

Beyond the Midland field system: the determinants of common rights over the arable in medieval England*

by Mark Bailey

Abstract

Recent research into the field systems of medieval England has revealed much about their layout, variety and likely origins. This article surveys the state of that research, and contends that too little attention has been paid to the function and evolution of fields, while too much attention continues to be lavished upon the Midland system at the expense of other types of common field systems. It also argues that there is insufficient direct analysis of how common rights actually developed over the arable. The last point is addressed in two ways: by deploying the work of Campbell and De Moor to categorize the various types of common rights; and by exploring the ways in which individual variables determined both the ability of a community to enforce common rights, and also the value that it placed upon the utilization of the fallow arable. The classic model of Thirsk and Dahlman, which regards demography as the key determinant of common rights, and the Midland system as the ultimate formulation of a common field system, does not provide a sufficient explanation. The article advocates a shift in perspective beyond the Midland field system, and away from the origins of fields to their dynamics.

The study of English field systems has a long and distinguished tradition, revived in the last decade by a wave of interest from field archaeologists and landscape historians.¹ This is both welcome and important, because ‘fields lie at the heart of any discussion of the medieval

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¹ The classic works are F. Seebohm, *The English village community* (1883); H. L. Gray, *English field systems* (1915); C. S. and C. S. Orwin, *The open fields* (third edn, 1967); J. Thirsk, ‘The common fields’, *Past and Present* 29 (1964), pp. 3–25; ead., ‘The origin of the common fields’, *Past and Present* 33 (1966), pp. 142–7; A. R. H. Baker and R. A. Butlin (eds), *Studies of field systems in the British Isles* (1973); C. J. Dahlman, *The open field system and beyond. A property rights analysis of an economic institution* (1980); R. A. Dodgshon, *The origins of British field systems. A re-interpretation* (1980); E. Kerridge, *The common fields of England* (1992). Among the new wave of works are C. Lewis, P. Mitchell-Fox and C. Dyer, *Village, hamlet and field. Changing medieval settlements in central England* (1997); B. K. Roberts and S. Wrathmell, *Region and place. A study of English rural settlement* (2002); T. Williamson, *Shaping medieval landscapes. Settlement, society, environment* (2003); S. Oosthuizen, ‘The Anglo-Saxon kingdom of Mercia and the origins and distribution of common fields’, *AgHR* 55 (2007), pp. 153–80; E. Martin and M. Satchell, ‘Where most inclosures be’. *East Anglian fields: history, morphology and management* (East Anglian Archaeology, 124, 2008); S. Rippon, *Beyond the medieval village: the diversification of landscape*

economy, for they were the units in which England's greatest resource, land, was exploited'.² An understanding of *common-field* systems is especially important, because, according to one calculation, in c.1300 around two-thirds of the population lived in common-field townships.³ The recent research has reinforced the remarkable variety in the form of common fields, while breathing new life into the old quest to date and explain both their origins and the scattering of individual holdings within them. It has also encouraged fresh speculation about the Holy Grail of the study of English field systems: the origins of the classic Midland field system.

Much of this recent work has focused upon field morphology, in part because some of it has been funded through English Heritage's determination to characterize the historic landscape. Yet it also reflects a broader shift towards understanding fields as part of wider developments in the medieval landscape, notably settlement patterns. It is now generally agreed that open fields first appeared as a landscape feature during the seventh and eighth centuries, and, by c.1300, they had become widespread throughout England.⁴ The evolution of open fields into the classic two-, three- or four-field Midland system occurred at some point within this period. Some commentators believe that the Midland system had emerged in central England as early as the eighth or ninth centuries, and spread thereafter, while many associate its introduction with a planned reorganization of the landscape and the creation of nucleated villages.⁵

This article contends that this refreshing and innovative wave of recent research, for all its excellent qualities, tends to perpetuate some misconceptions about fields. In particular, excessive attention is paid to the morphology of fields at the expense of their function; the use of key terminology can be imprecise and, at times, sloppy; too much attention, implicitly or explicitly, continues to be lavished upon the development of the Midland system, as opposed to other types of field system; and, finally, there continues to be a lack of clarity about, or detailed understanding of, how common rights developed over the arable land. The last is the most striking omission from the literature, which this article attempts to address.

Note 1 continued

character in southern Britain (2008); M. Gardiner, 'Dales, long lands and the medieval division of land in eastern England', *AgHR* 57 (2009), pp. 1–14.

² G. Astill, 'Fields', in G. Astill and A. Grant (eds), *The countryside of medieval England* (1988), p. 62.

³ B. M. S. Campbell and R. A. Godoy, 'Commonfield agriculture: the Andes and medieval England compared', in D. W. Bromley (ed.), *Making the commons work: theory, practice and policy* (1992), pp. 99–125, repr. in B. M. S. Campbell, *Field systems and farming systems in late medieval England* (2008), p. 102.

⁴ D. Hall (ed.), *The open fields of Northamptonshire* (Northamptonshire Rec. Soc., 38, 1995), pp. 125–39; Williamson, *Shaping medieval landscapes*, pp. 5–21; D. Hall, 'The origins of open field agriculture: the archaeological fieldwork evidence', in T. Rowley (ed.), *The origins*

of open field agriculture (1981), pp. 36–8; R. Jones and M. Page, *Medieval villages in an English landscape. Beginnings and ends* (2006), pp. 7, 92–6; Oosthuizen, 'Anglo-Saxon kingdom', p. 155. Before the introduction of open fields, arable land is presumed to have lain within closes, see O. Rackham, *The history of the countryside* (1986), pp. 155, 161–4, 178; S. Wade Martins, *Farms and fields* (1995), pp. 9–24.

⁵ Roberts and Wrathmell, *Region and place*, p. 136; Oosthuizen, 'Anglo-Saxon kingdom', pp. 161–2; ead., 'New light on the origins of open field farming?' *Medieval Arch.* 49 (2005), pp. 182–3; Lewis, Mitchell-Fox and Dyer, *Village, hamlet and field*, pp. 170–7, 229–40; H. S. A. Fox, 'Approaches to the adoption of the Midland system', in Rowley (ed.), *Origins*, pp. 98–102; Williamson, *Shaping medieval landscapes*, pp. 13–21.

I

The dominant focus upon field morphology is most apparent in the regional studies funded and published through the Historic Landscape Characterization (HLC) project. It is, of course, entirely appropriate that reconstructions of historic landscapes should concentrate upon the layout of local fields, and therefore field morphology. The use of early maps feature prominently in the HLC project's methodology. However, it is inappropriate that there is no requirement to consider how fields operated, or how they might have evolved, in HLC-funded projects.⁶ This is a significant and serious omission for two reasons. First, it ignores the importance that the original architects of the HLC system, Roberts and Wrathmell, attached to these aspects of fields.⁷ Second, it places too much reliance upon early (and especially nineteenth-century tithe and OS) maps to reconstruct the historic forms of fields, but these can neither inform how fields functioned nor tell us anything certain about their layout in the Middle Ages.⁸ Furthermore, some HLC studies have been criticized for a failure to engage properly with the existing literature on field systems, and, in particular, to utilize the existing frameworks for categorizing field systems developed by earlier scholars.⁹

The dominance of morphological approaches in other recent studies, unconnected to the HLC project, is explained by their concentration upon the eighth to the twelfth centuries.¹⁰ Evidence for fields from this period is heavily dependent upon physical remains, which obviously encourages a focus upon their layout, especially when the scarcity of written sources means that we cannot reconstruct how they operated. Information contained within charters from this period can indicate the presence of open and common fields, but such fleeting references cannot confirm what type of common fields.¹¹ Hence we can never know definitively how fields functioned or evolved during this formative period, because 'the evidence that would allow for an incontrovertible answer does not exist'.¹² The overall effect has been to emphasize the layout of fields at the expense of their function, yet a *systems* approach to fields requires consideration of their function and evolution, as well as their format.¹³ This imbalance

⁶ J. Clark, J. Darlington and G. Fairclough, *Using Historic Landscape Characterization: English Heritage's review of HLC applications* (2004), p. 7.

⁷ 'The morphological characteristics of field systems ... are only one aspect of their substance. The relationships between the arable and the waste, the availability of fallow grazing over the arable, the arrangement of individual holdings, the regulation of cropping and the communal regulation of all these activities are *all aspects of equal importance*': Roberts and Wrathmell, *Region and place*, p. 2, my italics.

⁸ M. Bailey, 'The form, function and evolution of irregular field systems in Suffolk, 1300 to 1550', *AgHR* 57 (2009), pp. 34–6.

⁹ T. Williamson, 'Historic Landscape Classifications: some queries', *Landscapes* 8 (2007), pp. 66–8. See, for example, the reviews of Martin and Satchell, 'Where

most inclosures be', in *EcHR* 62 (2009), pp. 1010–12, and *AgHR* 57 (2009), pp. 130–1.

¹⁰ For example, Oosthuizen, 'New light', pp. 165–90; ead. 'The Anglo-Saxon kingdom', pp. 153–80; Rippon, *Beyond the medieval village*; Gardiner, 'Dales, long lands', pp. 1–14.

¹¹ Fox, 'Approaches', pp. 83–4; Oosthuizen, 'Anglo-Saxon kingdom', pp. 160–1. Manorial account and court rolls are essential for reconstructing how medieval fields operated, but they do not exist before c.1250.

¹² Dahlman, *Open field system*, p. 29. Open and common fields emerged 'at times which are beyond the reach of documentary material which could throw any light at all upon the details of the process or upon earlier arrangements', Fox, 'Approaches', p. 88.

¹³ The primary importance of considering form, function and evolution when reconstructing field

fuels Williamson's concern that, in recent years, agricultural approaches to field systems have become marginalized.¹⁴

An underlying indifference as to how medieval fields functioned may also be detected in an inconsistency and sloppiness in the use of key terminology, although such inconsistency has always bedeviled the subject.¹⁵ One obvious shortcoming is the failure to maintain a clear distinction between the terms 'open fields' and 'common fields', which are too often, and misleadingly, used as if they are freely interchangeable. Yet the proper distinction is clear enough from the adjectives deployed, because one describes the morphology of fields and the other their function: 'open' fields are a landscape feature, while 'common' fields are those subject to some communal rights and management.¹⁶ Open fields are usually common field systems, but not exclusively, in the sense that common rights existed over most open fields, but not all: for example, subdivided arable in the medieval Fenland and Kent was not subject to any common rights.¹⁷ Similarly, closes are usually private (or 'several') fields, but not exclusively, because some rights of pasturage occasionally prevailed over them.

The main shortcoming is a widespread failure to distinguish between different types of common field system. Regional studies have shown that a wide variety of these existed in medieval England, which operated in very different ways to the Midland system, yet too often the phrase 'common fields' is used to mean *the* classic Midland system.¹⁸ For example, Oosthuizen recently stated that 'common fields were a specialized form of open fields found only in a restricted zone in Midland England'.¹⁹ The assumption that 'common fields' are synonymous with the Midland system is partly based upon an implicit assumption that the latter was both the dominant and the ultimate formulation of the open field system, representing the final stage in a process of linear development. Hence the Orwins argued that 'wherever you find evidence of open fields and at whatever date, it is sufficient to assume that you have got a three-field system at one stage or another', and Thirsk sketched an evolutionary

Note 13 continued

systems, as opposed to a one dimensional interest in field morphology, is advocated in Baker and Butlin (eds), *Studies*, pp. 627–35.

¹⁴ T. Williamson, 'The distribution of woodland and champion landscapes in medieval England', in M. Gardiner and S. Rippon (eds), *Medieval landscapes: landscape history after Hoskins* (2007), pp. 92–3.

¹⁵ Forty years ago Alan Baker bemoaned that our understanding of fields is in danger of 'flounder[ing] on the rocks of terminological ambiguity': 'Some terminological problems in studies of British field systems', *AgHR* 17 (1969), p. 136.

¹⁶ Baker warned against using the terms 'open fields' and 'common fields' interchangeably, *ibid.*, pp. 138–9, and see also Baker and Butlin (eds), *Studies*, pp. 623.

¹⁷ A. R. H. Baker, 'The field systems of southeast England', in Baker and Butlin (eds), *Studies*, pp. 414–19; B. M. S. Campbell, 'Agriculture in Kent in the Middle Ages', in S. Sweetinburgh (ed.), *Later medieval Kent*,

1220–1540 (forthcoming); H. E. Hallam, *Settlement and society. A study of the early agrarian history of south Lincolnshire* (1965), pp. 137–61.

¹⁸ For studies of other irregular, common field, systems, see, for example, Baker, 'Southeast England', pp. 393–429; D. Roden 'Field systems of the Chiltern Hills and their environs', in Baker and Butlin (eds), *Studies*, pp. 325–62; B. M. S. Campbell, 'Population change and the genesis of commonfields on a Norfolk manor', *ECHR* 33 (1980), pp. 174–92; and Bailey, 'Form, function and evolution', pp. 15–36; Baker, 'Some terminological problems', p. 139; B. M. S. Campbell, 'Commonfield origins: the regional dimension', in Rowley (ed.), *Origins*, pp. 113–17, identified six different categories of common fields.

¹⁹ Oosthuizen, 'Anglo-Saxon kingdom', pp. 154–6. See also Martin and Satchell, 'Where most inclosures be', pp. 20–1, who consciously opt to describe 'open fields' as 'common fields'.

model of the development of common fields, at the end of which lay the 'fully fledged' Midland system.²⁰ The 'mature' and 'sophisticated' Midland system is implicitly or explicitly regarded as superior to other forms of common fields, which are depicted as immature, simple, or, in Edward Miller's phrase, 'unfinished'.²¹ However, regional studies have also demonstrated that other types of common field system were not necessarily inferior to the Midland system, but were often more complex, flexible, adaptable and sophisticated.²² Indeed, many possessed 'a very different rationale ... to the Midland model', exhibited a good degree of permanency, and developed independently.²³

The Midland system was widespread, long-lived and important, but it was neither the ultimate, nor the most sophisticated, nor even the most widespread common field system in medieval England.²⁴ Although this point is widely acknowledged, its full implications have yet to be fully assimilated into the research agenda. The origins of the Midland system continue to dominate, because it continues to be implicitly regarded as *the* essential, rather than just one, aspect of the development of common field systems.²⁵ However, the origins and development of the Midland system do not explain all common field systems.

II

Cooperation between cultivators was essential in open field agriculture, because the absence of permanent divisions between the strips of each cultivator could otherwise result in theft, encroachment and damage. The extent of that cooperation, and the extent to which communal regulations were imposed over the arable, varied spatially and temporally, and those variations can be usefully conceptualized by adapting the works of Bruce Campbell and of Tine De Moor.²⁶

De Moor has suggested that communal systems comprised three adaptable and dynamic components: the 'Common Pool Resources' (CPR), comprising the bundle of different resources

²⁰ Orwin and Orwin, *Open fields*, p. 127; Thirsk, 'Common fields', pp. 3, 22–3.

²¹ 'Mature' is from Oosthuizen, 'Anglo-Saxon kingdom', p. 160; 'sophisticated' from D. Hooke, *The landscape of Anglo-Saxon England* (1998), pp. 129–30; and Williamson uses both adjectives, *Shaping medieval landscapes*, p. 21. E. Miller, 'Farming techniques: Northern England', in H. E. Hallam (ed.), *The agrarian history of England and Wales*, II, 1042–1348 (1988), p. 401.

²² See the studies listed in n. 18 above, and also M. Bailey, 'Sand into gold: the evolution of the fold-course system in west Suffolk, c.1300 to 1600', *AgHR* 38 (1990), pp. 40–57; G. A. Wood, 'Field arrangements in the West Riding of Yorkshire in the high Middle Ages' (University of Leeds, PhD thesis, 2003), pp. 109–245.

²³ Quote from G. A. Wood, M. Purvis, and B. Harrison, 'Irregular field systems and patterns of settlement in western Yorkshire', in T. Unwin and

T. Spek (eds), *European landscapes: from mountain to sea* (2003), p. 175, and the argument is developed more fully in Wood, 'Field arrangements', pp. 7, 18, 22–4, 259–60. See also Bailey, 'Form, function and evolution', pp. 15–17.

²⁴ Campbell, 'Commonfield origins', p. 112. Compare the extent of the Midland field system against that of open fields in general mapped in Oosthuizen, 'Anglo-Saxon kingdom', p. 155.

²⁵ This implication underlies the discussions in Dahlman, *Open field system*, whose subject is actually the Midland system, and not – as indicated in the title of his monograph – open or common fields more generally; and Oosthuizen, 'Anglo-Saxon kingdom', pp. 154–64.

²⁶ T. De Moor, 'Avoiding tragedies: a Flemish common and its commoners under the pressure of social and economic change during the eighteenth centuries', *EcHR* 62 (2009), pp. 1–22.

available to a community; the 'Common Property Regime' (CPrR), which sets limits to the access to the resource pool by determining who can utilize the resources, and in what manner; and, finally, the 'Common Pool Institution' (CPI), which manages the system by punishing dissidents, preventing abuse by commoners, and excluding non-commoners.²⁷ In an English common field system, the CPR might include access to some non-arable resources (e.g. fen, meadow, heath, moor), and to most of the arable land within the township (e.g. open fields), but not all (e.g. closes). The CPR controlled and restricted access to the arable. It applied some *social* restrictions, because outsiders, and even some residents (such as non-tenants), were not eligible to share common rights. It applied *temporal* restrictions, because one particular common right might exist for a few weeks each year, another might exist all year, while yet another might apply all year but for (say) three days each week. The CPR also imposed *quantitative* restrictions: the right to pasture animals did not imply a limitless number of animals, but only according to a 'stint' or allocation. The role of the CPI in English common field systems was usually fulfilled by the manorial court of the superior lord of the vill, which enforced the local CPR by setting numerous rules and regulations, and then by enforcing them. It is likely that an informal village assembly, whose meetings and deliberations were not recorded, managed the CPR at an operational level, and that the main role of the manorial court was to enforce their decisions.²⁸ Manorial courts emerged in the early thirteenth century, or at least their activities were first recorded then, and so it is uncertain what institution performed this role before that date.

The precise composition of the CPR over the arable land determined the way in which a field system functioned. So what specific components made up the CPR? The first component was the right to graze animals over the fallow arable, which came in one of five different categories: the most basic is the right to pasture animals over the stubble for a few weeks after the harvest; next is limited pasture rights over half-year fallows; full rights over half-year fallows; limited rights over full-year fallows; and, finally, full rights of common pasturage over full-year fallows. The second component was communal cropping of the arable, whose main purpose was to create a large and compact area of fallow, and so greater control of cropping was invariably linked to extensive controls over fallows. They can be categorized in three forms: the requirement not to sow certain arable land when required to lie as part of a seigneurial foldcourse; the imposition of flexible cropping shifts over some of the arable; and the imposition of regular crop rotations over all of it.²⁹ The variety in the nature of the CPR in medieval England was considerable. For example, in c.1300, the CPR in many townships in eastern Norfolk was narrow, comprising grazing rights over the harvest shack only and no cropping patterns (merely a requirement to respect seigneurial fold rights); that of the Breckland was wider, comprising limited pasturage rights over half-year fallows and the imposition of flexible cropping shifts; while the CPR of the Midland system was even wider, comprising full rights of common pasturage over full-year fallows, and regular crop rotations.³⁰

²⁷ Ibid., pp. 3–8.

²⁸ Campbell and Godoy, 'Commonfield agriculture', pp. 113–14.

²⁹ Campbell, 'Commonfield origins', p. 114.

³⁰ Id., 'Population change', p. 175; M. Bailey, *A marginal economy? East Anglian Breckland in the later Middle Ages* (1989), pp. 56–65; Fox, 'Approaches to the adoption', pp. 72–6.

A CPrR comprising full common rights of pasturage and cropping required a significant body of by-laws and regulations to enforce it, and also a symmetrical division of the arable and individual holdings to ensure that an equitable proportion of each individual holding lay fallow each year. It demanded the highest order of cooperation between cultivators, and therefore regulation of aspects of husbandry by meetings of village assemblies.³¹ Hence such systems are often labeled 'regular' (reflecting the regular layout of the fields) or 'strong' (reflecting the wide body of regulations within the CPrR). In contrast, a CPrR comprising a narrow or limited range of common rights was a 'light touch' system, in the sense that it did not require a substantial body of by-laws to enforce it. Regularity in the layout and size of arable strips and/or individual holdings was unnecessary in such systems, and consequently they are usually dubbed 'irregular' or 'weak'.³²

III

The question 'What determined whether a CPrR was narrow or wide?' has received limited direct or systematic attention. Instead, historians have concentrated upon explaining how the particular CPrR of the Midland system emerged, reflecting once again the implicit assumption that identifying the key influences in the emergence of the 'strongest' form of communal field system will provide the answer to how other common fields emerged.

Part of the explanation for the composition of a particular CPrR is to be found in the layout of local fields. In general, common rights were most limited, and often non-existent, in enclosed field systems, whereas they were most prominent across regular, open-field, systems. Hence the development of common rights over the arable was linked to the development of open fields as a physical feature. The question 'What caused communities to organize their fields in open, subdivided, fields?' has attracted most direct and recent attention. The ubiquity of subdivided fields reflects their suitability to the particular requirements of the 'mixed' farming practised in medieval England. Cultivators had to maintain livestock in close proximity to sown crops for the purposes of both traction and manure, and farm production was – by modern standards – weakly commercialized: under such conditions, open fields provided the best means of cultivating grain while maximizing the long-run output of livestock.³³

A multitude of forces, acting either in isolation or in tandem, explain the phenomenon of open, subdivided, fields: co-aration, the use of the mouldboard plough, the apportionment of shares in newly reclaimed land among colonizers, partible inheritance, land sales and exchanges, the attitude of the manorial lord to subdivision, and a significant growth in the number of cultivators within the locality.³⁴ There is also mounting evidence from places as

³¹ Fox, 'Approaches to the adoption', pp. 65–8, 72–6; Lewis, Mitchell-Fox and Dyer, *Village, hamlet and farm*, pp. 170–5, 203–4.

³² The use of weak or strong to describe a CPrR implies that the latter is superior to the former, and so is avoided here: instead, preference is given to 'narrow' or 'wide'.

³³ Dahlman, *Open field system*, pp. 8, 26–7.

³⁴ Useful general surveys of these processes are provided in Dodgshon, *Origins*, pp. 1–25; id., 'The interpretation of subdivided fields', in Rowley (ed.), *Origins*, pp. 137–43; Kerridge, *Common fields*, pp. 16–49; Hall, *Northamptonshire*, pp. 125–8; Campbell and Godoy, 'Commonfield agriculture', pp. 103–4; and Williamson,

diverse as Northamptonshire, Yorkshire and the Fenlands that some communities deliberately laid out their arable in this format from the outset, and that the fields underwent further evolution through subsequent subdivision, and through additions to the original core due to later colonization of surrounding wastes.³⁵ The introduction of open fields was also linked to the pre-existing character of the landscape. Areas which had been heavily colonized during the Romano-British period, and which had been early cleared of woodland, tended to develop open fields in the medieval period.³⁶

The scattering of holdings of individual cultivators into a number of small parcels around the open fields was a particular feature of regular systems, and it could occur haphazardly through the addition of a strip of land to an individual holding by purchase, inheritance, or the acquisition of a personal share in a communal assart. Scattering could also occur through a deliberate and decisive act of reallocation of land parcels involving many or all of the cultivators, because the equitable scattering of individual holdings in regular field systems was highly unlikely to have happened by chance. Economists agree that scattering generates relatively high transaction costs, and so its introduction and retention must have brought offsetting benefits. One benefit might have been to reduce the hazards of storm damage, soil exhaustion and disease faced by holdings concentrated in one area of the fields, while another motive might have been to reduce the transaction costs of labour. Similarly, formal dispersal might have represented the most cost-effective way of realizing the returns to scale in livestock grazing, whereby local communities could impose collective use of the fallow arable while still respecting the private ownership of individual parcels by binding all cultivators into the system.³⁷

Why were some fields laid out in closes rather than in open strips?³⁸ Places where fields were mainly used as pasture, and places where arable land lay closely interspersed with fields used for pasture, tended to be laid out in closes, for the obvious reason that hedging, walls and ditching were more effective at restricting the movement of livestock than were flimsy, moveable, hurdles on open strips. Similarly, regions where agriculture was highly specialized,

Note 34 continued

Shaping medieval landscapes, pp. 8–21. See Campbell, 'Population change', pp. 179–83, for a discussion of the way in which high population density and a permissive manorial regime could result in the extreme subdivision of open fields by c.1300.

³⁵ Hall, 'Origins', pp. 36–7; Hall, *Northamptonshire*, pp. 137–8; Oosthuizen, 'New light', pp. 165–90; Gardiner, 'Dales, long lands', pp. 1–14.

³⁶ The development of open fields across tracts of land cleared early of woodland is emphasized by a number of scholars working on very different areas of England, such as Rackham, *History of the countryside*, pp. 75–8; Hooke, *Anglo-Saxon landscape*, p. 116; D. Hall, 'The late Saxon countryside: villages and their fields', in D. Hooke (ed.), *Anglo-Saxon settlements* (1988), p. 113; A. J. L. Winchester, *Landscape and society in medieval*

Cumbria (1987), p. 69. See the summaries in Astill, 'Fields', pp. 77–84; Williamson, *Shaping medieval landscapes*, pp. 19, 53–60; and Oosthuizen, 'Anglo-Saxon kingdom', pp. 175–7.

³⁷ D. McCloskey, 'English open fields as behaviour towards risk', in P. Uselding (ed.), *Research in economic history*, 1 (1973), pp. 154–62; S. Fenolteaga, 'Risk, transaction costs and the organisation of medieval agriculture', *Explorations in Econ. Hist.* 13 (1976), pp. 134–49; Dahlman, *Open field system*, pp. 124–45.

³⁸ This is a subtly, but significantly, different question to asking why open fields became enclosed. The use of the word 'enclosed' reflects the assumption (and perhaps the prejudice) that closes were created by enclosing open fields, although closes were the original form of many fields.

and less dependent upon mixed farming, and also those which were not heavily colonized in the Romano-British period, and which remained relatively wooded in the Middle Ages, tended to develop closes. Localities with long-cleared valley bottoms, but wooded interfluvies above, were likely to develop a mixture of open and enclosed fields. A high correlation also existed between areas of irregular and enclosed fields, and dispersed settlement.

IV

What factors determined which particular combination of common rights developed over the arable? The orthodox explanation is that demographic pressure was the key driver in shaping the precise nature of each CPR: as Joan Thirsk states, 'the commonfield system was a gradual growth, coordinated and systematized by practical necessity as populations grew'.³⁹ Carl Dahlman suggested a phased model of development, in which a township introduced wider controls in a step-like manner. The first phase was communal control over the grazing of permanent pastures, followed by the extension of some communal grazing over the fallows when the area of permanent pasture became diminished; and, ultimately, formal and extensive regulation of grazing of all the fallows, including controls over cropping and the scattering of individual holdings to bind cultivators into the system.⁴⁰ His model represents a refinement of the earlier, seminal, work of Joan Thirsk, whose related interest was to explain the emergence of large compact fallow fields.⁴¹ Both Thirsk and Dahlman assumed that dwindling supplies of pasture (for livestock) and of manure (to fertilize the soil) would force communities to manage the fallow arable more carefully and formally, in order to segregate large and compact blocks of fallow for livestock and also to target the manure more effectively: the stubble, rough grass and some weeds provided essential feed for the animals during the winter and spring, while the manure helped to replenish nutrients in the soil in advance of the next crop.⁴² When the expansion in the physical area occupied by open fields had reduced to a critical point the availability of pasture, a community would have to reorganize both their layout and function into a more formal system to ensure the efficient deployment of the fallow arable as a source of pasture. The deliberate reorganization of manifold irregular fields into two or three great fields, the reallocation of individual holdings

³⁹ J. Thirsk, 'Preface to the third edition', in Orwin and Orwin, *Open fields*, p. xv. The demographic engine is also evident in Thirsk, 'Common fields', pp. 7–11; Baker and Butlin (eds), *Studies*, pp. 648–9; Hall, *Northamptonshire*, p. 138; D. Hooke, 'Open field agriculture: the evidence from the pre-Conquest charters of the West Midlands', in Rowley (ed.), *Origins*, pp. 61–2; ead., *Anglo Saxon landscape*, pp. 193–4. De Moor takes a similar line when suggesting that commercialization and population growth were most likely to increase 'violations' in the functioning of the commons, and to threaten the balance between arable and pasture. Indeed, she points to the period between the eleventh

and thirteenth centuries, when demographic pressure was peaking in medieval Europe, as the era when communities altered and greatly extended their CPRs in an attempt to reconcile and manage such dilemmas, De Moor, 'Avoiding tragedies', pp. 6–8, 18.

⁴⁰ Dahlman, *Open field system*, pp. 141–5.

⁴¹ Thirsk, 'Common fields', pp. 3–24; Fox, 'Approaches', pp. 68–72.

⁴² Baker and Butlin (eds), *Studies*, pp. 630–1; Fox, 'Approaches', p. 94; Dodgshon, 'Interpretation of sub-divided fields', p. 142; W. O. Ault, *Open-field farming in medieval England. A study of village by-laws* (1972), p. 17.

evenly around those regular fields, and the extension of wide-ranging communal regulations therefore represented the inexorable and ultimate response to rising scarcity.⁴³

This cogent model is predicated upon an assumption that the earliest open fields possessed light-touch CPrRs, which subsequently evolved into more extensive CPrRs as demographic pressure and scarcity increased. It follows that regions characterized by high or rising population densities, a strong emphasis on grain production and shortages of pasture developed regular fields with extensive common rights, and it also provides an explanation for the failure of such arrangements to develop in other areas. Regions characterized by low population densities, limited grain cultivation and extensive pastures developed irregular or enclosed field systems with few communal controls over the arable, because they did not experience the sharpening tension between grain cultivation and rearing livestock, and so they had no need to reorganize their fields into a regular system based upon the creation of large, compact, fallows. Areas such as Cumbria and east Devon, where in c.1300 population densities were low and where extensive moorland pastures were locally available, might be cited as proof of this line of argument.⁴⁴ Regions with a mixture of these traits, occupying positions around the middle of the continuum, developed various intermediate field systems, where the extent and nature of communal regulations were relatively weak. Astill summarizes the underlying logic behind this model succinctly: 'variability in the pressure on pasture resources and the need for fallowing ... were probably responsible for the different types of field arrangements'.⁴⁵

This model is compelling, but it faces two major obstacles to its universal application. The first difficulty is chronological. Thirsk postulated that the Midland system emerged through field reorganization during the late twelfth and thirteenth centuries, although this hypothesis was based upon the contextual knowledge that demographic pressure had become acute at this time, rather than upon any compelling documentary evidence for its introduction. Fox could find little direct evidence to support this dating, and so he concluded that the Midland system must therefore have been an earlier introduction, and that it could not have been a response to the 'pressures of the high Middle Ages, except perhaps in a few localities'.⁴⁶ Subsequent research has confirmed that the Midland system was established well before the thirteenth century in many parts of central England. For example, it had definitely emerged by the tenth century, and was widespread by the twelfth, in the east Midlands.⁴⁷ Others prefer an even earlier dating. Roberts and Wrathmell suggest that the Midland system was introduced around the ninth century across much of England's 'Central Province', while, within Mercia, Oosthuizen suggests the eighth century.⁴⁸ If the Midland system was widely introduced sometime between

⁴³ Thirsk, 'Common fields', pp. 7–11. An emphasis upon population growth driving changes to the Midland system is evident in H. E. Hallam, *Rural England, 1066–1348* (1981), pp. 116–17.

⁴⁴ Thirsk, 'Common fields', pp. 23–4; Winchester, *Landscape and society*, pp. 68–77; Fox, 'Approaches', pp. 91–3.

⁴⁵ Astill, 'Fields', pp. 64–5.

⁴⁶ H. S. A. Fox, 'The alleged transformation from the two to the three field system in medieval England',

EcHR 39 (1986), p. 529; id., 'Approaches', pp. 72–88. See also R. C. Hoffman, 'Medieval origins of the common fields', in W. N. Parker and E. L. Jones (eds), *European peasants and their markets* (1975), p. 49.

⁴⁷ Lewis, Mitchell-Fox and Dyer, *Village, hamlet and field*, p. 227; Williamson, *Shaping medieval landscapes*, pp. 13–17.

⁴⁸ Roberts and Wrathmell, *Region and place*, p. 136; Oosthuizen, 'Anglo-Saxon kingdom', pp. 171–5; id., 'New light?', pp. 182–3.

the eighth and tenth centuries, then the causal role of demography in extending communal regulations across arable land is substantially undermined, because at this date the Central Province was mainly characterized by moderate population density, and demographic pressure did not begin to bite until at least the twelfth century.⁴⁹ It has even been argued that the regular Midland system made most sense in conditions of relative labour *scarcity*, not abundance.⁵⁰

The second difficulty with the notion that demographic pressure encouraged the extension of communal regulations is that townships in regions with the highest population densities in either the eleventh or the thirteenth centuries usually possessed narrow CPrRs. For example, at both dates, the estimated population densities in medieval Kent and East Anglia were among the highest in England, and both regions were characterized by intensive grain production.⁵¹ However, their fields were a mixture of irregular open fields and closes, with little scattering of individual holdings, over which few communal regulations pertained: individual cultivators made their own decisions about crop rotations and resource management on their land and thus any cooperation with neighbours was voluntary rather than obligatory.⁵² They were conspicuously successful, too, because agriculture in both regions was among the most intensive, productive and commercialized in medieval England. In other words, local communities in Kent and East Anglia responded to the problem of land scarcity by introducing technological improvements within the existing framework of irregular fields, rather than by reorganizing them into regular systems.⁵³ Indeed, Campbell contends that any attempt to increase the width and size of the CPrR might have been a 'retrograde' step.⁵⁴

High demographic pressure did not lead inevitably or inexorably to the imposition of wider communal controls over the arable land, but produced different outcomes in different regions. This means that either forces other than demography could determine scarcity and the extent of communal controls over fields, or, alternatively, other forces could counteract the pressure to extend communal controls created by rising population. There was clearly more than one pathway in the evolution and development of communal regulations over the arable, and not every pathway led to the Midland system.

IV

The primary purpose of communal pasturing and cropping arrangements over the arable was to organize access to the fallows. As the value conferred upon them increased, and as the number of people with rights of access to them increased, so the likelihood grew of a

⁴⁹ Lewis, Mitchell-Fox and Dyer, *Village, hamlet and field*, pp. 213–16. Scepticism about the importance of demography is also expressed by Kerridge, *Common fields*, pp. 47–9.

⁵⁰ Campbell and Godoy, 'Commonfield agriculture', pp. 105–11. Population densities in the late eleventh century are portrayed in Williamson, *Shaping medieval landscape*, p. 31.

⁵¹ H. C. Darby, *The Domesday geography of eastern England* (1952), pp. 117, 173, 330; B. M. S. Campbell,

'Benchmarking medieval economic development: England, Wales, Scotland and Ireland, c.1290', *ECHR* 61 (2008), p. 929.

⁵² Baker, 'Southeast England', pp. 414–19; Campbell, 'Population change', pp. 174–5; id., 'Commonfield origins', pp. 119–23; M. Bailey, *Medieval Suffolk. An economic and social history 1200 to 1500* (2007), pp. 105–13.

⁵³ Campbell, 'Agriculture in Kent'; Campbell, 'Commonfield origins', pp. 119–24.

⁵⁴ Campbell, 'Population change', pp. 191–2.

community extending its direct influence and control over farming practices in order to regulate more closely the ways the fallows were managed. Hence when pressure to utilize the fallow arable was high, communal regulations were extended over it to ensure more efficient management of an increasingly scarce resource: when this pressure was low, there was no need to regulate the fallows rigorously and so communal regulations were narrow.

Thirsk adopts the entirely rational principle that mounting demographic pressure will increase the scarcity of the fallows, thus forcing communities to resolve this 'dilemma' through greater communal intervention and regulation. The demographic variable was undoubtedly a catalyst for change in field systems, and it could trigger adjustments to the CPrR, but a given demographic trend did not always provoke the same change, or produce the same outcome. The context of strong population growth in the twelfth and thirteenth centuries was associated with the development of regular common field systems in some places, such as some townships in the Vale of York;⁵⁵ but it resulted in no change to communal regulations in others, such as Kent and eastern Norfolk; while, elsewhere, it actually prompted the spread of closes.⁵⁶ Conversely, population decline after c.1350 provided the context for the extinction of common rights through the piecemeal enclosure of open fields in some places, but an increase in the extent of communal regulations in others.⁵⁷

The precise impact of demography was therefore determined by the way in which it interacted with *other* variables: as Campbell and Godoy note, 'the precise nature of [communal] arrangements depended upon environmental, technological, demographic and socio-political circumstances'.⁵⁸ However, there has been little systematic assessment of how a particular mix of these variables might combine to increase or decrease the pressure to utilize the fallow arable, either for the application of organic matter or as an additional source of pasture for livestock.

The quality of soil is widely recognized as an important variable in shaping field systems, although Williamson is the first scholar to consider in detail how subtle variations in the properties of soil – mineral content, water retentiveness, and so on – might influence communal regulations.⁵⁹ For example, certain types of clays are especially susceptible to water logging and 'puddling' into a sticky mass, which in turn affects root growth and ease of ploughing. These physical qualities meant that each spring there were 'relatively few days for cultivating the land', given the technological limitations of medieval agriculture, which forced communities to cooperate in assembling and deploying plough teams if the ploughing and sowing was to be completed before the window of opportunity closed.⁶⁰ Hence the composition of these soils, which were widespread in Midland England, greatly encouraged communities to adopt extensive communal cropping and pasturing arrangements.⁶¹

⁵⁵ Wood, 'Field arrangements', pp. 120–4.

⁵⁶ For the extension of closes under the pressure of population, see, for example, R. H. Britnell, 'Agriculture in a region of ancient enclosure, 1185–1500', *Nottingham Medieval Stud.* 27 (1983), pp. 42–3; Roden, 'Chilterns', pp. 339–40; C. Dyer, 'Conflict in the landscape: the enclosure movement in England, 1220–1349', *Landscape Hist.* 28 (2006), pp. 21–2, 30–1.

⁵⁷ Bailey, 'Form, function and evolution', pp. 19–23.

⁵⁸ Campbell and Godoy, 'Commonfield agriculture', p. 105.

⁵⁹ For the influence of soil, see Astill, 'Fields', p. 63; Williamson, *Shaping medieval landscapes*.

⁶⁰ *Ibid.*, pp. 142–3, 155–6.

⁶¹ Williamson, 'Distribution of woodland and champion', pp. 97–100.

The inherent porosity of the soil also influenced the ways in which animals could be kept on the fallows. Highly water retentive soils, such as sticky clays, are liable to compact and puddle under the weight of folded animals, and so communal pasturage there took the form of supervised herding and avoided penning. Conversely, highly porous soils, such as glacial sands, did not compact in such circumstances, which enabled pasturing arrangements based upon tight penning and folding. This explains why the particular CPrR over the open fields of the sandy East Anglian Breckland involved specific communal arrangements designed to create separate blocks of fallow where sheep could be tightly folded each night.⁶²

The propensity of the soil to leach nutrients was another factor influencing the degree of cooperation over the fallows. Soils with a high propensity to leach require the regular application of organic matter in order to sustain grain cultivation, and so were likely to require more extensive communal organization of the fallows in order to coordinate and concentrate the manure of livestock upon them. In contrast, nutrient-rich soils with a low propensity are less needy of manure, and thus less likely to be associated with any communal regulations designed to target animal manure on the arable.

The extent to which permanent pasture was locally available could also influence the ways in which the fallows were managed: places with large reserves of permanent pasture were less likely to utilize the fallows for this purpose than those with few reserves. Hence regular field systems are usually associated with townships where the ploughed arable extended to around 90 per cent of the landed resources, and irregular systems with townships where the proportion was lower.⁶³ Fox has even suggested that declining reserves of pasture constituted the major agricultural stimulus to the adoption of the Midland system, and that it was unsuited to places with abundant permanent pasture.⁶⁴ It is widely observed that the Midland system was often found either in areas of little woodland or where there was no hinterland of rough grazing, and where, as a result, the fallow arable came to be regarded as an essential source of pasture for livestock.⁶⁵ Where Midland-style fields were established in places with larger reserves of permanent pasture, communal access to that pasture was usually denied.⁶⁶

Both Thirsk and Fox recognized that the nature of local agriculture – the precise mix of crops and livestock, and the balance between the two – could also influence the value placed upon the fallows, although neither developed this argument in any detail.⁶⁷ Yet, to illustrate the point simply, a locality producing exclusively leguminous crops is thus able to provide both fodder for livestock and nutrients for the soil, which in turn would significantly reduce the need for any communal management of the fallows designed to provide pasture and manure. Similarly, the grazing habits of particular types of livestock also shaped the value of the fallows

⁶² Bailey, 'Sand into gold', pp. 43–55; id., 'Form, function and evolution', pp. 19–23.

⁶³ Roberts and Wrathmell, *Region and place*, p. 3. The area covered by irregular fields in six townships in eastern Norfolk varied between 57% and 95%, Campbell, 'Extent and layout', p. 10.

⁶⁴ Fox, 'Approaches', pp. 83, 93–4; id., 'Alleged transformation', pp. 528–9.

⁶⁵ Lewis, Mitchell-Fox and Dyer, *Village, hamlet*

and field, p. 175; Williamson, *Shaping medieval landscapes*, pp. 22–3, 39–40; H. S. A. Fox, 'Some ecological dimensions of medieval systems', in K. Biddick (ed.), *Archaeological approaches to medieval Europe* (1984), pp. 144–6.

⁶⁶ Wood, 'Field arrangements', pp. 252–3.

⁶⁷ H. S. A. Fox, 'The chronology of enclosure and economic development in medieval Devon', *EcHR* 28 (1975), p. 198.

as a source of pasture. If the locally dominant species of livestock was averse to eating the stubble of grain (straw), there was little incentive to organize grazing over the fallow arable. Of course, the local combination of crops and livestock was influenced by a mix of factors, from soil type and climate to the degree of commercialization. In this way, commerce and markets also impacted upon common rights.⁶⁸

These observations can be illustrated by contrasting arrangements in four different areas of eastern England. By c.1300 agriculture in north-east Suffolk exhibited a relatively high degree of specialization by the standards of a mixed farming regime, with a strong emphasis on non-draught cattle: oxen were rare and sheep were relatively unimportant. Cows, bullocks and horses are reluctant grazers of grain stubble, and instead they fed upon the 'leafy hay' in local hedges, extensive greens, and fodder crops (oats or legumes) grown for the purpose. Its soils were not much prone to leaching, a characteristic shared with the highly fertile alluvium of eastern Norfolk, where fodder crops and cattle were also prominent.⁶⁹ In both of these regions the combined impact of soil type and the nature of the agrarian regime diminished the value of the fallows, as a source of both fodder and manure, and so neither the nature of the soils nor of the mixed farming conferred any great value upon collective management of the fallow arable. A rising population in the twelfth and thirteenth centuries certainly created pressure to increase agricultural output in these regions, but it did not significantly raise the value of the fallows. Consequently, communal rights over the arable remained either absent or very weak.

In contrast, the types of mixed farming practised in south Huntingdonshire (regular Midland system) and the Breckland (semi-regular foldcourse system) placed a much higher premium on the use of the fallow arable.⁷⁰ Oxen (the staple draught animal in Huntingdonshire) and sheep (the main form of livestock in the Breckland) feed readily on the stubble of grain, and therefore the fallows represented a valuable source of fodder: this was especially true in south Huntingdonshire, where few other sources of summer pasture existed, and where the extent of meadowland further encouraged the keeping of oxen. Furthermore, the high propensity of the soils in the Breckland to leach nutrients, and the relatively low labour inputs in soil preparation in south Huntingdonshire, also increased the value of the fallow as a source of manure in both regions. Hence the particular nature of mixed farming placed a higher value upon the fallow arable as both a source of fodder and manure, and rising demographic pressure further increased that value. The combination created a powerful rationale for the formal and

⁶⁸ The role of commerce is acknowledged in, for example, Lewis, Mitchell-Fox and Dyer, *Village, hamlet and field*, pp. 218–21, and Oosthuizen, 'Anglo-Saxon kingdom', pp. 171–5.

⁶⁹ For eastern Norfolk and northeast Suffolk, see Campbell, 'The livestock of Chaucer's reeve: fact or fiction', in E. B. DeWindt (ed.), *The salt of common life: individuality and choice in the medieval town, countryside and church* (1995), repr. in his *Field systems*, pp. 271–305, and Campbell, K. C. Bartley and J. P. Power, 'The demesne-farming systems of post-Black Death England: a classification', *AgHR* 44 (1996), pp. 131–79,

also repr. in Campbell, *Field systems*; Bailey, *Medieval Suffolk*, pp. 68–73; Williamson, *Shaping medieval landscapes*, pp. 59–60, 173–8.

⁷⁰ For south Huntingdonshire, see Gray, *English field systems*, pp. 70–1; P. Bigmore, *The Bedfordshire and Huntingdonshire landscape* (1979), pp. 90–3, 172–83; M. P. Hogan, 'Clays, culturae and the cultivator's wisdom: management efficiency at fourteenth-century Wistow', *AgHR* 36 (1988), pp. 117–31; and Williamson, *Shaping medieval landscapes*, pp. 72–9. For the Breckland, see Bailey, *Marginal economy?*, pp. 40–85 and his 'Form, function and evolution', pp. 19–23.

wide-ranging regulation of the fallows. However, the precise form of communal pasturing on the fallows was different in each region, mainly because sheep are amenable to close folding on sandy soils, whereas oxen are not on clays.

Consideration of the ways in which soil type and agrarian regime could directly influence the extent of communal regulation of the fallows does not imply that these variables provide the definitive explanation, nor that particular soils or farming systems were necessarily associated with particular types of CPR. Field systems were not just a function of the pressing needs of husbandry.⁷¹ For example, if we accept the contention that in the eighth or ninth centuries the regular Midland system was introduced across areas of central England, then the explanation is much more likely to be linked with socio-political and/or military imperatives than with environmental or economic factors. Hence Oosthuizen speculates that its introduction reflects good strategic organization within, and the innovative qualities of, the contemporary Mercian state, while Roberts and Wrathmell suggest that the experience of devastation and warfare in the Midlands, and the growing demands of royal taxation, around the ninth century presented a good basis for increasing nucleation and communal cultivation. They argue that the relative effectiveness and advantages of such extensive communal arrangements 'may thus have been demonstrated to local aristocrats, to their overlords, and above all to the farmers themselves'.⁷²

The influence of cultural factors upon field systems between the eighth and eleventh centuries accords with Campbell and Godoy's call for a 'cross cultural understanding' of common field systems.⁷³ Indeed, Campbell has identified a good correlation between social structures and field systems in medieval England. Regions characterized by strong social structures – dominant and/or high-status lordship, large manorial holdings, a high proportion of customary tenants, a unified community – were likely to possess relatively formal and regular field systems, whereas closed or irregular systems with few communal regulations were usually found in regions possessing a weak social structure.⁷⁴ The relative absence of common rights over the arable land in places such as Kent and East Anglia can be attributed, in part, to their relatively weak social structure. By c.1300 these regions were characterized by fragmented, multiple and low status lordship, small manorial holdings, and a high proportion of free tenants. Recent research has further refined Campbell's observations, suggesting that the disposition of either individual lordship or an individual community of tenants could be influential. For example, in the Vale of York, an area generally characterized by neither a strong social structure nor regular fields, manors with large demesnes and an active seigneurial interest in local agriculture, such as those of the Archbishop of York, were strongly associated with regular field systems; likewise, townships with unified communities on the Magnesian Limestone above the Vale were liable to have regular systems.⁷⁵ Rippon has

⁷¹ Dodgshon, *Origins*, p. 151.

⁷² Quote from Roberts and Wrathmell, *Region and place*, p. 136. Oosthuizen, 'Anglo-Saxon Kingdom', pp. 167–75.

⁷³ Campbell and Godoy, 'Commonfield agriculture', p. 100.

⁷⁴ Campbell, 'Population change', p. 192; id., 'Regional uniqueness', pp. 25–8; id., 'Commonfield origins', pp. 125–8; Lewis, Mitchell-Fox and Dyer, *Village, hamlet and farm*, pp. 204–13.

⁷⁵ Wood, 'Field arrangements', pp. 262–5.

demonstrated how different field systems were introduced in different villages on the same reclaimed soils of the north Somerset Levels. Communities centred on large manors held by Glastonbury abbey adopted the classic Midland system, while other communities nearby, with other manorial lords whose attitude to social control was more lax (such as the Bishop of Wells), adopted less formal systems.⁷⁶

Cultural factors, including social structure, are particularly important in understanding the creation, and operation, of the CPI. A strong CPI was easier to introduce, and more likely to emerge, in places with a dominant, perhaps high-status, landlord, and/or a powerful and unified local community, than in places whose social structures were less cohesive and more fragmented. A strong CPI was self-evidently essential for the on-going management of extensive communal regulations over the arable, whereas places with a narrow CPrR could have operated effectively without a robust or prominent CPI. After c.1200 manorial courts acted as the local CPI in most places in England, and those which exercised jurisdiction over most of the landed resources and tenants in a community, and which were run by a high status lord, are likely to have been especially powerful and effective in this role. Conversely, where the superior lord was of low social status, non-resident, and exercised no control over the majority of land and tenants in the township, then his manorial court was likely to lack power as a CPI. Nor is it clear what institutional structures could have served as a CPI before the known appearance of manorial courts, although the leets and moots that existed before the Conquest are the obvious candidates. Whatever the answer, any contention that extensive communal regulations existed over the arable as early as the eight or ninth centuries must also address the issue of how such rigorous controls were locally enforced.

V

This article has tried to balance the recent enthusiasm for reconstructing the morphology of medieval fields with a restatement of the importance of how they functioned. It has also reiterated that common field systems existed in a wide variety of forms in medieval England, to an extent that demands a shift in perspective far beyond the Midland system, and away from regularity to irregularity. Hence, we can agree with Wood that ‘a new national synthesis which takes account of the complexity and diversity – both spatially and chronologically – of field systems is long overdue’.⁷⁷

The function of fields is best approached through a reconstruction of the CPrR, and the nature of the CPI, in a given township.⁷⁸ Places with a narrow CPrR had fewer communal regulations over the arable land than those with a wide CPrR. This in turn reflected differences

⁷⁶ S. Rippon, *Landscape, community and colonization: the North Somerset Levels during the first to second millennia AD* (Council for British Archaeology, Research Report 152, 2008); id. ‘Emerging regional variation in Historic Landscape Character: the possible significance of the “Long Eighth Century”’, in Gardiner and Rippon (eds), *Medieval landscapes*, pp. 109–11, 120.

⁷⁷ Wood, ‘Field arrangements’, p. 252.

⁷⁸ This should be taken to imply that it is possible to reconstruct the function and the evolution of every local or regional field system, because it is simply not possible before c.1250, and even after that date it is entirely dependent upon the chance survival of sufficient manorial accounts and court rolls.

in the value that a community placed upon the utilization of the fallow arable: the higher the value, the more communal intervention to regulate its use. The traditional view, that demographic pressure was the primary determinant of that value, does not withstand critical scrutiny, because the same demographic trend could have very different outcomes in different field systems. Demography interacted with other variables in complex ways to determine the extent of common rights over the medieval arable: as Dodgshon remarks, a 'diverse range of influences and controls were at work', stretching from local cultivation practices to socio-political institutions.⁷⁹ This article has explored how these various 'influences' might impact upon the composition of the CPrR. The relative porosity of the soil influenced whether livestock could be folded or herded, a distinction that required the fallows to be organized differently. Porosity also determined the length of the spring growing season, which, if shortened by waterlogging, forced communities to organize ploughing and cropping communally. The soil's propensity to leach nutrients, especially during grain cultivation, influenced the value of the fallows as a means of replenishing those nutrients: soils that leached needed heavier inputs of livestock manure through folding or herding on the fallows than those that did not. Another factor was the precise characteristics of the local agrarian regime. Highly specialized and/or intensive regimes were unsuited to communal agriculture. Places with communal access to large areas of permanent pasture, and those where the dominant species of livestock were averse to eating the stubble of grain, attributed less value to the fallows as a source of pasture.

The extent of communal controls imposed over the fields was also determined by the *ability* of a township to impose and enforce them, which was primarily determined by the local social structure and expressed through the CPI. Social structure was itself shaped by the nature of local lordship and/or the community of cultivators. One, or both, of these had to be unified and strong if the township was to develop a wide CPrR, because only a powerful CPI could impose and enforce an extensive body of common rights successfully. Hence, social structure, the nature of the agrarian regime and, especially, demography are the most fluid and dynamic of the variables influencing field systems, whereas a factor such as the inherent quality of the soil is relatively static. In this sense, demography is the most interesting variable influencing the development of common rights over the arable.

An exploration of the factors determining the extent of common rights over the medieval arable also suggests the ways in which CPrRs evolved over time. The orthodox view is that common rights evolved gradually, as communities first became aware of new or mounting 'dilemmas', and then formulated and implemented a response to them. Such changes may have been formally agreed at each stage, as envisaged in Dahlman and Thirsk's stepped responses to a gradual rise in demographic pressure. At the end of this series of evolutionary changes, the decision to adopt a regular system, based on evenly scattered holdings, would require an act of significant reorganization, perhaps a single act constituting a revolutionary upheaval.⁸⁰ The rate and nature of change varied locally, so that a township changed to the Midland system whenever 'it was best suited to do so' between the eighth and twelfth

⁷⁹ Dodgshon, *Origins*, p. 151; Campbell and Godoy, 'Commonfield agriculture', p. 116.

⁸⁰ Lewis, Mitchell-Fox and Dyer, *Village, hamlet and farm*, p. 238.

centuries.⁸¹ Similarly, gradual changes to a CPrR in response to other dilemmas might have been undertaken without any explicit communal agreement: such was the piecemeal enclosure of thousands of strips of arable land by scores of cultivators in fifteenth-century Suffolk, which extinguished common grazing rights upon the fallows. The enclosures were unopposed, rather than formally sanctioned, but their cumulative impact was to narrow the scope of the local CPrR.⁸²

This traditional, evolutionary, model does not square with the recent contention that the Midland system was introduced in the eighth or ninth centuries against a backdrop of socio-political imperatives. Oosthuizen, Roberts and Wrathmell are suggesting possibilities rather than stating certainties, but, by emphasizing the role of central authorities, military instability and large-scale settlement reorganization, they are implying a model of rapid – perhaps revolutionary – change in field systems, in which agricultural factors are relatively unimportant. Roberts and Wrathmell also speculate that, following the first phase of the introduction of the Midland system into the core areas of the Central Province in the ninth century, it was subsequently ‘planted’ into peripheral regions, as either its benefits became apparent or as the fashion caught on.⁸³ This echoes Harvey’s contention that a Midland-style system was deliberately introduced into east Yorkshire around the late eleventh century.⁸⁴ These two, different, models are not incompatible, because each could have applied at different times and places. Indeed, they usefully fuse two separate but valid traditions, one placing greater emphasis upon the importance of agrarian issues, and evolutionary change, in the development of fields, and the other more upon cultural factors, and revolutionary change.⁸⁵

It is arguable that the combination of circumstances necessary for the evolution of the Midland system on agricultural grounds alone was quite unusual. It required a very particular type of mixed farming of moderate intensity, within the context of relatively weak levels of commercialism in agrarian production; where demographic pressure was moderate, but rising; where a certain type of clay soil had been largely cleared of woodland; and within a particular type of social structure capable of enforcing such a system. Given this, the scale on which it was already established by c.1200 suggests that imposition (in some places) and emulation (in others) had contributed greatly to its spread.⁸⁶ Once it had been established, it proved remarkably enduring and stable, unusually so by the standards of English field systems. However, this stability came at a price, in the sense that it was ‘relatively inert [and] conservative’, raising ‘basic, virtually immovable, barriers’ to any further structural change, and it managed to survive long past its sell-by date.⁸⁷ Its subsequent survival might be attributable to communities rating sustainability, and equitable access to resources, above raising

⁸¹ Williamson, *Shaping medieval landscapes*, p. 184; Hall, *Northamptonshire*, p. 139. See the quote from Thirsk cited in n. 39 above.

⁸² Bailey, ‘Form, function and evolution’, pp. 25–9.

⁸³ Roberts and Wrathmell, *Region and place*, p. 143.

⁸⁴ M. Harvey, ‘The origin of planned field systems in Holderness, Yorkshire’, in Rowley, *Origins*, pp. 189–90, 200; id., ‘Planned field systems in eastern Yorkshire: some thoughts on their origins’, *AgHR* 31 (1983),

pp. 91–103.

⁸⁵ Oosthuizen, ‘New light?’, pp. 182–3, 189–91.

⁸⁶ Lewis, Mitchell-Fox and Dyer, *Village, hamlet and farm*, pp. 237–8.

⁸⁷ Fox, ‘Alleged transformation’, pp. 545, 548; T. Eggertsson, ‘Avoiding the open field syndrome and the perils of path dependency’, *Acta Sociologica* 36 (1993).

agrarian productivity.⁸⁸ Thus it may be argued that the Midland system was, on balance, more a product of cultural than of agricultural influences.

The pathway of development followed by the regular Midland system was a dead end, in the sense that it could only be properly dismantled through Parliamentary Acts of Enclosure. The two things needed to make the Midland system work – a strong CPI and scattered holdings – were the very things preventing its further evolution, because they created vested interests against change.⁸⁹ The pathways of development followed by other field systems were more flexible, open ended, and unconnected with the Midland system, and they also appear to have been more responsive to purely agricultural influences. Even if this turns out to be an overstatement, their histories deserve to be considered in their own right, without reference to the Midland system. Already, those histories advocate a subtle but important shift in field studies away from origins to dynamics.⁹⁰

⁸⁸ M. Turner, J. V. Beckett and B. Afton, 'Agricultural sustainability and open-field farming in England, c.1650–1830', *International J. Agric. Sustainability*, 1 (2003), pp. 124–40; De Moor, 'Avoiding tragedies', pp. 17–18.

⁸⁹ Thus its history exemplifies Eggertsson's argument

that institutions can create frictions and constraints which may eventually prevent the pursuit of rational economic goals, T. Eggertsson, *Economic behaviour and institutions* (1990), pp. 167–71, 231–45.

⁹⁰ Wood, Purvis and Harrison, 'Irregular field systems', p. 175.