CHAPTER 7

Land Tenure, Land Division, Land Use and Field Patterns

Bounding the land

> Boundaries are of major significance in structuring existential space both in and between places and regions. Boundaries are to do with creating distinctions and marking out social oppositions, mapping social and cultural differences and Otherness. (Tilley 1994: 17).

In previous archaeological considerations of tenure, territoriality, land allotment, land division and land use, some authors have used such terms as if they are almost interchangeable (cf. Cunliffe 2005; Dark and Dark 1997; Earle 2000; Fleming 1998a; Fowler 2002), but to further considered discussion these must be defined more critically (Chadwick forthcoming). Tenure is an aspect of relations 'which *constitutes* persons as productive agents and directs their purposes', whereas territoriality is 'an aspect of the means through which these purposes are put into effect under given environmental circumstances' (Ingold 1986a: 130-131, his emphasis). *Tenure* is thus about social relations and engaging with the landscape. It may take many different forms in contemporary or historically-recorded communities (e.g. Adler 1996; Casimir and Rao 1992; Godelier 1978; Ingold 1986, 2000; Rochelau and Edmunds 1997; Ward and Kingdom 1995), which suggests that it was extremely variable in the past too. Tenure is not the same as *property* and *ownership*, which determine whether individuals or communities have exclusive rights to possess, use and/or dispose of objects or areas of land. Often linked to the idea of property is *territoriality*, where particular individuals or groups lay claim to certain areas.

Tenure, property and territoriality can be important components of human identity. On Whalsay, houses and fields are family 'territories' complete with their own histories and biographies (Cohen 1979: 259). In Highland New Guinea kin relationships determine complex, shifting rights of access to cultivatable land, with paths, fences and fields expressing networks of social relations and past ancestors.

Land disputes can thus be a fundamental challenge to people's identities (Sillitoe 1999: 350). In Fiji, Romania and parts of East and North Africa, land was divided into parallel plots or strips, the width and arrangement of which effectively 'maps' the numbers of generations and/or their kin relationships (Bessis et al. 1956; Riles 1998: 409-410; Shipton 1984: 615-618; Stahl 1980). How people allocate land and construct land divisions expresses identity, and individuals or communities may be judged on the appearance of walls, fences, and hedges, and the quality and maintenance of their land (Bevan forthcoming; Edmonds 2004; Lele 2006; Phillips 1984). *Land allotment* may be equal or unequal, allocated by social elites or divided communally, or passed down through patrilineal or matrilineal descent groups. Land allotment is thus a physical process and an outcome of social relations.

Land division refers to how people divide the land with fences, walls, ditches or hedges, although it might not involve any physical markers or boundaries and may depend on social memory, narrative history and the activities of the people and animals for whom they are recognised or experienced as such (Cohen 2000: 6-7; Ingold 2000: 193; Sillitoe 1999: 340). Land division and boundaries need not necessarily rigidly separate people, but instead may actually help frame and give shape to their interactions (Barth 2000: 28; Cohen 2000: 7). *Land use* spans activities from arable cultivation and livestock rearing through to hay cropping and the use of unimproved or unenclosed land for grazing. It might include quarrying earth or stone for construction, or extracting clay for pottery production. It can involve the coppicing or pollarding of trees, or the collection of gorse, bracken and reeds. It is considerably influenced by environmental factors such as altitude, geology, soil and climate, but social factors are still significant too. Different groups within a community, or even different communities, might claim tenure and rights of access to the same areas or resources (Godelier 1978; Johnston 2001; Rocheleau and Edmunds 1997). Some areas can be used by individual households at certain times, but at others utilised by the community as a whole. In historical Britain, for example, the practice of gleaning meant that before stubble was ploughed in, grain left in fields after harvest was collected by the wives or children of farm servants, or the parish poor. Johnston (2001: 101) and Kitchen (2001: 117-118) have outlined many possibilities of fluctuating tenure, access and land rights.

Land use is therefore *not* the same as land allotment or land division. Societies undertaking similar agricultural practices may have very different ideas about tenure, property and land allotment to one another. Two communities with apparently similar systems of land division might have dissimilar notions of tenure and land allotment. In addition, tenure, land allotment, property, ownership and land use may all be affected in varying ways by age, status and gender.

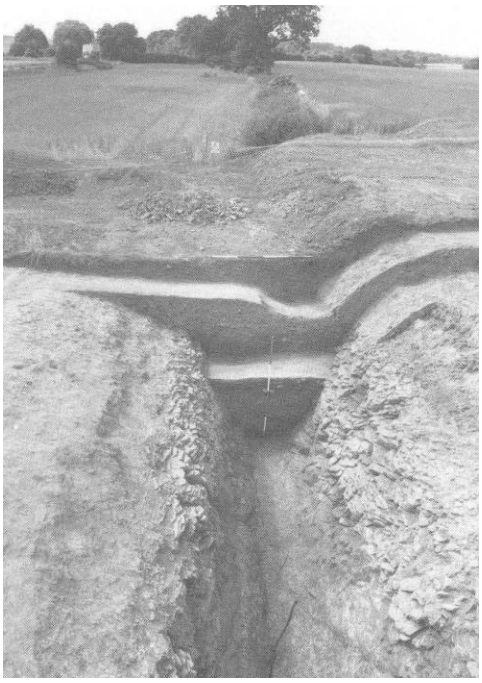
Land allotment and land division within the study region

Linear earthworks

Across the study region there is little evidence for the extensive systems of late prehistoric linear earthworks that have been investigated in areas such as Salisbury Plain, the Berkshire Downs and East Yorkshire Wolds. Some West Yorkshire linear earthworks have been investigated. The earthworks of Grim's Ditch were once thought to be the *agger* of a Roman road (Codrington 1918; Margary 1973; Pope 1958) (Fig. 7.01), but small-scale excavations and geophysical surveys established it was a linear earthwork (Brown 1995; Morris 1998, Webb 1997; Wilmott 1993). Faull (1981: 174) suggested it was part of the defences of the fifth to sixth century AD kingdom of Elmet. Becca Bank, South Dyke and The Rein are collectively known as the Aberford Dykes, and survive as earthworks and crop and soil marks (Fig. 7.02). These have been interpreted as Iron Age earthworks (Alcock 1954; Ramm 1980), or again as part of the defences of Elmet (Faull 1981: 171-172; Wilson and Hurst 1963).

These monuments were investigated during the M1-A1 Link Road scheme. Although artefacts were sparse, ^{14}C dates and some Roman and medieval finds suggested that South Dyke and Becca Banks were built in the later Iron Age, possibly re-cut in the Romano-British period, and were still extant in the medieval period when Becca Banks was a township, parish and wapentake boundary (Wheelhouse and Burgess 2001: 137, 144, 148). Dating of samples from Grim's Ditch suggested an origin in the early or middle Iron Age, with possible redefinition and re-use as a boundary in the Roman period (Morris 1999; Wheelhouse and Burgess 2001: 129-131). Recent

investigations of another section of South Dyke in advance of pipeline construction found that the construction of the bank and ditch followed an earlier pit alignment, probably sometime during the middle to later Iron Age (Daniel and Noon 2007: 8-9). The South Dyke may have fallen out of use by the Roman period, although a curvilinear ditch of this date was dug broadly parallel to it. Clearly, these features may have had long, complex and locally variable histories, and it seems most unlikely that could have functioned effectively as defensive barriers, although they were undoubtedly implicated in conceptions of territoriality and identity.



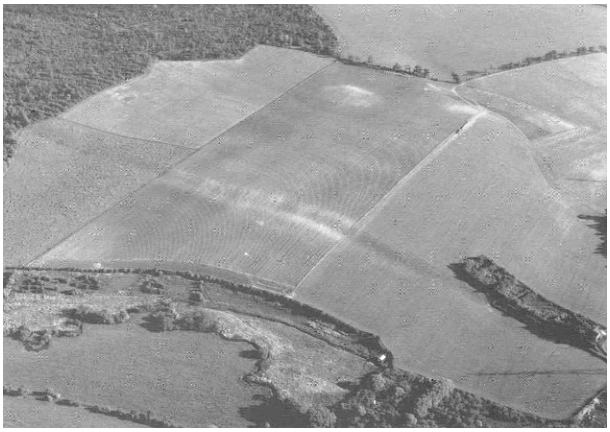


Figure 7.01. (left). *The bank and ditch of Grim's Ditch after excavation.* **Fig. 7.02. (above).** *A cropmark and soilmark of Becca Banks, running obliquely across the aerial photograph. (Source: Wheelhouse and Burgess 2001: 125, 137).*

In South Yorkshire, the Roman Ridge or Roman Rig was orientated south-west to north-east in two lines from Sheffield to Swinton Common and Mexborough, or *c*. 27km in total (Fig. 7.03), still undated despite several excavations (e.g. Atkinson 1994b; Greene 1950; Greene and Preston 1950b; Preston 1950b; Riley 1957), though Roman sherds were found in upper ditch fills. The two lines may not have been contemporary, and earlier ditches pre-dated at least one stretch (Atkinson 1994b: 47). A post-Roman date is also possible (Cronk 2004), linked to the kingdoms of Elmet, or Northumbria in the seventh to ninth century AD. Ashbee (1957: 256-265) suggested the Roman Ridge was built hurriedly in the first century AD by supporters of the Brigantian leader Venutius, as Alcock (1954) proposed for the Aberford Dykes. These banks and ditches are often linked to Wincobank hillfort and Caesar's Camp

enclosure at Scholes Coppice as part of a 'defensive network'[1], although once again this seems highly unlikely, and indeed the Roman Ridge does not always conform to a line that would make sense from a defensive 'military' perspective.

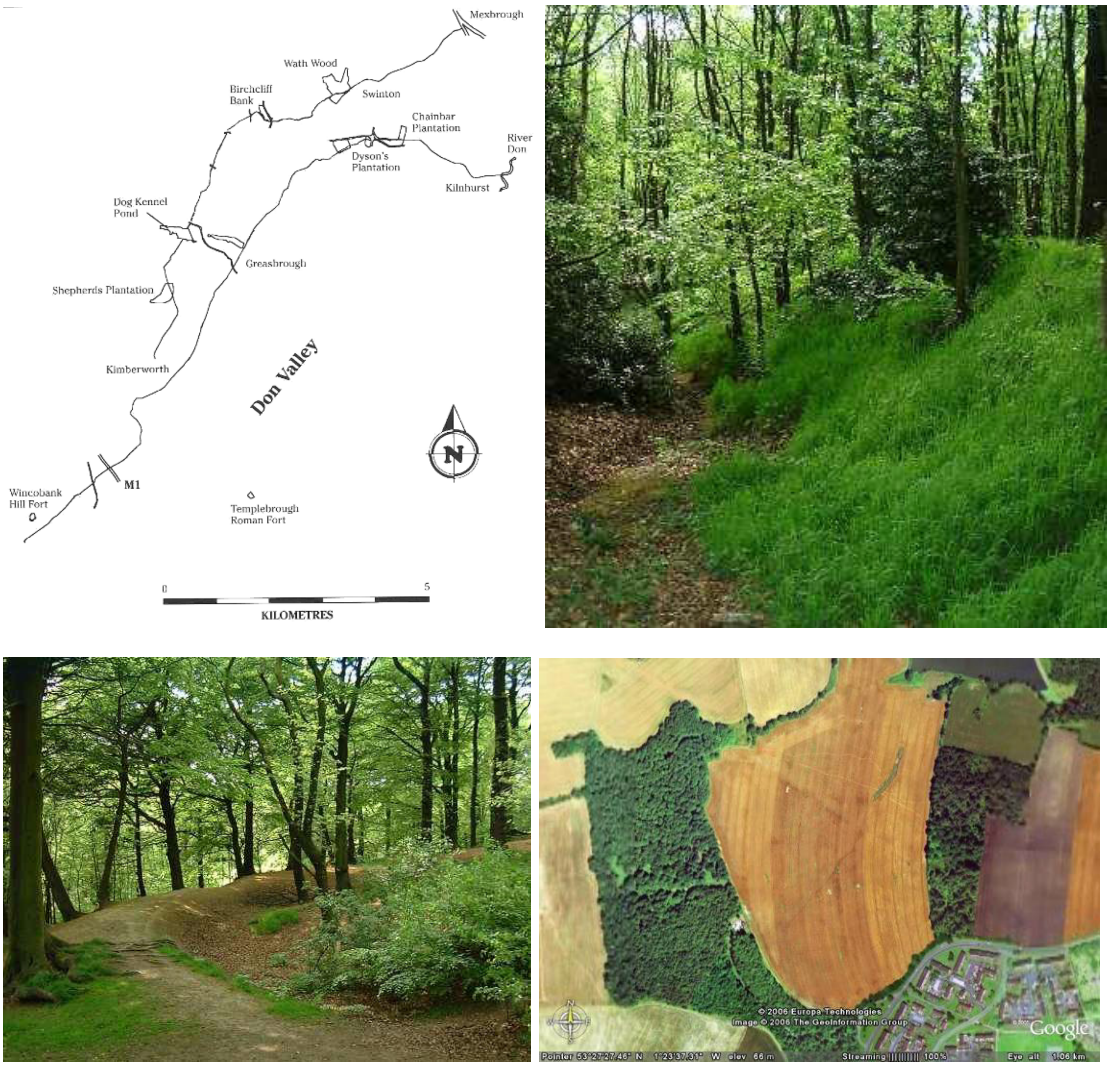


Figure 7.03. (top left). *The extent of the Roman Ridge earthworks in South Yorkshire. (Source: Boldrini 1999: 102).* **Fig. 7.04. (top right)** *and* **Fig. 7.05. (bottom left).** *Surviving earthworks of the Roman Ridge in Wath Wood. (Source: World Wide Web http://www.brigantesnation.com).* **Fig. 7.06. (bottom right).** *The course of the Roman Ridge near Rotherham, appearing as a sinuous cropmark running from Rockingham Wood in the lower left of the image to Dog Kennel Pond in the top right. SK 4035 9580. (Source: © Google Earth).*

Boldrini (1999: 103) favoured an Iron Age date for the Roman Ridge, but suggested that the banks and ditches were social and territorial markers rather than defensive barriers – the two 'branches' may even have delineated a liminal or neutral zone. Given the Iron Age dates from Grim's Ditch and the Aberford Dykes, this seems a

likely origin for the Roman Ridge too, although it could still have been re-utilised in later periods. Whether this was a pre-Roman tribal barrier or a mid-first century AD response to the Roman presence south of the Rivers Don and Trent is not clear. If a feature of emerging Iron Age social groups, it is questionable whether these corresponded to Roman notions of the Brigantes and Corieltauvi (see Chapter 2). Earthwork construction required considerable time and labour by a significant proportion of the population, and probably hierarchical authority too. How the Roman Ridge related to field systems and enclosures is unclear, although aerial photographic and stratigraphic evidence suggest Becca Banks overlay earlier field boundaries trackways and enclosures (Daniel 2007: fig. 17; Deegan 2001b: 25, fig. 8, 34, fig. 19; Wheelhouse and Burgess 2001: 139-141).

Typologies, terminologies and teleologies part 1

Riley (1980: 13) outlined some basic descriptions and categories of fields and field systems (Fig. 7.07). His most famous classification was of the so-called 'brickwork' fields, found on the Sherwood Sandstone areas of South Yorkshire and north Nottinghamshire, but in these areas and across Magnesian Limestone and Coal Measures areas, he suggested that field systems were either 'nucleated' around enclosures, or more 'irregular' in pattern. In recent detailed aerial photograph transcription work as part of the Magnesian Limestone Project, Alison Deegan has pointed out several inconsistencies with Riley's scheme, not least of which is the fact that the 'brickwork' fields were not arranged in a truly brickwork pattern, as the short 'cross' boundaries were rarely staggered in alternating strips (Deegan 2007: 5-6). Riley's 'nuclear' field category was illustrated with a group of cropmarks from Hesley Hall, near Rossington Bridge, but Deegan persuasively argues that the enclosure concerned was probably of a different date to the surrounding boundaries, and that to the east there was actually another block of fields on a slightly different orientation (see Fig. 7.07, no. 4). Finally, Riley's 'irregular' category is rather an unsatisfactory grab-all type. This term also has unfortunate theoretical connotations, implying a lack of purpose or planning.

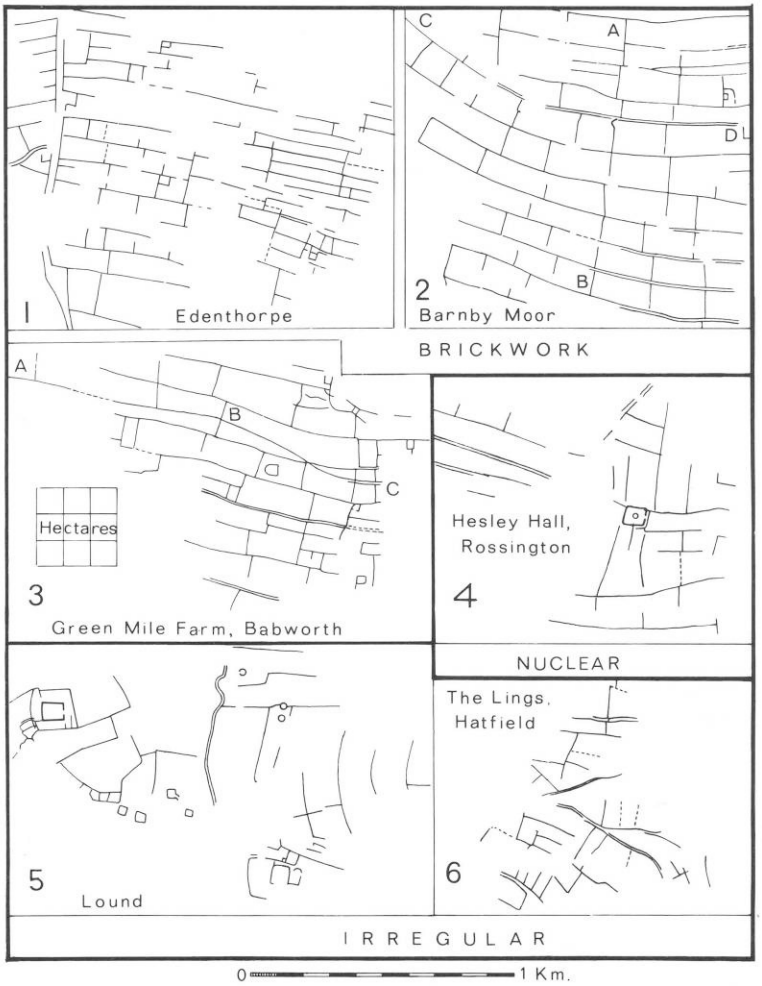


Figure 7.07. *Riley's field classification scheme. (Source: Riley 1980: 13, fig. 3).*

Deegan has proposed just two main types of field system. Her 'strip' fields consist of long boundaries at least 400m long and up to 100m apart with short cross boundaries, arranged in 'bundles' of four or more strips (Deegan 2007: 5, fig. 6.5, see Fig. 7.33-7.34). Sometimes these might also be a series of shorter strips arranged end-on. This type corresponds broadly to Riley's 'brickwork' fields, although Deegan also identifies such bundles of 'strip' fields between Adwick-le-Street and Bentley, and north of Adwick-le-Street near Barnburgh, all in South Yorkshire, but also on Went Hill, west of Aberford in West Yorkshire and as far north as the River Wharfe. As with Riley's 'brickwork' pattern, the implication is that the 'strips' were laid out as long boundaries and then subdivided by shorter cross boundaries. It is thus a broader category, and takes into account how the fields were probably created (q.v. Widgren 1990: 22). In contrast, 'mixed' field systems were much more variable in size, although sometimes fields of similar sizes seem to have clustered together (ibid.).

In a recent overview of Romano-British field systems and rural settlement across England, Taylor (2007: 59, 62-63) used the terms 'cohesive' ('brickwork') and 'aggregate' ('nuclear') strip fields to describe the differing patterns found south of the River Aire down to north Nottinghamshire and east to the Humber Wetlands, and down the Trent Valley. This introduces a third classificatory scheme and typology. I disagree with overtly typological approaches to field systems and enclosures, however. They often tend to be rather teleological, that is to say, the fields are sought to be somehow 'explained' by the particular function they served rather than the wider social processes and agricultural practices that led to their creation. Whilst I appreciate aspects of Deegan's and Taylor's more simplified categories, I feel that the term 'strip' fields may sometimes cause confusion with later medieval fields. It might also imply (no matter how inadvertently) that there was greater centralised planning and a shorter and simpler developmental chronology of the 'strips' than may have been the case. I will discuss co-axial fields in more detail later in this chapter.

In this thesis I use Riley's term 'brickwork' fields to discuss the co-axial patterns on the Sherwood Sandstones only, and not co-axial blocks in the Trent Valley or on the Magnesian Limestone and Coal Measures areas of South and West Yorkshire. I also refer rather loosely to irregular or nucleated fields, but concur with Deegan's criticisms, and do not propose these as formal categories. Both terms are often misleading, and in some instances a more apposite term might be 'attenuated', where long trackways and major linear boundaries appear to have been important structuring features. Again, however, I am not proposing a fourth typology of terms. Some fields could fit within several different categories, whilst others remain hard to classify. As I will discuss in this chapter, I am rather sceptical that some of these distinctions would have had much meaning to contemporary rural populations.

Irregular, nucleated, mixed or attenuated field systems

It is clear that outside areas of co-axial fields, long linear ditched boundaries or double-ditched trackways often formed the principal structuring features of these landscapes, and may have often been the earliest major constructions within them. Many major boundaries ran approximately north-south and east-west, as at Swillington Common, Parlington Hollins, Ledston, Barnsdale Bar, Lundwood,

Adwick-le-Street, Scawthorpe and Scabba Wood (Bishop 2004; Brown et al. forthcoming; Chadwick 1998; Deegan 2000, 2001b, 2001d, 2007; Meadows and Chapman 2004; Webb 2006). Minor field boundaries appear to have been inserted between the longer, more sinuous boundaries (see Figs. 7.08-7.09 below). Most of the few examples of 'ladder' or 'clothes line' enclosures within the study region have been identified on the Magnesian Limestone and Coal Measures (see Chapter 9 and Appendix H), again suggesting linear landscape developments[2].

Why many of the long boundaries on the Magnesian Limestone in particular seem to have been so sinuous is unclear. This might relate to the ditches having been dug along the lines of geological bedding planes and periglacial cracks in the underlying limestone bedrock. Alternatively, the linear boundaries may have followed the edges of cleared parcels of land, 'intakes' or 'assarts' to use medieval terms, and/or the edges of existing woodland (Roberts forthcoming; Roberts, Deegan and Berg 2007: 7). In some cases at least, it is likely that the meandering lines of some boundaries and trackways reflected the slightly erratic routes taken by livestock moving through the landscape. These irregular routes then became 'hardened' over time through repeated embodied movements by people and animals, as memory and tradition were inscribed upon the land through the passage of feet and hooves. Such informal routeways might have been used by people and livestock during the later Bronze Age and earlier Iron Age, and only became 'formalised' with double ditched trackways during the middle and later Iron Age (q.v. Fenton-Thomas 2003, 2005: 58-59).

Whatever the underlying reasons, there were also habitus-related practices behind this. People might have continued to construct boundaries in a traditional manner, as their ancestors had done. Another possibility is that the lengthier boundaries were constructed in sections by different households or extended families that nonetheless all belonged to the same clan or lineage. This might explain not only the variations, but also the great length of some of the boundaries that in many instances seem to be far more than those that a single extended family group would require.

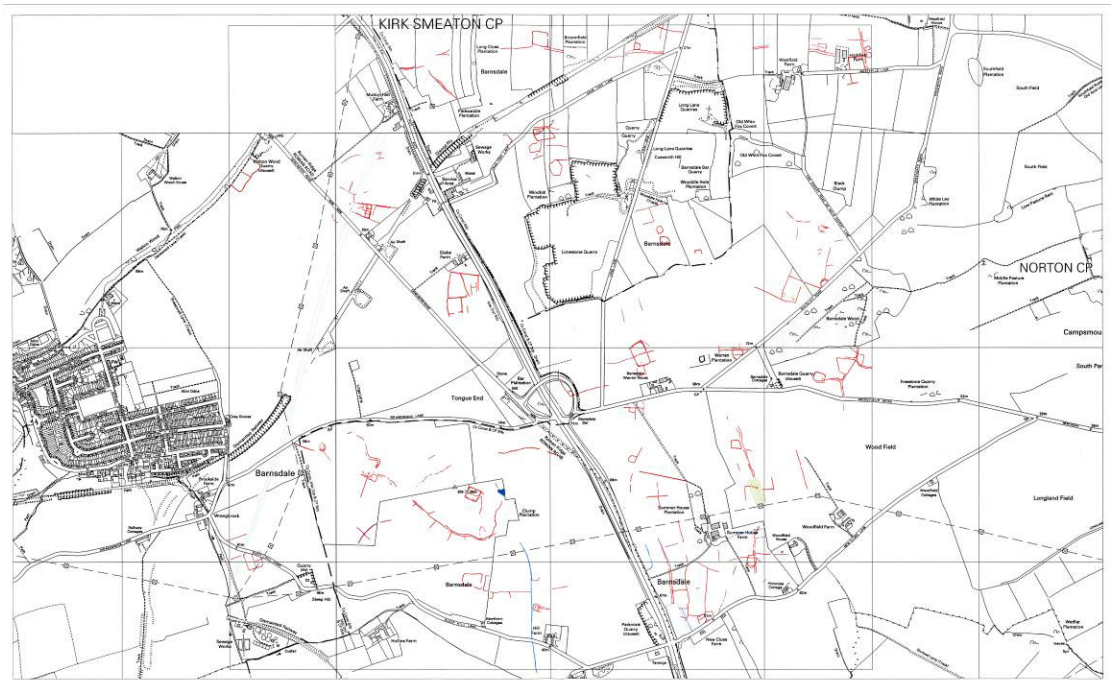


Figure 7.08. *Cropmarks (red) of irregular and nucleated field systems near Barnsdale Bar and Kirk Smeaton, S. Yorks. (Source: Deegan 2000).*

Figure 7.09. *Cropmarks of 'attenuated' or more nucleated field systems, trackways and enclosures west of Aberford (a), north of Micklefield (b) and at Ledston (c), all in West Yorkshire. (Source: Deegan 2001b: 26, fig. 9).*

Figure 7.10. *A trackway running across the photograph from upper left to lower right, forming the primary axis for enclosures and fields at Little Houghton, S. Yorks. (Source: D. Riley, SLAP 125, SE 423 066).*

Enclosures or small groups of enclosures and pens were often prominent features within the attenuated landscapes, either appended to or respected by trackways or boundaries. In some cases they clearly formed a nucleated focus for later boundaries focused on them. This pattern also suggests that the establishment of enclosures may have taken place within largely open landscapes that subsequently became 'infilled' with additional fields and trackways over time; or in other instances that they were built next to existing routeways. Clusters of small fields or corrals associated with many enclosures suggest a basic infield : outfield arrangement, and might thus be indicative of mixed farming (see below and Chapter 4).

At Wattle Syke, Castle Hills and Micklefield, Ledston, Barnsdale Bar, Scawthorpe, Adwick-le-Street, Scabba Wood, Canklow Woods and Pastures Road, Mexborough, the principal trackways and boundaries followed the natural contours, either parallel to prevailing ridgelines and slopes or at right angles to them. Some ditches were hundreds of metres in length and may have constituted kinship or clan boundaries,

although these were probably not the equivalent of the 'large terrains' or 'folk territories' of Fleming (1998a: 51-52). Larger blocks of fields may have acted as the cores of such territories, although many field systems probably also had adjacent areas of undivided land that were used for grazing, fodder and bracken collection and other more communal practices.

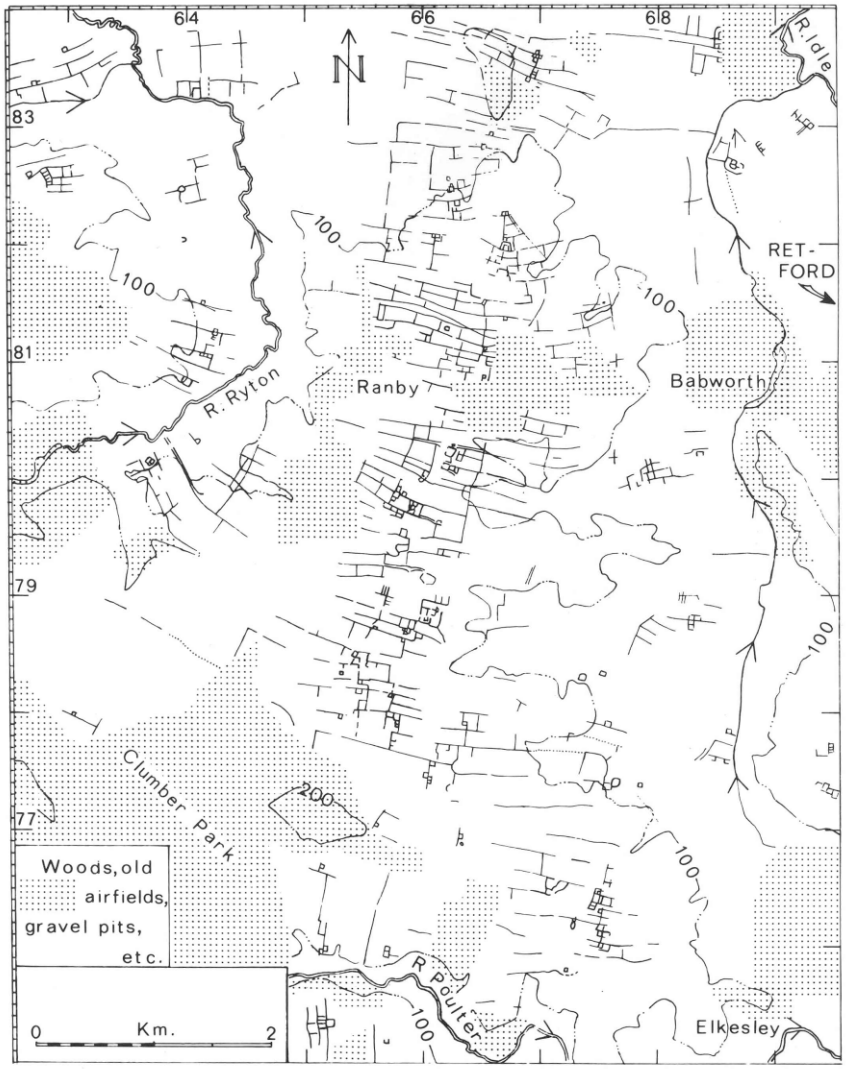


Figure 7.11. '*Brickwork' co-axial field systems and enclosures west of Retford, between the Rivers Ryton and Idle, Notts. (Source: Riley 1980: 65, fig. 11).*

Co-axial complexities

The few published archaeological discussions of these field systems have focused on apparently more regular co-axial areas of fields (e.g. Branigan 1989; Buckland 1986; Chadwick 1997, 1999; Roberts forthcoming). These include the 'brickwork fields

identified by Riley in extensive areas near Doncaster, Worksop and Retford; between the Rivers Don, Torne and Idle, and the Rivers Ryton, Poulter and Meden (Riley 1980: 13-14, maps 1, 14) (Fig. 7.11). The 'brickwork' fields extended as far eastwards as East Carr, Mattersey in the Idle Valley, and as far south as Ramsdale, approximately 10km north of Nottingham, but have not yet been identified in the Trent Valley (Garton, Southgate and Leary 2000; Knight, Howard and Leary 2004: 141). More limited blocks of co-axial fields have been identified elsewhere though. In West Yorkshire, examples occur between Barwick-in-Elmet and Aberford and at Swillington Common (Deegan 2001b, fig. 4, 9a, 2007), and at Low Common near Castleford and Methley, between the Rivers Aire and Calder (Burgess and Roberts 2004; Deegan 1999b, 2007) (Fig. 7.13). Here the boundaries were more sinuous and the fields often less rectangular than 'brickwork' systems. The physical processes of laying out these 'strips' may have been similar, however (Deegan 2007: 5; Shipton 1984: 618; Widgren 1990: 18-19).

Figure 7.12. *Classic 'brickwork' fields and enclosures near Rossington, S. Yorks., underlying modern boundaries. Note the double ditched trackway with a central holloway visible in the lower left side of the image. (Source: D. Riley, SLAP 8346, SK 635 988).*

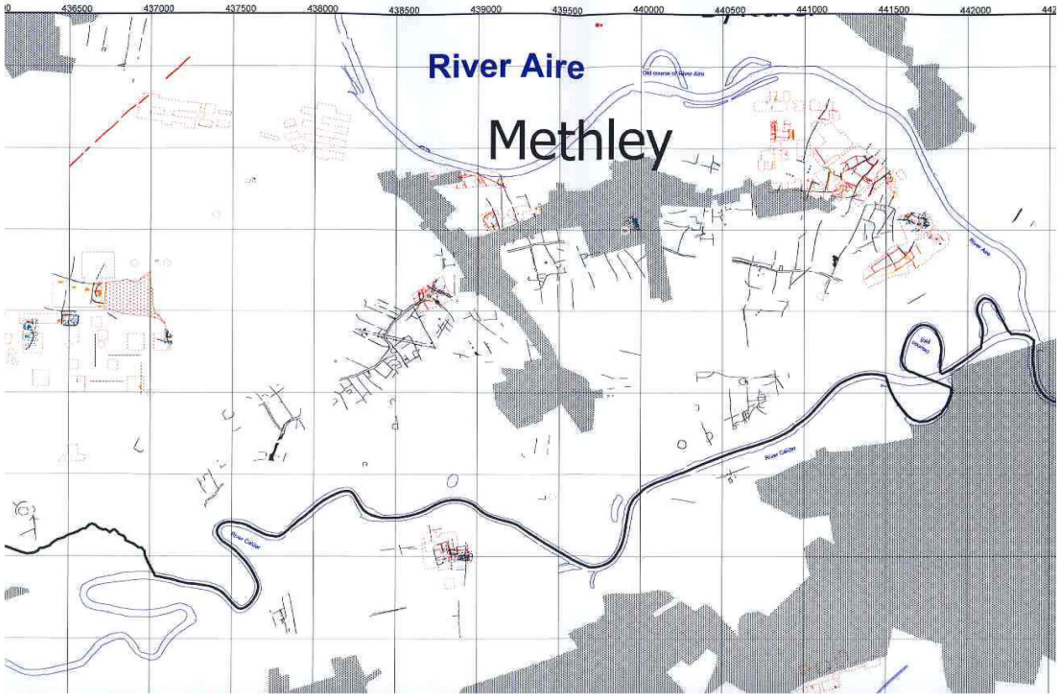


Figure 7.13. *Co-axial and more irregular fields on the Aire-Calder interfluve near Methley, W. Yorks. (Source: Deegan 1999b).*

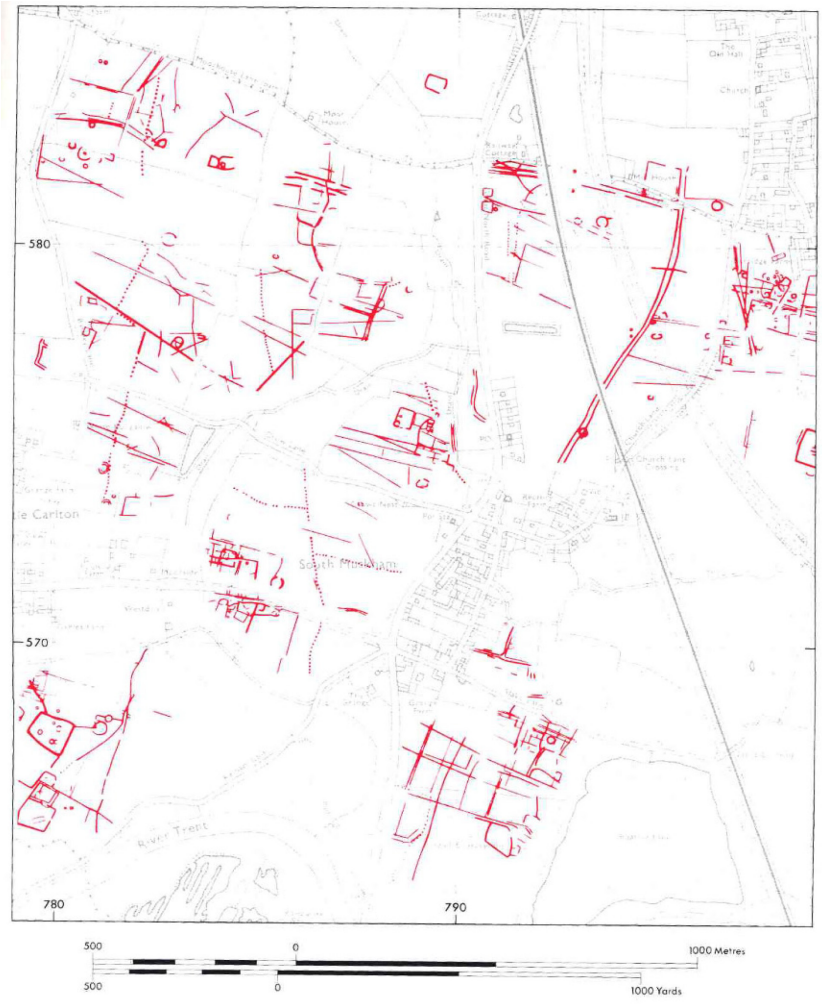
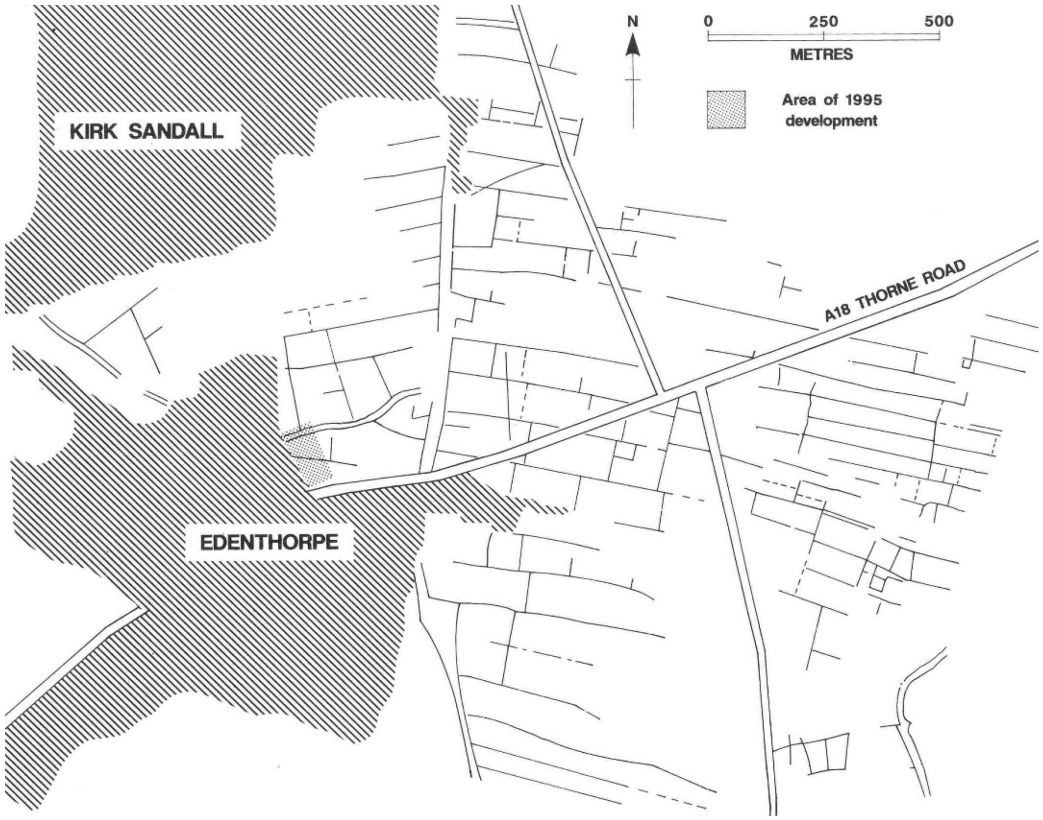


Figure 7.14. (left). *Cropmarks (red) of co-axial field systems at South Muskham, Notts. (Source: Whimster 1989: 81, fig. 60).*

In Nottinghamshire, there were co-axial fields in the Trent Valley north of Newark (Garton 2002; Whimster 1989: figs. 60-61), and similar fields underneath alluvium were investigated at Lamb's Close, Kelham (Knight and Priest 1998). Other co-axial fields have been noted at South Muskham (Garton 2002; Whimster 1989) (Figs. 7.14-7.15). In most instances, however, although these fields were rectangular in shape they varied more in size than many of the more consistent 'brickwork' fields.

Figure 7.15. *Co-axial fields and enclosures at South Muskham, Notts. (Source: D. Riley, SLAP 1300/12, SK 788 574).*

I will consider two areas of 'brickwork' fields in more detail, for they highlight key issues associated with the study region and across Britain in general. On the north-eastern outskirts of Edenthorpe, excavations north of Far Field Road discovered great variety in the fills and profiles of apparently regular co-axial field ditches (Atkinson 1994a). South of Far Field Road, cropmarks revealed part of a sinuous trackway with field boundary ditches laid out north and south of this (Riley 1980: 90, map 4). This initially appeared to be a relatively simple arrangement (Figs. 7.16-7.17).



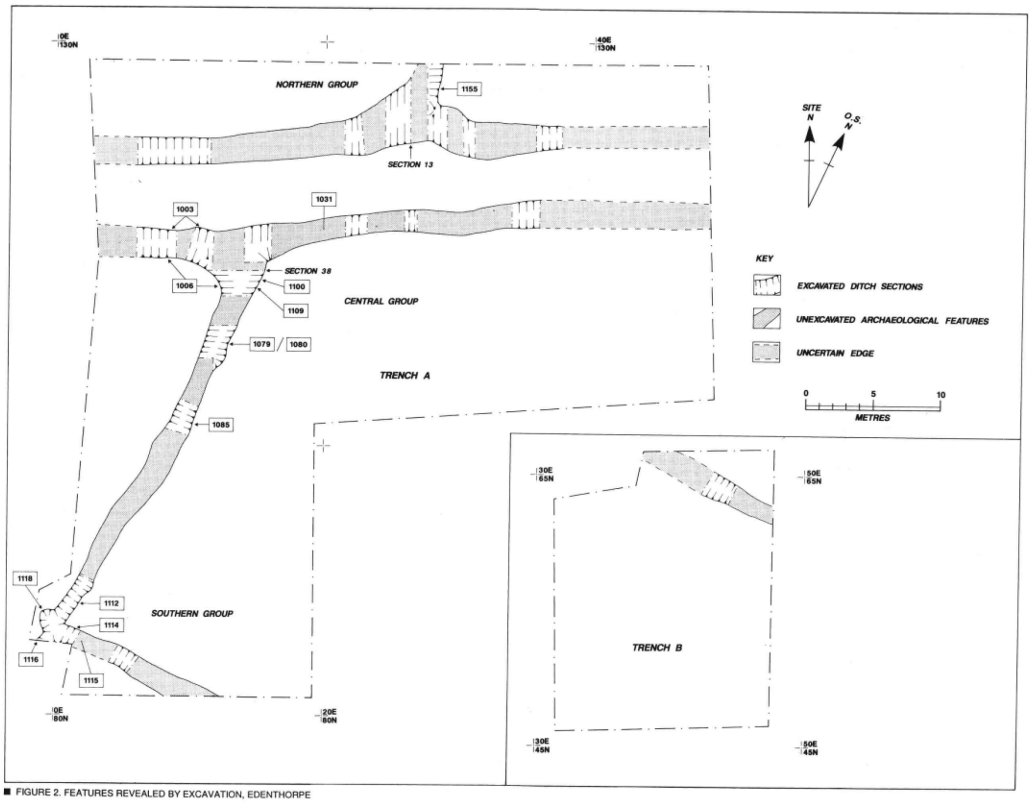


Figure 7.16. (top). *'Brickwork' fields near Edenthorpe, S. Yorks., showing the 1995 development area. (Source: Chadwick 1995b: 48).* **Fig. 7.17. (bottom).** *The excavation areas south of Far Field Road. (Source: Chadwick 1995b: 42).*

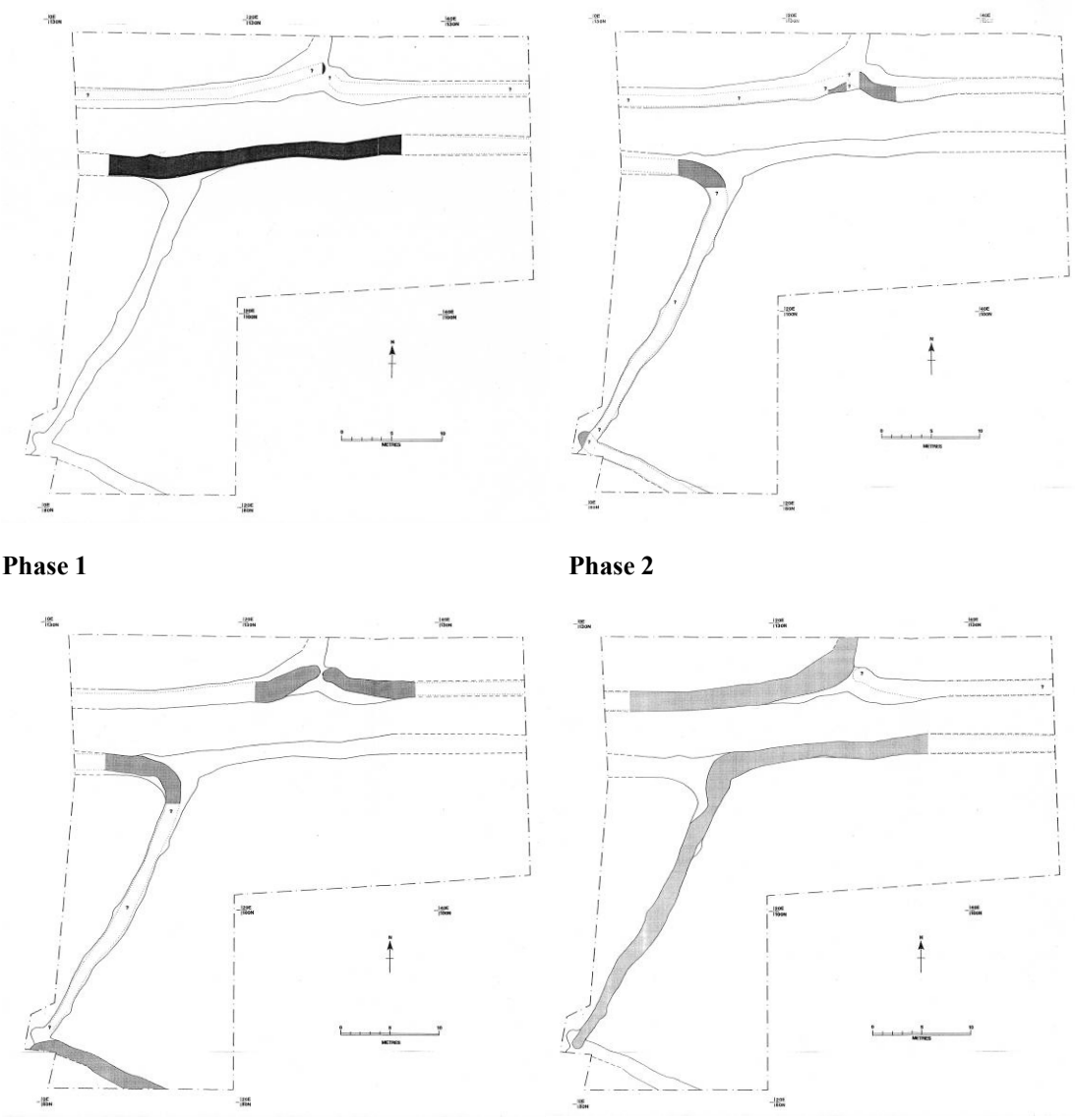


Figure 7.18. *Four major phases of activity identified in the northern excavated area at Far Field Road, Edenthorpe (Phase 1 the earliest), showing how large-scale recutting practices emphasised different boundaries and areas at different times, and also the changes in direction of this recutting. These indicated some major remodelling episodes in the landscape, but it is likely that many minor alterations also took place, in addition to relatively routine maintenance that left little archaeological trace. (Source: Chadwick 1995a: figs. 15-18).*

The excavation identified a complex sequence of recuts and changes in orientation, however, representing at least four different major phases of activity (Chadwick 1995a). There might have been a double ditched trackway only during *some* of these phases, and the regular cropmarks did not reflect this complex stratigraphic and social history. Due to the repeated recutting it is also likely that not all recuts were identified

(Chadwick 1995b: 45) (Fig. 7.18). Many ditches were recut only after they had largely silted up, a phenomenon noted elsewhere (Atkinson 1994a: 21; Cumberpatch and Webster 1998: 19). This suggests that recutting was often *not* routine ditch maintenance; and that the regular cleaning out of ditches might in fact often be archaeologically invisible. In some instances, ditches maintained regularly over time might contain only apparently simple silting sequences reflecting final abandonment (Chadwick 1999: 161; Magilton 1978: 72).

The most extensive investigations of 'brickwork' fields have taken place on the eastern side of Armthorpe. Here, although Riley had previously recorded relatively few cropmarks (1980: 61, map 9), more detailed photo analysis and geophysical survey in advance of developer-funded construction added more information (Deegan 2001a; Hale 1996). A series of evaluations and open-area excavations were subsequently undertaken by Archaeological Services WYAS (Burgess and Richardson 2003; Chadwick and Richardson 2007; Gidman and Rose 2004; Richardson 2001c, 2008; Rose and Richardson 2004), and other field units (Cumberpatch and Webster 1998; Hughes 1996; Rosenberg and Williams 1996). The open-area excavations in particular identified and recorded many additional archaeological features not previously visible on aerial photographs.

At Lincolnshire Way and West Moor Park East (Gidman and Rose 2004; Rose and Richardson 2004), approximately 500m of an east-west trackway was recorded, with field ditches arranged south and north of this (Gidman and Rose 2004). To the east at Lincolnshire Way, an apparently regular junction had trackways leading off in four directions (Area 2), the one to the north joining another north-west to south-east aligned trackway (Fig. 7.19). In the northern part of Lincolnshire Way (Area 1), part of another double ditched trackway and fields or enclosures were recorded (Rose and Richardson 2004). In plan and as large-scale illustrations, these ditches *seemed* to be very regular and laid out as part of a cohesive planned landscape, perhaps even in a single phase. This apparent simplicity of plan breaks down and becomes much more complex under detailed study, however.

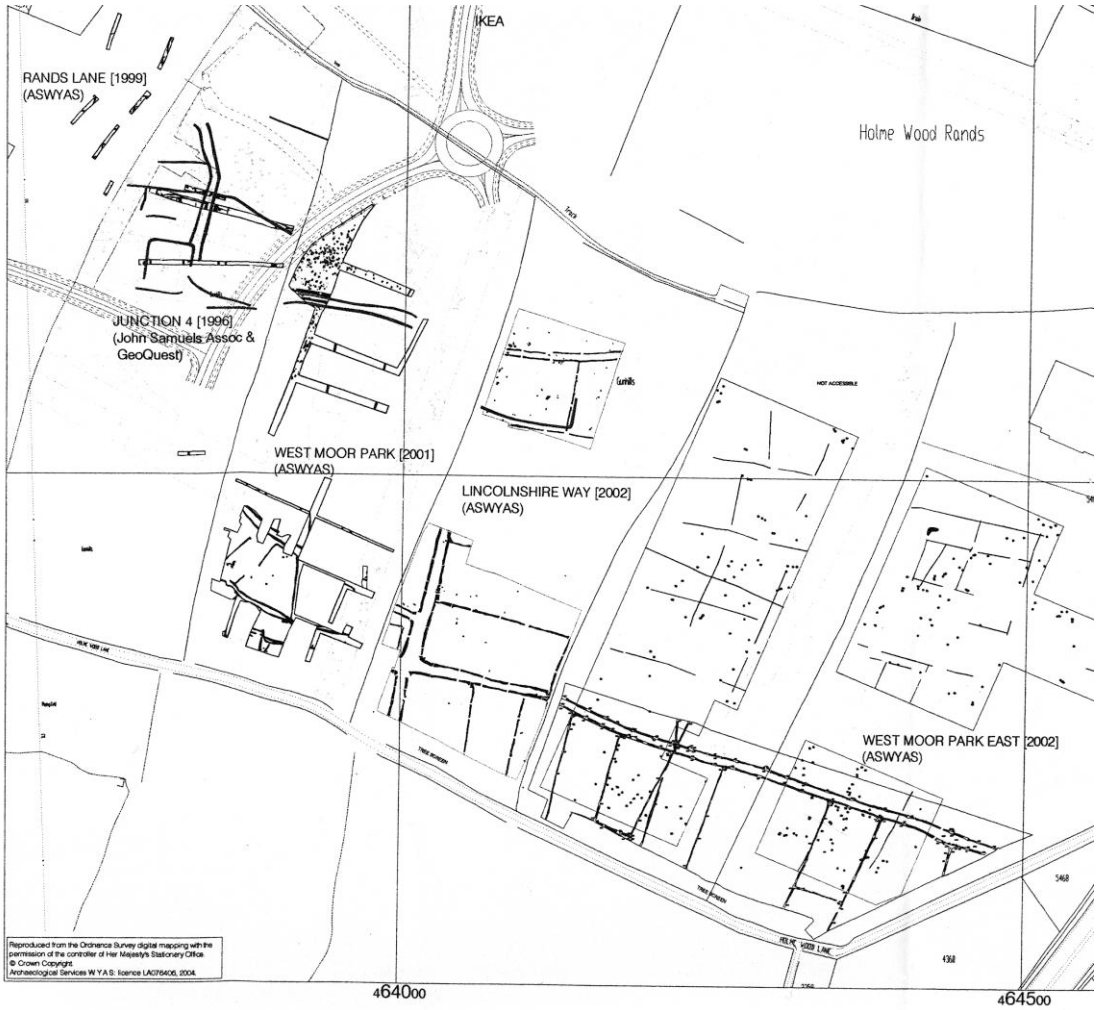


Figure 7.19. *The fields and trackways excavated at Armthorpe, S. Yorks. (Source: Rose and Richardson 2004: fig. 2).*

In Area 1 at Lincolnshire Way, for example, closer examination of plans and sections from the unpublished client report reveals that the western field ('enclosure' B) was added to an earlier eastern area ('enclosure' A) (Fig. 7.20). The double ditched trackway itself was only constructed in a later phase, when Ditch 1 was added parallel to a continuous recut (Ditch 2) of the northern boundaries of A and B (Rose and Richardson 2004: 4.6), which variations in ditch width and alignment along the length of ditches 1 and 2 also suggested. In Area 2 at Lincolnshire Way, ditch intersections again showed that fields were added to one another over time, and the four-way junction was 'staggered' and clearly not constructed in one phase (Fig. 7.21). Trackways might have become single units only in later recuts. Fields were thus added progressively to one another over time. This may also suggest that trackways were used as routes before they were 'formalised' with double ditches.

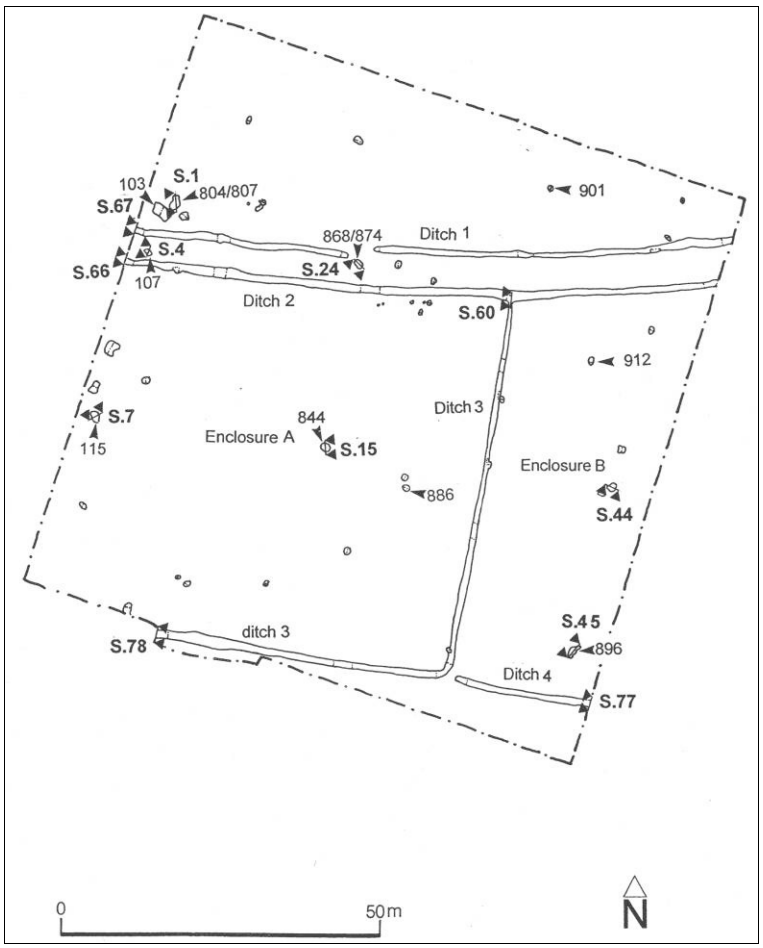


Figure 7.20. *Area 1, Lincolnshire Way. (Source: Rose and Richardson 2004: fig. 4).*

At West Moor Park East, some of the supposedly regularly spaced field boundaries were on slightly different alignments to one another, and some may even have been *later* additions. Ditches 3, 9, 10 and 12 (see Gazetteer entry for Armthorpe) appear in plan to have been progressive eastward extensions of the fields and the trackway ditch 2, although no clear relationships were identified in section. What were termed 'localised distortions' of the trackway ditch (Gidman and Rose 2004: 4.3.2) might have been tree root disturbance, suggesting perhaps that both the trackway and the later subdividing ditches were orientated to upstanding trees.

Furthermore, the trackways and field boundaries at Lincolnshire Way and West Moor Park East were themselves only later components in a long-lived landscape. Excavations further west at West Moor Park revealed a later Iron Age and early Romano-British trapezoidal enclosure with evidence from slags and hammerscale for significant metalworking (Cowgill 2001; Richardson 2001c). More nucleated fields

and trackways were focused around this enclosure. These developed in a more organic manner similar in some respects to the fields at Balby Carr, where a later Iron Age 'open' settlement of scattered roundhouses was incorporated into nucleated enclosures and a curvilinear trackway, which then developed into a more co-axial 'brickwork' landscape (L. Jones 2002, 2005; Rose 2003; Rose and Roberts 2006) (Fig. 6.25). These landscapes often appear regular only because people examine them at too broad a scale, and fail to note the many discrepancies evident in detail. This is the reason why the detailed recording and drawing of ditches in plan and section is necessary to try and identify such complexities.

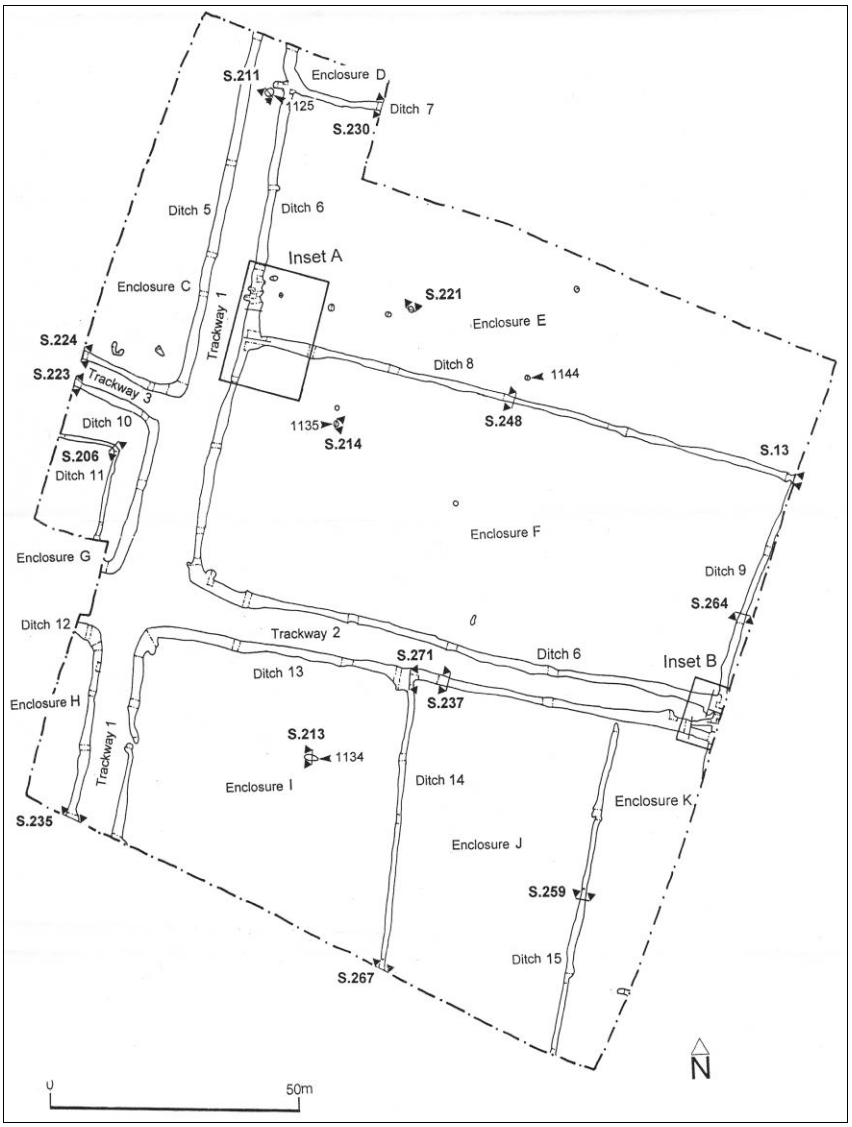


Figure 7.21. *Area 2, Lincolnshire Way, Armthorpe. The 'staggered' nature of the junction and variations in trackway ditch width and alignment reveal multiple phases of field and trackway ditch digging (Source: Rose and Richardson 2004: fig. 7).*

On Dartmoor and Salisbury Plain, co-axial fields have been described as 'terrain oblivious', with main boundaries not conforming closely to the natural topography of hills and valleys (e.g. Fleming 1987b: 190; McOmish, Field and Brown 2002: 53-55). Detailed consideration suggests that this assertion is far too simplistic (Johnston 2001a, 2005a; Wickstead 2007). Co-axial field systems were *not* inherently inflexible in their design (*contra* Fleming 1987b: 190). Within my study region, Alison Deegan and Graham Robbins have argued that many trackways and long boundaries within apparently regular co-axial field blocks were orientated towards rivers (Deegan 1996; Robbins 1998). An excellent programme of GIS analyses as part of the Magnesian Limestone Project highlights that field systems on Magnesian Limestone and Sherwood Sandstone areas were often *terrain sensitive* (Deegan 2007; A. Deegan and I. Roberts pers. comm.) (Figs. 7.22.-7.23). Trackways often made use of subtle folds of ground, as near Ledston where they ran down through a natural clough towards the enclosure and pit groups; or near Goldthorpe where a trackway followed another slight clough into a river valley (see Gazetteer Appendix H). Some trackways may have followed more intangible traces of previous movement – different vegetation, trampled ground and other ancestral marks (q.v. Giles 2007a: 109).

The work of the Magnesian Limestone Project has also demonstrated that most 'brickwork' fields were constructed so that they avoided river valleys, and were laid out to follow subtle 'ridges' and 'peninsulas' of slightly higher ground (Deegan 2007, fig. 6V.5) (Fig. 7.22). This striking pattern cannot simply be a result of alluviation and peat formation over fields within river valleys, although as work at East Carr, Mattersey (Morris and Garton 1998a, 1998b) and Finningley (see Gazetteer) demonstrates, sometimes floodplain areas were enclosed by ditches too. Similarly, many higher areas on the Magnesian Limstone and Coal Measures areas were not enclosed, with fields often occupying the land between hilltops and ridgelines, and valley bottoms. As with some Dartmoor fields therefore (Brück, Johnston and Wickstead 2003; Johnston 2005a), detailed excavation and analysis suggests that the apparent uniformity of even the most regular co-axial field systems in places such as Armthorpe is illusory. On the Sherwood Sandstones, individual fields, blocks of fields and trackways were added accretively to one another over time.

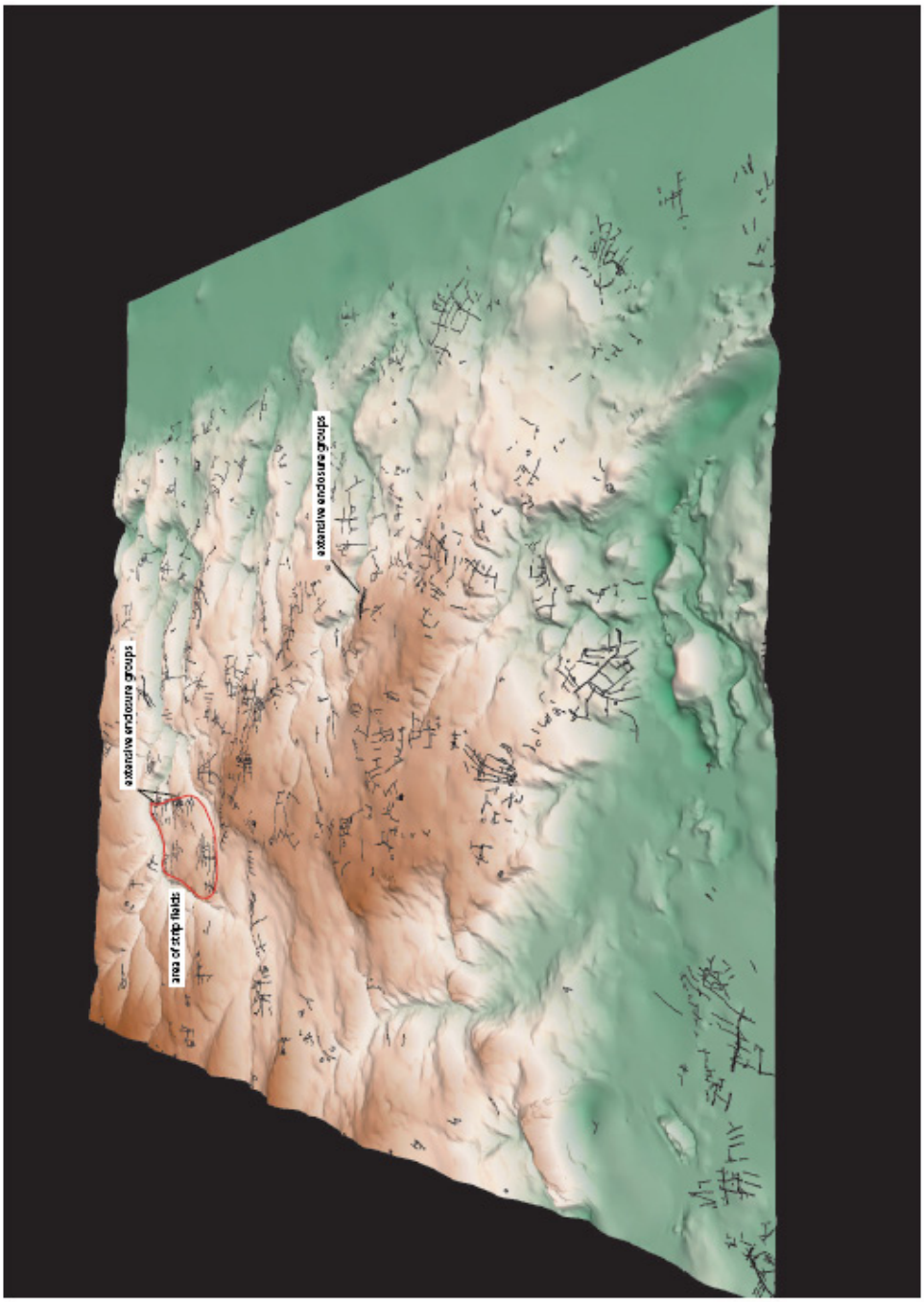


Figure 7.22. *Contour model with air photo mapping of field systems on Magnesian Limestone areas of W. Yorks., looking north from Castleford towards Cock Beck. The Ledston trackway and enclosure complex is visible left of the centre of the image. (Source: Deegan 2007: fig. 6V.2).*

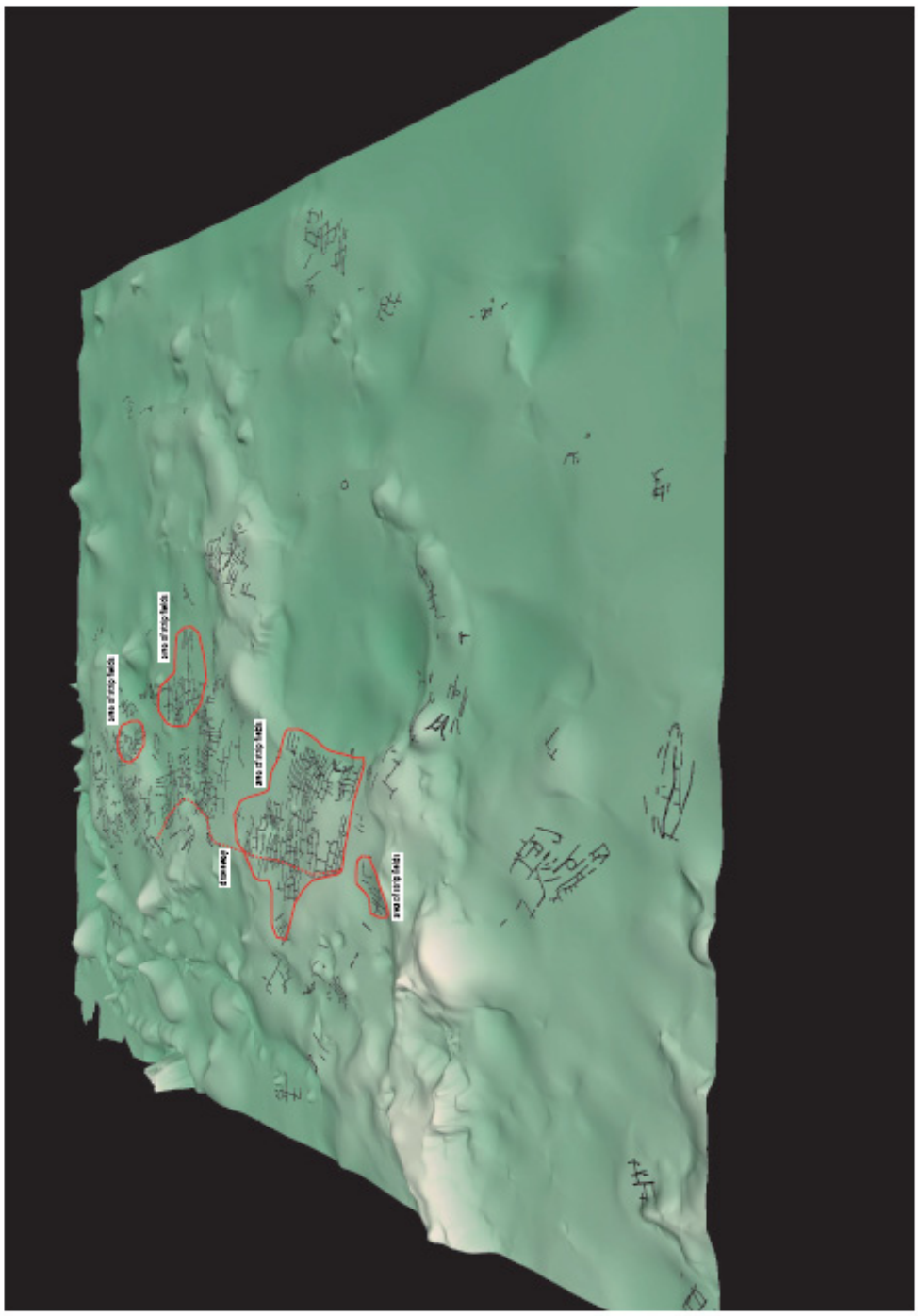


Figure 7.23. *Contour model with air photo mapping of field systems on Sherwood Sandstone areas of S. Yorks., looking north from Cantley towards Stainforth. The possible astrobleme near Rossington is visible at the centre of the image. (Source: Deegan 2007: fig. 6V.5).*

Why co-axiality?

There has been much discussion as to why co-axial field systems developed in many different parts of Britain and Europe, and during different periods (e.g. Bradley 1978; Fleming 1985, 1987b, 1989, 1998a; Hayes 1981; Peterson 1990; Wickstead 2007; Widgren 1990). Peterson suggested that the idea of co-axial fields persisted throughout the prehistoric and historic past because it 'met the needs of its users' when it came to functional and practical considerations of relatively equitable land allotment (Peterson 1990: 590). Whilst not ruling out functional explanations, in a cogent article Fleming suggested that social reasons also lay behind the repeated but intermittent emergence of co-axial systems in different periods, and that they were powerful social concepts that may have been supported and perpetuated by oral tradition, ideology or even ritual specialists (Fleming 1987b: 197-198).

There is an inherent tension in these arguments between the possible planning role of hierarchical authorities and social elites, and communal discussion and organisation in small-scale communities. Apparently regular field systems developed progressively over time through relatively small-scale additions and accretions, yet still took place within a wider social project of future enclosure (Johnston 2005a). They were the result of traditional, communal practices based on shared seasonal and daily routines (q.v. Robbins 1998). If Hayes' statistical analyses are accurate (Hayes 1981: 110-111), then the sizes of 'brickwork' fields in particular blocks were internally similar to one another, but slightly different from fields in adjacent groupings. These differences identified through cluster analysis appeared to be associated with particular enclosures, suggesting variations between different households, age grades or other social distinctions. Future GIS-based analyses may be able to pursue these questions further. As part of the Magnesian Limestone Project, Alison Deegan has shown the clustering of fields of different sizes within her 'mixed' field systems (Fig. 7.33), but also a more regular average size of fields within the co-axial 'strip' fields (Fig. 7.34). It would be interesting to extend such analyses across the entire study region.

It is likely that practical considerations of land allotment and land division in previously unenclosed areas of the landscape were also influenced by habitus – social notions of practice and the right ways of 'going on' in the world (see Chapter 3).

Whenever communities decided to enclose previously unbounded areas, co-axial field blocks allowed a relatively orderly and perhaps more equitable intake of these areas, even if enclosure took place over decades or generations rather than the rapid construction envisaged by some authors (cf. Fleming 1988: 107-108; Herring forthcoming). Fleming himself has wavered from hierarchical planning to communal decision making in his explanations of Dartmoor's reaves. In the study region, some long-term planning almost certainly took place by relatively few people such as elders, and perhaps by elites, though this seems less likely. Nevertheless, the variations within apparently regular field blocks suggest that construction took place at a local level, the result of discussions and negotiations amongst communities organised along kinship and clan lines or 'neighbourhood groups' (Fleming 1988: 108; Hannan 1972: 169). Once one or two households decided to take in land in such a manner, others might have followed suit. Communal rights, negotiations and endeavour were probably thus more important than centralised planning (Fleming 1994; Johnston 2001, 2005a; Robbins 1998; Wickstead 2007; Widgren 1990).

Explanations for co-axiality and the appearance of field systems within the study region are most likely to lie in changes of social and tenurial relations, rather than as purely functional adaptations to particular environmental conditions. The wide range of landscapes and periods in which co-axial fields appeared across Britain, and the fact they did not appear everywhere, suggests that they resulted from particular social conditions; and that they need not reflect either relatively rapid and centralised planning and construction, or the existence of hierarchical authorities and social elites.

Land use and land tenure within the study region

As I indicated in Chapter 4, I disagree with many of the reasons proposed so far as to why the 'brickwork' fields in particular could not have been associated with arable production. Nevertheless, I believe that the current limited evidence for cereal cultivation within them, however, coupled with their physical layout, does indicate that pastoralism was probably more important in these areas, as I suggested in

Chapters 4 and 6. Elsewhere, there were more mixed farming regimes. Again, this may also be indicated by the physical layout of field systems.

> The archaeological patterns of a pastoral area should be different from those produced by much more mixed farming. In the latter case the need to separate crops and animals produces more complicated and nucleated patterns with stock enclosures around central huts from which droveways lead through an area of fields to pastures beyond. In a pastoral area we can expect not only sparser settlement but simpler patterns; one or two huts in a simple enclosure, isolated stock enclosures, and ranch boundaries (Ramm 1980: 31).

Figure 7.24. *Some of the more varied fields and enclosures recorded at Redhouse Farm, Adwick-le-Street, S. Yorks. (Source: Upson-Smith 2002: fig. 2).*

The field systems around Sutton, Lound and Babworth in Nottinghamshire; Dearne, Barnburgh, Sprotbrough and Adwick-le-Street in South Yorkshire; and Parlington Hollins and Ledston in West Yorkshire; all have features indicative of mixed farming (Figs. 7.08, 7.24-7.25). Mixed farming was undoubtedly taking place on the Magnesian Limestone and Coal Measures areas (Deegan 2007), and in the Trent

Valley. In contrast, co-axial 'brickwork' fields around Rossington, Edenthorpe, Hodsock and Torworth may have been predominantly for livestock (Figs. 6.05, 7.26), but it seems unlikely that *no* arable farming ever took place within them.

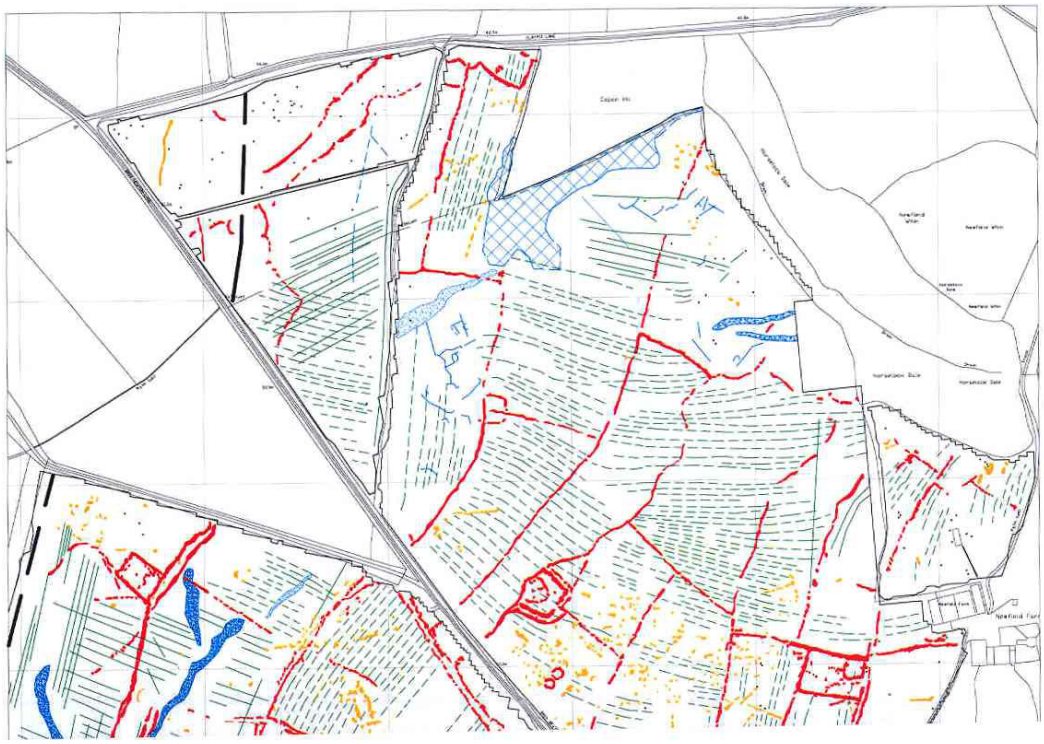


Figure 7.25. *Part of the extensive area investigated through geophysical survey at Back Newton Lane, Ledston, W. Yorks, showing more varied fields and enclosures in red, and later features including ridge and furrow in green. (Source: Webb 2006).*

There is no reason to assume, as Hayes (1981: 116-117) implied, that fields within a particular block were all in use at the same time. Some might have been used for arable cultivation, others may have lain fallow for several years. Tenurial rights of access and inheritance may have meant some fields were effectively abandoned for years or even decades (q.v. Giles 2007a; Sillitoe 1999). Fields may have rotated between arable, fallow and pasture, and manure would have been needed to maintain soil fertility. In Iron Age Scotland and the Northern Isles there is evidence for the careful stockpiling of midden material, which was then introduced into the soil (e.g. Guttmann 2005; Guttmann, Simpson and Davidon 2005). In the study region, this was more likely to have been through folding animals onto the fields. Rights of tenure may have fluctuated between different lineages and clans, or as land use passed down through the generations through marriage and/or systems of inheritance.

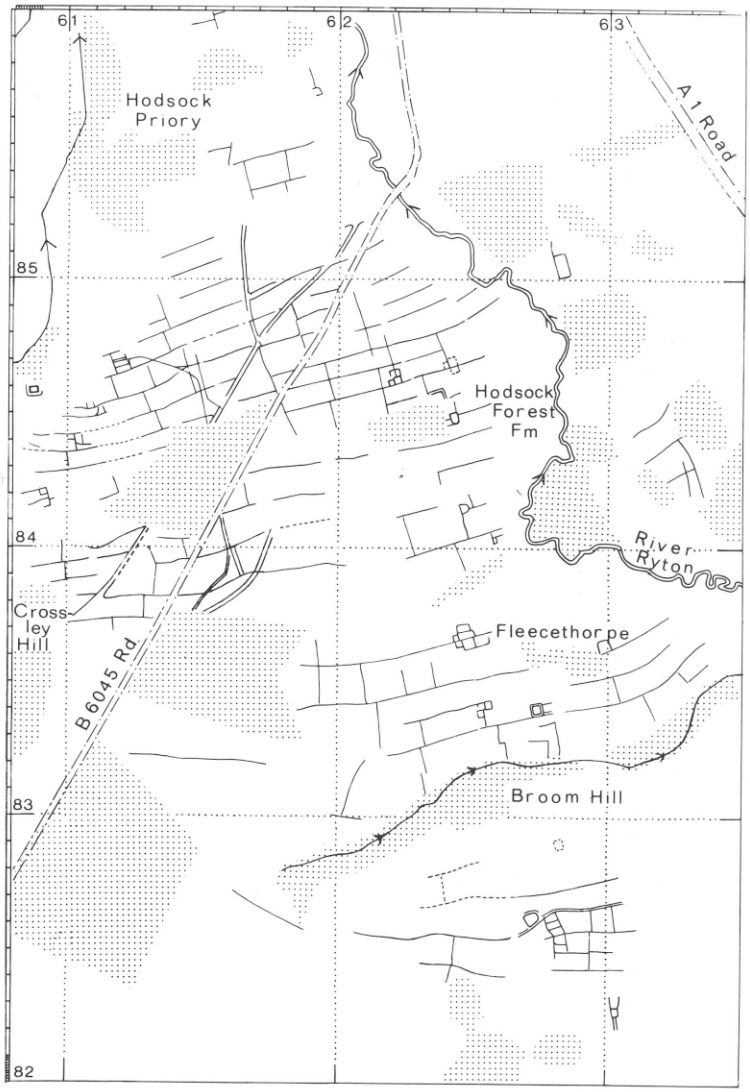


Figure 7.26. *'Brickwork' fields, enclosures and trackways near Hodsock, Notts. (Source: Riley 1980: 111, map 17).*

'Colonisation' in the study region?

At Gonalston there was evidence for division of the Trent floodplain terrace by rectilinear boundaries in the mid-first millennium BC, roughly contemporary with the earliest enclosed settlements (Elliott and Knight 1998; Knight and Elliott forthcoming; Knight and Howard 2004: 100-101). This is unusually early for the Trent Valley. It is possible that during the earlier Iron Age, social groups did not claim particular low-lying areas. Instead, some members of these communities visited these areas on a successive basis with their herds of livestock (q.v. Godelier 1978:

400). For many substantially pastoralist groups, land itself has no intrinsic value but is perceived as a 'territory' whose resources belong to the wider community (Saltman 2002: 160). Sites on floodplains might have only been occupied during summer and autumn, but over time permanent settlements were established. This process may also have happened at Balby Carr near Doncaster. A similar model (though for a slightly earlier period) has been proposed for fen-edge communities in East Anglia (Evans and Hodder 2006: 320-322). Different groups might then have begun to claim specific areas of river valleys, and divided them up using pit alignments and ditches. Romano-British ditches on the River Idle floodplain at Mattersey (Morris and Garton 1998a, 1998b; Fig. 7.27) and the low-lying land south-east of Finningley (see Gazetteer) may have drained areas previously waterlogged during the winter.

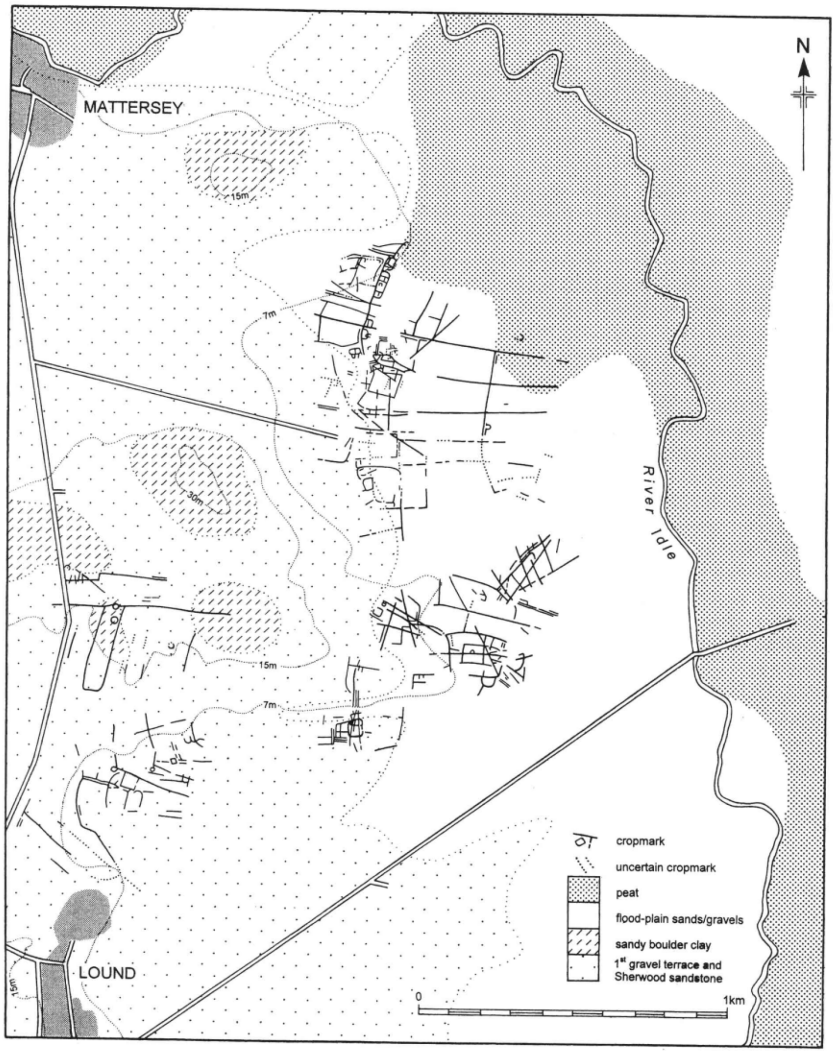


Figure 7.27. *Cropmarks on the River Idle floodplain at East Carr, Mattersey, Notts. (Source: Knight, Howard and Leary 2004: 142).*

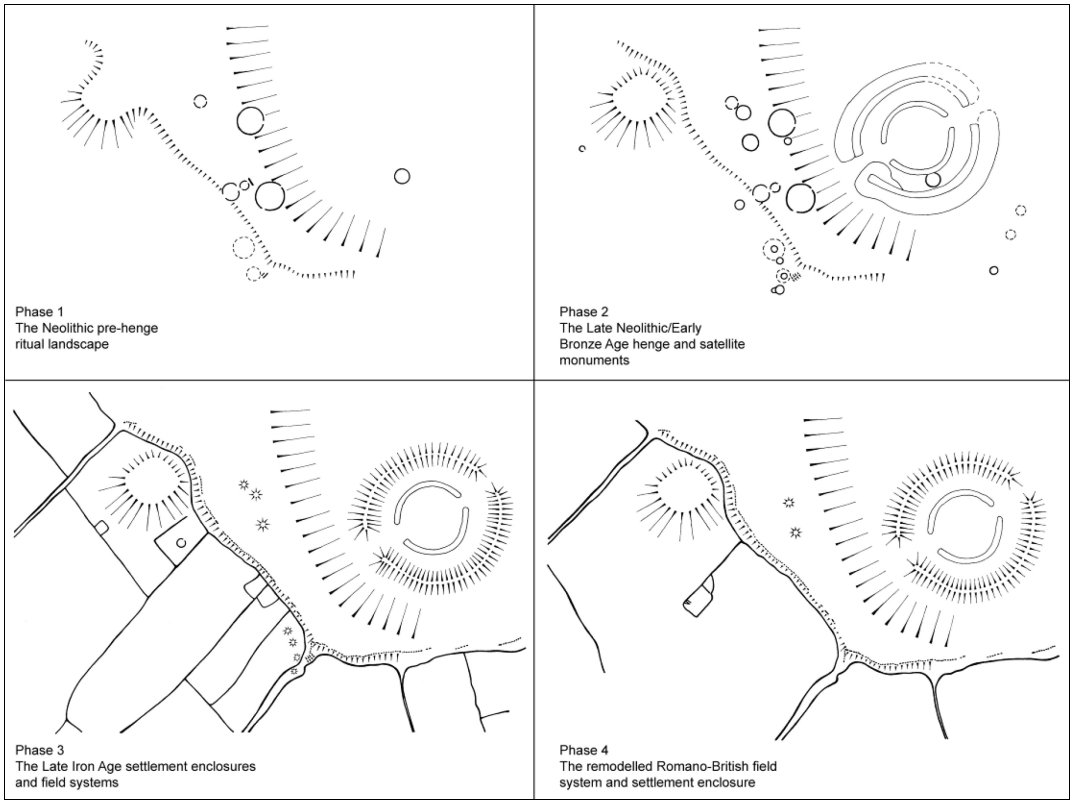


Figure 7.28. *Proposed major developments in the Ferrybridge landscape, including the Romano-British period (lower right) when many earlier field boundaries appear to have been removed. (Source: Roberts 2005a: 220).*

Excavation work along the M1-A1 road corridor in West Yorkshire suggests that some trackways and major boundaries were constructed in the early Iron Age, although there was an expansion of enclosure in the second and third centuries AD (Roberts, Burgess and Berg 2001: 287). Around Ferrybridge henge, late Iron Age co-axial fields were radically altered in the early second century AD. Minor boundaries were removed and a central enclosure was superimposed upon the earlier field system (Roberts 2005a: 216; Roberts forthcoming) (Fig. 7.28). At Armthorpe and Balby Carr, 'brickwork' fields associated with second or third century Romano-British pottery effectively 'infilled' and expanded upon more irregular, organic enclosures and fields of late Iron Age date (Chadwick and Richardson 2007; Gidman and Rose 2004; Richardson 2001c, 2004; Roberts forthcoming; Rose and Richardson 2004).

Although there were probably no major changes in agricultural production during the earlier Roman period in northern England (see Chapters 4 and 5, Appendix A), many colonial administrations prefer settled cultivators on particular areas of land to situations where different groups maintain varying seasonal or annual movements

with livestock, and tenurial rights are based on tradition and verbal agreements (e.g. Saltman 2002). Roman administrators would have tried to clarify, codify and simplify such practices. This might have led to changes in attitudes towards land and notions of property and ownership amongst indigenous communities. Some groups may have insisted on maintaining their herds, especially if these had associations of wealth and status, were part of social relations such as marriages and inter-group links, and were part of individual and group identities. Inevitably, this would have caused problems with available resources, and perhaps greater pressure on existing areas of enclosed and open land. In such circumstances, increased enclosure was perhaps inevitable, and the further development of networks of trackways.

In the Fenlands of East Anglia, there is some archaeological evidence for large imperial estates established by Roman officials, with administrative and market centres with large stone buildings (e.g. Jackson and Potter 1996; Potter 1989). Even in this region, however, this 'historical narrative of imperially inspired colonisation' interpretation has been questioned (Taylor 2000, 2007: 65). No such evidence exists within my study region, and the stratigraphic complexity of superficially regular co-axial fields indicates that they were *not* laid out as a centralised process. Re-organisations of the landscape occurred, but *not* wholesale expansion into 'virgin' areas, although some blocks of fields might have initially been new intakes cleared from grassland, scrub or wood. The archaeological evidence no longer supports simplistic suppositions concerning Roman policies of improvement and agricultural expansion (*contra* Branigan 1989; Fowler 2002; M. Jones 1989).

In some areas, the construction of boundaries in previously unenclosed areas was probably the result of middle to later Iron Age developments. In other places, these developments took place during the late Iron Age and Romano-British period, in others only after the Roman occupation. Although increased pressure on land caused by rising populations *may* have been one reason why additional areas were taken in and defined by boundaries, the fact that this occurred in different places at different times suggests that other reasons have to be taken into account. Roberts (2004: 34-36, 2005a: 216-217, forthcoming) has suggested that second and third century changes in field systems at Ferrybridge and near Whitwood and Methley were the result of developments in the rural economy stimulated by the Castleford *vicus*. Roberts

explains this as a form of 'expansion' or 'rationalisation', directly equating such changes with progressive Roman improvement. But as I have outlined above, there is little archaeological evidence from the study region for dramatic increases in agricultural production. It was the social *process* of the reorganisation of land holdings that was probably significant, as during this period traditional forms of tenure and inheritance might have changed, with much greater emphasis on the ownership of land by particular individuals and households. There might indeed have been consolidation of many land holdings, and land bought and sold as an alienable commodity for the first time (q.v. Kopytoff 1986), but this was part of these wider developments. For some communities, there might have been tensions between traditional seasonal movements and agricultural practices, and a greater degree of sedentism enforced by the Roman authorities. Although some agricultural extensification and intensification took place, perhaps due to taxation and expanding populations in urban areas, these were probably a consequence of such developments, and were certainly *not* the sole reasons behind them.

> …colonialism above all involves the physical appropriation of land, its capture for the cultivation of another culture. It thus foregrounds the fact that cultural colonisation was not simply a discursive operation but a seizure of cultural (in all senses of the word) space...In colonialism, therefore, we often have a conflict between societies that do and do not conceive of land as a form of private property; at one level indeed, colonialism involves the introduction of a new notion of land as property… (Young 1995: 172).

Some rural sites across the region such as Scrooby Top, Gonalston, Bullerthorpe Lane and Stile Hill, Colton were largely abandoned by the late third century AD (Davies et al. 2000: 45; Elliott and Knight 1998; Knight and Elliott forthcoming; Roberts 2004: 36, 2005a: 216), in the case of low-lying examples perhaps due to rising water tables, and in others possibly some soil exhaustion. At the same time, other settlements such as Dalton Parlours, Wattle Syke, Parlington Hollins, Garforth, Moor Pool Close, Rampton and Billingley Drive, Thurnscoe seem to have prospered (Bevan 2006; Holbrey and Burgess 2001; Knight 2000; Neal and Fraser 2004; O'Neill 2007; Owen 2000). It may be significant that many of these also appear to be the most 'Romanised' rural settlements in terms of their consumption practices (see Chapter

10). Other sites such as Raymoth Lane, Worksop, Dunston's Clump, Scratta Wood and Whitwood Common experienced major transformations in their occupation (Burgess and Roberts 2004: 36; Garton 1987: 67-68; Palmer-Brown and Munford 2004: 36), some probably ceasing to be 'domestic' settlements altogether. Some of these changes may have been linked to shifting foci of settlement over the generations, however, with occupation moving to other nearby enclosures (q.v. O'Neill 2001c: 277). Rather than necessarily reflecting the establishment of 'Roman estates' (*contra* Roberts 2005a: 217), these may all be linked to wider social and economic developments, particularly changes in tenure and/or ownership. Some archaeologists have suggested that the later third century AD was characterised by social upheavals and economic uncertainty (Faulkner 2000; Fowler 2002; Frere 1987; Petts 1998; Reece 1980; Webster 1969), although detailed discussion of this is outside the scope of this thesis. Whether settlements succeeded or failed may have depended to the extent in which they integrated into the wider Roman imperial economy.

Still digging

In these field systems, routine maintenance of ditches by cleaning out vegetation and silt could have been undertaken by a few individuals on a relatively prosaic basis. Other ditch digging involved the renewal of whole sections of boundaries and the construction of new ones. Households or kinship groups might have undertaken such 'reiterative gestures' (Giles 2000: 183), explicitly linked to tenure and identity, and some boundaries may even have been remembered as the work of particular individuals (q.v. Lele 2006: 65). Such work stressed and reinforced social bonds within families (Chadwick 1995b: 47, 1999: 163-164), but trackways and boundaries between blocks of fields might have been the shared work of different households, as neighbouring farmers co-operated on building or maintaining walls and hedges between their respective holdings (q.v. Arensberg and Kimball 1940: 74-75; Hannan 1972: 170; Phillips 1984: 237). These major digging episodes might have marked changing seasons, or may have been more irregular and linked to key moments in human biographies such as births, deaths and marriages. It is also likely that some represented major changes in ownership, access or tenure. Sometimes small-scale

placed deposits accompanied these acts of digging (see Chapter 11). There might have been tensions and stress too – disputes between neighbouring groups over access to grazing or water, or fears of loss of tenure or ownership.

Building boundaries and relationships. **Figure 7.29. (top left).** *Communal building of a drystone wall. (Source: Garner 2003: 11).* **Fig. 7.30. (top right).** *Wabag men building a hurdle wall, Mount Hagen, New Guinea. (Source: Steensberg 1980: 167).* **Fig. 7.31. (below).** *Hurdle making. (Source: Porter 2000: 223).*

Patterns of land division, land allotment and probably land use thus all varied greatly across the study region. Field systems ranged from more mixed or irregular, nuclear and 'ribbon' arrangements to co-axial and 'brickwork' groupings. The former were probably more often associated with mixed farming regimes. Some areas of co-axial fields resulted from an emphasis on large-scale animal husbandry, and these originated in the late Iron Age and expanded during the Romano-British period.

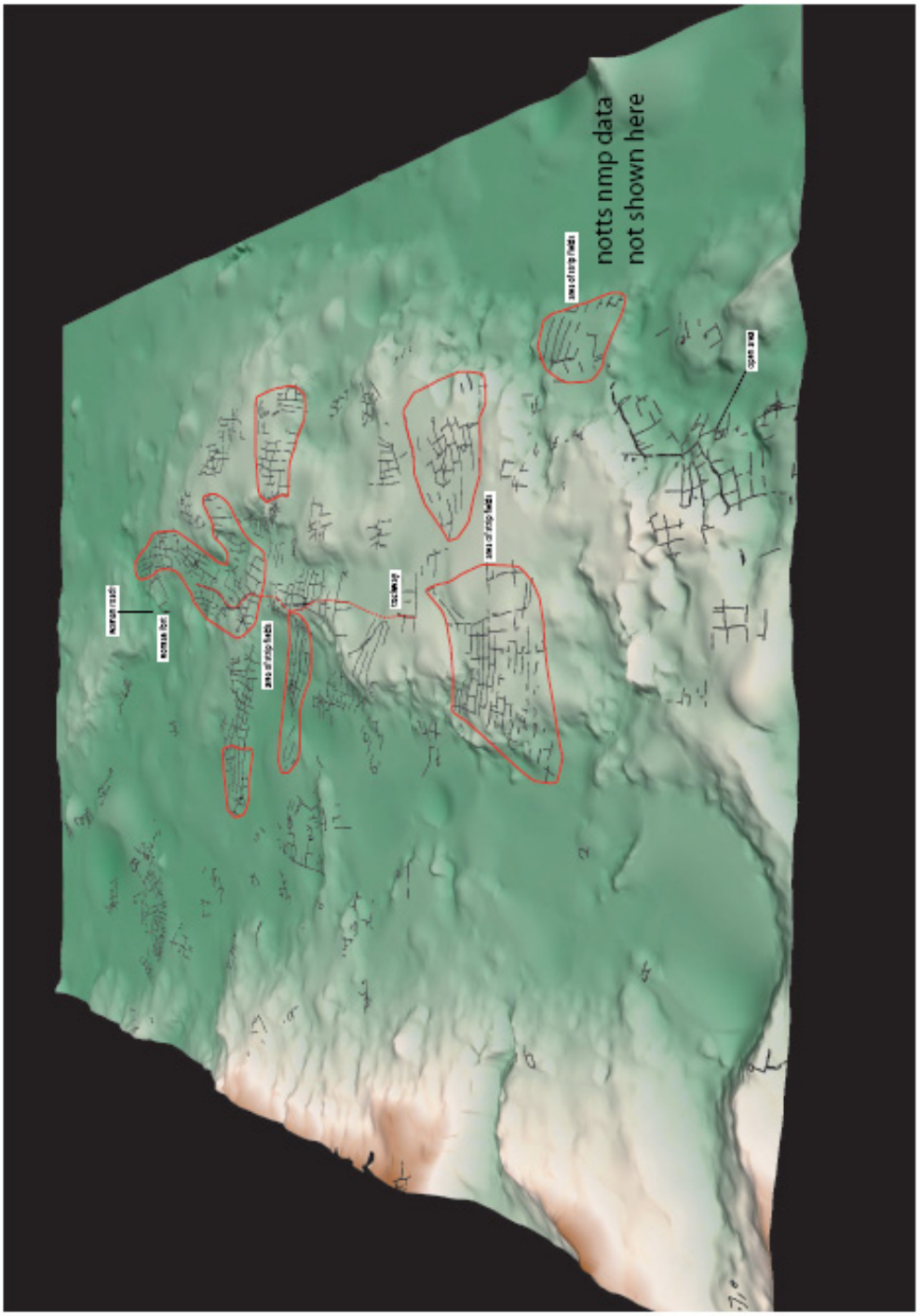


Figure 7.32. *Contour model with air photo mapping of 'brickwork' fields in S. Yorks., looking north from Harworth to Stainforth. (Source: Deegan 2007: fig. 6V.6).*

Although environmental and economic factors undoubtedly influenced these layouts, social factors were important too. Until the mid-twentieth century for example, there were varied patterns of drystone walling in different Yorkshire and Cumbrian dales (Bevan forthcoming), and such localised traditions of land allotment and boundary construction may have existed in the past, inculcated through the habitus. Alison Deegan has identified localised 'clusters' of fields and enclosures through GIS analyses (AS WYAS 2006; Deegan 2007) (see Fig. 7.32). Each of these clusters may have been established by particular clans or lineage groups.

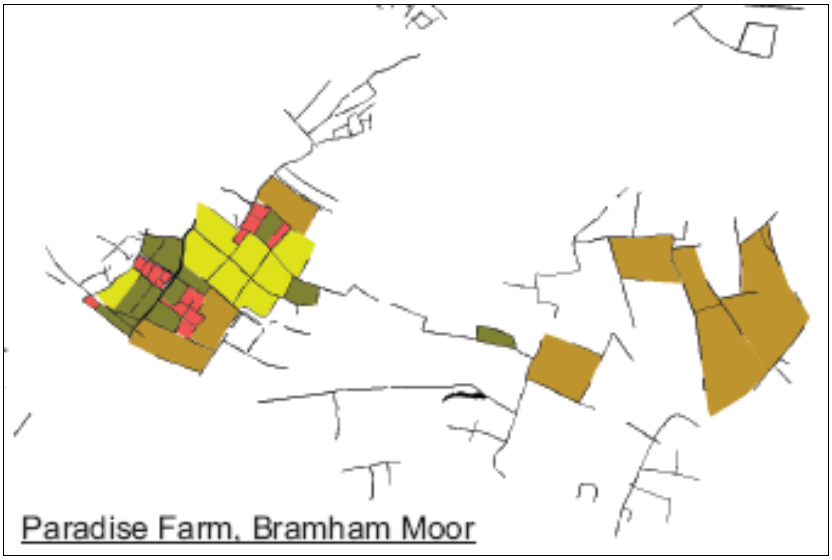


Figure 7.33 (above). *'Mixed' fields on Bramham Moor, W. Yorks., showing how there was some grouping of fields of similar sizes.* **Fig. 7.34. (left).** *'Strip' fields near Edenthorpe, S. Yorks. Compare with Fig. 7.07 no. 1. (Source: Deegan 2007: fig. 6.5).*

Field sizes: *red <0.2ha*
green 0.2-0.5ha
yellow 0.5-1ha
brown >1ha

The more mixed, attenuated and nucleated field systems on Magnesian Limestone and Coal Measures areas *may* have reflected environmental factors such as thinner or heavier soils, and perhaps greater areas of surviving woodland (Roberts, Berg and Deegan 2007), but also suggest a longer and more piecemeal process of development, potentially from the early Iron Age through to the late Roman period (e.g. Fig. 7.33). In contrast, co-axial field blocks such as the 'brickwork' fields may have been more regular partly as a physical response to flatter and more open landscapes on the Sherwood Sandstones and within the Trent Valley, which probably facilitated greater lines of sight and simpler techniques of laying out fields (q.v. Wickstead 2002). They might also have been a means of dividing previously unenclosed land in a relatively equitable manner (Fig. 7.34). Although undoubtedly accretive over time, such co-axial fields nevertheless were probably created over fewer centuries – from the late Iron Age into the Romano-British period, with a likely increase in this process during the second and third centuries AD. This gradually emerging picture of diversity across the study region and within particular landscape areas shows that both functional and social factors must be taken into account when discussing field systems.

The reasons behind this expansion in field systems during the middle and late Iron Age are unclear. Rising populations and systems of inheritance may have contributed. There may also have been changes in tenure and access, with communities, clans and households laying claim to particular areas of the landscape. This might also have been linked to more widespread changes in kinship relations, which placed a stronger emphasis on individuals households and lineages rather than wider social networks, and a growing distinction between 'insiders' and 'outsiders' (q.v. Thomas 1997: 215-216). Along with these developments there might have been concomitant changes in agricultural practices.

The enclosure of some river floodplains and areas beside birch and alder carr woodland also took place at different times. In the Trent Valley near Gonalston it occurred during the middle Iron Age (Knight and Elliott forthcoming), at Balby Carr near Doncaster during the late Iron Age, whilst at Mattersey it might not have taken place until the Romano-British period (Morris and Garton 1998a, 1998b). Although originating in the later Iron Age, many co-axial field systems were particularly

associated with social and agricultural developments during the second and third centuries AD. They were *not* examples of centuriation though, and were *not* part of a centralised, pre-planned Roman colonisation of unused areas. Rather, they represented the gradual but progressive intake over time of unenclosed areas once utilised for communal grazing. This probably reflected changes in land tenure, including an increasing emphasis on land ownership by particular households. There may have been some extensification and intensification of agriculture within these fields as part of this process, but these processes were themselves not the principal reasons for the changes. Further detailed work such as the Magnesian Limestone Project will be invaluable for the future investigation of such questions.

> History and tradition are important. In the case of land enclosure, people may use walls and fields to structure relationships among themselves, but they choose these areas because they already relate to them in their social lives, as with age or gender oppositions during the harvest, because they are familiar with them, and because the fields were themselves constructed as a means of social engagement in the first place and so have their own depth of meaning in the social domain. (J.G. Evans 2003: 29).

Notes

1. Given the fact that these monuments may well have been different in date, at least in terms of construction, it is thus very unlikely that they all represented key parts of a defensive system – an Iron Age 'Maginot Line'. Wincobank hillfort might have been abandoned after 500 BC. If the Roman Rig was later in date, however, and comprised some sort of political or social boundary, then it is unsurprising that it may have referenced earlier monuments in the landscape such as Wincobank. These might have given it added legitimacy and an aura of antiquity, whether the linear earthwork was late Iron Age or post-Roman in date.
2. This phenomenon can be seen at Wattle Syke, where at least two of the three 'lobes' making up this enclosure complex appear to have been appended to sinuous linear boundary ditches. It is not yet clear if the sinuous boundaries were constructed in full before the enclosures, or were simply a product of enclosures being added to one another over time. The recent excavations at Wattle Syke (see Appendix G) are unlikely to shed light on this as the 'backs' of most of the enclosures were not investigated.