data upon materials, technology and origins in recent years (such as Vanessa Fell's work on the metal tools from Fiskerton). More routine examination of what is in many ways a comprehensive regional ensemble of artefacts (old and emergent from fresh excavations) holds the prospect of revealing new and significant information. Both elaborate and more mundane artefacts carry this potential.

9.2.3 Iron Industries

Evidence for iron industries specifically dateable to the first millennium BC has proved largely elusive in our region despite the probability of their existence in various localities, especially in Northants, Leicestershire and Lincolnshire (cf. Resource Assessment; pers. comm Francis Condron). There is some prospect of identifying industries via sustained survey and an open-mind regarding what types of evidence may indicate smelting and working in the East Midlands at this time (pers. comm. Jane Cowgill). Iron Age industries have been identified in other regions, such as Wales, the Forest of Dean and East Yorkshire, suggesting the potential of the East Midlands, though distinct factors may pertain here.

9.2.4 Salt Extraction on the North Sea Coast and in the Fens

Studies of the salt industry in Fens are at a comparatively advanced stage, but general and specific questions still remain to be addressed or fully characterized: for example with regard to chronology, the organization of the industry (at both 'site' and macro-levels) and its articulation with other economic processes, the long term process and sequence of exploitation/use of the Fens through the millennium. Study and publication of the salterns and use of the Fens during the first millennium has been sustained and is widely acknowledged as exemplary.

Studies of the salterns around Ingoldmells have begun to yield useful results and their further examination/synthesis has significant potential (cf. Resource Assessment).

9.2.5 Metal Small-Finds collected by Detector Users and others: Recording and Using Data
There is broad agreement that 'portable antiquities' initiatives and liaisons with (some) metal detector users have been highly successful in terms of collecting information on metal finds such as coins, brooches, copper-alloy fittings etc. Artefacts dating to the first millennium/late Iron Age have been amongst the most frequently recorded finds. There appears to be agreement that more publication of this information is desirable. Such data-sets are recognized to be of high potential for spatial and other synthetic research studies provided reported find-spots are genuine (cf. Curteis 1996).

9.2.6 Pottery
(i) Pottery research and publication in the region has been advanced in recent years by the work of Knight, Marsden and others, building on the foundations laid by Sheila Elsdon. These reports demonstrate the general and nuanced archaeological value of pottery studies. Full quantification of stratified pottery by fabric and form is essential.
(ii) Wide use of a regional standard for recording first millennium BC pottery typology will be advantageous, facilitating assemblage comparison (cf. Knight 1997). Knight has produced a set of guidelines for recording pottery within the region which are presently being employed by several practitioners (Knight 1998).
(iii) More data on vessel use is thought desirable via lipid analysis, and the recording of macroscopically visible surface residues of carbonized remains, soot and limescale, with data collected in a systematic way, so as to enable inter-site comparisons.
(iv) Collated data-sets for pottery in the region (eg. the English Heritage/Prehistoric Ceramics Research Group (PCRG) survey of first millennium BC pottery assemblages and Knight's survey (Knight 2002) provide a basis for future integrated research projects. The PCRG survey is more than simply a corpus of pottery finds as the database has many other information fields making it a flexible research platform for various studies to harness.
(v) There is much potential with regard to petrological study. A joint research project, for instance, is currently underway reassessing all thin-sections of prehistoric granodiorite tempered pottery from the region, with the aim of elucidating the production and distribution of this material. Field-work projects anticipating the recovery of pottery should budget for thin-section reports on a regular basis.

9.2.7 Identifying Trade and Exchange
Studies of querns, briquetage and pottery have highlighted the movement of commodities during the Iron Age. These items provide an index of the probable matrix of connections and exchange that existed at times through the period. With sustained and new research via materials analysis, petrological study, etc., the variety and quantity of long, middle and short distance exchange is likely to be further revealed.

9.3 Potential Research Topics

9.3.1 Integrated Syntheses
Kidd has highlight the potential of GIS for integrating finds, environmental and settlement evidence over landscape areas (Kidd 2000).

9.3.2 Exploring Trade and Exchange

Study of trade and exchange is significant because it can often provide a variety of information on, for instance the circulation and consumption of commodities, on transport artefacts, upon technology, and, by inference social relations.

There is potential for identifying the extent and nature of the salt trade via study of briquetage containers from Cheshire, and potentially elsewhere, not least amongst old collections where fragments of this ceramic have very probably passed unrecognized; Dr Elaine Morris has begun a study of these older collections.

Petrological studies of pottery have begun to discriminate non-local items travelling into the region and within the region (cf. Resource Assessment). Valuable information of this sort may be enhanced by the routine inclusion on this dimension of study in work upon freshly collected assemblages in the future, as well as examination of archive collections.

Petrological study of querns has begun to identify regional industries and the distribution of their products. A case in point is that of the Spilsby Sandstone querns (cf. Resource Assessment). Again, the re-examination of old collections and a synthesis of results will be welcome (cf. Ingle 1994). Studies of the quern industries and their distributions is a valuable area of research warranting support.

The identification of East Midlands products travelling outside of the region is a likely prospect, potentially instructive.

9.3.3 Saltern Prospection on the North Sea coast

The site at Tetney (cf. Resource Assessment) testifies to the 'early' extraction of sea salt on the North Sea coastal margin during the earlier first millennium. Survey/site prospection north of Ingoldmells holds some prospect of identifying similar remains in this relatively unexamined landscape. The Tetney site was not sealed by thick cover deposits, suggesting that locating some sites, at least, may not be unfeasible.

9.3.4 First Millennium BC Flint use

Investigation of the issue of flint use into the first millennium BC, particularly by Jodie Humphrey, has proven potential and initiatives warrant support.

9.3.5 Wood and Textile Industries

Region wide studies are needed of 'everyday' crafts and artefacts such as wood working, wood management and exploitation, textile production, and their products, creating a baseline of evidence for discussion. This may establish how these activities were organized and meshed with other dimensions of culture. Was there specialisation? How may practices have fitted into a seasonal cycle of work?

9.3.6 Pottery

(i) Financial support for projects aimed at improving chronological understanding of pottery sequences is an acknowledged priority (cf. Section 2.3.4).

(ii) Financial support for the updating, enhancement and dissemination of David Knight's regional standard for recording first millennium BC pottery (cf. Section 9.2.6) would be of broad benefit, making more widely available a tool aimed at facilitating assemblage comparison. This would be particularly helpful to people new to the processing of later prehistoric pottery, including younger workers, who are often working in 'isolation' from other pottery specialists.

9.3.7 Non-ferrous Metals

Investigation of possible exploitation of regional lead sources during the first millennium BC would form a discrete and potentially insightful research topic. Further investigations of copper-alloy working are warranted.

9.3.8 Iron Working

Within the East Midlands more prospection should be undertaken to locate and excavate possible iron working sites and to acquire dates for evidence (cf. Section 9.2.3).

10. Burial and Human Remains

10.1 Potential for Research

Few burials are known from the region. Opportunities for locating and excavating burials should be pursued as information from these remains is likely to be of much value for our understanding of a range of aspects of society (cf. Resource Assessment). Similarly, fragments of human bone are often encountered amongst settlement deposits and their study is also likely to yield important evidence (cf. Resource Assessment).

11. Hillforts and Analogous Sites

11.1 Key Gaps in Knowledge

11.1.1 Hillforts and Analogous Sites in the Region are Poorly Understood

There are comparatively few hillforts in the region. In the East Midlands these sites are on the whole poorly characterized, being poorly dated and weakly understood (cf. Resource Assessment). They may not be numerous but we need to account for them and to understand how they fit into the wider picture of society at this time.

Other 'major' enclosure / defended sites are an eclectic group (eg. Tattershall Thorpe, the complex at Aslockton, and perhaps Crow Wood, Styrrup). Neither are these sites well characterized; they may have been for stock management or be 'marsh forts' (cf. Resource Assessment). Other, morphologically similar, sites may exist, for instance of the Lincolnshire Middle Marsh and Outmarsh where there is a visibility problem.

In the case of virtually all such sites better chronological information is desirable. Some sites attributed to this category may, in fact, not be of first millennium date or connection.

11.2 Potential for Research

11.2.1 General Potential and Considerations

By analogy one can assume that these sites served a range of functions. Their function/s and 'identities' probably changed through time (? eg. Breedon Hill). They may have played a less significant role during the Late Iron Age. The role of these sites in evolving social relations may have been significant but is unclear. It may be that their physical prominence is unrelated to their past cultural significance and misleading; given their infrequency in many areas they may be atypical and a distraction from the study of general trends in local settlement systems. These possibilities in the case of the region remain a matter for research.

Previous work typically focused upon earthworks and entrances, there being little investigation of interiors or exteriors; these latter locations remain a potentially significant resource. Any one site may not be representative, even with regard to its 'neighbours'. Hunsbury, Mam Tor and Breedon Hill have yielded important, qualitatively rich information but how this relates to broader patterns is in many cases unclear.

The context in which work at these sites may be conducted in the next decade or two is unclear as few are under threat. A large proportion of these sites are in a good state of preservation. Surface survey is likely to make a valuable contribution to knowledge, albeit on a site specific basis.

The prevailing national policy is that, in general, such sites are to be preserved in situ, with policy and law directed towards their management and conservation over the long term. Archaeological knowledge can, however, be significantly forwarded, within these parameters as management policies for such monuments often require non-destructive survey, including various methods. This may provide opportunities to employ new survey techniques and technologies. Amelioratory and reparation programmes relating to stabilisation, anti-erosion measures, etc. as a result of increasing visitors, animal activity, and so forth, also present valuable opportunities to gain information. Such programmes have proved useful, from the South Downs to Traprain. In this way some new knowledge of Mam Tor has been forthcoming (eg. Guilbert 2001). Future work should include survey of the immediate and intermediate environs of such sites as a priority.

Research lead fieldwork at these sites is probably to be welcome in principal, but may not be considered a priority where such sites are protected and not threatened, and where sufficient data informing their management have been collected.

11.2.2 A Review of Existing Collections
A review of existing artefact collections, using present knowledge and techniques, from Breedon Hill and Borough Hill, as well as, perhaps, several other sites is desirable, especially if linked to publication.

11.2.3 'Hillforts' in Derbyshire
A stronger case for research lead fieldwork exists in Derbyshire *vis-à-vis* such sites as they seem, potentially, to have been more significant in the cultural landscape of the first millennium within these uplands.

12. Linear Monuments and other Land Divisions

12.1 Key Gaps in Knowledge

12.1.1 Chronology
Information on the sequence and chronology of these widespread and important monuments within the East Midlands needs extensive enhancement.

12.1.2 Visibility
Questions relating to the differential visibility of these monuments, as they appear as cropmarks, require consideration.

12.1.3 Functions and Place within the Cultural Landscape
The prominence on these linear monuments, the investment of resources which they represent and that they where foci for structured deposits emphasizes their social importance. The role/s, however, of these monuments within the cultural landscape require clarification via research and interpretation. Suggestions that they relate to territoriality and land 'rights' require exploration (cf. Resource Assessment).

12.2 Potential for Research

12.2.1 Information on Environment
These dykes and pits *may* have potential for yielding significant environmental data. This may be important for considering their potential relationship to agriculture. Often, though, contents are sterile.

12.2.2 Investigation of Relationships
The relationship of these features to settlements, where they lie adjacent, is a priority for examination, as are points of linear boundary intersection.

12.2.3 Field Systems
Richard Bradley is currently in the midst of a project collating information on the appearance of field systems across southern and central Britain.

12.3 Potential Research Topics

12.3.1 Application of GIS
The extensive mapping of aerial photos of these features and their sophisticated investigation and interpretation (cf. Boutwood 1998) is being developed further via the use of GIS.

13. Ritual, Structured Deposition and Religion

13.1 Key Gaps in Knowledge

13.1.1 Identifying Shrines
For most of the region there are few identified shrines or formal religious locations, though they *may* have been comparatively common.

13.2 Potential for Research

13.2.1 The Social Context of Ritual
Structured deposits and ritual acts were probably often related to food generation, procurement, fertility, productive and transforming undertakings and the dynamics of power (cf. Resource Assessment) and involved various scales of community drama and observation. Investigating and modelling the sociology of these activities carries potential for wider interpretations of social organization.

13.2.2 Places
Much is now known of structured and votive deposits in and around settlements and in wet locations. The identification and investigation of rituals and structured deposition in the agricultural landscape and in the 'natural' landscape (other than wet places) may be instructive.

13.3 Potential Research Topics

13.3.1 Collating Characteristics
There is much scope for collating characteristics, trends, patterns and variations in structured deposits from across the region. This should assist their characterization and inform their interpretation.

14. Social Relations and Society in the First Millennium BC

14.1 Key Gaps in Knowledge

14.1.1 Social Structure and Organization
Up-to-date models of social structure through the period are conspicuously absent from both the regional and general literature. In so far as this key aspect is ever engaged there is a tendency to follow the largely simple, unsophisticated characterizations suggested in Britain-wide synthesis of the period. The present unit based organization of much archaeology in the region, as elsewhere, leads to rather localized accounts, often at differing scales. There has been a shortage of interest in the region amongst those (few) able to take a more wider view.

14.1.2 Site Types and Morphology
Synthesis is required categorizing and assessing the frequency of particular site 'types'.

Whilst aspects of settlement morphology have been considered in reports and in some syntheses we can now appreciate that this has been an under-examined area. The grammar of site organization, etc. and its meaning has been under-appreciated until recently. This is clearly an area of study that will offer much insight into the perceptions and ideologies of first millennium BC people and their 'lifeways'. Presently analysis of this sort is being undertaken in the case of a number of large-scale post-excavation projects in the region, namely Crick,

Wollaston, Stanwick and Courteenhall in Northamptonshire and sites in the Trent Valley excavated by the Trent and Peak Unit.

The UBIA document (pages 9-14) calls for *larger sampling fractions* during excavations in order to capture, amongst other aspects, spatial data and larger artefact samples amenable to quantified analysis. For the East Midlands, this increase in sample fractions is seen as an important priority, and there is a call for it to be written into Project specifications.

14.1.3 Settlement Location

Overall, with a few exceptions, we have little synthesized information of trends in settlement location, either broad trends or attention to micro-topography. There has to date been little specific consideration of settlement location and the phenomenology of landscape in the region, though elsewhere such studies have begun to yield interesting results.

Environmental samples routinely, of course, provide information on the milieux of settlements, not just foods and the immediate settlement context, and thus have an important role in this respect. More pollen samples are needed.

14.1.4 Houses

An updated and extended audit of the circular and other structures of the millennium, and their associated features, recorded across the region will be a helpful tool when in the public domain (cf. Willis 1997). Rachel Pope at the University of Durham has been complying detailed information of this kind for her PhD thesis. Research on Late Bronze Age and Iron Age house forms and organization is needed for the region to assist our understanding of social practice and relations.

14.2 Potential for Research

14.2.1 Social Structure and Organization

Sufficient information has been recovered for the period, which when linked to new thinking in later prehistoric studies, as well as more widely in archaeology, should facilitate novel and potentially stimulating interpretations of social structure for the region.

14.2.2 Site Morphology

This is clearly an area of study that will offer much insight into the perceptions and ideologies of first millennium BC people, via both intra-site examinations and syntheses.

14.3 Potential Research Topics

14.3.1 Regional Models and Interpretations of Social Development and Organization

Characterization of social organization and the nature of power and social politics is a core goal of archaeological studies in any period. More work is urgently required in this field for the East Midlands, drawing on the improved published resource now available. Models may be theoretical, speculative and unenduring over the long term but are needed to complement the results of recent fieldwork and, importantly, assist in driving thinking forward.

The UBIA document (pages 25-31) notes that the causes and consequences of settlement expansion, and increased cultural visibility, in parts of Britain after c. 300 BC (which for the East Midlands is evidenced in many places) requires further research. Additionally, new models are required accounting for the changes evident in the later Iron Age of our region.

14.3.2 Social Organization and Settlement Form and Function
Examining social organization and its potential relationship to settlement form and function may prove fruitful.

14.3.3 Houses
See 14.1.4 above.

15. Conservation, Management and the Public

A general priority, as emphasized by Sandy Kidd and Francis Pryor must be to develop a management framework and strategy for the whole landscape. Piecemeal denudation of the first millennium BC resource is on going, in some localities this is evidently rapid, progressively narrowing in measure the potential for understanding this era. There are particular threats to the archaeology of the first millennium in the East Midlands from peat destruction, the drying of the Fens, from industrial scale arable cultivation strategies, changes relating to modern farming practice, climate change and the irresponsible use of metal detectors. Assessment of threats, monitoring and amelioratory projects in this connection have a research potential. Surface survey projects examining the effect of modern ploughing and involving capture of various data types, sponsored by English Heritage, have been undertaken in recent years, as at Owmby on the Lincolnshire Limestone (cf. Resource Assessment). The results of this work should inform policy in the imminent future. Scheduling of sites is attractive from some perspectives but this is often a complex issue. The expansion of public interest in archaeology and the material past demands accommodation within future initiatives and represents a marvellous opportunity to facilitate and enhance projects, foster enthusiasm and mutually exchange knowledge.

16. Prospect: Some Research Programmes

16.1 The Late Bronze Age - Early Iron Age Transition
Defining this transition and its cultural manifestations is a key research topic and requires pursuit in the light of our present corpus of information.

16.2 The Peak Region and its Hinterland
(i) The archaeological character of Derbyshire with its upland environments, comparatively good preservation, distinctive site types and forms, peat formations etc. is a diverse asset in many ways, not least for the exploration of comparisons and contrasts with other parts of the East Midland counties. It is fortunate that presently there are a number of dynamic archaeologists interested in examining its later prehistory.
(ii) In order to advance our awareness of the character of the Peak District/North Derbyshire region during the period Bevan (2000) has called for integrated research programmes including examination of soils and pollen, re-evaluation of existing artefacts collections, and an open-minded investigation of field-systems / settlements, combined with studies of the (to date) under-examined areas adjacent to the Peak District.

16.3 Fenland Research
Support for more excavation work in the Lincolnshire Fens is widely acknowledged as a priority, building on the high quality results of aerial survey and field-walking during the 1980s and 1990s and the Management Programme initiative. To date, proportionately, only a very tiny amount of excavation has been undertaken while two thirds of the Lincolnshire Fens are still unsurveyed.

Extra-funding is required for excavations here due to the need, routinely, to undertake (often extensive) environment archaeology and discern and characterise the archaeological / natural interface. Moreover, it is now apparent that extensive excavations are needed to adequately examine the full range of activities at salterns and settlements within this setting (Lane and Morris 2001, 466-9). The background to this work is the on-going destruction of peat and the drying out of parts of the Fens which are of course detrimental to the environment and the preservation of archaeological remains.

Exploring long term settlement and economic dynamics has been an on-going topic of investigation, including the impact of environmental changes in the first millennium and changes in the Late Iron Age. An important area of study concerns sites which continued into the first/second centuries AD and those which abruptly ended around AD 50, the time of the Roman conquest. These areas have ramifications for our understanding of the period more widely.

16.4 Collaborative Projects

Several innovative collaborations combining Local Authorities, Specialists and Universities/University personnel, in projects are underway. These include:
(i) the Gardom's Edge Project in the Peak region (Peak District National Park Authority and Sheffield University); this project has generated a rich set of new data.
(ii) the embryonic multi-period Witham Valley Project developing out of the work at Fiskerton, which has a strong palaeo-environmental dimension (Sheffield University, Lincolnshire County Council, English Heritage and The Environmental Archaeology Consultancy).
(iii) Geo-archaeological initiatives in the Trent Valley.

These projects highlight the value of combining resources and specialisms in the present context.

16.5 Coastline, Riverine and 'Watery Place' Surveys

One of the distinctive attributes of the East Midlands is its 'wet places' (though this is not reflected in designated Ramsar sites for some reason). Work on the Thames foreshore, in the Hullbridge basin, Essex, and projects at other locations has highlighted the potential of intensive survey of coast and riverine locations, especially for the first millennium BC. In the East Midlands this is also demonstrated by 'high profile' projects such as the Fenland Survey and the new Witham Valley initiative, plus the corpus of spectacular metalwork finds from the major rivers. The resource potential of bogs, lakes, marshes and streams is also well attested for this period at a national level. There are particular dimensions of resource preservation in these wet locations, together with specific threats (with the latter being assessed by English Heritage via the *Monuments at Risk in England's Wetland's* (MAREW) initiative (www.exeter.ac.uk/marew). Such environments are often associated with specific monument and artefact types, particular past economic activities, and the focus for votive deposition. More work in these environments of our region, targeting both the 'high profile' familiar locations plus other wet environs and their hinterlands is called for.

(The text of English Heritage's wetlands strategy is available via www.english-heritage.org.uk/archaeology/wetlands/).

16.6 Archaeological Distinctiveness of the Region in the First Millennium BC: Potentials

The UBIA document (pages 22-5) notes that regional variations are a central feature of the British Iron Age and that their definition and evaluation is a core objective of future research.

The distinctiveness and national importance of the first millennium BC archaeological resource of the East Midlands is unquestionable. The region lies at the heart of England between markedly different physical (lowland and upper) zones which clearly had economic implications; it is in some ways physically near to Hallstatt and La Tène continental Europe

across the North Sea, but from other perspectives is at a geographic and cultural remove; within the British context during the first millennium it lies between increasingly different cultural zones one subject to much overt change (south-east England) the other following a separate path (northern and western Britain). Within, the East Midlands has its own cultural identities, with developing agriculture and distinctive landscape monuments and settlement forms, a fine metalwork tradition and extraordinary ritual in places, regional pottery traditions, and a zone of coin use, the most northerly pre-Roman coin using community. These features, and others, render the period in this region one of rich potential study at both intra and inter regional levels (cf. Haselgrove 1999; Bishop 2000; Kidd 2000). Numerous projects tapping this resource are conceivable, bringing forth new insight and interpretation with resonance beyond the East Midlands and of likely national significance. Fresh possibilities will suggest themselves as fieldwork, artefact and other areas of study advance.

Abbreviations:
EMAB - East Midland Archaeological Bulletin
LHA - Lincolnshire History and Archaeology
MOW - The Ministry of Works
PCRG - Prehistoric Ceramics Research Group
RCHME - The Royal Commission on the Historic Monuments of England
TLAS - Transactions of the Leicestershire Archaeological Society
TLAHS - Transactions of the Leicestershire Archaeological and Historical Society
TVARC - The Trent Valley Archaeological Research Committee

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