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Notes on Contributors

JANE BEVAN works as a lay (non-legal) member of Employment Tribunals in the East of England. Currently she combines this with studying part-time for a PhD on the impact of foxhunting on the pre-twentieth-century landscape of Shropshire and Norfolk. Address: School of History, Faculty of Arts and Humanities, University of East Anglia, Norwich, NR4 7TJ. email: jane.bevan@uea.ac.uk

PAUL SHARP is a post-doctoral researcher, funded by a grant from the Carlsberg Foundation, at the Department of Economics, University of Copenhagen. He completed his PhD thesis in June 2009 on 'Wheat, Globalization and History', looking at the intercontinental growth of trade in grains in the nineteenth century. He has contributed two chapters to Karl Gunnar Persson's *Economic History of Europe* (2010) and is currently studying the emergence and success of the Danish dairy industry in the nineteenth century. Address: Department of Economics, University of Copenhagen, Oester Farimagsgade 5, building 26, 1353 Copenhagen K, Denmark. email: Paul.Sharp@econ.ku.dk

DR PHILIP SLAVIN is a post-doctoral associate at the Economic Growth Center, Yale University. He received his PhD – which examined the process of food production and consumption in late-medieval Norfolk – from the Centre for Medieval Studies, University of Toronto in 2008. He is the author of a number of articles on the history of late medieval England, the connection between ecological crises and religious violence in late medieval Europe. He is currently working on a book on food production and consumption in late medieval Norwich Cathedral Priory, tentatively entitled *Bread and ale for brethren: Norwich Cathedral Priory and its grain supply, c.1250–1420*. email: philip.slavin@yale.edu

DR ELEANOR STRAUGHTON is an honorary research fellow in the History Department at Lancaster University. Her research interests include common resources and environmental governance in the modern historical period; in 2008 she published *Common grazing in the northern English uplands, 1800–1965: a history of national policy and local practice with special attention to the case of Cumbria* (2008). She was research associate on the project entitled 'Contested Common Land: Environmental Governance, Law and Sustainable Land Management, *c.*1600–2006', funded by the Arts and Humanities Research Council as part of its Landscape and Environment programme. Address: Department of History, Lancaster University, Lancaster LA1 4YG. email: e.straughton@lancaster.ac.uk

DR BONNIE WHITE is a lecturer in Political Science at St. Francis Xavier University. She received her PhD in history from McMaster University in Hamilton, Ontario in 2008. Since then her research interests have focused on the Women's Land Army and its subsection, the Women's Timber Corps, in First World War Britain. Address: Department of Political Science, St. Francis Xavier University, Canada, B2G 2W5. email: bwhite@stfx.ca

DR ANGUS WINCHESTER is senior lecturer in History at Lancaster University. His research focus lies in the agrarian and environmental history of upland regions of Britain; his publications include *The harvest of the hills: rural life in northern England and the Scottish Borders 1400–1700* (2000) and (with Alan Crosby) *England's landscape 8: the North West* (2006). He is currently co-investigator on a three-year project entitled 'Contested Common Land: Environmental Governance, Law and Sustainable Land Management, *c*.1600–2006', funded by the Arts and Humanities Research Council as part of its Landscape and Environment programme. Address: Department of History, Lancaster University, Lancaster LA1 4YG. e.mail: a.winchester@lancaster.ac.uk

Forthcoming Conferences

Rural History 2010

University of Sussex, 13–16 September 2010

The British Agricultural History Society is sponsoring the first international meeting of rural historians. Over 200 papers are promised covering aspects of the rural history of Britain and Europe, India, China and Japan, and North America, and there will be a 'conference within the conference' on the role of cooperation in agriculture in the nineteenth and twentieth centuries.

Plenary lectures will be delivered by
Professor Bruce Campbell (QUB)
Agriculture and national incomes in Europe, c.1300–1850
and
Professor Jules Pretty (University of Essex)
Sustainability in agricultural and rural systems: recent history and future challenges

It is also proposed that the conference will see the establishment of a European Society for Rural History which will organise future international conferences.

For the full programme and details of how to register, see www.ruralhistory2010.org

British Agricultural History Society
Winter Conference, 4 December 2010

Institute of Historical Research, Senate House, London

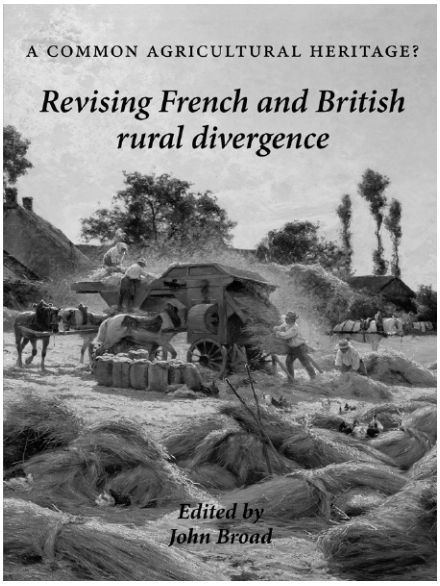
Woods and their uses in medieval to modern Britain

The speakers will be Dr Della Hooke, 'Woodland usage in early medieval England' • Dr John Langton, 'Early-modern English Forests as human habitats: the clearing of the woods or the running of the deer?' • Dr Paul Warde, 'Wood and wood products in the British economy, *c.*1550–1750' • Prof. Charles Watkins, 'English estate forestry in the nineteenth century'

Full details and a booking form can be downloaded from the Society's website, www.bahs.org.uk

A common agricultural heritage? Revising French and British rural divergence

Edited by John Broad

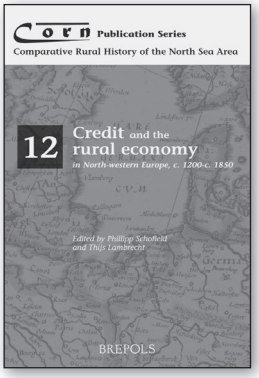


Agricultural History Review is pleased to announce the publication of its fifth supplement containing 13 papers on Anglo-French themes. It launches a new stage in rural historiography, by showing that England (and certainly Britain) was not as capitalist as is often supposed, and France far from backward. These essays strengthen our understanding of each nation's agrarian history by showing how they responded in similar ways to the same challenges and opportunities.

The authors

Annie Antoine • Gérard Béaur • Alain Belmont • Richard Britnell • John Broad
John Chartres • Jean-Michel Chevet • Peter Dewey • Alun Howkins • Florent Quellier
Joan Thirsk • Michael Turner • Nadine Vivier • Susanna Wade Martins

Agricultural History Review Supplement 5; 256 pp. ISBN 10: 0-903269-05-8; ISBN 13: 978-0-903269-05-6. For full details see the BAHS website, www.bahs.org.uk. Available from the BAHS, Department of History, University of Exeter, Amory Building, Rennes Drive, Exeter, EX4 4RJ, UK, £25.00/€35.00 post free. Individual members of the Society in the subscription year 2009–10 or joining in the subscription year 2010–11 will receive a copy as a benefit of membership. For details of the subscription rates and how to join, see the website or email bahs@exeter.ac.uk.

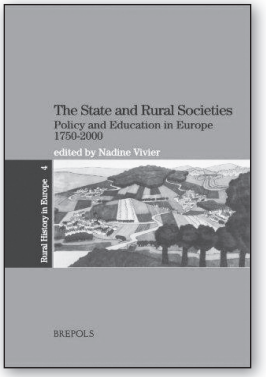


Thijs Lambrecht, Phillipp Schofield (eds.)

Credit and the Rural Economy in Northwestern Europe, c. 1200-c. 1850

vi + 196 p., 1 b/w ill., 156 x 234 mm, 2009, CORN 12, PB, ISBN 978-2-503-51984-5, € 62

This book retraces the nature and role of credit in the pre-industrial European countryside. The themes here are deliberately focused on the nature of credit, its form and structure, as well as upon the economic and social impact of credit and the changing availability of the same.

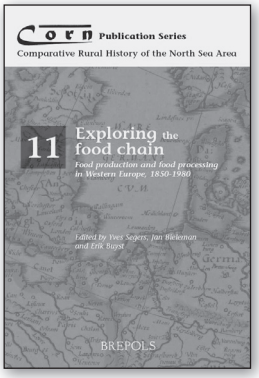


Nadine Vivier (ed.)

The State and Rural Societies. Policy and Education in Europe 1750-2000

278 p., 156 x 234 mm, 2009, RHE 4, PB, ISBN 978-2-503-52953-0, € 63.50

This book deals with the various aspects of rural life in which the State intervened: economic matters, such as property rights and market regulations; social questions, from moral concerns to demographic policy; and the key issue of rural education.

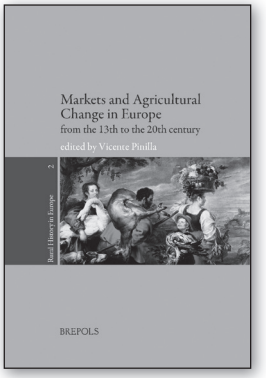


Yves Segers, Jan Bieleman, Erik Buyst (eds.)

Exploring the Food Chain. Food Production and Food Processing in Western Europe, 1850-1990

289 p., 156 x 234 mm, 2009, CORN 11, PB, ISBN 978-2-503-51779-7, € 68

Until the late 19th century the food industry was restricted to a few activities, usually based on small scale industries. At the end of the 20th century food processing has evolved into a modern, high-tech industry, dominated by a few large enterprises, offering a wide range of products. This volume aims to turn the spotlight on this often neglected but important link in the food chain.

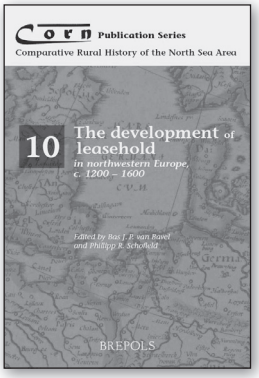


Vicente Pinilla (ed.)

Markets and Agricultural Change in Europe from the 13th to the 20th Century

247 p., 156 x 234 mm, 2009, RHE2, PB, ISBN 978-2-503-52952-3, € 62

The main target of this book is to explore how the involvement of rural populations and communities in different kinds of markets (mainly for agricultural commodities) has influenced the management of rural land in Europe.

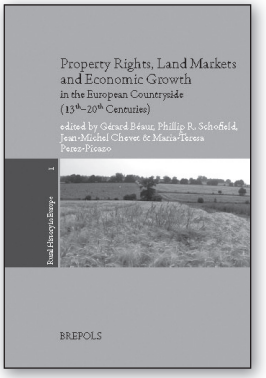


Phillipp Schofield, Bas J. P. van Bavel (eds.)

The Development of Leasehold in Northwestern Europe, c. 1200 – 1600

213 p., 9 b/w ills., 4 b/w line art, 156 x 234 mm, 2009, CORN 10, PB, ISBN 978-2-503-52254-8, € 62

In the twelfth to sixteenth centuries, the exploitation of landownership underwent drastic changes in various parts of Northwestern Europe. In these changes, the emergence of the lease plays a pivotal role.



Publication date: Summer 2010

Gérard Béaur, Phillipp Schofield, Jean-Michel Chevet, Maria-Teresa Perez-Picazo (eds.)

Property Rights, Land Markets and Economic Growth in the European Countryside (13th-20th Centuries)

approx. 480 p., 156 x 234 mm, 2010, RHE 1, PB, ISBN 978-2-503-52955-4, approx. € 71

By exploring the fundamental issues of property rights and markets in land, this book will offer important insights into long-term economic change in Europe. The present collection of essays will explore the conditions which permitted the progress of agriculture in Europe and the emergence of capitalism in the countryside.

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Goose management and rearing in late medieval eastern England, *c*.1250–1400*

by Philip Slavin

Abstract:

The present article discusses goose farming on late medieval English demesnes. The research is based on over 2,700 manorial (demesne) accounts from several eastern counties, including Essex, Suffolk, Norfolk, Cambridgeshire, Huntingdonshire and parts of the Peterborough hinterland. The paper discusses various strategies employed by lords and their reeves, chronological dynamics and geographic differences in rearing, disposal and consumption patterns. Finally, the place of the goose in the livestock trade is discussed. These aspects are linked to larger economic and ecological processes within the shifting environment of late medieval England.

Although pre-industrial diets in England were dominated by grain products in the form of bread, pottage and ale, 'complementary' foodstuffs, consisting of dairy products, fish and meat, and including poultry, played a significant role in consumption. Poultry husbandry in general, and goose farming in particular, have attracted little scholarly attention.[1] The present study

* I wish to thank Bruce M. S. Campbell of Queen's University, Belfast and Tim Newfield of McGill University, Montreal, as well as two anonymous reviewers for their most helpful suggestions. All errors remain mine.

[1] M. Stephenson, 'The role of poultry husbandry in the medieval agrarian economy, 1200–1450', *Veterinary Hist*. 10 (1977–8), pp. 17–24; id. 'The role of poultry husbandry in the medieval agrarian economy, 1200–1450', *Ark* 14 (1987), pp. 378–81; J. Witteveen, 'On swans, cranes and herons, I, swans', *Petits Propos Culinaires* (hereafter *PPC*) 24 (1986), pp. 22–31; id. 'On swans, cranes and herons, II, cranes', *PPC* 25 (1987), pp. 50–9; id., 'On swans, cranes and herons, III, herons', *PPC* 26 (1987), pp. 65–73; id., 'The great birds, IV, peacocks in history', *PPC* 32 (1989), pp. 23–34; id., 'The great birds: V, preparation of the peacock for the table', *PPC* 36 (1990), pp. 10–20; A. MacGregor, 'Swan rolls and beak markings: husbandry exploitation and regulation of *Cygnus Olor* in England, *c*.1100–1900', *Anthropozoologica* 22 (1996), pp. 39–69; C. M. Woolgar, *The great household in late medieval England* (1999), pp. 111–65; P. Freedman, 'Images of the medieval pheasant', unpublished paper delivered at conference on 'The chicken: its biological, social, cultural, and industrial history', New Haven (2002) (I am grateful to Prof. Freedman for letting me read this unpublished paper); E. Schubert, *Essen und Trinken im Mittelalter* (2006), pp. 120–5; C. E. Jackson, *Peacock* (2006). For archaeological studies, consult U. Albarella and S. Davis, 'Mammals and birds from Launceston Castle, Cornwall: decline in status and rise in agriculture', *Circaea* 12 (1996), pp. 1–156; id., 'They dined on crane: bird consumption, wildfowling and status in medieval England', *Acta Zoologica Cracoviensia* 45 (2002), pp. 23–38; J. Pine *et al*., 'The excavation of medieval and post-medieval features at the rear of 42c Bell Street, Henley, Oxfordshire', *Oxoniensia* 64 (1999), pp. 255–74; I. Barnes and J. P. W. Young, 'DNA-based identification of goose species from two archaeological sites in Lincolnshire', *J. Archaeological Science* 27 (2000), pp. 91–100; D. Serjeantson, 'Goose husbandry in medieval England and the problem of ageing goose bones', *Acta Zoologica Cracoviensia* 45 (2002), pp. 39–54; N. Sykes, 'The dynamics of status symbols: wildfowl exploitation in England, AD 410–1550', *Archaeological J*. 161 (2004), pp. 82–105.



FIGURE 1. Map of demesnes represented in the study.

aims to fill the gap in the literature by outlining the place, extent and economic implications of demesne goose rearing within a wider context of the expansion and decline of direct demesne management in late medieval England.

Eastern England, and chiefly Norfolk, practised one of the most intensive agricultural regimes in late medieval England. In contrast to the pasture-dependant west and north, the mixed husbandry of the east was biased towards spring grains, allocating a large proportion of its arable to barley or dredge.[2] Advanced agricultural techniques, effective institutional arrangements and sensitive decision making by manorial reeves made eastern England more productive than any other region in England.[3] Furthermore, despite the strong reliance on

Note 1 *continued*
For poultry archaeology on Romano-British sites, see S. Appelbaum, 'Agriculture in Roman Britain,' *AgHR* 6 (1958), p.75 and id., 'Animal husbandry', in J. Wacher (ed.), *The Roman world* (2 vols, 1987), II, pp. 504–26.

[2] B. M. S. Campbell, *English seigniorial agriculture, 1250–1450* (2000), pp. 172–83; B. M. S. Campbell and K. Bartley, *England on the eve of the Black Death: an atlas of lay lordship, land and wealth, 1300–49* (2006), pp. 209–30; M. Bailey, *Medieval Suffolk: an economic and social history, 1200–1500* (2007), pp. 79–86.

[3] B. M. S. Campbell, 'Agricultural progress in medieval England: some evidence from eastern Norfolk', *EcHR* 36 (1983), pp. 26–46; id., 'Arable productivity in medieval England: some evidence from Norfolk', *JEcH* 43 (1983), pp. 379–404; M. Bailey, *A marginal economy? East Anglian Breckland in the later middle ages* (1989), pp. 85–96.

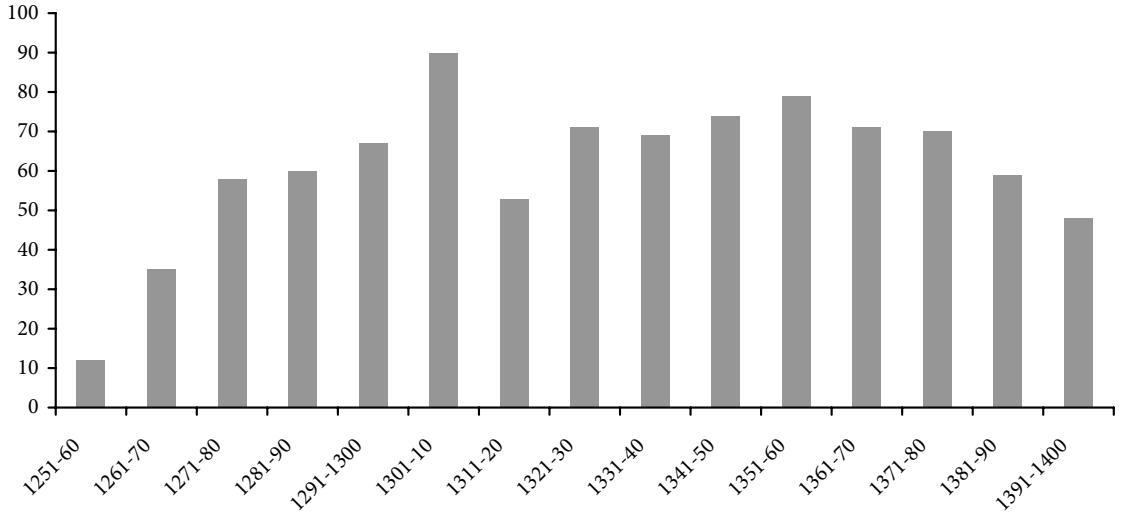


FIGURE 2. Number of demesnes represented in each decade, 1251–1400.

arable, livestock husbandry played an important role in the demesne agriculture of eastern England. One example is dairy-based production, which attained a high degree of commercialization before the last quarter of the fourteenth century.[4]

This study is based on over 2,700 manorial accounts from about 250 demesnes drawn from eastern England, covering Essex, Suffolk, Norfolk, Cambridgeshire and Huntingdonshire, as well as Peterborough's hinterland (Figure 1).[5] This region was chosen because of the availability of comparatively long and comprehensive series of accounts, drawn especially from large houses, such as Norwich Cathedral Priory, Westminster Abbey, Peterborough Abbey and Ramsey Abbey. About 65 per cent of these demesnes were held by ecclesiastical magnates, the remainder by lay lords. The chronological distribution of the demesnes is uneven, too (Figure 2). For instance, only 12 demesnes are represented in the 1250s, while the first decade of the fourteenth century has an impressive figure of 90 demesnes. The manorial documents provide a unique glimpse into the arable farming and livestock husbandry of late medieval England. Rendered on an annual basis (mostly at Michaelmas) by manorial officials (bailiffs or reeves), these accounts record, in considerable detail, annual patterns of poultry disposal, including issue, mating, egg yields, purchase, sales, consumption, transfer and death. The rolls carefully distinguish between species, sexes and ages, presenting an excellent opportunity for the reconstruction of demographic patterns.

[4] B. M. S. Campbell, 'Commercial dairy production on medieval English demesnes: the case of Norfolk', *Anthropozoologica* 16 (1992), pp. 107–18

[5] The accounts used in the database are deposited in various repositories, including The National Archives, Kew; the British Library, London; Norfolk Record Office, Norwich; Cambridge University Library, Cambridge; Northamptonshire Record Office, Northampton; and the University of Chicago Library, Chicago. The Norfolk accounts are catalogued in Campbell, *English seigniorial agriculture*, App. 2. References to the Peterborough accounts can be found in Janet Martin, *The court and account rolls of Peterborough Abbey: a handlist* (1980), pp. 31–42.

I

The domestication of the goose gained ground with the advent of the Romans in the first century CE.[6] As archaeological findings suggest, this was a British variety of greylag goose (*Anser anser*), known as the *cheneros*, which is mentioned in the *Natural history* of Pliny the Elder.[7] Geese seem to have become especially numerous and specialized in the Saxon period and a number of Anglo-Saxon and Latin sources mention goose husbandry.[8] It was not until the introduction of manorial accounts during the thirteenth century, however, that the extent and nature of goose husbandry becomes quantifiable.

Like dairy cattle, poultry were reared mostly for commercial purposes. To a large degree, poultry rearing was an adjunct to wider commercial contexts and decisions. In John Lydgate's poem *The debate of the horse, goose and sheep*, the goose argued for its importance and supremacy among the domestic animals.[9] Geese were prized both for the flavour of their meat and their feathers, which were used for quill pens and arrows. They were also used as watchdogs to keep thieves away. Furthermore, the geese kept slugs and snails down. This was especially helpful in rainy seasons, when gastropods become active and was probably an issue during the continuous downpour of 1314–16.

The costs of keeping geese were somewhat higher than those of other poultry. First, unlike chickens, geese mate for life and it is impossible to pair one gander to more than four geese. By comparison, a cock can service as many as 20 hens. Second, geese are notorious destroyers of crops because they tend to feed on seeds and grass. This is illustrated in some literary sources. For instance, there is a reference to the devastation of the arable fields of Weedon (Northamptonshire) by wild geese in the *Life of St Werburgh*, composed by Goscelin of Canterbury at the end of the eleventh century.[10] Also, in contrast with hen manure, goose dung – because of its wetness and content – tends to pollute the soil, damaging the fertility of arable fields.[11] Third, geese compete with other animals for pasture. This would especially have been an issue immediately before the Black Death, when the share of pasture was relatively reduced in many parts of eastern England. Finally, according to modern observations, fattening geese requires more calories than fattening other birds: more than twice as much as capons, for example.[12] It is likely that the situation was no different in the middle ages.

Although geese tend to feed on grassland, there are some patchy references to them also being given grain. For instance, in 1319–20 the officials of Hinderclay (Suffolk) allocated two

[6] J. Kear, *Man and wildfowl* (1990), p. 26; Appelbaum, 'Roman Britain', p. 75.

[7] Barnes and Young, 'DNA-based identification', pp. 91–100; Serjeantson, 'Goose husbandry', pp. 39–54.

[8] Goose husbandry is mentioned, for instance, in King Ine's Laws (F. Liebermann, *Die Gesetze der Angelsachsen* (1903–16), pp. 88–122 and in several charters: see, A. J. Robertson (ed.), *Anglo-Saxon charters* (sec. edn, 1956), no. 104; S. E. Kelly (ed.), *Charters of St Augustine's Abbey Canterbury and Minster-in-Thanet* (1995), p. 25; F. E. Harmer (ed.), *Select English historical documents of the ninth and tenth centuries* (1914), no. 1.

[9] H. N. MacCracken (ed.), *The minor poems of John Lydgate* (Early English Text Society, old ser. 192, 1934), pp. 539–66.

[10] *Vita Sanctae Wereburgae Virginis*, Patrologia Latina 155, col. 103B. I owe this reference to Prof. Joseph Goering, of the University of Toronto.

[11] V. Smil, 'Phosphorous in the environment: natural flows and human interferences', *Annual Rev. Energy Environment* 25 (2000), pp. 67–8.

[12] Stephenson, 'Poultry husbandry', p. 22.

quarters of barley chaff 'to sustain capons, geese, hens and pullets'.[13] Similarly, two quarters and four bushels of barley proper were given to stots, geese and pullets of Eaton (Norfolk) in 1295–6.[14] It is likely that geese were fed with barley to fatten them. This agrees with the recommendation of the contemporary Italian writer Pier de Crescenzi to fatten geese by feeding them with barley thrice a day.[15]

Very little is known about gooseherds supervising the demesne geese. Occasionally, manorial accounts mention *aucarii* or *custodes aucarum* under the *stipendia autumpni* section dealing with payments to harvest workers. Goose rearing, marketing and sales were mainly a late-summer and early-autumn activity and, hence, it is not surprising that the gooseherds appear together with other harvest workers. Some lords paid their gooseherds in cash, while some others provided them with food and drink. For instance, in the 1280s, the gooseherds of Hinderclay (Suffolk) received a meagre stipend of 6*d*. for their late-summer and early-autumn work.[16] In Hindringham (Norfolk), between 10 August and 28 September 1310, the authorities of Norwich Cathedral Priory allocated 21 quarters of barley to be baked, brewed and distributed among various harvest workers, including one *aucarius*.[17] At Martham (Norfolk), one *custos aucarum* received two bushels of barley in the autumn of 1321.[18] It is likely the *aucarii* mentioned among other harvest workers were hired as temporary workers. As the iconographic evidence suggests, at least some gooseherds were male.[19] On the other hand, contemporary agricultural treatises suggest that geese were supervised by manorial dairymaids, who were usually in charge of all the small livestock.[20]

It should be remembered that, in contrast with sheep management or rabbit keeping, poultry rearing is labour intensive. Goose flocks, even small ones, were tended closely by gooseherds, separately from other avian flocks. Gooseherds' duties included such labour-intensive tasks as walking geese to pasture; protecting them from potentially hazardous animals, both wild and domestic; feeding them with grain and legumes, mostly for fattening; and conducting them to local markets. These labour inputs had serious economic implications after the Black Death, when the numbers of demesne geese declined until their virtual disappearance from the demesne around 1400.

To estimate the relative contribution of birds to the total livestock, we have to examine the poultry in the total context of animal husbandry. Because of the difference in importance, size, age, sex, financial value, weight and contribution of each bird to the total livestock, it is necessary to convert the recorded numbers of each bird species into 'livestock units'. No attempt has previously been made to convert medieval poultry into their 'unit' equivalents, but for the purpose of the present study, I shall employ the approach used by other scholars to convert domesticated animals into standardized livestock units. This methodology weights animals according to their relative sale prices.[21] Because of vast gaps in relative prices between

[13] Chicago UL, Special Collections, Bacon Roll 449.

[14] Norfolk RO, Dean and Chapter of Norwich [hereafter NRO, DCN] 60/8/9.

[15] *Ruralia Commoda*, III, p. 131.

[16] Chicago UL, Bacon Rolls 419–23.

[17] NRO, DCN 60/20/15.

[18] NRO, DCN 60/23/18.

[19] British Library (hereafter BL), Add. Ms 42130, fo. 169v, reproduced in J. Backhouse, *Medieval rural life in the Luttrell Psalter* (2000), p. 29, no. 17.

[20] D. Oschinsky (ed.), *Walter of Henley and other treatises on estate management and accounting* (1971), pp. 288, 338, 384, 424 and 473.

[21] Campbell, *English seigniorial agriculture*, pp. 104–6.

TABLE 1. Total livestock distribution in Norfolk, 1251–1400 (per cent).

	Horses	*Oxen and Cattle*	*Sheep*	*Swine*	*Poultry*	*Total*
1251–60	18.5	69.3	6.34	4.72	1.12	100.00
1261–70	16.8	66.9	5.68	6.94	3.72	100.00
1271–80	20.3	62.9	8.31	4.83	3.65	100.00
1281–90	28.3	62.0	5.13	1.81	2.72	100.00
1291–1300	18.1	65.4	10.47	3.27	2.79	100.00
1301–10	19.5	54.7	17.64	4.54	3.68	100.00
1311–20	20.4	53.4	13.67	5.72	6.85	100.00
1321–30	25.4	52.3	14.07	5.61	2.61	100.00
1331–40	16.6	58.4	18.85	3.88	2.22	100.00
1341–50	16.8	59.9	14.16	4.96	4.19	100.00
1351–60	16.5	57.4	21.35	2.68	2.15	100.00
1361–70	15.4	59.8	14.39	4.63	5.78	100.00
1371–80	16.6	52.3	14.93	9.77	6.45	100.00
1381–90	17.5	60.3	15.69	4.19	2.27	100.00
1391–1400	14.5	52.4	27.54	3.22	2.29	100.00
Average	18.8	59.2	13.88	4.72	3.50	100.00

Source: Accounts database.
Note: The distribution is calculated in livestock units. Livestock units = [horses x 1.0] + [(oxen + adult cattle) x 1.2] + [immature cattle x 0.8] + [(sheep + swine) x 0.1] + [swans x 0.27] + [cygnets x 0.11] + [peacocks x 0.22] + [peachicks x 0.06] + [geese x 0.02] + [goslings x 0.01] + [(ducks + hens + cocks + chicks) x 0.01] + [capons x 0.02] + [pigeons x 0.002].

'commercial' and 'decorative' birds (that is, swans and peacocks) on the one hand, and livestock animals (horses, cattle, sheep and swine) on the other, it is necessary to treat each group separately. Conversion of animals and birds into these units reveals that the poultry sector was marginal when compared to other animal sectors. For example, in Norfolk, domesticated birds – including swans and semi-domesticated peacocks, but excluding pheasants, which were regarded as game – contributed about 3.5 per cent to the total livestock, by value (Table 1).

Within the domestic poultry sector, however, different formulae are used (Table 2). Here, the established units are calculated in relation to goose prices. As Figure 3 indicates, there was a large degree of correspondence in price movements of different birds. Goose prices rose by about 100 per cent between the 1250s (2*d*. per bird) and the 1310s (4*d*. per bird).[22] Prices fell back in the 1320s, as a result of price deflation, and continued to decline up until the Black Death; they were especially low in the 1340s (around 3*d*. per bird). The decades after the Black Death saw a renewed rise in goose prices, reaching an unprecedented level in the 1360s, with one goose selling for around 4.3*d*. There was a further fall in the late 1370s, which continued into the 1380s

[22] All poultry prices in this paper are extracted and calculated from manorial accounts.

TABLE 2. Mean poultry composition on East Anglian demesnes, 1261–1400.

	In Heads				*In Units*[1]				*Units (per cent)*			
Decade	*Geese*	*Ducks*	*Chickens*	*Total*	*Geese*	*Ducks*	*Chickens*	*Total*	*Geese*	*Ducks*	*Chickens*	*Total*
1261–70	8.0	0.4	29.4	37.9	8.0	0.2	14.6	22.9	35.17	0.89	63.94	100.00
1271–80	11.4	0.7	16.8	28.9	11.4	0.3	8.2	20.0	57.21	1.67	41.13	100.00
1281–90	8.6	0.6	18.6	27.8	8.6	0.3	8.6	17.5	49.07	1.76	49.17	100.00
1291–1300	5.2	0.1	21.6	26.9	5.2	0.0	11.0	16.2	32.04	0.18	67.78	100.00
1301–10	12.6	0.9	21.8	35.4	12.6	0.4	9.9	23.0	54.92	1.92	43.16	100.00
1311–20	7.3	2.3	28.0	37.5	7.3	1.1	13.7	22.1	32.88	4.98	62.14	100.00
1321–30	9.5	5.9	26.5	41.9	9.5	2.8	14.0	26.3	36.20	10.69	53.11	100.00
1331–40	9.0	2.7	20.5	32.1	9.0	1.3	10.5	20.8	43.34	6.21	50.45	100.00
1341–50	10.9	4.3	21.5	36.6	10.9	2.1	12.4	25.3	42.91	8.16	48.93	100.00
1351–60	6.8	2.1	16.3	25.3	6.8	1.0	10.5	18.3	37.23	5.59	57.18	100.00
1361–70	7.1	1.9	16.1	25.1	7.1	0.9	10.4	18.4	38.51	5.01	56.48	100.00
1371–80	6.0	2.2	17.6	25.8	6.0	1.1	11.6	18.7	32.19	5.76	62.05	100.00
1381–90	6.2	1.7	16.3	24.2	6.2	0.8	11.0	17.9	34.45	4.47	61.08	100.00
1391–1400	4.9	1.0	10.2	16.1	4.9	0.5	6.9	12.3	40.10	3.88	56.02	100.00
Average	8.1	1.9	20.1	30.1	8.1	0.9	10.9	20.0	40.44	4.37	55.19	100.00

Source: Accounts database.
Note: [1] 'Domesticated' bird units: Geese x 1.0; goslings x 0.63; ducks x 0.48; capons x 0.84; hens and cocks x 0.50; chicks x 0.29.

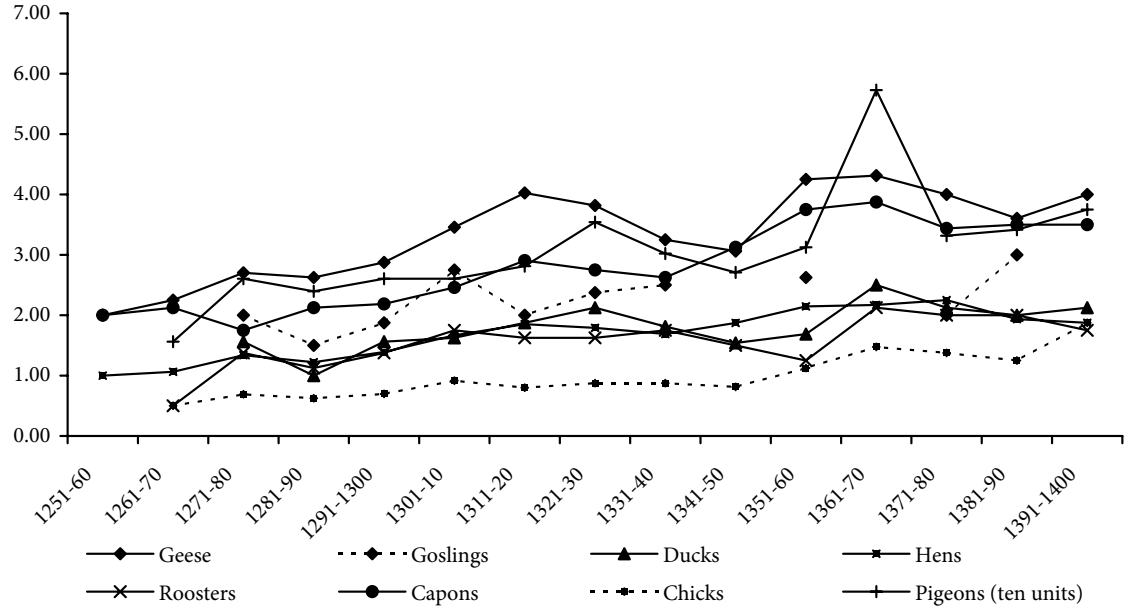


FIGURE 3. Poultry prices in eastern England (in pence per bird), 1251–1400.

Source: Accounts database

(3.6*d*. per bird). Prices returned to their 1370 level in the last decade of the fourteenth century (4*d*. per goose). It should be noted that these price movements closely reflect more general trends in grain and livestock prices of the period.

Within the egg sector, there was a vast gap in price between hen eggs and goose eggs. This gap exceeded the ratio between hen and goose prices: on average, goose egg prices were 5.5 times higher than the hen ones. In the 1330s, the price of goose eggs peaked (4*d*. per dozen), only to fall in the following decade (2.4*d*. per dozen) and rise again in the aftermath of the Black Death (3.5*d*. in the 1350s and 3.67*d*. in the 1360s). It is unclear if they were so highly valued for consumption or hatching, although there are occasional references to the dispatch of eggs to urban centres.

Having established the price movements and the livestock units of poultry, we must now look on the composition of demesne birds. Within the poultry sector, the goose was one of the most numerous birds, second only to the chicken. Table 3 establishes the proportions of poultry rearing. Over the entire period, geese are found on about three quarters of the sampled demesnes. The peak of goose rearing seems to have been in the 1320s, when 80 per cent of the demesnes stocked them. After the Black Death, the switch from direct demesne farming to leasing decreased the overall number of estates practising goose rearing. In the 1390s only half of the demesnes stocked geese.

The goose was also the most populous species within the larger *anatidae* family, which includes ducks, geese and swans. Ducks were rarely reared on more than a quarter of all the sampled demesnes in the pre-Black Death period. By the end of the fourteenth century,

TABLE 3. Percentage of demesnes rearing domesticated birds, 1261–1400.

Decade	*Swans*	*Peacocks*	*Geese*	*Ducks*	*Chickens*[a]
1261–70	23.53	11.76	76.47	8.82	88.24
1271–80	17.65	7.84	66.67	7.84	64.71
1281–90	26.92	7.69	80.77	11.54	80.77
1291–1300	31.58	19.30	75.44	5.26	82.46
1301–10	19.48	19.48	76.62	20.78	81.82
1311–20	8.57	28.57	77.14	20.00	94.29
1321–30	16.00	18.00	80.00	28.00	86.00
1331–40	10.26	0.00	69.23	23.08	87.18
1341–50	10.87	2.17	71.74	21.74	89.13
1351–60	13.64	2.27	75.00	15.91	81.82
1361–70	6.98	0.00	76.74	20.93	79.07
1371–80	9.76	0.00	63.41	21.95	65.85
1381–90	6.45	0.00	61.54	17.95	61.54
1391–1400	9.09	0.00	50.00	14.29	53.57
Average	13.17	8.36	74.53	14.88	77.38

Source: Accounts database.
Note: [a] 'Chickens' includes hens, cocks, capons (castrated cocks) and chicks.

about 15 per cent of the demesnes kept ducks. Swans, which were considered 'decorative', were also kept for the table. The most valued and hence costly birds, swans were regarded as royal property and reserved, exclusively, for the nobility.[23] They were numerous in the late thirteenth century, especially in the 1290s, when about a third of the demesnes reared them. At the height of Edward I's reign, for example, swans were found on almost half of the demesnes on which geese were also kept: it seems to have been fashionable for lords to keep swans as a symbol of social prestige.

Within the domesticated bird sector, geese were the most numerous. Before the Black Death – with the exception of the last decade of the thirteenth century – one would expect to find slightly over ten geese on each demesne. After the pestilence, however, their average number per demesne decreased, reaching about four birds per demesne in the 1390s. This was chiefly because many demesnes were leased out, together with their poultry, and because goose rearing, as a whole, moved from the demesnes to the peasant sector, as we shall show below.

On the other hand, geese always constituted a significant portion of the total domesticated poultry. They accounted for over 60 per cent in the 1270s and 1280s. In the last decade of the thirteenth century, however, their overall population within the demesne fell, in terms of both number and poultry unit percentage. This was likely to have been the result of a seigneurial

[23] P. Coss, 'Knighthood, heraldry and social exclusion in Edwardian England', in P. Coss and M. Keen (eds), *Heraldry, pageantry and social display in medieval England* (2003), pp. 39–68; MacGregor, 'Swan rolls', p. 40.

decision to increase the share of chickens, some of which had been leased out to the tenants in the two previous decades. In that period, geese accounted for about 40 per cent of all commercial poultry. During the panzootic crisis of 1319–20, which killed about 65 per cent of cattle in England and Wales, some demesnes increased the overall number of both geese and other poultry.[24] This expansion occurred, for instance, on several Norfolk demesnes of Norwich Cathedral Priory, as well as some Huntingdonshire and Cambridgeshire demesnes of Ramsey Abbey. One of the immediate consequences of the cattle pestilence was the creation of surplus pasturage. Converting pasturage into arable could be an expensive task, which few lords could afford. Instead, some lords tried to fill the vacuum by expanding other livestock populations, including geese.[25] Once the crisis was more-or-less over, by the end of the 1320s, the number of geese was cut back again. After the Black Death, however, both their absolute numbers and their share within the sector gradually declined and, in the last decade of the fourteenth century, an average demesne had between three and four geese, still representing about 30 per cent of the total domesticated poultry stock. As Table 2 indicates, this decline was not limited to geese. In the 1390s, an average demesne expected to rear about 10 chickens, compared to some 30 in the 1260s. Again, this reflects the increasing tendency of the lords to lease their poultry flocks to their better-off tenants.

II

The scale and composition of poultry flocks varied not only from decade to decade, but also from demesne to demesne (Figures 4, 5, and 6). Although most demesnes tended to keep geese in rather modest numbers, the figures were different from place to place. For example, the Peterborough demesnes of Collingham, Eye, Walton, Warmington and Werrington kept well over a hundred geese in the 1300s.[26] On other hand, there were some demesnes that did not rear geese at all. These included Caistor-cum-Markshall, Costessey and Gnatingdon (Norfolk), Layham and Nayland (Suffolk).[27] In Cambridgeshire, goose husbandry was the specialization of Elsworth and Graveley. In Essex, the demesne with the greatest goose population was Dovercourt, followed by Feering Rectory and Westbury. In Huntingdonshire, the most prominent demesnes were Elton, Abbot's Ripton, Warboys and Weston. Most Norfolk demesnes

[24] On the cattle plague of 1319–20, see I. Kershaw, 'The Great Famine and agrarian crisis in England, 1315–22', *Past and Present* 59 (1973), pp. 3–50, at pp. 24–8; W. C. Jordan, *The Great Famine: northern Europe in the early fourteenth century* (1996), pp. 35–8; P. Slavin, 'Between death and survival: Norfolk cattle, *c.*1280–1370', *Fons luminis* 1 (2008), pp. 14–60, here pp. 41–53; id., 'The fifth rider of the Apocalypse: the Great Cattle Plague in England and Wales and its economic consequences, 1319–1350', in S. Cavaciocchi (eds), *Le interazioni fra economia e ambiente biologico nell'Europa preindustriale, secc. XIII–XVIII*. Proceedings of the 41st Study Week of the Fondazione Istituto Internazionale di Storia Economica F. Datini (2010), pp. 167–81; T. P. Newfield, in his MA dissertation 'A great destruction of cattle: the impact and extent of epizootic disease in early fourteenth-century north-western Europe' (unpublished MA Thesis, University of Toronto, 2005); id., 'A cattle panzootic in early fourteenth-century Europe', *AgHR* 57 (2009), pp. 155–90.

[25] Slavin, 'Norfolk cattle', pp. 51–2.

[26] Northamptonshire RO (hereafter NoRO), FitzWilliam 233 (tabulated in K. Biddick, *The other economy: pastoral husbandry on a medieval estate* (1989), p. 127).

[27] TNA, SC 6/932/15–26 (Caistor-cum-Markshall); SC 6/933/13–15 (Costessey); SC 6/1002/8, 9, 14 (Layham); SC 6/1003/1–2 (Nayland); NRO, DCN 60/14/3–23, 62/1; Lestr/IC/2–3 (Gnatingdon).

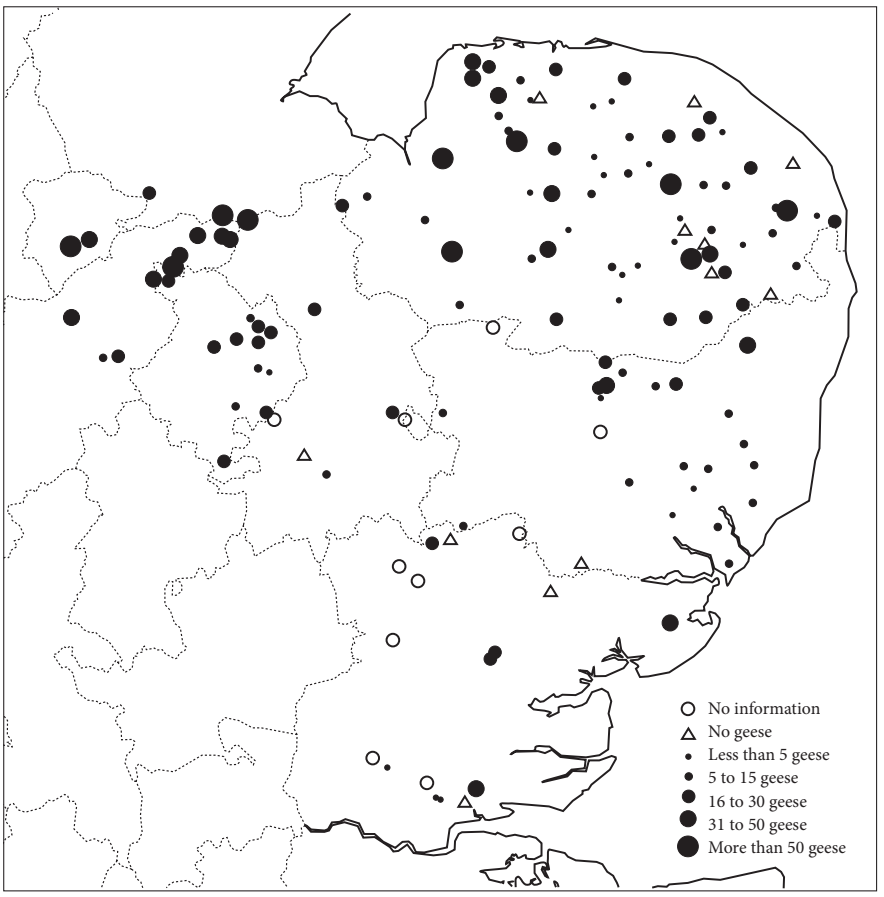


FIGURE 4. Goose specialization in East Anglia, *c.*1300.

cut back the number of geese in the later decades of the thirteenth century and, as a result, the county as a whole kept small numbers of geese. Similarly, Suffolk demesnes, with some exceptions, tended to house small goose flocks.

A quite different situation is found *c.*1340 (Figure 5). First, geese either disappeared from the demesne altogether or their population decreased when goose flocks were leased out together with dairies.[28] The manorial accounts hint that unmated geese were leased out with at least one gander to peasants who were to keep the entire issue (*exitus*) of goslings. In such cases, the newborn goslings were not reckoned in the annual accounts and, as a result, the overall number of geese was under-represented.

Second, we witness some clear shifts in the *loci* of goose specialization. Some demesnes, famed for large-scale goose rearing, gradually reduced their overall number of geese. The best examples were the Huntingdonshire demesnes of Ramsey Abbey, which reduced their numbers of geese from over 20 each to 10 or less.[29] Similarly, Hinderclay, once one of the most

[28] TNA, SC 6/836/7–12; DCN 60/13/22, DCN 60/20/22–23, 60/13/22–26, DCN 62/1–2; Chicago UL, Bacon Rolls 449 and 452.

[29] TNA, SC 6/874/2–9; SC 6/885/17–8; BL, Add. Rolls, 39801–3, 39805, 39808, 39809.

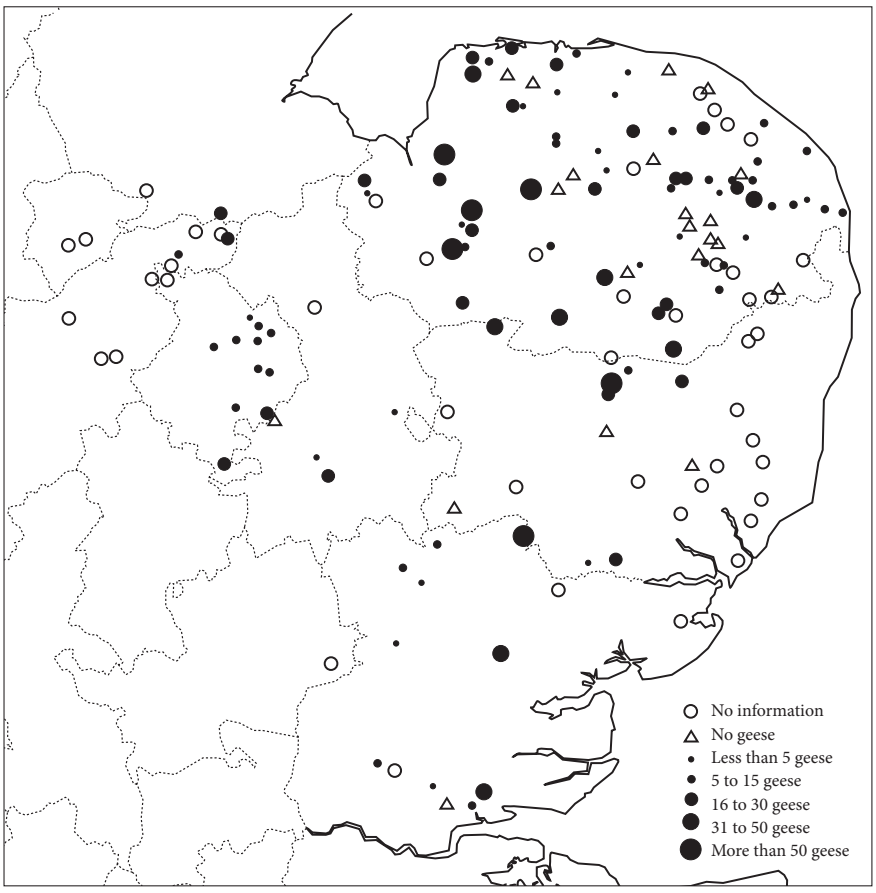


FIGURE 5. Goose specialization in East Anglia, *c.*1340

populous goose demesnes, cut back its number of geese to five, and this figure remained fixed until the eventual lease of the demesne around 1405 (with the exception of the 1360s).[30] On the other hand, some new *loci* of specialization emerged and expanded. These included Great Shelford (Cambridgeshire), Hindolveston and Sedgeford (north-west Norfolk), Rickinghall and Redgrave (Suffolk).[31] Few could match the latter, which expanded its goose population from 35 to 97 birds, between the 1320s and 1340s.

By the close of the fourteenth century, the overall picture becomes more patchy, since more and more demesnes were leased out. But even those lords who kept their demesnes at hand seem to have had much less interest in goose rearing than their predecessors before the Black Death. Thereafter, they tended to keep geese in much smaller numbers, or eliminate the goose population altogether (Figure 6).[32] The goose did not, however, disappear everywhere. Only

[30] Chicago UL, Bacon Rolls 435–50.

[31] TNA, SC 6/1132/14–1133/2; NRO, DCN 60/18/11–31; DCN 60/33/9–28, Lest IB/16–21; DCN 62/2; BL, Add. Rolls, 63512–528; Chicago UL, Bacon Rolls 325–36; BL, Add. Rolls, 63372–5; Chicago UL, Bacon Rolls, 325–36. Unfortunately, the earliest surviving account from Redgrave is from 1323–4, so we know nothing about its goose population before that year.

[32] These included Great Shelford (Cambridgeshire) and Calthorpe (Norfolk), once prominent goose demesnes, TNA, SC 6/1133/2–4; NRO, Case 24, Shelf C.

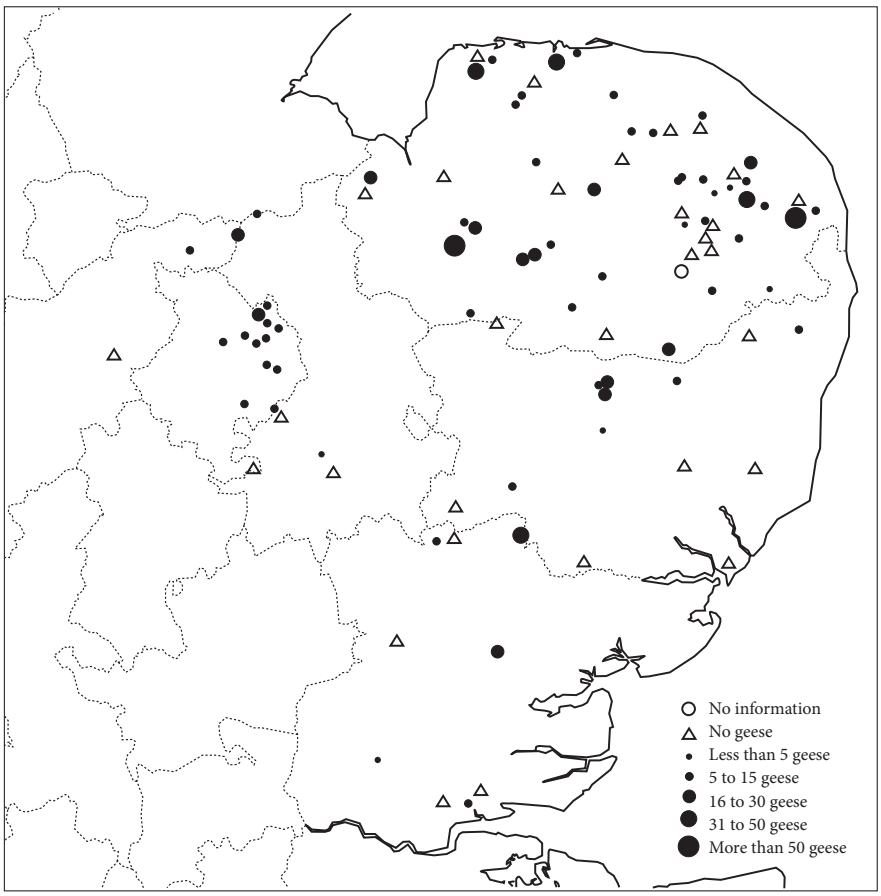


FIGURE 6. Goose specialization in East Anglia, *c.*1380

about a third of all the demesnes at hand had no goose flocks by 1380, while almost half of the demesnes still kept some geese, between 5 and 15 in number, as Table 4 indicates. There were still some demesnes practising intense goose husbandry and keeping geese in relatively large numbers.[33]

The degree of specialization of each individual demesne depended largely on local environmental conditions. As we have seen, at the height of direct management, the most populous goose demesnes were situated on the Peterborough Fens. That this area abounded with geese and other *anatidae* is reflected in some late medieval sources. For instance, Hugh Candidus of Peterborough (*c.*1150) and an anonymous compiler of the late twelfth-century *Liber Eliensis* both spoke about abundant grassland and large numbers of geese and ducks in the region.[34] Between the *Domesday* survey of 1086 and the fourteenth century the area of grassland expanded, partially through piecemeal reclamation.[35] Large goose flocks are also found on coastal and estuarine

[33] Acton, Redgrave and Rickinghall (Suffolk), Upwood (Hunts.), Great Cressingham, Worstead (Norfolk) are such examples. TNA, SC 6/989/1–8; Chicago UL, Bacon Rolls 359–75 and 382–96.

[34] H. C. Darby, *The medieval Fenland* (1940), p. 21; Stephen Rippon, *The transformation of coastal wetlands* (2000), pp. 39–42.

[35] Darby, *Medieval Fenland*, pp. 61–85.

TABLE 4. Goose population size by flock size on East Anglian demesnes in 1300, 1340 and 1380 (per cent).

Period	*Head of geese*						*Total*
	>50	*31–50*	*16–30*	*5–15*	*1–5*	*0*	
*c.*1300	5.49	10.99	24.18	23.08	24.18	12.09	100.00
*c.*1340	3.17	3.17	12.70	31.75	28.57	20.63	100.00
*c.*1380	0.00	1.89	9.43	47.17	9.43	32.08	100.00
Average	2.89	5.35	15.44	34.00	20.73	21.60	100.00

Source: Accounts database.

demesnes of Norfolk and along the Waveney valley. The wet environment and abundant grassland of these regions provided ideal conditions for goose habitat and goose rearing. Quite the opposite environmental circumstances prevailed elsewhere in eastern England. Grassland was deficient in most of Norfolk and parts of west Suffolk, as well as east Essex.[36] These regions practised intensive regimes, relying on spring grains rather than pasturage for livestock fodder and, by doing so, ensuring that goose flocks remained small.

The physical proximity of demesnes to urban markets and centres, on the other hand, seems to have had only a limited impact on the geography of goose rearing. It is possible that the proximity of the Fenland demesnes to Peterborough encouraged their officials to stock large numbers of geese. Similarly, the Huntingdonshire demesnes of Ramsey Abbey, rearing dozens of geese, were located conveniently close to Huntingdon and St Ives. On the other hand, the Norfolk demesnes around the towns of Norwich, King's Lynn and Great Yarmouth housed small flocks of geese. The same situation is found in Suffolk, in the area around Bury St Edmunds. At the same time, however, some demesnes with large flocks were situated in commercially remote regions. These included the Suffolk demesnes of Bungay, Hinderclay, Redgrave and Rickinghall and the Norfolk demesne of Hilgay.

The period under study sees first the expansion, then the stagnation and finally the decline of demesne goose husbandry. This corresponded to larger developments within the seigneurial economy, whose expansion continued in most cases until the 1310s. Thereafter we see the first signs of the reduction of the goose population on the demesne, partly because of more and more frequent leases of dairy houses and poultry flocks, partly because of seigneurial choice. These leases may have been the direct result of the agrarian and pastoral crisis of 1314–22, which saw a series of harvest failures and loss of at least 60 per cent of cattle country-wide. With some exceptions, the goose population on the demesne remained, roughly speaking, stagnant between *c.*1320 and *c.*1350. The major change, however, came with the Black Death. Bridbury considered the third quarter of the fourteenth century as the 'Indian summer' of demesne farming.[37] Indeed,

[36] Campbell, *English seigniorial agriculture*, pp. 73–5; Campbell and Bartley, *Eve of the Black Death*, pp. 137–49.

[37] A. R. Bridbury, 'The Black Death', *EcHR* 26 (1973), p. 584; id., *The English economy from Bede to the Reformation* (1992), pp. 208–9; Stone, *Decision-making*, pp. 81–120.

it was also the 'Indian summer' of the demesne goose. Omnipresent leases of demesnes and a retreat from direct management meant that goose rearing in particular, and poultry husbandry in general, had shifted from the demesne to the peasant sector.

III

The manorial accounts often identify the sexes and ages of birds. On the basis of these references, it is possible to reconstruct general demographic trends within various avian species. Most accounts clearly differentiate between ganders (*anseres)* and female geese (*auce*). Furthermore, they note the number of mature and immature birds, and give statistics regarding unmated geese (*auce mariole* or *errarie*). The composition of goose cohorts was largely dictated by the life-cycle and sexual habits of these birds, which should be briefly explained here.

There is some evidence that medieval greylag geese laid eggs at the beginning of February, and not in March or April as their modern descendants do.[38] On average, a goose couple produces from four to six goslings per nest, as few as three and as many as twelve.[39] It takes 27 to 29 days for the goslings to hatch and some 60 to 80 days to come into full feather. During this period, they feed themselves on grass, plants and cereals – which are available in plenty in spring and summer – and grow fat rapidly. At this point, the fattened goslings are referred to as 'green geese' and are ready to be marketed.[40] Remaining goslings reach their sexual maturity between the ages of two and three. Like swans, most geese mate for life around the age of four. A large number of couples, although sexually active, do not breed. Instances of same-sex relationships, too, can sometimes occur. Some unmated geese, especially before reaching full maturity, engage in sexual activities with other unmated birds. A gander cannot be mated with more than three or four geese and hence, in order to ensure a steady reproduction, the ratio of geese to ganders must not exceed 4:1. After the age of five, goose fertility begins to decline, although the natural lifespan of domestic geese can exceed 30 years.[41] This was certainly not achieved on medieval demesnes, as will be shown below.

As a rule, shortly after hatching, goslings would outnumber the adult geese in the flock. Between hatching (February or March) and fledging (May or June), when a substantial number of green geese were transferred from the demesne, goslings would typically constitute about two thirds of the total goose population on the demesne. Their number varied from demesne to demesne and from year to year, and it depended on the total goose population at a given time and place. In exceptional cases, goslings constituted a much smaller proportion of the population, as at Redgrave in the 1340s, when the total number of geese exceeded 100, of which only about 20 per cent were goslings.[42] In other cases, the proportion of goslings was even higher than two thirds, as in 1327–8 at Eaton (Norfolk), where there were six mature geese and 36 goslings.[43]

[38] Kear, *Man and wildfowl*, p. 35; Serjeantson, 'Goose husbandry', p. 41.

[39] J. Kear (ed.), *Ducks, geese and swans* (2 vols, 2005), I, pp. 276–80.

[40] Serjeantson, 'Goose husbandry', pp. 40–2.

[41] Ibid.

[42] Chicago UL, Bacon Rolls, 330–5; BL, Add. Rolls, 63372–5.

[43] NRO, DCN 60/8/24.

Some accounts, especially those from Suffolk estates of Bury St Edmunds and Norfolk demesnes of Norwich Cathedral Priory, also indicate the birth rates. On average, each goose produced 5.5 goslings, which agrees with both modern observations and medieval depictions. For instance, the Luttrell Psalter, produced in East Anglia in the early fourteenth-century, has an illustration of a female goose with five goslings.[44] There was, of course, some variation. For example, in 1350–1, six geese of Redgrave (Suffolk) produced only 28 goslings because eggs were destroyed during the hatch.[45] Hatch success could be jeopardized by factors such as animal attacks and vandalism. In some rare cases, no goslings were produced because geese could not brood (*quia mariole noluerunt sedere*), as happened in Taverham in the winter of 1339.[46]

Few accounts, however, indicate how many eggs were laid during the season, in addition to those successfully hatched. Our patchy data indicate that there was usually a difference between the number of eggs laid and the number of goslings hatched. On average, each goose laid about ten eggs per season; naturally, this figure fluctuated from nest to nest. For instance, in Plumstead (Norfolk) in 1300, three geese laid as many as 60 eggs (that is, 20 eggs per goose).[47] Similarly high yields are reported at Worstead, Eaton, Taverham and Hindolveston, all in Norfolk.[48] As the available data suggest, only about 40 per cent of the eggs hatched and turned into goslings (*converta in aucas*); about a quarter of all eggs were lifeless and, consequently, became rotten during the brooding period (*putrefacta in sessione*); a further 35 per cent were removed before hatching and transferred elsewhere. In the majority of cases, they were sold at markets; in some instances, they were sent to supply the lords. For instance, in 1302, 40 goose eggs were sent to Norwich Cathedral Priory from Worstead.[49] Similarly, in 1316 the Great Hospital of Norwich received 60 goose eggs from its demesne of Calthorpe – possibly owing to widespread hunger brought about by the Great Famine.[50] It should be noted that the number of *laying* geese does not necessarily mean the number of *brooding* geese. Thus, at Plumstead in 1305, three geese produced a total of 24 goslings, but the eggs were brooded by only two geese (*cunata sub ij aucis xxiiij [oua]*).[51] Medieval egg yields seem to have been somewhat lower than nowadays, when an average goose is expected to lay between 10 and 40 eggs, over the laying season.

Most accounts indicate the sex ratio within the goose flocks. According to our sources, an annual issue was produced out of a number of unmated female geese and ganders, with an almost invariable ratio of one gander per three unmated geese. The proportion of ganders and unmated geese within the mature goose population (that is, excluding goslings under one year of age) was dictated by the total size of the flock. Since most geese were transferred from the demesne at or around their 'nuptial age', each mature goose could not be expected to be reproductive for more than two seasons, specifically between their sexual maturity (age two at earliest) and their 'marriage' (age four at latest). This automatically reduces the maximum possible proportion of unmated (and reproductive) ganders and geese to no more than two

[44] BL, Add. Ms 42130, fol. 169v, reproduced in Backhouse, *Medieval rural life*, p. 29, no. 17.

[45] Chicago UL, Bacon Roll 336.

[46] NRO, DCN 60/35/27.

[47] NRO, DCN 60/29/14.

[48] NRO, DCN 60/39/4; DCN 60/35/27; DCN 60/8/28; DCN 60/18/34.

[49] NRO, DCN 60/39/4.

[50] NRO, Case 24, Shelf C.

[51] NRO, DCN 60/29/15a.

TABLE 5. Composition of goose outgoings on demesnes, 1250–1390.

Decade	*Sold*	*Lord's expenses*	*Unforeseen losses*	*Sent to lord*	*Consumed*	*Died*	*Other*	*Remaining*	*Total*
1261–70	21.38	10.18	0.00	5.07	16.27	5.68	0.18	41.24	100.00
1271–80	17.35	3.03	0.00	11.96	19.63	3.11	1.66	43.26	100.00
1281–90	26.18	0.44	4.98	0.00	25.71	4.21	1.47	37.00	100.00
1291–1300	57.68	2.36	0.00	0.00	22.56	3.59	0.46	13.35	100.00
1301–10	59.30	3.88	0.22	0.00	18.07	4.97	0.70	12.86	100.00
1311–20	53.59	7.07	0.45	3.26	13.75	2.89	0.46	18.53	100.00
1321–30	42.41	6.91	0.50	3.39	20.35	2.95	0.20	23.30	100.00
1331–40	32.93	8.33	0.84	8.85	15.78	3.16	0.32	29.79	100.00
1341–50	33.40	4.56	0.00	0.00	35.03	2.05	0.07	24.88	100.00
1351–60	55.02	11.02	0.00	0.00	21.92	0.00	0.00	12.03	100.00
1361–70	53.41	5.97	0.00	3.21	13.25	6.17	0.97	17.02	100.00
1371–80	42.97	9.60	0.00	1.62	19.72	6.64	1.12	18.32	100.00
1381–90	20.99	7.10	4.09	1.32	19.97	1.32	9.15	36.07	100.00
Average	37.88	9.12	0.79	2.76	19.38	3.45	1.30	25.32	100.00

Source: Accounts database.

thirds of the total mature goose population. Furthermore, some older, and presumably mated, geese were still kept on the demesne, as some accounts indicate.[52] Fortunately, many accounts specify the number of unmated ganders and geese within the total flock. On average, unmated ganders and geese together constituted about 65 per cent of all mature geese (about 15 and 50 per cent, respectively), while the remaining 35 per cent consisted of younger geese, aged between 6 months and 2.5 years, as well as some older mated geese.

Death rates depended on a number of factors. First and foremost, the goose was a highly commercial bird, kept mostly for fattening and consequent sale and consumption. And, each year, a certain number of geese were butchered on the demesne for local consumption. As our accounts indicate, the birds were slaughtered around harvest time (*in autumpno*). Over the entire period, butchery and consumption accounted for almost 20 per cent of total goose outgoings (Table 5). The figures did not fluctuate much from decade to decade, but some regional differences were considerable. For instance, almost half of the total goose flock was consumed in Sedgeford in the 1290s, while in the same decade the tenants of Taverham butchered less than 10 per cent.[53] The reeves of Bury St Edmund's demesnes, on the other hand, sent the larger part of the geese to local markets, and left very little to be consumed on the demesne. Unfortunately, our sources do not specify the age of geese butchered or consumed, but these were undoubtedly older birds.

[52] Chicago UL, Bacon Roll 434.

[53] NRO, DCN 60/33/9–13; Lest IB/16; DCN 60/35/11–13.

Apart from butchery, the accounts record the number of deaths. The death rates were exceedingly low, just over 4 per cent on average (Table 6). In the majority of cases, the rolls do not specify the exact cause of death. Select accounts indicate that in some cases the geese were killed by other animals. For instance, in 1318–9 three geese were devoured by foxes (*devorantur per gupillos*) in Hindolveston.[54] Vulpine attacks occurred mostly on demesnes close to woodland and forests, such as Hindolveston, Taverham, Gateley and Thorpe Abbots. There is no doubt that both the lords and their tenants were concerned about sudden incursions of the foxes and the image of the fox attacking its avian prey was a widespread motif in late medieval English culture.[55] The hazard of the fox was immortalized in Geoffrey Chaucer's *Nun's priest's tale* (*c*.1392), where geese and ducks, stricken by terror, flew into the trees, when they saw a fox carrying away an old widow's cock.[56] Other animals reported to have attacked geese included pigs, dogs, and peacocks.[57]

Available evidence indicates that such attacks were very rare and that they constituted less than one per cent of all outgoings. This suggests that geese were well kept and watched closely by local gooseherds. The majority of fatalities came from elsewhere and there can be little doubt that disease accounted for at least a part of all mortalities. Geese today are prone to a variety of avian diseases, such as goose parvovirus (GPV), avian influenza (AI, or avian flu), and Newcastle disease (ND).[58] So far, no attempt has been made to study poultry diseases from a historical perspective, perhaps because medieval documents do not describe symptoms of the diseases. Furthermore, contemporary agricultural treatises, such as the late thirteenth-century *Husbandry* and Pier de' Crescenzi's *Ruralia commoda* (1305–9) do not speak about goose diseases, or attempts to cure them.[59] Nevertheless, our manorial accounts indicate that there were isolated outbreaks of goose mortality, sometimes on a large scale. For instance, in 1273–4 at Newton–by-Norwich, fourteen geese died, out of the 65 on the demesne.[60] Between 1291 and 1294, some unknown avian disease ravaged the manor of Hinderclay (Suffolk), killing about a quarter of its total goose population.[61] Again in 1306–7, an additional 25 per cent of the geese died.[62] In Plumstead (Norfolk), seven geese out of the 17 on the demesne perished in 1320–1.[63] What is remarkable here is that the mortality was reported only in the geese, while other avian species seem to have been spared altogether in these years. Conversely, there are no signs of goose mortality when sudden chicken epizootics broke out, as happened in 1254–5 at Broughton (Hunts.), 1277–8 at Hallingbury (Essex), 1320–1 at Clare (Suffolk) and 1372–3 at Mundham (Norfolk).[64] From all this we might conclude that goose epizootics (1) broke out on a local scale; and (2) were confined to flocks only.

[54] NRO, DCN 60/18/21.

[55] Fox attacks on domestic birds, geese in particular, continue to be a serious concern for British farmers today. See, for example, R. L. Moberly, P. C. White and S. Harris, 'Mortality due to fox predation in free-range poultry flocks in Britain', *Veterinary Rec.* 155 (2004), pp. 48–52.

[56] D. Pearsall (ed.), *The nun's priest's tale* (1983), pp. 244–60.

[57] NRO, DCN 60/20/18, 60/18/27, 60/23/23, 60/8/5.

[58] For general, yet comprehensive, introductions to poultry diseases, consult Y. M. Saif, *Diseases of poultry* (11th edn, 2003); F. Jordan *et al.* (eds.), *Poultry diseases* (fifth edn, 2001).

[59] *Ruralia commoda*, pp. 130–1.

[60] NRO, DCN 60/28/1

[61] Chicago UL, Bacon Rolls 427–8.

[62] Chicago UL, Bacon Roll 441.

[63] NRO, DCN 60/29/19.

[64] BL, Add. Roll 39669; TNA, SC 6/843/16–7, SC 6/992/11; NRO, Case 24 Shelf F.

TABLE 6. Composition of goose incomings on demesnes, 1260–1390 (per cent).

Decade	*Carried over from previous year*	*Purchased*	*Issue*	*Received*	*Other*	*Total*
1261–70	36.55	41.81	16.03	5.10	0.51	100.00
1271–80	43.25	42.72	12.61	1.43	0.00	100.00
1281–90	27.51	31.95	37.45	1.78	1.31	100.00
1291–1300	11.68	60.78	25.92	1.50	0.16	100.00
1301–10	11.20	68.54	12.77	5.15	2.35	100.00
1311–20	13.43	52.49	32.69	1.25	0.14	100.00
1321–30	21.47	43.17	33.08	2.04	0.24	100.00
1331–40	29.76	36.64	32.25	0.82	0.52	100.00
1341–50	29.50	36.45	22.91	11.14	0.00	100.00
1351–60	21.33	36.94	28.35	13.39	0.00	100.00
1361–70	16.28	17.59	58.48	7.65	0.00	100.00
1371–80	22.51	11.72	64.45	0.98	0.34	100.00
1381–90	26.78	5.77	72.34	0.88	0.00	100.00
Average	23.94	37.43	34.56	4.09	0.43	100.00

Source: Accounts database.

To ensure a steady population within the goose sector, two basic conditions were required: (1) keeping the ratio of no more (and preferably less) than four unmated geese to one gander; and (2) maintaining replacement rates at about parity. As we have already seen, the first condition was certainly fulfilled, as our accounts indicate. This was also true of the second condition: in the vast majority of cases, manorial officials were indeed able to ensure the desired replacement rates. In some periods, the replacement rates were considerably higher than parity. This was especially true in the period between 1250 and 1290, when goose husbandry was expanding. Higher replacement rates in the 1320s seem to confirm again that goose numbers were expanded to compensate for the depletion of cattle herds. But even when the panzootic crisis seemed to be over, and some demesnes either leased out their poultry flocks, or reduced the overall number of their birds, fairly steady replacement rates were maintained. It should be noted that with geese, as with other domestic birds, it was significantly easier to maintain the minimal replacement rates without financial loss, than it was with horses and cattle. Each year, an average goose would produce five goslings or more. Mares, cows and ewes, on the other hand, normally bore a single offspring, while twins were reported very rarely.

IV

The detailed information of the manorial accounts allows us to reconstruct the annual pattern of goose disposal and their dynamics over the period under study. The accounts were compiled on the basis of a 'charge–discharge' accounting system, with the 'charge' (incomings) preceding the 'discharge' (outgoings) section.

The composition of annual goose incomings varied from decade to decade and from place to place (Table 6). On average, purchases accounted for over 40 per cent of all incomings. Geese were purchased on an especially large scale *c*.1300. Generally speaking, there was a clear, inverse correlation between the size of a goose flock and the scale of purchases. Large-scale purchases were conducted usually on the demesnes that kept geese in relatively small numbers. At Sedgeford in the 1300s, for example, over 90 per cent of all goose incomings came from purchases, while the total number of geese in the end of each accounting year was around four.[65] Conversely, at Calthorpe during the 1330s and 1340s, purchases accounted for less than a third of all incomings, but there were between 20 and 40 geese.[66] From the 1310s onwards, however, we see a gradual decline in purchases. After the Black Death, lords seem to have cut purchases drastically. Instead, they came to rely more on the annual issue of goslings, which came to constitute the largest share of annual incomings. By 1390, the purchases constituted no more than 6 per cent, while the issue accounted for over 70 per cent of incomings, compared to just 13 per cent in the 1300s. Transfers from other demesnes were rare and never constituted more than 13 per cent of the total incomings, over the entire period. On some demesnes, a certain number of geese, as well as other poultry, were rendered as customary rents by the lords' tenants. Compared to hens and pullets, however, these were low figures, rarely exceeding ten. For instance, in the thirteenth and fourteenth centuries the peasants of Redgrave (Suffolk) annually rendered as many as 187 chickens and as few as three geese.[67]

The outgoings fluctuated too, both chronologically and geographically. As Table 5 suggests, over the entire period, a third of all birds were sold. From *c*.1270, we can detect the growth of goose commercialization, which reached its peak in the 1300s, with as much as about 60 per cent of all geese sold on local markets. Selling rates remained high during the first two decades of the fourteenth century, with some demesnes, such as Hindolveston, Hindringham, and Taverham, selling almost three quarters of their goose stock each year in that period. During the 1330s and 1340s, however, geese were sold on a smaller scale, representing about a third of all outgoings. Only the Black Death brought back the large-scale sales. During the 1350s and 1360s, over a half of goose outgoings were sales and it was not until the 1380s that this figure fell. Unfortunately, the accounts specify neither from whom nor where the demesnes were purchasing their geese, nor to whom they were selling them. Hence, there is no way to establish the distances over which geese, and other poultry, were traded. Equally puzzling is whether the demesnes obtained the geese from other demesnes or from peasants.

[65] NRO, DCN 60/33/14–5; Lest IB/16.

[66] NRO, Case 24, Shelf C.

[67] This is mentioned in D. W. Routt, 'Economy and society in the fourteenth century: the estate of the Abbot of St. Edmund's, 1335–88' (Unpublished PhD thesis, Ohio State University, 1998), p. 488.

In addition, every year a certain small number of geese appear 'in the lord's expenses' (*in expensis domini*), meaning that the birds were either transferred elsewhere by the lord's request, or allocated by the lord for a manorial court dinner (*ad curiam*). Here the figures were small, never exceeding 11 per cent of outgoings.

The unforeseen losses included animal attacks and disease, which we have addressed, and occasional thefts. Goose theft was rare, occurring no more than once per decade, but it was nevertheless meaningful enough to be reported by the tenants to the bailiff and clerks, who compiled the accounts. Thus, two geese were stolen from Eaton in 1309–10, and the 1317–8 account reports a theft of a further four birds.[68] As some accounts indicate, the geese were usually stolen during the night (*per noctem*), but by whom is unclear.[69] On the one hand, it is possible that the geese were snatched by vagrant paupers who were living on alms and theft to make the ends meet. (After all, poverty, often connected with crime, was a serious social issue of the fourteenth century.[70] The 1317–8 theft occurred during a time of famine and it has been shown that livestock – unsupervised after dark – were the main target. It should be noted, however, that larger animals, chiefly horses, cattle and sheep, were stolen far more frequently than poultry.[71]) On the other hand, the detection rate of theft was rather low in the late middle ages and it is quiet possible that the villagers could have been involved in the stealing of geese and other livestock. Manorial court rolls have numerous references to poultry thefts committed by the peasants.[72] It should be noted that stealing a goose was risky, since geese are more sensitive to the smell of humans than other poultry. Isidore of Seville mentioned this in his *Etymologies*.[73] It is equally possible that in some cases the reports of poultry theft served to conceal the dishonesty and incompetence of the reeve.

Some demesnes also directly provisioned their lords with geese. This was especially true in the 1270s, when the demesnes sent about 10 per cent of their goose flocks to their lord each year. Generally speaking, these figures were inconsistent from year to year. For instance, the number of geese dispatched from Hinderclay to Bury St Edmunds Abbey fluctuated considerably: in 1289 its officials sent four geese out of a total of 194 (that is, a meagre 0.02 per cent);[74] in 1301, by contrast, they dispatched 30 geese, out of a total of 76 (almost 40 per cent).[75] In Norfolk, Eaton, Hemsby, Hindolveston, Martham, North Elmham and Taverham all sent geese in modest numbers to Norwich Cathedral Priory in the 1260s and 1270s; in the following decade, however, they all stopped their direct supply and it was not until the 1320s that some of them renewed the provisioning of the monastic community of Norwich. Also, the scale of provisioning and consumption could depend on the personal choices, preferences and

[68] NRO, DCN 60/8/14 and 17.

[69] NRO, DCN 62/2 (mentioned in the Martham portion of the grouped account).

[70] B. A. Hanawalt, 'Economic influences on the pattern of crime in England, 1300–48,' *American J. Legal Hist.* 18 (1974), pp. 281–97; ead., *Crime and conflict in English communities, 1300–48* (1979), pp. 238–60; T. R. Gurr, 'Historical trends in violent crime: a critical review of the evidence', *Crime and Justice. An Annual Rev. of Research* 3 (1981), pp. 295–353.

[71] Hanawalt, *Crime and conflict*, pp. 70–3.

[72] For instance, E. B. DeWindt (ed.), *The court rolls of Ramsey, Hepmangrove and Bury, 1286–1600* (1990), Microfiche 1, 1280 (89), 1294 (116), 1305 (20), (22), (23), 1311 (22), 1312 (8), and 1341 I (9).

[73] *Isidori Hispalensis episcopi etymologiarum sive originum libri XX / recognovit brevique adnotatione critica instruxit W. M. Lindsay* (1911) Book XII, vii. 52.

[74] Chicago UL, Bacon Roll 424.

[75] Chicago UL, Bacon Roll 435.

demands of individual lords. For instance, William de Bernham, Abbot of Bury St Edmunds (1335–61) consumed 275 geese sent from his Suffolk demesne of Chevington, while John de Brinkley (1361–78), his successor, took only 54 geese from that demesne, on an annual basis.[76] There was no uniformity in the seasonal patterns of dispatch. In some cases, geese were sent to be slaughtered for All Saints' Day, or Hallowmas (1 November).[77] In other instances, the birds were dispatched at Michaelmas (29 September), while some accounts indicate that the lords consumed demesne geese at Pentecost, that is, the ninth Sunday after Easter.[78] The kind of geese dispatched depended on the season they were sent. At Pentecost, one would expect the peasants to send young, 'green' geese, usually about 16 weeks old, fattened enough to produce a fair amount of meat. In the autumn, on the other hand, they must have been 'white', 'stubble' geese. Indeed, later fifteenth-century diet accounts from Westminster Abbey suggest that both kinds of geese were consumed by the monastic community there.[79] It is hardly surprising that birds were never sent on a large scale: their overall number was never adequate to supply a lord's household, or a religious community, over an entire year. Instead, when it came to poultry provisioning, lords themselves tended to rely more on the market. It is generally assumed that most birds bought by lords came from peasantry.[80] Moreover, each house demanded different quantities of geese. While goose was an important ingredient in the diet of Westminster monks, the monks of Norwich Cathedral Priory consumed relatively little poultry and relied more on fish.[81]

Each year a certain number of geese were consumed on the demesne, invariably during harvest time (*in autumpno*), by harvest workers who consumed the 'stubble' geese. On average, domestic consumption accounted for some 20 per cent of all outgoings. Peak domestic consumption of geese was in the 1340s, when poultry prices were lower than in the previous decades. Throughout the fourteenth century, and especially after the Black Death, meat became an increasingly important component of harvesters' diet.[82] Naturally, this went hand-in-hand with rising living standards after the plague.

It is impossible to understand these fluctuations without looking at goose price movements of the same period. The period between the 1250s and 1310s was characterized by a gradual inflation in goose and other poultry prices (Figure 3). Within the space of 60 years, prices rose by some 125 per cent, with a single goose selling for 4.25*d*. in the 1310s, compared with 2*d*. in the 1260s. It is likely that this induced the lords to augment their annual share of goose sales, so they could maximize their profit. When the prices fell again in the 1320s and remained especially low in the 1340s, few gains would have been had in selling geese in large numbers. Instead, more birds were consumed on the demesne at harvest time. After the Black Death poultry prices soared to an unprecedented level, and in the 1360s a goose was selling for about 4.6*d*. in eastern England. This rise was associated with the rising living standards and the increasing demand in

[76] Routt, 'Estate of the Abbot of St. Edmund's', p. 491.

[77] NRO, DCN 60/8/4; 60/10/4.

[78] NRO, DCN 60/10/4; 60/23/23.

[79] B. Harvey, *Living and dying in England, 1100–1540. The monastic experience* (1993), p. 54.

[80] Calculated from C. M. Woolgar (ed.) *Household accounts from medieval England* (2 vols, British Academy Records of Social and Economic History, 17–18, 1992–93), I, pp. 259–63.

[81] P. Slavin, 'Feeding the brethren: grain provisioning of Norwich Cathedral Priory, *c*.1280–1370' (Unpublished Ph.D. Thesis, University of Toronto, 2008), pp. 328–33.

[82] C. Dyer, 'Changes in diet in the late middle ages: the case of harvest workers', *AgHR* 36 (1988), pp. 21–37.

poultry meat. The reeves responded to this price behaviour by augmenting the share of annual goose (and other poultry) sales. Conversely, the scale of sales shrank with the renewed fall in prices in the 1370s and 1380s. By that point, there were too few demesne geese to be sold.

Prices, in turn, were influenced by demand, namely by the scale of demand and consumption. Surviving late medieval diet accounts shed much light on the extent and patterns of goose consumption. For instance, in 1336–7 Katherine de Norwich's household ate few green geese in the summer, while between October and January the household consumed about four birds, on a weekly basis.[83] The consumption of poultry, and of geese in particular, seems to have increased after the Black Death, as living standards rose. For instance, in 1352 the 25 monks of Battle Abbey spent £3 18*s*. a year on geese, enough to buy about 220 birds. This stood in contrast with 1307, when the total outgoings on geese amounted £1 0*s* 3¼*d*. (approximately 60 geese) and when the total number of the brethren must have been higher.[84] At Norwich Cathedral, where geese were either consumed on a limited scale or not eaten at all, 55 birds were bought in 1329–30, while in 1355–6 the figure had risen to 300.[85] Goose consumption was not restricted to wealthy aristocrats and landlords, such as Katherine de Norwich or Battle Abbey. Sir William Waleys, a smaller landholder who could still acquire one or two geese a week, purchased five geese in Christmas week 1382.[86] There is no doubt that the increasing demand for geese also caused rising goose prices, chiefly in the 1350s, 1360s and 1390s.

An analysis of disposal patterns of demesne geese reveals a great deal about the status and use of geese in late medieval England. More than any other domestic bird, geese were first of all commercial poultry. Each year, manorial lords bought and sold large numbers of these birds. The goose trade was on a large scale, the versatility of geese making them more prized than other poultry.

V

To establish and appreciate the level of goose commercialization, it is necessary to reconstruct the volume of the goose trade. For that purpose, 15 demesnes with exceptionally good and virtually uninterrupted records have been chosen. These include 11 demesnes in Norfolk, three in Suffolk and one in Cambridgeshire. Table 7 shows the basic patterns of goose sales and purchases. First, it shows the average number of geese purchased for demesne flocks. The figures exceed the average numbers of geese on the demesne at the beginning and end of each account year. This hints that the lords and their reeves tended to purchase (and sell) geese *en masse*, rather than on a small scale. The table also establishes the ratio between annual sale and purchase levels, in terms of head of geese. The period between *c*.1250 and 1310 was an era of pronounced rise in sale levels. Naturally, this went hand-in-hand with a general expansion of

[83] Calculated from Woolgar (ed.) *Household accounts*, I, pp. 179–227. This is also discussed in D. J. Stone, 'The consumption and supply of birds', in C. M. Woolgar, D. Serjeantson and T. Waldron (eds.), *Food in medieval England* (2006), p. 154.

[84] Calculated from E. Searle, *The cellarers' rolls of Battle Abbey, 1275–1513* (Sussex Record Soc. 65, 1967), pp. 47 and 56; the conversion into the financial equivalent is made allowing 4*d*. per goose for 1307 and 4.25*d*. per goose for 1352.

[85] NRO, DCN 1/2/16 and 1/2/20.

[86] Calculated from Woolgar (ed.) *Household accounts*, I, pp. 259–63.

TABLE 7. Main patterns in the goose trade on demesnes, 1251–1390 (by value).

Decade	*Purchased geese*	*Sale:purchase ratio*	*Receipt:expense ratio*	*Sale:purchase ratio (price per unit)*	*As % of all livestock sales*	*As % of all livestock purchases*
1251–60	10.0	0.3	0.67	2.00	2.35	1.04
1261–70	16.6	0.7	1.34	1.90	1.88	17.24
1271–80	24.0	0.6	1.10	1.52	4.29	11.78
1281–90	16.0	0.8	1.58	1.86	4.70	10.94
1291–1300	30.2	0.9	1.72	1.85	9.28	19.47
1301–10	31.9	0.9	1.73	1.76	8.41	14.25
1311–20	40.3	0.9	1.63	1.83	9.05	22.59
1321–30	34.1	1.0	1.56	1.84	9.76	15.62
1331–40	33.6	0.8	1.36	1.76	7.11	16.49
1341–50	10.6	0.9	0.90	1.37	4.79	23.69
1351–60	19.2	0.9	1.68	1.63	13.34	10.93
1361–70	20.9	2.7	3.97	1.31	7.98	14.65
1371–80	3.5	9.6	18.66	1.53	4.57	2.35
1381–90	0.0				2.79	0.00
Average	20.8	1.6	2.91	1.70	6.45	12.93

Source: Accounts database.

goose population, commercialization and specialization in goose husbandry. In that period, the lords and their reeves did their best to profit from the increasing surplus of geese, by selling them on the market. In the 1300s and 1320s sale and purchase levels were almost in equilibrium. Despite sale levels never exceeding purchase levels, lords gained more than they lost in terms of money (with the exception of the 1250s, when the sale levels were far lower than the purchase ones). Between the 1250s and 1320s, the ratio between financial profits to expenditure stood at 1.39:1.00, whereas that of sold geese to the purchased ones was 0.74:1.00.

It was the gap between sale and purchase prices that accounted for that asymmetry. Over the entire period under study, and with some variations, sale prices of geese were higher than purchase prices by some 70 per cent. The sale prices were particularly high in the 1250s, 1260s, 1280s, 1290s, 1310s and 1320s, approaching the rate of 2.00:1.00. How can this difference be explained? Although the majority of the accounts do not specify the nature of the marketed geese, there are some rolls that indicate that the majority of the purchased geese were, in fact, goslings (*aucule*). Young or 'green' geese commanded lower price than the mature ones, chiefly because of the amount of flesh they could produce. On the other hand, there is not a single indication that demesnes sold goslings; sold geese were invariably referred to as either *auce* or *anseres*. This reveals that the manorial authorities tended to get rid of older geese, and to replace them with younger birds.

This tendency also indicates the seasonal patterns of goose trade. As we have seen above, the

green geese were available for marketing and consumption only in May–June, some 16 weeks after hatching. Hence, the majority of goose purchases may have occurred around this time. Unfortunately, our accounts do not indicate the transaction dates, but a thorough analysis of a random account can shed some light on the seasonality of goose trade. For instance, there were eight geese in Martham around Michaelmas 1295. From late February to March 1296, 33 goslings hatched (presumably from six mature geese and two ganders), and a further 40 goslings were bought around May–June of the same year. The total number of geese gained would thus be 82. Under the outgoings, the account indicates that 64 geese were sold in the course of the account year.[87] This would undoubtedly mean that the majority of geese were sold after the purchases. First, there were just eight mature geese to be sold before May–June. Second, the farmers had to allow the young geese to grow, gain weight and become more-or-less mature birds. This would take several more months, perhaps until late summer or early autumn. As indicated above, mature, or 'stubble' geese tended to be consumed sometime between August and November, as contemporary diet accounts suggest. This is also strengthened by our manorial accounts, which state that the demesne geese were consumed at harvest time. Hence, we might postulate that most, if not all, sales would have taken place somewhere between late August and late September, that is, before Michaelmas. These patterns were not unique to Martham: this situation is reflected in most pre-Black Death accounts from demesnes rearing geese on a moderate or large scale. If this interpretation of the evidence is correct, then the commercial strategy of the lords and their reeves was plain and simple: young geese would be purchased around May–June, to be fattened in summer and sold closer to the end of the account year. In other words, most geese sold in September were the goslings purchased in May. In that case, a well-planned strategy, which promised good returns, emerges: after all, the value of geese rose by at least 100 per cent in the course of the summer rearing.

How extensive was the goose trade compared with sales and purchases of other livestock? In terms of all livestock sales, the geese accounted for no more than five per cent (calculated by value), between the 1250s and 1290s (Table 7). From *c.*1290 until the 1330s, however, the goose sector represented almost 10 per cent of all livestock sales. The level of goose commercialization was truly impressive on some demesnes. Thus, at Hindolveston, which was one of the most trade-oriented demesnes, geese accounted for 35 per cent of all livestock sales in the 1310s. Levels almost as high were achieved at Martham in the 1320s. In the 1330s and 1340s, when poultry prices fell, the demesne managers reduced the sale volume to pre-1290 levels. Purchases, on the other hand, were more extensive than sales. With the peculiar exception of the 1250s, geese represented some one sixth of all livestock sales over the entire pre-Black Death period. Again, the figures varied from location to location. First among the goose vendors were the Norfolk demesnes of Hindolveston, Hindringham, Martham, North Elmham and Taverham. On the latter, geese accounted for as much as 70 per cent of all livestock sales in the 1310s.

The Black Death brought about some significant changes in the patterns and extent of the goose trade. As stated above, the most visible consequence of the pestilence was a gradual decline in goose husbandry, which paralleled a gradual retreat from direct demesne management.

[87] NRO, DCN 60/23/8.

In the 1370s, goose purchases were conducted on a very limited scale, with a ratio of ten geese sold to one purchased. In the following decade, purchases ceased altogether and sales levels declined accordingly. In the 1350s and 1360s, the lords and their reeves did their best to get rid of surplus geese, so that by the 1370s there were too few geese left to be sold; in the 1380s, sales rates returned to their 1250 levels. By *c.*1400, when a substantial number of demesnes had been leased out to better-off tenants, the goose trade seems to have passed from the demesne to the peasant sector.

The post-1350 waning of the demesne goose trade must be seen within the larger economic and agrarian context of the second half of the fourteenth century. First, the shrinkage of goose flocks went hand-in-hand with a gradual retreat from direct management. Second, the demographic decline associated with the Black Death diminished the market and decreased the price of geese relative to other poultry. Finally, rising real wages, especially after *c.*1376, prompted many lords to cut back labour-intensive sectors, and expand more extensive types of husbandry – such as wool production and rabbit keeping – with relatively high prices and low unit costs, which were suited to large-scale enterprises. Thus, as many studies have shown, the post-Black Death era witnessed a pronounced decline in demesne dairy husbandry and expansion of sheep and rabbit rearing. The overall size of sheep flocks rose on many demesnes, including the bishoprics of Winchester and Ely, Canterbury Cathedral, Norwich Cathedral Priory and Westminster Abbey.[88] Similarly, some East Anglian Breckland demesnes turned to commercial rabbit rearing in the 1370s.[89] It is evident that the goose sector fell into the category of smaller-scale enterprises, requiring high labour input and unit costs, but not necessarily securing high prices. As Figure 3 shows, between 1360 and 1390 goose prices fell by about 33 per cent. These falling prices and the rising wages of those overseeing them made goose rearing increasingly unprofitable for the lords. On the other hand, these small scale enterprises were better suited for the peasant sector in the post-Black Death period. As some compelling evidence indicates, the peasants indeed increased their herds of swine and dairy cattle at the end of the fourteenth century.[90] Goose rearing within the peasant sector has, however, yet to be studied.

VI

Annual leases of geese were another channel of seigneurial income deriving from goose husbandry. As our accounts suggest, chickens were leased out much more frequently than geese, for four reasons: first, hens were cheaper than geese and hence more affordable for the tenants; second, the rearing costs of geese were higher than those of chickens; third, the return from a hen was more promising than from a goose, in terms of the number of eggs and hatchlings; and

[88] M. Mate, 'Pastoral farming in south-east England in the fifteenth-century', *EcHR* 40 (1987), pp. 523–36; C. Dyer, [Farming practice and techniques in] 'West Midlands', in E. Miller (ed.) *The agrarian history of England and Wales*, III, *1348–1500* (1991), pp. 235–7; Campbell, 'Commercial dairy production', pp. 107–18; D. Stern, *A Hertfordshire demesne of Westminster Abbey: profits, productivity and weather* (2000), pp. 217–22; D. Stone, 'Productivity and management of sheep in late medieval England', *AgHR* 51 (2002), pp. 1–2; id., *Decision-making in medieval agriculture* (2005), p. 214.

[89] M. Bailey, 'The rabbit and the medieval East Anglian economy', *AgHR* 36 (1988), pp. 1–20.

[90] Dyer, 'West Midlands', pp. 236–7.

finally, the lower strata of society would consume chickens rather than geese. Because of these factors, lords found it more profitable to lease hen houses than goose houses. Nevertheless, the issue of goose leases should not be overlooked.

Leasing policies depended on careful managerial strategies. Each reeve had a different approach and response to local conditions, hence the extent and chronology of leases varied from place to place. It was not until the 1320s that we first hear about the leasing of goose flocks: roughly around the same time as leasing of dairy houses began to gain ground in eastern England.[91] In 1320, the demesne officials of Hinderclay leased an unknown number of geese and, in 1325, Norwich Cathedral Priory leased three geese (two geese and one gander) at Gateley and four geese at Hindringham (three geese and one gander).[92] At Gateley the leasing policy continued into the 1330s.[93] A close analysis of Gateley and Hindringham accounts hint that the two demesnes had different reasons for their decisions. The managers of Gateley must have been prompted by the low local goose prices of 1323 (2*d*. per goose, as opposed to the average of 4*d*.).[94] The officials of Hinderclay were probably encouraged by the comparatively high prices of pigs and by the attractive prospect of augmenting the swine herds, chiefly to compensate for cattle lost in the murrain of 1319–20.[95] There were 47 swine in 1324, as compared to 26 in the previous year.

The language of the accounts can be misleading at times, because some rolls account only for geese, without mentioning ganders. For instance, the 1331–2 account from Gateley states that two geese were leased out for 18*d*., while the rolls from 1324–5, 1326–7, and 1327–8 reveal that these were, in fact, two geese and a gander.[96] In other words, the ganders were under-represented in some accounts, and we have to assume that 'two leased geese' meant 'two leased geese and one leased gander'. Because one gander is unlikely to service more than three geese, we may assume that five or six geese would have been leased with two ganders.

As a rule, the leasing price of geese stood at 6*d*. per unit in the pre-Black Death era. In other words, it exceeded the purchasing price, which was, on average, about 3.4*d*. per goose between the 1320s and the 1350s (that is, some 60 per cent of the *per annum* leasing price). Why peasants would still agree to rent the geese for one year, instead of purchasing them and keeping them as long as they needed, may be somewhat puzzling. There are four possible explanations. First, the leasing contracts must have included the annual issue of goslings and eggs, as some accounts indicate. If a leasing contract ran between two Michaelmases, then by the end of the contract term, the tenants would have some five more-or-less mature geese produced from one leased goose. As we have seen above, around Michaelmas a six- or seven-month old gosling could cost as much as a mature goose. The leased geese and ganders would be regarded as the seigneurial property, to be returned upon the end of the contract term (unless the contract was renewed, which must have been a commonplace), whereas the issue would remain with the tenants.

[91] Slavin, 'Norfolk cattle', pp. 53–7.

[92] Chicago UL, Bacon Rolls 449 and 452; NRO, DCN 60/13/22; DCN 60/20/22.

[93] NRO, DCN 60/13/22–26; 62/1–2.

[94] NRO, DCN 60/13/20–1.

[95] NRO, DCN 60/20/21–2. There were 47 swine in 1324, as compared to 26 in the previous year. Similarly, relatively high prices of swine prevailed on Hinderclay and this encouraged the local official to intensify swine husbandry there. See, David Stone, 'Medieval farm management and technological mentalities: Hinderclay before the Black Death', *EcHR* 54 (2001), p. 631.

[96] NRO, DCN 60/13/22–23; 62/1; 60/13/24, 26; 62/2.

In other words, the eventual return from the lease would exceed the initial investment. For instance, in late 1324 the tenants of Hindringham rented three geese and one gander for 2*s*. a year (6*d*. per bird). In the same year, the selling price of one mature goose was 4*d*. Assuming that from late February to March 1325 the three geese produced 15 goslings, and that all the hatchlings survived, we may estimate that, by Michaelmas, the total goose capital of the tenants was equal to some 5*s*. Hence, the eventual return would have exceeded the initial investment by about 150 per cent. Such managerial strategy could certainly be more successful than buying fifteen goslings for, say, 2*s*. 6*d*. (2*d*. each), to sell them later for 5*s*. This would be unlikely to secure a return higher than 100 per cent.

The second possible explanation is that most geese sold on the market were intended for butchery and consumption, rather than for continued rearing. These were likely to be fattened and less fertile birds. It is obvious that the peasants would keep birds for financial profits, rather than consumption. After all, geese were likely to be consumed by those of higher social status, while they themselves would eat chickens.

The third reason for this economic behaviour might be the nature of the contracts. As some manorial accounts hint, leasing prices were more-or-less fixed, remaining steady and largely unchanged over the pre-Black Death decades, regardless of poultry price behaviour. It is hardly surprising, then, that leases peaked in the 1320s, when goose prices were especially high compared with the 1330s and 1340s.

The fourth possible explanation is purely psychological, linked to the personal choices and preferences of the lessees, the peasants. It is plausible that they preferred to rent poultry from someone they knew rather than to buy from unknown individuals at market. After all, it was the tenants who were in charge of demesne poultry flocks and they knew about each demesne goose more intimately than any other persons. This acquaintance with each bird must have given them an unquestioned informational advantage as to which geese would be the best to rent.

VII

An analysis of trends and strategies in the demesne goose husbandry of late medieval England sheds light on several important facts. First, the size of goose flocks varied both chronologically and geographically. The geography of goose rearing was dictated mostly by local environmental conditions, while the importance of physical proximity to urban centres seems to have been secondary and limited. As we have seen, the fens, coastlines and estuaries housed demesnes with large goose populations.

Biologically speaking, the late medieval English goose exhibits, to a large degree, the same patterns as the modern domesticated greylag. On average, each nest produced 5.5 goslings; the sex ratio was maintained, almost invariably, at one gander to three geese; the geese and their issue were prone to exogenous factors such as predators, larger domestic animals and avian diseases.

Both manorial accounts and contemporary diet accounts reveal that there was a significant demand for geese, which influenced both prices and markets. Before the Black Death, demand seems to have reached its peak in the 1300s and 1310s. It was then when the prices and volume of trade were at their highest. The Black Death had two opposing effects: it shrank the market

for geese on the one hand, but increased goose consumption *per capita* on the other. This went hand-in-hand with rising standards of living in the post-1350 period. The lords and their reeves were no longer attracted by the prospects of large-scale goose rearing, which was labour-intensive and more costly than ever before, and decided to cut back the goose flocks, by either selling or leasing them out. By *c*.1400 only a few geese survived on demesnes. A similar tendency can be seen within the dairy sector, which also shrank after the plague. Geese and cows shifted from the demesne to the peasant sector. On the whole, one may argue that goose rearing was an adjunct sector to dairy husbandry. Both cows and geese required the supervision of dairy-maids; both were labour-intensive and highly commercialized until *c*.1370; both were being leased out from the 1320s; and both faded from the demesne by the end of the fourteenth century.

The annual patterns of goose disposal can, perhaps, shed some light on the late medieval perception of this bird: in the agricultural, rural *milieu*, the goose symbolized, first and foremost, trade. Each year, noble households and wealthy religious communities purchased large numbers of geese to be consumed both in late spring and around Michaelmas. Tenants, however, could enjoy only modest amounts of goose meat, and only around harvest time. Chickens were by far the more affordable commodity and were enjoyed by virtually every social stratum, as Ernst Schubert noted, while more luxurious and 'decorative' birds – peacocks, pheasants and, most of all, swans – symbolized social status and prestige.[97] The commercial and social importance of the goose should not overshadow that of other birds, whose history and fate is yet to be studied.

[97] Schubert, *Essen und Trinken*, pp. 120–5.

Stints and sustainability: managing stock levels on common land in England, *c.*1600–2006*

by Angus J. L. Winchester and Eleanor A. Straughton

Abstract

Stinting – the numerical limitation of grazing rights – was one of the primary methods of governing livestock numbers on common land in England. This paper charts the growth of stinting, explores the reasons behind its introduction, and considers the role of stinting in the sustainable management of grazing reserves and in the evolution of concepts of property rights on common land since the medieval period. It is argued that growing pressure on grazing was only one driver behind the introduction of stinting and that some stinted rights in upland northern England originated in agistment on private forest pastures. The paper also considers the consequences of stinting, one of which was to convert a common right of pasture into a more adaptable, transferable and potentially profitable commodity, which could be severed from the holding to which it originally belonged, breaking a link which lay at the heart of the law on commons.

Garrett Hardin's influential paper on 'The tragedy of the commons' illustrated the negative 'inherent logic of the commons' by imagining a common pasture, in which the temptation to put private gain before the common good inexorably led to the destruction of the common and consequent 'ruin to all'.[1] Absolute freedom to exploit the resources of common land was, of course, a myth in English law, yet concern about overgrazing is a perennial feature of records concerning common land from at least the sixteenth century to the twentieth.[2] In this paper,

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[1] G. Hardin, 'The tragedy of the commons', *Science* 162 (1968), pp. 1243–8, at p. 1244. Hardin's thesis has been challenged by work on the study of common property: for an alternative to the 'tragedy' thesis, see E. Ostrom, *Governing the commons: the evolution of institutions for collective action* (1990).

[2] For the legal basis of common land in England and Wales see G. D. Gadsden, *The law of commons* (1988); B. Harris and G. Ryan, *An outline of the law relating to common land and public access to the countryside* (1967); W. G. Hoskins and L. Dudley Stamp, *The common lands of England and Wales* (1963). Historical studies of common land include M. De Moor, L. Shaw-Taylor and P. Warde (eds), *The management of common land in north-west Europe*, c.*1500–1850* (2002) and J. M. Neeson, *Commoners: common right, enclosure and social change in England, 1700–1820* (1993). The problem of overgrazing is highlighted in C. E. Searle, 'Customary tenants and the enclosure of the Cumbrian commons', *Northern Hist*. 29 (1993), pp. 126–53.

which concentrates on upland commons in northern England, we seek to chart the mechanisms through which attempts were made to control the numbers grazing common land between the sixteenth and the twenty-first centuries. The focus is on numerical limits ('stints') and the paper explores the reasons behind the growth of stinting, the role of stinting in the sustainable management of grazing reserves, and in the evolution of concepts of property rights on common land since the medieval period.

As the early agricultural writer John Fitzherbert explained in 1523, common pasture rights fell into three categories: rights in the common fields and meadows, both on the field lying fallow and on arable land and meadows after the crop had been cut; rights in common cow pastures or ox pastures, which were shared enclosures of grazing land; and rights on the 'commen mores or hethes', the unenclosed and unimproved manorial waste.[3] The focus of this paper is on the last of these, but the history of common rights on the waste cannot be understood without reference to the management of grazing rights in enclosed pastures or open fields.

I

Grazing rights on most commons in England and Wales were traditionally governed by one of two principles, both of which sought to control and limit the numbers of livestock allowed to graze. First was a common right 'without number', where the numbers which could be grazed were nevertheless limited by the rule of levancy and couchancy, which allowed a commoner to put onto the common as many animals as he could keep over winter on the produce of his holding; second was a stinted right, the right to graze a defined number of livestock on the common. The two systems were underpinned by very different concepts and assumptions.

The first aim of the rule of levancy and couchancy was to ensure equitable access, rather than to match the numbers grazing to the capacity of the common, since the size of the pasture right (both individually and collectively) was determined by the capacity of the 'inbye' land (the term used in hill-farming areas for improved farmland), rather than that of the common. The implicit assumption, therefore, was that the carrying capacity of the common was not in danger of being exceeded; indeed the rule of levancy and couchancy could only achieve a sustainable grazing regime if the maximum wintering capacity of the inbye land was less than the carrying capacity of the common. The system also assumed that each holding had a flock or herd attached to it, which was supported in winter solely by the 'vestures' of the inbye land. The rule of levancy and couchancy had difficulty in accommodating many features which were already part of the reality of livestock farming in the sixteenth century: the livestock trade (including droving and short-term purchases for fattening), away-wintering, and purchase of hay for winter fodder, to name but a few.[4]

In contrast, stinting implies that the carrying capacity of the common was known or, at least, that there was some notion of the total number of animals that should be allowed to graze there. Successful stinting required that the total number of stints should be determined first, in

[3] John Fitzherbert, *The boke of surveying and improvments* (1523), fos iii–iv.

[4] See A. J. L. Winchester, *The harvest of the hills: rural life in northern England and the Scottish borders* (2000), pp. 81–2.

order to match the size of the collective pasture right to carrying capacity; once calculated, the total number of animals which could be supported would be apportioned between those having a right to graze. A stinting system could help to maintain the match between stocking levels and carrying capacity, since the value of the currency of stinting (usually expressed in terms of 'gates', each 'cattlegate' or 'beastgate' carrying the right to graze one horned beast)[5] could be adjusted in the light of changing circumstances, either by varying the relationship between cattlegates and rent, for example, or by varying the 'conversion formula' governing the number of different species and type of livestock which could be grazed for each cattlegate. Stinting also sat more comfortably with the realities of farming practice. It did not assume that all livestock would be over-wintered on the stintholder's inbye land: a commoner could buy in animals to put on the common, as long as he kept within his numerical limit. Creating a numerical right could thus have the profound consequence (discussed further below) of breaking the intimate connection between a grazing right and the land to which it was attached, which lay at the heart of the law on commons.

Equitable access was also a key consideration of stinting systems. Early stinting arrangements often calculated the size of an individual grazing right by reference to some other measure, usually the fiscal rating of the holding in bovates or virgates or the amount of rent or tax it paid. In this, stinting arrangements reflected the linkage between grazing rights and the size of the land holding, which was inherent in the rule of levancy and couchancy, but expressed it in numerical terms. Both systems were thus underpinned by the notion of shareholding, paralleling the Scottish system of 'souming', where the fiscal measure of a holding was expressed in terms of the size of its grazing right.[6] Conceiving a common right as a share in the community's landed resource was expressed in the imposition of penalties for overcharging the common, which are ubiquitous in manor court records, whether a common was stinted or governed by the principle of levancy and couchancy. Both policing the exercise of grazing rights and devising a graded scale of sanctions against offenders would presumably have been simpler where rights were expressed in numerical terms: a fixed limit allowed schedules of penalties to be drawn up, imposing a specific forfeit per head of stock over stint.[7]

There can be little doubt that stinting became increasingly common across England and Wales in the post-medieval centuries. On the face of it, it carried so many advantages over the rule of levancy and couchancy that one may wonder why common 'without number' survived at all. Yet survive it did: the Royal Commission on Common Land estimated that around 46 per cent of common land in England and Wales remained unstinted in 1958.[8] In explaining the spread of stinting, it is often assumed that the transition from unstinted to stinted regimes was a stage in an inexorable journey from a Hardinesque free-for-all towards the ever-closer definition of rights associated with the dominance of private property. The received interpretation is that

[5] In describing stinted rights, the generic term '[pasture] gate' or 'gait' was defined by a range of specifics: 'cowgates', 'horsegates', 'ewesgates' and 'sheepgates' are encountered, as well as cattlegates and beastgates. Regional variants include such terms as 'cowlease', 'cowstand' and 'cowsgrass': see I. H. Adams, *Agrarian landscape terms* (1976), p. 43.

[6] A. Ross, 'Scottish environmental history and the (mis)use of soums', *AgHR* 54 (2006), pp. 213–28.

[7] Winchester, *Harvest of the hills*, p. 79 cites examples.

[8] *Report of the Royal Commission on Common Land, 1955–1958* (Cmnd. 462, 1958), p. 22, para. 73.

stinting was a response to grazing pressures with which the less transparent rule of levancy and couchancy had failed to cope. It follows that the relationship between the two systems might be expected to reflect environmental and economic conditions. The extent of a community's common land in relation to the number of livestock belonging to members of the community is the key here: an unstinted system presupposes a sufficiency of common land; whereas, if livestock numbers exceeded the carrying capacity of the commons, some form of numerical limitation would be required. When the balance between stock numbers and carrying capacity shifted, whether as a result of shrinkage in the extent of common land (in the face of enclosure, for example) or of increase in livestock numbers, we might expect to find a change to stinting. As Joan Thirsk recognized many years ago, unstinted systems survived longer in upland areas where the acreage of common land was so much greater than in the lowlands.[9]

We might also expect there to be a relationship between the system governing common rights and the farming systems of different regions. In the mosaic of farming regions in early-modern England, where the character of different *pays* reflected social and tenurial differences as well as environmental factors, neighbouring regions could exhibit different practices. Writing of the east Midlands, Joan Thirsk noted that 'hill and vale villages stinted their pastures; forest and fen communities did not'.[10] In north-west England, where most commons appear to have been unstinted, evidence of stinting is repeatedly found in particular environments, notably coastal salt marshes and the highest fells.[11] Do such differences imply variations in stocking pressure or did they arise from differing tenurial systems? Within pastoral uplands, we might also postulate that the rule of levancy and couchancy would apply more readily to traditional sheep-farming areas, where heafed flocks were attached to each holding and comparatively few animals were bought and sold, than to cattle-rearing areas, where there was an active livestock trade from the middle ages. Further work is required to test this hypothesis, but it is possible that there was an association between cattle and stinting and between sheep and the rule of levancy and couchancy.

II

Stinting involved expressing a pasture right in numerical terms and assigning a quota to those entitled to graze their livestock. Numerical limits were a feature of many grants of 'common pasture in the vill' to monastic houses, particularly in the early thirteenth century, but such grants can probably be thought of as external privileges, separate from the rights of the local farming community, and do not necessarily imply the existence of stinting among others with

[9] J. Thirsk, 'Farming techniques', in J. Thirsk (ed.), *The agrarian history of England and Wales*, IV, *1500–1640* (1967), pp. 182–4.

[10] J. Thirsk, 'Field systems of the East Midlands', in A. R. H. Baker and R. A. Butlin (eds), *Studies of field systems in the British Isles* (1973), p. 262.

[11] Stinted salt marshes are recorded at Newton-with-Scales in the Fylde in 1651 (Lancashire Record Office [hereafter LRO], QSP 62/19), Overton and Middleton (north Lancs.) in 1612 (TNA, DL 44/880) and nearby Oxcliffe in 1632 (TNA, DL 4/81/38). We should like to thank William Shannon for the latter reference. The coastal wastes at Holm Cultram (Cumb.) were stinted before 1573 (F. Grainger and W. G. Collingwood (eds), *Register and records of Holm Cultram* (Kendal, 1929), p. 168); Burgh-by-Sands Marsh (Cumb.) was stinted by 1700 (Cumbria RO, Carlisle [hereafter CRO (C)], DSO 198/1). For stinting in the Lake District fells, see below.

rights in the township.[12] The earliest references to true stinting are in the context of grazing rights in open fields and meadows after the crop had been taken, or in enclosed, shared pastures. In both cases, the grazing ground was both limited in extent and confined within physical boundaries and it can probably be assumed that the grazing available was less than would feed all the livestock held by those eligible to exercise a pasture right. Stinting therefore answered the need to regulate grazing by imposing a numerical limit and apportioning this between the holders of the rights.

The use of stints to determine the size of common rights on the open fields had deep roots. Stinting was an established feature of some open-field villages before the end of the thirteenth century, the number of animals which could be put to graze being determined by the size of holding, a specified number of cattle and sheep being allowed per bovate (in northern England) or yardland or virgate (in the Midlands).[13] Early evidence for 'measuring' the pasture to determine its carrying capacity comes from Wawne (Yorks., East Riding) in 1235, and from Beckermet (Cumb.) in 1250, where the jury laid down a stint of one beast for every eight acres, a horse for every 40 acres, a sheep for two acres, a pig for 40 acres, a goat for 20 acres and a goose for eight acres.[14] By the fourteenth century, similar evidence is found from pastoral communities with comparatively small open fields on the fringes of the uplands, as at Edmundbyers (Co. Durham), where it was ordered in 1373 that the stocking capacity of the township's open fields should be determined and each tenant assigned a stint, and Mickleton in Teesdale, where the number of cattle grazing the open field was said in 1433 to be 'fixed of old', suggesting a similar antiquity of stinting there.[15] Fixed numbers, particularly of sheep, limited the grazing rights in open fields in Midland England in the fifteenth century, and stinted rights on open fields appear to have been widespread by the mid-sixteenth.[16] Piecemeal enclosure of open fields, gathering pace in the century 1550–1650, reduced the available grazing and could lead to the imposition of stinting, as appears to have occurred in parts of Shropshire.[17] Similar pressures may have lain behind the reductions in the stints in open fields recorded in several settlements in Gloucestershire during the seventeenth century.[18] An important feature of these

[12] As in the grant to St Bees priory *c.*1240 of an acre of land and pasture in the common pasture of the vill of Bolton (in Gosforth, Cumb.) for 8 *animalia*, 8 sheep, 3 horses, 8 goats and 3 sows and followers: J. Wilson (ed.), *The Register of the Priory of St Bees* (Surtees Society 126, 1915), no. 271. Numerous other grants of numerically-defined pasture rights to monastic houses in Cumbria are recorded: e.g. ibid., nos 109–111, 265, 288–9, 294, 299, 310–11, 336, 341, 431–3, 466, 470, 472; J. M. Todd (ed.), *The Lanercost Cartulary* (Surtees Society 203, 1997), nos 25, 28, 36, 41, 54.

[13] For example Madingley and Oakington (Cambs.) in 1270 and 1286: *VCH Cambs*., IX, pp. 172, 200; Eske (Yorks., East Riding) in 1278: *VCH Yorks., East Riding*, VI, p. 281; Dearham (Cumb.) and Edlingham (Northumb.) in 1293: C. M. Fraser (ed.), *Northumberland Eyre Roll for 1293* (Surtees Society 211, 2007), nos. 400, 545; Chiltern area: D. Roden, 'Field systems of the Chiltern Hills and their environs', in Baker and Butlin (eds), *Studies of field systems*, p. 349.

[14] Wawne: *Chronica Monasterii de Melsa*, I (Rolls Series 43A, 1866), p. 414; Beckermet: Cumbria RO (Kendal) [hereafter CRO (K)], WD/Ry/box 92, Beckermet deeds, 94.

[15] Winchester, *Harvest of hills*, p. 67.

[16] Early references come from Farmington (Glos.), 1432: *VCH Glos*., IX, p. 76; Dorrington (Salop.), 1449: *VCH Salop*, IV, pp. 117–18; Graveley (Cambs.), 1490: *VCH Cambs*., IX, p. 325. Ault's collection of by-laws from open-field England shows an increasing frequency of orders imposing stinting from *c.*1500: W. O. Ault, *Open-field husbandry and the village community: a study of agrarian by-laws in medieval England* (Trans. American Philosophical Soc., new ser. 55 (7), 1965), pp. 26–7.

[17] *VCH Salop*, IV, p. 121.

[18] *VCH Glos*., VI, p. 131; XI, pp. 180, 241, 289.

stinted pasture rights over the open fields was that they were appurtenant to the holding of land in the fields; hence the linkage exhibited in determining the size of the grazing right by reference to the size of the holding.

Communal enclosed pastures were numerous by the sixteenth century. Writing in 1523, Fitzherbert noted that many settlements had 'a commyn close taken in out of the commen or feldes … for their oxen or kyen or other catell'.[19] These were often sections of rough pasture, separated from the common waste but managed as a shared resource by some or all members of a community, often to provide grazing close to the farm for the milk cows and oxen which required intensive tending. By *c.*1600 they are recorded widely across the Midlands and northern England.[20] Although some had their roots in the medieval centuries, many more seem to have been separated from the waste and stinted in the period *c.*1450 to *c.*1650.[21] On the sides of many Pennine valleys, they remained as shared, communal pastures until divided under enclosure awards in the later eighteenth or nineteenth centuries. They were actively managed pastures, in which restricted numbers and types of livestock were allowed to graze for limited periods. The size of a stint was usually expressed in terms of 'cattlegates' or 'beastgates', and a distinction was often drawn between summer and winter use (cows in the summer; young sheep in the winter, for example); a closed period (usually a month or so in springtime) was often instituted.[22] Stinting was required to ensure a 'fit' between the carrying capacity of the area of enclosed pasture and the numbers grazing it. Beastgates could be used as a currency to institute quite subtle management regimes, such as varying stocking levels across the year: at Downholme (Yorks. North Riding), the stint was halved for the winter season, for example.[23] In some places, perhaps particularly in lowland open field communities, cow pastures were 'commonable closes', the number of cattlegates belonging to an individual being determined by reference to the size of their holding of inbye land.[24] In the uplands, however, rights in stinted pastures had sometimes become separate units of property, divorced from holdings of land, at an early date. By *c.*1600 cattlegates in stinted pastures in the Yorkshire Dales were being bought and sold or leased for a number of years.[25]

[19] Fitzherbert, *Boke of surveying*, fo. iii^{v}.

[20] R. A. Butlin, 'Field systems of Northumberland and Durham', in Baker and Butlin (eds), *Studies of field systems*, p. 135; B. K. Roberts, 'Field systems of the West Midlands', ibid., p. 203; J. Thirsk, 'Field systems of the East Midlands', pp. 248–9. Stinted pastures in the northern uplands are discussed in Winchester, *Harvest of hills*, pp. 68–73; R. T. Fieldhouse, 'Agriculture in Wensleydale from 1600 to the present day', *Northern Hist*. 16 (1980), pp. 172–3.

[21] A rare early reference is to the stinted pasture called 'le Frithes' at Marton, East Riding, in 1322: *VCH Yorks., East Riding*, VII, p. 154. Active separation of stinted pastures from the wastes continued into the seventeenth century in parts of the Pennines: Winchester, *Harvest of hills*, pp. 69–70.

[22] Ibid., pp. 72–3.

[23] R. Fieldhouse and B. Jennings, *A history of Richmond and Swaledale* (1978), p. 147.

[24] As in Worcestershire: B. K. Roberts, 'Field systems of the West Midlands', in Baker and Butlin (eds.), *Studies of field systems*, p. 203.

[25] For example, sales of stints are recorded at Malham in sixteenth century (A. Raistrick, *Malham and Malham Moor* (1971), pp. 44–5) and in the Ingleton area in 1609 (West Yorkshire Record Office, Leeds [hereafter WYRO (L)], WYL 524/142, 10 Jul. 1609). Leasing of cattlegates is recorded in Wensleydale in 1605: H. Thwaite, *Abstracts of Abbotside wills, 1552–1688* (Yorkshire Archaeological Society Record Ser. 130, 1967), p. 32, and beastgates were let and sub-let in Swaledale in the seventeenth century: Fieldhouse and Jennings, *Richmond and Swaledale*, p. 147. At Hartsop, Westmorland, stints were being sold by the mid-seventeenth century: CRO (K), WD/TE, Bound MSS, II, p. 246; XIV, p. 275.

A language of stinting was thus widespread by 1600, governing grazing rights over open fields and regulating the use of enclosed shared pastures. It is often assumed that the introduction of stinting on common wastes was a response to pressure on the carrying capacity of a common, in effect transferring a concept derived from the exercise of common rights on the stubble of open fields and the aftermath of hay meadows to the wastes. In parts of lowland England, the expansion of arable cultivation in the sixteenth and seventeenth centuries could reduce the surviving common wastes to the point where there was insufficient pasture for all the community's livestock. In response, the common would be stinted to control overgrazing.[26] Although a clear view of the chronology and geography of the spread of stinting on common wastes in lowland England has yet to be established, considerable regional variation can probably be assumed. Most commons in Northamptonshire were stinted by the eighteenth century, for example, whereas few wastes in lowland Lancashire appear to have been stinted in the early modern period.[27]

By the mid-seventeenth century the benefits of stinting were beginning to surface in literature on improvement. Walter Blyth listed 'commoning without stint' as one of the impediments to agricultural advancement. On unstinted commons, he wrote, 'every man laies on at random, and as many as they can get, and so overstock the same', to the detriment of poorer neighbours; livestock 'pine and starve' and are subject to periodic epidemic diseases. If commons were to be stinted and all graziers limited 'according to their proportion of land or dwellings to which the common is due', the poor who did not have the livestock to exercise their right could let their stint and thus obtain some benefit: stinted commons 'might be as good as their own severals to every man that hath an interest'.[28] In identifying the twin advantages of stinting as preventing overstocking and converting a pasture right into a marketable asset, Blyth was anticipating the arguments of later writers.

But alternative conceptions about the nature of grazing rights appear, in some cases, to lie behind the appearance of stinting on the extensive wastes (as opposed to cow pastures) of upland northern England by the early modern centuries. Though many upland commons continued to be governed until modern times by the rule of levancy and couchancy, some stinted wastes were found on northern fells and moors by the seventeenth century; yet pressure on grazing capacity does not appear to provide a sufficient explanation. Despite the ubiquity of presentments for overcharging the common in manor court records from the sixteenth century onwards, the evidence that stinting was seen as a solution is remarkably limited. A rare explicit example comes from the Lake District valley of Longsleddale, where stinting was imposed by the Court of Exchequer in 1584 to resolve a dispute involving claims of grazing pressure and over-charging the common. The ruling does not appear to have been effective, since stinting was again proposed when the dispute re-ignited in the 1630s.[29]

[26] J. Thirsk, 'Farming techniques' and 'Enclosing and engrossing', in Thirsk (ed.), *Agrarian history*, IV, pp. 182–4, 205. Occasionally, there is evidence for early stinting of common waste: Deep Carr common at Burton Pidsea was stinted by 1381: *VCH Yorks., East Riding*, VII, p. 33.

[27] Neeson, *Commoners*, p. 113. For Lancs. we are indebted to William Shannon, on whose extensive research into early-modern enclosure of lowland wastes in the county this statement is based.

[28] Walter Blyth, *The English improver improved* (London, 1653 edn), unpaginated section [dedicatory epistle, 4th prejudice].

[29] Winchester, *Harvest of hills*, p. 83.

How often grazing pressure was the driver which led to stinting on common wastes in upland northern England by the early modern period must remain an open question. There are suggestions that an alternative explanation can be called on to account for the appearance of stinting on some upland commons. The key lies in the location and distribution of those commons which are known to have been stinted by *c*.1600. Although it is sometimes difficult to be certain whether an individual common was stinted or not (it is not always clear whether 'stints on the common pasture' refers to enclosed pastures or to the waste, for example), unambiguous cases of stinted wastes often exhibit a number of shared characteristics.[30] First, they tend to be found in areas which had the status of forest in the medieval period, and particularly with forests over which lords appear to have maintained strong seigneurial control (through establishing demesne stock farms ('vaccaries'), for example). In the Pennines, clear evidence for stinted commons comes from the forests of Arkengarthdale and New Forest, Bowland and Pendle, all areas with concentrations of vaccaries.[31] In each, there are suggestions of a second distinctive feature, that the wastes in question were deemed to be an integral part of the tenants' holdings and were divided in the minds of the community into separate sections, each belonging to a hamlet within the manor. In New Forest and Arkengarthdale, the tenants claimed 'to hold the same [the commons and wastes] as parcell of theire ancient tenementes, affirmeinge that every man doth know his certen nombers of gates jeist or stint, and do paie rent for the same as for theire other landes'.[32] In Bowland and Pendle forests, the 'out pastures' appear to have belonged to individual hamlets within the forest,[33] suggesting similarities to the arrangements in Over Wyresdale (Lancs.), where the territory of each vaccary included a section of moorland grazing running up to the watershed, on which the tenants held beastgates.[34] The evidence suggests a model in which each medieval vaccary appropriated exclusive use rights on the adjacent wastes, which came to be considered as belonging to the hamlet communities into which the vaccaries had evolved by the sixteenth century.[35] Although the forest wastes in these examples were not physically divided, they came to be thought of as a series of separate sections. Elsewhere in the vaccary country of the Pennines, the conception that sections of pasture were separate from the common waste and 'belonged' to sub-manorial groups of tenants seems to have become a deeply-embedded tradition and a powerful driver towards the creation of enclosed stinted pastures.[36]

[30] An attempt to map the distribution of stinted as against unstinted commons was made in Winchester, *Harvest of hills*, p. 80 (Fig. 4.1). It should be noted that the map has been superseded by subsequent research and that some of the 'stinted commons' mapped there may be enclosed pastures, rather than common waste.

[31] Arkengarthdale and New Forest, recorded in 1612: TNA, E 178/4831, m. 6; Bowland: reference to stints on the 'out pasture', 1605: LRO, DDHCl, box 86, no. 27; Pendle: stints in the 'owte pastur' recorded 1540s: W. Farrer (ed.), *The court rolls of Honour of Clitheroe* (3 vols, 1897–1912), II, pp. 186, 213. For the distribution of vaccaries, see A. J. L. Winchester, 'Vaccaries and agistment: upland medieval forests as grazing grounds', in J. Langton and G. Jones (eds), *Forests and chases of England and Wales to c.1500* (in press).

[32] TNA, E 178/4831, m. 6.

[33] LRO, DDHCl, box 86, no. 27; Farrer (ed.), *Clitheroe court rolls*, II, pp. 186, 213.

[34] LRO, AT/2 (Over Wyresdale corn rent map, 1833); DDX 1935/1 (plan of Abbeystead vaccary 1653 [copy of 1670]); DDX 610/34 (plan of Swainshead vaccary, 1652); DDX 610/35 (plan of Hayshaw Fell, *c*.1652).

[35] For the evolution of vaccaries into hamlets, see J. McDonnell, 'Upland Pennine hamlets', *Northern Hist*. 26 (1990), pp. 20–39.

[36] Winchester, *Harvest of hills*, pp. 69–71.

If the interpretation offered above is correct, then it suggests an alternative explanation for the origins of stinting. The key may lie in agistment, where a rent separate from that for the holding was originally paid for a numerically limited grazing right on the lord's private pastures on his forest waste, effectively assigning a stint to each holding in the manor.[37] The key phrase in the evidence cited above is the statement that each tenant in New Forest and Arkengarthdale knew his entitlement to 'gates, jeist or stint, and do paie rent for the same'. The terms 'stint' and '[cattle]gate' are used synonymously with 'jeist', the Yorkshire vernacular term for 'agistment'.

The Pennine evidence may be compared with that from the Lake District, where stinted commons were in the minority. One of the most telling examples is that of the manor of Eskdale, Miterdale and Wasdalehead, where there was an internal division between stinted and unstinted commons. The wastes belonging to Wasdalehead were stinted by the late sixteenth century, while those belonging to Eskdale and Miterdale remained governed by the rule of levancy and couchancy. The whole manor was part of the private forest of Copeland but, whereas Eskdale and Miterdale had been settled by peasant communities by *c*.1300, Wasdalehead was retained under seigneurial control as the site of four demesne vaccaries. Although these were already leased by 1334 and, through subdivision, had evolved into a settlement of eighteen holdings by 1547, the legacy of forest status survived. Rather than having a normal common right of pasture on the wastes, the tenants of Wasdalehead paid a separate annual rent of 17*s*. called 'forest male' (i.e. 'forest money') for their pasture rights on the fells, strongly suggesting that their common rights originated as agistment rights on the lord's private pastures. The stinted status of the wastes belonging to Wasdalehead is recorded from 1587 and, unlike those of neighbouring Eskdale and Miterdale, the Wasdalehead fells were divided into seven separate sections for stock management purposes.[38]

Where early stinted commons are recorded elsewhere in the Lake District, they exhibit characteristics similar to those of Wasdalehead: the stinted commons at Wythburn; Stonethwaite (in Borrowdale); Troutbeck; Kentmere; and Grisedale (in Patterdale) were all in areas which had the status of forest in the medieval period and Stonethwaite, like Wasdalehead, was the site of a vaccary. As at Wasdalehead, the commons at Wythburn, Troutbeck and Kentmere were divided (conceptually but not necessarily physically) into sections, each carrying its own stint: the fells around Wythburn were divided into ten 'steads'; Troutbeck into three 'cubles' or hundreds, each containing a long hundred (120) of cattlegates; Kentmere into four quarters, each containing fifteen tenements, which each had ten cattlegates on the quarter's fell.[39] Again, as at Wasdalehead, sums were paid specifically for pasture on the fells: separate rent was paid for each of the 'steads' in Wythburn; in 1372 the tenants of Kentmere jointly paid a lump sum

[37] Ibid., p. 94.

[38] Ibid., pp. 83–4, 94, 167–71.

[39] Wythburn: stinting arrangements recorded in 1606 and 1677: CRO (C), D/Van, Wythburn box, court verdicts; Stonethwaite Fell was said in the 1760s to have been stinted time out of mind: CRO (C), D/Law/1/163; Troutbeck: B. L. Thompson, *The Troutbeck Hundreds and the common land of Troutbeck, Westmorland* (1968); M. A. Parsons, 'Pasture farming in Troutbeck, Westmorland, 1550–1750', *Trans. Cumberland and Westmorland Antiquarian and Archaeological Soc.* (hereafter *Trans. CWAAS*), new ser., 93 (1993), pp. 118, 120; Kentmere Head, described as a stinted pasture 1633: TNA, E 134/9 Chas. I/East.21; traditional stinting arrangements recorded 1760: W Farrer and J. F. Curwen (eds), *Records relating to the Barony of Kendale* (3 vols, 1923–26), III, pp. 153–4; Grisedale: numerical limit on grazing rights in forest recorded 1589: TNA, LR 2/212, fo. 31.

of 40 marks for 'the herbage and several pastures of the dale'; each of those at Grisedale paid 10*s*. 8*d*. for 'common pasture for 32 beasts (*averiis*) within the forest of Grisedale'.[40]

Taken together with the instances of stinted commons in the central Pennines, the evidence from the stinted minority of Lake District commons suggests a quite different system of organization from that found on unstinted commons in the upland north. Rather than forming a single common belonging to the whole manor, the stinted commons were divided into separately managed blocks of hillside; rather than being responses to pressure on grazing, these stinting arrangements probably had their roots in conceptions of grazing rights as agistment on forest wastes in the later medieval centuries. When stinting was introduced is not recorded but the leasing and subsequent subdivision of vaccaries from *c*.1300 would provide a context for the assignment of specified grazing rights to individual tenants.

In summary, the evidence for stinting of common wastes before *c*.1800 suggests that pressure on grazing resources provides only a partial explanation. In those areas of lowland England where little waste remained, stinting may indeed be thought of as part of a wider response to grazing pressure, in which the tradition of limiting grazing rights in the open fields was extended to the wastes. At the other end of the spectrum, in the upland forests of northern England, where vast expanses of rough grazing land survived, a distinctive property rights regime in the private forests, which required grazing rights to be articulated in terms of agistment, evolved into a system of stinting on some commons.[41]

III

Stinting was thus a deep-seated tradition before 1800. Nevertheless, the modern period saw the introduction of stinting on many previously unstinted commons, through local agreements or by private or general acts of parliament, as stinting became the preferred model for regulating stocking numbers in both national and local perceptions.

Stinting in the modern period needs to be seen in the context of a wider culture of agricultural improvement and enclosure. In agrarian literature, stinted commons were almost invariably preferred over common 'without number', the latter being presented as synonymous with overstocking. For example, in *A synopsis of husbandry* (1799), John Banister contrasted 'unlimited' commons, where the largest farmer would monopolize the pasture, leaving the majority of the inhabitants at a disadvantage, with stinted commons, 'where the time of turning on the common, as well as the kind and number of the stock are regulated by custom'.[42] One of the perceived advantages of stinting was that it enabled successful farmers to increase their stock by leasing or buying stints from inactive or poorer graziers, a redistribution of economic benefit which could not have been achieved through levancy and couchancy. In an argument strikingly similar to that put forward by Walter Blyth a century and a half before, an anonymous 'Yorkshire Farmer', quoted in the county report for the West Riding, stated that 'unstinted commons are

[40] Farrer and Curwen (eds), *Records … of Kendale*, I, p. 309; TNA, LR 2/212, fo. 31.

[41] Between the two extremes lay a range of other types of common, notably marshes and fens, which have not been considered here.

[42] J. Banister, *A synopsis of husbandry. Being cursory observations in the several branches of rural oeconomy. Adduced from a long and practical experience in a farm of considerable extent* (1799), p. 274.

eat up by mercenary and opulent individuals, … whereas if commons were stinted, the poor cottager who could not stock his part, might receive a valuable compensation for his right. Thus a proportional flock would be put upon them, and everyone receive advantage'.[43]

The simple opposition of stinted *versus* unstinted commons presented by the literature masks considerable variation in the way in which stinting was implemented. Many stinted commons may have been stinted by informal mutual agreement, leaving little documentary evidence. Occasionally written evidence survives, as in the case of Burgh Marsh (Cumb.). An agreement of 1700 determined that this coastal marsh would be stinted annually between 1 March and 18 October, and that stints would be proportional to rent (at the rate of up to three cows, heifers or steers and up to twenty-four sheep for every 12*d*. of rent paid to the lord of the manor); follow-up agreements made in 1765 and 1838 sought to adapt the management regime to the changing condition of the marsh, which frequently suffered flood damage. It is possible that Burgh Marsh may have been stinted prior to 1700, but the agreement of that date evidently heralded a new beginning, ascertaining what was a 'just and equall' number of stints.[44] A later example comes from Scales Moor, Ingleton (Yorks., West Riding), where two written stinting agreements were made, in 1810 and 1842. In the first agreement, the graziers of Scales Moor agreed on 'reducing' the common to a stint, allocating one beastgate for every shilling of Land Tax paid by each commoner. The 1810 agreement thus sought equity of access, based on a measure of the value of holdings of inbye land, with a view to 'affording to all interested therein the exercise of a just and equitable right'.[45] It proved to be a false start, since the reason given for the second, more formal agreement in 1842 was that 'disputes and differences' had arisen over the number of livestock which each owner or occupier was entitled to put on the common. The emphasis was again on equitable access, but the agreement also demonstrates an understanding that this depended on a sustainable level of grazing. It was based on a calculation of the carrying capacity of the 1000-acre common, which was estimated to amount to 800 sheep. That figure was converted into 160 stints, adjusted for cattle, sheep and horses, and distributed among the commoners. The stinting agreement even went so far as to determine the value of the stints according to the breed of sheep, reflecting the different grazing impact of the animals: thus one cattlegate was equal to five black-faced 'Scotch' sheep or four white-faced (or 'Lowland') sheep. The 1842 agreement heralded a period of stability on the common, the minute books of the stint-holders' meetings showing active management into the late twentieth century.[46]

In contrast to grass-roots agreements such as this, other commons were stinted through the more formal route of enclosure acts and awards. In these cases, the stinting of a specific area of common might form only one part of a larger transformation of land use and ownership. The stinting of Thornham common on the north Norfolk coast, under a private act of 1794 (award of 1797), is a case in point. The Thornham award had as its object the enclosure of large areas of open fields and wastes in the parish, but also included a scheme to stint an area of unenclosed

[43] R. Brown, *General view of the agriculture of the West Riding of Yorkshire* (1799), p. 145.

[44] CRO (C), DSO 198/1–3. A covenant of 1838 (DSO 198/3) also established a management committee. This long process of agreement and adaptation culminated in the conversion of Burgh Marsh into a regulated (stinted) pasture under an enclosure award of 1848: DSO 198/4.

[45] WYRO (L), WYL 524/209: agreement to stint Scales Moor, 16 Jan. 1810.

[46] Scales Moor papers (*penes* Mr J. Metcalfe, Ingleton): stinting agreement, 1842 (typescript copy); minute books, 1884–98, 1901–91.

salt marsh. The act directed that the unenclosed residue of the marshes was to remain 'common of pasture, to be used and enjoyed as a stinted common by the several proprietors thereof, or other persons interested therein'.[47] In a much simpler formulation than at Scales Moor, the award stipulated that there would be 49 stints on the commonable marsh, in respect of the 49 common-right houses in Thornham, and that each common-right householder was entitled to graze 'two cows or heifers or one cow or one heifer and one gelding, colt, Mare, filly or female ass with or without a foal under six months old by the side of such mare or ass'. The award also set up a system of management, with an annual stint-holders' meeting and the appointment of three common reeves from out of their number. Reeves were expected to enforce the meeting's rules, keep the common free of trespassing animals, collect annual rates, buy and turn a bull onto the common (if required by stint-holders), and effect drainage and other improvements. As with Scales Moor, the stinting formula was understood to be a flexible tool rather than a fixed number: under the terms of their award, a majority of the stint-holders could agree to alter the number and kind of animals that could be grazed in respect of each stint, and could also agree to alter the rules governing the common if they saw fit.[48]

The subsequent history of Thornham Marsh demonstrates an increasingly significant consequence of stinting, the commodification and severance of rights. The award facilitated a free market in stints, and the result was a monopoly, as stints were purchased piecemeal by the lords of Thornham manor. By the time of registration under the Commons Registration Act of 1965, the lord had acquired almost all of the 49 stints.[49] It is probable that those drafting the award had neither intended nor predicted such a concentration of ownership: as noted above, the management system laid out by the award, involving an annual stint-owners' meeting and election of reeves, assumed the existence of multiple stint-holders.

Private agreements and enclosure acts were forerunners of the more standardized stinting schemes made available by statute in the middle and later decades of the nineteenth century. Stinting became the method of choice for statutory regulation of common land, the two most important pieces of legislation being the General Inclosure Act of 1845 (which permitted the creation of stinted pastures as part of the enclosure process), and the 1876 Commons Act (which allowed for stinting while preserving a common's unenclosed status).[50] The perceived advantages of stinting became a key theme for the Select Committee on Commons Inclosure in 1844, when taking evidence in preparation for the 1845 Act. When he appeared as an expert witness before the Committee, the Cumberland-born farmer and politician, William Blamire

[47] Norfolk Record Office (hereafter NRO), PC 9/1–2, Thornham enclosure award and map, 1797.

[48] Ibid.

[49] NRO, H. Bett 14/6/79 (4), Thornham manor court book 1894–1925: entries dated 22 May 1918 record the lady of the manor's recent purchase of seven stints in five separate lots. Decision of the Commons Commissioner, Thornham Common (Norfolk CL 41), 18 Dec. 1975, ref. 25/D/79–95 (available at www.acraew.org.uk).

[50] Inclosure Act 1845 (8 & 9 Vict., c. 118), Commons Act 1876 (39 & 40 c. 56). Though not providing new stinting schemes *per se*, the earlier Inclosure Act 1773 (13 Geo. 3, c. 81) included provision for management and improvements on existing stinted commons or pastures (together with other common lands and open fields), and enabled commoners to turn stinted horse and cattle pastures over to sheep. We are grateful to Prof. Michael Turner for drawing our attention to this act. The Inclosure Acts of 1801 (41 Geo. 3, c. 109, s. XIII) and 1836 (6 & 7 Will. 4, c. 115, s. XXVII) included provision for laying together of allotments to form shared pastures, 'stocked and depastured in common' by the proprietors (c. 109, s. XIII), though with no explicit reference to stinting.

(1790–1862) – an authority on land tenure and farming, an influential tithe commissioner and, subsequently, enclosure commissioner – was asked to explain how stinting should be effected:

> You would find the value of the ancient lands entitled to the right of common, and what proportion of stock that common was at that time capable of carrying, and then apportion the rights of pasturage amongst the parties, according to the value of their ancient lands, to which the common right is attached; if any measure of that sort were passed, there should be the power of increasing or diminishing the proportion of the stints, as the land increased, or from accidental causes decreased, in fertility.[51]

Blamire thus understood that both the carrying capacity of the common and the flexibility of the stinting formula were factors critical to its operation. He also concurred with the general disapproval of rights 'without number', suggesting that levancy and couchancy 'would appear to be impracticable' and that undefined rights could result in 'occasional violence' and litigation. Significantly, Blamire promoted the idea that stints were saleable property, stating that, once an individual's pasture right had been 'ascertained, defined and settled, the stint would become as much a letable and marketable article as a field or any thing else'.[52]

The resulting General Inclosure Act of 1845 contained clauses enabling graziers to convert a common into an enclosed stinted, or 'regulated', pasture, 'to be stocked and depastured in common by the persons interested therein, in proportion to their respective rights and interests', as these were determined by the commissioner. In practice, this provision tended to be used on land which was incapable of improvement: while improvable parts of a common were enclosed, higher moorland, rough fell or lowland marsh might be converted into a stinted pasture. Rather than physically divide the land, enclosure commissioners translated each grazier's interest into a proportional share of a total number of stints, sometimes calculated to an absurd level of precision (at Tatham, Lancashire, for example, where stints were measured according to the proprietors' acreage of inbye, each grazier's allotted number of stints was calculated to three decimal places). The act also made provision for annual stint-owners' meetings, election of field reeves and levying of rates, and also gave stint-owners power to increase or reduce stocking rates to suit the condition of the pasture.[53] Here, too, the stinting formula was seen as a flexible tool, a means of responding to market demands or ecological change. Once regulated, these pastures lost their legal status as common land but, like older stinted pastures, they retained many of the characteristics of a common, to the extent that a number were registered as commons under the 1965 Commons Registration Act.[54]

It is striking that the 1845 Act also drew a distinction between classes of land eligible for enclosure on the basis of property rights. 'Gated and stinted pastures', whether or not ownership of the soil was vested in the stint-owners, could be enclosed with the authority of enclosure commissioners alone, whereas enclosure of manorial wastes or lands subject to 'indefinite Common Rights', not limited 'by number or stints', required additional authorization

[51] *Report of the select committee on commons inclosure, minutes of evidence, plans, Index* (HC Paper (1844) no. 583), p. 26 (para. 284).

[52] Ibid., pp. 25–6 (paras. 277, 283, 291). For Blamire, see Eric J. Evans, 'Blamire, William', *ODNB*.

[53] Inclosure Act 1845 (8 & 9 Vict., c. 118), sections CXIII–CXXI; LRO, AE/5/12: Tatham Enclosure Award, 1858.

[54] Gadsden, *Law of commons*, paras 3.24, 4.84, 4.96.

from Parliament.[55] This distinction, removed by the Inclosure Act of 1852, which required Parliamentary authorization for all enclosures, illustrates an awareness of the different property rights regimes on common pastures, and an assumption that, where stints occurred, enclosure could be effected with less scrutiny.[56]

The Commons Act of 1876 marked a shift away from enclosure towards ideals of common land preservation and public access, but stinting was again seen as the cornerstone of modern management. Regulation under the 1876 act involved the introduction of a stinting schedule, a stint-rate to pay for works and a board of conservators to manage the common. Thirty-six commons were regulated in England and Wales, the last in 1919.[57] Writing in support of the regulation of Crosby Garrett common (Westmorland) under the 1876 Act, one of the commoners anticipated the effects of stinting, stating that stock would 'thrive' on a stinted common, that each grazier would be restricted to a 'fair' number of animals, and that stinting would prevent disputes between graziers.[58] It is significant that he also expressed the hope that it would be possible to include a clause 'giving the owner the right to sell his stints if he likes.' The response of the Inclosure Commission was to confirm that stints were inherently 'saleable property'.[59]

In 1958 the Royal Commission on Common Land estimated that around 33 per cent of common land in England and Wales was stinted.[60] In their rather dismal assessment of the state of the nation's common lands, the commissioners saw unstinted commons as particularly problematic, finding that it was often difficult to define a commoner's right of pasture, and that the rule of levancy and couchancy could not accommodate modern farming practices, such as the purchase of winter feedstuffs. Echoing Blamire's evidence to the Inclosure Select Committee in 1844, commissioners in 1958 claimed that the rule of levancy and couchancy 'has in fact lost much of its pertinence', and that 'the old customs and practices, if not totally forgotten, often prove an indifferent guide in modern circumstances'. In contrast, stinted commons seemed to promise a greater degree of certainty in the definition of grazing rights and identification of their owners. In concluding their report, commissioners proposed the establishment of a nationwide register of common lands and rights, to resolve ambiguities and inconsistencies in definition and ownership, and to provide a sound legal framework for new schemes of management and improvement.[61] The ensuing Commons Registration Act 1965 would require *all* grazing rights to be expressed as a 'definite number'.[62]

In practice, converting a grazing right into a number posed a real challenge, particularly on commons governed by the rule of levancy and couchancy, where rights were 'without number'. Even on stinted commons, the requirement of the 1965 Act sat uncomfortably beside stinting

[55] Inclosure Act 1845 (8 & 9 Vict., c. 118), ss. XI–XII.

[56] Inclosure Act 1852 (15 & 16 Vict., c. 79), s. I.

[57] For the impact of statutory regulation of common land after 1800, see E. A. Straughton, *Common grazing in the northern English uplands, 1800–1965: a history of national policy and local practice, with special attention to the case of Cumbria* (2008), pp. 191–241.

[58] The commoner in question, Edward Johnson, wrote, 'It has always been the wish of the landowners to bring the common into a stinted pasture so that each owner of land could put on a fair amount of stock for his inland … I have looked after sheep on the common and am sure the sheep would thrive better, and there would be no hounding', CRO (K), WD/HH/103, Johnson to Heelis, 10 Mar. 1882.

[59] CRO (K), WD/HH/103, Johnson to Heelis, 26 Dec. 1881; Moore to Heelis, 2 Jan. 1882.

[60] *Report of the royal commission on common land* (1958), p. 22.

[61] Ibid., pp. 10 (para. 30), 46 (paras 129–30), 90–1 (paras 274–5), 129–37.

[62] Commons Registration Act 1965 (c. 64, s. 15).

traditions. A key difference between stints and simple numbers lay in the fact that a stint did not represent an absolute number, but a formula which could, in theory, be adjusted to alter the grazing density and balance of animals. Some graziers' groups tried to take communal action. In an attempt to update their formula in order to calculate a realistic 'definite number', the stintholders of Scales Moor simplified and updated their stint rate in 1968 (on the threshold of registration under the 1965 Act) in order to recognize their concentration on sheep, modifying the scheme laid down in the 1842 agreement. Henceforth, one 'gait' or stint would equal one black-faced sheep, or four-fifths of a 'Lowland' sheep, and no cattle or horses would be grazed on the moor. However, the resulting registration entries show that this was not adhered to by all graziers: the stinting formulae, types of animals to be grazed, and references to stocking dates vary between individual entries.[63]

Across England and Wales, the requirement to register pasture rights numerically led to confusion and inconsistencies, particularly where they had been governed by the rule of levancy and couchancy. On Ingleborough common (Yorks., West Riding), for which no formal stinting scheme seems to have existed, individuals expressed their rights in a variety of forms, some using simple numbers to register a single type of animal (e.g. a right to graze 50 sheep with followers), others expressing their rights in terms of alternatives (e.g. a right to graze ten sheep or two cows); others choosing to define the 'gait' (e.g. six sheep gaits, with four sheep gaits equalling one cattle gait); and others specifying the type and age of sheep (e.g. 150 sheep with lambs, 60 hogget sheep and 100 wether hoggs). Some included time limits and grazing seasons (e.g. 10 sheep with followers from 6 April to 20 September); others did not.[64] Elsewhere, it is widely agreed that the numbers registered on unstinted commons were in many cases grossly inflated.[65] In a perverse twist, it is even possible today to find 'stints' which have been redefined by the process of registration itself: in a scheme of byelaws confirmed in 1999, Malvern Hills Conservators defined a commoner's 'stint' as meaning 'the number of animals allowed to be turned out on the Hills by that person in accordance with the Commons Registration Act, 1965'.[66] The 1965 Act unintentionally led to a redefinition of common land and rights, effectively breaking with both the traditional systems of stinting and levancy and couchancy.

The Commons Registration Act also brought into sharp relief the question of definitions: which categories of stinted pastures were, strictly-speaking, common land and eligible to be registered? Local and historical perceptions of what constituted common land were often at variance with late twentieth-century legal classifications, leading to inconsistencies in the registration of stinted commons and private enclosed pastures. For example, in the Ingleton area, where stinting was prevalent, some stinted pastures were registered and others of a similar nature were not.[67] In addition, the legal culture of the late twentieth century demanded

[63] Scales Moor papers: minute book, 1901–91, 8 Mar. 1968; North Yorkshire County Council, Common Land Register, CL 272.

[64] North Yorkshire County Council, Common Land Register, CL 134.

[65] C. P. Rodgers, 'A new deal for commons? Common resource management and the Commons Act, 2006', *Environmental Law Rev.*, 9 (2007), pp. 25–40, at p. 30; DETR, *Good Practice Guide on Managing the Use of Common Land* (1998), p. 16.

[66] Malvern Hills Byelaws 1999: Duties of the Conservators (at http://www.malvernhills.org.uk/manage/byelaw.aspx, accessed 9 Jan. 2009).

[67] For example, Gayle Moor is not registered, while the adjacent stinted pastures of Blea Moor (CL 194) and Cam End (CL 103) are.

evidence of defining characteristics which might simply be lacking or of lesser significance in the historic context. For example, when the Thornham award was drafted in 1797, it was not thought necessary to state whether ownership of the soil had been retained by the lord of the manor, or whether stint-owners had become the joint owners of the land, ending its 'common' status.[68] In the context of day-to-day agrarian use, this legal technicality was perhaps irrelevant, but in the context of registration, questions of landownership and legal status became critical. Thornham stinted common was successfully registered under the 1965 Act, though its eligibility has been questioned by one historian of common land in Norfolk.[69] Similar ambiguities are recorded in Cumbria. On the Solway estuary, Burgh marsh, converted into a regulated pasture under an enclosure award of 1848, was registered. Watermillock pasture, in the very different environment of the Lake District fells, stinted under the terms of an enclosure award of 1835 and hence no longer strictly a common, was nevertheless successfully registered as well, despite the award specifically stating that it consisted of the laying together of enclosure allotments.[70] Stint-owners on Tatham stinted pasture (Lancs.), enclosed under the 1845 Act, objected to their own registration application after deciding that the pasture was not in fact eligible.[71] This rather chaotic picture reveals the problems inherent in fitting a legacy of idiosyncratic 'communal' landscapes into a standard legal framework.

The historical processes encouraging the growth in stinting in the modern period were multi-faceted. At local level, grazing pressure does, indeed, appear to have been a key driver towards the introduction of stinting, as can be seen in the reasons given for the new stinting schemes proposed for Scales Moor and Crosby Garrett, for example. But it is also apparent that the desire to conserve the ecology of a common or to ensure an equitable access to grazing cannot easily be separated from economic interests. Indeed, an added attraction of stinting a common in the modern period was the resulting change to property rights, converting common rights of pasture into a more adaptable, transferable and potentially profitable commodity.

It is therefore necessary to see stinting as not merely a form of traditional common land management and a response to grazing pressures, but as a response to a changing socio-economic and cultural environment. For those seeking to protect or improve the economic usefulness of their rights, stinting offered numerous advantages over levancy and couchancy. It firmed up property rights, allowing both ambitious and inactive graziers to benefit from the lease or sale of stints, and also provided additional powers of exclusion and enforcement, with an upper numerical limit. The flexibility and adaptability associated with stinting schemes might enable long-term economic use of a common, securing its viability as an agrarian resource, perhaps, in a modern agricultural context. But for all its benefits, stinting under

[68] 'The 1797 award contains no clear indication as to how the ownership of the unit land was to become vested, probably because nobody at that time thought that the ownership was of any practical consequence': decision of the Commons Commissioner, Thornham Common (Norfolk, CL 41), 18 Dec. 1975, ref. 25/D/79–95 (available at www.acraew.org.uk).

[69] S. Birtles, 'The impact of commons registration: a Norfolk study', *Landscape Hist.*, 20 (1998), pp. 83–97 at pp. 88, 92.

[70] CRO (C), DSO 198/4: Burgh Marsh enclosure award, 1848; Q/RE/1/17: Watermillock award 1835; DSO 146/1–2: Watermillock herdsman's book and cash account book (1835–1951).

[71] Decision of the Commons Commissioner, Lythe Fell (Lancashire, CL 88), 1 Dec. 1980, ref. 220/D/168–173 (available at www.acraew.org.uk).

statute also had the potential to weaken the historic social fabric of the common, breaking the links between community, land and resource. Once stints were sold, they might become detached from the local community, as was the case on the urban common belonging to the town of Clitheroe, Lancashire, where a flourishing trade in beastgates had developed by the later eighteenth century, to the extent that few of those exercising grazing rights also possessed property to which a right was attached.[72] Alternatively, the trade in stints might lead to local monopolies and eventually to significant land use change, as occurred where a common came to be seen primarily as grouse moor, rather than grazing for livestock. The tension was highlighted in Swaledale (Yorks., North Riding) in 1918, in the politicized context of wartime food supplies, when it was alleged that the owner of game rights on Whitaside Moor had deliberately priced farmers out of the market for stints, reducing stocking levels from 1500 sheep to 850, presumably to benefit the grouse, thereby working against 'the interests of the public' in the matter.[73] Where stints became concentrated in few hands, the grazings might remain physically open and technically a common, but the social and agricultural dynamic might be almost unrecognizable from that traditionally or popularly associated with common land.

IV

The relationship between stinted grazing rights and sustainable use of a shared resource is not straightforward. Sustainable use of common land involved an interplay between two requirements: first, matching stocking levels to carrying capacity in order to preserve the pasture; and, second, ensuring equitable access to grazing in order to preserve 'good neighbourhood'. Stinting had the potential to perform both these functions. But to discuss stinting solely in terms of mechanisms for managing land use is inadequate as an historical explanation; stinting has also to be seen in the context of the evolution of property rights on common land. The origins of some stinted commons appear to lie in the legal concepts not of common rights but of agistment, while one of the consequences of stinting was to alter profoundly the conception of grazing rights through the severance of rights from holdings of land. In drawing conclusions from the chronological survey presented above, the implications of stinting both on the use of common land and on the evolution of property rights need to be addressed.

On the face of it, stinting ought to be more able to achieve sustainable use of common land than the rule of levancy and couchancy, since it presupposes that the carrying capacity of the common is known and that the stint is related to that capacity: without the numerical limit imposed by stinting, the capacity would be in danger of being exceeded. Since a stint can be thought of as a form of currency, its value can be adjusted to fit circumstances (by changing the number of animals which can be grazed for one cattlegate, for example), allowing sensitivity to the (changing) carrying capacity of the common, while retaining an equitable (or at least the pre-existing) pattern of access. Numerous examples are recorded, from the seventeenth century to the twentieth, of communities adjusting stints, implying progressive refinement of

[72] H. R. French, 'Urban common rights, enclosure and the market: Clitheroe Town Moors, 1764–1802', *AgHR* 51 (2003), pp. 40–68.

[73] *House of Commons Debates*, 11 Apr. 1918, 104, cc 1656–8, Mr Jowett.

grazing levels to match carrying capacity. Sometimes (as on Scales Moor, Ingleton, discussed above) they suggest a fresh approach after a false start. More commonly, perhaps, they suggest a perceived need to adjust stocking levels (usually by reducing them) in order to restore sustainability. Examples abound of manor courts in the Midlands ordering progressive reductions in the stint on common land (both open field common and permanent pasture) in the seventeenth and early eighteenth centuries,[74] and similar adjustments could be made in the stinted cow pastures of northern England.[75] Such examples of active management appear to be evidence of local institutions successfully adapting to changing pressures.

Successful matching of stinted rights to the carrying capacity of the common also depended on devising the correct 'conversion formula' for translating a stint expressed in terms of cattlegates or beastgates into a right to graze a particular number of a particular type of livestock. An imperfect conversion formula might be disclosed only when economic pressures changed the balance between different species of livestock, as occurred on the commons at Wasdalehead (Cumb.) by *c*.1800, when a switch from mixed livestock to a monoculture of sheep was said to have exposed an over-generous equivalency of sheep in the stinting formula.[76] Proactive management in this area occurred on Scales Moor, cited above, when the stintholders updated their stinting formula on the eve of registration in 1968, suggesting that they did not want to become trapped in an outdated formula when registering their grazing rights. The legal finality of the Commons Registration Act 1965 appears to prevent future alterations and adaptations, freezing the relationship between rights and carrying capacity.[77] The same could be said for any historic stinting acts and awards which did not allow for possible changes to the number and formula: once static, it could be argued that stints lose their quality as an adaptive and sustainable tool.

A potentially problematic consequence of stinting was the commodification of grazing rights and their severance from the holding to which they originally belonged. From an ecological point of view this might not be of immediate concern, provided that the upper numerical limit was observed, and for many graziers the right to dispose freely of their stints was both highly valued and, in some areas, a deep-rooted tradition. But a free market could create monopolies that could, in turn, impact on the social and ecological sustainability of the common. A dominant stint-holder could have the power to determine the condition and use of a common, perhaps to suit non-agrarian interests such as game preservation (as occurred on grouse moors), ecological conservation, amenity or military use (as on firing ranges). In cases where the owner of the soil acquired a majority or full complement of stints, the question must be asked whether

[74] Examples include: Lower Slaughter, Glos., where the sheep stint on the open fields was reduced from 60 per yardland in 1604 to 50 in 1609 and 45 in 1655 (*VCH Glos*., VI, p. 131); Newcastle-under-Lyme (Staffs.), where stinting was introduced 1590 and the levels reduced 1636 and again in 1649 (*VCH Staffs*., VIII, p. 49); Willingham (Cambs.), where the stint on the sheep pasture on the fens was cut by nearly half in 1677 and further reduced in 1733 (*VCH Cambs*., IX, p. 406).

[75] For example Shap (Westm.), where the stint of New Intake was reduced from five to three beastgates per 'dalt' or share in 1671: J. Whiteside, 'Paines made at Shap', *Trans. CWAAS*, new ser. 3 (1903), p. 158.

[76] One cattlegate gave the right to graze 15 sheep: Cumbria RO (Whitehaven), D/Lec, box 94, draft brief in case of R. Grave *v*. I. Fletcher, *c*.1800.

[77] However, the Commons Act 2006 (c. 26, ss. 26–37) gives statutory commons councils the power to create 'live' grazing registers and to manage the exercise of grazing rights. Hence, greater flexibility may be possible in the future.

the land in question had not rather ceased to be common in anything other than a purely legal sense: in such cases what was being sustained was not communal use of a landed resource.[78] The severance and transfer of stints could also result in stints going out of circulation or simply disappearing from view, having passed into the hands of those with no interest in exercising, selling or leasing them.[79] Severance issues were heightened in the early twenty-first century by the effects of the *Bettison v. Langton* case (2001), which determined that once common rights were quantified, they could be severed from the holding and treated as saleable property.[80] This had widespread implications, particularly on those commons with no tradition of stinting or severance before quantification under the 1965 Act. But in a further twist, the recent ban on severance of rights included in the 2006 Commons Act has implications for stint-owners whose tradition of transferring stints predates the 1965 Act.[81] The issue of severance remains a controversial one.

In drawing this survey to a close, we might return to a deceptively straightforward question: what was a stint? At one level, the answer is simple: it was the right to graze a specified number of livestock on a common. But how that right was perceived – what it represented in terms of possession and property, from what basis it was derived, its (potential) value – was more complex. A stinted right carried with it cultural connotations, reflecting an array of changing conceptions of what constituted a common right. Where stints originated as agistment rights on seigneurial pastures, a stint might originally have been conceived of as a licence from the lord, a licence which, in origin, may even have been explicitly time-limited and which might, presumably, be rescinded. That would be very different from a stint on the community's common grazings that was explicitly tied to a holding (40 sheep on the common per yardland, for example) or a number of cattlegates in an enclosed pasture shared by a group of neighbours. By the sixteenth century, such distinctions of origin were largely forgotten; by then a stint defined an individual's customary entitlement as a member of the farming community. However, a numerical grazing right could also be conceived of as a marketable commodity. Stints were being traded by the seventeenth century. They could thus be severed from their roots in the community and redefined as private property, a process which gained statutory approval in the regulatory stinting schemes of the nineteenth century and the Commons Registration Act of 1965. The history of the apparently simple notion of placing a numerical limit on grazing rights on the common can be viewed as a subtle indicator of changing cultural currents in the relationship between farming communities and their landed resources.

[78] See, for example, the case of Stagshaw Common (Northumberland CL 5), Decision of the Commons Commissioner, 15 July 1974, Ref. 27/D/20–23 (available at www.acraew.org.uk).

[79] Some stint-holders' organizations tried to keep a running record of transfers: for example Burgh marsh management committee maintained a register of stint owners which could be cross-checked against the original enclosure award: CRO (C), DSO 198/6.

[80] *Bettison v Langton* [2001] 3 All ER 417. For comment see Rodgers, 'New deal for commons?', pp. 32–5.

[81] Commons Act 2006 (c. 26, s. 9).

Agricultural change and the development of foxhunting in the eighteenth century*

by Jane Bevan

Abstract

This article explores the development of 'modern' foxhunting in the eighteenth century, focussing particularly on the East Midlands and Suffolk. The relationship between landscape change and foxhunting is examined by looking in detail at the hunting careers of leading foxhunters and where they chose to hunt. Hunting diaries and enclosure records are used to challenge the received view that enclosure and the spread of grassland stimulated the new style of hunting.

For the last 45 years, historians of both the landscape and foxhunting have attributed the rise of foxhunting as a fashionable sport in the eighteenth century to the shift from arable to grassland following enclosure by parliamentary statute. Bovill was the first to note the link, writing in 1962, 'but for enclosure foxhunting would never have become a popular sport'. This view was echoed by Patten in 1971 and repeated by Longrigg and Carr in their respective histories of English foxhunting published in consecutive years in the mid-1970s. Longrigg commented on the '1,539 private enclosure acts … [resulting in] the improvement of the countryside for foxhunting … [with] large well fenced fields of permanent grass'. Hugo Meynell (1735–1808), hunting in Leicestershire, is generally recognized as the 'father of modern foxhunting' and Itzkovitz connected Meynell's improved hound breeding explicitly to the post-enclosure change in land use: 'The new speed of Meynell's hounds was perfectly suited to the large expanses of grass which made Leicestershire … the best hunting-ground in England'. By 1987 Williamson and Bellamy were attributing 'the rise of foxhunting' at least partly to the 'gradual spread of enclosure'.[1]

Twenty years later, Landry, Griffin and Finch have all explored various aspects of the 'hunting landscape' with the latter commenting that 'the emergence of modern foxhunting alongside the newly enclosed landscape of the shires was symbiotic'. Finch, however, has also sounded a

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[1] E. W. Bovill, *English country life* (1962), p. 200; J. Patten, 'Fox coverts for the squire', *Country Life*, 23 Sept. 1971, pp. 736–38; R. Longrigg, *The history of foxhunting* (1975), p. 89; R. Carr, *English fox hunting* (1976), p. 68; D. Itzkowitz, *Peculiar privilege – a social history of English foxhunting* (1977), p. 8; T. Williamson and L. Bellamy, *Property and landscape* (1987), p. 201.

note of caution, 'the chronological relationship between parliamentary enclosure and sporting development is less apparent than might be expected' having pointed out that Meynell's home parish of Quorndon wasn't enclosed until 1762–3, some ten years after he became Master and embarked on his hound-breeding programme.[2]

This article examines the truth of the orthodoxy that the development of modern foxhunting was somehow stimulated by eighteenth-century parliamentary enclosure in the East Midlands and the consequent spread of unified ownership and grassland. To investigate this, we shall explore how contemporary foxhunters experienced and used the landscape by comparing their personal hunting diaries – a much neglected resource – to the official records of landscape change: enclosure awards and maps.[3]

To understand the relationship between hunting and the landscape it is first necessary to look at the practice of hunting. The traditional style of hunting pursued by country squires is well described by the hunting historian Paget as involving an early start (when the foxes' bellies were still full from night time hunting), over undrained and unenclosed country with 'slow, heavy and unclipped horses' so 'a fast hound was not required'.[4] The squires hunted when the impulse took them and their hounds would hunt hare, fox or deer indiscriminately. Partida has recently re-discovered a map, dated 1684, of Thomas Ward's estate in Hardwick, Northamptonshire, showing five horsemen with a small pack of nine hounds hunting a fox over an enclosed landscape of large grass fields. The light framed, harrier-like hounds exemplify Paget's comment that 'the line between harriers [hare hounds] and fox hounds did not exist in the early eighteenth century or earlier'.[5] This scene illustrates the early, small-scale hunting style of local landowners and Partida adds the significant point that 'all the adjoining townships are still open at this date' so if the fox led Ward off his own land, he would be hunting over an open landscape.[6]

This pattern of foxhunting before the 1750s, taking place over a mixed landscape, is well illustrated by Figure 1, which shows some of the principal centres of early foxhunting with the enclosure dates of parishes in Leicestershire and Rutland. It is striking that Thomas Boothby's base at Tooley Park, just south-west of Leicester, was surrounded by early-enclosed parishes. Boothby started foxhunting in 1697 and was an uncle of Hugo Meynell.[7] By contrast the Rutland parishes fringing Cottesmore hunted by Sir Henry Lowther from 1666 to 1695 were mainly subject to much later parliamentary enclosure, including Cottesmore itself, which was not enclosed until 1800, so much of the hunting was over common fields.[8]

In a move towards more organized, larger-scale hunting, the Confederate Pack was formed in Leicestershire in 1728 by the third Duke of Rutland, the Earls of Cardigan and Gainsborough,

[2] D. Landry, *The invention of the countryside* (2001); E. Griffin, *Blood sport* (2007); J. Finch, 'Wider famed countries: historic landscape characterization in the Midland shires', *Landscapes*, 8 (2007), p. 55; id., 'What were the pastures of Leicester to me?' *International J. Cultural Property*, 14 (2007), p. 373; id., 'Grass, grass, grass: fox-hunting and the creation of the modern landscape' *Landscapes* 5 (2004), p. 45.

[3] The undoubted influence of tenure on the development of foxhunting is not explored in this short article.

[4] G. Paget, *The history of the Althorp and Pytchley Hunt, 1634–1920* (1937), p. 39.

[5] Ibid., p. 37.

[6] T. Partida, 'The early hunting landscapes of Northamptonshire', *Northamptonshire Past and Present*, 60 (2007), p. 56.

[7] Longrigg, *History of foxhunting*, p. 43.

[8] *Baily's Hunting Directory, 1992–3* (1992), p. 32.

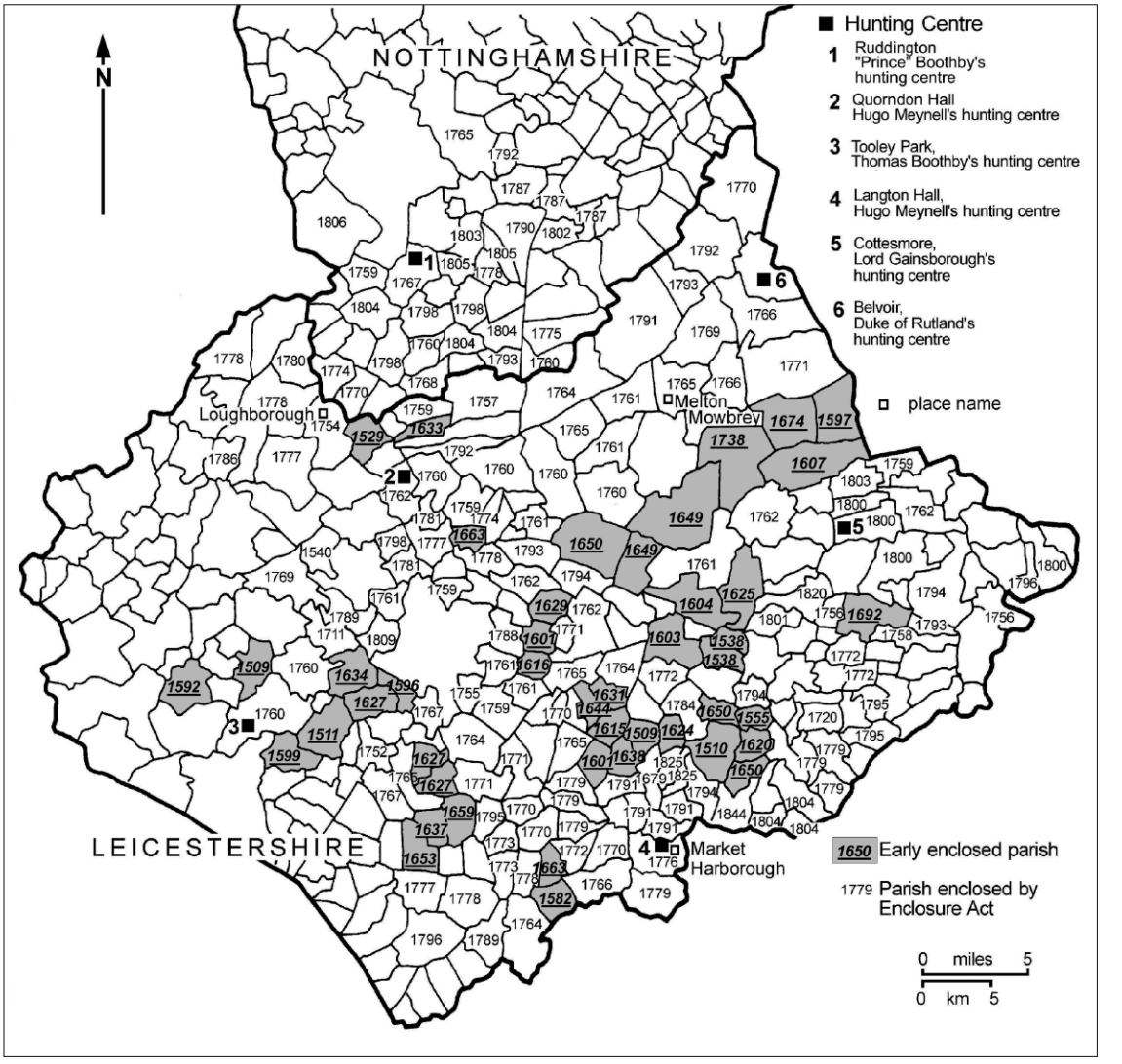


FIGURE 1. The principle centres of early foxhunting in Leicestershire and Rutland, with parish enclosure dates.

Sources: enclosure dates taken from W. E Tate and M. E. Turner, *A Domesday of English enclosure acts* (1978), pp. 153–8; hunting centres from R. Longrigg, *The history of foxhunting* (1975); R. Carr, *English fox hunting* (1976).

and Lords Gower and Howe. They hunted from Croxton (not enclosed until 1794) from mid-October, at Exton (enclosed in 1800) in December and January, and from Clawson (enclosed in 1791) until the end of March.[9] Much of their hunting was over common fields although this did not necessarily mean crossing arable or fallow land, because parts of the common fields were being converted to pasture leys, and beasts were either tethered there to fatten or supervised by herdsmen. Thirsk has emphasized the spread of grassland in the century up to 1760 in

[9] Longrigg, *History of foxhunting*, p. 62.

Leicestershire, particularly east of the River Soar (which runs north through Leicester), where poorly drained soils developed on the chalky boulder clays overlying Liassic clay.[10] Elsewhere, Thirsk gave Wigston Magna near Leicester as an example of the changes, since grass leys took up on average a fifth of the total area of the common fields in the seventeenth century and first half of the eighteenth.[11] The grassland, fallows, stubbles, headlands and network of footpaths over common fields provided good access, unimpeded by fences, for mounted foxhunters. Hounds, light on their feet and spread out hunting as a pack, could cross grassland, sown, harvested or fallow arable land, without causing significant damage.

I

A brief review of the history of enclosure provides a vital context for exploring the development of hunting in Leicestershire and neighbouring counties. Much of the area's soils are clay loams or loams over a clay subsoil with poor drainage.[12] The difficulties of cultivating these intractable soils encouraged their conversion from arable use to enclosed pasture. The move to livestock farming was accelerated in the clay vales after about 1650 by falling grain prices[13] contrasting with the increasingly profitable market for wool, hides, meat and dairy produce.[14] Wordie has estimated that around 17 per cent of Leicestershire, by area, was enclosed before 1599 with another 34 per cent by 1699; the remaining half lay mainly in open fields, with some woodland such as Charnwood Forest.[15] Hall has calculated the comparable figures for Northamptonshire in a slightly different way, by the number of townships enclosed – not by acreage. He noted that 16 per cent of townships were enclosed by 1599 with another 15 per cent by 1699. So two thirds of the county's townships remained unenclosed in 1700.[16] The overwhelming majority of sixteenth- and seventeenth-century enclosure was associated with the conversion of arable open fields to grass.[17] In these 'early enclosed' areas, some new closes were converted to permanent pasture, while in others a system of convertible husbandry was adopted.[18] This alternated arable and grazing use; stock fertilized the land and the farmer's income was derived from both grain and animal sales.

The subsequent history of enclosure in Leicestershire will be shown to have a marked effect on the location of Hugo Meynell's hunting activities. Although around half of Leicestershire's parishes were wholly or partially enclosed by 1700, only a further 7 per cent of the county area was enclosed in the next 60 years.[19] Meynell started hunting in 1753, during this lull, but his locale was soon caught up in a flurry of activity when, between 1760 and 1799, a further

[10] VCH, *Leicestershire*, II, p. 224.

[11] G. E. Mingay, 'The East Midlands: Northamptonshire, Leicestershire, Rutland …', in J. Thirsk (ed.), *The agrarian history of England and Wales*, V, *1640–1750* (2 vols, 1985), i, p. 95.

[12] B. Avery, D. Findley and D. Mackney, *Soil map of England and Wales*, 1:1,000,000 Ordnance Survey for Soil Survey of England and Wales (1975).

[13] J. Thirsk, *Agricultural regions and agrarian history in England, 1500–1750* (1987), p. 42.

[14] M. Reed, 'Enclosure in north Buckinghamshire, 1500–1750', *AgHR* 32 (1984), p. 38.

[15] J. R. Wordie, 'The chronology of English enclosure, 1500–1914', *EHR* 36 (1983), p. 498.

[16] D. Hall, 'Enclosure in Northamptonshire', *Northamptonshire Past and Present*, 9 (1998), p. 358.

[17] T. Williamson, *The transformation of rural England* (2002), p. 54.

[18] Thirsk, *Agricultural regions*, p. 41.

[19] Wordie, 'Chronology of English enclosure', p. 498.

TABLE 1. Parliamentary enclosure of open-field arable before 1793.

County	*Percentage of parliamentary enclosure enacted before 1793*	*Of which, open-field arable*
Leicestershire	78.1	78.0
Northamptonshire	61.9	61.7
Nottinghamshire	52.3	48.3
Rutland	42.4	42.4

Source: M. E. Turner, *English parliamentary enclosure: its history, geography and economic history* (1980), p. 72.

35.5 per cent of Leicestershire was enclosed, of which over three quarters had previously been in open fields.[20]

Table 1 shows that Leicestershire was significantly more affected by parliamentary enclosure of open fields during the eighteenth century than flanking counties. Turner has also shown that a sizeable area of the East Midlands still remained in open field agriculture up until a second surge of enclosure triggered by the Napoleonic wars. Between 1793 and 1815 a further 18.8 per cent of Rutland's open field acreage was enclosed, 12.3 per cent of Northamptonshire's, 11.3 per cent of Nottinghamshire's, and 5.5 per cent of Leicestershire's.[21]

When land was enclosed, it was not automatically seeded for permanent pasture. By the end of the eighteenth century Pitt estimated that in Leicestershire and Rutland there were 240,000 acres in 'temporary tillage' (as a result of convertible husbandry alternating arable and pastoral use) with a matching acreage of 'permanent grass' and a further 20,000 acres of 'wasteland' (out of a total land area of 608,000 acres).[22]

II

To examine the relationship between foxhunting and the landscape changes created by enclosure, we will look in more detail at the hunting career of a leading foxhunter and where he chose to hunt. Although there have been challenges by Middleton and Griffin,[23] it is still generally accepted that the modern style of foxhunting was first popularized in the East Midlands where, from 1753, Hugo Meynell was master of a Leicestershire pack of foxhounds. He introduced the idea of mid-morning meets so that foxes ran faster (having digested their night-time feed), which necessitated breeding a different style of hound – speedier and with more stamina. Although previous writers have attributed this change in the style of foxhunting in the mid-eighteenth century to the spread of enclosure, with a resultant expansion of grassland and hedges, Meynell himself was not an enthusiastic jumper. Ellis, historian of the Quorn Hunt,

[20] Ibid., p. 498.

[21] M. E. Turner, *English parliamentary enclosure: its history, geography and economic history* (1980), p. 187.

[22] W. Pitt, *A general view of the agriculture of Leicestershire and Rutland* (1813), pp. 5–6.

[23] I. Middleton, 'The origins of English fox hunting and the myth of Hugo Meynell and the Quorn', *Sports in History* 5 (2005), pp. 1–16; Griffin, *Blood sport*, p. 126.

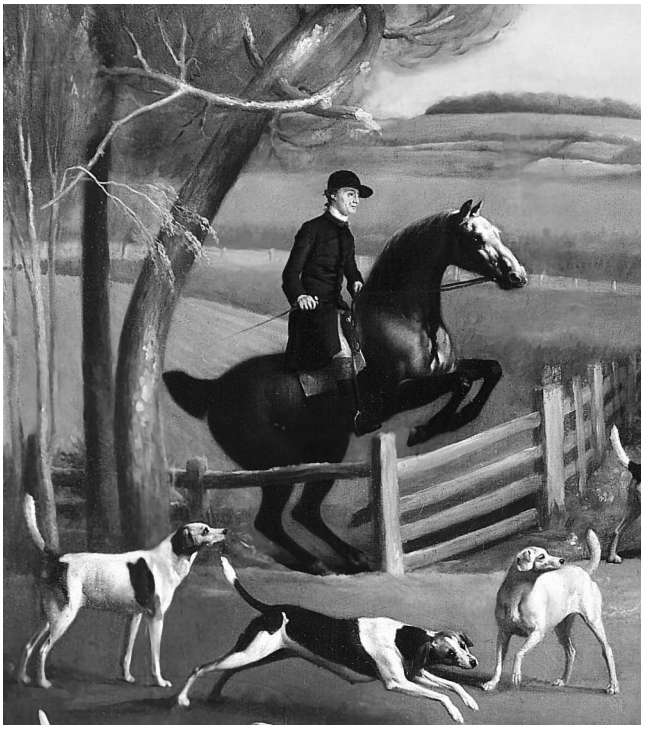


FIGURE 2. Detail from 'The 3rd Duke of Richmond with the Charlton Hunt', George Stubbs, 1759–60.

Source: Goodwood Collection.

recorded that his horses were encouraged to 'rear on their hind legs and jump gates and stiles standing in the most sober … way', but, as the detail from a Stubbs painting of 1760 illustrating hunting in Sussex (Figure 2) shows, this would have been both uncomfortable and potentially dangerous because of the lack of momentum.[24]

So it seems unlikely that Meynell would have deliberately sought out a fenced landscape to hunt over. A contemporary is quoted as saying that Meynell 'considered horses merely as vehicles to the hounds' while Ellis added that Meynell 'would have been quite content … to go on forever forging through the deep country and taking the fences, very occasionally, as they came'.[25] Peter Beckford, whose highly influential *Thoughts on hunting* was published in 1781, acknowledged a more general lack of enthusiasm for jumping: he advised other huntsmen to 'dismount at once, when you come to a leap that you do not chose to take'.[26]

Ellis believed that:

> Meynell's chosen country was essentially the long strip of rolling open land running the forty miles from Nottingham to Market Harborough, which he was the first to recognize as the finest in the world … near enough to the northern end of it was Quorndon Hall [Meynell's home] … Near enough to the southern end of it was Langton Hall, which he rented about 1762, living there – presumably for part of each season … and kennelling the hounds at Bowden Inn.[27]

[24] C. Ellis, *Leicestershire and the Quorn* (1951), p. 27.

[25] Ibid., p. 25.

[26] P. Beckford, *Thoughts on hunting* (1781, 1911 edn), p. 99.

[27] Ellis, *Leicestershire and the Quorn*, p. 11.

TABLE 2. Total number of landowners in the Soar Valley, 1781–1800.

Year	*Barrow-upon-Soar*	*Quorndon*	*Silesby*	*Mountsorrel*
Date of enclosure act	1760	1762	1759	1781
Acreage enclosed by act	2250	1480	2153	279
1781	109	95	87	150
1790	109	91	89	129
1800	107	90	122	129

Source: Leicestershire Record Office [hereafter LRO], Quorndon enclosure act (1762), DE113/4.

Meynell's choice of an optimum hunting landscape can be examined at three stages in his career as a Master of Fox Hounds (MFH). Initially, from 1753, Meynell hunted from Quorndon on the valley side of the Soar where he owned land and kennels. During his early hunting career, he honed his skills hunting over predominantly open land, and only resorting to woodland in spring and autumn. But, by 1760, enclosure was rapidly taking place in a swathe of parishes around Quorndon culminating in the enclosure act for the parish itself in 1762.[28] The consequent changes in land use from open common fields are clearly described by Pitt; he notes that at Queniborough, south-east of Quorndon, prior to enclosure 'the land had for the greater part been, time immemorial, in the three shift tillage, 1 wheat, 2 beans, 3 fallow … and was pretty much exhausted'.[29] By contrast 'Quorndon now first rate sheep land and carrying great crops of barley and green sheep food'.[30] The 1801 crop returns record Quorndon as having 124 acres under wheat, 214 under barley with 50 acres in oats and 92 acres in 'turnips or rape'.[31] The enclosure act of 1762 awarded 1,480 acres (out of a total parish acreage of 1990) so after almost 40 years around 32 per cent of the enclosed area remained under arable use, often in a convertible system.[32]

Joyce's study of the enclosure of four contiguous parishes, including Quorndon, is significant because the volume of landowners suggests a landscape around Quorndon divided into many fenced, privately-owned allotments even before any subdivision into smaller fields took place. Table 2 demonstrates that, despite a turnover of landowners in each parish of 15–20 per cent per decade, the number of landowners did not fall significantly between 1781 and 1800 (apart from Mountsorrel, where enclosure took place later), and that 'small ownership and owner occupancy remained significant throughout the period' in all four parishes.[33]

Enclosure acts required that boundary fences were planted round the initial allotments promptly; for example, the act for Quorndon, where Meynell is listed as an owner, stated that:

[28] The date of the enclosure act is used throughout this paper. The award is usually in the same or following year; the award for Quorndon was made in 1763.

[29] Pitt, *General view … Leicestershire and Rutland*, p. 71.

[30] Ibid., p. 76.

[31] M. E. Turner (ed.), *Home Office Acreage Returns (HO 67): List and Analysis* (List and Index Society, 190, 1982).

[32] W. E. Tate and M. E. Turner, *A domesday of English enclosure acts and awards* (1978).

[33] S. Joyce, 'Enclosure and landholding in the Soar Valley', *Trans. of the Leicestershire Archaeological and Historical. Soc.* 73 (1999), p. 42.

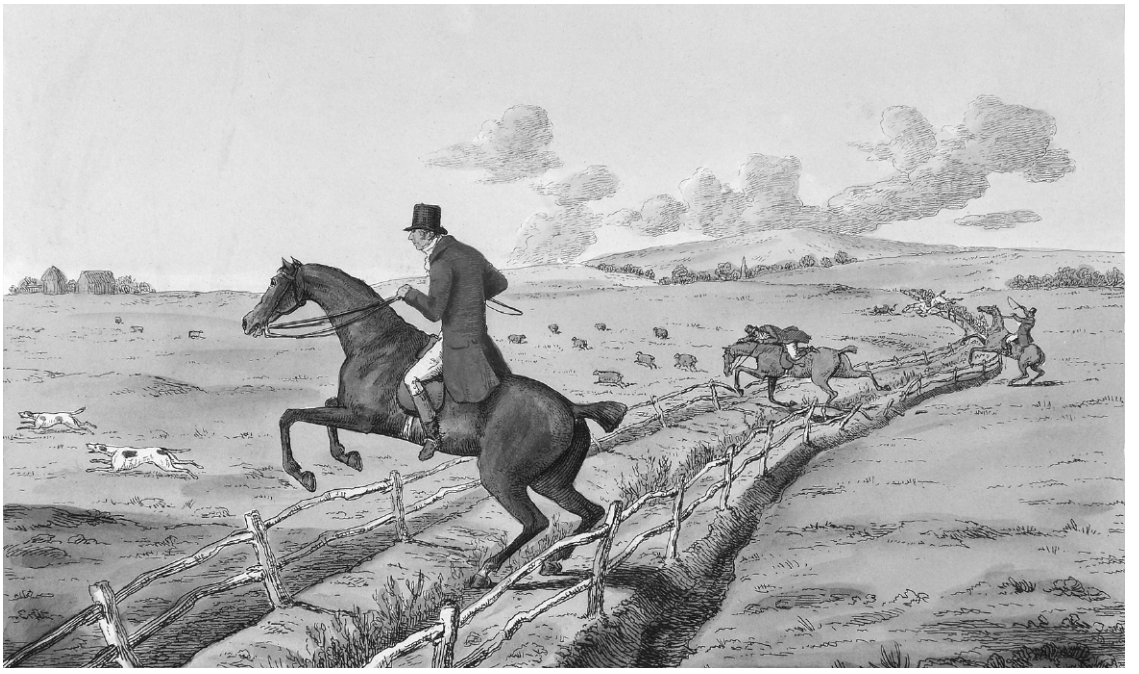


FIGURE 3. 'Going in and out clear' from a series on 'Indispensable accomplishments' by Sir Robert Frankland, 1811.

Source: Photo courtesy of James Harvey British Art.

> It is further enacted and declared that all the hedges, ditches and fences to be made for inclosure and dividing the said open and common fields, meadows and commons … shall within the space of eighteen months …[the owner must] set down and place posts and rails, back fence by throwing up earth or make any other fence outside the ditch.[34]

Figure 3, illustrating hunting in the second decade of the nineteenth century, some eleven years after Meynell retired as MFH, shows the challenges posed to foxhunters traversing newly enclosed grassland where nascent hedges were protected by double ditches and rails. If they wanted to continue to hunt in the area, Meynell and his followers were clearly going to have to either master jumping fences; or take the slow option of using field gates, once the 'convenient gaps and openings … for the passage of cattle, carts and carriages' left in the new fences had been closed after 'the space of twelve calendar months'; or hunt elsewhere.[35] The map of Wymeswold (Figure 4), a parish north-east of Quorndon showing the allotments replacing six open fields in the enclosure act of 1757, illustrates the subdivision of the countryside following enclosure. The heavy soils of the gently undulating plateau are typical of boulder clays overlying Lias clay; 2891 acres out of a total parish acreage of 3373 were enclosed; almost 50 years later the 1801 Crop Returns reveal that 23 per cent of the parish was still in arable use.[36]

[34] Leicestershire Record Office (hereafter LRO), Quorndon Enclosure Act (1762), DE113/4.

[35] LRO, DE113/4.

[36] Turner, *Home Office Acreage Returns*.

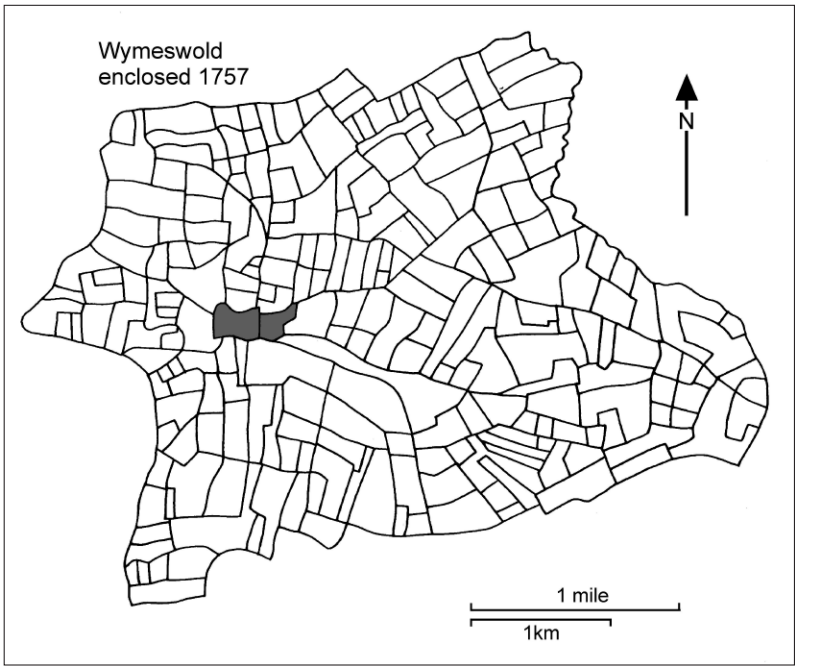


FIGURE 4. Allotment boundaries taken from the enclosure map of Wymeswold, 1757.

Source: LRO, Enclosure Map of Wymeswold (1757), EN/MA/366/1.

It is striking that, in the same year that the enclosure act for Quorndon was made (1762), Meynell rented Langton Hall on the heavy Lias clays just north of Market Harborough; the most likely reason, given his antipathy to jumping, is that it gave him excellent access to the Langtons and other adjacent unenclosed parishes to the north-east. Together the Langton parishes totalled 4409 acres, of which only around 690 acres 'was considered to be old inclosure, chiefly in West Langton' where in 1743 three open fields, Wheat field, Bean field, and Fallow field, each contained at least five closes totaling over half of the parish's enclosed land.[37]

Hoskins observed that organized foxhunting developed in the 1770s, in time for foxhunters to enjoy the exhilaration of galloping over miles of unfenced country; this echoes the assertion made four years earlier by Ellis that foxhunting tradition is quite definite that Meynell hunted mainly in unfenced country.[38] But even the Langton parishes were finally enclosed, in a flurry of activity after acts passed in 1791, and Figure 5 shows the problems faced by foxhunters who disliked jumping, such as Meynell, even before subdivision of the enclosure allotments took place (the figures on the map give the areas for selected allotments in acres, roods and perches).

As enclosure spread it became increasingly difficult for Meynell to find unenclosed countryside to hunt over. One of the last remaining unenclosed parishes between Meynell's two hunting centres of Quorndon and Langton Hall was South Croxton, north-east of Leicester. The details in the act of 1794 provide a clear picture of the segmentation of the countryside when a total of 893 acres, previously mainly in three open fields, Upper, Middle and Nether,[39] was divided between

[37] VCH, *Leicestershire*, V, pp. 193–213.

[38] W. G. Hoskins, *The making of the English landscape* (1978), p. 196; Ellis, *Leicestershire and the Quorn*, p. 211.

[39] Charnwood Borough Council Conservation and Landscape team, South Croxton Conservation Area appraisal (2005), p. 4

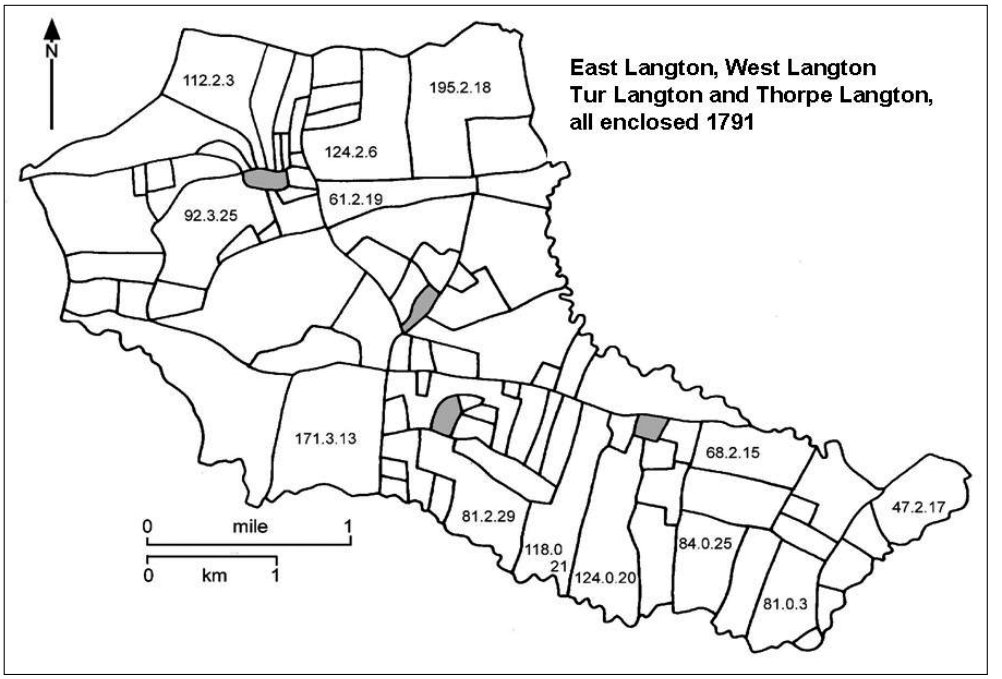


FIGURE 5. Allotment boundaries taken from the enclosure map of the Langtons, 1791.

Source: LRO Enclosure Map of Langtons (1791), EN/A/335/1.

37 owners. Table 3 shows the distribution of the 17 largest allotments, totalling over 680 acres, resulting in an average allotment size of just over 40 acres. This excludes the smaller allotments, which tended to cluster around the village and forced foxhunters crossing them to leap even more frequently. Seven years later, 36 per cent of the acreage enclosed in 1794 remained in arable use, including 52 acres of beans and 26 acres of 'turnips or rape', valuable cover for foxes.[40]

The third and last stage of Meynell's career is well illustrated by the laconic diary kept from 1791 to 1800 by Thomas Jones, his whipper-in (assistant), recording the location of each day's hunting.[41] Figure 6 shows all the meets in 1791 and clearly illustrates a marked drift northwards, away from Market Harborough and into a triangle bounded by Meynell's home at Quorndon Hall, close to Loughborough, Melton Mowbrey, and the hunting seat of his brother in law and great friend 'Prince' Boothby at Ruddington in South Nottinghamshire. The map demonstrates the comparative lateness of parliamentary enclosure in south Nottinghamshire, particularly parishes south of Boothby's hunting centre at Ruddington.

Table 4 shows how Meynell appears to have actively chosen to meet during 1791 in areas that were either still mainly unenclosed or close by. Meets in enclosed areas, such as Rempstone, tended to be either for cubbing in the autumn or at places easily accessible from Quorndon Hall.[42]

[40] Turner, *Home Office Acreage Returns*.

[41] T. Jones, *Diary of the Quorndon Hunt by Thomas Jones, whipper in to the late Hugo Meynell, Derby (1816)* (repr. 2009).

[42] Three meets were for 'cubbing', where the goal is to contain young foxes in a wood, not hunt them over the countryside, as a means of training young hounds.

TABLE 3. Allocation of land in South Croxton at enclosure, 1794.

Owner	*Acres*	*Roods*	*Perches*
Rector of South Croxton	12	3	10
	18	3	7
	62	0	19
John Kerchevell	41	2	2
Tithe	51	2	2
John Ayre	58	3	36
	48	1	3
John Peach Hungerford	57	1	33
	14	3	0
	28	2	22
	23	2	0
John Kerchevell	10	1	9
	86	1	5
	12	1	30
Trustees of William Pink	35	0	26
	43	3	30
William Pochin	76	2	16

Source: LRO, 'South Croxton enclosure act', MA/EN/A/24/1.

TABLE 4. Location of most popular meets for Hugo Meynell's hounds, 1791.

Place	*Location*	*Number of meets*	*Enclosure date*
Bunny	South Nottinghamshire	6	1798
Rempstone	North of Quorndon	6 (3 in October)	1768
Widmerpool	South Nottinghamshire	5	1804
Costock	Near Bunny, south Nottinghamshire (enclosed 1798)	4	1760
Walton-on-the-Wolds	East of Quorndon	3	1792
Billesdon	East of Leicester	3	1764
Syston	North-east of Leicester	3	1778
Cotes	North of Quorndon	3	1500–1700

Source: T. Jones, *Diary of the Quorndon Hunt by Thomas Jones, whipper in to the late Hugo Meynell, Derby (1816)* (repr. 2009).

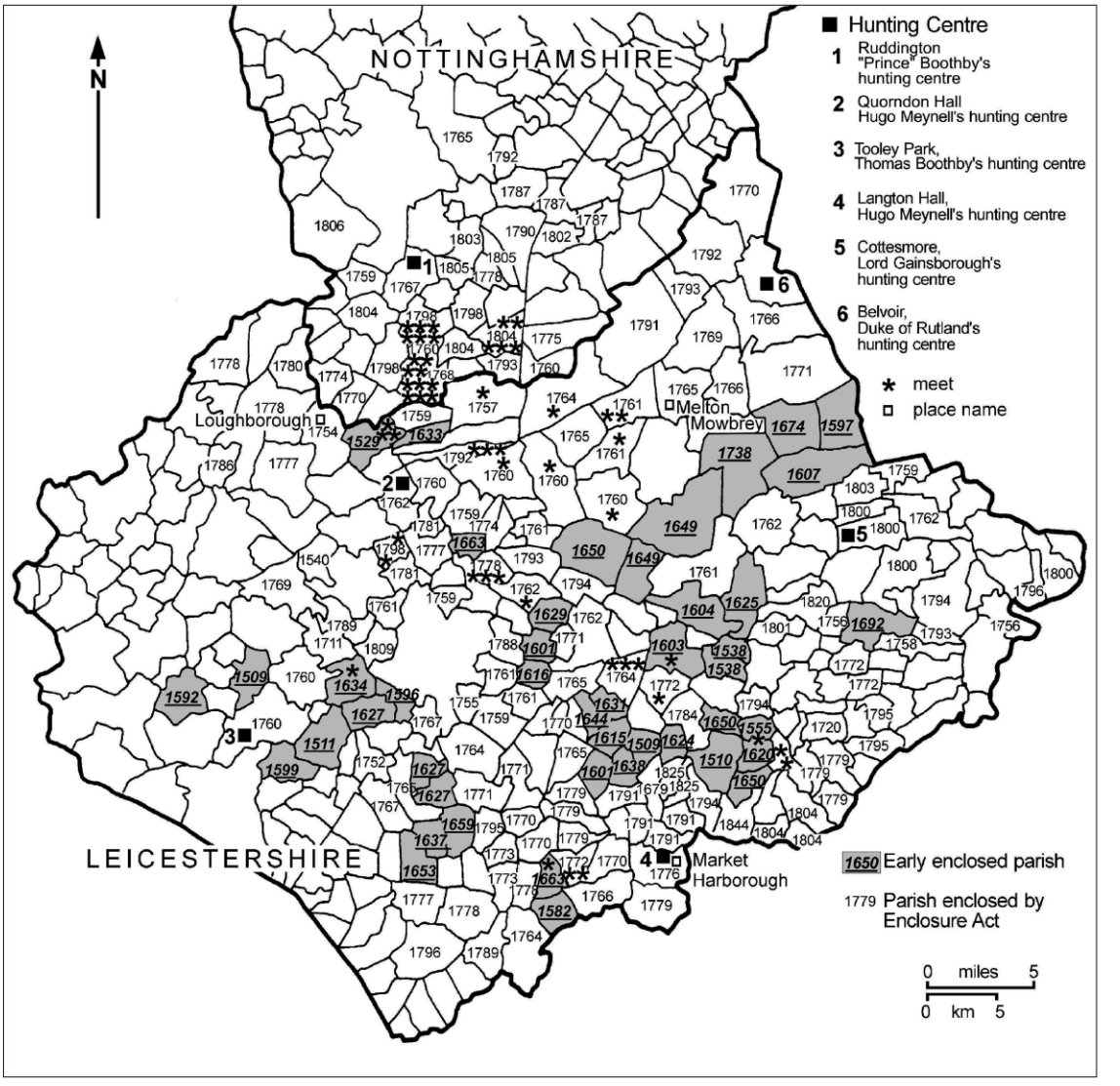


FIGURE 6. The location of Hugo Meynell's meets, 1791.

Sources: enclosure dates taken from Tate and Turner, *Domesday*, pp. 153–8; location of meets from T. Jones, *Diary of the Quorndon Hunt by Thomas Jones, whipper in to the late Hugo Meynell, Derby (1816)* (repr. 2009).

Ruddington, Bunny and Costock all lie in the area described in 1794 by Lowe as 'Trent Bank Land' where fertile loams developed on Keuper marl fringe the river valley. Root crops were important on the light land, and incidentally benefited hunting. Lowe noted that 'occupation is mixed of arable and grass … the arable is generally calculated for the turnip husbandry'.[43]

[43] R. Lowe, *A general view of the agriculture of the County of Nottingham* (1798), p. 28; T. Jones, *Diary*.

Thomas Jones's diaries usefully give a second clue that hunting took place away from enclosed grassland areas. He mentions a range of arable crops, both cereals and roots. For example on 20 January 1794 he recorded that Meynell's hounds 'met at Budden Wood, found by the wood on some wheat' while on 16 January 1799 at 'Rempston – found a fox in stubble'.[44] Foxhounds, unlike horses, are able to cross arable crops in the early stages of growth without damage while, as already described, mounted followers would skirt the headlands or follow the network of footpaths or lanes. Although farmers were slow to adopt root crops in Midland common fields on heavy soils because of the problems with harvesting, they were grown in limited quantities on more permeable soils from the start of the eighteenth century. Steane noted the use of turnips as early as 1731 at Deene in north-east Northamptonshire; while towards the end of the century Pitt described how in Leicestershire turnips and coleseed were grown for winter feed, for sheep that were penned on the root crops with hurdles.[45] In 1796, on 3 October, Jones notes in his diary 'hit off a fox in J Harrison's turnips' and, on 24 October, 'met at Prestwold … found in some turnips near the Turnpike road'. By October 1798 he was recording 'found another fox in some coleseed'.

Although grassland has traditionally been seen as the pre-eminent hunting terrain, arable areas provided considerable advantages for foxhunting in winter if stubbles, often easily crossed on horseback, were left until spring cultivations. Pitt, writing about Leicestershire and Rutland regretted, that although 'bean stubble should be ploughed before winter for the benefit of the amelioration of frost … [it] is, I believe, seldom done'.[46] Land remaining fallow, pea and bean haulm, rape, coleseed and root crops all provided both cover and small rodents as prey for foxes during the hunting season. This was particularly important in lightly wooded areas such as much of Leicestershire.

By contrast to the ease with which open fields and their network of paths, baulks and headlands could be crossed, eighteenth-century grassland provided considerable challenges to mounted hunt followers. Monk noted that on the heavier land, such as that around Melton Mowbrey, 'these lands are very wet in winter and the turf so tender as scarcely to be able to bear the treading of sheep at that season without injury'.[47] Artificial drainage was rare: Pitt did not note the advent of 'tiles for hollow drainage' in Leicestershire until 1813 and the Soil Survey observed that much of this (early tile) drainage dated from the early and mid-nineteenth century.[48] Where grassland had been enclosed from arable use, ridge and furrow often remained; on the more impermeable clays the furrows could be 'from one to three feet deep in the hollows', often waterlogged in winter and full of rushes.[49] Paget commented almost 150 years later that it still 'takes a [hunting] season to teach a horse to gallop smoothly over them; until he has learnt one feels as if one is riding a lame camel'.[50] Pitt observed that this dangerous unevenness was exacerbated where 'a number of the pastures are shamefully over-run with anthills, and to so very great a degree, that in many of them the surface of one third of the land is nearly thus

[44] Jones, *Diary*.

[45] J. Steane, *Northamptonshire landscape* (1974), p. 229; Pitt, *General view … Leicestershire and Rutland*, p. 128.

[46] Ibid., p. 79.

[47] J. Monk, *A general view of the agriculture of the County of Leicestershire* (1794).

[48] Pitt, *General view … Leicestershire and Rutland*, p. 182; A. Thomasson, *Soils of the Melton Mowbray District*, Sheet 142 (1971), p. 78.

[49] Pitt, *General view … Leicestershire and Rutland*, p. 89.

[50] G. Paget and L. Irvine, *Leicestershire* (1950), p. 208.

covered'.[51] As Broad commented, the anthills were very large and 'grass tended not to grow on such uneven lumps'.[52] This all suggests that the popular image of eighteenth-century hunt followers fluently galloping over level pastures is highly idealized.

Earlier discussion of a small sample of 1801 crop returns for individual parishes has also emphasized that between 20 and 35 per cent of the enclosed acreage remained in arable use at any time. Finch suggests a lower figure based on a bigger sample:

> documentary records of cropping rotations before enclosure suggest that between 75 per cent and 89 per cent of the acreage was arable in the open field districts of Leicestershire prior to enclosure whereas the 1801 Crop Returns show that after the first wave of enclosure acts only about one-sixth was still in arable cultivation.[53]

By 1809 Pitt, using the slightly different base of total county area, estimated that in Leicestershire and Rutland there were 240,000 acres in 'temporary tillage' (39 per cent) out of a total county acreage of around 608,000.[54] Whichever estimate is most accurate, all undermine the traditional image of foxhounds streaming over uninterrupted Leicestershire grassland.

A second hunting diary, which overlapped the middle period of Meynell's hunting career, adds support to the theory that many foxhunters actively sought out the unenclosed landscape. Tom Noel, huntsman of the Cottesmore in the south-east of Leicestershire (or Rutland) kept a hunting diary from 1766 to 1773 described as containing 'nothing of a personal or descriptive nature – not even a hound is referred to by name – and read consecutively his entries are extremely monotonous'.[55] Nevertheless, when the locations of the meets are linked to information on enclosure dates it gives a good picture of the landscape experienced by contemporary foxhunters. Figure 1, showing the enclosure act dates of Leicestershire parishes, illustrates how the home of the Cottesmore was bracketed by parishes which remained unenclosed until 1800, and the diary suggests that these were hunted regularly. Unenclosed heaths, woodland, open fields and root crops were a vital part of the hunting system and references to all appear regularly. Tom Noel's diary has numerous records of drawing (looking for a fox) in 'turnops'. On Wednesday 16 December 1767 and Thursday 29 December 1768 he recorded 'found at Tea Turnops' (Teigh is north of Oakham) although in November 1769 he had less luck: 'Tried Garlick Hill … all the turnops & did not find'.[56] After an interval of seven years the diary was recommenced in another, anonymous hand, also expressing enthusiasm for the unenclosed landscape. The author wrote on 28 December 1780:

> Found in Empingham Wood. The hounds part for Empingham Heath [enclosed 1794] to Ketton [1768], to Forester's Bridge. Lost at Luffenham Goss [1878] … Lost again in Empingham field, found again upon the Heath.[57]

As late as 1813, North and South Luffenham (totalling 3,434 acres) were recorded respectively as

[51] Pitt, *General view*, p. 59.

[52] J. Broad, 'Alternative husbandry and permanent pasture in the Midlands, 1650–1800', *AgHR* 28 (1980), p. 87.

[53] Finch, 'Pastures of Leicester', p. 368.

[54] Pitt, *General view … Leicestershire and Rutland*, pp. 5–6.

[55] C. Simpson, *Leicestershire and its hunts: the Quorn, the Cottesmore and the Belvoir* (1922), p. 157.

[56] Ibid., pp. 157–9.

[57] Ibid., p. 162. The parish enclosure act dates are taken from Tate and Turners' *Domesday*, pp. 221–2.

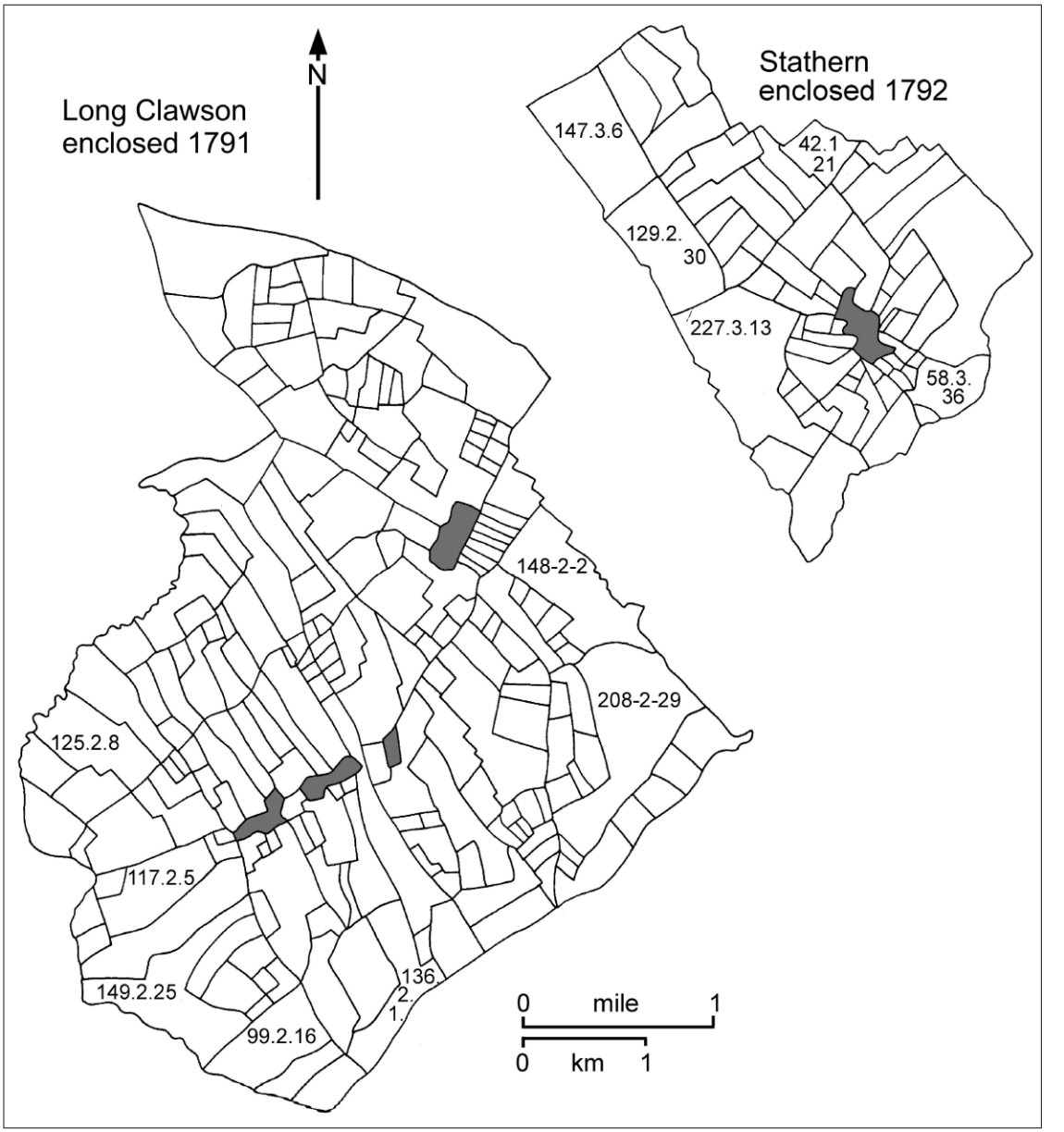


FIGURE 7. Allotment boundaries taken from the enclosure maps of Long Clawson and Stathern.

Key: Field sizes are given in acres, roods and perches.
Sources: LRO, Enclosure Map of Long Clawson, EN/A/205/1 (1791); Enclosure Map of Stathern, QS47/2/17 (1792).

being in 'open fields except a few old enclosures' and 'small enclosures and open fields', while Witwell, to the north, was 'principally open fields'; so a significant area of south east Rutland, a key part of the Cottesmore hunt country, remained at least partially open.[58]

Unfortunately, we know of no diary of the eighteenth-century hunting activities of Leicestershire's third major pack, the Duke of Rutland's, which hunted from Belvoir in the north-east of the county. However there is a good selection of enclosure records and maps in the Leicestershire Record Office which show that, although some parishes near the hunt kennels were enclosed in the 1760s and 1770s, the majority in the Vale of Belvoir were not enclosed until the 1790s, as shown on Figure 1. Pitt noted in 1809 that the Duke of Rutland had enclosed 10,614 acres in three years and commented on the 'topsy-turvy' change in land use after enclosure:[59] the heavier soils of the clay Vale – which had previously lain in open fields under a three-shift system of fallow, wheat and beans – were converted to pasture; meanwhile the easier-to-work, lighter land on the scarp and Wolds – which had been sheep walk and heath – was enclosed and cultivated for arable use. Before enclosure, the Belvoir had been able to hunt over an open landscape with particularly good access over heath, sheep-walk and common fields under fallow or bean or wheat stubble. Figure 7, showing allotment boundaries copied from the enclosure maps of Long Clawson (1791) and Stathern (1792), illustrates the impact of 1790s enclosure in the Vale on foxhunters since, as elsewhere, 'if the fences are well managed they soon grow up and in seven years every appearance of the common field is obliterated'.[60] So foxhunters lost easy access via the web of paths and baulks and were forced to detour or jump hedges or gates. Despite the enthusiastic grassing down of the Vale, by 1801, 518 out of the 3,412 acres (15 per cent) enclosed in Long Clawson remained in arable use.[61]

III

The hunting careers of other prominent eighteenth-century foxhunters in neighbouring Northamptonshire suggest that the landscape preferences of Leicestershire foxhunters were more widely shared. Although both counties demonstrated common 'champion' landscape characteristics with little woodland, Northamptonshire retained remnants of Rockingham, Salcey and Whittlewood forests. Both counties lie mainly within the Midland Plain whose 'early modern' agricultural system was summarized by Thirsk as 'arable vale lands'.[62] The bulk of Northamptonshire's soils are heavy clays developed on glacial boulder clays overlying Lias clay but in the north-east Oolitic limestone produces lighter soils in a landscape characterized by Thirsk as 'wolds and downland'. Figure 8 shows enclosure act dates in Northamptonshire, based on information provided by Hall, with the addition of the hunting centres of three grandees: Lords Spencer and Fitzwilliam, and the Duke of Grafton.[63]

Figure 8 reveals a mingling of parishes that were enclosed comparatively early and parishes dealt with by parliamentary enclosure acts in the eighteenth century. Pitt writing in 1797 noted

[58] R. Parkinson, *Survey of the County of Rutland* (1813), pp. 5–6.

[59] Pitt, *General view … Leicestershire and Rutland*, p. 14.

[60] Ibid., p. 68.

[61] Turner, *Home Office Acreage Returns*.

[62] Thirsk, *Agricultural regions*.

[63] Hall, 'Enclosure in Northamptonshire'.

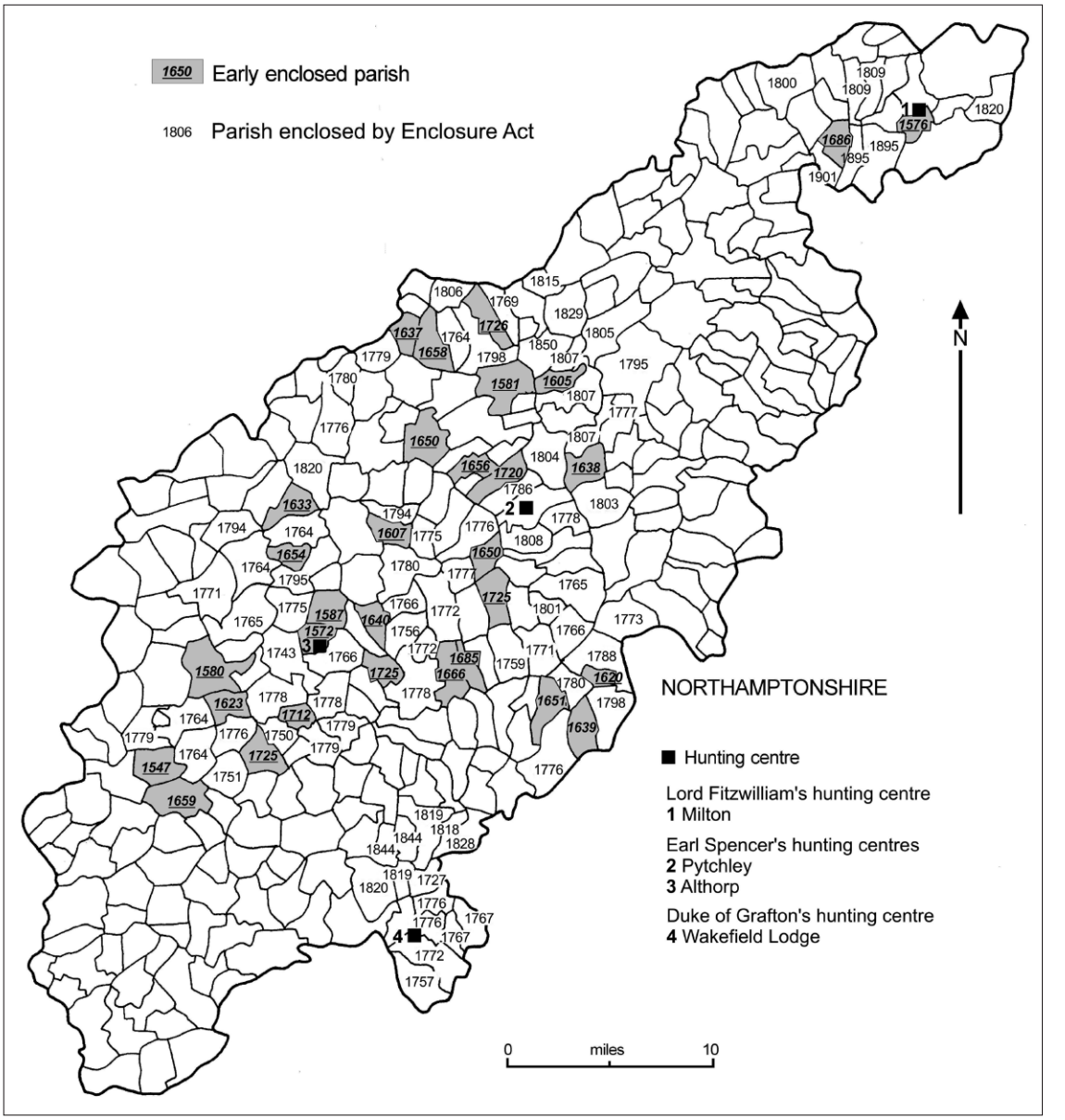


FIGURE 8. Distribution of early foxhunting centres in Northamptonshire, with parish enclosure dates.

Sources: enclosure dates taken from Hall, *Enclosure in Northamptonshire*; hunting centres from Longrigg, *History of foxhunting*; Carr, *English fox hunting*.

that 'a considerable proportion of this county remains unenclosed' and guessed that a quarter of the county remained open, with the bulk of unenclosed land in common fields, and small enclosures generally near villages.[64] Turning first to the Spencer's two main hunting centres: Althorp and neighbouring Holdenby had already been enclosed in the sixteenth century (due to unity of ownership by the Spencers) and the enclosure of Pytchley was also well advanced by 1662.[65] Wooton's enormous hunting murals, commissioned in 1733, show vivid evidence that the Spencers had a pack of foxhounds at Althorp by that date. In 1765 Lord Spencer bought forty couple of hounds from Mr Darley of Yorkshire and sent them to kennels adjacent to Pytchley. Paget describes the seasonal movement of the Spencer's pack: the hounds started the season in the Autumn 'cubbing' around Pytchley, returned to Althorp in the beginning of November and remained there until the New Year, when they went back to Pytchley.[66] Spencer shifted north to Rockingham Forest for spring hunting away from ewes in lamb and spring crops, echoing Meynell's use of Charnwood Forest.[67]

Again a hunting diary provides clear evidence of contemporary attitudes to the landscape. While hounds were at Althorp, a 'Chace' book was kept from 1773 until 1793 which gives a useful insight into the countryside Spencer's pack hunted over. (Enclosure dates from Hall's work have been added.[68]) For example, in October 1773, 'hounds met at Bugbrooke [enclosed in 1779] … the fox took a circle round the hill and over the open field …[and after a long hunt] kill'd in a turnip field'. Tellingly, the day is summarized as 'a very pleasing chase having a great display of steady running and excellent hunting but the very strong inclosure at the first setting off prevented parts of the company from viewing the whole of it.[69] The 'very strong inclosure' had obviously thwarted many of the mounted followers. By contrast in December of the same year, 1773, the pack was hunting over Harpole field (1778), Kislingbury field (1780), Thorpe field and Heavencot field before crossing into Whittlebury forest during a hunt that lasted three and a half hours, 'a remarkable pleasant chase, being over fine ground with few difficulties'. In January 1775 hounds ran over Clipston field (1776), Marston field and Gumley field (1773) whose recent enclosure forced followers into unaccustomed jumping so 'Mr Sparks had two falls in the chase at leaps … Mr Payne likewise had a fall at a leap and his horse struck him on the cheek'.[70] Clearly the Spencers valued an open landscape with 'few difficulties' and followers were frustrated by fences which often led to falls or, at best, delays in following the pack.

The challenges faced by foxhunters after enclosure are well illustrated by part of the enclosure map for Kislingbury, four miles from Althorp, mentioned in the preceding 1773 hunt account (Figure 9). Individual allotments flanking the road range from five acres to nineteen acres apart from the ninety acres allocated for tithe. Any subsequent subdivision of the allotments would further increase the 'difficulties'. The Kislingbury enclosure award of 1780 covered 1741 acres, mainly in open fields, out of a parish total of 2170. By 1801, 630 acres were still under crops: 29 per cent of the total parish area.

[64] Pitt, *General view … Leicestershire and Rutland*, p. 56.
[65] Steane, *Northamptonshire landscape*, p. 228.
[66] Paget, *Althorp and Pytchley*, p. 43.
[67] VCH, *Northamptonshire*, II, p. 356.
[68] Hall, 'Enclosure in Northamptonshire'.
[69] Paget, *Althorp and Pytchley*, p. 47.
[70] Ibid., p. 50.

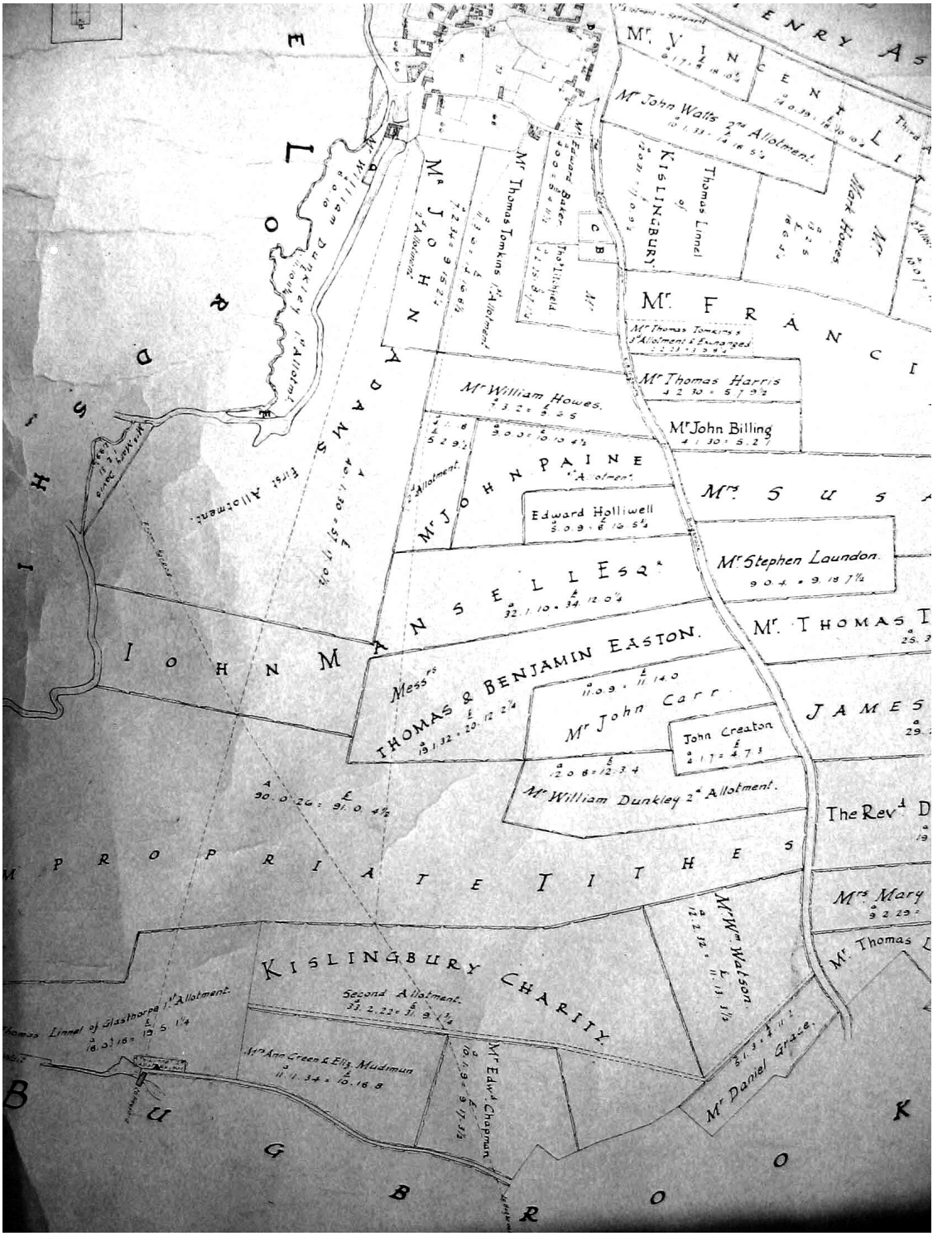


FIGURE 9. Part of enclosure map of Kislingbury, 1780, scale 6 inches to 1 mile.

Source: NRO, Inclosure Plan 51, reproduced by permission of Northamptonshire Record Office.

The new hedges would soon pose a challenge to foxhunters; as Arthur Young observed, 'bullocks destroy everything with their horns that is not very strong', suggesting that hedges, which were often known as 'bullfinches', and were designed to contain cattle (many destined for the Northampton leather and shoe industries), would be particularly robust.[71]

Further confirmation of prominent foxhunters' attitudes to hunting in an open landscape is provided by examining the Fitzwilliam's activities in the north-east of Northamptonshire. Milton, since 1502 the home of the Fitzwilliam family and its eponymous pack, is not fringed by any parishes enclosed during the great eighteenth-century rush. Milton itself was enclosed by 1576 but many contiguous parishes such as Helpston, home of John Clare, were not enclosed until the Napoleonic Wars. Strikingly, three parishes south-west of Milton were not enclosed until 1895 (Castor and Ailsworth) and 1901 (Sutton). Much of the area under the Fitzwilliams' immediate control was left in open fields or sheep-walks – preferable for hunting – until irresistible economic pressures triggered enclosure. Once again a hunting diary, when combined with enclosure information, sheds light on foxhunters' experience of the landscape. For example, in November 1789, Lord Fitzwilliam's diary described hunting over both enclosed and unenclosed landscape just east of Oundle, fourteen miles from Milton:[72]

> Threw off at Ashton Wold [1807], found many foxes … went off at Polbrook corner [1790] to Kingsthorp Coppice [1766] … then bore back downwind into the Hemmington inclosures [1657] … then crossed the inclosures and past the patch of furze in the open field, and then again into Ashton Wold … killed in five minutes.[73]

Fitzwilliam had chosen to meet in an unenclosed parish [Ashton], which was well stocked with foxes, but was eventually led by the hunted fox into enclosed areas.

The third great landowner's pack in Northamptonshire provides the most clear-cut evidence of active choice over where to hunt. The third Duke of Grafton was an ardent foxhunter and provides unambiguous evidence about landscape preferences because he had one pack of hounds but two homes with kennels in widely contrasting landscapes. His decisions are explicit because from 1786 until 1791 he kept a detailed hunting diary. Grafton owned a 15,000 acre estate in Northamptonshire, based at Wakefield Lodge on the eastern edge of Whittlewood Forest (Figure 10).[74]

At first glance, Tate and Turner's work suggests that most of the parishes running in an arc south, west and north of Grafton's base were only enclosed by act after 1810 although Wicken in the south was enclosed in 1757 and a cluster of four to the east were enclosed from 1767 to 1776.[75] However, closer reading of the enclosure history of the apparently 'late enclosed' parishes suggests a more nuanced picture which is described in Table 5. Although some of the Duke of Grafton's estate and surrounding land in Northamptonshire remained in open fields until the nineteenth century, much had already been enclosed by agreement; some as early as 1726 in Stoke Bruerne, and 1727 at Grafton Regis.[76]

[71] Steane, *Northamptonshire landscape*, p. 233.

[72] Again, the parish enclosure dates, from Hall, 'Enclosure in Northamptonshire', pp. 359–67, have been added.

[73] VCH, *Northamptonshire*, II, p. 373.

[74] VCH, *Northamptonshire*, V, p. 28.

[75] Tate and Turner, *Domesday*.

[76] VCH, *Northamptonshire*, V.

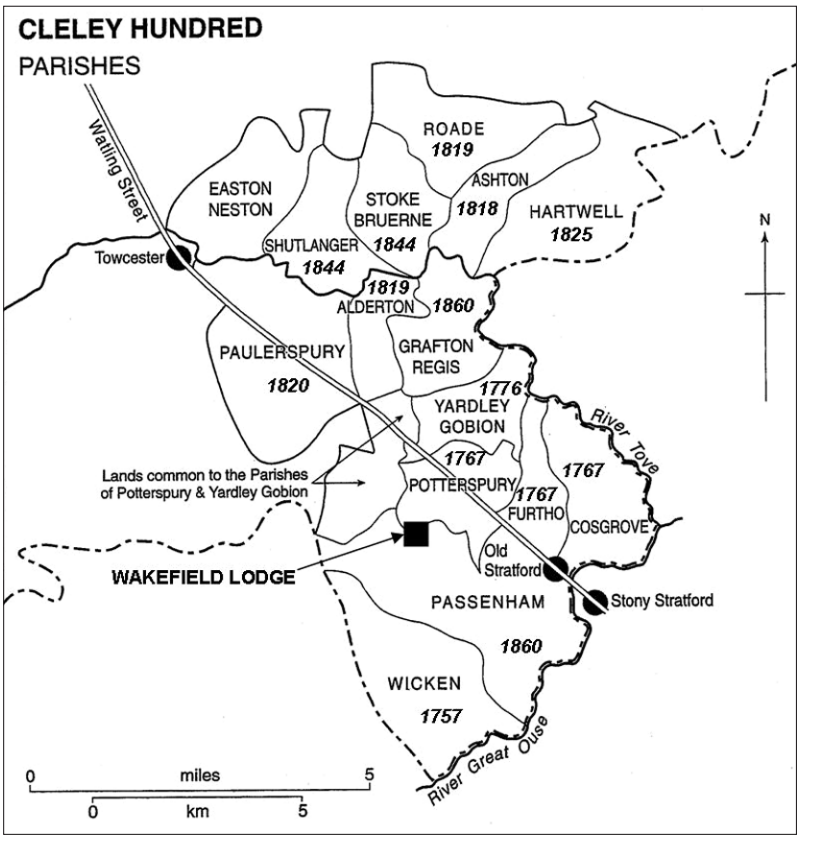


FIGURE 10. Enclosure dates for parishes around Wakefield Lodge.

Source: base map taken from VCH, *Northamptonshire*, V, p. 5; enclosure dates from Tate and Turner, *Domesday* (1978).

By contrast, his home at Euston in Suffolk was on the eastern fringe of the sandy Breckland, where the vast majority of enclosures of open field and sheep walk by parliamentary act did not take place until after 1790 when the Napoleonic Wars pushed up agricultural prices, justifying the cost.[77] Figure 11 shows Euston surrounded by late enclosed parishes; enclosure acts were unnecessary because Grafton gradually acquired and engrossed vast swathes of land.[78] Much of his Suffolk hunt country remained open until 1803 (Grafton was by then 68 and presumably less preoccupied with hunting) when Arthur Young noted that 'the Duke has made very considerable exertions in breaking up sheep-walks in Euston, Fakenham, Bardwell, Sapiston etc'.[79] It is noticeable that this horseshoe of engrossed parishes around Euston is flanked by parishes where enclosure acts referred to open fields.

So the third Duke had a choice: hunt in the mainly enclosed parishes immediately surrounding his home in Northamptonshire or in the unenclosed open fields, heaths and sheep walks around Euston Hall in north-west Suffolk. Analysis of the Duke's hunting diary for the season 1786–7 gives a very clear verdict: although from 11 September 1786 the Duke

[77] D. Dymond and E. Martin (eds), *An historical atlas of Suffolk* (1999), p. 104; M. Turner, *English parliamentary enclosure. Its history, geography and economic history* (1980), p. 49.

[78] Dymond and Martin (eds), *Historical atlas*, p. 105.

[79] A. Young, *A general view of the agriculture of Suffolk* (sec. edn, 1813), p. 169.

TABLE 5. Enclosure information for parishes flanking Wakefield Lodge.

Parish	*Total acreage*	*Date of enclosure act*	*Notes*
Paulerspury	2961	1819–21	In 1728, the bulk of the estate was divided into 15 farms; 2085 acres were enclosed 1819–21.
Ashton and Roade	2890	1818–19	Some common land in the north-west were enclosed by agreement 1727–68. In Roade, enclosure in 1819 dealt with 1035 acres of open field and 534 acres of old enclosures.
Hartwell	1850	1825	Divided into a number of small farms in the early eighteenth century. 1825 enclosure dealt with remaining 587 acres of open field.
Stoke Bruerne	2569	1844	A 1726 survey showed that the Duke of Grafton owned 835 acres of enclosed land and 720 acres of common field.
Passenham	3250	1860	1772 act for enclosure of 1100 acres. In 1850 Whittlewood was disafforested. 1860 enclosure act for the remaining area.
Grafton Regis	1510	1860	In the early sixteenth century, a large area, *c.*600 acres, north of the village was enclosed as permanent pasture. In 1727 remaining common field arable and pasture was enclosed by agreement. In 1850 Whittlewood was disafforested 1860 enclosure act for the remaining area.

Source: VCH, *Northamptonshire*, V.

hunted in Northamptonshire, 'entering' (training) young hounds, he brought his hounds to Euston on 23 November for the main part of the season, and remained there until 19 February 1787.[80] The remaining diaries, up until 1791, show that he kept up a similar pattern of movement, favouring open country for the majority of the season but using the forests of Whittlewood and Salcey for 'cubbing' to train young hounds in the autumn and for spring hunting away from ewes in lamb, cows in calf, and spring crops. In contrast to west Suffolk's open landscape, Arthur Young writing of Northamptonshire in 1791 noted that 'the Duke of Grafton's considerable farm here is fenced in the utmost perfection. All done with whitethorn hedges, so admirably preserved by posts with double and even treble rails'.[81] Clearly these fences posed considerable barriers and help explain why Grafton only used Northamptonshire for woodland hunting at either end of the season. Figure 11 illustrates the distribution of the Duke's meets in Suffolk.

Significantly only one meet, at Walsham le Willows, took place in a parish where the parliamentary enclosure act did not include an open field. All the remainder are in parishes enclosed privately after 1800, as at Euston, or by an act which mentioned open fields. It is also noticeable that the only meet at Hinderclay, on the heavier boulder clay to the east where riding conditions

[80] Suffolk Records Office, Bury St Edmunds (hereafter SRO), Duke of Grafton, HA 513/10/1.

[81] A. Young, *Tours in England and Wales 1791* (sec. edn, 1932), p. 218.

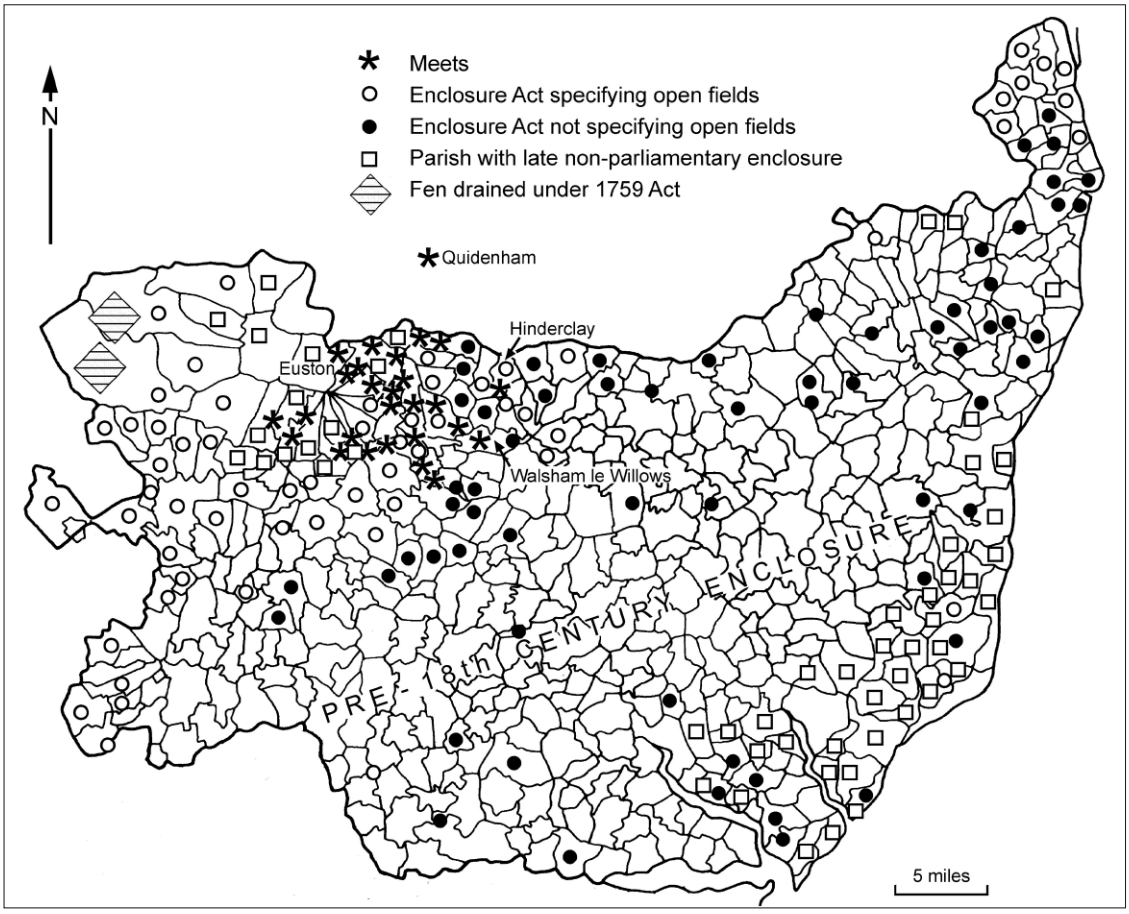


FIGURE 11. The Duke of Grafton's meets for the season 1786–7 and enclosure acts in Suffolk.

Sources: map and enclosure information taken from D. Dymond and E. Martin (eds), *An historical atlas of Suffolk* (1999), p. 105; location of meets for 1786–7 from SRO, Duke of Grafton, HA 513/10/1.

were poorest, took place on 1 December 1786 when the Duke was absent: 'While I was gone to London Jacket [his huntsman] took the hounds to Hinderclay Wood'.

The reason why early foxhunting started predominantly in the 'Champion' rather than the anciently enclosed landscape is well illustrated by examining the Duke of Grafton's preferences in Suffolk. Reyce, writing in 1616, described the pre-enclosure clay land wood pasture of central Suffolk, shown in Figure 11 flanking the Euston estate to the east, as 'deep miry soil … manifold enclosures, severed with so many deep ditches, hedges and store of wood, bushes and trees'.[82] The Duke's attitude to hunting this type of enclosed country is made very clear in his hunting diaries for Euston (there are no known Wakefield Lodge records). On 24 January 1787 he described 'the most shocking country that was ever rode over … fagged from the badness of the country and the perpetual leaps'. In December 1787 he described a fox running into 'a sad

[82] R. Reyce, *The breviary of Suffolk*, 1618, ed. F. Hervey (sec. edn, 1902).

enclosed country' and a month later another fox took him east into a 'country with which I was not well acquainted' … 'a horrid inclosed country through Wyverstone … Gislingham … Mellis … Eye', with the result that 'the [hunt] servants and many of the company took a hundred great leaps in this day's work' and his 'gray mare who carried me admirably well had got a bad gash on her knee by some stub at a leap early in the day'.[83]

By contrast the Duke hunted enthusiastically over open country such as 'Barnham heath and field' (29 November 1786), 'some vast fallows' (11 January 1787), 'on a rye stubble' (13 January 1787), 'over the great commons and fields' (8 February 1787) and 'turnips' (9 January 1790). Another major advantage of the Breckland sheep walks and heaths, described by Arthur Young as 'covered with ling, furze and broom' were the large populations of rabbits, and consequently their predators, foxes.[84] In the 1786–7 hunting season the Duke often recorded 'four or five' foxes in one place, rising to 'a group', 'six' and even 'as full of them [foxes] as a warren'.

IV

What is the explanation for the preference of many eighteenth-century hunting pioneers for open fields? Examination of diaries and enclosure maps suggest two main reasons. The first is that movement on horseback was easier and safer. At a parish level, access was often relatively simple because a network of tracks and paths crossed the open fields, one third of the system lay in fallow, and another third was probably under stubble for at least part of the hunting season. Within the open fields, grass 'baulks' (narrow strips allowed to grass over and used as common rights of way) provided a network of routes with good 'going' (ground conditions) for horses.[85] The density of baulks could be significant; for example, there were furlongs with a narrow baulk between every strip at Helmdon and Naseby in Northamptonshire.[86] Similarly the extensive areas of pasture for tethered or herded stock developed on the fringes of open field systems were easy to cross on horseback. As Finch noted, 'Meynell's dream of "a fast run" may, in fact have been developed in the "cow pastures" of former open-fields which were grassed over prior to formal enclosure in the early nineteenth century'.[87] The length – up to 20 miles – of foxhunts, however, means it is unlikely that they were confined to pastures; they must also have covered arable land and fallow in the open fields.

A second powerful advantage of an open landscape was the good visibility, summed up by John Clare writing in the Fitzwilliam Hunt country of north-east Northamptonshire:

> Unbounded freedom ruled the wandering scene
> Nor fence of ownership crept in between
> To hide the prospect of the following eye.[88]

The open landscape enhanced foxhunters' enjoyment and provided a clear view of which hounds were hunting best for the 'following eye'. Paget, writing about Northamptonshire,

[83] SRO, HA 513/10/1.
[84] Young, *General view … Suffolk*, p. 185.
[85] D. Hall, *Medieval fields* (1982), p. 6.
[86] Ibid., p. 39.
[87] Finch, 'Grass, grass, grass', p. 45.
[88] J. Bate (ed.), *'I am', the selected poetry of John Clare* (2003), p. 89.

explains the significance: 'The huntsman sees the bitches that run hardest and hunt most closely and these he marks down for matrons and seeks for suitable alliances of kindred blood'.[89] The open landscapes helped the early hound improvers, such as Meynell, select the best blood lines to enhance their packs' endurance, scenting ability and speed. Hawkes, writing soon after Meynell's death, stressed his close observation of the work of individual hounds.[90] Similarly Grafton's enthusiasm for the open fields, heaths and sheep-walks of Suffolk was mainly due to the absence of fences which allowed him to observe his hounds closely. His diaries are full of affectionate detail: on 29 November 1786 he wrote 'the ground was such that we could see the place of each hound for an hour and thirty-five minutes together. Jumper and Drummer appeared in power equal to any of the older ones'. On 10 February 1787 hunting 'across the middle of Thurston Plain … and across Barton field … I saw the fox two fields before the hounds there … we viewed him into the Link about 200 yards before the hounds'.

Grafton's diaries provide clear evidence that hunting in the open country around Euston became very popular due to the lack of fences with the Duke noting, on 19 February 1787, '120 horsemen in the field and a quantity of foot people starting from every village as we passed'. However the crowds began to irk the Duke, as a rather petulant entry in his diary for 14 January 1791 showed: 'The numbers in the field at first, and the stile of the company was enough to have driven anyone aloof but we soon got rid of two thirds of the gentry'.[91]

Careful study of hunting diaries shows a marked antipathy to the enclosed landscape by leading MFHs, particularly as they aged, Meynell did his best to avoid meeting in enclosed areas but inevitably opportunities dwindled as the pace of change quickened with 35.5 per cent of the county area of Leicestershire enclosed between 1760 and 1799.[92] Turner's work has shown that only 5.5 per cent of Leicestershire's open fields remained to be enclosed in the period between 1793 and 1815.[93] So it is unsurprising that, as Figure 6 has shown, a significant amount of Meynell's later hunting was in South Nottinghamshire since 11.3 per cent of that county's open fields still remained unenclosed by 1793. Foxhunters in Northamptonshire and Rutland had more flexibility in avoiding fences because a sizeable area still remained in open field agriculture up until a second surge of enclosure triggered by the Napoleonic wars. Between 1793 and 1815, 12.3 per cent of Northamptonshire's remaining open-field arable was enclosed and 18.8 per cent of Rutland's.[94]

While Meynell and his generation of older MFHs were trying to dodge the inexorable effects of landscape change, from around the 1780s, some younger, fashionable fox hunters began to favour areas where fences added excitement to the day's hunting. A key catalyst for change was William Childe from Kinlet in Shropshire who had started hunting in the early-enclosed Ludlow hunt country where jumping was essential to keep up with hounds. He moved to Leicestershire and started hunting with Meynell in the 1780s, gaining the nickname 'Flying Childe' by jumping fences at speed. It was an unpopular innovation amongst many MFHs. 'Mr Meynell said bitterly that he became accustomed to seeing a fox break covert, followed by Mr Forester and then the hounds', and that 'he had not enjoyed a day's happiness since they had developed their racing

[89] Paget, *Althorp and Pytchley*, p. 188.
[90] Quoted in Ellis, *Leicestershire and the Quorn*, p. 15.
[91] SRO, HA 513/10/1.
[92] Wordie, 'Chronology of English enclosure', p. 498.
[93] Turner, *English parliamentary enclosure*, p. 187.
[94] Ibid.



FIGURE 12. 'Topping a flight of rails' from a series on 'Indispensable accomplishments' by Sir Robert Frankland, illustrating the 'flying leap' in 1811.

Source: Photo courtesy of James Harvey British Art.

ideas'.[95] Beckford, an MFH in Dorset, wrote in 1781 'sport is but a secondary consideration with a true fox-hunter. The first is the killing of the fox'.[96] He added loftily, 'To such as love the riding part only of hunting would not a trail-scent be more suitable?'[97]

After the 1780s there must have been a growing split between those traditionalists who continued to hunt with Meynell's hounds, despite or because of his antipathy to jumping, and those who opted for the thrills of galloping and jumping over an increasingly enclosed pastoral landscape with other fashionable packs. Ellis, historian of hunting in Leicestershire, writing of 'the young gentlemen who had come down to Leicestershire for the sole purpose of hunting' acknowledged that 'there were recurrent rumours of better sport to be had with the Duke of Rutland's (Belvoir) or with Sir William Lowther's (Cottesmore) hounds' than with Meynell's pack and he attributes the rise of Melton Mowbrey as a hunting centre to this drift to hunting with packs further east.[98] Although, as has been shown, much of the hunting by these packs continued to be over open country, Ellis noted the growing impact of the changes in the landscape due to enclosure and the spread of grassland and fences:

> all through Meynell's time then, and particularly towards the end of it, Leicestershire was changing. It was changing for reasons that were nothing to do with foxhunting but in ways that were welcomed by foxhunters – particularly by the new kind of foxhunters.[99]

[95] Longrigg, *History of foxhunting*, p. 72.
[96] Beckford, *Thoughts*, p. 83.
[97] An artificial hunt following a drag over a pre-arranged route; Beckford, *Thoughts*, p. 96.
[98] Ellis, *Leicestershire and the Quorn*, p. 18.
[99] Ibid., p. 29. Meynell was a MFH from 1753 to 1800.

As the Leicestershire Victoria County History summarised, 'Meynell had showed how to hunt this country; the next generation learned how to ride [jump] it'.[100] Figure 12 illustrates the new 'accomplishments' required by 'the next generation' hunting in the first quarter of the nineteenth century.

V

This research challenges the orthodox view held by Hoskins in the 1950s, and repeated regularly over the next half century, that parliamentary enclosure and the subsequent conversion of arable open fields to grassland were triggers for the development of 'modern' foxhunting and its rise in popularity.[101] The evidence shows that leading MFHs such as Meynell and Grafton (both born in 1735), as well as Fitzwilliam, Spencer, Rutland and Lowther continued to favour hunting in the dwindling, unenclosed countryside well into the 1790s. As already discussed, the highly respected hunting author Peter Beckford, writing in 1781, advised huntsmen to dismount at once when arriving at a daunting leap. It is clear that many eighteenth-century foxhunters preferred the 'champion' landscape of open fields and sheep courses to the enclosed countryside because they could cross it more easily and safely and see their hounds' performance more clearly, vital in selecting the best breeding lines.

The 1801 Crop Returns show that a significant proportion of the East Midlands was still in arable cultivation at the turn of the century, including parishes on the heavy clay soils. This observation – combined with careful examination of contemporary accounts of poorly drained grassland, often rippled by ridge and furrow and studded with large ant hills – contradicts the traditional view of late eighteenth-century foxhunters gliding smoothly over the pastures of the Midland 'Shires'. The real rise in the importance of the Shires grassland for hunting took place later in the first decades of the nineteenth century after the final surge of enclosure and the spread of artificial drainage. It is significant that the often-quoted description by the fox-hunting author Surtees of the view from a hill in Northamptonshire into 'the heart of Leicestershire' as 'grass, grass, grass … nothing but grass for miles and miles' was not written until 1834.[102]

[100] VCH, *Leicestershire*, III, p. 270.

[101] Hoskins, *Making of the English Landscape*, p. 196.

[102] *The New Sporting Magazine*, 1834, quoted in Paget, *Althorp and Pytchley*, p. 144.

'1846 and All That': the rise and fall of British wheat protection in the nineteenth century

by Paul Sharp

Abstract:
By documenting the legislative history of the Corn Laws from 1670 and using previously unused data to calculate annual *ad valorem* equivalents (AVE) for most years from 1814, it is possible to establish several important facts about British wheat protection. Statutory protection was only significant for a few years after 1815, the decline starting in the 1820s and continuing beyond the famous 'repeal' in 1846. The level of protection prior to 1846 was, for many years, much lower than previous accounts have suggested. In fact, from 1828 the Corn Laws were specifically designed to allow grain to enter Britain at low levels of duty, and prohibitive duties were the exception rather than the norm.

The Corn Laws and their repeal play a central role in any account of nineteenth-century trade policy. As is well known, the Corn Laws after 1815 were an attempt to maintain the protection farmers had enjoyed during the French and Napoleonic Wars. There is no question that the tariffs succeeded in keeping domestic prices higher than they otherwise would have been, and British prices before repeal were consistently higher than those in Prussia, the main European source of British imports.[1] Using the information recorded in British parliamentary papers, this article questions some of the conventional wisdom regarding the significance of individual reforms of the Corn Laws, and the general level of protection afforded by them.

Traditionalist accounts suggest that 1846 was a dramatic break with the past, but this is not really true.[2] British grain protection was significant for just a few years after 1815 and the movement towards free trade was a gradual process, starting in the 1820s and only ending in 1869. 1846 was just one stage, albeit an important one, in this. This article also questions the validity of previous attempts to quantify the economic significance of the Corn Laws through calculations of their *ad valorem* equivalence. Figures such as a 54 per cent *ad valorem* equivalent

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[1] See the following: P. Bairoch, 'European trade policy, 1815–1914', in P. Mathias and S. Pollard (eds), *The Cambridge economic history of Europe* (8 vols, 1941–89), VII, pp. 1–160; R. Perren, 'Markets and marketing', in G. E. Mingay (ed.), *The agrarian history of England and Wales*, VI, *1750–1850* (1989), pp. 190–274.

[2] See for example C. Schonhardt-Bailey, *From the Corn Laws to free trade* (2006).

for the pre-1842 system are widely cited[3], but do not reflect the fact that the protection afforded by the Corn Laws varied a great deal over time. This was indeed the point, since they were explicitly designed to allow grain in during periods of scarcity. Moreover, to enjoy lower rates of duty, traders were able to exploit the system.

The paper is structured as follows. Section I documents the legislative history of the Corn Laws from the seventeenth century. Section II first gives a critical summary of previous attempts to assess the incidence of the Corn Laws in the nineteenth century, and then provides an alternative account based on previously unused data from British parliamentary papers. In particular, this is done by compiling an annual time series of *ad valorem* equivalents (AVEs) from 1828, which gives an impression of the rise and fall of British wheat protection after this date. Section III tests the robustness of these findings, and suggests some implications of them. Section IV concludes.

I

The general history of the Corn Laws and their day-to-day functioning is well covered by existing literature[4], but a short overview may be helpful.

After the repeal of an old and inoperative law of 1463, there was no statutory restriction on importation until the Corn Law of 1660.[5] From 1670 until 1815 there was little change in the basic format of the laws governing imports. Price bands were specified within which certain duties would be payable. A common feature after 1670 was a very small 'nominal' duty payable when the price of wheat was high (normally about 1*s*. per quarter), and a 'pivot level' below which duties were very high. These bands and duties were adjusted at various times, and extra levels, above and below the aforementioned, were sometimes in effect, but in practice they had little impact on imports – which were very low – and at times of scarcity they were suspended. The importance of the duties was as a counterpart to the system of export bounties.[6] Without the wheat duty, it would have been profitable to import in order to re-export and collect the bounty.[7]

Although the import restrictions began to have a larger practical relevance from the late 1780s – when a combination of the effects of the industrial revolution and population growth led to England becoming a net importer of wheat on a permanent basis[8] – almost constant wars with France from 1792 until Waterloo in 1815 meant that the Corn Laws became irrelevant, as prices rose to such a level that only the (very small) lowest rate of duty was payable for most of the time. In sum, the period to 1815 was one of 'practically free' trade in corn, as stated in the report of an 1821 parliamentary select committee.[9]

[3] J. G. Williamson, 'The impact of the Corn Laws just prior to repeal', *Explorations in Economic Hist*. 27 (1990), pp. 123–56.

[4] See the following: J. S. Nicholson, *The history of the English Corn Laws* (1904); D. G. Barnes, *A history of the English Corn Laws from 1660–1846* (1930); C. R. Fay, *The Corn Laws and social England* (1932); W. Vamplew, 'The protection of English cereal producers: the Corn Laws reassessed', *EcHR* 33 (1980), pp. 382–95.

[5] Barnes, 'English Corn Laws', p. 6.

[6] Although these were rarely payable after 1773 (Fay, 'Corn Laws', p. 31), and they were abolished in 1814.

[7] Ibid., p. 15.

[8] Ibid., p. 28.

[9] Ibid., p. 80.

With peace in 1815 a new law was passed which prohibited wheat imports when prices were below 82*s*. 6*d*. per quarter and admitted wheat free of duty above this level. This was a radical departure from previous Corn Laws. Fay has described the 1815 law as 'the one and only serious breach in corn-law policy from beginning to end' and 'defiantly protective'.[10] Barnes has suggested that it reflected a new antagonism between the classes after the French Revolution. With one notable exception from November 1816 to November 1817, ports were closed from the passing of the act until 1825, with the exception of a few months in 1818 and 1819.[11] However, although the UK turned protectionist in 1815, this was immediately met by protests, including a formal protest in the House of Lords, signed by eleven peers including two royal dukes, and this opposition continued, amongst other things resulting in the famous 'Petition of the London Merchants' of 1820 drafted by Tooke.[12]

New legislation followed the protests. Protection was ostensibly relaxed by a new act in 1822, but this was only to come into operation 'as soon as wheat should be again admissible for consumption, under the act of 1815'.[13] Since these terms were never met (except for colonial corn), this act never came into force. However, in 1825, 1826 and 1827 a series of temporary acts allowed some wheat to be released from bond for a short period of the year, although these applied only to grain that had been imported prior to the passing of each act.[14] The 1815 act was permanently repealed in 1828 when the import prohibition was dropped in favour of the Duke of Wellington's 'sliding scale' of import duties.

For most of the 1830s domestic harvests were plentiful, prices were low and discussion of the Corn Laws was muted. However, from 1837 prices began to rise and in 1838 the famous Anti-Corn Law League,[15] led by Richard Cobden and John Bright, began to campaign for free trade in grain. In 1842 an attempt was made to ease the degree of protection, but poor harvests and the Irish Potato Famine caused political disarray which finally led to the repeal of 1846, when duties were greatly reduced together with a promise that only a 'nominal' registration duty would be payable from 1849.[16]

The act of 1828 is complicated and scholars have contradicted each other when discussing it. The present account is based on contemporary parliamentary papers and, for simplicity, it documents the measures concerning foreign wheat only; colonial wheat was given favourable rates until 1849, but was a very small proportion of total imports.

It is important to emphasize that the Corn Laws were not a simple *ad valorem* tariff. From 1828 to 1849, they involved a complicated 'sliding scale', whereby certain price ranges would imply a particular duty on 'wheat entered for home consumption'. This was a throwback to the years prior to 1815, when duties were also payable according to what can be seen as a miniature

[10] Ibid., p. 35.

[11] Fay, 'Corn Laws', p. 79.

[12] N. McCord, *Free trade* (1970).

[13] BPP, 1843, LIII, *Corn. Returns relating to the importation and exportation of corn, foreign and colonial* …, p. 49.

[14] Schlote states that 'imports' (i.e. releasing wheat from bond) were prohibited from 15 May 1825 to 14 July 1828. This is not strictly true. See W. Schlote, *British overseas trade from 1700 to the 1930s* (1952), p. 112.

[15] It has been suggested that the League's motives were wider than a simple reaction to the rise in prices. See McCord, *Free trade*.

[16] For a more detailed account of the politics of repeal, see Barnes, 'English Corn Laws', and for larger consequences M. Tracy, *Government and agriculture in western Europe, 1880–1988* (1989), pp. 39–40.

sliding scale. The rate of duty payable was recalculated on a weekly basis. Until 1849 there was no import duty on wheat as such; grain could be imported freely, and then placed in bonded warehouses. It was only on release from bond, i.e. entered for home consumption, that the duty was payable.

The price determining the duty was an average of wheat prices recorded for a varying number of 'inspected markets' (varying depending on the act then in force). An average was taken of these prices: this is the 'Gazette' price – so called because it was (and still is) recorded weekly in the *London Gazette*. In determining the price relevant for the duty for each week, the average of the last six weeks' *Gazette* prices was calculated.

The duties payable under the various tariff regimes are shown in Table 1. One point to note about the 1828 Law is the non-linearity of the scale of tariffs. Above 66*s*. per quarter the duty fell away very rapidly. The table demonstrates clearly the legislative progress towards free trade from 1828. Duties were decreased in 1842, 1846 and 1849. As this table shows, although 1846 is popularly considered to mark the 'repeal' of the Corn Laws, duties on grain survived for many years afterwards. From 26 June 1846 to 31 January 1849, the sliding scale was to continue in a truncated state, although duties were suspended from 26 January 1847 to 1 March 1848.[17] Shortly afterwards, under the terms of the 1846 act, the sliding scale was abolished altogether: from 1 February 1849 a fixed 'nominal registration duty' of 1*s*. per quarter was in effect.[18] In addition, an act of 1 August 1849 ended the practice of warehousing by making the duty payable on import.[19] With the growing realization, documented by Prest, that the registration duty amounted to a significant tax on the poorest in society, it was finally repealed on 1 June 1869, leading to true free trade in grain, although it was briefly re-imposed in order to pay for the Boer War from 15 April 1902 to 30 June 1903.[20] Wheat then remained duty-free until the Wheat Act of May 1932.[21]

II

(a) Previous estimates

Quantifying the impact of a tariff usually makes use of *ad valorem* equivalents, i.e. the ratio of the duty payable on a good to its value, or equivalently the revenue collected to the value of imports. Such measures allow the comparison of protectionist measures over time and across products, since actual tariff measures might be formulated in many different ways: they might for example be based on the weight of a good or on its value or indeed both (which as shown above was the case for the Corn Laws until 1849).

[17] Schlote, *British overseas trade* gives the last date as 1 Sept. 1847, but contemporary sources (for example Board of Trade, *Tables of Revenue* (1847)) give the date as 1 Mar. 1848. This seems more likely, given the very small level of tariff revenue reported for 1847, see Table 3, below.

[18] From 1 Sept. 1, 1864 duties were calculated and imports measured based on weight (cwt.) rather than volume (quarters). So technically from this date the registration duty was 3d. per cwt., but this is approximately the same as 1s. per quarter. *Board of Trade, Annual Statement, 1864*.

[19] J. Prest, 'A large amount or a small? Revenue and the nineteenth-century Corn Laws', *Historical J.* 39 (1996), pp. 467–78

[20] *Board of Trade, Annual Statement*, 1903.

[21] W. Malembaum, *The world wheat economy 1885–1939* (1953), p. 35.

TABLE 1. The Corn Laws, 1828–69.
All prices in shillings per imperial quarter.

Gazette price of at least	*Duty payable*			
	15 July 1828 to 28 Apr. 1842	*29 Apr. 1842 to 25 June 1846*	*26 June 1846 to 31 Jan. 1849*	*1 Feb. 1849 to 31 May 1869*
73	1	1	4	1
72	2.67	2	4	1
71	6.67	3	4	1
70	10.67	4	4	1
69	13.67	5	4	1
68	16.67	6	4	1
67	18.67	7	4	1
66	20.67	8	4	1
65	21.67	9	4	1
64	22.67	10	4	1
63	23.67	11	4	1
62	24.67	12	4	1
61	25.67	13	4	1
60	26.67	14	4	1
59	27.67	15	4	1
58	28.67	16	4	1
57	29.67	17	4	1
56	30.67	18	4	1
55	31.67	19	4	1
54	32.67	20	4	1
53	33.67	20	4	1
52	34.67	20	5	1
51	35.67	20	6	1
50	36.67	20	7	1
49	37.67	20	8	1
48	38.67	20	9	1
47	39.67	20	10	1
Below 47*s*.	+1*s*. for every shilling decrease in price	20*s*. was the maximum payable	10*s*. was the maximum payable	Fixed rate of duty

Sources: BPP, 1843, LIII, *Returns relating to the importation and exportation of corn*; Board of Trade, *Tables of Revenue, Population and Commerce of United Kingdom and Dependencies and of some Foreign Countries* (HMSO, 1843–52); Board of Trade, *Annual Statement of Trade and Navigation of United Kingdom with Foreign Countries and British Possessions* (HMSO, 1853–1903).

The most widely cited estimates for the *ad valorem* incidence of the Corn Laws are those of Williamson.[22] He attempted to assess the *ad valorem* impact of the Corn Laws after 1815 by first testing whether there was market integration between the UK and Prussia. If markets were well integrated 'it would be a simple matter to infer the impact of the Corn Laws on home prices by measuring price differentials between British and foreign markets, adjusting for transport costs'.[23]

Williamson drew inspiration from Fairlie[24], who divided the period 1815–68 into five: 1815–27, 1828–41, 1842–8, 1849–59 and 1860–8. She had a time series with an average yearly price of wheat in England and Wales and an average yearly price of wheat in Prussia. Both were taken from an earlier paper of Fairlie's, who provided estimates of the 'amount by which English prices would have been lower had there been free trade' by making seemingly *ad hoc* assumptions about the level of transport costs and terms of trade effects, i.e. she corrected for the fact that with free trade the Prussian price would have risen, thus offsetting some of the gains in England.[25] This number can then be used to give an estimate of the *ad valorem* impact of the tariff in each period.[26] Williamson suggested that Fairlie's calculations assumed too strong a terms of trade assumption (thus implying smaller potential price changes in Britain and a implied tariff that is too low), although Ward found support for Fairlie's assumption.[27]

Williamson's solution was to run a simple regression of the English prices of wheat from 1815–61 on the Prussian prices given in Fairlie.[28] Dummies were introduced for the three protectionist regimes, 1815–27, 1828–41 and 1842–5 and finally a trend was introduced 'to reflect the possibility of changing transport costs or changing market efficiency'.[29] Since the dummy coefficients represented the mark-up of English over Prussian prices due to each regime, they could be used to calculate an estimate of the *ad valorem* protection afforded by the various Corn Law regimes.

Comparing these with Fairlie's calculations without the terms of trade effect ('Using Williamson's assumption'), Williamson concluded that '[t]he preferred estimates … are quite close. They imply that the *ad valorem* equivalent tariff rate was about 71 per cent between 1815 and 1827, about 54 per cent between 1828 and 1841, and about 22 per cent between 1842 and 1845'.[30] There are a number of problems with Williamson's analysis; for example, there are some minor questions about the data.[31] More importantly, however, interpreting his results presents

[22] Williamson, 'Impact', and see also K. O'Rourke and J. G. Williamson, *Globalization and History* (1999), pp. 38, 83–4 and O'Rourke and Williamson, 'From Malthus to Ohlin: trade, industrialisation and distribution since 1500', *J. Economic Growth* 10 (2005), p. 10.

[23] Williamson, 'Impact', p. 126.

[24] S. Fairlie, 'The Corn Laws and British wheat production, 1829–76', *EcHR* 22 (1969), pp. 88–116.

[25] S. Fairlie, 'The nineteenth-century Corn Law reconsidered', *EcHR* 18 (1965), pp. 562–75.

[26] See Williamson, 'Impact', p. 128.

[27] Williamson, 'Impact', p. 128n; T. Ward, 'The Corn Laws and English wheat prices, 1815–46', *Atlantic Economic J.* 32 (2004), p. 254.

[28] Fairlie, 'Nineteenth-century Corn Law reconsidered'.

[29] Williamson, 'Impact', p. 127

[30] The figure of 22 per cent is incorrectly cited as 7 per cent in O'Rourke and Williamson, 'Globalization', p. 38; Williamson, 'Impact', p. 128.

[31] There is an error in the Prussian series. From 1816 to 1827 this is taken from a contemporary article: R. W. Rawson, 'On the prices and fluctuations of grain in Prussia and England, from 1816 to 1841', *J. Statistical Society of London* 5 (1842), pp. 32–46 (1842). The price for 1816 appears to have been transcribed incorrectly by Fairlie (58*s*. instead of 48*s*.) and no source is given for 1815. However, even correcting for this, it has not been possible to reproduce Williamson's estimates using the data he cites. Using the regression, the figures for 1815–27, 1828–41 and 1842–5 respectively, are 74.8 per cent, 59 per cent and 24.8 per cent. Using 'Williamson's assumption', the figures are 63 per cent, 50 per cent and 23 per cent.

difficulties. Williamson found the constant to be insignificant. This means that it is difficult to accept his interpretation as any meaningful 'estimate of transport costs and expenses'. Moreover, the trend is also insignificant, which, using Williamson's interpretation, suggests that 'there is no evidence of significant combined changes in market efficiency and transport costs over time', but the three dummies act much like a trend, and it is surely difficult to separate the effects.

However, there is no escaping the main conclusion from Williamson's regression: that the price gap was narrowing over time, and that successive tariff reductions almost certainly played a large part in this. The main criticism has to be, however, that it fails to provide any information on the swings in the protection from year to year. In fact, of course, the protection varied from week to week, so to state that the 1828 sliding scale was equivalent to a 54 per cent *ad valorem* tariff provides about as much information as quoting the average price for the period. As Capie notes, average rates for long periods must 'be a great simplification'.[32]

Is it then possible to use price differentials to create annual estimates? As before, this is possible only if markets are perfectly integrated and although Williamson's regression provides evidence that this was fulfilled on average for the periods he looks at, there is evidence that for some years the tariff was so high that this was not the case. For example, O'Rourke shows that from 1832 to 1837 tariffs were so prohibitive that the Law of One Price did not hold.[33]

In addition, the assumption of constant transportation costs is unlikely to be correct – cycles in transport costs are a well-documented phenomenon.[34] Persson's data show that the barrier to trade due to transportation costs could easily fluctuate by a factor of two or three from year to year. This could be the reason why Williamson's constant is insignificant in his aforementioned econometric analysis. Even ignoring this, there is still the problem that any estimates based on the Law of One Price must assume *perfect* market integration, i.e. that *all other costs*, except transportation costs, have been arbitraged away. There is nothing to suggest that markets were so efficient at this time.

An obvious and simple way of estimating the impact of the Corn Laws on an annual basis is to use the method employed by Schlote.[35] He took the average yearly *Gazette* price of wheat and used the sliding scale to calculate what the tariff would have been at that price. That is

Note 31 *continued*
Even using Williamson's regression coefficient for 1815–27, the estimate is 74.8 per cent rather than 72.8 per cent. This difference, as well as the reported average Prussian price of 34.47*s*. in his n. 2, suggests that the differences between my results and his stem from discrepancies between his Prussian data for 1815–27 and that given in Fairlie 'Nineteenth-century Corn Law reconsidered'. The difference is of little importance for the results, however.

[32] F. Capie, 'Tariff protection and economic performance in the nineteenth century', in J. Black and L. A. Winters (eds), *Policy and performance in international trade*, (1983).

[33] K. H. O'Rourke, 'The repeal of the Corn Laws and Irish emigration', *Explorations in Economic Hist*. 31 (1994), pp. 120–38; see also O'Rourke and Williamson, 'Globalization', p. 83.

[34] See for example D. North, 'Ocean freight rates and economic development, 1750–1913', *JEcH* 18 (1958), pp. 537–55; and K. G. Persson, 'Mind the Gap! Transport costs and price convergence in the nineteenth century Atlantic economy', *European Rev. Economic Hist*. 8 (2004), pp. 125–47.

[35] Schlote, *British overseas trade*, p. 61.

$$AVE_t = \frac{D_t(P_t)}{P_t}$$

where $D_t(P_t)$ is the duty payable from the relevant sliding scale at time *t*, which is a function of the price at time *t*.

He then reported the tariff as a percentage of the price for selected years from 1829 to 1848. Completing his time series gave the picture in Table 2. However, although Schlote's method seems intuitively correct, it tends to hide the true variation in the *ad valorem* incidence of the Corn Laws between his selected years. This is due to the workings of the Corn Laws under the sliding scale, as touched on earlier. Vamplew has shown that wheat was only normally released from the bonded warehouses when tariffs were at their lowest level during a year.[36] Indeed, in most cases, over 95 per cent of wheat was released at the lowest level of duty in each period of an up- or down-swing in duties.

Thus, to take one example, during the downswing in duties from week 5 to week 38 in 1838, 1306 quarters of wheat were released for home consumption, 96.6 per cent of this at a rate of 1*s*. per quarter. From week 39 to week 45 there was an upswing in duties, during which only 166 quarters were released. In the downswing from week 46 to week 13 in 1839 100 per cent of the 996 quarters released for home consumption paid a duty of just 1*s*. per quarter. Just looking at the average price for 1838 (64*s*.), as Schlote did, would imply a duty of 22.67*s*., or 35 per cent of the *Gazette* price. In reality, most wheat paid a duty of just 1*s*. per quarter: less than 2 per cent of the price.

Thus it is that Schlote's method yields unreliable estimates: very little grain was subject to duty at the highest rates and any estimate using the average price for the year to determine the implied duty will upwardly bias the estimates of the *ad valorem* incidence.

(b) New annual estimates

The new estimates presented here are based on the ratios of tariff revenue to import values, and thus have the advantage that they do not rely on an assumption of market integration or on trade with specific countries. It is thus also possible to use this method to present annual estimates which more accurately reflect the proportion of the price paid in duty than Schlote's method.

This is a commonly used approach, for example by Imlah and more recently by Nye for more general studies of this period.[37] It is also the method recommended by Capie, who states that '[d]uties as a percentage of total imports overcome the serious problem of the conversion of specific duties … to *ad valorem* equivalents. And … since this was a time when prices of many commodities were falling sharply, they are therefore clearly an improvement on simply looking at legislative changes in protection'.[38] In relation to the Corn Laws, we should therefore not necessarily expect to see a fall in the *ad valorem* incidence between the 1828 and 1842

[36] Vamplew, 'Protection'.

[37] A. H. Imlah, *Economic elements in the Pax Britannica* (1958); J. V. Nye, 'The myth of Free-Trade Britain and Fortress France: tariffs and trade in the nineteenth century', *JEcH* 51 (1991), pp. 23–46.

[38] Capie, 'Tariff protection and economic performance', p. 7

TABLE 2. Schlote and Sharp *ad valorem* equivalents (AVE) compared.

	Gazette price (s./qr.) **[A]**	*Implied duty*[a] *payable (s.)* **[B]**	*Schlote AVE (%)* **[B/A]**	*Wheat imports (quarters)* **[C]**	*Value of imports (£)* **[A*C]**	*Duty collected (£)* **[D]**	*Sharp AVE (%)* **[D/(A*C)]**
1828[b]	60.42	26.67	44	748,750	2,261,849	66,269	3
1829	66.25	20.67	31	1,260,683	4,176,013	587,645	14
1830	64.25	22.67	35	1,494,382	4,800,702	493,146	10
1831	66.33	20.67	31	1,088,797	3,611,178	260,498	7
1832	58.67	28.67	49	166,128	487,308	193,249	40
1833	52.92	34.67	66	1,144	3,027	1,124	37
1834	46.17	40.67	88	264	609	324	53
1835	39.33	47.67	121	48	94	81	86
1836	48.50	38.67	80	972	2,356	969	41
1837	55.83	31.67	57	210,254	586,959	297,545	51
1838	64.58	22.67	35	1,728,453	5,581,462	134,924	2
1839	70.67	10.67	15	2,521,494	8,909,280	631,697	7
1840	66.33	20.67	31	2,020,215	6,700,379	724,106	11
1841	64.33	22.67	35	2,236,153	7,192,959	384,294	5
1842	57.25	15	26	2,625,491	7,515,467	1,107,700	15
1843	50.08	20	40	843,739	2,112,864	601,173	28
1844	51.25	19	37	781,036	2,001,405	671,033	34
1845	50.83	20	39	87,701	222,908	78,344	35
1846	54.67	4	7	1,903,853	5,203,866	398,550	8
1847	69.75	4	6	2,622,086	9,144,525	2,047	0
1848	50.50	7	14	1,818,912	4,592,752	406,935	9
1849[b]	44.25	1	2	4,450,043	9,845,719	221,441	2
1850[c]	40.25	1	2	3,682,273	7,410,574	187,712	3
1851	38.50	1	3	3,754,318	7,227,063	190,714	3
1852	40.75	1	2	3,013,864	6,140,747	153,002	2
1853	53.25	1	2	4,840,909	12,888,920	247,569	2
1854	72.42	1	1	3,379,318	12,235,948	173,140	1
1855	74.67	1	1	2,627,273	9,808,485	134,312	1
1856	69.17	1	1	4,011,136	13,871,847	205,401	1
1857	56.33	1	2	3,385,909	9,536,977	173,770	2
1858	44.17	1	2	4,177,500	9,225,313	212,091	2
1859	43.75	1	2	3,940,227	8,619,247	199,814	2
1860	53.25	1	2	5,791,818	15,420,716	294,178	2
1861	55.33	1	2	6,808,182	18,835,970	344,886	2
1862	55.42	1	2	9,325,909	25,840,540	472,998	2

	Gazette price (s./qr.) **[A]**	*Implied duty*[a] *payable (s.)* **[B]**	*Schlote AVE (%)* **[B/A]**	*Wheat imports (quarters)* **[C]**	*Value of imports (£)* **[A*C]**	*Duty collected (£)* **[D]**	*Sharp AVE (%)* **[D/(A*C)]**
1863	44.75	1	2	5,537,273	12,389,648	280,870	2
1864	40.17	1	2	5,272,045	10,588,025	274,973	3
1865	41.83	1	2	4,764,318	9,965,366	262,098	3
1866	49.92	1	2	5,262,727	13,134,890	289,340	2
1867	64.42	1	2	7,874,091	25,361,134	433,056	2
1868	63.75	1	2	7,418,182	23,645,455	407,548	2
1869	48.17	0	0	8,567,273	20,632,848	133,059	1
1870–1901			0				0
1902	28.08	1	4	18,409,545	25,850,070	789,763	3
1903	26.75	0	0	20,029,773	26,789,821	456,424	2
1904–1931			0				0

Notes:
[a] The duty for 1828–41 is calculated using the 1828 sliding scale; that for 1842–5, the 1842 sliding scale; that for 1846–48, the 1846 sliding scale; from 1849 the duty used is 1*s*. per quarter.
[b] From July 15.
[b] Until 1849 all figures are based on foreign wheat released from bond.
[c] From 1850 all figures are based on total imports.
Sources: BPP, 1849, L, *Grain, flour and meal. Return of wheat, barley and oats … imported into the United Kingdom … 1792 to 1848*.

regimes, since prices were falling and this would make it more likely that wheat was paying higher rates of duty.

This approach has also been extensively criticized.[39] Objections are, however, mostly directed towards its applicability as a comparative measure of protection between various countries and particularly when it is used as an average over many commodities. As a way of comparing the protection offered between different years for one commodity, it seems reasonable enough. Another common criticism is that it cannot account for prohibitive tariffs – however, wheat was released from bond and imported in every year after 1828.[40]

McCloskey used this method to present three estimates: for 1841 (5.6 per cent), for 1854 (1.5 per cent) and for 1881 (0 per cent). Her estimates were dismissed by Williamson, who noted the sizeable difference between McCloskey's estimate of the average tariff for 1841 (35 per cent) and, for example, that given for wheat – just 5.6 per cent. He explains that since 'the fact that duties on wheat were at their lowest in 1841 … the atypical low rates in 1841 can be ignored'.[41] This is

[39] See for example: D. A. Irwin, 'Free trade and protection in nineteenth-century Britain and France revisited: a comment on Nye', *JEcH* 53 (1993), pp. 146–52; A. Estevadeordal, 'Measuring protection in the early twentieth century', *European Rev. Economic Hist*. 1 (1997), pp. 89–125; and a detailed criticism is given by the Board of Trade, *Second Series of Memoranda, Statistical Tables and Charts* (1904), pp. 287–92.

[40] Capie, 'Tariff protection', p. 7.

[41] D. N. McCloskey, 'Magnanimous Albion: Free Trade and British national income, 1841–81', *Explorations in Economic Hist*. 17 (1980), pp. 303–20; Williamson, 'Impact', p. 128n.

not, however, a general criticism of the method, but rather of taking 1841 as representative of the pre-1842 incidence. If it were possible to extend McCloskey's analysis beyond her three data points, then a fuller picture would emerge.

With data from British parliamentary papers this is in fact possible. The formula is simple enough:

$$\mathrm{AVE}_t = \frac{(\text{Duties collected})_t}{(\text{Value of imports})_t}$$

The duties collected in each year are available in official publications. 'Value of imports', however, presents some special difficulties.

Until 1849 'imports' should be taken to mean foreign wheat released from bond, since colonial wheat was subject to different duties and the duty was only payable when the wheat was released from the warehouse. From 1850, imports can be taken to mean total imports of wheat, both foreign and colonial, since the duty was payable on import, and colonial wheat no longer enjoyed preferential rates of duty.

Data is available on volumes of imports for every year. The difficulty is then how to value it. McCloskey notes that the value of wheat imports is not reported prior to 1854, but this is not entirely accurate.[42] From 1696 records of overseas trade began to be systematically collected. Goods were valued using 'official values' which were based on the average prices in 1694 – but these are obviously of little use here since prices were undoubtedly rather different by the nineteenth century.[43] However, from 1854 the method was changed, so that actual current prices, compiled by experts, were used each year.[44]

The best method for valuing wheat released from bond in the UK is the average domestic price, i.e. the *Gazette* price. This valuation has some other advantages. First, it allows the estimates to be directly comparable with Schlote's, who also used the *Gazette* price in the denominator when calculating his AVEs. Second, this appears to have been the method used for valuing wheat after 1854 and thus makes my estimates consistent with those based on later valuations, as can be seen by comparing the result of multiplying quantities with the *Gazette* price, and the official valuations from 1854.

This may or may not be an appropriate valuation from 1850 when the duty was payable on import. However, an alternative measure will make little difference when calculating the value of the imported wheat relative to duties collected, since the difference between the two alternative evaluations is relatively small in comparison to the volume of imports and the relatively small amount of revenue collected. Besides, with virtual free trade after 1849 and market integration, the *Gazette* price could be expected to be equal to the c.i.f. price of imported wheat, which is presumably the basis for the official valuations.

[42] She has one observation prior to this for 1841, which seems to have been taken from secondary literature.

[43] Schumpeter disputes this common explanation of the official value, and argues that it varied until 1725. This has little importance in the current context, however! See E. B. Schumpeter, 'English Prices and public finance, 1660–1822', *Rev. Economic Statistics* 20 (1938), pp. 21–37.

[44] For more detail, see Schlote, *British overseas trade*, section A. These were, confusingly for the modern economist, referred to as 'real values'.

TABLE 3. *Ad valorem* equivalents (AVE) 1814–28 for wheat and wheat flour.

	Gazette price (s. per qtr.) **[A]**	*Quantity admitted (quarters)* **[B]**	*Value of 'imports' (£)* **[A*B]**	*Duty collected (£)* **[C]**	*AVE (%)* **[C/A*B]**
1814	74.33	623,086	2,315,803	31,140	1
1815	65.58	116,382	381,636	9,411	2
1816	78.50	225,260	884,146	0	N/A
1817	96.92	1,023,862	4,961,465	0	N/A
1818	86.25	1,550,606	6,686,988	0	N/A
1819	74.50	115,697	430,971	0	N/A
1820	67.83	1,056	3,582	0	N/A
1821	56.08	0	0	0	N/A
1822	44.58	0	0	0	N/A
1823	53.33	51	136	0	N/A
1824	63.92	914	2,921	0	N/A
1825	68.50	399,297	1,367,592	197,519	14
1826	58.67	287,338	842,858	170,017	20
1827	56.67	519,268	1,471,259	591,821	40
1828	60.42	821,794	2,482,503	67,925	3

Note: Measures in hundredweight have been converted to quarters where necessary at the rate of 4.4 cwt. to the quarter.

Sources: Author's own calculations; W. Schlote, *British overseas trade from 1700 to the 1930s* (1952); BPP, 1843, LIII, *Returns relating to the importation and exportation of corn*; BPP, 1849, L, *Return of wheat, barley and meal*; Board of Trade, *Tables of Revenue, Population and Commerce of United Kingdom and Dependencies and of some Foreign Countries* (HMSO, 1843–52); *Board of Trade, Annual Statement of Trade and Navigation of United Kingdom with Foreign Countries and British Possessions* (HMSO, 1853–1903); Board of Trade, *Second Series of Memoranda, Statistical Tables and Charts* (HMSO, 1904); B. R. Mitchell and P. Deane, *Abstract of British historical statistics* (1953).

This method is unfortunately not particularly helpful before 1828. The amount of duty received for years prior to 1828 is only given on wheat and flour combined in official statistics, and is entirely missing prior to 1814, since the records were destroyed in the Custom House fire of 1814. The information that does survive, and the AVE for each year, is however given in Table 3.

The duty collected in 1815 is presumably for the months prior to the passing of the new law on 23 March. The figures for 1814 and 1815 thus give a flavour of the low level of protection afforded by the Corn Laws during the Napoleonic Wars. From 1815 until the temporary Acts of 1825–7 no duty was collected. Wheat was either entered free of duty or prohibited. It is thus impossible to calculate AVEs for these years. The AVEs for 1825–7 are only applicable for the few months covered by the temporary Acts. Finally, the dramatic impact of 1828 is all too clear. For this period it seems more reasonable to use methods based on price differentials to gain some idea of the level of protection afforded.



FIGURE 1. Comparison of Schlote's and Sharp's *ad valorem* estimates (AVEs), 1828–50.

Sources: Author's own calculations; Schlote, *British overseas trade*; BPP, 1843, LIII, *Returns relating to the importation and exportation of corn*; BPP, 1849, L, *Return of wheat, barley and meal*; Board of Trade, *Tables of Revenue, Population and Commerce of United Kingdom and Dependencies and of some Foreign Countries* (HMSO, 1843–52); Board of Trade, *Annual Statement of Trade and Navigation of United Kingdom with Foreign Countries and British Possessions* (HMSO, 1853–1903); Board of Trade, *Second Series of Memoranda, Statistical Tables and Charts* (HMSO, 1904); Mitchell and Deane, *Abstract*.

From 1828, the estimates of the annual *ad valorem* equivalents of the duties on wheat are constructed as below, where P_t is as usual the *Gazette* price in year *t*.

1828–1849:

$$\text{AVE} = \frac{(\text{Duties collected})_t}{(\text{Quantity released from bond})_t * P_t}$$

where all values are for foreign wheat only.

1850–:

$$\text{AVE} = \frac{(\text{Duties collected})_t}{(\text{Quantity imported})_t * P_t}$$

where all values are for *both* foreign and colonial wheat.

The results of these calculations are given in Figure 1, where they are compared to the Schlote estimates. The periods of highest tariffs are unsurprisingly similar in both series. However, my estimates are consistently lower (since Schlote did not allow for the fact that grain was normally only released during the weeks of the year with lowest duty payable), and the difference between the highest and lowest *ad valorem* rates is exaggerated. It should be noted that the figure for 1828 is only for the period after the introduction of the Duke of Wellington's sliding scale,

i.e. from 15 July. Note also that the years of least protection before 'repeal' were in 1828, 1838 and 1841 as stated in contemporary sources.[45]

III

In the following, the term 'level of protection' is used almost interchangeably with the levels of the AVEs. As such, the AVEs are interpreted as representing the ease with which foreign wheat was able to enter the British market and should thus be a reflection of decisions of importers. It is however the case that the protectionist *regime* was constant over the periods covered by the various Corn Laws. It was of course the intention of policymakers that wheat should be able to enter the country at times of scarcity. Since these were equated with periods with high prices, then the protection (using my definition) afforded by the Corn Laws fluctuated with prices, although the protectionist regime was constant over time.[46] The change in 1842 must, in this interpretation, have led to a less protectionist regime. However, it could have led to greater protection if, at the same time, it ushered in a period of higher prices.

The discussion of the legislative history in section II has demonstrated the movement away from protection after 1828. The annual AVEs can also be used to illustrate this, but present a rather different picture than the estimates of other scholars. This is shown in Table 4, where the averages for each of the three sliding-scale regimes are given.

Initially, the most striking fact about these numbers is the variation between them. The differences between Schlote's and the present author's estimates have already been explained. These are also directly comparable. Fairlie's and Williamson's estimates are also directly comparable, and the difference is due to Fairlie's large terms-of-trade effect.

The difference between Sharp's and Williamson's estimates will be accounted for by non-tariff barriers. Indeed, the workings of the Corn Laws themselves acted as a sort of non-tariff barrier, since the uncertainty surrounding the duties payable on wheat in the medium term and the costs of warehousing wheat in bond would certainly have added to the direct measures of protection detailed above.

An interesting conclusion to be drawn from the regime averages of the annual AVEs is that, even excluding 1828, it turns out that the average *ad valorem* impact of the Corn Laws did not fall after 1842 and in fact remained constant. Although scholars have hitherto assumed that the reduction in the duties payable must have given rise to a fall in protection, a fall in the domestic price of wheat meant that 1842 actually inaugurated a short period of high protection, compared to other years since 1838. This previously undocumented fact has important implications for historians of British politics: it sheds light on the urgency surrounding the debate on the repeal of the Corn Laws after 1842, despite the reform of the sliding scale. Contemporaries were clearly aware of the high level of protection at the time, despite the reform.

For the true value of the annual AVEs, however, it is necessary to look beyond the regime averages. For the first time, the variation in the protection afforded by the Corn Laws from year to year, as recognized by Vamplew, has been documented. It turns out that the statutory

[45] Williamson, 'Impact', p. 128n.

[46] I am grateful to an anonymous referee for making this point.

TABLE 4. Summary of previous estimates of the *ad valorem* equivalents of the Corn Law regimes (%).

	Fairlie[a]	*Williamson*	*Schlote*	*Sharp*
1828/9–41	20	54	51	28[b]
1842–45	10[c]	22	36	28
1846–48	4	N/A	9	6

Notes:
[a] These have been recalculated using the relevant periods.
[b] The average for the first regime for this AVE is calculated without the level for 1828, since this was only for part of a year.
[c] The sizeable difference of 7.4 per cent between this estimate and that reported by Williamson is because he used the figures reported by Fairlie for the period 1842–8, which includes years after the 'Repeal'.
Sources: S. Fairlie, 'The Corn Laws and British wheat production, 1829–76', *EcHR* 22 (1969), pp. 88–116; J. G. Williamson, 'The impact of the Corn Laws just prior to repeal', *Explorations in Economic Hist*. 27 (1990), pp. 123–56; Schlote, *British overseas trade*.

protection varied quite substantially from year to year, reinforcing the point that any attempt to give an estimate for the whole period of a tariff regime is a gross oversimplification. For the same reason, a case could be made for saying that estimates based on yearly averages are also unsatisfactory, since duties varied on a weekly basis.

However, an annual series is perhaps the most detailed that has practical utility when estimating the impact on imports. Traders might be able to respond to the weekly level of the tariff (or at least the expected level), but they could not necessarily rely on a supply: farmers need much longer to form supply decisions. The only real test of the relevance of the annual AVEs is to compare them to the volume of foreign imports for each year, i.e. *not* the levels of wheat being released from bond (which more or less automatically followed the duty payable). Vamplew noted that 'imports did not respond as strongly as bonded corn to either domestic prices or duties. Although imports peaked at the times of lowest duties, there was a flow of wheat into the bonded warehouses throughout the year'.[47] However, the new estimates fit in remarkably well with the data on levels of foreign imports after 1828 as illustrated in Figure 2. Note also that the price of Prussian wheat (the main supplier) was always lower than that of UK wheat (even adjusting for transportation costs, see Figure 3 below), so years of little-to-no imports can fairly be taken to illustrate protection in the sense defined above.

The evidence for the importance of the AVEs for import decisions is striking.[48] First, it is difficult to imagine, had the 1828 regime really been equivalent to a flat 54 per cent tariff rate, that imports would have reached the levels they did in the late 1830s and early 1840s (and to a lesser extent from 1829–31) – levels comparable to those in the years immediately following repeal. Also, if we are prepared to accept Vamplew's well-documented assertion that grain merchants waited for periods of low duties before releasing their grain from bond, then it is not such a great leap of faith to believe that foreign grain exporters waited for years of low

[47] Vamplew, 'Protection', p. 385.
[48] Within an ADL framework, the PC Give test of no co-integration of the two series is rejected with a t-value of –5.101 (calculated using OxPack 3.40 for GiveWin 2).

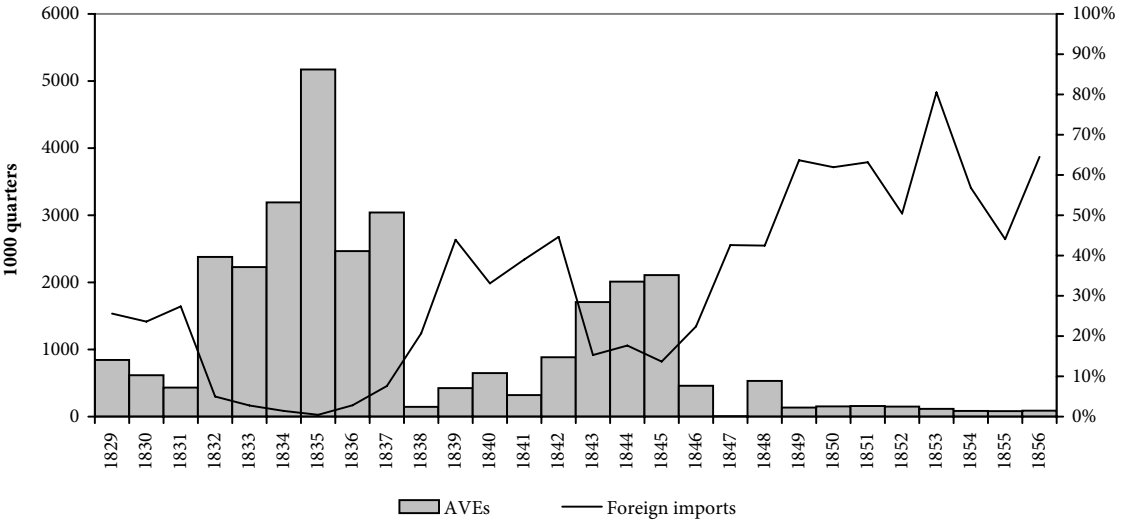


FIGURE 2. Imports of foreign wheat and *ad valorem* estimates (AVEs), 1829–56.

Note: Measures in hundredweight have been converted to quarters where necessary at the rate of 4.4 cwt. to the quarter.

Sources: Author's own calculations; BPP, 1843, LIII *Returns relating to the importation and exportation of corn*; BPP, 1849, L, *Return of wheat, barley and meal*; Board of Trade, *Tables of Revenue, Population and Commerce of United Kingdom and Dependencies and of some Foreign Countries* (HMSO, 1843–52); Board of Trade, *Annual Statement of Trade and Navigation of United Kingdom with Foreign Countries and British Possessions* (HMSO, 1853–1903); Board of Trade, *Second Series of Memoranda, Statistical Tables and Charts* (HMSO, 1904); Mitchell and Deane, *Abstract*.

protection before sending grain to Britain. In fact, Vamplew noted that the official six-week average, together with time-lags in the regulatory process, meant that the duty was predictable: 'A knowledge of market trends, which those involved in the corn trade should have had, ought to have made the prediction of the duty a fairly straightforward task. Holders and potential holders of foreign corn would thus be in a position to take action, if necessary, before the duty actually changed'.[49] It would thus be possible to arrange shipments of wheat to the UK in anticipation of a period of low duties.

The graph also seems to present a solution to the seeming puzzle as to why O'Rourke and Williamson, when assessing the importance of trade policy for the timing of a structural break in the relationship between English commodity prices and English endowments, i.e. England's change from a closed to an open economy, find 1838 to be the most likely candidate.[50] Figure 2 makes clear that this year marks the end of significant wheat protection due to the Corn Laws, except for three years. Indeed, it is possible to see the tariff protection as prohibitive from 1815 until 1837 (with the exception of half of 1828, 1829, 1830 and 1831) and low from 1838 (with the exception of just three years – 1843, 1844 and 1845). O'Rourke and Williamson note that 1838 also saw the start of the decline in the Harley freight index and the UK–US grain price gap.

[49] Vamplew, 'Protection', p. 384.

[50] K. H. O'Rourke and J.G. Williamson, 'From Malthus to Ohlin: trade, industrialisation and distribution since 1500', *J. Economic Growth* 10 (2005), p. 14.

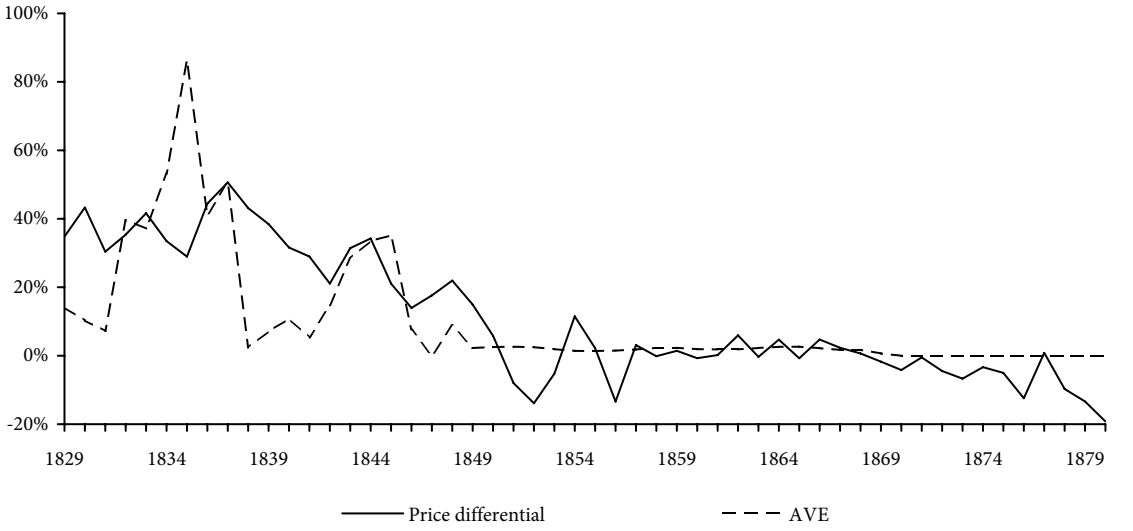


FIGURE 3. Transport cost-adjusted price gap between Königsberg and the UK as a percentage of the UK price and *ad valorem* estimates (AVEs), 1829–79.

Sources: Author's own calculations; A. Jacobs and H. Richter, *Die Großhandelspreise in Deutschland von 1792 bis 1934* (Sonderhefte des Instituts für Konjunkturforschung, 37, 1934), pp. 52–3.

Of course the 1846 repeal was important, since it meant that the level of protection stayed permanently low, but the real break came in 1838 and imports clearly responded to that.

Emphasizing this point should not, however, detract from the larger political and social significance of repeal, which went far beyond the actual levels of protection. This event certainly had a lasting impact on the politics and constitution of Britain. Moreover, without repeal and thus a continuation of the sliding scale in some form, and even perhaps with adjustments to take account of deflation, the movement of English prices towards the lower levels enjoyed by continental Europe during the late nineteenth century, in particular with the 'Grain Invasion' from America, and the consequent high tariffs would have muted the increases in real wages and boosted the rents to landowners with potentially considerable distributional effects.[51]

The AVEs would, of course, also be expected to have an impact on price gaps between the UK and export markets. As discussed above, price gaps are not a reliable measure of protectionism, and in addition price gaps can disguise many factors, such as quality differences, which might also change over time. Nevertheless, Figure 3 presents price gaps between the British *Gazette* price and Königsberg (present day Kaliningrad), at this time a major export port for Prussian grain.

The Königsberg prices are taken from Jacobs and Richter and are converted from marks per 1000 kg to shillings per quarter using the assumption that 1 quarter of wheat equals 4.4 wt.[52]

[51] See the analysis in K. H. O'Rourke, 'The European grain invasion, 1870–1913', *JEcH* 57 (1997), pp. 775–801.

[52] A. Jacobs and H. Richter, *Die Großhandelspreise in Deutschland von 1792 bis 1934* (Sonderhefte des Instituts für Konjunkturforschung, 37, 1934), pp. 52–3.

The exchange rates are from Schneider and Schwarzer and Schneider, Schwarzer and Zellfelder.[53] The usual estimate of *7.5s.* has been subtracted from the price gaps to allow for transportation costs, and the price gap is expressed as a percentage of the UK price in order to allow comparison with the AVE measure.

The similarities between the two series are remarkable. Importantly, the fall in protectionism after 1837 is apparent, as is the spike in protection despite the 1842 reform – the two most important conclusions from above. There is some evidence to suggest that the price gap does not respond immediately to a fall in protection. This could well be to do with transportation costs, which might be expected to increase with booms in trade. In reality, *7.5s.* is probably an underestimate for such periods. This seems to be confirmed by looking at the price gap between Hamburg and Königsberg using the data in Jacobs and Richter.[54] This might be expected to be a good indicator of Baltic transportation costs, and does indeed spike in 1839 and 1847.

As is to be expected, the almost prohibitive tariffs of the mid-1830s are not reflected in the price gap. At this time, local supply and demand would have determined English prices. Moreover, of the small amounts of wheat imported at this time, only a relatively small amount came from Prussia, with a larger proportion coming from colonial suppliers.[55] Germany ceased being a major supplier of the UK market and became progressively more protectionist from 1879, thus accounting for the late divergence of prices. Otherwise, the correspondence between the AVEs and the price gap is clear.

In summary, it seems that the AVEs accurately reflect the rise and fall of wheat protection after 1828. They thus have an important role to play in analyses of the nineteenth century. The famous contention that the nineteenth-century political debate about the Corn Laws was 'much ado about nothing',[56] a claim largely based on the fact that the 'repeal' did not immediately lead to reduced cereal acreage in Britain can now be tested using annual data.[57] Looking at imports, it seems that the level of protection was very important. At times of low duties imports reached levels not unlike those seen immediately after repeal, although numerous other factors certainly also played a role. The impact of the Corn Laws on market integration can perhaps also now be analyzed. Definitive answers must await formal econometric testing. My estimates support the work of Capie, who concludes for a more general survey of protection and import ratios, that 'protection was not as high or not as effective as usually supposed', which is also the natural conclusion to be drawn from the work of Vamplew.[58]

[53] J. Schneider and O. Schwarzer, *Quellen und Forschungen zur Historischen Statistik von Deutschland*, XI, *Statistik der Geld- und Wechselkurse in Deutschland (1815–1913)* (1990); J. Schneider, O. Schwarzer and F. Zellfelder (eds), *Währungen der Welt*, I, *Europäische und nordamerikanische Devisenkurse, 1777–1914* (iii), (1991).

[54] Jacobs and Richter, *Großhandelspreise*, pp. 52–3

[55] As shown in the BPP cited earlier.

[56] B. Kemp, 'Reflections on the repeal of the Corn Laws', *Victorian Stud.* 5 (1962), p. 189.

[57] See the discussion in Williamson, 'Impact', p. 129.

[58] Capie, 'Tariff', p. 9.

IV

Through an analysis of the legislation and estimates of the *ad valorem* incidence, it is possible to establish several facts about British wheat protection under the Corn Laws. First, prohibitive tariffs were a nineteenth-century phenomenon, and statutory protection was in fact only significant for about twenty years after Waterloo. Second, the incidence of the Corn Laws after 1828 was, for most years, not as high as has previously been suggested. However, some of the years of highest protection occurred after the passing of the reformed sliding scale in 1842, a point that has not previously been appreciated. Third, Britain's legislative movement towards free trade in wheat should be dated from the 1820s rather than the 1840s. Fourth, and related to the previous point, the famous repeal of 1846 marked neither the beginning nor the end of Britain's progress towards free trade in grain.

The movement away from the protection of 1815 was gradual, starting with the temporary laws from 1825–7, and it was most importantly and permanently reversed in 1828. There is a long-running debate about whether or not Britain led the way to free trade.[59] Although this paper cannot attempt to resolve this, since this would require a far more general survey, it does provide some interesting evidence as far as the important trade in wheat is concerned. Here Britain set the example in the 1820s, not the 1840s.[60] In the context of previous history, the 'repeal' in 1846 seems less important, and simply another step in a progress towards free trade after the reversal of 1815. Indeed, 1846 did not even mark the end of British wheat protection, but as Britain became increasingly industrial and urban, a return to protection became ever more unlikely and true free trade thus arrived in 1869.[61] The 'traditional' argument about Britain's leading role in the movement to free trade and thus potentially serving as an inspiration for other countries might therefore have more validity than recent accounts suggest.[62]

By focussing on 1846, historians have tended to ignore the legislative progress towards free trade before and after that date. This is mirrored by a fascination with the Anti-Corn Law League, an organization which was first founded in 1838, by which time the British market was already open! We should not forget that, amongst the peaceful protestors demonstrating for parliamentary reform, who were attacked by the British military in the famous Peterloo Massacre of 1819, were some holding banners proclaiming 'No Corn Laws'. At this time Cobden was just a boy of 15.

[59] See the contributions in J. Dormois and P. Lains, *Classical trade protectionism, 1815–1914* (2006).

[60] This was not only in terms of grain. Britain's nineteenth-century commitment to a process of trade liberalization can be dated to at least 1820, when parliament, which at that time included David Ricardo as an MP, declared that future commercial policy should be guided by the principle of free trade (W. D. Grampp, 'How Britain turned to free trade', *Business History Rev*. 61 (1987), pp. 86–112). In fact, by the 1840s 'the Corn Laws stood out as the major remaining bastion of Protection, while tariffs on other imports had been very substantially diminished' (McCord, *Free Trade*, p. 10).

[61] E. J. T. Collins, 'Food Supplies and Food Policy', in Collins (ed), *The Agrarian History of England and Wales*, VII, (2 vols, 2000), i, pp. 33–71.

[62] I call this the traditional argument after Irwin, who characterizes it as such. However, many so-called traditionalists would not subscribe to the idea that repeal sparked an international following, so in this sense Irwin characterizes the traditionalist argument rather too crudely. Again, I am grateful to an anonymous referee for this point.

Feeding the war effort: agricultural experiences in First World War Devon, 1914–17

by Bonnie White

Abstract:

Studies of British agriculture in the First World War have argued that the labour crisis was not as severe as contemporaries believed, suggesting instead that replacement labour and greater access to farm machinery helped to offset the loss of agricultural labourers to the military. However, labour reports for Devon show a shortage of both men and horses on the land by late 1915 and the County War Agricultural Committee expressed concern that the continued removal of men from the land was in conflict with the need to increase home grown food. Central to the issue was the farmers' belief that operating a farm required a set number of men and horses. Through district boards and the Devon Farmers' Union, local farmers negotiated manpower demands by refusing to cooperate with government agricultural directives until manpower and price guarantees could be assured. As such, this article argues that crucial changes to agriculture took place in 1916 when the pressing labour shortage forced the government to reconsider its agricultural policies.

The First World War placed tremendous strain on Britain's farming community. The declaration of war threatened to rob farms of their labour through enlistment and, from 1915 onward, concerns about the German submarine campaign and its threat to Britain's shipping and supply lines meant that the farming community had to increase home food production drastically. The war presented a dilemma for farmers: to increase production they would have to alter their farming practices, but because farming was an individual enterprise, what was in the best interests of one farm was not necessarily to the advantage of another. Government intervention in agriculture was minimal until 1916 and there was no state initiative for a new agricultural policy based on wartime needs until January 1917. In the first two years of the war, however, Devon's farmers faced innumerable challenges, the most pressing of which was how to increase output with dwindling labour supplies. Many farmers were reluctant to change their farming practices without price guarantees and were unwilling to turn over their labourers and sons without assurances that suitable replacement labour could be found.

The most pressing problem facing agriculture was manpower, but it is difficult to gauge the actual labour shortage between 1914 and 1918. Studies carried out by A. W. Ashby suggested that 243,000 men left agriculture during the war. A similar study by T. H. Middleton estimated that between August 1914 and April 1918 approximately 273,000 men between the ages of 18 and

41 left agriculture for military service or munitions work.[1] According to the Board of Trade's Z8 reports, approximately 816,667 men were employed in agriculture in 1914. The problem with calculating the exact loss of manpower to industry is that the government kept less than adequate records for the first year of the war and once restrictions were placed on the employment of skilled workmen, many lied about their occupations to escape agricultural work. The Z8 reports show agricultural losses at approximately 30 per cent or 245,000 men, on par with the estimates made by Ashby and Middleton.[2] One point of concern is that the Z8 reports did not take into consideration farm owners or their relatives, nor did they consider the use of replacement labour or the introduction of new farm machinery during the war. Through an examination of the country's military recruitment, G. E. Mingay has suggested that the labour shortage was only 11 per cent greater than in the pre-war period. Although Peter Dewey suggests a 22 per cent increase over pre-war numbers, he also argues that, due to the declining importance of agriculture before 1914, military recruitment did not affect the agricultural industry to the extent that it affected other industries.[3]

Although the importance of the labour shortage in wartime Britain has been appreciated by historians, Hilary Crowe has recently pointed out that 'national averages disguise important regional variations' and added that 'no attempt has been made to consider any regional variation in the labour problem'.[4] Building on Crowe's argument that the labour shortage was more severe in the uplands than national figures for England and Wales suggest, this study demonstrates that a labour crisis was also prevalent in Devon, the largest agricultural county in south-west England. The value of a county study, and Devon in particular, is that it demonstrates how government directives that failed to take into consideration regional and local disparities in farming practices, particularly surrounding the use of labour, served to exacerbate existing divisions within the agricultural community, thereby undermining the farmers' ability to increase home food production in the first 30 months of the war to early 1917. Local responses to national policies were reflected in the relationship between farmers and the Board of Agriculture, and it was the temper of these which, in part, encouraged the Lloyd George government to introduce changes to agricultural policy early in 1917.

I

The fortunes of Devon's farming community were tied to the British government's agricultural policies. Despite Britain's reliance on imports, the outbreak of the war did not lead to immediate changes in food policy. On the eve of the First World War, British farmers produced enough grain to feed the population for approximately 125 days of the year.[5] Four-

[1] Cited in P. Dewey, *British agriculture in the First World War* (1989), p. 40; T. H. Middleton, *Food production in war* (1923), p. 266.

[2] TNA, BT/Z8, pp. 42–6, War Enquiries Branch, 'Survey of agricultural employment', 1914–16.

[3] G. E. Mingay, *A social history of the English countryside* (1990), p. 200; Dewey, *British agriculture*, p. 43; id., 'Military recruiting and the British labour force during the First World War', *Historical J.* 27 (1984), p. 200.

[4] H. Crowe, 'Keeping the wheels of the farm in motion: labour shortages in the uplands during the Great War', *Rural Hist.* 19 (2008), p. 201.

[5] P. Dewey, 'Nutrition and living standards in wartime Britain', in R. Wall and J. Winter (eds), *The upheaval of war: family, work and welfare in Europe, 1914–18* (1988), p. 201.

fifths of all wheat and wheaten flour consumed in Britain came from overseas, and one-third of Britain's beef supplies and two-fifths of its sheep meat were imported.[6] Although Britain relied extensively on imports to feed the population, in 1914 the weather was good, the harvest fruitful, and it was estimated that home supplies of grain would last for five months. The Board of Agriculture anticipated no immediate problem since the war was expected to be over by Christmas and British imports would remain largely unaffected.[7] This lack of intervention was partly because initial concerns were not about supply, but rather prices, which reflected the inflationary nature of war finance, the high cost of imports, and rising shipping costs.

By the end of 1914, however, the state was directly responsible for buying and shipping the bulk of Britain's imported foodstuffs and, under Asquith, was considering the regulation of prices and the distribution of food items. Even with these provisions in place, throughout 1915 food prices continued to rise. There was also concern that the U-boat campaign would intensify as the war progressed, a problem that was compounded by the fact that the Royal Navy was slow to adopt convoy practices until there was no alternative in 1917. By the end of 1916, Asquith had appointed a Food Controller to control prices and later civilian rationing, and established the Food Production Department to increase home food production.[8]

The only way to make up for the shortfall of imports was to increase home food production by abandoning the livestock regime for one based on cereals and grains. The rationale behind the plough up policy was that livestock were 'wasteful converters of crops into food,' whereas consuming crops directly would maximize the nation's food supply.[9] To assist, the Asquith government established the Agricultural Consultative Committee (ACC), the first of two groups created by the Board of Agriculture in 1914. Initially, this committee had little practical advice for farmers. In August 1914 the ACC encouraged farmers to increase the production of staple crops by breaking-up grasslands, but it offered no monetary incentives or price guarantees for future crops. Instead, it was content to offer suggestions that it hoped the farmers would take. The other group was the Cabinet Committee on Food Supply which was mainly concerned with imported supplies and ensuring that prices were not unreasonably inflated. In the first two months of the war, however, the levels of imports remained steady and the Committee had little advice in terms of future food policy.[10]

Meanwhile, Lord Selborne, President of the Board of Agriculture, was given the responsibility of managing the nation's food supply. In early 1915 he established the Milner Committee, comprised of three councils for England, Ireland, and Scotland, to consider solutions to a potential food shortage. The unanimous finding of the English Committee in December 1915

[6] C. Orwin and E. Whetham, *History of British agriculture, 1846–1914* (1971), pp. 341–42; Dewey, *British agriculture*, pp. 15–17; id., *War and progress: Britain, 1914–45* (1997), p. 19; J. Sheail, 'Land improvement and reclamation: the experiences of the First World War in England and Wales', *AgHR* 24 (1976), p. 111; A. Offer, *The First World War: an agrarian interpretation* (1989), p. 93.

[7] Dewey, 'Nutrition and living standards', p. 201.

[8] M. Barnett, *British food policy during the First World War* (1985), pp. xviii–xix, 63–5.

[9] Dewey, *War and progress*, p. 210.

[10] Dewey, *British agriculture*, pp. 23–9. The reluctance of both committees to interfere in agriculture was part of the broader 'business as usual' approach adopted by the Asquith government at the beginning of the war, aiming at minimal disruption to the domestic life of the nation. A. F. Cooper, *British agricultural policy, 1912–36: a study in Conservative politics* (1989), pp. 22–3; Dewey, *British agriculture*, pp. 23–4; T. Wilson, *The myriad faces of war* (1986), pp. 163, 216.

TABLE 1. Food Production for the United Kingdom, 1913–17.

	Wheat (quarters)	*Barley (quarters)*	*Oats (quarters)*	*Beans (quarters)*	*Hay (tons)*
1913	7,087,050	8,204,066	20,660,279	950,309	15,395,088
1914	7,804,041	8,065,678	20,663,537	1,120,078	12,403,479
1915	9,239,355	5,862,244	22,308,395	892,572	15,197,872
1916	7,471,884	6,612,550	21,333,782	474,081	13,162,627
1917	8,041,000	7,190,000	27,550,000	N/A	N/A

Source: B. H. Hibbard, *Effects of the Great War upon agriculture in the United States and Great Britain* (1919), p. 220.

was that a 'plough-up policy' was the only way for England to increase substantially the gross production of food for the 1916 harvest. It recommended offering farmers a minimum price for wheat over the following several years. The Irish Committee, however, rejected the idea of guaranteeing prices for any longer than a year, and the Scottish Committee was opposed to definitive prices for cereals, believing that the 1916 harvest would be bountiful and price guarantees would be unnecessary.[11] Selborne's scheme also received little support from the War Committee. Supporters of laissez-faire policies, Reginald McKenna and Arthur Balfour included, blocked all recommendations of regulation. The findings of the Milner Committee eventually formed the basis of the food policy adopted in 1917, but until then, intervention was rejected.[12]

Official statistics for the United Kingdom show that under the Asquith administration there was an increase in the production of wheat and oats, but that the production of barley and beans declined between 1914 and 1915, and wheat, oats, and hay declined between 1915 and 1916 (see Table 1). The Board of Agriculture determined that losses were in part due to poor land practices by farmers, but more importantly, they were also the result of indiscriminate recruiting in the first year of the war.[13] From August 1914 to May 1915 agricultural labour was susceptible to the blandishments of the armed forces; enlistment was voluntary and until the first Military Service Act, there was no barrier to skilled workers joining the military. In August 1915 the government compiled a National Register to take account of the nation's labour supply. Under this programme certain skilled workers 'between the ages of fifteen and sixty-five [and] not already in the forces' were to be 'starred,' meaning that they would be not be accepted or solicited for military service.[14] A further attempt at the voluntary system was the Derby Scheme: announced on 21 October 1915, it aimed to find an additional 500,000 men to serve by 31 March 1916, but contained a provision for the protection of 'certified occupations' and sheltered the same skilled workmen from military service who were listed

[11] Dewey, *British agriculture*, pp. 24–27. TNA, MAF 42/9/3, Milner Committee report on home production of food, 28 Dec. 1915.

[12] Dewey, *British agriculture*, pp. 26–8; Devon RO [hereafter DRO], 1262M/L138, DWAC, 29 Dec. 1915; TNA, MAF 42/9/3, Milner Committee report.

[13] Dewey, *British agriculture*, pp. 28, 38, 79–86, 91–103, 106, 138–42; K. Grieves, *The politics of manpower, 1914–18* (1988), pp. 54–5.

[14] P. Horn, *Rural life in England in the First World War* (1984), p. 76.

under the National Register.[15] The Board of Agriculture put further protective measures in place when it created the County War Agricultural Committees (CWACs) in the autumn of 1915. They were instructed to ascertain the needs of farmers, identify the best means of assisting them in cultivating their land and develop the agricultural resources within each county. Although they lacked the power to force change or implement policy, they were able to negotiate labour demands and served as a line of communication between the farmers and the Board of Agriculture. While these schemes were good in theory, they were not always implemented at the local level. The problem was that the issue of labour formed part of a larger argument within the Asquith coalition regarding the British commitment to the war effort. The failure of the Derby Scheme and growing signs of war weariness among the allies added to the pressures on the Asquith administration to take further action by abandoning the voluntary system in favour of conscription. Political infighting between conscriptionists and anti-conscriptionists delayed important decisions from being made until the spring of 1916 when the conscriptionists won a complete victory.[16]

With the introduction of conscription in January 1916, the starring system was discontinued and those who were previously protected were now reconsidered under the new measure.[17] Although the second Military Service Act contained a provision that exempted skilled agriculturalists, such as bailiffs, horsemen, and tractor mechanics from military service, general labourers under the age of 25 remained unprotected. Exemptions only applied to skilled men who were in their position before 15 August 1916. Even with these new regulations in place, and taking into account the poor harvest of 1916, there were still not enough men available to bring in the harvest.[18]

In the light of the difficulties encountered in the harvest, Lord Selborne recommended offering the farmers financial incentives along with better assistance from agricultural experts in an attempt to improve production. His plan was rejected in March 1916, but it was revisited in November when the Board of Agriculture recommended that the government offer price guarantees for the following year's corn harvest. The Board criticized the War Office for overlooking the strategic value of food and stated that disputes between the two had placed considerable pressure on the nation's farmers: 'In the larger producing counties of the south-west, labour supplies have been neglected to the point where it is no longer the question of maintaining adequate labour standards, but whether cultivation will cease completely'. It was recommended that local military tribunals be instructed to ensure labour supplies in the counties, as so far there had been considerable disparity in the treatment of labour for the land.[19] The Board of Agriculture also recognized that the current wheat and potato crises were the result of the inadequate number of skilled ploughmen and horsemen on Britain's farms.

[15] TNA, CAB 17/158/14, Army Recruiting: Derby Scheme, 27 Sept. 1916.

[16] R. J. Q. Adams and P. Poirier, *The conscription controversy in Great Britain, 1900–18* (1987), pp. 145–52; D. French, *British strategy and war aims, 1914–16* (1986), pp. 169–76.

[17] DRO, 1262M/L/OD/138, DWAC Report: Regulations for starred occupations, Jan. 1916.

[18] Adams and Poirier, *Conscription controversy*, pp. 139–40.

[19] TNA, MAF 60/105, Home food supplies report printed for the Cabinet, 16 Nov. 1916.

The removal of Asquith from power and the appointment of Lloyd George as Prime Minister on 6 December 1916 led to the implementation of agricultural policies that had first been proposed earlier in the war. In January 1917 the Prime Minister and R. E. Prothero, President of the Board of Agriculture, outlined a new plan for government intervention in the nation's food supply. On 1 January 1917 the Board of Agriculture established the Food Production Department, and T. H. Middleton, its first director, was given the job of stimulating arable cultivation. The Food Production Department immediately put into effect the 'plough policy' that sought to increase the arable land by three million acres, a return to the 1870 position when British agriculture fed twenty-six million people compared to the sixteen million fed under the livestock regime of 1914. To assist the plough policy, the Food Production Department, under Regulation 2L of the Defence of the Realm Act (DORA), was granted permission to seize unoccupied land. Under Regulation 2M, it had the power to take possession of land already in use, commandeer horses and equipment or take any action that would secure higher food production. The final plank of the new agricultural policy was the founding of County War Agricultural Executive Committees to ensure that the Board's policies were carried out. The continued decentralization of agriculture, as seen through the formation of the Executive Committees, was important. It demonstrated the government's awareness of the regional variations that afflicted Britain's agricultural industry and showed a willingness on the part of policy makers to approach problems with the necessary flexibility. These committees, comprised of farmers and landowners, had the power to advance cultivation by demanding improvements in husbandry on any farm or even any field, or by prohibiting the growing of non-essential crops. They could also negotiate with the military authorities to secure necessary labour by the temporary release of men from the armed forces. The Executive Committees possessed more authority than the County War Agricultural Committees and in theory could ensure that the farmers had the necessary labour, horses, supplies, and fertilizer. Members could also serve as arbitrators between the farmers, individually or collectively, and the Board of Agriculture on questions such as crop rotations, quotas, and prices.[20]

The goodwill to agriculture shown by the Lloyd George administration and its willingness to compromise on the labour issue was largely undone in January 1917 when the government announced the decision of the War Office to remove an additional 30,000 men from agriculture. And in April all exemptions for men aged 18 to 35 in category A1 were withdrawn. To provide an incentive to farmers and to alleviate the pressure created by the removal of more men from agriculture, the Ministry of Food introduced the Corn Production Act in 1917. The Act guaranteed wheat and oat prices, increased wages for agricultural workers, and established a more comprehensive plough policy, all of which were designed to increase crop outputs and reduce the nation's reliance on food imports.[21] Further, in May 1917 the government introduced the tractor scheme, which provided $3.29 million for the purchase of tractors from the United States.[22] The new tractor scheme was intended to reduce the number of horses required for

[20] DRO, 1262M/L113, Board of Agriculture Report issued by Mr. Prothero, 18 Jan. 1917.

[21] Maurice Kirby, 'Industry, agriculture and trade unions', in S. Constantine, M. Kirby and M. Rose (eds), *The First World War in British history* (1995), pp. 63, 64; Dewey, *War and progress*, p. 210.

[22] Dewey, *British agriculture*, p. 150.

farm work, which were in short supply due to requisitioning from the army, and to help farmers plough more efficiently. Ultimately, the Corn Production Act, and to a lesser extent the tractor scheme, were successful. Home food production increased by the end of the year, shortages were limited, and food queues were controlled and eventually reduced through the redistribution of food and supplies.

The issue of government management of the agricultural industry was, however, much more complex than reorganizing and centralizing Britain's food production programme.[23] It took considerable time for an agricultural plan to be implemented, the success of which was dependent on the participation of Britain's farmers. Action taken by Lloyd George was successful in that it both saved shipping space and provided substantial increases in food production before the war's end, but the crucial shift in agriculture took place in 1916 when the desperate labour shortage forced farmers to modify farming practices to suit wartime conditions. Within this context, historians have overstated the importance of the adoption of a new agricultural policy by the Lloyd George government in December 1916–January 1917.[24] As the remainder of this article will show, the role played by farmers in the management and production of Britain's food supply was crucial to avoiding a more damaging food crisis. It was, in part, their willingness to resist potentially damaging directives issued by the Board of Agriculture, as well as to hold out for price and labour guarantees, that finally forced the government to reconsider, and eventually change, its food policies.

II

From the mid-nineteenth century Devon experienced an overall decline in its agricultural labour force. In 1862 male labourers in Devon earned on average 7*s*. per week compared to 10*s*. per week in Herefordshire and 11*s*. per week in England's northern regions.[25] The result was that from 1866 to 1872 between 400 and 500 families employed in agriculture left Devon for farms in northern England and this exodus continued throughout the remainder of the century. Although in 1914 Devon remained the largest agricultural county in the south-west, its skilled and semi-skilled workforce was still in decline, and farmers had to rely more on unskilled labourers. According to the 1911 occupational census, 42,609 men were employed in agriculture in Devon.[26] During the war, the Labour Officer's Reports indicate that 10,204 were classified as 'farmers', the rest made up the agricultural workforce (Table 2).[27] Most of Devon's farms were small, under 250 acres, family run, and employed only a small labour force.[28]

[23] Kirby, 'Industry, agriculture and trade unions', p. 63; Barnett, *British food policy*, pp. 63–5; Cooper, *British agricultural policy*, pp. 2–3, 22–3, 42, 59.

[24] Dewey, *British agriculture*, pp. 2–6, 242.

[25] In mid-century the average wage for an agricultural labourer was 10*s*. G. E. Mingay, 'Rural England in the industrial age', in G. E. Mingay (ed.), *The Victorian countryside* (2 vols, 1981), I, p. 6.

[26] BPP, 1913, lxxviii, 321, Part I, Census of England and Wales 1911, Vol 11, Occupations and Industries, pp. 160–3.

[27] The 'agricultural workforce' also included small hobby farmers who did not own enough land to be classified as farmers. It also includes approximately 5,000 women. Labour Officer's report, 17 Apr. 1918, DRO, 1262M/L140.

[28] Farm sizes in Devon differed considerably between regions. Farms in the north tended to be small, whereas farms in the south of the county could be much larger, up to 1000 acres.

TABLE 2. Agricultural workforce for Devon, 1914–18.

	1914	*1915*	*1916*	*1917*	*1918*
Farmers	10,204	9,726	8,592	7,994	7,833
Farmers' sons	5,598	4,532	4,461	3,397	2,261
Skilled	10,229	9,795	9,,001	8,337	7,020
Unskilled	12,277	11,748	11,442	11,013	8,832
Gardeners	3,509	2,678	1,552	1,212	989
Agricultural volunteers	123	316	456	516	505
Soldiers		2,500	1,786	2,433	2,593
Women's Land Army				176	122
Prisoners of war		150	225	375	1,175
Plough horses	2,500	1,811	1,701	1,325	707
Other	501	419	381	254	176
Total					

Source: Labour Officer's Report, 17 Apr. 1918, DRO, 1262M/L140.
Note: The numbers presented for the skilled and unskilled rows are open to interpretation. It was left up to the individual farmers to provide a list of workers and occupations.

Given the nature of farming in Devon, the ACC's suggestion in August 1914 that farmers break up grassland to increase the production of staple crops made many farmers nervous. In response to the ACC's recommendation, the Devon Farmers' Union (DFU) and other farmers' unions throughout the country brought up the question of guarantees.[29] The National Farmers' Union (NFU), created in 1908 to protect farmers against exploitation and to promote the prosperity of the agricultural industry, took up the issue. During the war, farmers' unions played a central role in organizing and protecting members' rights, but their efforts were initially unsuccessful. The main concern of Devon's farmers was that, following the agricultural depression of the 1870s and 1880s, numerous farms in Devon had returned to grassland (see Table 3). Livestock farms required a substantially smaller workforce than crops. Farmers were reluctant to plough up their fields because they wanted government assurances that, once they converted their farmland back into arable, prices would be adequate and demand for their crops would be maintained. They also worried about finding the labour necessary for such an undertaking. Farmers also sought improved wages for their labourers in the hopes of preventing further losses of manpower to manufacturing and other industries where wages were considerably higher.[30] In October 1914 the NFU's organizing secretary reported that the Union had 'absolutely failed to get a guarantee' of government support in return for increasing the acreage of grain.[31]

[29] DRO, 1262M/114, Report of the Devon Farmers' Union, 22 Dec. 1917.

[30] DRO, 1262M/L/OD/13, 8 Report of farm holdings for the County of Devon, 21 Aug. 1914.

[31] J. Brown, 'Agricultural policy and the National Farmers' Union, 1908–39', in J. R. Wordie (ed.), *Agriculture and politics in England, 1815–1939* (2000), p. 182.

TABLE 3. General trend in land usage, Devon, 1870–1930 ('000 acres).

Year	*Arable*	*Permanent grass*	*Rough grazing*
1870	642	372	N/A
1880	641	510	N/A
1890	593	615	N/A
1900	576	634	157
1910	521	690	161
1920	522	640	197
1930	436	701	302

Source: W. G. Hoskins, *A new survey of England: Devon* (1954), p. 102.

Upon the outbreak of war, the labour issue was of concern to farmers. Early enlistments threatened to deplete the rural labour supply. Based on studies of enlistment numbers, historians have generally accepted the notion that farm workers enlisted in very high numbers during the first years of the war. Hilary Crowe's study of Westmorland, for example, shows that numerous farmers' sons enlisted in the first two years of the war and that after 1916 exemptions were no guarantee against conscription. Peter Dewey's study, however, suggests that certain industries, including agriculture, experienced low enlistment numbers in the initial stages of the war.[32] The situation in Devon seems to support Dewey more than Crowe as Devon's farms were largely spared the initial rush of young men joining the colours, although they were not necessarily protected against conscription after 1916.[33] One reason for low enlistment among agricultural labourers was that farmers were willing to offer monetary inducements to skilled men to stay until the winter.[34] Many believed that they could stave off labour shortages until the war was over.[35]

At the same time, however, farm labourers found themselves in a precarious situation. Some men remained on the land in the hope that the heightened importance of agriculture during the war would bring much needed changes to the industry, specifically that wages would improve or that the incentives offered to skilled men would be accorded to other groups as well, a focus that emphasized the local experience over the national one. Another explanation was that some labourers were bound to the land by annual contracts and could not enlist without the permission of the estate owner, the estate manager, or the tenant farmer, depending on the

[32] Crowe, 'Keeping the wheels of the farm in motion', p. 208; P. E. Dewey, 'Military recruiting and the British labour force during the First World War', *Historical J.*, 27 (1984), p. 200.

[33] DRO, 1262M/L144, Report of recruitment numbers for the County of Devon, 27 Oct. 1914. DRO, 1262M/L144, Report of recruitment in the West Country, 30 Oct. 1914.

[34] DRO, 1262M/O/LD/144, Labour on the land, 1 Oct. 1914.

[35] The labour officer's reports give no indication as to whether or not the 'labour shortage' refers to both men and women. Female agricultural labourers were included in the labour calculations in 1914, but how they were counted is unclear. Sometimes they are referred to in the 'other' column and sometimes in the volunteer column, but in 1917 the Women's Land Army was added as a separate column. The DFU, however, appears to have been referring to men when discussing the labour shortage.

nature of the contract. Still others were tied to the land due to their cottage rental agreements. If a man left to join the army, his wife and family would have to vacate their cottage, and given the severe housing shortage in Devon, this was not an attractive option. It is also likely that farmers negotiated with their labourers to prevent them from enlisting. The promise of continued or permanent employment once the war ended could have been a powerful incentive to keep men at home. In instances such as these, low recruitment numbers may have said more about the desire of farm employers or managers to protect their own interests than it did about any lack of 'patriotism' of the agricultural labour force.[36] The men from agriculture who enlisted early in the war were most often casual labourers or those who were not bound by contractual or familial obligations. Although some farm labourers enlisted to escape poor pay and working conditions, agricultural labourers experienced a considerable range of pay and conditions, which helps to explain why many were unwilling or unable to leave the land.

The effectiveness of monetary incentives and bribery was, however, temporary and, with no end to the war in sight, by the end of February 1915 voluntary enlistment numbers for Devon were on the rise, resulting in the labour shortages that had been avoided the previous autumn.[37] Farmers initially attempted to resolve the labour problems by negotiating with the government through their local representatives. When this proved ineffective, the DFU protested that more attention had to be paid to the problems facing the agricultural community. The DFU stated that:

> Yes we want more men, but we also want organization and organizing minds. The plan by Lord Selborne [the one previously rejected by Cabinet] offers some protection. Instead of depleting the countryside and asking the farmers to make unreasonable sacrifices he understands that the policies of this government require drastic revision or we are to pass through this terrible experience in vain.[38]

While WACs were established to take account of the labour problem and to offer solutions, the immediate problem was to meet recruiting expectations while retaining enough men to satisfy the food production demands of the county. Once formed, the local committees reported in April to Hugh Fortescue, the fourth Earl Fortescue and Lord Lieutenant of Devon, that there was a shortage of farm labour owing to the drastic improvement in recruitment numbers, as well as the increased number of labourers required to make the change from livestock to crops, but that the shortage could largely be met by employing men who were not eligible for military service or who had been rejected as medically unfit, and carpenters and bricklayers (since all building projects had been suspended until after the war).[39]

In May 1915 the Devon County Council, in conjunction with military authorities, put forward a plan to use soldiers on the land temporarily, but the plan required sacrifices that most farmers

[36] DRO, 1037M–O/4, Enlistment records by name, age, and occupation, 1914–18; 1037M–O/1,Voluntary enlistment of men category B, army reserve, 1914–15; 1262M/O/LD/144, Labour on the land, 1 Oct. 1914.

[37] DRO, 1262M/O/LD/144, Voluntary recruitment for Devon, 18 May 1915.

[38] *Devon and Exeter Gazette*, 13 Mar. 1915.

[39] DRO, 1262M/O/LD/146, Agricultural Committee Report, 15 Apr. 1915; DRO, 1262M/L153, Labour report for 1915, 27 Apr. 1915; DRO, 2165A/PX, Drewsteignton Council minute book, 16 Apr. 1915.

were unwilling to make. In the spring of 1915 there were 27 volunteer training corps in the county with approximately 2,500 men. These men were not likely to be used in the impending spring offensives and it was suggested, as a way to both solve the labour shortage and promote recruitment in the smaller parishes, that they should be released from service to give assistance to the farmers for the harvest. This option would not be made available to farmers who still had sons at home or if the parish had few men of military age under arms.[40] But most farmers, particularly owner-occupiers who were dependent on their sons' labour, were not willing to accept the county council's offer and allow their sons to enlist for only fleeting promises that replacement labourers would be found.

In mid-1915 the launch of the National Register further divided the agricultural community. Farmers who were reliant on a hired workforce (this would mostly apply to tenant farmers or owner-occupiers with sizable farms) considered the starring of certain occupations to be a partial victory. The programme covered most of the skilled labour needed on a farm, but it did not include ancillary machine operators or general labourers. The exclusion of the latter group was particularly problematic for smaller farmers. To some extent, small farms could share skilled labourers, but general farm labours were necessary for the daily operation of the farm. In essence, the starring programme divided the agricultural community into two groups: 'official', skilled labourers in protected industries, and 'unofficial', unskilled labourers who were afforded no government protection. In May 1915 this was an important division. The starring programme created divisions not only between skilled and unskilled workers, but also within the working classes. Unskilled labourers were increasingly taken from the land and replaced with women, soldiers, and prisoners of war who, the Board of Agriculture believed, were adequate replacements, while skilled men remained at home.[41]

With fewer labourers and no price or supply guarantees, by the autumn the DFU was encouraging its members to refuse to comply with the government's suggestions for replacement labour and improved productivity.[42] Alfred Loram, a small tenant farmer from South Tawton, believed that the new starring programme showed the:

> serious discrepancy between the statements of the Minister for Agriculture and the doings of the local authorities. Lord Selborne tells us Lord Kitchener will allow men to leave from the trenches for a few months ploughing and corn sowing. Yet, men are taken from the land weekly and this week the recruiting sergeant in this district is making visits to men, married and single, with half veiled threats that if they don't join now their brothers, sons and neighbours will soon be compelled.[43]

Likewise, 'A Tenant Farmer' believed that the government only:

> seeks to take advantage of the poor position of the farmer under these present conditions. The Farmers' Union is in existence to protect our interest and so far it has prevented the

[40] DRO, 1262M/L138, Letter from Lord Fortescue to the recruiting office, 26 May 1915.

[41] See Dewey, *British agriculture*, pp. 106–41.

[42] DRO, 317/M/26, Report of the DFU, 17 Nov. 1915.

[43] *Western Times*, 15 Oct. 1915. See also *Illustrated Western Weekly News*, 14 June 1915; *Western Times*, 15 Oct. 1915; *Hartland and West Country Chronicle*, 27 Oct. 1915; *Totnes Times*, 20 Nov. 1915.

> government from walking over us and forcing action that may be harmful. It is the position of the Farmers' Union to give us lead on matters affecting agriculture.[44]

Others also believed that government actions were detrimental to the interests of the farmers and called on the DFU to draw attention to the problems facing agriculture. J. Coaker, the Secretary of the Dartmouth Branch of the DFU, relied on the Union to protect his interests, and encouraged Devon's farmers to protest against government procedures.[45] Others still took it upon themselves to shelter their men from military service by putting unskilled labourers down as bailiffs or cowmen.[46] In October 1915 James Hubbard, an owner-occupier from Tiverton, had tried to do this by registering one of his general farm labourers as a tractor driver, but when the man was called before the military tribunal, it was discovered that he was 'a fraud and [his] employer a liar'.[47] Other discoveries of fraudulent behaviour on the part of farmers were reported in Devon's newspapers.[48] Although the actions of individual farmers were not always honourable and many were frustrated by the limitations of the starring programme, they had to be careful in their actions; they wanted some government intervention, but they did not want conscription.

IV

The extension of government powers under the Derby Scheme (October 1915) offered hope to farmers. The continued protection of 'certified occupations' and the addition of ancillary machine operators to their number suggested that the farmers' concerns were, in part, finally being addressed. Further, the DFU took the extension of the CWAC's powers in the autumn of 1915 as a sign of further improvement. The Dartmouth Farmers' Union applauded the government's efforts to regulate the agricultural labour supply and believed that 'the negotiating powers granted to the ACs will no doubt benefit us all'.[49]

Such collegiality was quickly undone, however, with the introduction of conscription in January 1916. Although Lord Selborne did arrange for agricultural representatives to appear at local tribunals to prevent the further depletion of labour on the land, this did not prevent skilled men from being conscripted, and Selborne's actions were heavily criticized by the DFU.[50] From April to July 1916 the tribunal records for the county reveal that many of the men under consideration for exemptions worked in the agricultural sector. But, cases that were disallowed far exceeded those approved. Among the men rejected for exemption were general farm labourers, thatchers, woodmen, rabbit trappers, tractor drivers, and dairymen. Although some of these

[44] *Totnes Times*, 13 Sept. 1916.

[45] DRO, 48/13/3/2/17.

[46] DRO, 1262M/L141, Tiverton tribunal report for Earl Fortescue, 10 Mar. 1915.

[47] *Western Morning News*, 29 Oct. 1915. The relationship between agricultural labourers and the military tribunals was a difficult one and grievances persisted throughout the war. See, for example, *Western Express and Torrington Chronicle*, 10 June 1916; *Dawlish Gazette*, 17 June 1916; *Western Guardian*, 8 June 1916; *Western Guardian*, 26 Oct. 1916; *Weekly News*, 12 Feb. 1916; *Express and Echo*, 25 May 1918; *Cornish and Devon Post*, 24 Mar. 1917.

[48] *Express and Echo*, 10 Feb. 1917; *Western Daily Mercury*, 2 June 1916; *Crediton Chronicle*, 15 Apr. 1916; *Western Morning News*, 12 May 1917.

[49] DRO, 1262M/L138, Letter from DFU to Labour Officer, Jan. 1916.

[50] DRO, 1262M/L/OD/138, DWAC Report, 19 May 1916.

men were skilled labourers, they continued to be called up by the military authorities.[51] Pamela Horn argued that skilled labourers were called up because the labour crisis was not as dire as the Board of Agriculture suggested and that the press exacerbated stories about shortages, thereby embellishing the extent of labour and supply problems. The percentage of enlistees for agriculture was based on pre-war employment numbers in the industry, which Horn argued was not an adequate reflection of the labour supply, and so she concluded that the labour crisis was less severe than was assumed at the time.[52] The Labour Officer's report for Devon shows that there was a shortage of skilled men on the land, even after taking replacements into consideration. The problem was that most of the replacement labour was unskilled and Devon farms were in need of ploughmen, mechanics, and skilled horsemen. In addition, cottages and homes were in serious disrepair and the few remaining agricultural smiths could not keep up with the demands of local farmers.

In response to the introduction of conscription, Richard Denning, a Union representative, accused Lord Selborne of 'disgraceful behaviour' by encouraging support for the farmer's position, while pushing for conscription.[53] J. H. Roberts, a farm owner from Clovelly, cautioned Lord Selborne that 'you may think you are being lenient and aiding the position of the farmers with offers of price guarantees, but with the other hand you seek to rob the farmer of his labour. What our farms in Devonshire could produce if they were left to be properly run'.[54] Lord Selborne had been part of the Cabinet faction pushing for the immediate introduction of conscription in 1915, but in April 1916 he appears to have been trying to meet the military needs of the country without placing the nation's food supply in jeopardy. His position was complicated; he wanted to meet the manpower needs of both the military and agriculture, but to the farmers, his actions appeared to be contradictory. His earlier proposals for the protection of agricultural production did not mesh with his pro-conscription actions.

Asquith, however, was still unwilling to offer labour guarantees and the DFU believed that the Military Service Acts undermined the little progress that had been made in terms of labour supplies.[55] Some farmers felt betrayed and believed that the government was unreasonable in its demands. J. Fowler, an owner-occupier from Salcombe, noted:

> at the rate horses are being commandeered and men enlisted, What Will Happen? The farms will become vacant. Already through a lack of labour we are unable to produce as much as we ought. You say all the able-bodied men must enlist and the farming be carried on by the old men, women and boys. Now we contend that these are unable to carry on the work on an average farm. I have already lost 150 acres of my land because it has not been tilled and the government does little but threaten to take it from me if I don't produce more food. I ask this government, trade unions and committees aside, to consider the plight of the farmer.[56]

[51] Crediton Rural District Local Tribunal, 17 June 1916, DRO, 317M/D1; Enlistment Report: Totnes, 10 June 1916, Totnes Rural District Local Tribunal, 1262 M/L140, bdle 29; Teignmouth Enlistment Report for July 1916, 21 July 1916, Teigmouth Rural District Local Tribunal 1262M/L140. See also, Crowe, 'Keeping the wheels of the farm in motion', pp. 208–9.

[52] Horn, *Rural Life*, pp. 73–4.

[53] *Western Daily Mercury*, 2 June 1916.

[54] *Western Daily Mercury*, 2 June 1916.

[55] *Launceston Weekly News*, 18 Nov. 1916.

[56] *Salcombe Gazette*, 19 Jan. 1916.

Likewise, Christopher Turnor, a dairy farmer before the war, was forced to:

> give up my dairy cows entirely and [was] obliged to plant crops. Many of us are holding the best we can, largely from patriotic motives. People's memories are short. Prior to the war nobody cared where the food came from so long as it was cheap. Now prices are rising, supplies harder to come by and rather than thank the farmer for his hard work, you rob his fields, take his men and horses and demand pre-war prices and quantities. With our hands tied what do you expect the farmer to do?[57]

Following the introduction of conscription, the complaints voiced by farmers were given additional weight by the fall in agricultural production in the West Country. In 1916 the Dartmouth branch of the DFU reported a decline in production values on farms in south Devon.[58] Food production reports for south Devon show a reduction of 9,000 acres farmed between 1915 and 1916 and slight reductions in corn, wheat, and barley for the county overall.[59] The decline in production for 1915–16 was primarily due to the failure of many crops following the harsh winter, but farmers also reported that some crops were rotting in the fields because of the difficulties of transport.[60]

Adding to the labour shortage was a reduction in the number of horses for use on the land, and a shortfall in the number of tractors suitable for farming in Devon. Under the Defence of the Realm Acts, the Board of Agriculture had the power to requisition horses, machinery, and supplies in order to improve the food situation. Large numbers of horses were required for the army, leaving insufficient animals to reclaim the grasslands.[61] Farms of less than 250 acres, typical in Devon, had a small workforce, usually only a few men and horses, and consequently shortages were felt more immediately than on larger farms. In 1916 the Devon War Agricultural Committee reported substantial shortages in horsepower to the Board of Agriculture.[62] The complaint was based on earlier reports from farmers that when horses did become available they were often of substandard quality for farm work. Many were old or sick, or they were light vanners that were not of the proper weight and size to pull a plough. Ploughman F. Goldman explained that 'the poor horses are now being overworked to an awful extent. They are laden and fatigued almost to death. This is a terrible way to farm'.[63] Cecil Doidge, an owner-occupier from Holsworthy, explained that 'We cannot be expected to increase production with limited manpower, short of horses, and ploughs that have proven useless. Besides, what should we use to pull the ploughs? What should we do with tractors that are unsuited for the land in Devon?'.[64] At the end of 1916 an inadequate supply of horse harnesses and a deficiency of skilled ploughmen made the problems in Devon even more acute. It was not until June 1917 that the Board of Agriculture took steps to protect the supply of horses for agricultural use when, under

[57] *Western Daily Mercury*, 13 Oct. 1916. See also, *Western Times*, 16 Dec. 1916; *Weekly News*, 21 Oct. 1916; *Western Guardian*, 11 May 1916; *Weekly News*, 21 Oct. 1916; *Weekly News*, 13 Oct. 1916; *Exeter Flying Post*, 18 Nov. 1916.

[58] *Dartmouth & South Hams Chronicle*, 17 Mar. 1916.

[59] Food production returns, Nov. 1915 to Nov. 1919, DRO, 1262M/L140.

[60] DRO, 1262M/L139, Report for agricultural representative at Dartmouth, 12 Sept. 1916.

[61] DRO, 1262M/L140, Minutes of the meeting of the Devon Agricultural Committee, 16 July 1918.

[62] DRO, 1262M/L140, Report from DFU to CWAC, June 1916.

[63] *Western Morning News*, 6 Aug. 1915.

[64] *Weekly News*, 14 Apr. 1917.

Regulation 2T of the Defence of the Realm Act (DORA), the sale of farm horses was prohibited without a license from the local agricultural board.[65]

With horses in short supply, farmers had to rely more on machinery. Until 1917, however, farm machinery was in short supply, often shared between several farms, and primarily confined to larger farms in southern and eastern Devon.[66] Though limited, the practice of borrowing machines remained in place until May 1917 when the 'government tractor scheme' was introduced. Each county had its own committee to supervise supplies and local agricultural engineers were appointed to supply fuel and spare parts. Devon's farmers, however, complained about the substandard machines provided by the government and argued that the tractors spent more time being repaired than ploughing fields.[67] The government cautioned that the new machines were still in the experimental stages and urged farmers to use them only for ploughing new pastures where the roots were less densely matted. But the problem with the scheme was that in late 1916 the government had made requests for farmers to increase the acreage of arable land, which could only be done by ploughing land long laid down to pasture.

The government's initial decision to leave the fate of the nation's homegrown food supply to the farmers, with little direction from the Board of Agriculture, proved to be a mistake. In 1915 the county of Devon was divided into four sections based on landholdings. Men, horses, and farming equipment were distributed based on the production portfolios of each region. Table 4 shows the breakdown of farmland under crop in Devon between 1915 and 1919. As can be seen, the total amount of land farmed in Devon declined during 1916, but saw some growth in 1917, but a slight dip again in 1918. National statistics show similar patterns with a minor decline in tillage and land under permanent grass between 1915 and 1916 and improvements overall in 1917.[68] The total farming acreage for the county was 1,638,000 acres, including 50,000 acres in Dartmoor which were hardly farmable. This total also includes 328,000 acres of pastureland and additional land that lay fallow on four-year rotations. In December 1915 the DWAC was asked to increase tillage in Devon by 60,000 acres for 1916. An increase of 60,000 acres would require a workforce of 1,200 men and 2,400 horses given that each additional fifty acres required one man and two horses. The Committee concluded that neither the men nor the horses were readily available. There was a plan to use soldiers on the land for the 1916 harvest and for general farm labour, but soldiers were most effectively used on the land in the eastern counties where they could be called back quickly for service. In Devon the only soldiers available for work on the land were those in training camps waiting to be transferred east. In June 1915 a plan was put in place that allowed for the release of soldiers from the Territorial battalions between 11 July and 15 October. The conditions of work were left up to private contracts between soldiers and farmers, and because call-ups could come at any time, 'only about half of the soldiers applied for by agriculturists were actually supplied'.[69] Nevertheless, the DWAC estimated that if it could secure enough horses and make the most of available labour, the county could increase tillage by 30,000 acres, half the amount required by the Board of Agriculture.[70]

[65] DRO, 1262M/L140, Minutes of the meeting of the Devon Agricultural Committee, 16 July 1918.

[66] DRO, 1262M/L139, Report of the DWAC, 6 June 1916.

[67] DRO, 1262M/L139, Report of the DWAC, 4 June 1917.

TABLE 4. Total acreage under crop in Devon, 1915–19.

	1915	*1916*	*1917*	*1918*	*1919*
North	314,000	303,000	316,000	300,000	310,000
South	135,000	126,000	131,000	128,000	130,000
East	293,000	290,000	294,000	295,000	290,000
West	196,000	190,000	190,000	185,000	185,000
Total	938,000	909,000	931,000	908,000	915,000

Source: DRO, 1262M/L140, Food production returns, Nov. 1915–Nov. 1919.

The DWAC was not, however, able to acquire the necessary horses or manpower and without replacement labour the county experienced a *loss* of 29,000 acres farmed in 1916 (see Table 4). The decline cannot be explained entirely by the insufficiency of men and horses on the land: it was also due to a tractor shortage and a decline in the number of skilled labourers, including tractor mechanics. The county experienced a decline in the production of cereals and potatoes (although root vegetables increased overall), as well as a decline in milk, cheese, pigs, horses, and fruit for the 1916 growing season.

Just when the DFU thought that their efforts to protect the agricultural labour force had failed, the Board of Agriculture in November 1916 announced a new agricultural policy based on Lord Selborne's earlier recommendations. The proposed changes suggested by the Board of Agriculture were reported on in local newspapers where the Board admitted that 'recruiting had in some districts depleted the land of the labour necessary to produce sufficient food' and stressed that 'everything will be done to stimulate production in the upcoming season. The War Office will not deplete the farms of labour necessary for the spring sowing'. The DFU, which found validation for its efforts in the government's admission of its previous poor management of the agricultural sector, welcomed the suggested changes. However, the DFU remained critical of past government policy and was sceptical that the labour problem had been be solved. Shortly after the Board of Agriculture's report appeared in local newspapers, the Council of the DFU responded:

> We have been asking to be governed ever since the war broke upon us, but we haven't seen any signs of it yet! Had we been governed properly two years ago the cost of wheat would not be what it is today at market. The Government couldn't guarantee prices because of the existing fiscal policy which cannot be altered. OH, NO! Had we been governed we should have had plenty of wheat in store and we should have retained the ploughmen to grow more … What a farce it is to say that people want to be governed! That is what we elect members of Parliament to do and then we are told that they have been driven to things against their will![71]

[68] Dewey, *British agriculture*, p. 201.
[69] Horn, *Rural life*, p. 93.
[70] TNA, MAF 80/4998, County agricultural records for Devon: Report for Jan. 1917, 8 Jan. 1917.
[71] *Exeter Flying Post*, 25 Nov. 1916.

This statement gives no credence to the view that Devon's farmers were unpatriotic or unaware of Britain's food problems. On the contrary, most farmers supported the war effort and worked to increase agricultural production. The complaint was to reassert the Unions' position that elected representatives were not properly caring for the interests of the farming community. What the Farmers' Union wanted was increased government controls beyond those in place by November 1916. Rather than the Board of Agriculture simply affirming that mistakes had been made, the DFU wanted tighter controls placed on manpower, supplies, and equipment, but they also wanted government recognition of the farmers' efforts and the sacrifices they had made.[72] The County War Agricultural Committee supported the grievances outlined by the DFU and encouraged further action by the agricultural representatives to protect the county's labour supplies.[73]

The DFU's scepticism was justified when in January 1917 the War Office removed an additional 30,000 men from agriculture. With the support of the DFU, the DWAC protested against the move and sent a letter to the Board of Agriculture stating: 'This Committee views with most serious alarm the recent decision of the War Office to call from Agriculture 30,000 of the most valuable workers on the land and urge that the order be at once revoked and the men already called up be returned to their civil occupations'.[74] The War Agricultural Committee was assured that replacement labour in the form of 800 German prisoners of war was being sent to the western counties.[75] In the meantime, the DFU called an emergency meeting to address the new demands made by the government and reported that their 'efforts have not been taken seriously, nor have our sacrifices in this war. The Government made promises that it had no intention to keep and now the military authorities are calling up more men from agriculture'.[76] Attempts by the farmers to negotiate labour supplies proved to be ineffective and the County War Agricultural Committees were powerless to defend the position of the farmers.

V

Although the farmers did not succeed in preventing the government from removing more men from the land, they could claim a number of successes. Prior to the declaration of war, the agricultural sector in Devon had experienced a decline in its labour force due to low wages and its hierarchical nature. With the introduction of the Corn Production Act in 1917, farmers hoped that the new wage scheme, which guaranteed a minimum wage for agricultural workers and established the Agricultural Wages Board, would prevent further losses in the post-war period. The war drew attention to the deficiencies of farm equipment in the county, and the new tractor scheme was intended to boost production in future years. Depending on the post-war economy and the stability of land ownership and land prices, the tractor scheme could

[72] DRO, 1262M/L146, Letter from the C. R. Beatly of the Devon Farmers' Union to R. Searle of the DWAC, 17 Nov. 1917.

[73] DRO, 1262M/L146, DWAC Report to Lord Fortescue, 21 Nov. 1916.

[74] TNA, MAF 80/4998, Report by the DWAC sent to the Board of Agriculture, 16 Jan. 1917.

[75] DRO, 1262M/L113, Letter for the Board of Agriculture, 24 Jan. 1917.

[76] DRO, 1262M/7/0/145, Report of the DFU to DCC, 3 Feb. 1917.

have had significant benefits for the farming community. Further, the interaction between local and national boards, particularly throughout 1916, conveyed to the government the problems facing local farmers and the need for greater cooperation between the two groups. It was the government's willingness to compromise that encouraged Devon's farmers to do the same.

While the conditions of war eventually necessitated the coordination of local and national efforts, such cooperation was slow to materialize in Devon. Part of the reason was that at the county level farmers were divided over land practices as well as labour and supply needs. While some accepted the government's suggestion to plough up their fields, others refused. With the assistance of the DFU and the DCC, farmers attempted to negotiate labour supplies with the Board of Agriculture. Their attempts were partly successful in that the starring programme introduced in 1915 protected skilled labourers by preventing them from being enlisted in the armed forces. While the starring programme offered a partial and temporary solution to the labour problem, it created further divisions within the agricultural labour force, further separating the skilled from the unskilled.

Given the diversity of experience at the local level, it is not surprising that Devon's farming community never fully agreed on how to respond to the labour crisis, but they did recognize the need for some degree of solidarity and cooperation if they were going to increase home food production while minimizing personal losses. Despite mistakes and the vacillation of policy, the success of Britain's food programme was assisted by the ability of Devon's farmers, tenuously united under the DFU, to negotiate the demands placed on them by the Board of Agriculture prior to the introduction of a new agricultural policy in early 1917.

Annual list of publications on Agrarian History, 2008*

Compiled by Peter McShane
Museum of English Rural Life, University of Reading

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BURNETTE, JOYCE, *Gender, work and wages in Industrial Revolution Britain*.

BUXTON, BEN, *The Vatersay raiders*.

CAMPBELL, BRUCE M. S., *Field systems and farming systems in late medieval England* [collected essays].

CASTLE, GILL, LATHAM, JAMES and MILETO, ROB, *Identifying ancient woodland in Wales: the role of the Ancient Woodland Inventory, historical maps and indicator species*.

CATCHPOLE, ANTONIA, CLARKE, DAVID and PEBERDY, ROBERT, *Burford: buildings and people in a Cotswold town*.

CLARKE, GILL, *The Women's Land Army: a portrait*.

COOPER, TIM, *Laying the foundations: a history and archaeology of the Trent Valley sand and gravel industry*.

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DAVIES, A. ELLIS, *Fifty years of Welsh ploughing*.

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JOHNSON, DAVID, *Ingleborough: landscape and history*.

JONES, ALEX *et al., A Romano-British livestock complex in Birmingham: excavations 2002–2004 and 2006–2007 at Longdales Road, King's Norton, Birmingham*.

KELLY, LIAM, *Photographs and photography in Irish local history*.

KENNEDY, GEOFF, *Diggers, Levellers, and agrarian capitalism: radical political thought in seventeenth century England*.

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—, (ed.), *Making gardens of their own: advice for women, 1550–1750*.

NAIL, S., *Forest policies and social change in England*.

NEAVE, DAVID and NEAVE, SUSAN (eds), *A history of the County of York: East Riding*, VIII, *East Buckrose: Sledmere and the Northern Wolds*.

NORMAN, ANDREW, *The story of George Loveless and the Tolpuddle martyrs*.

NOTT, HUGH, *Papermaking in Lincolnshire, 1600–1900*.

OGGINS, ROBIN S., *Game in the medieval English diet*.

O'ROURKE, KEVIN H., RAHMAN, AHMED S. and TAYLOR, ALAN, M., *Luddites and the demographic transition*.

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RIPPON, STEPHEN, *Beyond the medieval village: the diversification of landscape character in southern Britain*.

ROBERTS, BRIAN K., *Landscapes, documents and maps: villages in northern England and beyond, AD 900–1250*.

ROBERTS, I., *Telling tales out of school: a history of education and school life in North Tyneside and Redesdale from 1870 to 1944*.

ROBERTS, PETER (ed.), *Called to account: New Forest accounts, 1746–1773*.

ROTHERHAM, IAN D. *et al* (eds), *The woodland heritage manual: a guide to investigating woodland landscapes*.

RUSSELL, JAMES, *Man-made Eden*.

SHRUBSALL, DENNIS, *Walking with W. H. Hudson through the English landscape: the home country of the world's first literary environmentalist*.

SINGLETON, ANDY and JOY, DAVID, *Barns of the Yorkshire Dales*.

SLATER, T. and GOOSE, N. (eds), *A county of small towns: the development of Hertfordshire's urban landscape to 1800*.

SMITH, GRAHAM, *Smuggling in Essex*.

SOMERSET VERNACULAR BUILDING RESEARCH GROUP, *Traditional buildings in the parish of Combe St Nicholas*.

STEWART, S. (ed.), *The 1263 Surrey eyre*.

STONE, M. (ed.), *The diary of John Longe (1765–1834), vicar of Coddenham*.

STOYEL, ALAN, *Memories of Kentish watermills: the rivers Cray and Darent*.

STRAUGHTON, ELEANOR A., *Common grazing in the northern English uplands, 1800–1965: a history of national policy and local practice with special attention to the case of Cumbria*.

SWAPP, GEORGE D., *Dunnottar woods and house: their history, (1782–2008)*.

TALLETT, JIM, *Celebrating the harvest: a selection of less familiar hymns from the past*.

TAYLOR, BECKY, *A minority and the state: travellers in Britain in the twentieth century*.

THOMAS, HUGH M., *The Norman conquest: England after William the Conqueror*.

TINKLER, RICHARD, *Wharns Tinkler, Fenland smallholder: farming in the Huntingdonshire fens, 1934–1970*.

TOWNSEND, ALF, *Blitz boy: an evacuee's story*.

UPEX, STEPHEN G., *The Romans in the east of England: settlement and landscape in the lower Nene Valley*.

VALANTE, MARY A., *The Vikings in Ireland*.

VINER, DAVID, *Wagons and carts*.

WADE MARTINS, SUSANNA and WILLIAMSON, TOM, *The countryside of East Anglia: changing landscapes, 1870–1950*.

WALSH, WALTER, *Kilkenny: the struggle for the land, 1850–1882*.

WHEELER, R. C. (ed.), *Maps of the Witham Fens from the thirteenth to the nineteenth century*.

WILKINS, FRANCES, *Matthew Hay: smuggler, farmer, and poisoner?*

WILLIAMS, ANN, *The world before Domesday: the English aristocracy, 900–1066*.

WILLIAMS, W. H. A., *Tourism, landscape and the Irish character: British travel writers in pre-Famine Ireland*.

WILSON, AVIS R., *Forgotten labour: the Wiltshire agricultural worker and his environment, 4500 BC-AD 1950*.

WILSON, JAMES, *Journal of my life and everyday doings 1879–81, 1885–92*; edited by Peter Hillis.

WOODHEAD, LEN, *A Lincolnshire lad's scrapbook: more tales from Nocton Estate*.

WRIGHT, JOHN T., *An evacuee's story*.

YOUNG, MARY, *Abernyte: the quiet revolution*.

YOUNG, ROBERT, *Early years: recollections of life in Sturminster Newton in the early nineteenth century*.

YOUNGS, DEBORAH, *Humphrey Newton (1466–1536): an early Tudor gentleman*.

Book Reviews

Great Britain and Ireland

M. AUDOUY and A. CHAPMAN (eds), *Raunds: the origin and growth of a Midland village AD 450–1500: excavations in North Raunds, Northamptonshire, 1977–87* (Oxbow Books, 2008). xvii + 148 pp., 161 illus., 50 tabs. £28.

Raunds, a small town located a little to the east of the Nene Valley in north-east Northamptonshire, has been one of the iconic sites for rural settlement and landscape studies for more than thirty years. Ten years of excavation in the north of the present village started in 1976 in response to threatened development, and gradually expanded to cover thousands of square metres on three main sites on both sides of the valley. Here were uncovered not only the remains of scores of buildings ranging from large halls to minor ancillary structures spanning more than a millennium from AD 450 onwards, but also an otherwise entirely unknown church and associated graveyard of late Anglo-Saxon origin and numerous ditches. In 1985 the investigation expanded to include the surrounding historic landscape, ultimately encompassing forty square kilometres, which included excavation at four major sites in addition to those within Raunds itself, and extensive fieldwalking which allowed the evolution of the surrounding pattern of settlement over thousands of years to be reconstructed. The results of many of these investigations have already been published (A. Boddington, *Raunds Furnells, the Anglo-Saxon church and churchyard, Raunds Area Project* (English Heritage Arch. Rep. 7, 1996); S. Parry, *Raunds Area Survey: An archaeological study of the landscape of Raunds, Northamptonshire 1985–94* (Oxbow books, 2006)). Others, including the excavations at nearby West Cotton, are still awaited. The volume under review here is the first full publication of the excavations within Raunds itself.

The volume is published in two formats, with chapters 1–5 presented in traditional hardback form and chapters 6–9 on CD. Chapter 1 is a general introduction to the history of excavation in the settlement and to its topographical, geological and historical context. This is followed by a summary of the historical background including descents of the two discrete manorial sites, Furnells and Burystead, which were identified during excavation, and a third unexcavated manor, Gages, which lay nearby. An ecclesiastical history identifies Raunds as a possible minster site and outlines the history of the surviving parish church: there is no historical evidence at all for the second church, which is known solely from excavation. Chapter 3, engagingly titled 'A panorama of settlement development', provides a broad chronological overview of the development of settlement, synthesizing evidence from the three main sites excavated within Raunds (Furnells, Langham Road and Burystead) and smaller areas to the north and south. These thirty pages represent the distilled essence of current understanding, and are very effectively illustrated with plans at various scales, which allow the reader to appreciate both the detail of features in the individual sites and the overall arrangement of structures and boundaries across the three sites. This is followed by a much shorter (six-page) chapter titled 'Archaeology and history' which focuses on specific historical issues for which the authors consider the evidence from Raunds to be particularly pertinent, namely, the impact of the Danish settlement and the subsequent 'reconquest' and the origins of 'metricated' settlement planning. The remaining 80 pages of the hardback publication (chapter 5) are devoted to presenting detailed evidence of the excavated features, while the CD includes the final four chapters comprising specialist reports ('Saxon and medieval pottery', 'Saxon and medieval finds', 'Animal bone', 'Plant and invertebrate remains').

The format may seem a little unconventional, and will no doubt, as the editors suggest, incur disapproval from some for 'relegating' specialist reports to CD (although it is clear that this had to be done for reasons of cost, and the volume is indeed very affordable as a result), while chapter 4 sits uncomfortably with the others and should really have been included within chapter 3. It is a pity that the CD simply includes a PDF file containing the rest of the volume, with no use made of the potential of such a medium for including more primary data.

The long time lag between completion of fieldwork and formal publication has meant that while much of the evidence has become familiar from interim reports, original interpretations have been extensively revisited and revised. These are not always incorporated effectively in this volume: it is particularly frustrating to discover that the fundamentally important structure-by-structure reappraisals of the ceramic dating (p. 170) are included separately on CD rather than being incorporated into the text of chapter 5 where the ceramic evidence from the same structures is discussed.

The importance of this publication lies not just in the presentation of evidence from a major excavation but in its interpretation in chapters 3 and 4, notably in the way this seeks to link the archaeological evidence to historical events. In summary, the reader discovers that, at Raunds, dispersed 'untidy' areas of settlement of early Anglo-Saxon date on both sides of the stream were variously reorganized or abandoned in the middle Saxon period before being re-planned over a very short period of time in the early tenth century as a nucleated settlement with regularly laid-out blocks of rectangular plots defined by linear boundary ditches. It is implied by the editors that this re-planning occurred as a consequence of the 'reconquest' of the region by the kingdom of Wessex, when 'the basis of the late Saxon reorganization was the establishment of a coordinated and consistent land allocation to all members of society' (p. 52). They go on to aver that the physical reorganization of the settlements which this required took place 'as a sudden and dramatic event', carried out as a rapid, staged process of laying out successive blocks of several plots at a time. In a short section considering the impact of this for the origins of the open-field system (which will, no doubt, be of particular interest for readers of the *Review*), they say that it is 'likely that the two processes of settlement and field system reorganization may well have been introduced as a single package' (p. 53), although this theory is not examined in detail. If, on looking at the evidence for regularly laid out plots on the published plans, the reader considers this interpretation to appear somewhat open to question, they may not be surprised to discover that it was only made after excavations at nearby West Cotton revealed similar, better-defined features there which were then identified during re-examination of the Raunds evidence.

Overall, the publication provides a very accessible, well-illustrated account for anyone wanting to get a good understanding of firstly, how these important sites related to each other and changed over time and secondly, how the editors have interpreted the evidence, aspects of which are considered controversial by some. Readers of the *Review* will be particularly interested in the ideas about the origins of the open-field system as part of a planned nucleated landscape in this area. This has, of course, been the subject of much debate, still ongoing, to which this volume makes a stimulating contribution.

CARENZA LEWIS
University of Cambridge

MARGARET E. BRISTON and TIMOTHY M. HALLIDAY (eds), *The Pilsgate manor of the Sacrist of Peterborough Abbey, Part B of the Register of George Fraunceys, Sacrist, c.1404* (Dean and Chapter of Peterborough, Anthony Mellows Memorial Trust vol. IV; Northamptonshire Record Soc. 43, 2009). liv + 538 pp., 3 figs., 2 maps. £20.

This is a lavish production, hardbound in the traditional Northamptonshire Record Society green case with gold lettering on the spine along with a glossy dust jacket complete (curiously) with two copies of an exquisite colour photograph of the present Pilsgate House. Unfortunately your reviewer's reaction on opening the volume was coloured by annoyance at the number of sub-editorial errors which 'spoiled the ship'. Some of these could perhaps be described as matters of taste, rather than complaints of substance. Using '[46]' as a noun and the subject of a sentence is an unusual solution to the age-old editorial problem of how to refer to a particular document in an un-indexed cartulary, but it would have been helpful to have had this made clear initially, rather than some 30 pages into the introduction. Others are more serious: inconsistency in dating style ('20.08.1361' on p. xxvi, '20 October, 1357' on the following page); contradictory handling of a range of manuscript folios ('fos 148–156' on p. xxxii, (correct if an en-rule were used, rather than a hyphen), but 'Folio 8 to Folio 156 inclusive' instead of 'fos 8–156' ('inclusive' is superfluous), to say nothing of incorrect elision ('1330–1', using an en-rule is correct for a period of time beyond the second decade of a century, not '1330–31', using a hyphen (p. xxvi)). Failure to use 'smart' quotes (e. g. on p. xlix) is a further example of inattention to detail. Appropriate cross-referencing to standard reference works is customary in such volumes precisely because it makes them easier for scholars to use: for example, it would be helpful to know that [74], a charter of King Stephen, is in fact printed as *Regesta Regum Anglo-Normannorum* III no. 659, where further texts are noted and different dating inferences made (cf. also p. xix); this portion of the Register itself, BL, Ms Cotton Faustina B, iii fos 1–157, is customarily cited as Davis no. 765. Much is made of the changed dedication of the parish church in Barnack (at p. xxv, discussing [189]), suggesting that the modern ascription to St John the Baptist is not medieval. While recent literature on

medieval rural church dedication practice in general remains limited, in the case of Barnack, most unusually, it happens that there is explicit documentary corroboration from within a quarter of a century of the document copied into Fraunceys register that the dedication of the *parochialis ecclesia* in Barnack was indeed to the Baptist. On 4 September 1311 Bishop John Dalderby issued an indulgence in favour of St John's which was recorded in his memoranda register (Lincolnshire Archives Centre, REG/3, fo. 229v). The reference in Fraunceys is probably to some chapel within the parish.

That said, this edition of part of one of the Peterborough sacrist's cartularies is a welcome addition to the Mellows memorial volumes. An elaborate codicological description is provided, which is much more extensive than that in Janet Martin's 1978 volume, no. 37 in the series. The text divides naturally into two parts: charters and other documents relating to tenurial change in the sacrist's manor of Pilsgate from the late twelfth to the mid-fourteenth centuries and a collection of associated rentals and surveys from 1403 and earlier. An interesting excursus details a tithe dispute between the abbot of Peterborough and the rector of Barnack in the 1370s, including *acta* of Bishop John Buckingham which are said not to be recorded in the Lincoln registers ([199]n (p. 219)). No original material survives with which to compare the transcription. The material from the first part is printed *in extenso* in the original Latin (along with two texts in Norman French), along with an English translation which 'attempts to preserve some of the idiosyncratic features of the Latin charters'. A bibliography is provided, along with indices of personal and institutional names, place names and subjects.

M. J. FRANKLIN
Hughes Hall, Cambridge

GUY BERESFORD, *Caldecote: the development and desertion of a Hertfordshire village* (Society for Medieval Archaeology Monograph 28, 2009). xi + 267 pp., 154 figs. £38.

This impressive monograph describes the results of one of the largest-scale excavations to have taken place within an English medieval village. Today, the settlement at Caldecote comprises just a manor house and six labourers' cottages next to the medieval church, though this was once the site of a small village that in the fourteenth century had fourteen households. In total 6.5 acres (2.63 ha) were excavated including a series of peasant crofts, the rectory, and a large part of the moated manorial enclosure that was laid across a series of other former peasant tenements in the thirteenth century. The excavations were carried out between 1973 and 1977, but a lack of funding at the time meant delays in the post-excavation analysis of the finds, and the preparation of a report for publication. Both the author and the Society for Medieval Archaeology's monograph editor Christopher Gerrard are therefore to be congratulated on bringing into print this important piece of work.

The volume begins with an excellent introduction (by Christopher Gerrard) that sets this excavation in its wider context of the history of research into deserted medieval villages and current debates such as the development of peasant houses and the origins of village-based settlement (as opposed to the more dispersed settlement patterns that preceded them). The site was excavated because it was threatened by ploughing, and the discussion of the destructive impact that the Common Agricultural Policy had on both archaeological sites and the wider landscape will be of particular interest to readers of this journal. The rest of the volume follows the traditional structure of an excavation report with chapters on the documentary evidence (including the text of a survey of 1321), the methods of excavation and recording, a description of the archaeological evidence period by period, and then specialist reports on the various finds (such as the pottery, household utensils or tools) and environmental material (plant and animal remains). The final chapter provides both an excellent synthesis of the evidence, and a discussion of their significance.

There is much in this report for anyone interested in rural history including the animal bone assemblage (which shows a decline in cattle, and an increase in pigs and sheep over the course of the medieval period) and charred cereal assemblages (dominated by bread/club wheat, but with some barley, and a very small amount of rye). The sequence of peasant houses shows that relatively simple structures with roofs supported by earth-fast posts and cob walls, which may have housed both humans and animals, were replaced in the late medieval period by more substantial timber-framed houses with separate barns for the livestock. As well as this below-ground archaeology, the report also embraces a study of the standing buildings, with both the church and manor house containing medieval fabric. The artefactual evidence suggests that the village of Caldecote was created in the tenth century although several strands of evidence – including its 'cot' place-name and the way that the peasant crofts appear to have been laid out over the strips of an existing open field – suggest that this was a secondary phase of village creation in the region. In the later medieval period blocks of three crofts were each replaced by six more substantial farmsteads that probably represent the amalgamation of tenements that is well documented across fourteenth- and fifteenth-century England.

Overall, this is an important report that provides an

excellent introduction to the study of deserted medieval settlements, and presents the results of a particularly large-scale excavation. The report is extremely well structured and presented with a wide range of illustrations to aid the reader and is a significant contribution to our understanding of the origins and development of the medieval village.

STEPHEN RIPPON
University of Exeter

BRUCE M. S. CAMPBELL, *Field systems and farming systems in late medieval England* (Ashgate Variorum Collected Studies series, 2008). xiv + 316 pp. £70 (£63 online).

This is one of three collections of previously published essays by the leading medieval economic historian Bruce Campbell to be issued recently by Ashgate, the others being *The medieval antecedents of English agricultural progress* (2007) and *Land and people in late medieval England* (2009). The volume under review comprises 13 pieces which originally appeared between 1980 and 1997. The common concerns of the various chapters are outlined in a useful new seven-page introduction. There is also a very useful index. Although the chapters were written at different times for different purposes, together they form a remarkably coherent book which consistently addresses a set of connected problems. Reading the volume right through offers an interesting opportunity to observe the evolution over a couple of decades of one scholar's efforts (with the aid, in several cases, of co-authors) to delineate medieval England's agricultural geography between about 1250 and 1450.

An important theme of this book is that the farming systems practised by medieval landlords were diverse, but subject to clear spatial patterns. Furthermore, the essays maintain that these patterns must be explained not simply in terms of environmental factors, but also in relation to the influence of commercial opportunity and levels of economic rent. The impact of market demand reached its fullest expression in eastern England, and especially Norfolk, the site of a highly productive 'intensive mixed farming' regime that prioritized high value grain crops, horses rather than oxen as working animals, fodder cropping, and dairying. Yet institutional factors could also influence preferences for particular types and combinations of crops and livestock. The clearest link between the 'field systems' and 'farming systems' elements of this book lies in the fact that the common-field arrangements in which agriculture was conducted represented such an important institutional force. Most notably, Campbell describes the origins and character of the flexible, relatively unregulated common-field system of eastern England, which allowed cultivators (including landlords) substantial freedom to innovate.

A particularly notable achievement of the research represented here lies in its approach to medieval sources, and the methods used to analyze them. This volume reveals Campbell as a pioneer in using large bodies of data which relate to broad geographical areas. Some of the earliest essays by date of original publication are essentially micro-studies, but in later chapters the focus is increasingly on sources which offer a national picture. The book is largely based on databases of manorial accounts, and of *inquisitiones post mortem* extents. The overarching theme of the analysis carried out on these sources is that of classification. Using the statistical technique of cluster analysis, demesne farms are grouped together on the basis of their shared characteristics to provide classifications of farming systems and land use types. The spatial incidence of the different types is then mapped. The fact that classification is also a focus of the essays on field systems (especially in chapter IV, 'Commonfield origins – the regional dimension') lends further thematic coherence to the volume. The overall result of these attempts at classification, as Campbell's introduction observes, is to help provide 'a systematic spatial framework within which future research into and discussion of the late medieval agrarian economy can be conducted' (p. xiii).

As this volume and his other two Variorum volumes demonstrate, Campbell was responsible for a very substantial body of work in article and chapter form even before the appearance of his monumental volumes *English seigniorial agriculture 1250–1350* (2000) and *England on the eve of the Black Death. An atlas of lay lordship, land and wealth, 1300–49* (2006, with Ken Bartley). It is welcome that these important essays, including those in the volume under review, have now been made more conveniently available in reprint form.

At the same time, it is worth noting that several (though far from all) of the topics discussed in *Field systems* are also among those covered in the two later volumes just mentioned. Arguably, the value of reprinting the earlier essays would be less obvious if their content was largely superseded by that in the later books. This turns out to be a relatively insignificant concern, however. It is true that the classifications of husbandry and cropping types contained in *English seigniorial agriculture* are often based on fuller data than their equivalents in the reprinted essays, and that the later book sometimes adopts a modified system of organizing this data. However, the 2000 and 2006 volumes omit a full explanation of the techniques that underlie the classifications made. For this, and for a host of insights

on advances in medieval agriculture, the reader must turn to the essays reprinted in *Field systems*.

CHRIS BRIGGS
University of Southampton

CLAIRE NOBLE (ed.), *Calendar of inquisitions post-mortem,* XXV, *16 to 20 Henry VI (1437–1442)* (The Boydell Press & National Archives, 2009). liv + 802 pp. £175.

M. L. HOLFORD (ed.), *Calendar of inquisitions post-mortem,* XXVI, *21 to 25 Henry VI (1442–1447)* (The Boydell Press & National Archives, 2009). lvii + 614 pp. £175.

These two volumes are the latest in the renewed series of calendars which was begun several years ago under the direction of Professor Christine Carpenter of the University of Cambridge with funding from the AHRC. Having spent several years using the original calendars as part of a project which collected data from the IPMs and then continued to use the original series frequently for research, it has been very interesting to explore these newer calendars which cover the period some one hundred years later than my usual area of study.

The editors of these volumes have delivered greatly improved levels of detail and information – far better than the old series. All of the additional material is of the type which will be of great help to scholars and to local historians alike. As well as the improved level of detail from the documents themselves, the excellent introductions will help anyone unfamiliar with the source to find their way around its intricacies and eccentricities. The clearly delineated rules for using the calendars are extremely helpful and eliminate the guesswork which was sometimes involved in using the older versions. The tables of references are also set out in a clear and helpful way and the addition of notes as part of these tables is very welcome. The inclusion of footnotes for certain marginalia is also very useful as are the notes about the translation of certain words within the marginalia itself. The tables of escheators too are helpful for those people interested in the administrative structure that lies behind this source.

The additional material provided in the new series of calendars will be of great use to a wide range of readers. The inclusion of jurors' names is particularly important. This provides easier access for scholars to analyse this greatly under-studied group; they will no doubt also be welcomed by local and regional historians. The jurors' index which includes the county in which the name occurs is particularly helpful. Indeed the division of the indices into jury names, personal names, and place-names is an excellent tool.

Within the entries themselves the inclusion of the extents in the new series of calendars is very welcome. While it is a commonplace to say that the valuations in the later IPMs are poor reflections of reality, it is nevertheless important to have these extents in the printed volume so that the maximum use can be made of the information that they contain. The greatly increased amount of detail from the inquisitions that these calendars contain is their most impressive and important feature; for while the introduction warns that these calendars are not 'an edition' of the source they do (again in the words of the introduction) 'present in as concise a manner as possible the information provided'. This richness of this material is evident on every page. Small estates such as those of Robert Warner are described; his Surrey manor of Poyle, which included only 26 acres of land but two watermills and two fulling mills, is in contrast to his other manor of Hampton Poyles in Oxfordshire, with its 400 acres of arable land and 20 acres of meadow. Great estates such as that of Henry Beauchamp, Duke of Warwick are also included, although the type of information is rather different with a great deal of space being devoted to the disputed inheritance of parts of the estate. The personal situation of the deceased often leaps off the pages of the calendar; William Haroudon, 'gravely troubled by his illness' was driven to enfeoff his lands to members of the local clergy in order 'to expel the king and other lords by collusion from the wardship of the premises' during the minority of his heir.

These volumes are a welcome addition to the new series of calendars and a considerable improvement on the old. They are a pleasure to use. One further improvement would make the new volumes and the old calendars of even greater use to historians (especially those who live some distance from a good library). If it were possible to make the indices to the series machine-readable and searchable, then many hours of searching through the numerous volumes could be saved. Not within the scope of the current project, but perhaps something for the future?

MARILYN LIVINGSTONE
Northlew, Devon

CHRISTOPHER DYER (ed.), *The self-contained village? The social history of rural communities, 1250–1900* (University of Hertfordshire Press, Explorations in Local and Regional History 2, 2007). xii + 148 pp., 21 tabs, 19 figs. £14.99.

The declared premise of this book – the 'question' of the self-contained village – is a non-issue. Historians of rural England do not believe in village self-containment. Indeed such is the orthodoxy of population mobility, land turnover, and economic and cultural interaction,

the reader might even anticipate a counter argument, a revisionist claim for population continuity, economic self-sufficiency, and cultural isolationism. But this is not the theme of a collection that, in its conclusion, reasserts the non-existence of the self-contained village: 'The self-contained village probably never existed', writes its editor on the last page of the book, 'and was certainly not in continuous decline between 1250 and 1900' (p. 141). It would therefore be tempting to treat the 'question' as a mere device to impose coherence on a diverse collection. Yet this would be a superficial reading of some sophisticated essays that, whatever the jacket blurb, explore mobility, social interaction, and notions of community and belonging in a range of English communities. The most interesting among them actually explore how this myth of the self-contained village had more relevance to some sections of society than others. Stability and authority were ideologically linked.

So they are a valuable group of essays, covering the period from 1250 to 1900 in essays dealing with the late medieval (Chris Dyer and Jane Whittle), the early modern (Steve Hindle and Henry French), and the modern (Ian Whyte and David Brown). The geographical range is relatively wide, though it is limited to England. Most counties are mentioned and the North is not invisible: indeed, there is a chapter (Whyte's) on Cumbria.

One of the book's values is that it demonstrates the range of source material available to explore the dynamics of village life, the historical variability of documentary evidence, and the consequent differing questions asked by historians of their respective periods. Land transfers, court rolls, and tax records dominate medieval work on the English village, as demonstrated in Dyer's chapter. Manorial documents are one of the primary sources in Whittle's exploration of population mobility in rural Norfolk during the late medieval and (early) early modern periods, but she is also able to use church court depositions to good effect, working them against the records of the landholding families to show social differentiation at work: the landholders were less mobile than those captured in the archives of the more socially inclusive church courts. The sophistication of Hindle's chapter is not merely a result of his skills of reconstruction and analysis (though he is one of Britain's most talented early modern historians) but a reflection of the superiority of early modern sources over the medieval. He is able to move beyond the mere mechanics of mobility to explore actual concepts of 'belonging' in rural communities. His cultural work on the early modern period complements Keith Snell's work on the parish and local attachment in rural England from the mid-eighteenth century, though Snell is a notable absence from this collection. Hence also French's ability to rethink Richard Gough's *History of Myddle* (1700), reconciling its 'village in the mind', which, with its privileging of 'residence and familial longevity' (p. 82), really did come close to the mythology of the self-contained village, with the mobility that surrounded the Goughs of rural England. The answer lies with social variation.

While the book's recurring themes – regional variation, temporal flux, social differentiation, the early role of the market, the dynamic role of the industrial revolution – are familiar to historians of rural communities, I can think of no other volume that demonstrates them with such historical and geographic range, and which, at its best, takes the historiography to a new level.

BARRY REAY
University of Auckland

ANDREW MCRAE, *Literature and domestic travel in early modern England* (Cambridge UP, 2009). xi + 247 pp., 9 illus. £50.

This book offers the inviting prospect of an exploration of the ways in which travel featured in the works of literature penned by authors in the early modern period. Through an assured analysis of a large selection of texts, chosen because they engage substantially with issues of sixteenth and seventeenth-century personal mobility, Andrew McRae examines how contemporaries understood mobility and made sense of the increasing geographical connectedness of England. He opens proceedings, somewhat conventionally, with the itineraries of John Leland and perhaps slightly overstates notions of the 'parochial xenophobia' and 'intense localism' that gripped England in the early Tudor era (p. 8). However, in taking Leland and Defoe as the 'bookends' of his study, McRae neatly locates his survey in a time when both the volume and the acceptability of domestic travel within England undoubtedly increased. He also reveals changes in the way in which mobility was reflected in English literature.

Once the broad context has been established, a beguiling and fascinating first chapter discusses literature devoted to England's rivers. Citing 'river poems', such as William Vallan's *A tale of two swannes*, McRae shows how ideas about connection, representation and national identity were evoked. It is a compelling thesis, enriched by references to John Leland's *Cygnea Cantio*, which describes another swan on a journey from Abingdon to Oxford; and to William Camden's *De Connubio Tamae*, which traces the Isis, the Tame and the Thames. The better-known works of Spenser and Drayton are similarly deconstructed. A petition presented to Queen Elizabeth in 1585 in the form of a poem by the Thames watermen, John Byshop, offers a glimpse of new thinking about the

need to divest rivers of obstacles and other impediments to travel. Byshop's sentiments found an echo half a century later in the extraordinary pamphlets of another Thames waterman, John Taylor. Attention then turns to the evocations of place, mobility and contested uses in the 'prospect poems' of Ben Jonson, Thomas Carew and Andrew Marvell. The latter's *Upon Appleton House*, for example, refers uneasily to itinerant mowers arriving to harvest meadow grass for hay. Sir John Denham's *Cooper's Hill* offers reflections on the Thames as a floating highway for the movement of agricultural products and general merchandise.

Unlike rivers, roads were apparently 'not considered poetic' (p. 69). Of all the early modern poets, only Michael Drayton in *Poly-Olbion* gives them any considered attention. The author therefore turns to written itineraries, road maps, and pamphlets of directions for peddlers and chapmen. These sources are, of course, all very well known. However, McRae's analysis of the so-called 'rogue pamphlets' is especially valuable. Thus, Thomas Harman's 1566 *Caveat for common cursitors vulgarly called vagabonds* shows how fears about the supposed risks of road travel were being stoked up. Suspicions and misgivings crystallized into legislation, such as the 1598 vagrancy statute, which sought to restrict mobility that was considered morally dangerous and socially subversive. Paradoxically, however, the expansion of commerce positively encouraged travel and publications designed to make journeys easier, such as pocket itineraries and distance tables, poured forth. Ogilby's road maps may thus be seen less as something entirely new, and more as just a culmination of responses made to growing demand. At the same time, Chamberlayne, Procter, Mace, and Defoe offered practical suggestions about how England's highways might be improved and better managed.

Works such as Laurence Clarkson's *The lost sheep found*, intertwine the realities of quotidian travel on England's ways and highways with allegorical journeys through life. This leitmotif, of course, found its fullest and best-known expression in Bunyan's *The pilgrim's progress*. The genre presents roads as spaces of mobility and as complex networks offering many choices, but the correct path leads to spiritual understanding and reward. A powerful image of how travel was conceptualized and imagined is thus provided.

A chapter on inns, alehouses and taverns shows how early modern literature captures their 'edgy social dynamics' (p. 129). As points of temporary stasis in the ever-shifting geography of mobility, where the local and the alien fleetingly mingled, these establishments were presented as places of hospitality and repose; and as spaces of degeneracy and criminality: unpaid bills, horse theft, robbery, and nefarious business transactions. As expected, Mistress Quickly's London tavern, featured in Shakespeare's *Henry IV, Part 1*, is shown as a place of material threats and social challenges, as well as human warmth and conviviality. A fascinating deconstruction is provided of the little-known Ben Jonson play, *The New Inn*, which emphasizes the transience that such establishments inevitably embodied, and their potential for causing discomfort and disorder.

Contemporary poetry and prose richly captures royal progresses: from the 'highly theatricalized performance of authority' (p. 146) perfected by Elizabeth I, to the ignominious flight in disguise of Charles I from Oxford in 1646. Royal 'progress roads' are evoked as spaces of political connectivity and for the demonstration of dynastic legitimacy. Authors who chronicle the collapse of royal power in the Civil War envision journeys and highways as metaphors for instability and uncertainty.

Travel writing as a genre is traced from John Leland to Celia Fiennes, by whose time the 'recreational journey' was unremarkable. A cameo appearance is made by Thomas Coryat, whose 1611 account of his low-budget foreign travels prefigured the era of the Grand Tour. Consideration is given to the so-called 'journey poems' which originated in 1583 with Richard Eede's *Iter Boreale*, and flowered fully in the post-Restoration era. When accounts of their peregrinations were written by Evelyn and Pepys, the observations resulting from the tourist's gaze were commonplace. From them and others we learn of growth in the volumes and varieties of traffic using England's ways: a burgeoning internal trade that offered the most visible expression of the country's 'changing pattern of domestic mobility' (p. 210).

The 14 pamphlets published between the 1610s and the 1640s by the Thames waterman, John Taylor (the self-styled 'water poet') are dissected and perhaps best encapsulate the central message about the transformation in mobility and domestic travel in England which McRae's book presents. Thus, 'Taylor perceives all places, both within England and beyond, as potentially connectable with all other places' (p. 231). And when Defoe produced his *Tour thro' the whole island of Great Britain* in the 1720s, he presented an image of nationhood based on geography, realized in a complex web of trade networks; it stood as an emblem of 'wider patterns of mobility, commodities and information' (p. 237). That such a perception would by then have been widely shared, in a manner that it would not have been in the days of John Leland, is a central argument in this most erudite and scholarly volume.

MARK BRAYSHAY
University of Plymouth

ELIZABETH GRIFFITHS and MARK OVERTON, *Farming to halves. The hidden history of sharefarming in England from medieval to modern times* (Palgrave Macmillan, 2009). ix + 263 pp., 24 tabs. £52.

Before the rise of owner-occupation in the twentieth century, the traditional system of English land tenure involved landowners, who provided the fixed capital (the land and buildings) and tenants or farmers who provided the working capital (the stock and implements), paid a fixed rent, and kept any remaining profit from the farming operations that they organized and managed. There has been a recent move for some landowners to operate sharefarming contracts in which they provide not only fixed capital but also working capital such as dairy cows in return for a share of the profits, a system apparently imported from New Zealand. But until about the beginning of the First World War most English farmland was rented from a landlord by a tenant. Sharefarming – or sharecropping as it was called in the southern USA – or its continental European versions, *métayage* in France and *mezzadria* in Italy, had no place in England. It halved any incentive to improve, and thus Arthur Young explained the success of English farming and the comparative failure and poverty of continental European farming. Or so we thought.

Elizabeth Griffiths and Mark Overton, with the assistance of Michael Winter in a final chapter on the current situation, suggest that 'farming to halves', or sharefarming, was much more common in England than we have hitherto realized. In fact, they argue, sharefarming has existed in England from the medieval period onwards, but informally, as a matter of custom, deliberately uncodified, and consequently difficult to see in the manorial records or landed estate leases and rentals with which rural historians generally work. Sharefarming was especially associated with periods of low prices such as the seventeenth, late nineteenth or late twentieth centuries. It was used by landlords when tenants were hard to find, or short of capital, or needed to be established on reclaimed land, and among the peasantry, as the authors are happy to call them, to ease the flow of capital, expand businesses, and provide for old age. In very recent times it has been encouraged by tax laws, and is now being defined and categorized. The traditional English landlord-and-tenant system is thus revealed by Griffiths and Overton as an exceptional phase, lasting from the early eighteenth to the later nineteenth century, and emerging from the increased political power of the landed elite from the end of the seventeenth century. This reduced the risks of landownership so that landlords 'effectively subsidised tenants' (p. 198) until the imposition of death duties in the early twentieth century reduced the attractions of landownership and precipitated the rise of owner-occupation in the twentieth century.

For this argument to be accepted we need examples of sharefarming from several centuries and many parts of England. From a close reading of the secondary literature on medieval land tenure Griffiths and Overton find examples of manorial tenants subletting for a share of the crop in the Midlands and East Anglia. In the early modern period there were examples from Cornwall to Cannock Chase and Yorkshire to the Wessex water meadows. Evidence from the four Norfolk estates of Raynham, Felbrigg, Blickling and Hunstanton in the seventeenth century provides considerable evidence for the various ways in which the system worked. In the eighteenth century, however, reduced risks and the emergence of a group of substantial tenants brought fixed-rent tenancies into the pre-eminent position which lasted until the late nineteenth century, although, they argue, sharefarming continued to exist among small tenants, and in the twentieth century increased considerably, so that by 2007 contract farming, partnership farming, and sharefarming together involved 2.3 per cent of all holdings, covering 6.6 per cent of the agricultural land in England and Wales.

There is clearly a substantial body of evidence to indicate that sharefarming of various types existed, and continues to exist, in many, if not most, parts of England for much of the last millennium. The question that remains, however, is the extent to which it existed. In parts of France and Italy it was clearly a significant, if not the dominant, form of tenure. Can the same be said of England? The nature of the evidence makes the judgement difficult, for surviving tenancy agreements will not reveal short-term sub-lettings or verbal agreements. There can be little doubt that what we think of as 'normal' fixed-rent tenancies were common from the sixteenth century onwards, so we are left with the question of which was the more common and this is not one that Griffiths and Overton attempt to resolve. But their work means that future historians of estate management will be unlikely to take rental evidence at face value. It also puts recent changes in the pattern of land tenure into historical context, and requires us to think again about the differences between England and continental Europe.

PAUL BRASSLEY
University of Exeter

GERRY BARNES and TOM WILLIAMSON, *Hedgerow history, ecology, history and character* (Windgather Press, 2008). viii + 152 pp., 69 figs. £19.

The 'Hooper method' of hedge-dating, by which an estimate of the age of a hedge is based on the number

of species it contains, has become a popular axiom of landscape studies. Through systematic fieldwork and analysis, Barnes and Williamson set out to test the validity of Hooper's hypothesis, promising a deeper understanding of the origins and development of hedgerows over time. Contrary to the broad geographical scope suggested by the frontispiece photograph of Herefordshire, the work outlined here consists chiefly of the results of an extensive survey of hedgerows in Norfolk. The authors draw upon an impressive dataset based upon the assessment of some 2,800 hedges collated from 120 parishes in the county.

The volume begins with an introduction to the methodology of hedge dating, focusing upon the pioneering, albeit fundamentally flawed, work of Hooper and his colleagues in the 1960s and '70s. Subsequent chapters re-evaluate Hooper's hypothesis by considering in detail the environmental and human factors which have led to the rich diversity of hedges in the Norfolk landscape. Sections on agricultural change and enclosure, regional variation and soil type, will be familiar to readers of Williamson's earlier work. In this volume, the overriding argument, that soil type plays a significant role in determining not just the number of different species within a hedge but also the species count, is well made. Differences in hedgerow morphology are the consequence of a vast number of variables including multi-species planting, local seed supply, soil fertility, and moisture content, affecting in particular the rate at which new plant species colonize, and methods of management. Thus hedges growing in close proximity often reveal a remarkably different species content. Dismissing Hooper's hypothesis as a grave over-simplification the authors surmise that 'there is no way of simply "reading" the age, or origins, of a particular hedge from its present composition' (p. 132). The penultimate chapter considers the regional context of hedges, emphasizing the significant role soils played in giving rise to distinctive regional ecologies. The discussion inevitably moves away from the somewhat dense analysis of hedgerow composition of preceding chapters, to consider regional variations in farming economies and agrarian practices, patterns of enclosure and landholding patterns, all of which influenced the origins and functions of hedges. The authors conclude by calling for greater consideration of hedges in 'Historic landscape characterization' projects, a pertinent reminder that it is hedges rather than merely fields that contribute to the physical identity of a region.

The volume provides a useful addition to the practice of landscape history, and its emphasis on analysis on a local and regional scale, and the central importance of the physical environment, soils and topography, reminds us that empirical research does not reside in documents alone. However, the analysis is surprisingly devoid of economic factors, the people who made decisions to plant and manage hedges and the tenurial, social and cultural influences that may have shaped their decisions. There has been considerable research to date on the organization and control of local resources, customary practices and rights including common rights of 'estover' and 'hedgebote', and it would be interesting to know how and to what extent local customs and rights shaped hedgerow history. The authors stress the lack of documentary evidence especially for the pre-1700 period. There is just one reference to sources held at The National Archives, which surely underestimates the potential wealth of evidence contained in this and other county record offices. Having been alerted to the potential significance of the humble hedge, future archival studies may bring to light further evidence on the nature of mixed planting regimes, management and the functions of hedgerows as reservoirs of fuel and food, as well as property boundaries. Overall the book is successful in its aim to dispel simplistic methods of hedge-dating and will be of broad interest to researchers interested in historical ecology, conservation, environmental change and regionality.

NICOLA WHYTE
University of Exeter

SUSANNA WADE MARTINS, *Coke of Norfolk 1754–1842: a biography* (Boydell Press: Woodbridge, 2009). xiii + 218 pp., 1 fig., 25 illus., 1 tab., 4 maps. £50.

Susanna Wade Martins' biography of Sir Thomas Coke does what any good biography should do. It provides a detailed description of his life, his family background, his education and the influences that shaped his politics and his world view. It then locates him within broader local, regional and national contexts, emphasizing both the nuances of Coke's experiences and the wider significance of his behaviour. Coke's life provides a window through which we can observe profound changes in farming and agriculture, rural social relations, landownership, the country house as well as shifts in the fortunes of the Whigs, debates over issues such as the reform of parliament, Catholic emancipation and slavery. Biographies have fallen out of favour with publishers recently and the 'heroes' of the agricultural revolution have dropped beyond the gaze of agricultural historians. A volume on this well-known Whig landowner has been long overdue. That the author has such an in-depth knowledge of Holkham, rural Norfolk and changes in agriculture in this county adds to the seductive potential of the book.

This potential is partly realized through the dual

focus both on Coke's role as an agricultural innovator and his far less understood activities as a Whig Member of Parliament. Wade Martins guides us through his experiences, from his early life before inheriting the Holkham estate, through to his parliamentary career of 50 years as an MP, his input to new techniques of farming, and his hospitality as a country house owner. Never a natural parliamentarian and one who spoke rarely in the Commons, Coke sat on the periphery of many key debates in the politics of this period. The way that Norfolk formed a centre of gravity for his politics is, though, the real power of Wade Martins' insights. His involvement in the Norfolk Petition of 1778 is illuminating, for instance, of local Whig politics. Coke's enduring friendships with Charles Fox and William Windham are particularly noteworthy aspects of the book.

One of the key inputs this book makes is in fleshing out Coke's life beyond the aspects we already know about and describing the links between local elite society and the wealthy and powerful of London. Here we are introduced to a number of original insights to his life and personality, including his artistic and literary circle of friends, which included William Roscoe and Samuel Parr. Thus the complexities of his identity are given full coverage. He is not, we are told, 'to be dismissed as a bucolic and self-opinionated wealthy squire' (p. 163). Particularly strong contributions are made where Wade Martins illustrates the relationship between Coke's Whiggism and other aspects of his life, the way that his politics left an indelible impression on his world view, his social circle and even his contribution to agricultural innovations as a 'gentleman farmer', 'patriot' and landowner. Wade Martins' treatment of life at Holkham, described through the correspondence of visitors, is another fascinating element of the book. Particularly original approaches here include the sociability connected with Coke's famous sheep-shearing events, which both publicized agricultural innovations at Holkham and served as important lubricators of local elite society.

Some concerns, however, are raised by a reading of this book. As Wade Martins points out, Coke left few personal sources in the way of correspondence or other private material. This poses significant challenges for a biographer attempting to provide a close personal analysis, difficulties that this author attempts to overcome but which become particularly acute at certain points. In chapter six, for instance, we are told that Coke had claimed to have supported Catholic emancipation for 25 years before the 1829 legislation (p. 146). However, we cannot know his real thoughts and the exact nature of his position without these types of sources. The book misses the voice and thoughts of Coke himself: he becomes a muted echo merely reverberating through the testimonies and memories of others. We are left unenlightened as to his private thoughts or the issues that he felt were activating him, along with his everyday experiences of the changing world around him. The bulk of the qualitative analysis focuses on public debates, newspaper reports and the comments of Coke's friends, acquaintances and colleagues. Thus we have a picture of Coke's public image and few clues as to how this image related to his private self. For a man already known to have been an extrovert self-publicist, such perspectives are of limited utility. Overall though, readers of the *Review* will find much of interest in this volume, and a fresh perspective on a range of historical subjects.

MARK ROTHERY
University of Exeter

J. H. ANDREWS, *Maps in those days. Cartographic methods before 1850* (Four Courts Press, 2009). xviii + 549 pp., 250 figs. £50.

Much modern cartographic history has regarded maps as texts, subjecting them to post-modernist criticism aimed at eliciting their underlying assumptions. It is therefore in some ways a relief to find a book which focuses on methodology rather than meaning, construction rather than deconstruction. Andrews sets out to provide a comprehensive technical study of how map-makers went about their work, from earliest times up to around 1850. He describes his book as tertiary literature: but by bringing together just about every secondary source on the subject he fills a major gap. He incorporates well over a thousand end notes, which alone makes it worth buying: though it would have been even handier to have had them all in a bibliography.

One small problem is that only one of those end notes refers to an article in the long-awaited third volume of the monumental David Woodward (ed.), *History of cartography* (Chicago, 2007). This suggests Andrews had largely finished his work before its appearance, which is a shame, as there is much in its 2000-odd pages, particularly papers dealing with technical matters in the Renaissance period that could have added value to Andrews' work. Thus had he read Catherine Delano-Smith's paper there, he might have avoided the indiscriminate use of the two very different words 'sign' and 'symbol', and the propagation of what she calls enduring myths on the subject of 'conventional signs', there being little evidence of the standardization of map signs prior to the nineteenth century.

That said, Andrews writes fluently about everything from theoretical presumptions about the world, through sketch maps, to surveyors' instruments and how they

were used, how surveyors turned their measurements into maps, how problems of depicting height and slope, or deciding on place-names, were dealt with, what was the role of decoration, and how maps were copied and miscopied, edited and compiled. Comprehensive though this is, Andrews also sets an agenda for more research, for example into the difference between theoretical and practical mapmaking, and the difficult question of how 'accurate' maps were in the past. Much has been published on the advancement of tools, techniques and text-books, especially in the sixteenth and seventeenth centuries: but to what extent did practical field surveyors actually work by the book? They seldom tell us, but most were probably content to use fairly rough-and-ready methods of determining direction and distance, and to fill in the gaps by field sketching. It is only in the nineteenth century, after the state gets fully involved in mapping, that 'unchallengeable precision' (p. 34) becomes the aim. This in turn bears on the question of what Andrews calls 'cartographic merit' (p. 469). Saxton's counties, despite being surveyed at the rate of one every five weeks or so, are perfectly recognisable, with most places more or less where they should be, relative to each other. The same is true, to a slightly lesser extent, of Matthew Paris's map of Britain of *c.*1250. But how 'accurate' are they, compared with the Ordnance Survey? Andrews, using Tobler's previously little known 'bidimensional regression' method, puts a value of 99.3 per cent on the one and 83 per cent on the other. However, while such figures might measure accuracy in a mathematical sense, they do not seem to measure what ordinary observers mean by that term. Yet if there is a better method, Andrews is not aware of it. Clearly there is scope here for more work.

For the agricultural historian, those parts of the book which touch on estate mapping will be of greatest interest. However, there are some salutary lessons to be learned about the depiction of field boundaries on non-cadastral maps. Students looking at field patterns on military maps like William Roy's famous map of Scotland *c.*1755 should know that no attempt was made there to reproduce actual field boundaries. All that the cavalryman needed was information on whether or not there were hedges in the district, not what size or shape the fields were. Similarly, the eighteenth-century commercial surveyor was not going to spend a great deal of effort mapping in detail something for customers who might be vaguely interested in knowing that they were travelling through an 'improved' landscape, but whose main concern was getting from A to B.

Overall, there is little doubt that Andrews largely succeeds in answering the question set him by a student many years ago: 'How did they make maps in those days?'(p. xv). The book is well written and copiously illustrated. Andrews's style is forthright and accessible, and he is not afraid to express an opinion, or to attempt to make understandable such arcane matters as the theory and practice of projections.

W. D. SHANNON
University of Lancaster

SUSANNA WADE MARTINS and TOM WILLIAMSON, *The countryside of East Anglia: changing landscapes, 1870–1950* (Boydell Press, 2008). viii + 252 pp., 41 illus., 6 maps. £25.

For some time now, Boydell & Brewer have been encouragingly supportive of rural and agricultural history. Generously illustrated, beautifully produced and reasonably priced, the book under review here is further evidence of this. *The countryside of East Anglia* provides a comprehensive treatment of the social, cultural and environmental history of that region between the late nineteenth and mid-twentieth century. Laid out in nine thematic chapters, it pays particular attention to change – and continuity – over time, in doing so challenging assumptions about a period often portrayed as a time of ubiquitous rural depression, depopulation and decay. Without denying the severity of the problems faced in the region, Susanna Wade Martins and Tom Williamson make a sustained case for their being exaggerated, both by contemporaries (such as Rider Haggard) and in later commentaries. Large-scale arable farming may have fared badly, as per received wisdom, but the spread of dereliction was uneven, being concentrated on areas of poor soil, pre-eminently the Brecklands of north-west Suffolk and south-west Norfolk. Pasturage and horticulture did better than cereals, and even relatively well in some circumstances. Chapter 3, on alternative agriculture, is especially illuminating in this regard. For all the later nineteenth-century scorn poured on advocates of smallholdings like Jesse Collings ('Jessie' on p. 55 – a rare typographical error), their proposals did not represent any triumph of ideology over practicality. Especially in Norfolk, where county council smallholdings covered nearly 27,500 acres by 1925, small-scale cultivation proved generally successful – even in economic terms (the expanding market for vegetables, fruit, poultry and eggs being the key factor here). Indeed, while smallholdings represented modernity and the future, the traditional economy of great estates and larger arable farms represented the past – a past which was fading as much in East Anglia as elsewhere, as shown in chapter 4.

Modernity, of course, had its disadvantages, especially in ecological and environmental terms, and one of the great strengths of this book is the attention it gives

to the physical re-shaping of the landscape in these years. For example, *pace* Oliver Rackham, hedgerows did not benefit from farmers and landowners lacking the resources to effect their removal during the depression. On the contrary, impoverished squires were likely to fell hedge timber in attempting to raise capital and retain tenants anxious about the revenue-sapping potential of shade cast on crops. Moreover, if depression contributed to the process of prairification, it also contributed to the afforestation of the region, another problematic environmental side-effect of rural modernity. In a 1946 debate on government forest policy, Leah Manning told the House of Commons that 'completely utilitarian' conifers were quite acceptable 'in the soft ground of East Anglia', a point of view from which the Forestry Commission would not have dissented. Indeed, in the inter-war years, and in the face of significant criticism, the Commission planted pines with great enthusiasm, the trees taking well to relatively infertile un- and under-cultivated land (including some common lands). The consequences were significant, doing considerable damage to the wetlands, heathlands, and overall biodiversity of East Anglia. By the time of the Second World War, very little original breck remained in the Brecklands, and many species had simply disappeared, never to return.

Yet if modernity inflicted certain depredations on the landscape, it also saw a rise in appreciation of its scenery and amenity value. Tourists discovered East Anglia in the late nineteenth century, frequenting the Broads, coastal resorts and 'Constable Country' in ever increasing numbers as time wore on. But Wade Martins and Williamson show that the landscape of East Anglia did not fit very easily into the rural-nostalgic 'south country' paradigm of Englishness. This was a less cosy place, a landscape of alterity – but one nevertheless prized for its historical associations, the access it afforded to an older, quondam England. If, as the authors write, '[a] visit to the countryside was supposed to be a trip back in time: the importance of the rural lay largely in its direct connections with the nation's past' (p. 194), the example of East Anglia demonstrates that the (imagined) landscape of this national past took various different forms.

In all, then, this is a handsome and useful book that does much to draw out the distinctiveness of East Anglia, while at the same time connecting the region's experience to wider national trends. It is a book that will interest scholars working in a range of disciplines and sub-disciplines, including historical geography, local and regional history, and heritage studies, as well as – more obviously perhaps – social, agricultural and environmental historians.

PAUL READMAN
King's College, London

KENNETH F. KIPLE, *A movable feast. Ten millennia of food globalization* (Cambridge University Press, 2007). xvi + 368 pp. £15.99.

For reasons that are beyond me (though feminist suggestions deserve attention), the classier classes of society do not rank food as really classy. Ask college graduates to name the greatest of our species and they will rattle on for a long time before naming a cook. Our college graduates need two or three days of fasting to complete their educations.

Absent that solution, they should read Kenneth Kiple's new book. Its cover may mislead the prospective reader into thinking it just another cookbook, a collection of recipes, but that is not so; it is a scholarly study of 10,000 years of the gathering, cultivation, breeding, preparation, and consumption of food. It utilizes hundreds of sources, primary and secondary, including cookbooks, yes, but also memoirs of philosophers, graph-laden texts on economics, or articles on malnutrition in medical journals. And (a bonus we can not always count on), it reads well.

The best reference book on the history of food remains *The Cambridge world history of food*, the two-volume tome that Professor Kiple and Kriemhild Conee heaped together in the 1990s, but its 2000 pages of articles, most of them excellent, do not form a cogent whole. Every library should have a copy, but I cannot imagine anyone reading all the way through it. Professor Kiple, fortunately for us, by editing and presiding over its seismic formation, prepared himself to write the cogent book that is the subject of this review.

A movable feast begins with the last hunters and first farmers. Why did they make what remains our species' most radical revolution, the switch to agriculture, which involved the transformation of a small population of healthy hunters and gatherers into dense populations of usually under-fed and poorly-fed peasant subjects of empires we call Roman, Chinese, Aztec, the USA, NATO, and so on? Kiple combines this inquiry with what we know about the origins of our basic crops – notably rice, wheat, and maize – and animals – dogs, cattle, and horses – and how their domestication altered, sometimes positively and often not, whole societies and ecosystems. Our author similarly honours the origins and spread of the substances of our addictions – such as sugar, coffee, tea, or alcohol – too.

Kiple's follows this with a multi-chapter inquiry entitled 'The Columbian Exchange', i.e. the agricultural revolution triggered by the exchange of organisms between the Old and New Worlds starting in 1492. For instance, wheat, a Middle Eastern grass, and horses, a Eurasian animal, became standard organisms on the Great Plains, the Pampa, and the Outback. (I might

mention here that the name, 'the Columbian Exchange', is my invention, the title of a book I wrote a generation ago, and I wish that Professor Kiple and the others that rattle it off so often would acknowledge this).

The last half of *A movable feast*, for me not so interesting as the first half, is devoted to more narrowly modern and often more commercial matters such as the development of regional diets, specifically North American with its Hispanic, Italian and other imported features, and to other globalization trends. Human diets from one side of the world to the other are getting more and more alike. Kiple also considers other modern characteristics – restaurants, supermarkets, frozen foods, fast foods. He also includes a good deal about infections transmitted by food, such as cholera, and diseases of deprivation such as pellagra and that strangest of all our food curses, obesity. He leaves us treading water (or more usually coca cola) in the twenty-first century. Globalization leaves many of our number still poor and starving and others, those of the richer societies, attaining globalization individually.

We are headed for at least a colossal nine to ten billion: feeding ourselves won't be easy. We will have to deal with that problem in an informed and sophisticated fashion. A good first step would be to read Kenneth Kiple's *A movable feast*.

ALFRED W. CROSBY
University of Texas

T. C. SMOUT, *Exploring environmental history: selected essays* (Edinburgh UP, 2009). vii + 248 pp., 13 figs. £60.

Unburdened by the shackles of RAE and REF, many academics choose to continue research and writing after retirement. Few academics, however, possess the necessary enthusiasm and influence to continue while simultaneously shaping and nurturing an entirely new discipline for almost two decades after their retirement. The author of this book firmly falls into the latter category. After his official retirement in 1991 he became the first director of the Institute for Environmental History at the University of St Andrews, before retiring for a second time in 2001. Post-1991 he has either single-authored or edited nine books on various aspects of environmental history.

This latest book, as we have come to expect of Edinburgh University Press, has been produced to a very fine standard with well-reproduced illustrations. The index is useful but it is unfortunate that only a select bibliography was compiled. More importantly perhaps, it is still unclear at the time of writing whether a cheaper paperback version within the price range of students will be printed. This is slightly worrying since the ever-increasing numbers of students who study environmental history could and should have been targeted by EUP as potential customers.

Exploring environmental history consists of thirteen chapters, all of which have been previously published in some form. Readers need not worry about this. By my count (according to the notes provided by the author) only two of the 13 papers in this book have been republished without alteration. The remainder have all been altered to varying extents, classified as ranging from 'slightly updated' to 'rewritten and much expanded'. The contents of this book have no common geographic theme: at least seven of the articles focus on Scotland, five utilize a British context, and one travels across the North Atlantic to include Iceland. What unites them is an enquiring mind interested in different aspects of environmental history post-1600.

For this reviewer the most powerful piece of writing in this book is the final chapter, 'Environmental consciousness'. It is a rare event for a historian to let passion enter their writing since to do so could potentially alter objectivity. Yet in this chapter the reader, perhaps for the first time, is allowed to observe what truly motivates the author and his affection for nature. This makes the message contained within the final two paragraphs more powerful and it is a chilling and thought-provoking note upon which to end a genuinely interesting article.

In more general terms, one of the most interesting processes in reviewing this book has been to compare the original articles against their descendants and try to map the development of the author's thought processes across time. A good example of this process is the piece entitled, 'The Highlands and the roots of green consciousness, 1750–1990'. The author would probably be the first to admit that the original version of this piece did not give full consideration to some key pieces of evidence and it is to his credit that he has taken constructive criticism on-board to produce a substantial addition to the original that addresses those points. In this respect it is pleasing to see both Gaelic nature poetry and Seton Gordon receive some long overdue credit. However, it is slightly disappointing to note that neither Percy Unna nor his 'Rules', some of which the National Trust for Scotland have often done their level-best to ignore in Glencoe, still do not feature in the author's narrative.

Of the remaining eleven chapters in this book five substantially concentrate on woods and their (ab)use in Scotland through time. One of the themes in these articles is the mythic 'Great Wood of Caledon' and the author, together with Breeze and Tipping (among others), have tried their level best to slay this shibboleth.

Yet, as Smout himself remarks at the end of 'Trees as historic landscapes', 'we are suckers for a good tale' and the continuing impotency of academics to change public opinion about the 'Great Caledonian Forest' is perhaps best highlighted by a current project in Glen Moriston where some are busy trying to create their 'vision of a renewed Caledonian Forest'. What, one might ask, is being lost in our headlong rush to establish green credentials?

This book deserves to become a recommended read for anyone interested in environmental history. Read it and weep for joy that during his eighth decade Professor Smout continues to enthuse upon, research, and write about nature and the environment.

ALASDAIR ROSS
University of Stirling

PHILIP CONFORD (ed.), *The poet of ecology: a selection of writings in memory of Robert Waller* (Norroy Press, 2008). 334 pp, 14 illus. £20.

The impulse behind publication of this memorial volume was not simply to celebrate the life and writings of Robert Waller (1913–2005). There was also, clearly, a fear that without this book Waller's work would soon be entirely forgotten. Many of those who knew Waller felt he should be given a wider – or second – airing, and so the historian of the British organic movement, Philip Conford, has put together a wide-ranging collection of Waller's essays, journalism, fiction and poetry as well as reminiscences offered by friends and family.

The result is eclectic, with some useful nuggets for those interested in how agricultural industrialization was (unsuccessfully) resisted during the second half of the twentieth century as well as in the emergence of a British environmental movement during the 1960s and 1970s. In addition, historians seeking to track the development of the BBC in south-west England may find this volume helpful.

Waller was not from farming stock, growing up in south London and spending his early adulthood attending philosophy lectures, writing poetry that attracted considerable praise, and flirting with the likes of Sonia Brownell (later Sonia Orwell). A move to Bristol in 1949, where his work for the BBC included producing farming programmes, prompted the flowering of Waller's enduring interest in ecology and a belief in the urgent need for humanity to reform its ways in order to life within environmental limits.

During this period Waller met grassland scientist Sir George Stapledon, and was influenced strongly by Stapledon's ideas about 'human ecology'. In 1962, Waller's biography of Stapledon, *Prophet of the New Age*, was published. Amongst Waller's agricultural writings excerpted in this memorial volume is a 1950 essay written for the anti-communist journal *The Catacomb*, in which Waller argues against over-reliance on food imports, particularly frozen meat from nations as distant as Australia. 'If we wish to increase our meat ration we must improve our marginal lands … First, what are the marginal lands? It is the land where meat that ought to be eaten unfrozen is not raised' (p. 91).

Later, Waller served as editor of the Soil Association's quarterly journal. This was during the years following publication of Rachel Carson's anti-pesticide tract *Silent Spring*, when for the first time since the Second World War the proponents of industrial agriculture found themselves on the intellectual back foot. As editor Waller widened the scope of the Soil Association's editorial output to include the full range of issues that lay at the heart of a then-emerging environmental movement. In this section of *Poet of Ecology*, Conford includes recollections from individuals involved in the organic and environmental movements, including Michael Allaby and *Ecologist* magazine founder Edward Goldsmith. These recollections offer a wealth of detail about social networks and the intellectual perspective of key environmentalists of the day.

The extracts from Waller's 'green' writing serve as an excellent reminder of the 'radical' nature of the post-war environmental movement. Environmentalists were not merely seeking to tinker at the edges. They were idealists who envisaged profound societal change. Although uniquely his own, Waller's writings are also characteristic of the British environmental movement of the late twentieth century and, as such, offer assistance in delineating the intellectual history of post-war ecological campaigning.

Like many members of the early Soil Association, Waller's interests were not earth-bound; he was also a religious man with an apparently wide-ranging curiosity about religious and spiritual traditions and beliefs. Like many supporters of the organic movement, he was highly critical of scientific materialism. *Poet of ecology* contains much evidence to support the argument that the early organic movement in Britain was home to many with an interest in mysticism and esoteric thought.

Waller's 1982 booklet, *The agricultural balance sheet*, written for the Green Alliance and the Conservation Society, is noteworthy, offering trenchant and still-relevant arguments about the hidden inefficiencies of industrial agriculture. Meanwhile, an article for the *Ecologist* cynically describes the post-war agricultural revolution:

> … in the 1950s a doctrine of salvation for agriculture was proclaimed, that 'Farming is a business not a

> way of life'. Eager young graduates like missionaries visited farms for the National Agricultural Advisory Service with the new gospel … Human needs and traditional practices were subordinated to an all-embracing, irrefutable principle known as efficiency … All cultural values, such as beauty of landscape, humus content of the soil and so on had to take second place … You could in fact farm too well to be efficient and survive within the prevailing framework of economic efficiency. And economics, being a science, had proven laws which only an irrational person would defy.

As many contributors to this memorial volume note, Robert Waller had few kind words to say about rationalism. This does not mean his writings are not clear and powerful – they are often both – and, while they are original they are also representative of the counter-culture movements of the day, making them historically relevant.

ERIN GILL
Aberystwyth University

RUTH TITTENSOR, *From peat bog to conifer forest. An oral history of Whitelee, its community and landscape* (Packard Publishing Limited, 2009). ix + 237 pp., 8 tabs., 6 maps. £27.50.

This book is a significant one for four reasons. First, it researches the social and ecological history of forestry development in Scotland, subjects that have not received any noteworthy attention in Scottish rural history. As the author notes,

> no one has ever asked these people who planted the new forests – who afforested 12 per cent of Scotland in less than a century – how they did it or what they thought about it. Neither have the people who sold or lost their land or their livelihood, been asked what happened to them or how it affected their lives (p. 7)

Second, these questions, as well as other related ones about the transformation of the landscape, are discussed through a case study of the Whitelee Forest, an area of 6,000 hectares of coniferous forest, owned by the Forestry Commission and located on the Whitelee Plateau where Ayrshire, Lanarkshire and Renfrewshire meet. This is a geographical area that has received little attention for either rural or forestry research. Third, it provides a case study of aspects of the impact and work of the Forestry Commission, of which there are few studies. Fourth, the book is an oral history, a methodology that is not readily associated with the social and ecological history of forestry development, though the Welsh Oral History of Forestry Project (Hanes y Goed) has already demonstrated that this is a valuable approach for such research. As Tittensor notes, oral history is an important methodology for 'learning the dynamics of what happened in the past' (p. 8) and for providing fresh perspectives and new information. She suggests that 'the history presented here [in her book] is an "alternative" history, provided by living people who experienced up to 50 years of change for themselves' (p. 9).

The book clearly sets out its methodology for gathering and transcribing the oral and written testimonies. The book 'is written entirely from the orally-derived material … or from participants' written contributions' gathered for the Whitelee Forest Oral History Project which ran from 2004 to 2007 (p. 9); photographs of many of the informants are included in Appendix 1. Documentary sources play only a minor role. As Tittensor notes: 'documentary sources from the Forestry Commission or elsewhere have not been used to provide information: printed sources have been used sparingly, only where a context is needed' (p. 9). Tittensor has employed one of a number of approaches to the use of oral history. While some researchers may be concerned at this approach, which has nevertheless been widely used, the book shows that it can be used to produce rigorous and accurate research.

The book gives a vivid and detailed account of the transformation – from the early 1960s onwards – of the Whitelee Plateau, from an area of heather and grassy moorland to commercial coniferous forest and, in the 2000s, to an extensive wind-farm. The impetus for that change was the UK Government afforestation programme, which aimed to produce more home-grown timber, reduce rural unemployment and provide incentives to private landowners to invest in trees and timber. The programme led to significant changes to the Scottish landscape over a few decades.

The Plateau presented many challenges to the Forestry Commission: the land is a peat landscape on which it is difficult to drive heavy machinery; it is remote and rises to 376 metres; it is exposed and has a high rainfall. As one informant noted, 'it could be hard, lonely, cold and frightening up on top of the Plateau in winter' (p. 92). Although the ecological factors were difficult, there were others that 'made it the right place for timber production' (p. 87) and for the 'factory farming' of trees over a wide area (p. 88): a landscape that was 'of no great relevance' with very little archaeology; a lack of political constraints; and a willingness of farmers to sell their land.

The transformation brought significant changes to the use and management of the land as well as the

species of flora and fauna that were found. Some changes brought positive benefits, while others were considered to be negative. As Tittensor says:

> the species described by local people were important in their lives. It is not surprising that the observed decline of animals such as grouse, blackcock, snow buntings and skylarks, were a source of dissatisfaction. The newly-arriving species like roe deer and siskins, and the increase in raptors do not seem to give equivalent satisfaction. Nor do foxes or grey squirrels! (p. 181).

The testimonies are skilfully transcribed, edited and arranged according to the subjects in the fifteen chapters of the book. The author has expertly woven the transcriptions from the different informants together into a coherent and well-structured narrative. The tables throughout the book helpfully pull together and summarize information gathered in the testimonies and allow the reader to assess the changes that took place on the Plateau. For the reader interested in the natural history of the area, there are lists of flora and fauna, though the list of flowering plants and conifers only records a limited range of species that are generally associated with the habitats found on the Plateau.

The book is lavishly illustrated throughout. Although this wealth of visual material is one of the strengths of the book, it is also its greatest weakness. The illustrations could have been more selectively chosen. Some (such as those showing fencing and damage by wildlife on pp. 93, 94, 95, 136 and 137) are used to illustrate minor points in the text. Their omission would not have detracted from the book. There are also multiple images to illustrate a point where one would have sufficed (such as the three illustrations of wind-blown trees on pp. 141 and 142). The numerous illustrations sometimes distract the reader from the text of the book. Some pages, especially those that have illustrations inserted over part of the two-column text layout, are difficult to read. The book has the appearance of a consultancy report rather than a well-illustrated oral history. A more sympathetic design layout would have benefited the book. It is hoped, though, that it will inspire others to undertake further research into the social and ecological history of forestry, subjects that Tittensor has shown enrich our understanding of the significant changes in the Scottish countryside during the twentieth century.

HEATHER HOLMES
Livingston

MILES GLENDINNING and SUSANNA WADE MARTINS, *Buildings of the land. Scotland's farms, 1750–2000* (Royal Commission on the Ancient and Historical Monuments of Scotland, 2008). xii +215 pp., 175 illus. £30.

This book is one of the principal outcomes of the Scottish Farm Buildings Survey (SFBS), a ten-year project, initiated in 1993 by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) and the National Museums of Scotland (NMS) to sample and record farm buildings in a variety of areas of the country. The initial intention was to publish the results of the survey in a series of regional booklets. Fascicule-style reports on three of the first survey areas, East Central Scotland, Orkney and Sutherland, were published in 1998–9 but this format was subsequently abandoned in favour of one, comprehensive volume.

Inevitably, in a project of this scope and duration, there were changes in personnel during the course of the survey. This has resulted in an account written by Glendinning and Wade Martins with contributions from Peter Caunt of the Scottish Agricultural College and John Shaw of the NMS. Instances of disjuncture between text and illustrations, and repetition of content, can no doubt be attributed to this multiplicity of contributors. However, there is much more to celebrate than complain about in this publication, with the different fields of expertise represented by the team of contributors combining to produce a wide-ranging and informative study. *Buildings of the land* is more than an architectural study. It is an economic and social history of Scottish agriculture which focuses on the practical function of farms within the agricultural systems of its various regions. It is this grounding of the study within a broader agricultural context that extends its interest to a wider readership.

A diversity of agricultural regions is examined, ranging from the drier, arable east to the wetter, pastoral west, extending from the Highlands and Islands to the Lowlands and encompassing crofting and non-crofting areas. The narrative takes as its starting point the early phase of improvement which developed during the second half of the eighteenth century. Funded by rising grain prices, new farmsteads – whose regular, planned layouts placed an emphasis on Enlightenment principles of system and order – were built to serve individually tenanted holdings. These replaced the traditional infield, outfield farming regimes in which the old 'toun' communities engaged. Improvement came to maturity with Victorian high farming in the mid-nineteenth century, fuelled by an information environment of books such as Henry Stephens' *Book of the farm* (1844) and journals, principally that of the Highland and Agricultural Society of Scotland. Whilst

retaining an emphasis on systems and order, scientific and technological advances in agriculture gave rise to farmsteads whose layout was dictated by the industrial processes of the regimes which they served rather than aesthetic notions of symmetry. The emphasis on livestock farming in Scotland during the depression years of the late nineteenth century was reflected in the adaptation of farm buildings, whilst mounting legislation and the globalization of agriculture in the twentieth century led to ever-increasing change and loss. The authors are to be commended for continuing their account into the present century, which they identify as a time when a new 'global age of agricultural improvement' is gaining pace. The diversity of regional experience within the over-arching story is clearly acknowledged in the second half of each chapter where the authors depart from the grand narrative to describe local variations in farm buildings and agricultural practice.

Throughout this book we are reminded of the part played by Scotland's tenant farmers in shaping the nation's farm buildings. Whilst in the early period of improvement tenants might provide farm buildings, receiving 'ameliorations' in their rents as recompense, the higher costs of building in the high farming era meant that the landowner was more likely to fund new buildings. However, tenant farmers retained their influence in this matter in so far as landowners, attempting to retain and attract suitable tenants, were responsive to their wishes. This is illustrated by the cycle of farm building improvements every 19–20 years on the Sutherland estate which had 19-year leases. Another familiar theme is the persistence of building in depression. The slow pace of innovation is graphically illustrated in the instance of the keeping of animals on slatted floors: this idea was recommended by a gentleman farmer in the Carse of Gowrie in 1813 but was not generally taken up until the 1950s.

Our appreciation and understanding of the inter-relationship between Scotland's land and its farm buildings is enhanced by the lavish colour photographs in the book. There are also black and white photographs, reproductions of eighteenth and nineteenth century maps and plans, isometric drawings and measured plans. A list of illustrations would have been helpful, as would a glossary of the Scottish terms which might be unfamiliar to the general reader. Otherwise the work is extremely well referenced, clearly indicating the wealth of historic sources which informed the survey. There is also a clear system of coding which allows reference to associated material deposited by the SFBS in the RCAHMS archive and listed in its database, Canmore, on its website (www.rcahms.gov.uk).

SHIRLEY BROOK
Lincoln

PETER HILLIS (ed.), *Journal of my life and everyday doings 1879–81, 1885–92, James Wilson, farmer of Banffshire* (Scottish Hist. Soc., fifth ser., vol. 18, 2008). xii + 431 pp., 4 illus., 1 tab. £25. Available to non-members from Dr Katie Stevenson, The Scottish History Society, School of History, University of St Andrews, St Andrews, KY16 9AL.

The diary of James Wilson (1859–1937) is a meticulous and detailed record of rural life through the eyes of a young farmer working on a medium-sized farm, Upper Knowes, in the parish of Deskford, Banffshire, and as a farm manager and grieve at Balliemulloch and Georgetown, Aberlour, from 1879 to 1892. It includes acutely observed accounts of the weather (some of the accounts of the poor seasons such as 1879, 1881 and 1888 are extremely valuable), the progress of the crops and animals throughout the seasons, crop yields, prices for agricultural produce and the state of the markets. There are valuable accounts of the activities and roles of a number of rural institutions such as agricultural societies, book clubs, local horticultural shows and mutual improvement societies. It gives an unrivalled account of the spiritual and moral life of an individual and a wider rural community.

This diary is a welcome addition to the small number of farmers' diaries that have been published in Scotland in recent years. It is significant for a number of reasons. It covers a substantial period of time: James Wilson commenced writing in January 1879 at the age of 19 years and continued that activity for thirteen years until January 1892 when he abruptly stopped owing to the pressure of other activities in his life. Much of his diary has survived for this period, though the second volume (the diary extended over four volumes) which covers the period from January to June 1885 is missing. It was written during a period of severe agricultural depression which has received little attention by agricultural and rural historians and for which few accounts of farmers' experiences are available. It is also concerned with Banffshire, a county that has not been well-researched by agricultural and rural historians, though the neighbouring county of Aberdeenshire has received significant attention in recent decades.

Wilson appears to have kept his diary for a number of reasons. He was interested in self-improvement, in improving his education and ensuring his spiritual well-being (he reflects on his attendance at church). In his 'foreword', which he later attached to his diary, his poems and the text of his lectures and essays given to the Deskford and Ballindalloch Mutual Improvement Associations, he notes that:

> my personal experience of keeping a Diary has led

> me to form a very high opinion of its usefulness. It is not only a practical means of improving one's writing and composition, but it also makes one take more particular note of men and passing events so as to be able to record our impressions of the same (p. 41).

His 'foreword' is also an important document for recording 'some of the more outstanding events that have occurred, during my long and not altogether uneventful life' (p. 29).

The format of Wilson's diary is different to that of many other farmers' diaries. Wilson wrote his entries on a Monday evening and kept a weekly rather than a daily, diary of events and reflections, the usual format for these diaries. His entries, nevertheless, refer to a number of days in the week which are usually described in date order. Wilson's methodology allowed him to reflect on what was important to him during each week: he presents an analysed examination of his life rather than a narration of all the events in it.

The diary, poems and essays are prefaced with an excellent introductory essay which provides a closely analysed account of the broader social, economic and cultural context for Wilson and his writing. The editor has judiciously edited his writing and has provided a small number of helpful footnotes, where appropriate, to elucidate the text. The index, which largely records the names of places and people, will assist readers interested in local history, though agricultural and rural historians interested in such themes as the growing of particular crops, cattle prices and agricultural tools and techniques will find that it does not help them to gain access to the diary and other writings.

The diary is published in the same format as the Scottish History Society's other publications and is intended as a scholarly publication. But it, and Wilson's other writings, would also appeal to a much broader audience. My father, a retired farmer from Midlothian, enjoyed reading the diary and it provoked him to reminisce about his own experiences in the second half of the twentieth century. Wilson's writings can be read as local history, social history, or church history and it is hoped that the Society will make them all available to the general reader, as they deserve to be widely read.

HEATHER HOLMES
Livingston

Europe and elsewhere

NADINE VIVIER (ed.), *Élites et progrès agricole, XVIe–XXe siècle* (Presses Universitaires de Rennes, 2009). 346 pp., 2 illus., 17 tabs., 7 maps. €19.

Many historians, especially in Britain, France and Germany, have extolled the importance of large landowners in using wealth and knowledge to introduce innovations in the countryside, but other scholars, notably in Spain and eastern Europe, have viewed large estates as obstacles to 'agricultural progress'. In recent years, historians at the Université du Maine (Le Mans) have focused attention on the conception and manifestation of progress in the countryside, choosing to place their own experience of western France in a wider perspective by organizing two sessions at international conferences in Amsterdam (2006) and Lisbon (2008). The present volume seeks to provide a nuanced view of large estates by paying less attention to the landowning elite as a class and concentrating more on the aspirations and actions of individuals, sometimes acting in isolation but often as members of agricultural societies. It brings together thirteen essays – overviews and case studies – which cover strikingly different areas and span the sixteenth to the twentieth centuries. Guiding themes include the composition of the 'farming elite', the methods its members introduced to modify agricultural production, and the impact of these endeavours. Clusters of chapters look at the varied motivations of large landowners from 1500 to the twentieth century, the constitution and activities of improving agricultural societies from 1750 onwards, and the wider diffusion of knowledge among farmers and landowners after 1850.

Richard Hoyle introduces the first cluster with a lengthy review of the role of some members of the landowning elite in transforming aspects of rural England from 1500 to 1750. In similar fashion, Laurent Bourquin argues that not all large landowners in sixteenth- and seventeenth-century France were opposed to innovation, despite the largely negative record left by contemporary observers from across the Channel. These overviews are followed by Ursula Schlude's tightly-focused discussion on the work of Electress Anna of Saxony to stimulate agricultural change between 1567 and 1571, and by Jean-Marie Constant's analysis of structural changes in seventeenth-century Beauce, which enabled local farmers to take advantage of rising Parisian demands for cereals in the following century. Four case studies in the central section of the book explore the membership and activities of agricultural societies between 1750 and 1850 in very different parts of the world; New England (Lucien Néraud), Upper and Lower Canada

(Daniel Samson), France (Nadine Vivier), and part of Lower Normandy (Nicolas Rago). This latter discussion of the *Société Royale d'Agriculture d'Alençon* provides a detailed discussion of lofty ambitions and limited achievements, and would be replicated in the experience of other societies elsewhere in France. Despite important modifications following the 1789 Revolution, it was not until the second half of the nineteenth century that the wealthy, landowning elite in France was matched by a new managerial elite whose members possessed the necessary practical knowledge to improve large properties. The volume concludes with five, largely nineteenth-century, case studies; the great estates of the Hungarian Plain (Andras Vári), routine and innovation on large properties near Mexico City (Alejandro Tortolero), modest improvements on some great – but highly fragmented – estates in Spain (Juan Carmona), agricultural penitentiaries and farm schools in France (Ivan Jablonka), and the role of 'social catholicism' in stimulating groups of young French farmers to innovate, especially after 1950 (Brigitte Waché).

This very varied array of information is drawn together in a courageous conclusion by Professor Vivier, who elaborates on the three 'guiding themes' that she identified in the introductory pages. She reiterates how members of the traditional land-owning elite of early modern Europe were complemented by physiocrats and others 'improvers' who founded agricultural societies after 1750, published learned articles and treatises, but had limited impact on changing farming activity. Only after 1850 did innovating theory and improving practices become increasingly widespread in parts of Western Europe and, to a lesser extent, in the other areas studied. Then she draws attention to the gradual diffusion of printed information on improved crop strains, livestock breeds, cultivation techniques and structural modifications. Enclosures in England are contrasted with the long survival of small family farms in France, whose significance was reinforced after 1789. In short, some members of large land-owning elites were innovative from the sixteenth century onwards, but the majority were not – not until very much later, when reconfiguration of market conditions associated with population growth, changing dietary patterns, and the transport revolution of the steam train and the steel-hulled steamship occurred. *Élites et progrès agricole* demonstrates the strengths and weaknesses of interweaving material presented at international conferences with more cohesive information presented by members of a home team, in this case based at Le Mans. Breadth is most certainly achieved but at the expense of sharpness of focus. Many readers will appreciate the inclusion of long, English-language summaries of chapters and also of the very full translations of the editor's introductory remarks and concluding digest. Once again, the Presses Universitaires de Rennes must be congratulated for producing a substantial book at a very reasonable price.

HUGH CLOUT
University College London

BAS J. P. VAN BAVEL and PHILLIPP SCHOFIELD (eds), *The development of leasehold in north-western Europe, c.1200–1600* (Brepols, 2008). 243 pp, 9 figs, 20 tabs. €62.

This latest book in the CORN series of volumes brings together papers from a range of scholars who have worked on the history of land tenure in north-west Europe. Leaseholding remains one of the least studied forms of tenure, although its prevalence has been a major theme in explanations of agrarian change and development in late medieval and early modern times. This is of course in part explained by the difficulty in identifying leaseholding directly: its rise is generally viewed as concomitant to the decline of customary tenure, and the latter has been easier to trace. Yet leaseholding is not simply what we find when custom disappears: in many places and centuries there was potential for freehold land to be leased, as well as the half-glimpsed world of sub-letting that may have operated across many forms of tenure.

The authors' attempts to grapple explicitly with leaseholding are thus very welcome. The volume encompasses an introduction by the editors, followed by chapters on Flanders, Liège, northern France, two Danish regions – the peninsula and Scania (annexed by Sweden in the seventeenth century) – and two chapters on England, one a general survey and one a case study of west Norfolk. A final chapter on the Low Countries, with a focus on the modern Netherlands, also acts as a summing-up of issues addressed throughout the book. In fact, the period covered by each chapter is highly variable and often stretches far beyond the core late medieval focus of the editors. 'Modern' commercial leaseholding did not for example exist in southern Scandinavia before the late eighteenth or nineteenth centuries.

Or did it? Very soon we run into one of the reasons why studies of leaseholding are few and the idea itself elusive. There can be many forms of leaseholding, and they can occur between many different actors: leasing of manors by the Crown, leases of individual rights and streams of income, leases between lords and tenants, and sub-letting of all kinds. It is clear that the editors are really interested in quite a specific kind of lease: a more 'modern' kind that involved a clear voluntary contract between landlord and tenant

farmer on identifiably commercial terms (preferably for cash rent) and for a relatively short duration. It is this form of lease which is reckoned, in relatively linear fashion, to have provided the scope for agricultural improvement, commercialization and the emergence of capitalist farming.

Yet given that this kind of lease was rare or non-existent in many regions, or may even have diminished in use over time, the chapters in this book have a rather disjointed feel. They are not all rowing in the same direction, just as the agrarian worlds they studied were not. The chapters on Denmark and Scania suggest that forms of leasehold and freehold tenure were very widespread before pressures from Crown taxation and a feudal reaction spread manorialism in the late medieval period, with leaseholds only re-emerging in the liberal age much later. This story is entirely ignored in the more synthetic chapters that focus on explaining the perhaps more comfortable territory of the Netherlands and south-east England. Similarly, the wide prevalence of leaseholding identified by Whittle in England is dismissed from van Bavel's analysis, because so much land was held by 'beneficial lease' – not the right kind of lease to bring about capitalist advance.

One cannot do justice to all of the divergent and detailed chapters. This reviewer found especially valuable the itemization of possible causes of the spread of commercial leasing provided in the introductory discussion. The suggestion that leasing could work to the advantage of tenants by reducing risk and direct dependence on lords is a useful corrective to the notion that such tenures were always imposed by exploitative landlords seeking rack rents or discipline from a tenantry inclined to custom. Tim Soens and Erik Thoen have produced a thoughtful and nuanced discussion of how local ecological and market conditions generated radically different property relations in adjacent parts of Flanders. Christer Lundh and Matt Olsson's survey of property law and rights from medieval times until the nineteenth century in Scania – a region less familiar to most anglophone historians – is clear and useful, even though little of the discussion pertains to commercial leasing. Jane Whittle provides tentative but judicious moves towards quantification of the distribution of tenures in England, usefully straddling the late medieval and early modern divide. There is, in sum, much of value in this volume although it delivers more than the title promises, in terms of chronological scope, and, at the same time, rather less in terms of coherent collection and analysis than it might have. Rather more stringent copy-editing would also have been welcome.

PAUL WARDE
University of East Anglia

JORDI BOLÒS and ENRIC VICEDO (eds), *Poblament, Territori i Història Rural. VI Congrés Sobre Sistemes Agraris, Organització Social i Poder Local* (Institut d'Estudis Ilerdencs, 2009). 759 pp., 157 figs., 45 maps, €20.

This edited volume of essays on population, territory and rural society in Catalonia, Spain and Western Europe, from the early middle ages to the present day, is based on some 30 presentations to a conference held in Alguaire (Lleida) in April 2007, with a number of fine contributions by a distinguished group of agricultural historians, historical geographers and rural archaeologists. Impressively, it constitutes the sixth volume in an ambitious series on 'Agrarian systems, social organization and local power', published by the Institut d'Estudis Ilerdencs, which has previously focused on such topics as communal property, peasant solidarity, social control, fairs and markets and living conditions. After an all-too-brief introduction by the editors, Jordi Bolòs and Enric Vicedo, followed by a short introductory survey on the population of Western Europe in the middle ages by Aymat Catafau, the book is divided into two sections: one on fortified farmsteads (*masos*) and population in Catalunya Nova (Tarragona and Lleida) and another entitled 'Population, territory and rural history', which contains ten contributions on the Països Catalans and a further eight on Andalusia, Cantabria, Galicia and the Basque Country.

A number of contributions, such as Llorenç Ferrer's erudite bibliographical essay on the geography of Catalan *masos*, Enric Mendizàbal's authoritative account on population and territorial development in the Principality after 1700 and Miguel Hector Fernández Carrión's well-crafted survey on the populations of Spain and Andalusia in the nineteenth and twentieth centuries, deal with the broader picture. Otherwise, most of the book's contributors provide the reader with more detailed local studies, many of them from hitherto unutilized local archival sources. These include an account of the provision of water to the lead mines of el Molar in the Priorat at the end of the sixteenth century by Albert Martínez, a fascinating study of the colonization of the Ebro delta, in the vicinity of Tortosa, from the early nineteenth century onwards by Emeteri Fabregat and an essay on the archaeology of deserted villages (*despoblados*) in the Basque province of Álava by Juan Antonio Quirós Castillo. The main emphasis of the book is on the medieval period, whilst only half a handful of studies concern themselves with the nineteenth and twentieth centuries.

My general impression of this fine miscellany is that, in common with its companion volumes, it displays a remarkable labour of love by scholars from a variety of

disciplines – both young and old – who are keen to share with others not only the rich past of the many corners of rural Catalonia but also to put across their findings in the wider context of the most up-to-date investigations and methodologies by leading scholars throughout Spain and across the European continent. As before, the collection is beautifully presented. It boasts an extensive assortment of maps, charts, diagrams and photographs. There are also a number of detailed bibliographies which will be a considerable use to the general reader as well as to avid researchers.

JOSEPH HARRISON
University of Manchester

C. A. BAYLY, *The C. A. Bayly Omnibus* (Oxford, Delhi, 2009). 1191 pp. £58.

The difficulty with the proposition of compiling an Omnibus to present the lifetime work of an academic is that it risks bringing together ideas coming from different places and at different moments. Rarely can this be truer than for Chris Bayly, a historian whose 35 years of scholarship have ranged through various facets of Indian, global and imperial history. The newly republished *Bayly Omnibus* has a distinctly Indo-centric focus, bringing together three books which focus upon the evolution of Indian society and politics from the late-eighteenth century onwards. The third and most recent of these volumes, *Origins of nationality in South Asia: patriotism and ethical government in the making of modern India* (first published in 1998), is a selection of interrelated essays concerning the cultural backgrounds to Indian politics, emphasizing the determinant nature of indigenous ideas, institutions and multiple patriotisms over later doctrines of Indian nationalism. However, those with interests in the social and agrarian history of north India will inevitably find their attention drawn primarily to the first two volumes.

The first work included here, *The local roots of Indian politics: Allahabad, 1880–1920* (first published 1975), examines the development of early political formations in a major north Indian city, and the backgrounds of those individuals who came to participate in them. The book documents how particular social elites, whether rural landlords, commercial entrepreneurs or urban professionals, became drawn into the machinations of local councils and public associations as a budding political class. By the author's own admission, aspects of the book have dated, in particular the language of interest groups, political control, collaboration and 'radical politics' that characterized its period of writing. This said, as an illustration of the ensnarement of national political brands in local networks of power and patronage, and as a framework for understanding the emergence of 'representative' politics in local arenas, the work has rarely been bettered. It is helpfully re-published along with its companion article, 'Rural conflict and the roots of Indian nationalism: Allahabad district since 1800', which extends the analysis from the city itself to the networks of rural villages, gentry neighbourhoods and commercial townships in the countryside around it. In a valuable retort to the urban focus of many early 'Cambridge school' studies of Indian nationalism, the article demonstrates how modern political configurations and languages, far from being created in cities and then diffused outwards, frequently had distinct rural roots and manifestations which emerged contemporaneously with their urban ones.

Following up on many of these themes, but much more expansively, is the next volume republished here, *Rulers, townsmen and bazaars: north Indian society in the age of British expansion, 1770–1870* (1984), an exhaustive and profoundly influential fusion of economic, political and social history set in the market towns and rural outposts of the Gangetic plains. Far from seeing the period in question as one of unmitigated political upheaval, the work's most important legacy has been its depiction of an evolutionary rather than revolutionary transition to British control, with many existing social and political orders being sustained, appropriated or adjusted rather than comprehensively replaced. The work insinuates that the directions and strategies of British expansion were to some extent set by the indigenous forms of social organization and commerce which preceded their arrival. The work has therefore long been of note for its shifting of focus away from the sole agency of the British, towards so-called 'intermediate groups' who are examined with great lucidity, among them the rich cultivators, Hindu mercantile classes and Muslim service gentries who populated these small settlements. Painstakingly recreating their social histories, Bayly describes how these various communities gradually reshaped themselves during this period as the key figures of local government and the mainstay participants in the growth of colonial trade. This constitutes a major revision of the relationship between the colonial state and the societies of India's rural heartland, showing how the latter did not simply fall into the colonial project as passive subjects but proffered the active agency of defining – in large part – the political and economic structures of British control. The book is, moreover, perhaps the best available study of the complex workings of north Indian agrarian society, documenting its interactions with the evolving class formations, commercial networks and public arenas which accompanied the transition to colonial rule, and, as such, the work's importance is hard to overstate.

Each of these major republished volumes has in its own way achieved classic status, and each maintains its own longevity in the respective fields of historical debate which it has itself helped to trigger. The quality and influence of these works will ensure that their republication in this format will be widely welcomed by scholars and students of Indian history and historiography.

JUSTIN JONES
University of Exeter

LYLE DICK, *Farmers 'making good'. The development of the Abernethy district, Saskatchewan, 1880–1920* (second edition, University of Calgary Press, 2008). xxxii + 303 pp., 55 figs. $34.95.

This title's re-issue, 20 years after its initial publication by Canada's Parks Service, is amply justified. The book's scope goes far beyond its initial purpose to provide the historical setting for the W. R. Motherwell farm as a national historic site. As an in-depth micro-study of early prairie settlement, it gives what few others have. An additional welcome feature of the new edition is an introduction to the most recent historiography which sets the context for this study.

European settlement followed on the displacement of both native and mixed-blood peoples. The former negotiated for reserves of land, although their agricultural activity was subsequently crippled by government regulation. The federal government granted the latter 'scrip' (a right to claim 160 acres), if they received anything. Dick found some evidence of outright fraud by land-company and federal agents, although he perhaps generalizes beyond the available evidence for his area. Lack of any start-up capital may have hampered the chances of most mixed-blood families from joining the move to commercial agriculture more than lack of access to land.

Dick argues persuasively that the decisive factor in a homesteader's success was to arrive early enough to get as much of the best land as possible (up to 540 acres) and to persevere through the hard times. In south-west Saskatchewan that meant filing your claim in the 1880s, and farming through multiple production problems (drought, gophers, grasshoppers) and marketing problems (distant railways, uncertain prices). Another key factor in that perseverance was the homestead's distance from the railway. Cancellations of homestead entries jumped from 50 per cent (6–14 miles) to 75 per cent (22–30 miles). What the debates over initial start up costs show is that they varied greatly. Minimum costs could be very modest before 1900, especially with family and community support as well as low expectations.

Those who arrived in south-west Saskatchewan during the 1890s found that there was not only less low-cost land available, but also less good land. Dick contrasts the Anglo-Ontario settlers of Abernethy with the German settlers in nearby Neudorf. The latter got poorer land and less of it. They had a higher rate of 'proving up' than Abernethy, but a lower rate of long-term permanence. They soon moved on to look for better land.

Those who arrived after 1900 faced rapidly rising land prices, which forced up the level of capital needed to commence. For example, Georgina Binnie-Clark found she had to call repeatedly on her English funds to keep her farm in operation (pp. 89–92). Of course she faced the additional handicap of being female, which made her ineligible for the free homestead grant (unlike the American homestead law). She had to pay $5,000 for land that would have cost a man $970 for homestead and pre-emption.

Early arrivals who persevered until 1900 could benefit from high grain prices, better railway connections, and a ready supply of credit due to the rapid rise in the value of their lands. Farm debts arose from purchase of land or farm implements to increase production and initially short-term debt (a couple of months) to cover the prairie farmers' chronic irregular cash flows. These latter could, in effect, become long term, until the later established wheat board and wheat pools gave prairie grain farmers more regular income flows. Those early persevering homesteaders' capital gains usually enabled them to avoid the worst of the debt crises, which fell most heavily on the later arrivals with less land and thus less security.

Dick's theme of an economic divide between wealthy and poorer farmers comes out clearly in his analysis of agrarian protest politics. W. R. Motherwell was a key leader in the first effective prairie farmer protest, on which his later political career – as minister of agriculture for Saskatchewan (1905–17) and then Canada (1921–30) – was built. The Territorial Grain Growers Association that he led proposed modest reforms to grain handling, limited enough to be enacted by the federal government. Whether intended or not, these favoured large-scale farmers like Motherwell, over the poorer homesteader just getting established. As farm leader and cabinet minister, Motherwell opposed government intervention or even farmer cooperatives to store, ship, or market grain.

In an irony he saves for his closing pages, Dick points out that Motherwell farm, now made into a historic site, was far from the typical prairie homestead. Not only was Motherwell one of the early preserving pioneers who received a lot of good land very cheaply, but he

became mainly a brome grass seed grower, rather than the typical wheat farmer.

While the University of Calgary Press is to be commended for the re-issue, the text has not been entirely re-worked: a study more than 30 years old is described as 'recent' (p. 47). There are repeated print errors, at one point rendering the text incomprehensible (p. 218). One hopes for better from university presses.

PETER A. RUSSELL
University of British Columbia

ALAN L. OLMSTEAD and PAUL W. RHODE, *Creating abundance: biological innovation and American agricultural development* (Cambridge University Press, 2008). xii + 467 pp., 59 figs., 8 illus., 46 tabs. £15.99.

When one thinks of authorities on agriculture, one does not normally think of economists. This is particularly true in the contexts of biological innovations and agrarian history. Thus, this book is a most pleasant surprise, and an important contribution to the literature on agricultural development. Indeed, a book on this topic written by someone other than economists would not be as convincing. Development, after all, regardless of how one defines it, is an elaborate variation of change, and the calculus of change is economics.

The premise of this book is as simple as it is brilliant. For nearly 70 years the prevailing thought has been that, until the 1930s, American agricultural development was a function of farmers investing solely in labour-saving mechanical technologies, the so-called induced innovation hypothesis. Now, Olmstead and Rhode demonstrate conclusively that: (a) this notion is economically untenable; and (b) that biological innovations were not only common, but were the principal factor underlying development.

Cyrus McCormick and Eli Whitney are household names thanks to their technological accomplishments. Long overlooked, but deserving equal credit are scores of figures such as Wendelin Grimm and Walter Burling who spent lifetimes developing varieties of alfalfa and cotton respectively. Indeed, the varieties of maize, wheat, cotton, tobacco, and fruits grown in 1900 were markedly different from the varieties cultivated in 1800. Chapters 2, 3, and 7, deal in turn with wheat, maize, and tobacco. Cotton merits three chapters; four covers its becoming 'King', chapter 5 focuses on its demise due to the boll weevil, and chapter 6 discusses its revival in the twentieth century. California is the topic of chapter 8 which is fascinating in that despite the diversity of that state's crops, similar trends prevail. The role of animals, particularly their link with crops is discussed in chapter 9. Sheep, swine, and beef cattle are dealt with in chapter 10, with dairying being the topic of chapter 11. In sum, and without belabouring the details, there is something for everyone concerned with a specific crop plant or farm animal in this book. Indeed, more than 300 pages are devoted to empirical evidence that convincingly and overwhelmingly supports this volume's simple and straightforward premise.

While chapters 2 through 11 provide the necessary substance, chapters 1, 12, and 13 are of critical importance as they deal with theory. The first chapter introduces the argument by dispelling the long-subscribed-to myth that during the nineteenth century, rational farmers invested in labour-saving because, due the price of land falling relative to the wage rate, labour was a scarce factor of production. Much like the agricultural economist Ester Boserup, who overturned the ideas of Malthus by recognizing supply as a function of demand, Olmstead and Rhode point out that throughout the nineteenth century 'the price of land relative to wages was *rising* not falling' (p. 8).

Chapter 12 is a most welcome essay as it deals with draft power. The economics of the shift from oxen to equines, mules and horses, and the tractor as a land-saving innovation are all discussed masterfully. A refreshingly insightful and explicit recognition, and one that is typically overlooked if not ignored outright, is that animals are both biological and technological creatures. Any calculation of their labour- or land-saving attributes, therefore, is flawed if both roles are not factored into the equation. This chapter also points out that farms and farming regions became increasingly specialized (in part because of environmental conditions), and, as they did, they became more and more dependent on others for various inputs.

The concluding chapter illustrates that yet another factor was important in American agricultural history: foreign introductions. Many American crops and their numerous varieties are quite recent arrivals. Finally, the closing note of this book sums up the death of the induced innovation hypothesis. Unlike most scholarly works that offer an alternative perspective on an issue, this book is neither demeaning nor denigrating. On the contrary, it is compassionate and grateful for the many years of intellectual service of the hypothesis. The model this book presents should have an equally long and productive academic life. Indeed, the book's opening section, 'Advanced praise' (p. i), begins with what is essentially the *imprimatur* of Vernon W. Ruttan, one of the long-time and premier advocates of the opposite perspective.

W. E. DOOLITTLE
University of Texas

Conference Report
The Society's Winter Conference, 2009
The history of rural housing: new approaches and old problems

by Jane Whittle

The study of housing exists as a thriving field quite separate from agrarian history, yet houses are an integral element of Britain's rural landscape, and have a significant impact on rural society. This conference attempted to bring the history of houses and agrarian history closer together, by considering new approaches to studying rural housing, and examining the long-running issue of housing shortage in rural England.

Will Browne and Margaret Yates opened the conference with 'Houses, history and cybernetics: the challenges of an interdisciplinary project'. The paper outlined a project designed to improve the visitor experience at the Weald and Downland Museum near Chichester. The museum, a charity founded in 1969, has a collection of houses from the thirteenth century to the 1860s, which have been moved and rebuilt on its forty-acre site in sympathetic surroundings. Browne and Yates' research project aimed at finding new ways to inform staff, many of whom are volunteers, and visitors not only about the technical and architectural context of the houses, but also the social history of their inhabitants. A new social history of the houses was researched and written by Danae Tankard. The expertise of cybernetics, the science of systems and interaction, was used to develop new ways of communicating this knowledge and existing resources in the museum's archive to visitors and volunteer staff at the museum. The project has resulted in an improved website for the museum, and new ways of training volunteer staff. There are also plans to provide visitors with interactive information pavilions unobtrusively dotted around the museum. These will be near to particular houses, but will not interfere with the historically accurate presentation of their interiors or exteriors. The paper reminded us about the importance and complexity of making historical research interesting and informative for non-experts, and also the challenges and rewards of working with approaches from outside the discipline of history.

In 'Rural houses from the Reformation to the Georgian Order', Adrian Green offered a reappraisal of Hoskins' idea of 'the Great Rebuilding' of rural housing in England between 1558 and 1642. He agreed with others, such as N. W. Alcock, that the Great Rebuilding still has validity as an argument; while also incorporating S. Pearson's critique, which emphasizes the importance of regional differences. From his own research on County Durham, he showed that, contrary to Hoskins' assertion that rebuilding was later in the four northern counties, Durham also experienced the changes observed in the stone belt further south. Traditional longhouses, where accommodation was shared with animals, were converted into larger, two-story farmhouses with chimneys and separate barns provided for livestock. The style of these houses, and date of their conversion, was almost identical to examples from Northamptonshire. To explain the timing of these changes Green turned both to economic explanations, for instance the wealth provided by coal mining in County Durham, and demographic reasons. The great rebuilding began at a time in the mid-sixteenth century when the marriage rate was very high: Green argued that more needs to be done to ascertain how rebuilding fitted into the life cycle: was it done immediately after marriage, or later in life in a period of greater financial security? The final part of the paper looked at new

approaches to the history of housing, particularly ideas developed by anthropologists working on the housing and material culture of colonial America, such as Henry Glassie and Jim Deetz, which have subsequently been applied to English housing by Matthew Johnson. These suggest the importance of recognizing the grammar of housing in any particular period, which reflects the way particular cultural assumptions become embedded in material culture. One such grammar was the Georgian order of architecture, which appeared simultaneously in the Western fringe of the British Isles and Virginia in America, in the eighteenth century.

The last two papers of the conference were both concerned with the shortage of housing in rural England: in 'The nineteenth-century rural housing crisis: motives and perspectives', John Broad discussed the late eighteenth and nineteenth centuries; while Barbara Linsley examined 'Rural housing in a recession: affordable housing in the twentieth and twenty-first centuries'. The fundamental problem with rural housing in this period has been that it is not profitable: it costs more to build and maintain housing than working families on low incomes are able to afford in rent. The costs have increased over time. In the late eighteenth century it cost around £50 to build a cottage; in the late nineteenth century attempts were made to design cottages that could be built for £100, but this proved virtually impossible. As a result solutions to the provision of housing have oscillated between charitable and state-funded solutions, which have always proved expensive, and reliance on the market, which has never been able to meet people's needs. In the late eighteenth century, enclosure made it difficult for working people to build their own houses on commons and wasteland, as had happened – despite opposition – earlier. This left five other providers of housing. The poor law enshrined the duty of the parish to find housing for its poor. Local charities engaged in building and buying houses for the needy. Great landowners built 'model' cottages, in part for the prestige of displaying their taste in architecture and philanthropy. Landowners and farmers built and maintained tied cottages so that they could house agricultural workers close to the farms on which they worked. Finally, within villages much of the property was owned by freeholders of middling wealth and status, who rented out often poor-quality, crowded housing on a commercial basis. The 1831 census reveals that overcrowding, in terms of the number of families occupying a property, was worse in villages than market towns, and worst of all in small villages. Rural Sussex had more overcrowding than the industrial north of England. The New Poor Law worsened the situation further by removing the duty to house families outside of the workhouse, and compelling parishes to sell off their housing stock. The sanitary regulations of the later nineteenth century, while designed to improve the quality of housing, once again aggravated the situation as landlords pulled down housing rather than facing the expense of improvements. Thus, despite rural depopulation, the housing shortage in rural England remained a pressing problem at the end of the nineteenth century.

Barbara Linsley traced the repeated attempts of governments to legislate for improved housing from the late nineteenth century onwards, and the impact this legislation had in Norfolk, a rural county with low wages. Council-built housing for working families first emerged after the First World War. In 1919, the government pledged to build half a million houses via local councils, but due to problems of finance and materials, only 197,000 were built before funding was removed in 1921. However, in 1923 and 1924 further legislation allowed councils to build subsidized housing at controlled rents, and extra subsidies were made available for rural housing. These subsidies were removed in 1934. Despite the private building boom of the 1930s, which provided more rural houses, the great majority were built for middle-class buyers. A period of economic expansion and prosperity from 1945 to 1970 has been followed by further problems, with local councils encouraged and later compelled to sell their existing housing stock. The overall trends since 1914 have been a decline in private renting, a growth and then decline in council housing, and a growth of owner-occupation. Yet the problems of rural housing remain severe. House prices have outstripped average earnings, and the gap is particularly wide in areas such as north Devon and south Norfolk where earnings are low and house prices are inflated by second homes and commuters. Affordable housing is needed for those in rural areas who cannot afford to buy or rent housing. There are currently 1.7 million families on council waiting lists for housing nationwide. Planning laws dictate that 40 per cent of new housing should be 'affordable', but few new houses are being built at the present time, due to the economic downturn. Rural housing remains a pressing issue, and neither the market nor the state has yet provided an adequate solution.

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Notes on Contributors

MARK BAILEY is Professor of Late Medieval History at the University of East Anglia. Previously, he was Headmaster of The Grammar School at Leeds. His current research is focused upon the management and decline of serfdom, but he retains a strong interest in the agrarian history of medieval England. Address: School of History, University of East Anglia, Norwich, NR4 7TJ, email: Mark.Bailey@uea.ac.uk

E. J. T. (TED) COLLINS is Emeritus Professor of Rural History in the Department of Agricultural and Food Economics at the University of Reading, and he was for many years Director of the University's Rural History Centre. A former President and Treasurer of the Society, he has researched extensively on nineteenth- and twentieth-century agricultural and food history, notably on farm labour, farm tools and machinery, rural industries and cereal foods. He is editor of *The agrarian history of England and Wales,* VII, *1850–1914* (2000) and of the acclaimed report, *Crafts in the English Countryside*, for the Countryside Agency (2004). Address: School of Agriculture Policy and Development, University of Reading, PO Box 237, Earley Gate, Reading RG6 6AR, email: e.j.t.collins@ntlworld.com.

JOHN MARTIN is Reader in Agrarian History at De Montfort University, Leicester. His main research interest is the impact of government policies on British agriculture and the countryside since the 1930s. His publications include *The development of modern agriculture: British farming since 1931* (2000) and, asco-editor, *The encyclopaedia of British rural sports* (2004) and *The frontline of freedom* (2007). His recent articles include'George Odlum, the Ministry of Agriculture and Farmer Hudson', *AgHR* (2007); 'The commercialisation of British turkey production', *Rural History* (2009); and 'British Game shooting in transition: the impact of the Second World War', *Agricultural History* (2011). He contributed 54 articles to the *Oxford Dictionary of National Biography* (2004). In 2010, the Museum of English Rural Life (MERL), Reading University, awarded him a Research Fellowship to investigatethe impact of the weather on the agricultural sector: case studies of the drought of 1975–76, the winter of 1963,and the bleak midwinter of 1947. The study will take the form of a series of articles focusing on impact of inclement weather on the rural sector and an exhibition at the Museum. Address: Department of Historical and Social Sciences, Faculty of Humanities, De Montfort University, Leicester, LE1 9BH, email: jfmartin@dmu.ac.uk

STEPHEN MATTHEWS died on 14 April 2009. In a note he prepared before his death, he stated that 'Stephen Matthews, BA, FRHist.S, having read history at Cambridge, returned to the subject on retirement, concentrating mainly on early medieval issues and nineteenth-century agrarian history. For seven years he edited *Cheshire History* until forced to resign by ill-health'. All of which is true, but hardly describes how productive a retirement he had and how distinctive a body of work he produced

over the time allowed him. He once commented to the editor, 'It is surprising how often Inspectors of Taxes carve out a second, often academic, career – a tribute perhaps to under-utilised mental capacity when in office ... I have had 12 years' happy and productive retirement culminating in election to the Royal Historical Society, and couldn't have wished for more'. This is his third paper for the Review and sadly the last. An obituary and bibliography may be found in the *Transactions of the Lancashire and Cheshire Antiquarian Society* 105 (2010 for 2009), pp. 197–200.

CARSTEN PORSKROG RASMUSSEN is associate professor of early modern history at the University of Aarhus, Denmark. His most prominent field of research has been manorial developments and manorial economy in Denmark and the Duchy of Schleswig, on which he has published the dissertation *Rentegods og hovedgårdsdrift. Godsstrukturer og godsøkonomi i hertugdømmet Slesvig 1524–1770* (2 vols 2003) and a large number of articles in Danish, English and German. Other fields of research are regional differences in rural society in Denmark and Schleswig. He is currently working on a book about the agrarian history of the duchy of Schleswig ca. 1540–1830. Since 2009 he has been president of the Danish agricultural history society. Address: Department of History and Area Studies, Aarhus University, Bartholins Allé 16, Dk-8000 Aarhus C, email: hiscpr@hum.au.dk.

JOHN SHEAIL is a Research Fellow of the Centre for Ecology and Hydrology (Natural Environment Research Council). Prior to his retirement, he was Deputy Head of the Centre's Monks Wood site. An environmental historian, he has published widely in the fields of historical ecology, planning history and the interface historically between environment research and policy making. His most recent book was *An environmental history of twentieth-century Britain*. Address: 3 Mill Hill End, Hilton, Huntingdon, Cambridgeshire PE28 9NX, email: jdbs@ceh.ac.uk

Forthcoming Conferences

The BAHS Spring Conference will take place at Easton College, Norfolk, 11–13th April 2011.

Speakers will include Professor Mark Bailey (University of East Anglia) on the decline of serfdom in England between 1350 and 1500, Dr Gavin Bowie on farming the southern chalklands between the 13th and 17th centuries, Dr Mark Rothery (Northampton) on the Leigh family of Stonleigh Abbey, Dr Samantha Williams (Cambridge) on Bedfordshire and the Old Poor Law, and Dr Dulce Freire from the Institute of Social Sciences, University of Lisbon. There will be a New Researchers' Session on the Tuesday morning and the annual fieldtrip will visit Blickling Hall and will be led by Dr David Thackray of the National Trust.

The *Agricultural History Review* at Sixty

To celebrate the publication of the sixtieth volume of *Agricultural History Review* in 2012, the *Review* announces an prize essay competition open to rural historians in Britain, Europe and internationally. Three prizes will be offered, one of £500 and two of £250. One prize will be reserved for an essay in the rural history of the world outside Britain and Ireland. It is intended that if arrangements can be made, the prize-winning essays will be read at the Society's Spring Conference in 2013. The winning essays will be published in volume 60 of *Agricultural History Review*. It is a condition of entry that the essay has not been published elsewhere, is not under consideration by another journal, nor forms part of a forthcoming book.

There is no restriction on the subject matter of the essays except that they should fall within the remit of the *Review*. Discussions of contemporary issues in agriculture or rural economies are acceptable provided they are strongly rooted in an historical perspective. Essays employing new methodologies, or exploring new areas of interest, will be especially welcomed.

The competition is open to rural historians at the beginning of their careers, defined as those who on 30 September 2011 have had no more than five years post-doctoral academic employment in one or more posts in a university, research institute, museum or NGO. Submissions from rural historians who do not hold (and have not held) an academic or professional post as a rural historian are also welcome. Such people may or may not have a higher qualification, but no age or time limit applies in these cases

The essays will be judged by a panel appointed by the Executive Committee of the British Agricultural History Society and chaired by the editor of the *Review*, Professor Richard Hoyle, who will take specialist advice as appropriate. Queries about eligibility of applicants should be directed to him.

Essays should be no longer than 12,000 words including footnotes and any appendices. All submissions should be in English.

Three copies of each essay should be sent to the Editor of the *Review* at the Department of History, University of Reading, Reading, RG6 6AA, UK. Submissions by email attachment are also acceptable (to r.w.hoyle@reading.ac.uk) but the accompanying email should make it clear that the submission is intended for the essay competition.

The author's name should not be given on the essay but on a detachable cover sheet which should also include a short biographical paragraph (100 words)[1] and a statement confirming that the author meets the criteria laid down above. The latest date for the submission of essays is 30 September 2011. The winning candidates will be notified in January 2012.

[1] See the 'Notes on Contributors' on page iv for examples.

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

* I am grateful to Duncan Bythell, John Hatcher, Tom Williamson and Gill Wood, and also to participants in two conferences in Cambridge, whose helpful comments upon earlier and very different versions of this paper have markedly sharpened its arguments and focus.

[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, *'Wheare 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, '*Wheare 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, '*Wheare 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 foldcourse 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 CPrR 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 CPrR 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 CPrR 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 CPrR 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 CPrR over the arable land determined the way in which a field system functioned. So what specific components made up the CPrR? 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 CPrR in medieval England was considerable. For example, in *c*.1300, the CPrR 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 CPrR 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 latter, 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. Fenoaltea, '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 '*en*closed' 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 interfluves 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 CPrR: 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 CPrRs 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 subdivided 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' though 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. The is 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 CPrR. 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 Ousthuizen 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.

Innovative Feudalism. The development of dairy farming and *Koppelwirtschaft* on manors in Schleswig-Holstein in the seventeenth and eighteenth centuries

by Carsten Porskrog Rasmussen

Abstract

Early modern Schleswig-Holstein saw the development of manorialism of the type, widespread in East-Elbian Germany and further east, of large demesnes farmed primarily with the labour services of dependant peasant farms and cottages. In traditional understanding, such manors are associated with a 'simple' production of grain, but in Schleswig-Holstein they developed a highly-regarded form of dairy farming and a new layout and usage of fields, the *Koppelwirtschaft.* The paper discusses the relation between these developments and the 'feudal' work organization of these manors and demonstrates that feudal demesne lordship could be combined with technical modernization. It also appears that the distinction between unfree labour service and paid work is not always a simple one to make.

Traditional accounts of early modern East-Central Europe emphasize the rise of *Gutsherrschaft* ('demesne lordship') and the so-called 'second serfdom'.[1] The region has been seen as consisting of estates with large demesnes producing grain for western European markets,

[1] The terms *Grundherrschaft* and *Gutsherrschaft* have played an important role in the German literature on early modern agrarian history for more than a hundred years, but the exact meaning and usage of the terms varies a great deal. A good survey of the literature on *Gutsherrschaft,* including theoretical positions relating to or definitions contrasting it to the term *Grundherrschaft* can be found in H. Kaak, *Die Gutsherrschaft* (1991). K. Schreiner, 'Grundherrschaft, Entstehung und Bedeutungswandel eines geschichtswissenschaftlicen Ordnungs und Erklärungsbegriffs', in H. Patze (ed.), *Die Grundherrschaft in späten Mittelalter* (1983), pp. 11–74, gives a good overview of the usages of the term *Grundherrschaft* among medievalists, which – alas – differ from those of early modernists employed here. My usage of the words owes much to the classic definition by G. von Below, *Territorium and Stadt* (1900), and is further discussed and explained in my dissertation: C. Porskrog Rasmussen, *Rentegods og hovedgårdsdrift, Godsstrukturer og godsøkonomi i hertugdømmet Slesvig* (2 vols, 2003), I, pp. 15–33. In my understanding *Gutsherrschaft* signifies the totality of a manorial system centered around demesnes which are to a significant degree farmed with the use of labour service, whereas *Gutswirtschaft* signifies labour service-based demesne farming as such. To avoid misunderstandings of the word *Grundherrschaft,* I prefer the more specific *Rentengrundherrschaft,* as suggested by F. Lütge in *Zur ostdeutschen Agrargeschichte. Ein Colloquium* (1960), pp. 83–84.

tilled by serfs performing unpaid labour service, while the peasants themselves have been conceived as living largely in a subsistence economy with poor market integration.[2]

Over the last few decades this view has been challenged by many historians, including those involved in the project led by Jan Peters, and in the studies of Lieselott Enders, William Hagen, and others.[3] According to these revisionists, the economy was less of a command economy than received wisdom suggested, market production was not limited to grain for Western Europe, peasants were, in many ways, more independent and far more market-oriented than traditionally assumed, and estates often employed paid labour. A prominent example of such views is Hagen's studies of Brandenburg. He further argues that demesne growth before the Thirty Years War mainly took the form of the reclamation of previously untilled land, and he sees the rising labour service as a trade-off for low rents.[4]

This paper does not add much to this area of revisionism. Rather it argues that dramatic contrasts in the social organization of rural society developed *within* the Duchies of Schleswig and Holstein, including manors with strong *Gutsherrschaft*. For these manors, my conclusions are in many ways more in line with the classic picture than with current revisionist views of labour service, the importance of serfdom, and the limited market role of the dependant peasants.

Instead this paper offers a different critique of the classic understanding, questioning whether large demesnes were inevitably managed along traditional, inefficient lines. Historians such as Michael North, Lieselott Enders, and William Hagen have emphasized the 'innovative' aspect of the creation of the large demesnes of the sixteenth century.[5] These demesnes were not a residue from the middle ages but represent a break with the past and reflect an increased market orientation. I have argued the same case for Denmark and Schleswig-Holstein.[6] Here the argument shall, however, be taken further. Innovation in Schleswig-Holstein manors did not stop with the creation of large-scale, market-oriented demesnes. It also concerns the forms of production.

[2] Classical examples in the Anglo-Saxon literature include I. Wallerstein, *The Modern World System* (2 vols, 1974–80), esp. I, pp. 15–17, 67–70, 876–129; R. Brenner, 'Agrarian class structure and economic development in pre-industrial Europe', *Past and Present,* 70 (1976), pp. 30–75, repr. in T. H. Aston and C. H. E. Philpin (eds), *The Brenner Debate. Agrarian class structure and economic development in pre-industrial Europe* (1985). A grand survey of the German literature can be found in Kaak, *Die Gutsherrschaft* and for a critical review, W. Hagen, 'The descent of the Sonderweg. Hans Rosenberg's History of Old-Regime Prussia', *Central European Hist.* 24 (1991), pp. 24–50.

[3] Amongst many examples, J. Peters (ed.), *Gutsherrschaft als soziales Modell* (1995); J. Peters (ed.), *Konflikt und Kontrolle in Gutsherrschaftsgesellschaften* (1995) and J. Peters (ed.), *Gutsherrschaftsgesellschaften im europäischen Vergleich* (1997); W. Hagen, *Ordinary Prussians: Brandenburg Junkers and Villagers, 1500–1840* (2002); L. Enders, *Die Uckermark. Geschichte einer kurmärkischen Landschaft vom 12. bis zum 18 Jahrhundert* (1992).

[4] W. Hagen, 'How mighty the Junkers? Peasant rents and seigneurial profits in sixteenth-century Brandenburg', *Past and Present* 108 (1985), pp. 80–116; id. 'Two ages of seigneurial economy in Brandenburg-Prussia: structural innovation in the sixteenth century, productivity gains in the eighteenth century', *Zeitenblicke* 4 (2005), http://www.zeitenblicke.de/2005/2/Hagen.

[5] Hagen, 'Two ages of seignerurial economy'; M. North, 'Die Entstehung der Gutswirtschaft im südlichen Ostseeraum', *Zeitschrift für Historische Forschung* 26 (1999), pp. 43–59; Enders, *Die Uckermark*. Hagen uses the term 'structural innovation'.

[6] C. Porskrog Rasmussen, 'Modern Manors? The character of some manors in Denmark and Schleswig-Holstein', in K. Sundberg, T. Germundsson and K. Hansen (eds), *Modernisation and tradition. European local and manorial societies, 1500–1900* (2004), pp. 48–77.

In his great synthesis, Wallerstein argued that the second serfdom of the East was attached to 'simple' forms of productions such as grain.[7] Certainly grain production for export was important in many of these areas, but Schleswig-Holstein manors of the eighteenth century were more renowned for their dairy products, which in Wallerstein's model is a 'sophisticated' form of production implying free labour.

In an article of 1990, the German historian Michael North tried to solve this apparent paradox. He saw the late seventeenth and early eighteenth centuries as a period of crisis which landlords tried to meet in different ways. Of these, the enhancement of *Gutsherrschaft* with increased labour service did, according to North, not point forwards whereas the replacement of labour service with money dues and the transition to dairy farming showed the way out of the crisis.[8] The explanation is well in line with both classic 'liberal' interpretations and Marxist understandings. It also fits well with both North's own work and Hagen's on Brandenburg and Prussia, where changes in production in the eighteenth century were often accompanied by a transition to paid labour.[9]

It does, however, fit the Schleswig-Holstein reality rather poorly, not because landlords did not undertake the initiatives described by North, but because the relation between these differs from that suggested by his model. 'Innovative' dairy farming was generally not combined with commutation of labour dues but with their sharpening. Intensive *Gutsherrschaft* and technical modernization were not reciprocally exclusive alternatives but rather two sides of the same coin.

I

Manors with *Gutsherrschaft* were only part of the very complex social reality of early modern Schleswig-Holstein. The twin duchies contained within their borders some of the sharpest contrasts of social organization of rural society to be found in such a small area anywhere in Europe. The case of Schleswig-Holstein shows that such contrasts could emerge within a political territory, not just between territories.

The area was divided into three main geomorphological regions: marshes along the North Sea in the far west, the sandy, so-called *geest* plains in the middle, and fertile clay soils in the eastern regions facing the Baltic. In the marshes almost all the land was used intensively for grazing or cultivation in the early modern period. In the *geest* regions cultivated fields and meadows only made up a small proportion of the land whereas the greater part was moors, heaths, or other types of land used for extensive grazing. In the east a high proportion of cultivated fields coexisted with woods, meadows, and other areas of grazing.[10]

[7] Wallerstein, *Modern world system,* I, p. 91.

[8] M. North, 'Die frühneuzeitliche Gutswirtschaft in Schleswig-Holstein. Forschungsüberblick und Entwicklungsfaktoren', *Blätter für deutsche Landesgeschichte* 126 (1990), pp. 223–42.

[9] Hagen, 'Two ages of seigneurial economy'.

[10] The natural regions: D. Meyer, 'Sønderjylland fra natur- til kulturlandskab' in Lennart S. Madsen and Orla Madsen (eds), *Det Sønderjyske Landbrugs Historie. Sten- og Bronzealder* (2000), pp. 11–62; for land use in the early modern period: C. Porskrog Rasmussen, 'Godsejermagt eller naturtilpasning? De regionale mønstre i det slesvigske landbrug i 1700-tallet og deres sammenhæng med naturforhold og godssystemer' in

The political landscape was just as varied. The Duchy of Holstein was a principality of the Holy Roman Empire and the Duchy of Schleswig was a Danish fief, but since 1375 the two had formed a political union. In 1460 they came under the Danish monarchy, but remained separate possessions in the conglomerate monarchy of the Oldenburg dynasty. In the periods 1490–1523 and 1544–1773, the Duchies were divided among two or more rulers, of whom the Danish king was always one. Each prince controlled a number of districts in which he was both prince and landlord, and the two or three ruling princes jointly exercised authority over noble estates. In reality princely power was restricted to the princely districts. Private manors were liable to taxation and conscription, but apart from that, princely authority over them was weak.[11]

Both natural and political divisions greatly influenced the agrarian society of Schleswig and Holstein. In the marshlands of the west a society emerged that was highly differentiated from the rest of Scandinavia but with clear similarities to those of the other marshlands adjacent to the North Sea. There were neither villages nor regulated farms, and virtually no feudal lordship. It was theoretically a society of freehold peasants, but there were social gulfs between large-scale farmers, small-scale farmers, and landless cottagers. Property rights gave the holder of land almost full control over it, and agriculture in the area was highly market-oriented, monetized, and productive.

Most other peasants in the duchies lived in villages with open fields, both in the *geest* and in the east. A substantial part of the peasantry were in principle freeholders, but since the late middle ages they had been under the lordship of the ruling dukes and were, in practice, not very different from tenants. Including the 'freeholders', roughly a third of all peasants in Holstein and over half of the Schleswig peasants outside the marshes were by 1524 under the direct lordship of the ruling princes. The proportion rose further after the Reformation through the confiscation of church lands and substantial purchases of noble land by the kings and a branch of the ducal family in North Schleswig. As a result, after the early seventeenth century, private manors comprised only about a third of Holstein and a sixth of Schleswig. They were, however, very unevenly distributed. In eastern Holstein and south-eastern Schleswig, which had been parts of the German *Ostkolonisation* of the twelfth century, private manors were already dominant before 1500 and became even more so in the course of the sixteenth century. In the other parts of the Duchies, most peasants were under the princes. Private manors in the east and southeast mainly consisted of whole villages, while the fewer manors in the central and western parts generally consisted of more scattered property.[12]

The lordship of dukes and nobles over peasants took several forms. First, nearly all peasants outside the marshes paid some kind of ground rent to their lords. Second, the lord of the peasants had the power to prosecute crimes and levy fines on miscreants. Third, peasants

Per Grau Møller and Mette Svart Kristiansen (eds), *Bygder. Regionale variationer i det danske landbrug fra jernalder til 2000* (2006), pp. 41–62, at pp. 45–6.

[11] See generally U. Lange (ed), *Geschichte Schleswig-Holsteins – von den Anfängen bis zur Gegenwart* (Neumünster 1996, sec. edn 2004); H. Schultz Hansen, L. Henningsen and C. Porskrog Rasmussen (eds), *Sønderjyllands Historie*, I, *Indtil 1814* (2008).

[12] For Schleswig, C. Porskrog Rasmussen, *Rentegods og hovedgårdsdrift*, I, pp. 96–114; for Holstein, W. Prange, 'Landesherrschaft, Adel und Kirche in Schleswig-Holstein, 1523 und 1581', *Zeitschrift der Gesellschaft für Schleswig-Holsteinische Geschichte* (1982), pp. 51–90.

were obliged to use the seigneurial mill. Fourth, peasants outside the marshes also paid certain dues that were not related to the size of their holdings, but at a flat rate: these can be seen as recognitions of lordship rather than rent. Fifth, peasants were in principle obliged to undertake some kind of unspecified labour service.[13] Considerable differences had emerged, however, in the use of labour service.

By the mid-sixteenth century, the dominant manorial form can be described by the classic German term *Rentengrundherrschaft* ('rent based lordship').[14] It was a system in which peasants paid rents to landlords but performed little or no labour service even though the principle of an obligation to serve was maintained. Demesnes were few and small. In the second half of the sixteenth century, landlords started to enlarge their demesnes and to demand more labour service from their peasants, just as happened in much of East-Central Europe in the same period. Ruling princes, cadet branches of the ruling house, and noble landlords, all followed this path. Their decision to do so followed the incentive of rising grain prices of the period, but also took advantage of a legal regime which regarded basic rents as fixed, but labour service as an unspecified – and so enlargeable – obligation of the peasant to his lord.

From the 1590s to the middle of the seventeenth century, a great divide was established. The kings and the other principal ruling house of Schleswig-Holstein-Gottorf gradually reversed the earlier developments and replaced labour service with a considerably increased money rent, *Dienstgeld* ('service money') in most of their districts. This comprised over half of all peasants outside the marshland districts. The *Dienstgeld* represents in principle the commuting of labour service, but in reality it was a legal ruse for a rise in rents as it was also imposed upon those royal and princely peasants who had barely performed labour service before. It now became the norm that the theoretical obligation to serve should be satisfied either by actual service or the payment of 'service money'. A small number of private manors followed the same path, mainly those on the poorer soils of the western and central parts whose landholdings were often geographically scattered. For the majority of Schleswig-Holstein peasants, the manorial system reverted to a pure *Rentengrundherrschaft.* In the short and medium-term perspective this was a great success for lords and boosted their estate income. In the long run however, the 'service money' came to be seen as just as frozen as the old rents had been, and in the eighteenth century rents and dues from these areas hardly changed at all.

Rentengrundherrschaft was, however, not the only path. Virtually all private manors and a few princely possesions in the east, plus a few private manors in the west, continued to enlarge their demesnes and increase labour service after 1630, thus turning into pure *Gutsherrschaft*. Some of them stopped the expansion of demesne farming in the later part of the seventeenth

[13] C. Porskrog Rasmussen, 'Property rights in the duchy of Schleswig', in Tore Iversen and John Ragnar Myking (eds), *Land, Lords and Peasants. Peasants' right to control land in the Middle Ages and the Early Modern Period – Norway, Scandinavia and the Alpine region* (2005), pp. 259–70; id., 'Bønder under Gutsherrschaft og Grundherrschaft', *Scandia*, 68 (2002), pp. 219–47.

[14] This description is mainly based upon my dissertation: *Rentegods og hovedgårdsdrift*. It does only cover Schleswig, but things were not so very different in Holstein, as can be seen from W. Prange, *Die Anfänge der grossen Agrarreformen in Schleswig-Holstein bis zum 1771* (1971), particularly pp. 19–26, 266–279, 370–397, 591–600; id., 'Das Adlige Gut in Schleswig- Holstein im 18. Jahrhundert', in C. Degn and D. Lohmeier (eds), *Staatsdienst und Menschlichkeit,* (1980), pp. 57–75.

century, finishing up with a sort of intermediate system, but most private manors south-east of the city of Flensburg, a few princely domains in the same regions, and a handful manors in the *geest* kept increasing the number and size of their demesnes until around 1720. By that time, demesnes covered roughly half the total farmland of these estates. The system changed little for the next 50 years. In 1770 the 56 private manors in south-eastern Schleswig consisted of around 100 demesnes, 700 tenant farms, and probably 1200–1500 cottages. In the three manorial districts of south-eastern Schleswig, demesnes covered respectively 51 per cent, 59 per cent and 59 per cent of the arable land and meadows of the manors, the tenant farms most of the remaining part, while most cottages had no land of consequence.[15] The structure was roughly the same in eastern Holstein, where noble estates were even more widespread. Only in some manorial districts of north-eastern Schleswig was a weaker form of *Gutsherrschaft* found, in which about 20–25 per cent of the land area was held as demesne.

Not only was the proportion of demesne land very high on the manors of the south-east, but so too were the labour service obligations of peasants. As a rule throughout most of the eighteenth century, each peasant farm had to present three or four people and four to eight horses for unpaid labour service on 300 days a year. This formal obligation was not completely met, but the reality did not fall far short of the formal prescription. According to Ulrik Wilkens' analysis of the manor of Schönweide, only 70 per cent of the potential number of services were actually performed. It was, however, mainly the younger hands who performed fewer days than they were formally obliged to, while the number of days performed by adult hands bringing horses was much closer to their total obligation.[16] Measured in value, the proportion of work and draught force delivered by peasants was thus considerably over 70 per cent of their formal obligation. My study of the manor of Buckhagen has shown that nearly all normative obligations were called upon by that estate.[17] Labour service was in reality very extensive. Furthermore, the vast majority of people living on these estates were serfs, under full manorial jurisdiction, and largely exempt from any public administrative control.

These estates are in many ways classic examples of what the East German historians Harnisch and Heitz termed 'extreme' or 'South-Baltic' *Gutsherrschaft*.[18] They are clearly similar to conditions in Mecklenburg and Pomerania and are more extreme than most manors in Brandenburg or the lands of the Bohemian crown.[19]

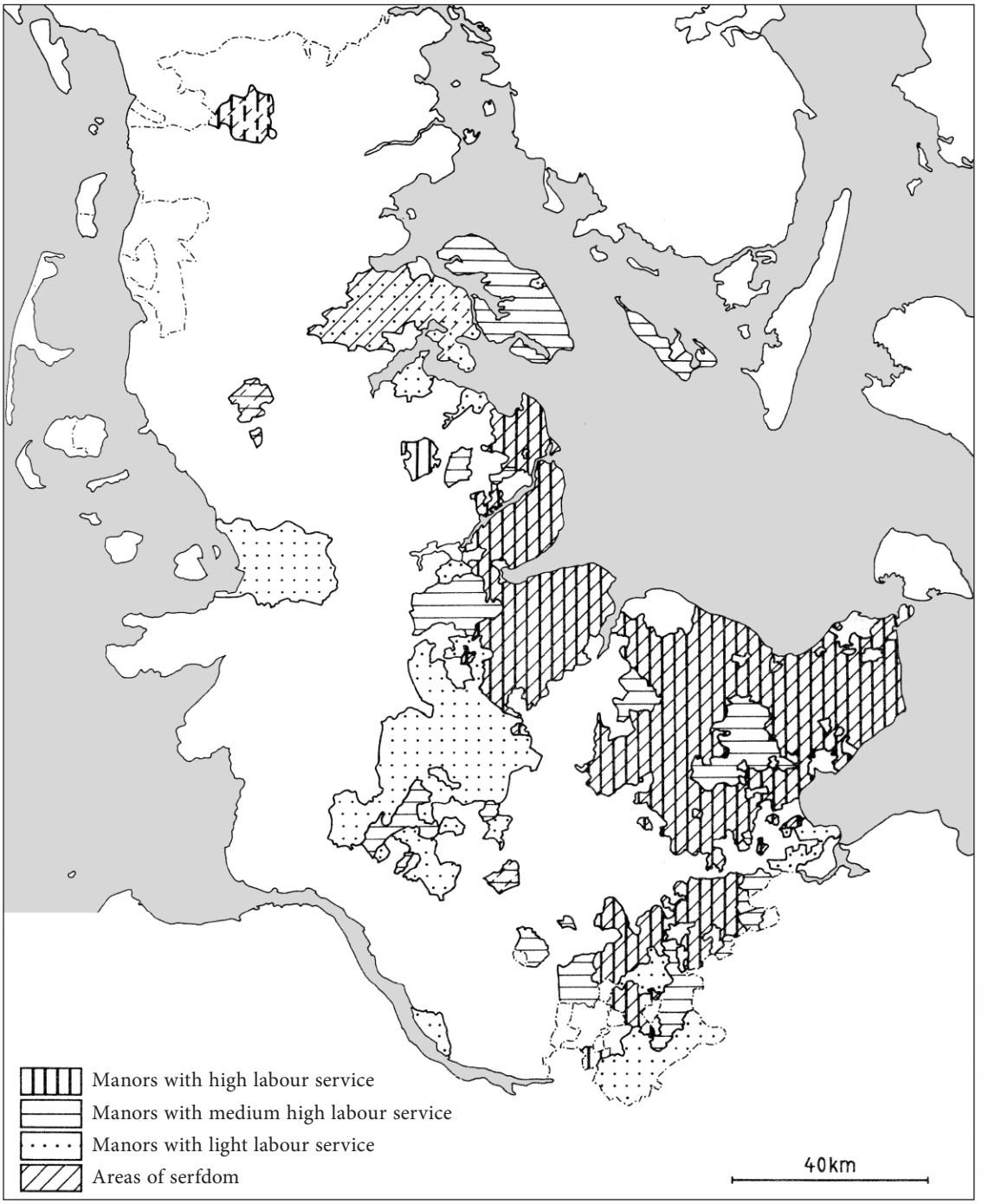
[15] Figures from Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, p. 383.

[16] K.-S. Kramer and U. Wilkens, *Volksleben in einem holsteinischen Gutsbezirk* (1979), pp. 218–20.

[17] C. Porskrog Rasmussen, 'Corvée and paid work. Work and workers at manors in Schleswig and Holstein in the eighteenth century' in Kerstin Sundberg (ed.), *Work and production on manors in the Baltic Sea region, 1700–1900* (2002), pp. 165–92, esp. pp. 175–79.

[18] G. Heitz, 'Die Agrarstruktur vor den bürgerlichen Reformen', *Zeitschrift für Geschichtswissensdhaft* 25 (1977), pp. 910–27, here pp. 917–8; H. Harnisch, 'Probleme einer Periodisierung und regionalen Typisierung der Gutsherrschaft im mïtteleuropäischen Raum', *Jahrbuch für Geschichte des Feudalismus* 10 (1986), pp. 251–74, especially pp. 272–3.

[19] For Mecklenburg see T. Rudert, *Gutsherrschaft und Agrarstruktur. Der ländliche Bereich Mecklenburgs am Beginn des 18. Jahrhunderts* (1995), pp. 90–99; J. Nichtweiss, *Das Bauernlegen in Mecklenburg. Eine Untersuchung zur Geschichte der Bauernschaft und der zweiten Leibeigenschaft in Mecklenburg bis zur Beginn des 19. Jahrhunderts* (1954), pp. 68–9; and for Pomerania, R. Schilling, *Schwedisch-Pommern um 1700. Studien zur Agrargeschichte eines Territoriums extremer Gutsherrschaft, Untersucht auf der Grundlage des Schwedischen Matrikelwesens, 1692–1698* (1989), pp. 18–21, 42–3 and 45–6.



MAP 1. The distribution of *Gutsherrschaft* (demesne lordship) in Schleswig-Holstein, 1730.

Source: Wolfgang Prange, *Die Anfänge der grossen Agrarreformen in Schleswig-Holstein bis 1771* (1971).

Schleswig-Holstein landlords chose the intensive *Gutsherrschaft* where conditions for it were good. Manors under private landlords, with good soils and tenant farms close to the demesnes, stayed on the road leading to extreme *Gutsherrschaft*. Princely districts and private manors with poorer soils and/or scattered possessions largely moved in the opposite direction. *Gutsherrschaft* was not the choice of a few conservative landlords, but the general choice of most private landlords.[20] And they stuck with it until the end of the eighteenth century.

The pursuit of this strategy was legally possible as the ruling princes declined to interfere in the internal affairs of private manors before 1795 – unlike the kingdom of Denmark. The original tax base was a standardized peasant farm, the 'plough', but in 1626 the tax base of each manor was frozen at a set number of 'ploughs'. The landlords could continue to seize peasant holdings, but were then obliged to pay the taxes themselves.[21] This did not inhibit the expropriation of peasant land by demesnes. Indeed, Schleswig-Holstein landlords took over the payment of taxes not only from expropriated peasant farms, but also those which remained. This can be seen as a trade-off, but rather than seeing it as a concession to peasants, we should see it as a deliberate choice. So keen were landlords to expand the labour service-based demesne economy that they chose to divide the land of the manor into halves: one producing almost pure profit (including the state's share) and one bearing the costs of labour and draught animals.[22]

The choice of path had considerable consequences for the peasant population. In areas of *Rentengrundherrschaft,* solid peasant farmers made up a considerably greater part of the population than in areas of *Gutsherrschaft,* where cottages outnumbered peasant farms. *Grundherrschaft* peasant farms were more market-oriented than those under *Gutsherrschaft* whose market production was limited by the amount consumed by the extra horses and servants they had to keep in order to perform labour. Furthermore peasants in the *Grundherrschaft* areas were more highly socially esteemed than those under *Gutsherrschaft*, and such peasants protested furiously in the few seventeenth-century cases when a transition to *Gutsherrschaft* was threatening (mostly when princely tenant farms were sold to private landlords).[23] In many ways the Schleswig-Holstein manors with *Gutsherrschaft* fit a classic image. They were feudal. And yet they became renowned for progressive innovations.

II

Around 1600 the production of the demesnes conformed to the traditional image of East Elbian manors. Grain was the primary product of almost all demesnes. Besides grain cultivation, some manors were also engaged in dairy farming and cattle breeding. Producing these different products on a larger scale was, in the words of William Hagen, a 'structural innovation'.[24]

[20] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 564–69.

[21] Ibid., I, p. 365.

[22] Ibid., I, pp. 476–491, 567.

[23] C. Porskrog Rasmussen, 'Bønder under Gutsherrschaft og Grundherrschaft'; id., 'Godsejermagt eller naturtilpasning?' In the former article I explicitly argue against views of Edgar Melton expressed in his article 'Gutsherrschaft in East Elbian Germany and Livonia, 1500–1800: A critique of the model', *Central European Hist.* 21 (1988), pp. 315–49.

[24] Hagen, 'Two ages of seigneurial economy'.

The adoption of these new forms of production was a natural step to take. Whilst the prices of grain and oxen rose considerably, the productive performance of the demesnes remained poor. By 1600 demesne farming excelled in little but scale. Crops and rotations were roughly the same for demesnes as for the adjacent peasant villages. Yields on royal and ducal manors were poor. Yields of 2½–4 times the grain sown were the rule, even though grain production was the main focus. Evidence from private estates points to higher figures – around three-fold for oats, 3½–4-fold for rye and four- to six-fold for barley, but these were still far from being impressive. In the field of husbandry, the ruling princes favoured a passive posture, hiring out resources for feeding oxen but investing little themselves.[25] This picture has much in common with the findings for other parts of East-Central Europe.[26]

Hermann Kellenbenz has argued that nobles were also engaged in other, arguably more innovative, economic activities.[27] Particularly in eastern Holstein, where forests were extensive, a number of estates established small industries needing firewood, most typically glassworks and brickyards.[28] There is, though, little indication that they were ever of substantial economic importance. The chief income from forests came actually from mast pigs – yet another extensive form of husbandry – while brickyards and glassworks were never more than rare and invariably small in scale.[29]

In the latter half of the seventeenth century, the production strategy of manors changed. The glassworks and brickyards largely disappeared, the forests diminished, and pigs and oxen stopped being forms of production of any significance for landlords. Instead the demesnes became specialized producers of dairy products and grain in new forms known as *Holländerei* and *Koppelwirtschaft*. Whereas the general increase of demesnes and labour service was a continuous process covering both the prosperous period up to 1640 and the crisis-ridden century thereafter, this transition is clearly connected to the latter period.[30] Price incentives seem to have furthered the transition. While grain and oxen prices fell after 1640, manorial income from dairy farming remained stable.[31]

Dairy farming was not new to the estates of eastern Holstein and Schleswig. Medieval manors had milk cows and produced butter and cheese, but on rather a small scale. From the sixteenth century, Dutch immigrants founded a renowned dairy sector, producing mainly cheese, in the rich marsh province of Eiderstedt. From *c.*1600, Dutch immigrants could also be found on some manors as dairy tenants. The word *Holländer* (literally Dutchman) for these tenants later ceased to reflect the origins of the individual tenants and evolved into an occupational term rather than a national description. The Dutch immigrants seem to have

[25] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift*, I, pp. 164–178 and II, pp. 401–426. This is based upon studies of a large number of royal and princely estate accounts and a somewhat small number of accounts from private estates.

[26] Hagen, 'Two ages of seigneurial economy'.

[27] H. Kellenbenz, 'Die wirtschaftliche Rolle des schleswig-holsteinischen Adels im 16. und 17. Jahrhundert', in D. Lohmeier (ed.), *Arte et Marte. Studien zur Adelskultur des Barockzeitalters in Schweden, Dänemark und Schleswig-Holstein* (1978), pp. 15–32.

[28] Kramer and Wilkens, *Volksleben,* pp. 23–38 and 177–79; G. Hanssen, *Agrarhistorische Abhandlungen* (1880), pp. 423–8, 463–4 and 471–5.

[29] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 409–26.

[30] Porskrog Rasmussen, 'Corvee and paid work', pp. 169–70; Kramer and Wilkens, *Volksleben,* pp. 23–38 and 177–9.

[31] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, p. 455.

TABLE 1. Number of milk cows at four manors, 1626–1744

Gereby		*Bienebek*		*Nienhof*		*Schönweide*	
year	*cows*	*year*	*cows*	*year*	*cows*	*year*	*cows*
1657	100	1626	60				
1663	80	1641	124				
1666	74	1653	50				
				1694	140	1680	99
1702	200	1715	270				
				1720	170	1720	350
1728–30	240	1720–28	415				
1738	350	1731	356				
				1743	266		
				1744	312		

Source: For Gereby and Bienebek, U. Bonsen, *Die Entwicklung des Siedlungsbildes und der Agrarstruktur der Landschaft Schwansen von Mittelalter bis zur Gegenwart* (1966), p. 204 and Porskrog Rasmussen: *Rentegods og hovedgårdsdrift*, I, p. 448; Deutsch Nienhof: P. von Hedemann-Heespen, *Geschichte der Güter Deutsch Nienhof und Pohlsee* (3 vols, 1906), I, pp. 163, 178, II, p. 36; Schönweide: Kramer and Wilkens, *Volksleben*, pp. 195–6.

improved both livestock and production, and their methods were adopted by local people who spread the technology further. On most manors this was achieved by a symbiosis between the landlord, who made most of the investment in buildings, livestock, and equipment, and the *Holländer*, who provided expertise in the production and marketing of the produce. The limited investments on the part of the *Holländer* may explain why the leases were short – mostly annual lettings – but often renewed for many successive years.

Whilst the first advances in this sector occurred in the second half of the sixteenth century, when a herd of up to 100 milk cows per manor became normal, it was the years from 1660 to 1720 which witnessed a dramatic expansion in dairy farming.[32] This is illustrated by the figures from four estates, Gereby and Bienebek in south-eastern Schleswig, and Nienhof and Schönweide in eastern Holstein (Table 1).

Over a generation or two, the number of milk cows typically tripled. For around 1715 we have figures for the total number of dairy units and milk cows on private estates in both duchies although so far only those for Schleswig have been examined. On 46 manors in Schleswig, we can identify 91 dairy units with a total of 11,696 cows.[33] A few manors are not covered by the sources, so the actual numbers would have been somewhat higher. The herds of cows

[32] P. K. Iversen, 'Hollænderier i Sønderjylland I 1600- og 1700-årene', *Sønderjyske Årbøger* (1992), pp. 73–112, especially pp. 73–75 and 110–111; Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, p. 407.

[33] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 449–454. The study is based upon tax lists in the Rigsarkivet (The Danish National Archives), Copenhagen, Rentekammerets tyske afdeling, Ekstraskattekommissioner, G.74–79.

at the manors were divided into units of 100–200 heads each. In some cases there would be two separate units on the home demesne, but in the decades around 1700 the number of secondary demesnes grew through the partitioning of primary demesnes or expropriation of peasant land. Secondary demesnes were generally of 2–300 hectares which suited a dairy herd of 100–200 cows.[34]

Substantial as these numbers were, demesne cows were outnumbered by peasant cows. The total number of cows on peasant farms and cottage holdings in Schleswig outside the marshes can be estimated at 50–55,000.[35] The demesnes thus held almost 20 per cent of all cows in Schleswig's eastern and *geest* districts. Even though the proportion is not overwhelming, it is more than twice the proportion of land under demesne control. In Holstein, where demesnes were more numerous and covered a larger proportion of the area, no doubt the relative proportion of demesne cows was higher, probably over 30 per cent.

Above all, the demesne dairy farms adopted a much stronger market orientation than the peasant farmers. Dairy farming was very important in the marsh district of Eiderstedt which had an extensive export trade in cheese. But if we look only at peasants in the east and the *geest*, their dairy production seems to show only limited market orientation. Certainly peasants did sell butter, but judging from scattered evidence, it seems only in small amounts, and butter is not mentioned prominently among the products of peasants given by topographers of the time.[36] Unlike oxen and grain, for most peasants, dairy products were not a specialized market product, but were produced primarily for subsistence, with a small surplus for sale.

The creation of such large demesne dairy farms is remarkable. Given the technology of the time, advantages of scale in most forms of agriculture were quickly exhausted, whereas disadvantages of scale were quick to appear. Large farms meant long distances between fields and buildings and thus, for both people and horses, time and energy wasted. And, furthermore, size tended to increase the risk of disease. However, these dairies had proper advantages of scale compared to local peasant farms. The estate dairies had cool milk cellars, specialized dairy equipment, and a specialized staff for the production. As a consequence 'demesne butter' was seen as a superior product to 'peasant butter'.[37]

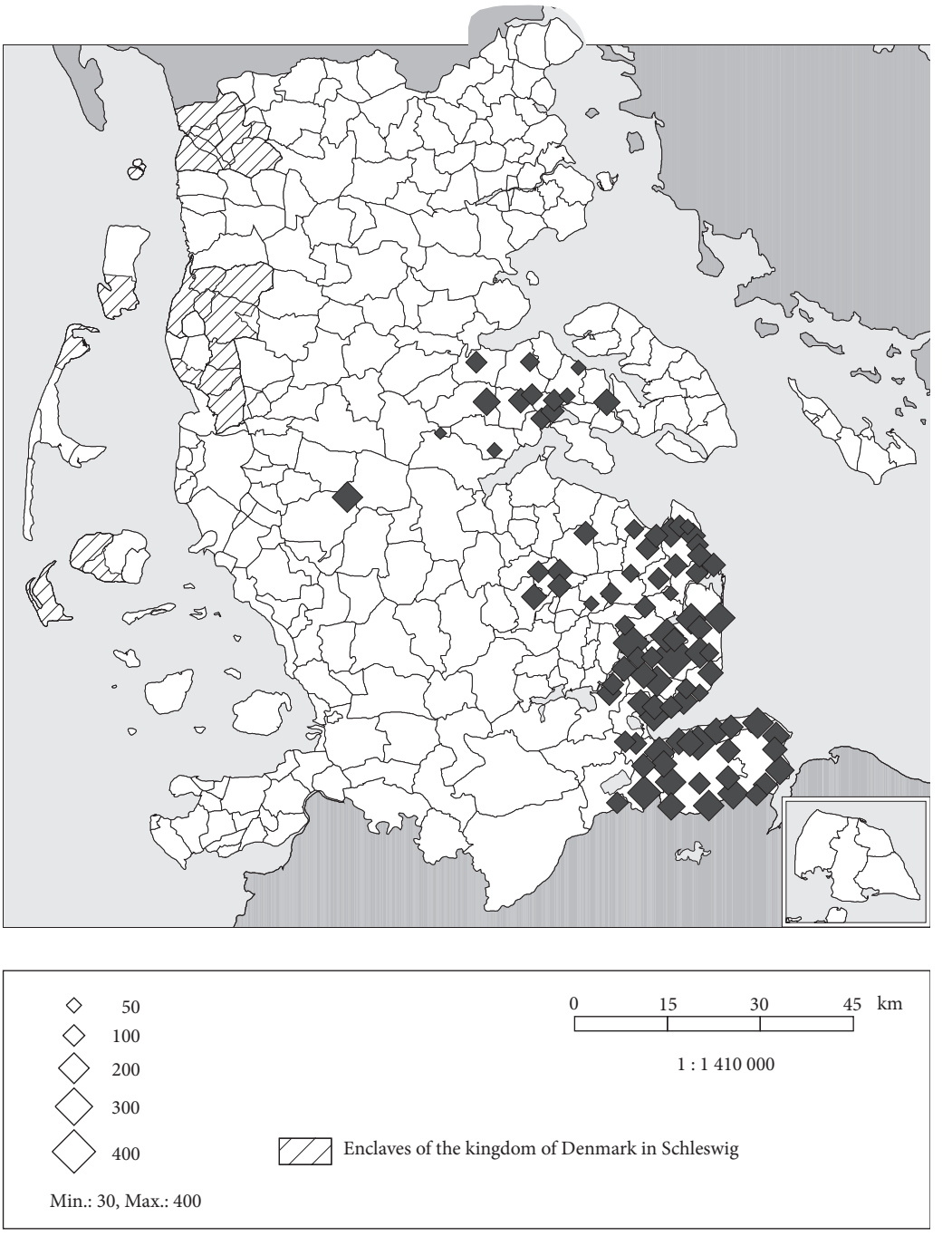
Still, it is striking that dairy units were much larger than in the Netherlands from where the technology was imported. Perhaps the large dairy units developed because they were a specialization within a demesne system already building upon large units and because the social forms existing in the area were either the traditional peasant farm or large demesnes. Still we must remember that secondary demesnes with 100–200 cows were systematically established. A herd of 100–200 cows might not necessarily have been the optimum size for a market-oriented dairy farm, but landlords must have believed that it was.

[34] Iversen, 'Hollænderier', pp. 83–5; Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 453–4.

[35] The estimate is based on a major study of peasant farming which I am currently undertaking. Figures from around half of the parishes outside the marshes total *c.*26,000 cows.

[36] See e.g. C. Danckwerth, *Newe Landesbeschreibung der zwey Herzogthümer Schleswich vnd Holstein* (1652). Danckwerth talks a great deal about grain and less about oxen and sheep, but dairy products feature only prominently in his description of Eiderstedt.

[37] Iversen, 'Hollænderier', pp. 93–102.



MAP 2. Demesne dairy farms in the Duchy of Schleswig 1717, showing number of cows per dairy farm.

Adapted from an illustration first published in J. Ibs et al., *Historischer Atlas Schleswig-Holstein vom Mittelalter bis 1867* (2004), drawn by U. Schwedler from a sketch by the author.

III

The preference for large farms may also be explained in part by the fact that they were not just dairy farms, but integrated dairy and grain farms. Grain production was not abandoned as dairies spread, but expanded. The arable acreage was increased, partly through the expropriation of land from the peasants of the estates, partly through the clearing of woods, scrubland and other land not previously ploughed. The organization of fields was also changed. Traditionally the agrarian system of most of Schleswig-Holstein was *Feldgraswirtschaft*, not unlike the up-and-down husbandry of northern England. It implied a very long rotation. Typically four or five successive years of grain cultivation was followed by an even longer period of continuous fallow. The main strength of the system was a better grass production on fields with a long period of fallow, quite contrary to the short fallow periods of the three-field system. In the kingdom of Denmark this system prevailed on the more sandy soils, where the longer periods of grass probably both prevented erosion and helped to increase the nutrient levels in the soil, whereas three-field or similar systems were preferred on good soils.[38] In Schleswig-Holstein, however, *Feldgraswirtschaft* was also used on good soils, probably because from an early date, a greater emphasis had been placed on good husbandry.

Around 1600 both peasants and manors in eastern Schleswig-Holstein often supplemented *Feldgraswirtschaft* with separate enclosures, *Koppeln,* mainly used for grazing. These were often clearings in the woods. In the course of the seventeenth century, manors developed a new system combining the best from the two and thus creating the famous Schleswig-Holstein *Koppelwirtschaft.* It meant the division of almost all the farmland of a demesne into some 10–14 fields (*Koppeln)* of regular size that were individually fenced, mainly with hedges. The total arable was expanded through the clearing of shrubs and stones, and – if possible – drainage. In principle all land except woods and dedicated hay meadows were included in the *Koppeln*.[39]

The *Koppeln* were used in a rotation which usually started with a year of rye or buckwheat, followed by a couple of years of rye and barley, two or three years of oats and five to eight years of fallow.[40] In itself this rotation was largely the same as the traditional *Feldgraswirtschaft* with the alternation between several years of continuous grain cultivation and a long period of fallow. The new aspects of this so-called *Koppelwirtschaft* were the individual enclosure of the fields, their regular size, and the intensified clearing of shrubs, etc. Sometimes the land in one *Koppel* was ploughed repeatedly one summer after the period of fallow and before the years of grain. The main advantages in comparison to the *Feldgraswirtschaft* were probably the inclusion of more land into the rotation and a better exploitation of the pasture. Instead of using all the demesne pasture for grazing at the same time, some fields could be used in the early summer while other fields could be used for hay. The many years of continuous pasture created a thick sward, and this, when it was ploughed, and combined with the abundance of

[38] K. E. Frandsen, *Vang og tægt* (1983), pp. 250–60.

[39] C. Porskrog Rasmussen, 'Koppelwirtschaft', in *Enzyklopädie der Neuzeit*, VIII (2008), pp. 37–9.

[40] Examples: U. Bonsen: *Die Entwicklung des Siedlungsbildes und der Agrarstruktur der Landschaft Schwansen vom Mittelalter bis zur Gegenwart* (1966), pp. 209–15; P. von Hedemann-Heespen, *Geschichte der adeligen Güter Deutsch Nienhof und Pohlsee in Holstein* (3 vols, 1906), II, pp. 8–10 and 30–6; Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 455–9.

manure from the dairy herd, permitted the estates to achieve higher yields that before – five- to seven-fold for barley, rye, and wheat; and three- to four-fold for oats, which were sown after the other grains on ground which was not specially manured.[41] Even though such yields are not impressive compared to those in England or the Netherlands, they were higher than those known previously on these estates or those estimated by contemporary observers for the peasant sector both in manors and the 'free' districts.

The integration of dairying and grain farming was crucial to the system. The better yields could not have been achieved without the manure from the cows, but the clearings and other improvements of land show that both sides of this integrated system were deliberately expanded. Economically, they were generally of almost equal importance, with dairy farming slightly in the lead overall.[42] Contemporaries appreciated how successful this integrated system was, and it inspired the Mecklenburg *Koppelwirtschaft* of the eighteenth-century, the key differences between the two being the greater weight given to grain production and the integration of sheep rather than cattle into the farming regime.

IV

Classic Marxist theory distinguishes between a 'capitalist' mode of production with 'free' tenants and paid workers and a 'feudal' one with legally dependant labour. At first glance the system of the Schleswig-Holstein manors was a mixture. A typical manor consisted of one or more demesnes, a number of peasant farms, and a larger number of cottages, mostly without land.

Labour service was mainly provided by the tenant farms. Typically in eastern Schleswig a tenant farm was obliged to provide two farmhands (one fully of age, one younger), a maid, and a team of four horses for six days work a week. In Holstein, obligations tended to be even higher. This meant that service was not so much a personal obligation for the farmer and his wife, but something performed by servants employed especially for that purpose. The peasant farmers would typically perform personal service a few days a year. It may have been of real importance, but may also be seen as a largely symbolic act. Cottagers typically performed personal service two or three days a week, but unlike the farmhands from the peasant farms, they had to make up for absences due to illness or other reasons by performing 'schuldigen tage' (days owed).[43] The people performing labour service did the field work at the demesnes, ploughing, sowing, harvesting, haymaking, spreading dung etc. They also performed the demanding task of maintaining the hedges and fences around the fields, they threshed, and finally some worked in the garden or undertook maintenance work.

Other than domestic servants, the owner of a manor generally had few direct employees: only administrative and supervisory staff, perhaps a few specialists. There was, however, a third workforce on the demesnes. The dairies were generally let to a tenant known as a *Holländer,* who employed and paid the workforce, which mainly consisted of milkmaids.[44]

[41] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 462–4.

[42] Ibid, pp. 476–91 and 500.

[43] Porskrog Rasmussen, 'Corvee and Paid Work', pp. 172–80.

[44] Ibid., pp. 180–82.

At first glance we have a 'feudal' sector – the grain production – and a 'capitalist' sector – the dairy production. If we analyse things in greater depth, the picture becomes more blurred. The only people personally performing labour service as a feudal due or rent for a holding were the cottagers, and the only true capitalist was the dairy tenant, who normally came from outside the manor and was personally free. If we look at the two main groups of people doing the work at the demesnes – on the one hand the field workers doing labour service, on the other the dairymaids – then we find they had much more in common than a first glance reveals. Firstly they were almost all serfs, recruited among the sons and daughters of the farmers and cottagers of the manor. Second, in reality they were all paid workers. The milkmaids were paid by the dairy tenant, the farmhands and other maids by the tenant farmers who were obliged to send them to work at the manor. And third they were unmarried. The farmhands and maids doing labour service lived in-house with the peasant farmers, while the milkmaids were seen as part of the household of the dairy tenant, but were not as integrated into it as were those living on peasant farms.

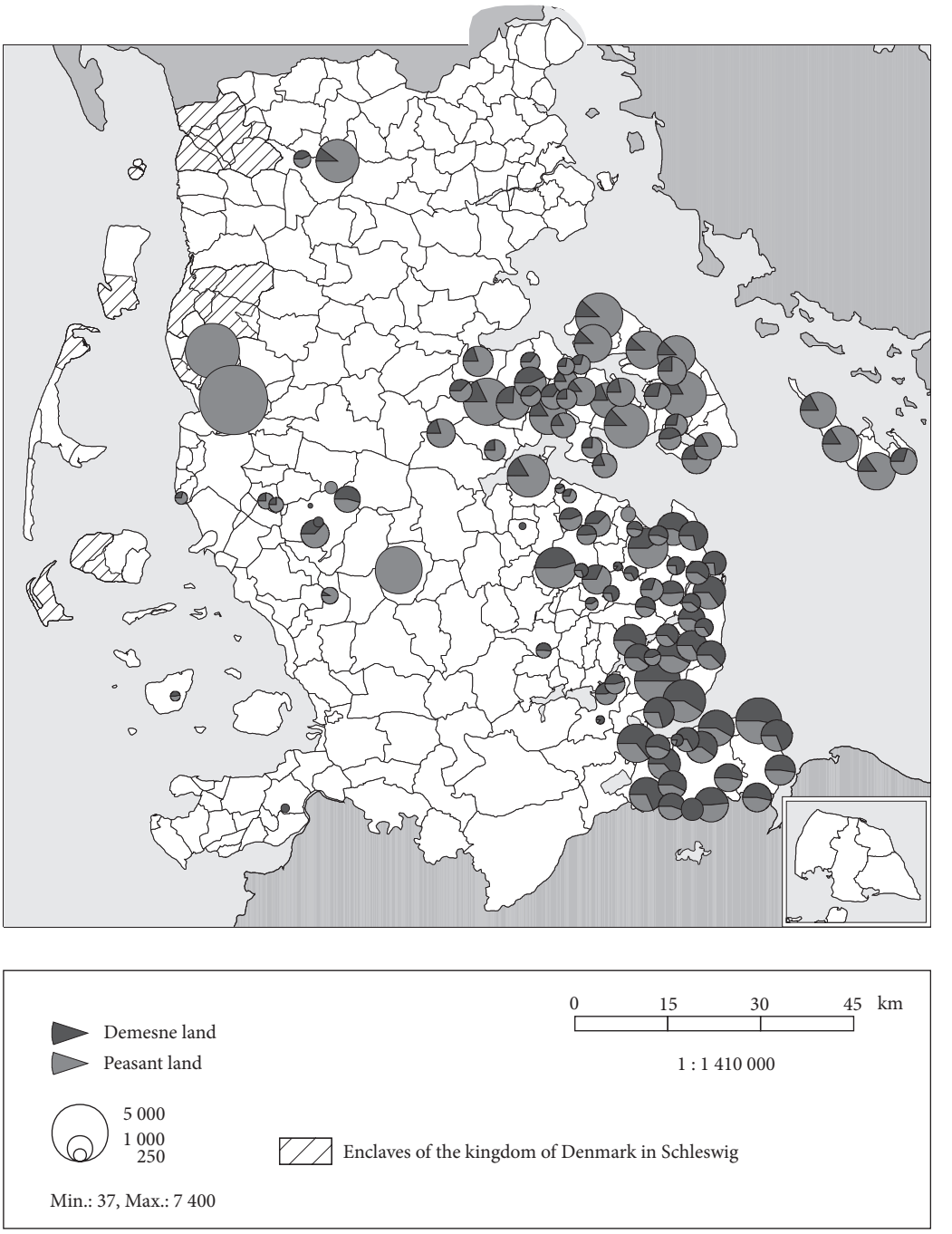
In fact, almost all the younger, unmarried people of the estate worked on the demesne. Most of the young men did so as farmhands employed by a peasant farmer, spending six days a week performing labour service on the demesne on the behalf of the farmer in whose house they lived. Some young women worked in the same way as the young men, whilst others were employed as milkmaids on the demesne. A gender balance was kept by the manor through compelling the tenant farms to send more male workers than female for labour service. The whole idea of the system was thus to reserve a large force of unmarried men and women in their prime for the demesnes.[45]

This social composition was the result of a transformation of manorial societies from the sixteenth to the seventeenth century. In the sixteenth century manors had comprised more tenant farms each with fewer co-resident servants. As demesnes grew and the number of peasant farms diminished, the social structure changed into one with few farms each with typically three or four servants on the one hand and a great number of cottages occupied by very small households on the other. Obviously this made prospects at manors less promising for young people and the manors tried to retain them via serfdom and the so-called *Gesindezwang*, which obliged them to work as a farmhand or maid till the lord permitted marriage. Some young people did elope to the marshes or the large cities of northern Germany where wages were known to be higher, but the strict system of supervision by landlords and the authorities meant that elopement only worked over longer distances and at the cost of breaking all ties with family and the natal village. Besides, the system at manors which guaranteed employment (even if at rather low wages) with some guarantee of a cottage later may well have seemed more appealing than risking everything in an unknown environment.[46]

This organization was pervasive on all the manors of eastern Schleswig-Holstein. Manors ceased demesne expansion at exactly the point where the remaining tenant farms could keep sufficient horses and servants for the field work. Only small manors which consisted solely of

[45] Ibid, pp. 184–186.

[46] Ibid., pp. 185–86; Wolfgang Prange, 'Flucht aus der Leibeigenschaft', in K. Köstlin and K. D. Sievers (eds.), *Das Recht der kleinen Leute. Beiträge zur Rechtlichen Volskunde. Festschrift für K. S. Kramer* (1976), pp. 166–78.



MAP 3. Proportion of demesne to peasant land on private manors in the Duchy of Schleswig c.1760.

Adapted from an illustration first published in J. Ibs et al., *Historischer Atlas Schleswig-Holstein vom Mittelalter bis 1867* (2004), drawn by U. Schwedler from a sketch by the author.

demesnes and cottages were compelled to keep their own draught animals and workforce.[47] It resembles the systems of Mecklenburg and Pomerania, but differs from Brandenburg, where demesnes more often had a directly paid workforce.

It can seem illogical that the manors had their tenants pay and feed people who worked full time for them. The system may be seen as a recourse to a medieval ideal of trying to minimize cash costs, but it was also using known work relations in the local society. The system provided the demesnes with a workforce of young people in their prime who were cheap to employ as they still lived as unmarried in-house servants just like normal farmhands and maids at peasant farms. The possibility cannot be ruled out that such farmhands and maids were actually more cheaply fed and better disciplined in this way. Certainly landlords understood that it would be both more difficult and more expensive to provide the necessary workforce directly. They knew of alternatives. Large-scale dairy farming and *Koppelwirtschaft* spread also to some royal and princely demesnes run by capitalist tenants mainly using their own horses and personally free, hired labour.[48] We know little of the economy of such tenants, but the example tempted few landlords in the south-east.

In 1791 the links between large scale *Koppelwirtschaft* and dairy farming with serfdom and labour service was broken at the large estate of Rixdorf. Peasant farms were leased out on short leases for quite high rents, while the manor henceforth employed the necessary farmhands and maids directly. Cost-wise the solution was neutral, as the rents from the tenants equalled the new labour costs, but productivity rose enough to make the new configuration acceptable, and over the next couple of decades most owners of manors chose to adopt this system.[49]

This outcome does indicate that liberal critics were right in claiming that a feudal work organization was less efficient than a capitalist one. Probably it was, but the conditions for a transition from one to the other were far better in the 1790s than a few decades before. Steeply rising grain prizes made it possible for the tenants to pay a high rent, whereas a marked increase in rural population made labour abundant and relatively cheap. An earlier transition to such a system might perhaps have increased overall economic performance, but not necessarily lordly profits.

V

For most of the eighteenth century, landlords had reason to be happy with the general arrangement. My studies indicate that lords' income was markedly higher from manors organized along the lines of *Gutsherrschaft* than from those of *Rentengrundherrschaft*. Per 'plough' (the tax unit of manors), *Gutsherrschaft* manors tended to yield a surplus of 70–110 rixdollars a year, *Rentengrundherrschaft* 40–60 rixdollars.[50] There are a few alleged success stories of lords lifting the labour service, parcelling out demesnes, and farming out the whole

[47] For Schleswig: Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 501–2.

[48] Prange, *Die Anfänge,* pp. 258–59; 372–76; Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 248–50, 314–5, 505–8.

[49] A. J. Cord, *Der Strukturwandel in der ostholsteinischen Gutswirtschaft um 1800* (1997).

[50] Porskrog Rasmussen, *Rentegods og hovedgårdsdrift,* I, pp. 444–45, 501–02.

area on long-term leases, and increased rents.[51] But only from about 1780 did these isolated examples become a trend. Keeping demesnes as capitalist units, employing free labour, became common only after 1791.

Comparisons with the kingdom of Denmark tended to convince the landlords of Schleswig-Holstein that their way was the better one. In Denmark a manorial system existed, which can be seen as either a third form combining aspects of both *Gutsherrschaft* and *Rentengrundherrschaft* or a milder *Gutsherrschaft*. It too was based upon demesnes and labour service, but the relative proportion of demesne land was only 15–20 per cent and not 50 per cent, and dependant farms provided less labour service than in Schleswig-Holstein, but then paid more rent and substantial state taxes. Demesnes were tilled in the traditional three-field rotation and with smaller cattle herds than in the Duchies.[52] It was far less profitable than the Schleswig-Holstein variety of *Gutsherrschaft*.

A simple example illustrates this. In 1762 Count Adam Gottlob Moltke sold two estates. The first, Niendorf, located just outside Lübeck, comprised a single demesne of about 300 hectares, ten tenant farms and eight cottages. The other, Lindenborg, in the kingdom of Denmark, comprised one demesne of about 200 hectares, some 75 tenant farms, a large number of cottages, and massive tithe incomes from several parishes. The total acreage of Niendorf all included was around 1,000 hectares, of which arable probably made up 500–600 hectares. Lindenborg comprised about 1,700 hectares of arable land plus an unknown area of meadows, grassland, woods, and waste – probably as much as 5–6,000 hectares in all. But Lindenborg was the less valuable of the two, worth 70,000 rixdollars versus 80,000![53]

Some of the explanation for this disparity in price lies in higher levels of state taxation of Danish manors. It can be roughly estimated that state taxes equalled the landlord's profit in Denmark, whereas the 28 rixdollar basic ground tax per plough, plus a few extra taxes, only equalled a third of the landlord's profit in the duchies. But even if we capitalize that, the sum of profit and taxes is at least twice as high per hectare of arable in Schleswig-Holstein – and the difference is even greater for the gross acreage.[54]

There are several reasons for the higher profitability. The profit rate versus the rate consumed by peasant households was undoubtedly higher. But agrarian productivity was higher too. In fact, in 1761 Adam Gottlob Moltke was the first Danish lord to introduce the *Koppelwirtschaft* onto his vast estates south of Copenhagen.[55]

[51] Cases on private manors: Prange, *Die Anfänge,* pp. 189–255.

[52] A description is to appear in C. Porskrog Rasmussen, 'An English or a Continental way? The great agrarian reforms of Denmark and Schleswig-Holstein in the late eighteenth century', in R. Santos and R. Congost (eds), *Contexts of property: The social embeddedness of property rights to land in Europe in historical perspective* (forthcoming).

[53] For Niendorf: Bregentved Manor, private archives of Count Adam Gottlob Moltke. For Lindenborg, L. Bobé, G. Graae, F. Jürgensen West, *Danske Len* (1916), p. 317. The calculation of acreage for Lindenborg is my estimate from data of total cadastre value and typical acreage of farms in the area.

[54] Soils of Lindenborg were somewhat poorer than those at Nienhof, but the picture still applies if we look at Danish manors on good soils.

[55] S. P. Jensen, 'Kobbelbrug, kløver og kulturjord', *Bol og by. Landbohistorisk tidsskrift, 1998,* pt 1, pp. 36–59.

VI

The private estates of Schleswig-Holstein were known in the eighteenth century for a combination of two features which challenge many of our assumptions. On the one hand they represent the most extreme form of *Gutsherrschaft* with serfdom and some of the highest labour service obligations. On the other hand, these manors had developed ways of farming admired and increasingly copied by neighbours. Even if neither the technique for butter-making nor crops, rotations, and field preparation were in themselves unique, the scale and organization of the dairies and the field system of the *Koppelwirtschaft* are genuine local innovations which gave Schleswig-Holstein demesne farming a strong position compared to neighbouring north Germany or Scandinavia for a rather long time. Seen with the eyes of an eighteenth-century observer, such manors were indeed both feudal and innovative. In fact the paradox confronting eighteenth-century reformers in the kingdom of Denmark was that they wanted to copy the technical organization of this agriculture, but not the social one.

Dairy farming cannot wholly be seen as a 'capitalist' subsector of these 'feudal' manors simply because dairy work was paid work and not labour service. Rather this discussion shows that almost all people working on the large demesnes lived under conditions determined by the feudal character of the manor – notably serfdom – but were nonetheless paid. They were largely unmarried workers living in-house with either dependant farmers or the dairy tenant. In that, they followed customs of peasant society, both within and outside manors. If that leaves us with a seigneurial regime which is neither *Gutsherrschaft* nor *Grundherrschaft*, then so be it.

The latter-day history of the draught ox in England, 1770–1964*

by E. J. T. Collins

Abstract

Following a short-lived sporadic recovery in the Napoleonic Wars, draught oxen are assumed to have undergone a demographic collapse and, by the mid-nineteenth century to have been virtually extinct. This assumption is re-examined to suggest that, while nationally oxen were in retreat, parts of southern and eastern England, notably the chalk and limestone uplands, where horses had long been the rule, were experiencing a resurgence. The 'old' and 'new' traditions are contrasted to show fundamental differences in function, breeds, management, and environment. The paper also provides a summary account of the ultimate demise of the ox from the mid-nineteenth century to the disbandment of the last working team at Cirencester Park in 1964.

In 1930 four fifths of the world's population were estimated to have been very largely dependant on animals for inputs of 'foreign energy'. Although tractor numbers had more than doubled in the interim, forty years on, livestock still provided 90 per cent of all draught power used on farms worldwide.[1] England stands out as one of the first countries to have replaced horses by tractors, and at an earlier stage, oxen by horses, a long drawn-out process that began in medieval times and was still incomplete in the nineteenth century.

I

Professor John Langdon's seminal study of animal traction on farms in the Middle Ages has no counterpart for the modern period, for which there exists only the broadest outline,

* This is an expanded version of the author's paper, 'The draught ox in England, 1750–1964', presented at the annual conference of the British Agricultural History Society at Nottingham in 2008, and is part of a broader study of the more recent history of working animals in European Agriculture. I am grateful to the following for their help and advice: Fred Banks, Michael Bayley, Gavin Bowie, Liam Brunt, Gareth Beech, Michael Havinden, John L. Liebowitz, Susanna Wade Martins, Joe Morris, Francois Sigaut, Paul Starkey, John Walton and Martin Watts. Oxen and bullocks are herein defined as castrated male cattle aged four years and over. Up to one year old, they were termed 'ox calves', and from one to three years old, 'steers'. W. L. Rham, *The dictionary of the farm*, rev. W. and H. Raynbird (1855), p. 250. M. Watts, *Working oxen* (1999) is the best and most easily accessible popular introduction to the topic. See also J. L. Liebowitz's excellent survey covering Europe and North America: 'The persistence of draft oxen in the West', *Material Hist. Rev.* 36 (1992), pp. 29–37.

[1] A. J. Smith, 'The role of draught animals in agricultural systems', paper presented to the 'Vegetables to Man Seminar', Institute of Biology, 1979.

herewith summarized.[2] Already by the late sixteenth century, horses comprised more than half of the national draught herd, and were predominant down almost the entire eastern side of the country, and over a large part of the southern chalk-lands. When Young visited the North and Midlands in the late 1760s, the transition was in full swing or already complete with, as he put it, the use of oxen 'rather wearing out' even in the bovine strongholds of the south and west.[3] The period 1770 to 1815 saw a slowing down, or in some districts a reversal of the long-term trend, due to a shortage of horses. Vigorous efforts were made to promote the reintroduction of oxen, with the aims of reducing the cost of field work and freeing large quantities of oats, hitherto fed to horses, for human consumption.[4] Though widely publicized, notably in the Board of Agriculture reports, the revival is thought to have been sporadic and elitist, and to have had only a limited impact on the composition of the working herd and on regional distributions of oxen and horses. The end of the wars saw a speedy renewal of the downward trend, and by 1850 the virtual eclipse of draught cattle. A mere sprinkling of teams, owned mainly by gentlemen farmers and traditionalists, survived into the twentieth century. Long before then the working ox was an archaism, a quaint survival of a bygone age, scarcely referred to in farming textbooks, or indeed the standard agricultural histories. Moreover, the most authoritative contemporary account of the power forces of the farm, by J. C. Morton, published in 1868, makes no mention of them.[5]

This paper examines the latter-day history of draught oxen from the 1760s up to the disbandment of the last working team at Park Farm, Cirencester, in 1964. It suggests, contrary to the received wisdom, that while, nationally, the ox herd declined over the first half of the nineteenth century by at least three quarters, parts of southern and eastern England experienced an ox revival, mainly on the lighter soils where the use of oxen had long since ceased, and the old ox traditions were entirely forgotten. This should not to be confused with the earlier revival, which had lost impetus by 1815, but which overlapped it. This little-known episode in livestock history, and the co-existence of two ox traditions, the 'new' and the 'unbroken', will now be examined, beginning with a summary review of the regional distribution of oxen and horses at the close of the eighteenth century.

In the first edition of his *Political Arithmetik* (1774), Arthur Young estimated the number of working oxen in England at just over 200,000, or 17 per cent of a combined animal workforce of 1.2 millions. In 1790, William Marshall proposed a similar ratio, almost certainly plagiarized from Young's earlier figure. A sixth of 'the work of husbandry', he opined, was performed by

[2] J. Langdon, 'The economics of horses and oxen in medieval England', *AgHR* 30 (1982), pp. 31–40; id., *Horses, oxen and technological innovation: the use of draught animals in English farming from 1066 to 1500* (1986).

[3] A. Young, *Six weeks tour of the Southern Counties* (1769), p. 291; id., *The farmer's tour through the east of England* (4 vols, 1771), *passim*; id., *A six week's tour through the north of England* (4 vols, 1771).

[4] For further discussion, see J. Brown, 'Arable farming', in G. E. Mingay (ed.), *The agrarian history of England and Wales*, VI, *1750–1850* (1989), pp. 289–90: J. S. Creasey, *The draught ox* (1974); A. Fenton, 'Draught oxen in Britain', *Narodopisny Vestnik Ceskoslovensky*, 3–4 (1968–9), pp. 17–49, repr. in Fenton, *The shape of the past* (2 vols, 1985–6), II, p. 2. R. Moore-Colyer, 'Cattle', in Mingay (ed.), *Agrarian history*, VI, pp. 335–48; R. Trow-Smith, *A history of British livestock husbandry to 1700* (1957), chs 3, 5, 6; id., *A history of British livestock husbandry, 1700–1900* (1959), chs 1, 2, 3, 5, 8; J. A. Perkins, *The ox, the horse and English farming* (Working paper in Economic History, Department of Economics, University of New South Wales, 1975).

[5] J. C. Morton, *Handbook of farm labour* (new edn, 1868).

TABLE 1. Regional distribution of working oxen as a percentage of the total animal workforce in English agriculture, *c.*1780–1800.

	Oxen as percentage of total animal workforce	*Agricultural area (thousand acres)*	*Number of oxen*
North	5	5202	17,100
E. Midlands	1	3205	2100
East Anglia	0	3096	–
S. Midlands	1	1102	720
South and south-east	20–25	2480	33,200
South-west	50	822	92,300
West-central	30	53	20,800
Welsh Borders	30–35	1334	28,700
West Midlands	3	1440	2800
North Midlands	3	1005	2200
England	12–15	22,507	*c.*200,000

Note: The following formula was used to determine the numbers of oxen in each region: (region as per cent of national agricultural land area) x (oxen as per cent of total workforce in each region), weighted by size of agricultural area (x 7.4) . This assumes a national ox herd of *c.*200,000 (see n. 7). The size of agricultural regions is taken from *Annual agricultural statistics, 1871.*

Sources: principally the Board of Agriculture county reports, *Annals of agriculture*, and the following surveys by William Marshall, *The rural economy of Gloucestershire* (1789), *the Midland counties* (1790, 1796), *West of England* (1796, 1805), *Yorkshire* (1788, 1796) and those by Arthur Young, *The farmer's tour of the east of England* (1771), *A six week's tour of the southern counties of England* (1769) and *A six week's tour through the north of England* (1771).

oxen.[6] In a seminal study of national energy consumption, Paul Warde put the population at ten per cent, and this author at 12–15 per cent (see Table 1).[7] In contrast to other European countries, in England, draught oxen were never separately distinguished in the government statistics, nor in the 1854 Poor Law Agricultural Returns. The Tithe Files, even for parishes which are known from other sources to have had numerous working oxen, normally make no reference to them.[8] The Civil Defence Returns for Sussex, compiled by churchwardens and overseers of the poor for each parish in the years 1798–1803, is the only source in which draught

[6] A. Young, *Political arithmetik* (1774); W. Marshall, *The rural economy of the Midland counties* (1790), p. 469. And other estimates, M. Turner, 'Counting sheep: waking up to new livestock numbers in England in 1800', *AgHR* 46 (1998), p. 151; P. Warde, *Energy consumption in England and Wales*, *1560–2000* (2007), pp. 40–5. Wrigley assumes that the agricultural draught herd *c.*1800, consisted almost entirely of horses, whereas 10–15 per cent was comprised of oxen, each one equivalent to 0.6 of a horse. This has implications for Wrigley's estimates of draught power per unit area and per worker, and for differences between French and English agricultural productivity. E. A. Wrigley, 'Energy availability and agricultural productivity', in B. M. S. Campbell and M. Overton (eds), *Land, labour and livestock: historical studies in European agricultural productivity* (1991), pp. 332–9; id., *Continuity and change: the character of the Industrial Revolution in England* (1988), pp. 41–2.

[7] Warde, *Energy consumption*, pp. 42–3.

[8] R. J. P. Kain, *Atlas of the Tithe Files of England and Wales* (1986). Kain's subject index contains only 44 references to 'oxen', of which only 24 were working oxen – 13 in Somerset and just two in Sussex, where many thousands were then at work.

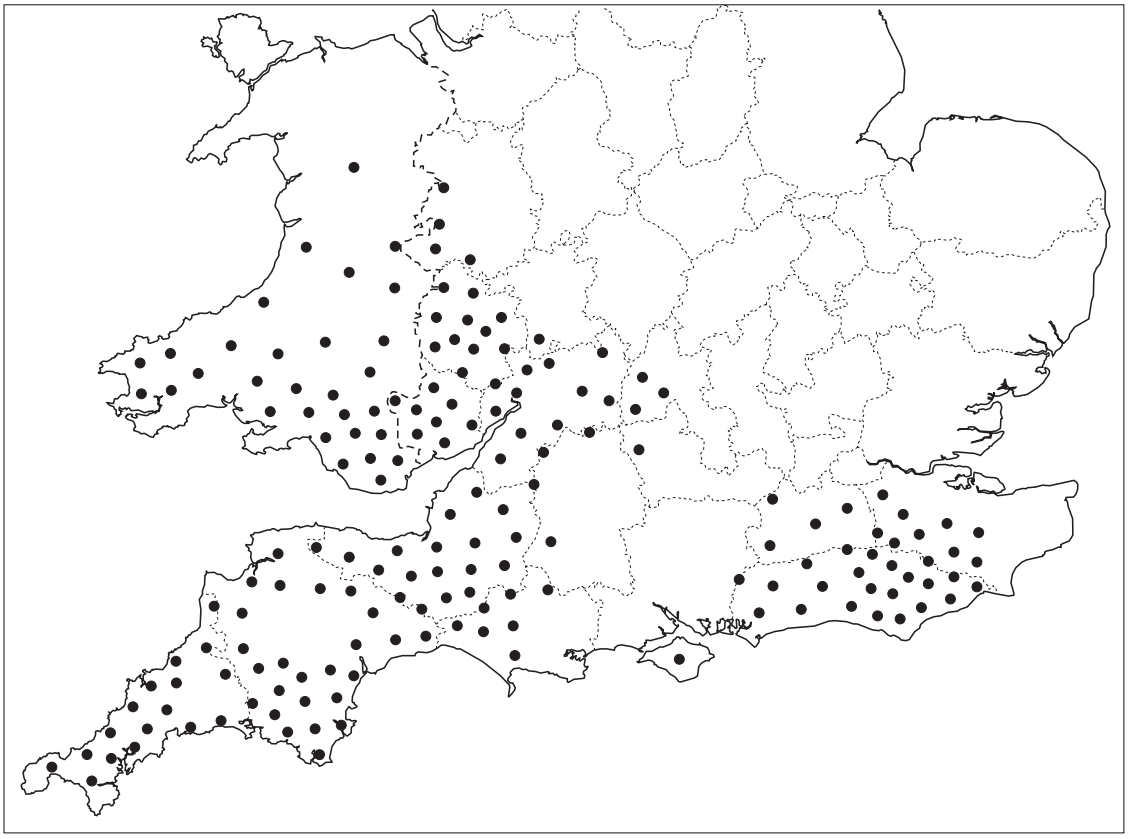


FIGURE 1. Distribution of draught oxen in England and Wales, 1780–1800.

and fattening oxen are differentiated.[9] This might be taken to imply, but wrongly, that in the early nineteenth century working cattle were of negligible importance in England, in contrast to France where they were returned in every agricultural census up to the 1960s.

At the turn of the nineteenth century, oxen were used mainly in the south and west, with the highest densities at the extremities – Kent and Sussex, Devon and Cornwall, and Herefordshire and Monmouth – as shown in Table 1 and Figure 1. Even here, horses had made substantial inroads. In Kent, Sussex, and Devon, oxen were still in the majority and, in purely agricultural parishes, often comprised 70 per cent or more of the draught workforce. Overall, as much as 90 per cent of the working herd was concentrated in one third of England, south of a line from Kent to Shropshire. However, the overwhelming majority of all farm work was performed by horses, while relatively few farms were now worked by oxen alone. Mixed teams, led by horses, were common in the south-west. Cows and heifers were employed only very occasionally for draught, in contrast to many parts of mainland Europe where the majority of cattle irrespective of gender spent time in the yoke. The precise division of labour varied with

[9] East Sussex RO, 4CG/3/EW2. The returns form the basis of G. H. Kenyon's important but undervalued article, 'The civil defense and livestock returns for Sussex in 1801', *Sussex Archaeological Coll.* 89 (1959), pp. 57–84.

the size of farm, type of farming, soil and terrain, and custom. Oxen were employed mainly for ploughing, and tasks requiring a long, dead-weight pull. Most of the other work together with the carting, particularly road-work, and jobs depending on speed and agility, such as harrowing, were performed by horses. In some counties – Devon, Hereford, and Sussex for example – oxen were used for haulage, and in parts of the East Riding and on the Lincolnshire Wolds almost exclusively so, the field work being the preserve of the horses.

II

It is generally held that the period after the Napoleonic Wars saw the renewed decline and virtual disappearance of the draught ox in England, even in districts where as recently as 1800 oxen had outnumbered horses. A close reading of the evidence suggests though that oxen were still in general use over quite large areas of southern and western England up to the 1840s, and exceptionally the 1860s. The average conceals a complex situation, with marked variations in the composition of working herds between regions and farming systems. Three broad regional demographic trends can be distinguished: regions where oxen underwent a rapid or terminal decline; those where the downturn was more gradual with substantial numbers still surviving in 1840: and thirdly, horse-using districts where oxen were re-introduced after a long period, sometimes centuries, of disuse. The regional distribution of working oxen *c*.1835 is shown in Figure 2.

The decline was most precipitous in the West Country and Welsh borderlands where as recently as 1800 oxen and horses had been roughly equal, or oxen even in the majority. Described as 'the farmer's favourite hobby horse', in Herefordshire in 1805, oxen did nearly half the ploughing, half the harvesting, and a large part of the carting.[10] Yet, in the mid-1830s, they were reliably reported to be 'no longer much used for husbandry', and in 1865 as rare, 'the tread of the ox having given way to the more rapid step of the horse'.[11] In South Wales, oxen had mostly vanished from the mountain districts by 1830, and at mid-century also from Pembrokeshire, a renowned ox-breeding county, and the historic source of draught cattle used in south Wales. By this late stage, oxen were worked regularly only in the Vale of Glamorgan; in the mining districts, mixed teams of horses and oxen were extensively used for hauling coal. A measure of their diminishing importance was the decision by the Glamorgan Agricultural Association in 1832 to stop the award of prizes for ploughing with oxen.[12] In Cornwall likewise, oxen were casualties of the post-war equine surge. Where, in 1815, they were 'everywhere to be met with' and, it was insisted, 'no other county where they were so much esteemed', twenty years on they were no longer generally seen even in ploughing, and rarely on the roads.[13] One

[10] J. Duncomb, *General view of the agriculture of Hereford* (1805), p. 116; J. Clark, *General view of the agriculture of Hereford* (1794), p. 79.

[11] W. Youatt, *Cattle* (*c*.1834), p. 31; J. Duckham, 'On the farming of Herefordshire', *J. Bath and West of England Agricultural Soc*., 13 (1865), pp. 52–3.

[12] Youatt, *Cattle*, pp. 52, 56–64; G. Nash, 'The historical farm buildings of Pembrokeshire', *J. Historical Farm Buildings Group* 3 (1989), p. 139; R. J. Colyer, *Country Life*, 4 Oct. 1973, pp. 991–2; C. S. Read, 'Farming of South Wales', *JRASE*, 10 (1849), p. 139.

[13] G. B. Worgan, *General view of the agriculture of Cornwall* (1811), pp. 146–7; Youatt, *Cattle*, p. 26; W. K. Karkeek, 'On the farming of Cornwall', *JRASE* 6 (1845–6), p. 147.

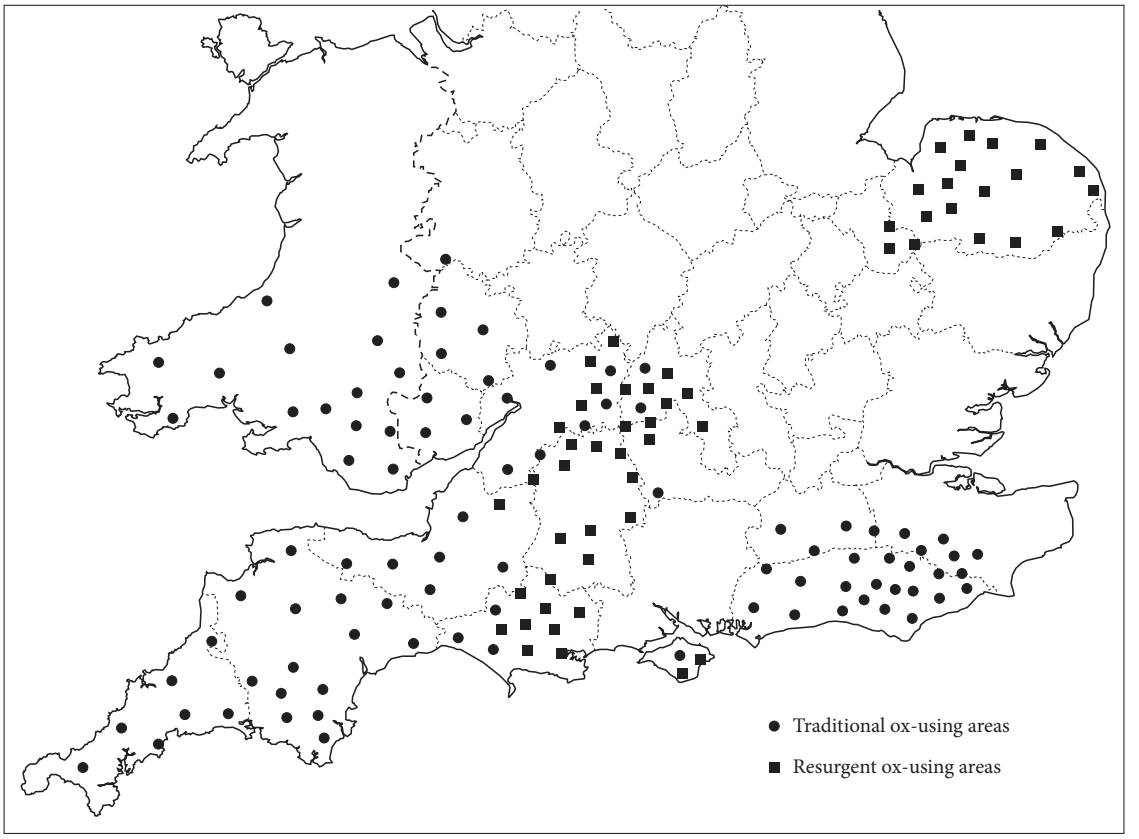


FIGURE 2. Distribution of draught oxen in England and Wales, *c.*1840.

dissident voice, a distinguished Cornish historian, contends that oxen were general in the county in the 1850s, and slowed down the adoption there of the reaping machine.[14] The first quarter of the nineteenth century saw oxen largely given up on the English clay lands. By 1840, they had disappeared from the Vales of Berkeley and Gloucester, the north Wiltshire dairying districts, the north Hampshire Woodlands, the Surrey Weald, and north-west Kent. Only on the Weald proper were they still a regular feature of heavy land husbandry.

The equine advance was slowed by spirited rearguard actions and phased withdrawals. In Devon, apart from on the hard flinty soils on the eastern and southern borders, and the rearing district around Barnstaple, oxen were still the rule in the 1830s, and though by then in a minority, still quite large numbers were in place in 1850, both there and in parts of Somerset, such as the Vale of Taunton.[15] In Monmouth and Glamorgan, oxen still performed

[14] J. Rowe, *Cornwall in the age of the Industrial Revolution* (1953), pp. 253–4; Karkeek, *Farming of Cornwall*, p. 457.

[15] Youatt, *Cattle*, p. 18 and *passim*; S. Kidner, 'Devon cattle', *JRASE* 73 (1912), p. 49; J. Bettey, *Rural life in Wessex* (1987), p. 36; T. Dyke-Acland and W. Sturge, 'The farming of Somersetshire', *JRASE* 11 (1851), p. 155.

a 'great proportion' of Vale husbandry in the 1830s.[16] In 1840, on the Weald, a famous bastion of ox husbandry, they still performed a large part, possibly the majority of the work in 1840, the typical 150–200 acre farm then possessing between 10 and 12 oxen for ploughing and road haulage.[17] On the South Downs, horses were now dominant in the western section towards Hampshire, but in the east and centre oxen were the rule on large farms with extensive hill pastures, such as around Brighton, where, in 1850, advancing up the hill towards him, James Caird was confronted by three teams each of six heavy bullocks, drawing traditional wooden ploughs, a practice he said, which 'for waste of opportunity, of power, and of time, could probably not be matched in any county in the United Kingdom'.[18] In the North and Midlands, oxen were now of little or no importance, with the minor exception of here and there in the Yorkshire Dales, where they continued in use, mainly for carting, up to the 1860s, and on one estate, at Helmsley, after 1900.[19]

The foregoing discussion calls into question some of the assumptions about the rate and timing of the decline. This was slower and more attenuated than is generally assumed, while there is clear evidence of a revival centring on three regions – the Cotswolds, the southern chalklands, and north and west Norfolk – each of which will be examined in turn.

Horses predominated in parts of Oxfordshire as early as the sixteenth century, and by the end of the eighteenth century were in effective control throughout the county, with oxen largely restricted to gentlemen's farms.[20] Journeying westwards across the county in 1769, Arthur Young encountered his first ox near Stow-on-the Wold, thence in increasing numbers towards Gloucester.[21] Though heavily outnumbered in the vales, oxen were met with more frequently on the Cotswolds, where a revival may have been under way as early as 1789, when Marshall reported them to be gaining ground in numbers and esteem.[22] In 1809, in contrast to his earlier visit, Young noted approvingly, 'the increasing attention paid to oxen as beasts of labour' on the Oxfordshire Cotswolds: around Burford, he claimed, every farmer now had them, where ten years before only one was kept.[23] Here as throughout the entire west-central region, the draught economy was in a state of flux, with oxen becoming more popular in some areas, while being discarded in others.

Thus engendered, the Cotswold Revival rapidly gathered pace. In 1826, Cobbett saw oxen doing much of the ploughing and other work on the 'Hills', encountering on the road between Witney and Fairford, some of 'the finest teams I ever saw'.[24] The strength of the Oxfordshire

[16] Youatt, *Cattle*, pp. 52, 64, 86; Nash, 'Historical farm buildings', Colyer, *Country Life*, 4 Oct. 1973, pp. 991–2.

[17] Youatt, *Cattle*, pp. 39–42, 46; M. Robinson, *A South Down farm in the sixties* (1947 impr.), pp. 5–7; G. Buckland, 'On the farming of Kent', *JRASE*, 6 (1845), p. 293. And still in use in Sussex in the 1880s: R. Jefferies, *Nature near London* (1893), pp. 226–30.

[18] James Caird, *English agriculture in 1850–51* (1852, repr. 1967), p. 128.

[19] Watts, *Working oxen*, pp. 14, 31.

[20] E. Kerridge, *The agricultural revolution* (1967), pp. 59, 64, 68; M. A. Havinden, *Household and farm inventories in Oxfordshire, 1550–1590* (1965), p. 38; id., 'The rural economy of Oxfordshire, 1580–1730' (B.Litt thesis, University of Oxford, 1961), p. 68 and *passim*. Information kindly supplied by author. R. Davis, *General view of the agriculture of Oxfordshire* (1794), p. 293.

[21] Young, *Six weeks tour of the Southern Counties*, pp. 114–35.

[22] W. Marshall, *The rural economy of Gloucestershire* (1789, repr. 2005), pp. 173–4.

[23] A. Young, *General view of the agriculture of Oxfordshire* (1809), pp. 291–3, 295–6.

[24] W. Cobbett, *Rural Rides* (Everyman edn, 2 vols, 1912), II, p. 131.

Revival is confirmed by Dr Walton's helpful analysis of working cattle mentioned in farm sale notices in the period *c.*1820–1870. Between 1826 and 1837, fat or working oxen featured in 71 sales, working cows in two, and a draught bull in one. Clearly, in the 1820s, oxen were widespread, and no rarity even on the claylands. From the 1830s, Herefords replaced Devons as the standard breed, while from the 1850s Shorthorns too were sometimes put into harness. As their numbers gradually declined, oxen became increasingly concentrated in western districts, on the stonebrash. In some parts of the county, the draught ox remained 'in rude health' up to at least the 1870s.[25] In the later 1830s in Gloucestershire, the Assistant Tithe Commissioners reported 30 oxen in Newington Bagpath and Minchinhampton, and 20 at Rodburgh.[26] Although the revival had by then probably peaked, many oxen of both traditions were still working on the Gloucestershire Cotswolds at mid-century.[27] Inexplicably, Caird made no mention of them when he visited the region in early 1850, possibly because oxen were not normally worked at that time of year, and because January was a hiatus between the end-of-year sales of fat or retired oxen, and the arrival of the new intake in February. In their relative youth, draught oxen looked little different from other cattle. Yet four years later, we are informed by C. S. Read, a highly dependable source, with a good knowledge of the county, that most medium-sized farms on the stone-brash kept two teams.[28] Further north, in Worcestershire, a few oxen were still working on Breedon and on the Malvern Hills into the 1870s.[29]

Farm sale notices provide a measure of the popularity of draught cattle in Oxfordshire between 1800 and 1880. Much the highest concentrations were in the Cotswold district, although no part of the county was entirely without them. While featuring in just 4.5 per cent of sales, disposals of oxen and ox harness fluctuated sharply from year to year, from more than 10 per cent in 1835 and 1856–9, to none at all in some years. Table 2 shows the highest turnovers in the 1850s, and the lowest, less than 3 per cent, in the 1840s and 1860s, reflecting perhaps a slowing of cattle movements due to cattle plague. This evidence suggests that though now in decline oxen were still widely used in parts of Oxfordshire during the 1870s.[30]

The revival appears to have begun later on the chalk than on the limestone uplands. In Dorset, in 1812, oxen were estimated to number 2250, about an eighth of the combined workforce. They were mainly found on the heavier land to the north and west, with very few remaining on the Downs, having been rejected as too slow, and no more than three or four teams were to be found on the Isle of Purbeck.[31] By the early 1830s oxen had made a spectacular come-back much to Youatt's surprise. While the draught ox had been declining for many years, he said, of late and 'to a quite extraordinary degree', it had revived in some districts, while continuing to contract in others.[32] In 1854, there were reported in the chalk district to be 'fully as many

[25] I am much indebted to Dr J. R. Walton of Aberystwyth University, for this and other original information based on his research into Oxfordshire farm sale notices.

[26] TNA, IR 18/2810, 2803.

[27] J. Bravender, 'Farming of Gloucestershire', *JRASE* 11 (1850), pp. 142, 163–4.

[28] C. S. Read, 'On the farming of Oxfordshire', *JRASE* 15 (1854), pp. 222, 239.

[29] W. MacDonald, 'On the relative profits to the farmer from horses, cattle and sheep …', *JRASE*, 2nd ser., 12 (1876), p. 30.

[30] From original data kindly supplied by Dr J. R. Walton, Aberystwyth University.

[31] J. Claridge, *General view of the agriculture of Dorset* (1793), p. 12; W. Stevenson, *General view of the agriculture of Dorset* (1812), pp. 378–80.

[32] Youatt, *Cattle*, p. 127.

TABLE 2. Farm sales with working cattle or ox harnesses as a percentage of all sales detailing draught animals in Oxfordshire, 1820–80.

	Farm sales detailing draught animals	*Farm sales with working cattle*	*Working cattle as % of all draught animals*
1820–9	380	17	4.5
1830–9	428	26	6.1
1840–9	393	11	2.8
1850–9	424	27	6.4
1860–9	390	11	2.8
1870–9	429	18	4.2
Totals	2444	110	4.5

Source: Farm sale notices, *Jackson's Oxford Journal* and *Reading Mercury*, as per original data supplied by Dr J. R. Walton, Aberystwyth University.

again as there were twenty years earlier', implying a continuing increase over the 1840s, where in other revivalist districts their numbers had by then levelled off or were in decline.[33] In the 1930s, in the down parish of Corfe Cullen, old men still talked of the days when oxen were used extensively for ploughing and carting.[34]

Elsewhere on the southern chalklands, the revival was on a more modest scale. On his southern tour, Arthur Young encountered barely any oxen on Salisbury Plain.[35] By the end of the eighteenth century, most of those remaining had been driven off the Downs by sheep, but were persevered with by a few progressive farmers.[36] Yet, in the 1840s, oxen were widely used for ploughing, with most farms possessing one or two teams.[37] In the Vale of Pewsey, in 1842, the celebrated agriculturist and politician Albert Pell had, as a pupil, learnt the management of oxen, which he subsequently introduced onto his own Leicestershire farm.[38] Wiltshire affords well-authenticated examples of late usage, in the form of contemporary photographs of working teams at, for example, Codford, Idstone, Bishopstone, Bratton and Albourne, all taken between 1900 and 1919.[39] In the 1850s, a few teams could be seen on the Berkshire Downs above Lambourne. As late as 1910–15 they were still used on the chalk overlooking the Vale of the White Horse. 'It is pleasing', wrote Alfred Williams, 'to meet with oxen (yoked and in pairs) at the plough and harrow about the farm, or attached to the cart and wagon'.[40]

[33] L. H. Ruegg, 'On the farming of Dorset', *JRASE* 15 (1854), pp. 406, 412.

[34] M. R. Dacombe (ed.), *Dorset: up along down along* (1951), p. 33.

[35] Young, *Six weeks tour of the southern counties*, pp. 189–91; Bettey, *Wessex*, pp. 33, 36.

[36] T. Davis, *General view of the agriculture of Wiltshire* (1794), pp. 73–4.

[37] Edward Little, 'Farming of Wiltshire', *JRASE* 5 (1844), p. 170; Caird, *English agriculture*, pp. 83–4. H. H. Dixon noted in south Wiltshire the practice of ploughing with Herefords for a year or two before passing them on to the Buckinghamshire graziers. 'History of the rise and progress of Hereford cattle', *JRASE* 29 (1868), p. 285.

[38] J. Mackay, *Albert Pell* (1908), p. 174.

[39] Photographs: e.g. Museum of English Rural Life, University of Reading, Negative nos 35/2324, 6773. See also Bettey, *Wessex*, p. 130; I. Gandy, *The heart of a village … Aldbourne* (sec. edn, 1991), pp. 59–60.

[40] Caird, *English agriculture*, p. 108: J. B. Spearing, 'Farming of Berkshire', *JRASE* 21 (1860), p. 36: A. Williams, *Villages of the White Horse* (1918), pp. 69–73.

Hampshire, a predominantly chalk county, appears untouched by the Revival. Young claimed to have seen scarcely a single ox in the county, not even at Crux Easton where, in the early years of the eighteenth century, oxen had been employed on a regular basis by Edward Lisle of literary fame; nor on the Russell estates at West Stratton and Micheldever, which in 1756 had purchased 32 working oxen direct from Devon.[41] In contrast to the mainland, Devon oxen drawing traditional high-gallows ploughs were a common sight on the chalk downs in the south of the Isle of Wight.[42] One farmer, near Ashley, the possessor of a steam plough, kept eight oxen, mainly for rough work, whereas Prince Albert on a heavy clay farm at Barton on the other side of the island, used only horses.[43]

Intrinsically the most interesting of the revivals and the most puzzling, was that of Norfolk. This is partly on account of its remoteness, a hundred miles or more from traditional ox country, and partly its hallowed position in the historiography of farm traction, being reputedly the first county where oxen were replaced by horses.[44] As early as the fifteenth century, horses comprised about 70 per cent of the animal work force on demesne farms, and an even larger proportion on peasant farms. By the 1630s oxen had been all but eradicated, while, at the end of the eighteenth century, William Marshall, who knew the county well having worked for several years as agent on an estate near Norwich, confidently proclaimed: 'Horses are the only beasts of labour made use of in Norfolk husbandry: there is perhaps not one OX in the county'.[45] The historian of the agricultural revolution in Norfolk states that the idea of oxen supplanting horses as urged by the agricultural reformers was never popular in the county.[46]

Coke, no less, is credited as having been probably the first to re-introduce draught oxen (or 'bullocks', as they were generally termed in East Anglia) into the county, initially for carting, following a gift of thirty Devon cattle from the Duke of Bedford, but was forced to give them up owing to problems with shoeing and the prejudice of his workmen who were used only to horses.[47] The use of oxen was extended to field work soon after 1800, whence they quickly gained favour with progressive landowners and large farmers, to become by 1830 a familiar feature on large sheep-corn farms managed on the Norfolk system. When, in the early 1840s, Almack, the Royal Agricultural Society's prize essayist, visited the county for the first time, he was surprised to find few instances of where the use of oxen for ploughing had been given up: rather, most large farms possessed two, three, or even four teams, in addition to horses.[48] Whilst scathing of the traditional system of ox management in Sussex, Caird was highly approving of the Norfolk

[41] A. Young, *The farmer's tour through the east of England* (4 vols, 1771), III, p. 197; id., *Six weeks tour of the southern counties*, pp. 209–10; Hampshire RO, 49 M89/R4/6063. I am grateful to Dr Gavin Bowie for this reference.

[42] J. Wilkinson, 'The farming of Hampshire', *JRASE* 22 (1861), pp. 355, 367.

[43] Ibid., pp. 363–4.

[44] Langdon, *Horses, oxen*, p. 88.

[45] M. Overton, *Agricultural revolution in England* (1996), p. 126; W. Marshall, *The rural economy of Norfolk* (2 vols, sec. edn, 1795), p. 42 (Marshall's own emphasis).

[46] N. Riches, *The Agricultural Revolution in Norfolk* (sec. edn, 1967), pp. 107–8.

[47] The origins and early stages of the Norfolk revival are unclear. But see Young, *Norfolk*, pp. 446, 479–82; A. W. M. Shirley, *Coke of Norfolk and his friends* (new edn., 1912), pp. 162–4; Trow-Smith, *British livestock husbandry, 1700–1900*, p. 98; S. Wade Martins, *A great estate at work* (1980), *passim*; R. A. C. Parker, *Coke of Norfolk* (1975), pp. 122–3, inexplicably makes no mention of working oxen on the estate home farms in the 1820s.

[48] B. Almack, 'On the farming of Norfolk', *JRASE* 5 (1844), p. 330.

practice.[49] Though their popularity was then beginning to wane, 'bullock teams' remained a common sight in many parts of the county up to at least the late 1850s.

The ox economy of Norfolk is comparatively well documented in the farming literature,[50] and more specifically in a farming survey of the county conducted in 1843 by Richard Bacon, a Norwich newspaper proprietor.[51] More than 100 leading agriculturists – admittedly mostly large farmers and Whig landowners – were sent a questionnaire of some 145 questions relating to current farming practice, some of which asked about the use of working cattle – their numbers, breeds, utilization, management, feeding, and opinions as to their usefulness. The results of this enquiry are incorporated into the following analysis.

III

By the early nineteenth century the mechanical superiority of the horse over the ox was universally acknowledged, and begrudgingly even by ox enthusiasts. The horse was a specialist worker, faster, more powerful, and more versatile. Though more economical than horses, oxen did less work, and were valued increasingly or even principally for their meat. Technically oxen were an anachronism, and their re-introduction might therefore seem counter-intuitive. The key to the paradox lay in the differences between the 'old' and 'new' ox economies, and the co-existence of two traditions, the 'unbroken', dating from medieval times, and still ongoing in ancient strongholds such as Devon and Sussex; and the 'revivalist', in those districts where oxen were reintroduced after a long period of horse domination. The new role of the draught ox in the nineteenth century, and the distinguishing characteristics of the new ox economy, will now be examined.

The new homelands of the ox were the undulating terrain and light shallow soils of the chalk and limestone uplands of southern and west-central England, and the calcareous sands, gravely loams, and lighter boulder clays of north and west Norfolk. A first point of difference was that in the medieval and early modern periods oxen were deployed mainly on the heavier soils, on account, it was claimed, of their steadier and deeper draught, and horses mainly on the lighter soils, where their greater speed and agility was best utilized.[52]

According to Bacon's survey, choice of draught animal was closely correlated with soil type. Some 16 of the 29 current and former ox-using farms are described as light or predominantly

[49] Caird, *English agriculture*, pp. 166–8.

[50] See the following for descriptions of the Norfolk practice: Almack, *Norfolk;* R. N. Bacon, *Report on the agriculture of Norfolk* (1844); C. S. Read, 'Recent improvements in Norfolk farming', *JRASE* 29 (1858), esp. pp. 185–8; H. W. Keary, 'On the management of cattle', *JRASE* 9 (1848) esp. pp. 435–8. Keary was chief steward on the Holkham estate, and C. S. Read probably the most dependable source for mid-nineteenth century Norfolk farming.

[51] The returns and correspondence are deposited at Norfolk and Norwich Record Office, Ms 4363. C. S. Read, 'Recent improvements', describes the respondents as 'the best agriculturists Norfolk can produce'. To this extent, they are unrepresentative. The responses are of very variable quality ranging from virtual treatises to rough notes with many questions left unanswered. Barely half of the respondents employing oxen give their exact numbers, although these could vary from year to year, from two to three teams, to none at all.

[52] Pre-1750, oxen were mostly used on the heavier soils. Langdon, *Horses, oxen*, pp. 255–6; Bettey, *Wessex*, p. 33; Trow-Smith, *British livestock husbandry to 1700*, pp. 76, 93; P. R. Edwards, 'The horse trade in Tudor and Stuart England', in F. M. L. Thompson (ed.), *Horses in European economic history* (1983), p. 120.

TABLE 3. Characteristics of ox- and horse-using farms in Norfolk: soil type, farm size, cropping system, and access to substantial areas of rough grazing, *c*.1843 (74 farms).

Farm Category:	*Farms using oxen and horses*	*Farms where oxen were used formerly or occasionally*	*Farms using only horses*
Number of farms:	22	7	35
Soil type:			
Light soils	13	3	4
Mixed soils	8	3	23
Heavy soils	1	1	8
Size of farm (acres):			
<150	–	–	1
150–299	–	1	7
300–499	2	3	11
500–749	8	1	8
750–999	4	1	4
1000–1499	4	–	3
>1500	4	1	1
Aggregate acreage:	21,440	4514	18,500
Average farm size (acres):	974.5	644.9	528.6
Cropping system:			
4-course	14	7	32
4- or 5-course	3	–	1
5-course	2	–	–
6-course	–	–	1
Not known	3	–	1
Type of grazing:			
Marsh	5	2	7
Meadow	–	–	2
Warren and heath	1	–	–
Common	1	–	–
Sheep-walk	3	2	3
Poor grass	2	1	1
Park	–	–	1
<25% in pasture	7	2	9
Not known	2	–	12

Source: Bacon Survey, Norfolk and Norwich Record Office MS 4363.

so, eleven as mixed, and two as heavy; in contrast to horse-using farms where 23 of the 35 were described as mixed, eight as heavy and just four as light (Table 3). Although best adapted to the easy-working soils of the Norfolk Goodsands, in the west and north of the county, oxen were also employed on the lighter soils of the east coast around Yarmouth and in the Waveney valley on the Suffolk borders. In Oxfordshire, they enjoyed a wide distribution, on heavier land as well as the limestone soils.[53] On hill farms oxen were allocated mainly to the gentler slopes and firmer ground, and horses to the steeper slopes and flinty soils – where the narrower ox's hooves were liable to damage – and loose or slippery ground on which oxen had difficulty in keeping their footing.

Oxen became a feature in districts where farming landscapes had been re-configured, and farms enlarged, by enclosure and reclamation. Tillage extension, more frequent cropping, intensive cultivations, and the adoption of the four-course rotation, resulted in a sharply growing demand for animal traction, particularly in the spring and summer quarters, putting a heavy strain on the horses, and at the same creating a niche for the re-introduction of working oxen as seasonal workers. The typical ox-using farm was predominantly arable, three quarters under tillage, worked on a four- or five-course rotation of cereals, roots, clover and grasses, with occasional courses of pulses and vegetables, and usually possessing very little meadow or permanent grass. All Bacon's respondents claimed to follow the four-course system, even on land not ideally suited to it (Table 3).

A pre-requisite for employing oxen was a substantial area – upwards of four acres per head – of rough pasture for their summer keep. In the sixteenth century Fitzherbert advised that oxen be kept where grass was plentiful, and horses where it was scarce.[54] About 60 per cent of ox-users in the Bacon survey had access to large areas of sheep-walk, common, or marsh, compared with only 40 per cent of horse-users (Table 3). In the 1853 Agricultural Census about eight per cent of all land in the county was designated as sheep pasture and down, with sizeable remnants of rough grazing still to be found in most ox-using districts.[55] Although most of the former marginal land had been brought into cultivation, large areas of down were still un-reclaimed in some chalk districts, particularly in Dorset and Wilshire.[56] In the new ox economy, oxen were fed primarily on low-grade pasture, often on unenclosed land. In the Middle Ages they had been better provided for: Walter of Henley had prescribed that when working and in order to maintain condition, oxen needed to be given at least three sheaves of oats per week, and in the summer 'twelve pennyworth' of grass.[57] Likewise in the sixteenth century, as Dr Thirsk points out, it was no good putting oxen to graze on a bare common pasture after a day's work, and expecting them to be fresh in the morning: a working ox had to be kept on 'lush grass', such as was normally found only in enclosures.[58]

[53] Ex inf. Dr John Walton, Aberystwyth University.

[54] *The book of husbandry by Master Fitzherbert*, ed. W. W. Skeat, (English Dialect Society, 15, 1882), p. 15.

[55] *Reports of the Poor Law Inspectors on agricultural statistics (England)*, 1855, Schedule D, Norfolk (repr. in *BPP* 1928, LII, p. 491). See also, Kain, *Atlas of the Tithe Files*, p. 75 and *passim*.

[56] e.g. Caird, *English agriculture*, pp. 56–69, 79–81.

[57] *Walter of Henley's Husbandry*, trans. E. Lamond (1890), pp. 11–13, 23–5, 111.

[58] J. Thirsk, 'Farming techniques', in J. Thirsk (ed.), *The agrarian history of England and Wales*, IV, *1500–1640* (1967), p. 165.

Only large or very large farms could provide the economies of scale needed to justify employing several ox teams in addition to five or more teams of horses (see Tables 3 and 5). Ox-using farms in the Norfolk enquiry averaged 974.5 acres, farms using oxen occasionally or which had done so until recently 644.9 acres, and exclusively horse-using farms, 528.6 acres. Ninety per cent of farms in the first group were of 500 acres and above, compared with only 40 per cent in the third group. This implies a farm size threshold for the 'use' or 'adoption' of working oxen of about 500–600 acres. Two respondents reckoned it even higher, at about 800 acres, while one former user, who had recently moved to a smaller farm of 430 acres, would use oxen again if he had 800 or 1000 acres. According to the 1851 census, Norfolk contained about 400 farms of more than 500 acres, 5 per cent of all farms, but occupying 30 per cent of the total farmed area.[59] On this reckoning, the ox population of Norfolk in the early 1840s numbered perhaps 4000–6000, that is, about 12 per cent of the total animal workforce. The ox herd is modest compared with the 44,572 horses enumerated in the 1854 Agricultural Return, and the 42,100 in the 1870 Agricultural Statistics. Locally however, the ox proportion could be far larger, as much as 25–30 per cent, on for example the Holkham estate, which in 1851 possessed 51 farms in excess of 300 acres and 34 of more than 500 acres, most of which would have been using oxen, or had used them formerly.[60]

Ox-using farms in revivalist districts were typically large. On the Dorset Downs, where in the 1850s large areas of sheep-walk still survived, farms of 1200–1500 acres were not uncommon, and 500 acres the standard for a sheep-corn farm.[61] On the Berkshire Downs, 400–1000 acres was the norm, while on Salisbury Plain farms ranged from 800–1000 acres, with outlying fields in some cases between two to three miles from the farmstead.[62] One advantage of oxen was that on a 'long farm' with outlying commons they could be kept out overnight and forage unsupervised, whereas horses had to be brought home each evening. In Oxfordshire, a 400-acre stonebrash farm kept normally two teams of oxen to four or five of horses, inferring an adoption threshold of 300–500 acres, smaller than in Norfolk, but much larger than in the old ox counties, such as Devon, with its preponderance of small and medium-sized farms, only 5 per cent of which were above 300 acres.[63] An analysis of farm sale notices for Oxfordshire 1820–80 (Table 4) suggests a minimum adoption threshold of about 250 acres, and the majority of users in the 400- to 600-acre size group.

Large rectangular fields were the ideal working environment. Plough oxen worked best walking at a steady pace of one to two miles per hour in straight lines on level or gently undulating ground. In the 1860s, the average size of fields on chalk soils was estimated at 13

[59] *Great Britain Census* 1851, *BPP*, *Accounts and papers*, LXXXVIII (1852–3), pt 2, p. 313.

[60] Parker, *Coke of Norfolk*, p. 164. The 1851 Census records fewer than 17,000 farms of 300 acres and above and just over 5000 farms of 500 acres and above in England and Wales. If farm size was the sole determinant of ox usage, and assuming *all* farms in excess of 300 acres kept them, the maximum number of working oxen in England and Wales would have been about 180,000, and in Norfolk and the chalk and limestone districts of southern and central England perhaps 25–30,000. This compares with Young's estimate of 200,000 in *c.*1770. Ox-using farms in heavy and medium soil districts were in the main much smaller than on the light soils in the revivalist districts.

[61] Ruegg, 'Farming of Dorset', p. 142.

[62] Spearing, 'Farming of Berkshire', p. 12; Caird, *English agriculture*, pp. 80–1.

[63] Read, 'Farming of Oxfordshire', p. 239; *Great Britain Census 1851*, 1, Devon.

TABLE 4. Distribution, by farm size group, of working cattle mentioned in farm sale notices, Oxfordshire 1820–80.

Acreage	*<200*	*200–99*	*300–499*	*500–699*	*>700*
Mentions	1	13	16	13	8
%	2.0	25.4	31.3	25.4	15.7

Source: Farm sale notices, *Jackson's Oxford Journal* and *Reading Mercury*, as per original data supplied by Dr J. R. Walton, Aberystwyth University.

acres, compared with 11 acres on limestone, and just four on clay. Large fields meant less time turning at the headlands: ploughing a three-acre field with horses, it was calculated, involved 102 turns, and a 27-acre field just 28.[64] The bigger the team, the bigger the turning space required at the end of each plough strip.

IV

The genetic lynch-pin of the revival was the emergence, from the middle of the eighteenth century, of new or improved breeds of working cattle, in which superior draught qualities were combined with thriftiness and quick fattening.[65] Breeders sought to create a more dynamic and active animal, designed for speed rather than brute strength, with a deep chest; powerful, slanting shoulders; and light, elevated hind-quarters: in short, a bovine with equine characteristics, smaller and more stream-lined than the large-framed, all-purpose Longhorn, or the stumpy barrel-shaped Shorthorn just coming into fashion. Marshall reckoned northern oxen much inferior to the southern and western types, with little attention paid to breeding for draught.[66] Ancient black cattle of the Longhorn genus were widely distributed throughout England in the eighteenth century. Though physically very powerful, they were claimed to be too heavy for the plough and both too slow and lacking in versatility to meet the needs of the 'new husbandry'. In 1623, Gervase Markham described the Longhorn as black with large white horns tipped with black, square stocky bodies, and short legs, similar in conformation and colour to the draught cattle depicted in the fourteenth-century Luttrell Psalter.[67] The improved Longhorn was unsuited for work on account of its very long upward-curving horns, which

[64] W. H. Kirkpatrick, *The seasonal distribution of farm labour requirements* (1930), pp. 14–16. See also W. H. Long, 'Size of fields in Devon', *The Farm Economist* 11 (1935), pp. 244–5. Field sizes in the light-land revivalist districts were much larger than in the Midlands and West Country. A Devon survey within a radius of 15 miles around Exeter revealed an average field size of just over 4.5 acres. Out of 7997 enclosures surveyed, only 327 were larger than 10 acres. A. Tanner, 'The farming of Devonshire', *JRASE*, 9 (1848), pp. 483–4.

[65] For breed modifications and improvements, see Trow-Smith, *British livestock husbandry to 1700*, ch. 5; *British livestock husbandry, 1700–1900*, chs 3, 8; Moore-Colyer, 'Cattle', pp. 335–50; Youatt, *Cattle*, *passim*; and for mid-century, Keary, 'Management of cattle'; J. C. Morton (ed.), *A cyclopedia of agriculture* (4 vols, 1855), under name of breed.

[66] W. Marshall, *The review and abstract of the country reports to the Board of Agriculture* (5 vols, 1818, repr. 1968), I, *Northern Department* (orig. pub. 1808), pp. 55–6.

[67] Thirsk, 'Farming techniques', p. 186; Watts, *Working oxen*, pp. 7–8.

required a greater distance between pairs to avoid injuries, and large headlands of up to 40 feet or more wide to turn the teams.[68]

The principal source of improved working cattle were the 'middle horns', said to be descended from the ancient 'red cattle' native to certain parts of southern and western England, although the precise origins are obscure and the lines of descent blurred. As a result of selective in-breeding and judicious crossing, by 1815 as many as 90 per cent of working cattle in southern Britain was comprised of just four breeds: the North Devon (or Bideford), the Hereford, the Sussex and the Pembroke (or Castlemartin), descended from the old Welsh Longhorn. Together, they replaced the Longhorn and local breeds, such as the Gloucester, Dorset, South Devon. and Glamorgan.[69] Of the four, the most popular were the Devon and the Hereford, the ones most often singled out for specific mention in farmers' account books and sale particulars, and favoured by landowners as park animals because of their pleasing appearance. Farm sales notices suggest continuing rivalry between Devons and Herefords in Oxfordshire up to the mid-1850s – when the latter became the standard – and, as in Norfolk, the sporadic use of Shorthorns and – in one case – Welsh cattle, probably Pembrokes.[70]

The North Devon, depicted in Figure 3, had an unrivalled reputation as a worker on light land. Quick and agile, it could keep pace with a horse, trot at speeds of up to six miles per hour pulling an empty cart, thrive on poor land, and fatten quickly upon ceasing work. Recent research casts doubt as to its true origins: the predominant cattle in north Devon in the mid-eighteenth century were, it seems, black rather red in colour, and the ruby-red Devon was a new breed created from about this time by the Quarterly family of Molland.[71] In the early 1790s, it was remarked how the 'red breeds' of Devon and Somerset had been progressively increasing, and were now dispersed over a great part of the Kingdom, and adjudged the 'best labouring animal'. The larger and heavier-boned Pembroke was better adapted for the stiffer soils, but reckoned by some as lively as many horses.[72] There were two types of Sussex, a bigger more powerful type for the Wealden clays, and a smaller type for the chalk downland. One such is reputed to have run four miles against the clock over Lewes racecourse in 16 minutes.[73] Smaller than the Sussex but larger than the Devon, the Hereford was a good steady worker on medium soils, with excellent beefing properties and reputation for early maturity. In the early years of the revival, the respective merits of the various breeds provoked widespread discussion among breeders and adopters. One Essex enthusiast, who had tried them all, thought the

[68] I am indebted to the late Fred (F. J.) Banks for this and other valuable information based on usage of plough oxen in the North Riding. See his unpublished typescript, *Old ridge and furrow* (nd) held by the Museum of English Rural Life, University of Reading.

[69] Davis, *Wiltshire* (1794 edn), p. 234.

[70] From information kindly supplied by Dr J. R. Walton, Aberystwyth University.

[71] The North Devon was the clear favourite of the experts. Youatt, *Cattle*, pp. 18, 49 ('a quickness of action which no other breed can equal and which few horses exceed'). Read, 'Recent improvements', p. 290 reckoned it stood the heat better than any other breed. On poor land it was preferable to have either Herefords or Shorthorns in Coke's view. Parker, *Coke of Norfolk*, p. 122. R. Stanes, 'Devon agriculture in the mid-eighteenth century. The evidence of the Milles Enquiry', in R. Stanes *et al*., *The husbandry of Devon and Cornwall* (2008).

[72] Youatt, *Cattle*, p. 20; Keary, *Management of cattle*, p. 440; [Ministry of Agriculture], *British breeds of livestock* (third edn, 1920), pp. 54–5.

[73] Youatt, *Cattle*, pp. 39–42. Also for Sussex, see J. P. Boxall, 'Sussex cattle in the nineteenth century', *AgHR* 20 (1972), pp. 18–20, 27; J. Francombe, 'On the farming of Sussex', *JRASE* 11 (1850), p. 82.

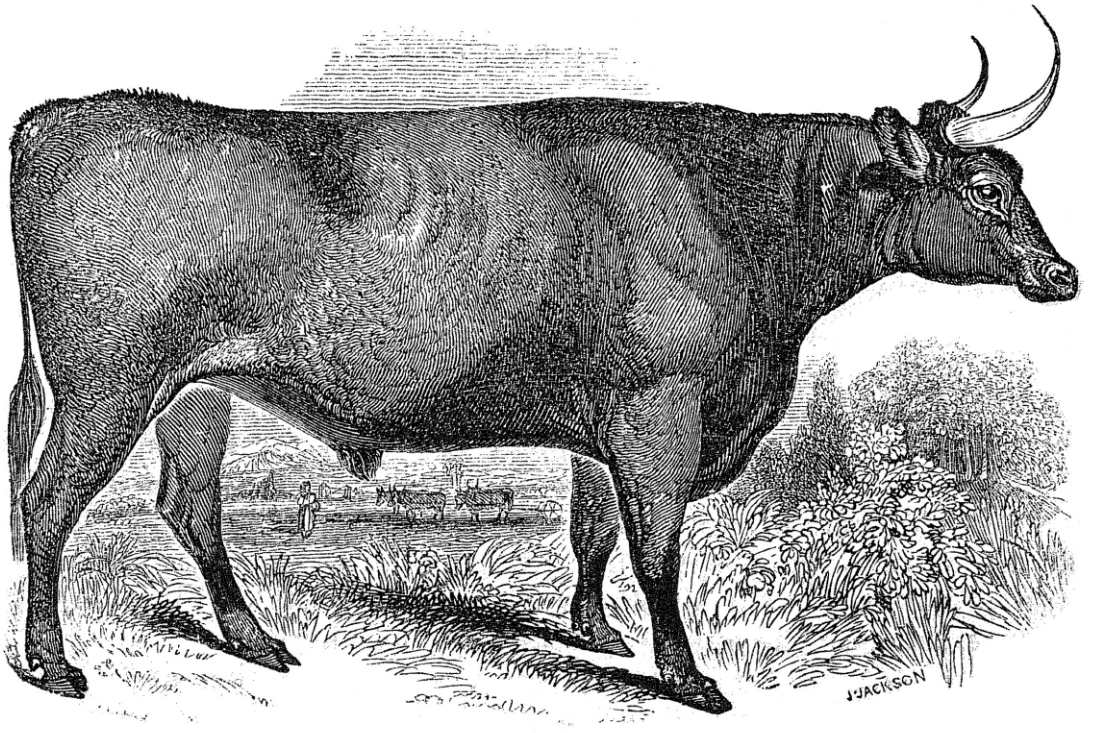


FIGURE 3. The Devon working ox.

Source: William Youatt, *Cattle* (n.d. but *c.*1835), p. 13.

Sussex suited him best: the Devon he thought too weary, the Hereford 'gummy' and too slow, and the Shorthorn the worst of all.[74]

The North Devon was the breed of choice in all the revivalist districts, with the exception of the Cotswolds, where the Hereford held sway. The Pembroke diffused eastwards into the Vale of Glamorgan and the Marches where it ousted the Glamorgan and challenged the Hereford. In the later nineteenth century the Pembroke was successfully introduced onto the South Downs where it largely superseded the native Sussex, whose draught qualities had been sacrificed to those of beef production.[75] In contrast, the Sussex remained almost entirely confined to Kent and Sussex. Heavier and less active but stronger than the Devon, and a slow feeder, it found little favour outside its native homelands. Devons constituted 11 per cent and Herefords 13 per cent of total beef sales at the Smithfield meat markets in 1838.[76]

After a false start, Norfolk took quickly to the North Devon. In the Bacon survey, 14 out

[74] A. Young, *General view of the agriculture of Essex* (2 vols, 1813), II, p. 358.

[75] Robinson, *South Down farm*, pp. 5–7; A. D. Hall and J. Russell, *A report on the agriculture and soils of Kent, Surrey and Sussex* (1911), pp. 39–40.

[76] R. Herbert, 'Statistics of livestock for consumption in the metropolis', *JRASE* 19 (1858), pp. 497–8.

of 29 current and former ox users employed them exclusively, and seven principally, together with a smattering of Herefords and Shorthorns. On light land, it could do as much work as a horse, being described by one land agent as 'by far the highest spirited Beast that I know of … and the quickest walker'. The immigrant Devon was a class apart from the old Norfolk breed, described by Marshall as 'small-boned, short-legged, round-barrelled, well-loined, thin-thighed – the very antithesis of the preferred form of working ox'.[77]

In the old tradition, oxen were worked throughout the year, often until an advanced age. By 1700, most ox users kept at least one team of horses, or mixed teams of horses and oxen. As their numbers increased, so horses did an increasing share of the work, until the ox's role was reversed, from that of primarily workers to horse auxiliaries. In his Yorkshire tour, William Marshall made a crucial distinction, central to this discussion, between cattle that were 'beasts of draught', that is specialist workers, and cattle that were worked occasionally while growing, that is dual-purpose animals.[78] The latter, appropriately conformed, were later to find a ready niche in the sheep and corn systems of southern and eastern England.

IV

Here we turn to the more narrowly practical aspects of the new ox-husbandry beginning with selection and training.[79]

The typical Norfolk ox-using farm possessed between two and five teams, some eight to twenty oxen, representing 25–40 per cent, theoretically a third, of the combined workforce. (Table 5) The usual practice was to purchase 2- or 2½-year olds, part- or already-broken Devon-bred 'bullocks', at local fairs or from specialist dealers each February. As many as were needed for the campaign, including reserves, were selected out for training in teams led by experienced oxen. Here, as in most other revivalist districts, oxen were worked in collars and reins in the same way as horses, as an alternative to the traditional yoke. Though more expensive, the new form of harness was thought to be more efficient, as it allowed the team to be controlled by one man without the services of a boy, and easier for local workmen brought up with horses to fit. Properly fitted, a collar, it was claimed, enabled the ox to pull with its whole weight and move away smoothly, whereas the horse tended to 'snatch', causing the implement or vehicle to jump. One disadvantage was that the point of draught sat lower on the shoulders, which depressed the angle of leverage, thereby reducing the draught output. The new style of hitching, first employed in England probably in the later eighteenth century, became one of the distinguishing marks of the new-style ox, and the revival.[80]

Norfolk oxen were normally worked for only half the year, from late winter to the end of the

[77] Marshall, *Rural economy of Norfolk* (2 vols, 1787 edn), I, p. 323.

[78] W. Marshall, *The rural economy of Yorkshire* (2 vols, sec. edn, 1796), I, p. 266.

[79] The following sections are based on the Bacon survey and Norfolk sources identified in the text.

[80] Harnessing has attracted more scholarly interest probably than any other aspect of ox management. See Fenton, *Draught oxen*, pp. 2–9, 29–32; C. Martell, 'Draught oxen in Britain', *Heavy Horse World* 8 (3) (1994), pp. 50–2; E. M. Clifford, 'Working oxen at Cirencester', *Trans. Bristol and Gloucestershire Arch. Soc.*, 63 (1942), pp. 1168–71. For the theory, see, R. K. Bansal and G. E. Thierstein, 'Engineering considerations', in J. L. Falvey (ed.), *An introduction to working animals* (nd), pp. 80–98.

TABLE 5. Numbers of horses and oxen and herd composition on Norfolk farms, *c.*1843.

Number of ox teams (four oxen each)	1	2	3	4	5
Numbers of farms using oxen					
Precisely specified	2	3	4	2	1
Estimated	1	6	2	–	1
Total farms	3	9	6	2	2
Total oxen	231				
Total horses	471				
Oxen as % of draught-workforce	33.4				
Numbers of animal units per 1000 acres (horse=1.0, ox =0.6 units)	35.0				
Horses per farm					
On ox-using farms	22.2				
On former ox-using farms	35.7				
On all-horse using farms	30.3				

Source: Bacon Survey, Norfolk and Norwich Records Office, MS 4363.

corn harvest, after which they were put out to grass and thence into straw yards or stalls for over-wintering, or in the case of older cattle in their second or third year of work, for fattening and sale. Oxen were employed principally for ploughing – preparing seed-beds, breaking-up leys, making summer fallows – plus other jobs, which the horses being otherwise fully employed, were unable to do. Horses did the heavy work, along with most of the harrowing and carting. Turn-of-the-century photographs, however, show in Norfolk and Oxfordshire oxen doing a range of jobs, such as working with harrows, and drawing laden carts and empty wagons. Oxen were preferred for dead-weight tasks requiring a long steady pull such as stone or timber hauling.

The career of a Norfolk ox was short but physically not very demanding. The standard 'team' of four was sub-divided into two teams of two, each working a half-day, morning or afternoon. On heavy land, teams of three but normally four were employed, working 6–8 hour days, with a long rest in late morning. Bacon noted one routine in which the ploughing was let out to 'bullock men', four oxen to a plough, split into two teams, each changed four times a day, and working two sessions.[81] In Wiltshire and Dorset, teams of two were the rule on lighter and teams of four on the heavier land and steeper slopes.[82] Team configuration on the Cotswolds comprised elements of both old and new traditions. In Oxfordshire, teams of three or four were worked like horses, from 7 am to 3 pm, with an extended break in the middle of the day.[83] In Gloucestershire, teams of four or five in line or six or eight in pairs, were worked as in Norfolk, in spring and summer, although it was customary for some teams to be kept ploughing all year round.[84]

[81] Bacon, *Norfolk agriculture*, pp. 376–7.
[82] Little, 'Farming of Wiltshire', p. 170.
[83] Read, 'Farming of Oxfordshire', p. 239.
[84] J. Bravender, 'On the farming of Gloucester', *JRASE* 11 (1850), p. 142.

During the revival, teams were generally smaller, the working day shorter, and the number of days worked per year fewer than in former times, when teams of six or more were worked all year round. An important question, which we will return to, is why on light soils with a low draught resistance, oxen appear to have been systematically under-worked.

Two 'good' horses were reckoned equal to three or four oxen, although such relatives are meaningless without a precise knowledge of the variables in the equation – age, weight, condition, size of team, soil conditions, loading. Most comparisons do little more than confirm the superiority of the horse. Yet on Norfolk turnip soils two pairs of Devons were said to work almost as quickly as a pair of horses, and under favourable conditions to plough one or one and a half acres of unbroken ground or to ridge-hoe five acres of turnips a day, about the same or even slightly more than a pair of horses, thereby implying a horse-ox substitution ratio of about 3:5.[85] Little is known about changes in relative performance over time. That of horses may have improved during the first half of the nineteenth century due to better breeding, though this is questionable. It probably owed more to the availability of better-designed implements with lower draughts and higher working speeds, whereas oxen continued to be worked with ploughs of traditional design and construction, often made of wood.

Physiology and diet explain much of the difference in the work outputs of horses and oxen.[86] The ruminant ox could consume and convert into energy a fibrous diet of poor grass and crop residues such as straw. For its digestive system to function efficiently, it needed large volumes of bulky food eaten in one meal, and as this took a long time to digest, a large part of the day (or nominal working day) was spent foraging or resting. Oxen, unlike horses, were unable to increase their consumption of bulky low-energy foods to compensate for the energy expended while working, and so tended to tire quickly and lose weight and condition. The horse's stomach was small but so constructed as to enable it to consume and metabolize relatively small volumes of high-energy foods such as oats and beans at frequent intervals, and work harder and more continuously.[87]

The virtues of the ox were, firstly, that it could be fed cheaply on foods of low nutritive value; and secondly that it consumed little more energy when working than when walking

[85] Keary, *Management of cattle*, p. 436. Lord Albermarle's steward at Ouiddenham (Norf.) reckoned two pairs of oxen changing over at the middle of the day could plough 2–2½ acres of fallows and two acres of seeds per diem, and eight pairs, working alternately, nine acres. Almack, *Norfolk*, p. 331.

[86] A growing body of scientific literature exists on working oxen at the present day, much of it relating to sub-Saharan Africa. A key issue now, as well as historically, is the relationship between draught output, nutritional requirements, and use management. The following publications are relevant to this discussion. P. Starkey, E. Mwenya and J. Stares (eds), *Improving animal traction technology* (1994); R. A. Pearson and A. J. Smith, 'Improving draught animal management', in P. Starkey *et al.*, *Improving animal traction technology*; A. J. Smith, 'Using science to understand the biological constraints that limit work', in P. Starkey and A. Faye (eds), *Animal traction for agricultural development* (1990), pp. 156–9. For physiology and nutrition, see Falvey, *Introduction to working animals*; P. R. Lawrence, 'Nutrient requirements of working ruminants', in W. R. Cockrill (ed.), *Working animals international: Proc. of meetings of the World Association for Transport Animal Welfare Studies* (1989), pp. 61–9; D. Hoffmann *et al.*, *Draught animals in rural development* (1989), pp. 143–81. Research into work physiology in France, Germany and Italy in the inter-war period is a promising avenue for investigation.

[87] For reasons of space, the economics of horse draught can be only be touched upon. See E. J. T. Collins, 'The farm horse economy of England and Wales in the early tractor age', in Thompson (ed.), *Horses in European economic history*, pp. 77–100.

TABLE 6. Feeding regimes on 22 ox-using farms in Norfolk, *c.*1843.

Summer		*Winter*				
Grass	*Other feed*	*Hay*	*Straw*	*Turnips*	*Beans*	*Oil cake*
22	2	22	22	14	1	6

Source: Bacon Survey, Norfolk and Norwich Records Office, MS 4363.

or at rest.[88] If doing light work, oxen were nutritionally more efficient than horses. Horses, on the other hand, were physiologically better adapted for converting concentrated foods into muscular energy. J. C. Loudon pointed out the mistake of supposing that oxen could work on straw alone; on a diet of straw and roots, he contended, they would only plough three days a week, or two full and two half days.[89] Oxen could not produce beef if constantly worked, or be capable of sustained work unless commensurately nourished, which greatly increased the expense of an animal whose principal virtue was supposed to be its thriftiness and low cost of upkeep.

Herein lay a dilemma. A poorly nourished ox could do only light or very moderate work, while richer foods – meadow grass, clover hay, grains, roots – could be utilized more profitably by other livestock. For these reasons, the strategy for draught was often determined by the foods available, and their alternative use value. On all 22 Norfolk ox-using farms, oxen were fed on low-grade pastures during summer, and in winter on hay and straw, supplemented by turnips, turnip tops, plus a little oilcake and barley-meal (Table 6). A superior regimen in late winter was often needed to bring the new arrivals, weak after a long overland journey, into condition for the start of the spring ploughing. Before the fodder revolution in the eighteenth century, the ox's performance was limited by food shortages, especially in late winter and early spring. Hence the not uncommon sight of teams of up to eight or ten oxen, in motion but in reality doing very little work, each member contributing what it could.[90]

Employing oxen to best advantage required an understanding of the relationship between power, speed, and work. Horses were stronger than oxen and could work at least one or two more hours per day. Oxen could produce the same draught as horses weight for weight, but for a shorter period of time. Soil resistance varied from an estimated 16 lbs per square inch on clay, to 8 lbs on medium land, to just 4 lbs on light land. It was for good reason therefore that Norfolk farmers chose not to work their oxen too hard, and restrict them to light land. The expression 'strong as an ox' belies the reality. The short working year, abbreviated working day, and long breaks for foraging and ingestion, were designed to eke out and replenish its

[88] P. Buttery *et al.*, 'Animal response to nutrient supply', in, E. Owen *et al.*, *Livestock and wealth creation* (2005), p. 167.

[89] Cited in E. Wiliam, *The historical farm buildings of Wales* (1986), p. 122.

[90] A further factor, glossed over here, is the weight of the animal, as weight and draught were directly correlated. Clark suggests that in the fourteenth and fifteenth centuries cattle were 80 per cent of the height and half the weight of eighteenth-century cattle. A young ox may have weighed little more than five hundredweight. See G. Clark, 'Labour productivity in English agriculture', in Campbell and Overton (eds), *Land, labour and livestock*, p. 217; M. E. Turner, J. V. Beckett, and B. Afton, *Farm production in England, 1700–1914* (2001), pp. 176, 195, 199–200.

short-term energy reserves. Though comprising a third or more of the animal workforce, oxen produced at most only 15–20 per cent of the draught. Devons worked best when lightly or very moderately loaded, on level or gently sloping ground, on light dry compact soils, working in shifts, and the weather not too hot. A good Devon, Bacon was told, would plough as much light land as a horse if a steady draught was required, but for hard work, only horses would do. Horses and oxen could exert a force equal to about an eighth of their respective body weights. A mature horse normally weighed between a quarter and a third more than a four- to five-year old working ox, and could exert not only greater pulling power, but a maximum pull of up to 70–80 per cent of its body-weight in short bursts. Oxen were most effective in the mass, pulling dead-weight loads of stone or timber, or drawing heavy trenching ploughs used for reclamation work and, ironically, recovering immobilized steam traction engines.[91] A remarkable feat of haulage took place at Preston Manor near Brighton in 1797. A contemporary print shows 86 oxen in six columns abreast, drawing a windmill two miles uphill from Regency Square near the sea-front, to the Dyke Road high above the town.[92]

The horse was a specialist draught animal with a long working life, typically twelve to fifteen years, whereas the ox was taken from the plough to be fattened at a young age, normally five or six years. The Norfolk practice was to retire working bullocks at the end of their second or third working summer to be sold later in the year at the Norwich or London Christmas markets.[93] Bullock fattening was a two-storied enterprise producing old and young beef, the former principally grass-fed, the latter intensively, on roots, grains and cake. Devons and Herefords matured quickly, and, weighing upwards of 84–90 stones (1200 lbs), were an important source of the huge marbled roasting joints favoured by catering establishments, large wealthy households, and by epicures.[94] On the Cotswolds, retirees were usually sold onto specialist graziers in the south Midlands for finishing and eventual sale.[95]

VI

While increasingly of academic importance, the respective merits of oxen and horses continued to be debated up to at least the mid-nineteenth century. In the 1880s, Professor Wrightson of the Royal Agricultural College was urging Scottish crofters to use cows instead of horses, a practice never much favoured in Britain.[96] Whether and to what extent oxen paid is a nice question, difficult to answer because few contemporary farm accounts distinguish working from other cattle, and because of the seemingly insuperable methodological problems involved in allocating costs and revenues between jointly supplied outputs – work, meat and manure. That arable beef paid only in the dung-heap, and seldom ever directly, is a well-worn axiom. Yet, apart from one, who complained that they ate too many turnips, all Bacon's respondents

[91] Robinson, *South Down farm*, p. 6.

[92] Watts, *Working oxen*, pp. 19–20 (together with a photograph of the original).

[93] Keary, *Management of cattle;* Trow-Smith, *British livestock husbandry, 1700–1900*, pp. 166–7.

[94] Meat as such is a neglected topic. See though, R. Perren, *The meat trade in Britain* (1978), esp. ch. 2; Trow-Smith, *British livestock husbandry, 1700–1900*, pp. 257–8; Morton, *Cyclopedia*, II, 'Meat'.

[95] Read, 'Farming of Oxfordshire', p. 239.

[96] J. Wrightson, 'Cows for draught purposes', *J. Bath and West of England and Southern Counties Soc.*, fifth ser., 5 (1910–11), pp. 1–17.

reckoned oxen profitable on farms where horses were a major budgetary item, and summer workloads large enough to provide employment for a minimum of two teams. In theory, the ox's technical disadvantages were offset by its lower marginal and opportunity costs, and the increasing value of its meat while working. The consensus was that oxen were cheaper for ploughing, and horses for all-round performance.

This is a convenient point at which to summarize the differences between the 'new' and 'old' traditions. Table 7 suggests little continuity, and the 'Revival' as representing a more or less clean break with the past. Indeed, in the early days, workmen were sometimes hired from the ox-exporting districts to teach local workmen how to manage the new and unfamiliar draught species.

The revival reached its zenith sometime in the 1840s, after which the working herd steadily declined, and by 1914 numbered nationwide probably fewer than 50 to 100 teams. In 1850, it stood at perhaps 40,000 head, or 20 per cent of its 1790 level, and by 1880 fewer than 3000. In Cornwall, the last team is said to have been disbanded in 1887, and in Devon and the Vale of Glamorgan about 1912.[97] They survived longer in the south-east: on the Morghead estate at Tenterden in Kent up to 1920, the Glassenbury estate near Goudhurst in Sussex up to 1938, and at Birling Gap in the same county until 1929.[98] They were given up at Aldbourne on the Berkshire–Wiltshire borders about 1910.[99] In Norfolk the final few surviving teams were broken up between 1900 and 1910. With one famous exception, oxen died out in the Cotswolds in the early 1930s.[100] In the Second World War, in Scotland, a cow and mare were recorded working in tandem in Aberdeenshire and, about the same time, ox-carts were reported on Fair Isle in the Northern Isles.[101] The last regularly worked team in Britain, in Cirencester Park, was filmed by Claude Frieze-Green, the pioneer colour cinematographer, in the late 1920s. A decade later, H. J. Massingham said a tearful goodbye to 'Blossom', the lead ox. The Park team was eventually disbanded in 1964 on the retirement of the head ox-man, Ted Smith, with the distinction of having outlived the commercial steam-plough, the last of which was sold by auction at Hall Farm, Little Hadham in Hertfordshire, four years previously.[102]

The reasons for the ox's demise can only be touched on. One was the progressive reduction in the area of rough pasture and the improvement, using purchased fertilizers, in the quality of

[97] George Copp, letter to *The Western Morning Mail*, 5 June 1964: S. Kidner, 'Devon cattle', *JRASE* 73 (1912), pp. 46–52; ex inf. St Fagans National History Museum, Apr. 2008; J. G. Jenkins, *Life and tradition in rural Wales* (1976), pp. 34–5.

[98] Sussex: H. J. Massingham, *Shepherd's Country* (1938), p. 67; G. K. Whitehead, 'The passing of the draught ox', *Country Life*, 2 Sept. 1952, pp. 758–9. Kent: ex inf. Richard Filmer, Ashford, May 2008.

[99] Gandy, *Heart of a village*, pp. 59–60.

[100] Photograph of oxen at Northern Farm, Blofield, Norfolk, *c.*1908. Museum of English Rural Life, University of Reading, Photograph Collection, DX 1120. And about the same date also in Cambridgeshire: F. Gambie, 'Thriplow in my young days', *Cambridgeshire Local History Soc. Bulletin* 29 (1974), pp. 34–8. For the Cotswolds, see the interesting correspondence on the late use of oxen in *The Oxford Times*, 6 July 1951.

[101] Fenton, *Draught oxen*, pp. 30–36, 41.

[102] 'The lost world of Frieze-Green', 'The Open Road', BBC 2, first screened 25 Apr. 2006. Dr John Walton informs me that the film has been restored by the British Film Institute, and is currently viewable on-line on the BFI's own website, and individual episodes on YouTube. Creasey, *Draught oxen*; Massingham, *Shepherd's country*, pp. 65–9; Whitehead, 'Passing of the draught ox', pp. 758–9; Ted Smith, *My life with oxen*, undated typescript [*c.*1957], Museum of English Rural Life, Archives, D76/12.

TABLE 7. Characteristics of old 'unbroken' and 'new' ox economies

Characteristics	*Old 'unbroken' tradition*	*'New' resurgence*
Topography	Level ground	Hilly, undulating land
Soils	Mixed-heavy	Light
Standard of farming	Traditional	Progressive
Farming-cropping system	2- to 3-field Crop-fallow Mixed farming	4- to 5-course rotation Sheep-corn
Pasture provision	Meadow	Rough grazing
Farm size	Medium-large	Large >400 acres
Farm layout	Open fields; small enclosures.	Large regular-shaped fields, post-enclosure
Breed	All-purpose traditional	Specialized dual-purpose
Breed conformation	Heavy. Large framed. Irregularly conformed.	Lighter, smaller-framed with defined draught characteristics
Strength, agility	Strong, slow, best for heavier land	Smaller, quicker, better adapted for light land
Working routine	Worked 4–8 years, all-year round, full days, general purpose, medium-heavy work	Worked 2–3 years, spring and summer only, half-days, mainly ploughing, light-moderate work
Size of teams	6–10	2–4
Harnessing	Traditional yoke	Collar and reins
Feeding	Meadow, better quality pasture, hay, straw, plus high-energy foods when working	Low-grade pasture in summer. Straw hay, turnips, plus grains, cake in winter
Fattening, slaughter	Killed 6–10 years in spring-summer	Killed 5–6 years for Christmas market.
Adopters	Broad, mostly medium-large farmers	Landowners, gentlemen farmers, larger tenants.

marginal grazing to a standard where it could fatten sheep. Another was the further widening of the performance gap, by the use of improved implements with lower draughts specifically designed for horses, and machines so geared as to run at much higher speeds than could be attained by oxen. Mechanical harvesters posed special problems. Maude Robinson, whose father farmed on the Downs at Saddlescombe near Brighton in the Golden Age, thought the 'picturesque custom' of using bullock teams was ended by 'the blessed invention' of the self-binder: six or eight large animals proved too clumsy to negotiate the corners, especially on the last turns in the middle of the field, leaving a large area of corn to be cut by the scythe.[103] The rise of the specialist beef industry, and growing demand in artisan and middle-class households for younger meat and smaller leaner joints, was a further disincentive to keeping older cattle. Cross-breeding and high-feeding had by the 1830s rendered beef stores ready

[103] Robinson, *South Down farm*, p. 7.

for the butcher at three to four years, and by the 1870s at two and a half to three years, as against six or seven years for a typical worker.[104] Breeders could now obtain a better price for two-year old steers when sold for feeding than for work. In 1878, J. Algernon Clarke in his retrospective survey, saw a situation where rising meat prices and high feeding were 'pressing to banish such animals [draught oxen] altogether'.[105] To meet the demands of the feeders, the working breeds were re-conformed and their beefing properties enhanced. The demise of 'the true Devon'[106] was already being lamented by a Norfolk farmer in 1843.[107] With the exception of the Pembroke, which had retained many of its draught characteristics, by the end of the nineteenth century all the working breeds had been re-classified as beef breeds. Between 1838 and 1858, the proportions of Devons and Herefords sold at the London meat market fell from 12 and 13 per cent to five and nine per cent respectively, reflecting partly the growing preference for Shorthorns and other early-maturing breeds, and partly the smaller numbers of workers coming forwards.[108] The Devon was now much more compact, with lighter shoulders and shorter hind legs. The transfer of weight from the fore to the rear quarters increased the ratio of flesh to bone, and of the more valuable roasting to cheaper boiling joints. Decisive too was the growing numbers of heavy horses used for town work, and large sums fetched by five or six-year old geldings trained for shaft work.[109] The generous prices paid for town horses, combined with the opportunity to buy them back at nine- to ten-years old at a discount, still capable of several years of productive work, may ultimately have tipped the scales. Livestock disease was a particular threat in the 1850s and 1860s, causing severe debilitation among working cattle and premature retirement of infected teams.[110]

The passing of the draught ox was the culminating stage in a centuries-old process of steadily increasing specialization in farming, resulting in the now rigid division of stock into food producers and workers. During its re-incarnation, the ox played a secondary but useful role on sheep and corn farms in the critical early stages of Thompson's 'Second Agricultural Revolution'. It had shown a rare ability at re-invention, finding new niches, and providing an aesthetically satisfying as well as practical solution to a pressing problem, namely the need for a cheap and elastic source of draught power at busy times when the horses were fully occupied.

Adopters of oxen were mostly large landowners, country gentlemen, and large farmers, a class far removed from the biblical stereotypes in the famous passage in the Book of Ecclesiastes (38:25): 'How can he get wisdom that holdeth the plough, and that glorieth in the goad, that driveth oxen, and is occupied in their labours, and whose talk is of bullocks'.[111]

[104] H. Evershed, 'The early fattening of cattle and sheep', *JRASE*, third ser., 1 (1890), pp. 47–64; but also much earlier than this: *Youatt, Cattle*, p. 18.

[105] J. A. Clarke, 'Practical agriculture', *JRASE*, 2nd ser., 14 (1878), pp. 362–5.

[106] Bacon Survey: Norfolk and Norwich Records Office, Ms 4363 (response of Mr Clowes of Helmsley).

[107] For breed modification see P. Brassley, 'Livestock breeds', in Collins, *Agrarian history*, VII, pp. 555–6; Youatt, *Cattle; British breeds of livestock*, p. 48; Moore-Colyer, 'Cattle', pp. 335–48; Trow-Smith, *British livestock husbandry, 1700–1900*, ch. 8; Boxall, 'Sussex cattle', pp. 23–4; W. G. C. Britten, 'Hereford cattle', *JRASE* 74 (1913), pp. 54–57; G. H. Garrard, *A survey of the agriculture of Kent* (1954), pp. 153–4.

[108] Herbert, *Statistics of livestock*, p. 497.

[109] Chivers, *The Shire horse* (abridged edn, 1978), chs 3–7; F. M. L. Thompson, 'Nineteenth-century horse-sense', *EcHR*, 29 (1976).

[110] Robinson, *South Down farm*, pp. 56–67.

[111] J. F. Burke, for one, was highly disparaging of oxen, and 'the uncouthness of the yoke and goad, when compared with the spirit of the horses, the gayer harness, and the whalebone whip'. *British husbandry*, 1 (1834), p. 179.

From the late eighteenth century the draught ox underwent a sea change, to re-emerge with new duties to perform and its standing greatly enhanced. James Caird described the systematic management of large farms in west Norfolk as 'not surpassed in any district of England'.[112] Here, as in all the light-land arable districts where it flourished, the revitalized ox was a symbol of rank and competence, and source of prestige. Paradoxically, its revival coincided with the beginnings of the 'Second Agricultural Revolution', and the first stage in the industrialization of English farming. Later, in its twilight years, it came to occupy a place of honour and special niche in the national imagination.

Formally, the ox resurgence can be analysed as the adaptation of an obsolete technology to fit a new set of production functions, in the same way as the scythe and heavy hook had replaced the sickle for cutting corn, and the turnip was transformed from a fodder supplement grown in small patches to become the mainstay of the 'new husbandry'.[113] The post-medieval ox underwent a succession of alternating revivals and downturns.[114] In France, in the later nineteenth century, oxen from the Morvan in Burgundy were driven up-country onto the large sugar-beet farms of Picardy and Nord for deep ploughing, and fed on beet-tops, pulp and straw.[115] One account describes such a farm in the Paris Basin in the 1850s, whose routines were reminiscent of those of Norfolk, that is to say, oxen working half-days, in just spring and summer, wearing collars like horses.[116] In the two World Wars and inter-war depression, oxen were re-introduced onto farms in eastern and central Europe as an economy measure.[117] In wars generally, the conflict zones reverted to oxen, out of fear of their horses being appropriated by the occupying armies.[118] Since 1990, the crumbling of the Soviet trade bloc, and cessation of subsidized oil exports to client states, has prompted an ox revival in Cuba, while the high cost of mechanical traction and the hard labour of cultivating oxidized clay soils has led to the replacement of hand-hoes by the intermediate technology of ox-power in parts of central Africa. In the developing world at any rate, the ox story, it seems, still has a long way still to run.[119]

[112] Caird, *English agriculture*, p. 162. For similar comment on farming standards in other revivalist districts, see Caird, *passim*; Read, 'Recent improvements', 'Farming of Oxfordshire' and county prize essays in *JRASE* 1st and 2nd ser.

[113] E. J. T. Collins, 'Harvest technology and labour supply in Britain', *EcHR* 22 (1969), pp. 453–72; Raine Morgan, 'The root crop in English agriculture, 1650–1870' (PhD thesis, University of Reading, 1979).

[114] Langdon, *Horses, oxen*, p. 285.

[115] A. Demangeon, *La Picardie et les regions voisons* (fourth edn, 1973); Liebowitz, 'Persistence of the draught ox', pp. 10–11.

[116] F. R. de la Trehonnais, 'Horse labour in France', *JRASE* 45 (1858), pp. 419–2.

[117] In Hungary, for, example, between 1935 and 1942, the horse-power supplied by draught oxen and yoked cows rose from 17.8% of total tractive power to 21.3%, while that supplied by draught horses fell from 76.4% to 71.0%. I. Csoppus, 'Mechanisation of plough-land production in Hungary 1920–1944', paper presented at the Conference Internationale des Musees Agricoles (CIMA), Budapest, Aug. 1982.

[118] Ex inf., Prof. Francois Sigaut, Maison des Sciences de l'Homme, Paris, Jan. 2009.

[119] Starkey *et al.* (eds), *Improving animal traction technology*, relating mainly to Africa, esp. pp. 66–81. For the ox revival in Cuba see R. S. Medina, 'The Cuban ox revival', *The Land* 5 (2008), pp. 44–46; A. Rios, 'Improving animal traction in Cuba', in P. Starkey and P. Kaumbutho, *Meeting the challenges of animal traction* (1999), pp. 296–8.

Underwriting disaster: risk and the management of agricultural crisis in mid-nineteenth century Cheshire*

by Stephen Matthews

Abstract

This paper uses evidence from the Cheshire epidemic of Cattle Plague in 1865–6 to examine current ideas about the character of the landlord-tenant relationship in nineteenth-century England. Earlier work by a number of historians, notably David Stead, has suggested that landlords used the tenurial relationship to transfer the risk of farming to their tenants in return for fixed rents. This paper reviews the debates which surrounded the plague epidemic – whether, for instance, it was the duty of government to offer compensation – and shows that, in these extreme conditions, landlords were compelled to offer at least some support to their tenants. It suggests that they did so for a variety of reasons, including a sense of responsibility towards them, but also out of a long-term concern for the future of farming and the landscape on their estates.

> Cheshire has been long famous for its cheese; and that branch of agricultural husbandry requiring much experience and manipulative skill, has given a peculiarity of character to the farming, and to the habits and management of the farmers.[1]

Cheshire was, by the mid-nineteenth century, well established as a dairying county.[2] It was known for its cheese by the late sixteenth century at the latest. In the later seventeenth century

* In his retirement Stephen Mathews published a succession of papers on the Cheshire Cattle Plague epidemic of 1865–6. He prepared and submitted a draft of this paper in his final illness. When referees' reports were received, he felt unable to implement their suggestions, and asked me, as editor of the *Review,* to see the paper into print. I have made wholesale revisions and added text in some of the areas recommended by the *Review's* referees, including the whole of the introduction. This is certainly not the paper Matthews would have prepared if his health had allowed him to make revisions, but it is a fitting conclusion to the work of an interesting historian with highly individual concerns. In his final draft, Matthews offered his thanks: 'I am also grateful for advice received from Dr David Stead, who read an earlier version, Mr Charles Foster at Arley, and Miss E. Simpson, the archivist at Eaton, and help from the staff at the Cheshire Record Office'. He added that any errors were his, but in truth, they are probably mine. RWH

[1] James Caird, *English agriculture in 1850–51* (1852, repr. 1968), p. 252. For another mid-century account of Cheshire dairying, Frederick Law Olmsted, *Walks and talks of an American farmer in England* (1852, rev. edn 1859, repr. 1967), chs 20–2. His tour took place in 1850, but his text is derivative of Caird's.

[2] For the following, see C. F. Foster, *Cheshire cheese and farming in the north-west in the seventeenth and eighteenth centuries* (1998), part one.

it developed a coastal trade with London, and Cheshire cheese superseded Suffolk cheese as the capital's cheese of choice. In 1808 it was estimated that some 11,500 tons was made annually in the county, and perhaps as much again in surrounding counties was sold under the 'Cheshire' name. Whilst Foster has shown how farm sizes grew and has suggested that growth was driven by the developing technology of cheese production and the need for bigger herds, by the mid-nineteenth century the dairying districts of the county remained ones of small, tenanted farms. Caird, visiting the county in 1850, was not impressed by the quality of the farming. There had recently been a big investment in under-draining, but he felt that much of this had been squandered by farmers who had little idea of what they were about. The introduction of ground bone manure had greatly improved the quality of the grassland by encouraging the growth of clover, trefoils and more succulent grasses. Applied at a rate of one or two tons per acre, its effect lasted for 10, 15 or even 20 years. Some farmers told Caird that it had doubled the quantity and improved the quality of cheese. Overall though, Caird was not impressed with the quality of Cheshire dairying: 'in the management of cows there is nothing particularly good'. So, whilst improvement had made limited progress, Caird though that the tenants' returns were low, with a disproportionate proportion of the farmers' profit creamed off by the lord. Their 'hard work and frugal living' was poorly rewarded.[3]

Caird introduces us to the twin themes of this essay, dairying and tenancy. It continues the account of the severe crisis that hit Cheshire dairy farming in 1866–7 with the appearance of a cattle disease – rinderpest – to which contemporaries had no answer except slaughter.[4] The mortality of animals was high, and, as a high proportion of a tenants' capital took the form of livestock, the blow to the agricultural economy in the county was enormous. But, where did Cheshire landlords stand in all of this? Following on from work by Avner Offer, David Stead has recently argued that, for the period from 1750 through to 1850, farmers bore most of the risk of farming.[5] Landlords drew a fixed rent from their tenants, leaving the latter to accommodate the variable income from farming by seeing their profits rise and fall over time. Whilst tenants might be allowed to run up arrears in poor years (and Stead found that arrears were rarely paid off), this provided only a limited cushion to protect the farmer from output and price volatility. In short, the landlord's rent had a higher claim on farm income before the tenant's return on his capital. The tenant's return therefore fluctuated greatly from year to year.

Risk, in the sense of the year-on-year volatility of weather and markets, is a rather different matter to the danger of animal disease, which, in effect, destroyed capital. Stead shows that the insurance of risk by farmers was far from well developed even at the end of the period. There was some insurance of buildings, but not of other dangers such as frost or flood. Early attempts to offer insurance for cattle in the 1840s failed as the companies offering insurance could not withstand the claims arising from epidemics of pleuro-pneumonia and rinderpest and some failed, leaving claims unpaid. Mutual cow clubs seems to have been essentially

[3] Caird, *English agriculture,* pp. 252–62.

[4] For the epidemic, see Paul Brassley, 'Animal health and veterinary medicine' in E. J. T. Collins (ed.), *Agrarian History of England and Wales*, VII (2 vols, 2000), I, pp. 588–90.

[5] David R. Stead, 'Risk and risk management in English agriculture, *c.*1750–1850', *EcHR* 57 (2004), pp. 334–61.

labourers' societies and were not used by the owners of commercial herds. In any case, they normally protected themselves by excluding from their terms animals lost to rinderpest.[6] Hence it was reported from the Arley (Cheshire) estate during the 1865–6 cattle plague that 'there is no one insured on our side of the parish' and that seems to have been typical.[7] Indeed, it is still not practicable to insure animals against cattle disease.[8] How then did dairy farmers (and cattle farmers in general) recover from cattle epidemics that destroyed their herds by both the direct action of disease and the implementation of policies of preventive slaughter? The rinderpest epidemic of 1865–6 lies outside the range of Stead's paper, but he usefully gathers some information of about the attitude of landlords to the earlier epidemic of the 1740s and 1750s. There was some limited government compensation available, but overall, Stead finds that landlords were not terribly generous in helping their tenants to restock, whether through direct compensation or the remission of rent.[9] The appearance is that, even at a moment of desperate disaster, landlords did relatively little to help their tenants recover and restock, or, as Stead would put it, they accepted little of the risk.

In this paper, we discuss the experience of Cheshire in the rinderpest epidemic of 1865–6 in the terms established by Stead, acknowledging of course that his concern is with a slightly earlier period. This article argues that the reality was more subtle and complex than Stead allows, and that, whilst normal loss might be borne by the tenant, subject to cushioning by insurance and on occasion compensation, the exceptional losses caused by periodic disaster were a matter that only the landlord could address. In particular, it introduces two factors which are absent in Stead's paper. The first is the size of the tenant farm, for that conditioned whether the tenant had the opportunity to diversify. Diversification, we would agree, spread risk. It might be an option in (especially) larger arable farms but the small-scale farming practised in Cheshire did not make diversification possible for most farmers: their production was milk or cheese. Any other crops were for their own needs. The lack of diversity increased the vulnerability of Cheshire farmers and reduced their ability to help themselves after the epidemic had subsided. A second factor not considered by Stead is his failure to appreciate the symbiotic relationship of landlord and tenant. The smaller the tenant holding, the stronger the relationship had to be. Large tenant farmers, especially in the eastern counties, working perhaps 500 or 1000 arable acres, had options that were not available to Cheshire tenants with fewer than 50. Their potential profit could never generate sufficient capital for them to pay for improvements to their farms, so ditching, draining, fencing and even bone dusting often had to be provided by the landlord, albeit at a cost reflected in a supplement to the rent. The landlord, on the reverse side of this mutual dependency, needed tenants to fill the farms, to the extent that agents often permitted weak tenants to continue rather than risk a change. From very slight evidence, there does not seem to have been any shortage of applicants for farms in Cheshire, but a critical part of the agent's role was to sift through them to select the most

[6] Stephen Matthews, 'Cattle clubs, insurance and plague in the mid nineteenth-century', *AgHR* 53 (2005), pp. 200, 202–3.

[7] Id., 'Our suffering county: Cheshire and the cattle plague of 1866', *Trans. Lancashire and Cheshire Antiquarian Soc.* 96 (2000), p. 107.

[8] I am grateful to Paul Brassley for clarifying this point.

[9] Stead, 'Risk and risk management', pp. 353–4.

suitable, including obtaining references and making enquiries of a previous landlord about why a tenant had left.[10] Stead's argument fails in that it treats the relationship between the parties as an impersonal one and overlooks their ultimate interdependence. His principle succeeds in the management of everyday risk, of everything within normal parameters, but outside them, the interdependence was paramount. There is a difference between risk management and disaster management and the latter reveals the weaknesses in the argument. This became apparent in arable counties later in the century when wholesale failures in the corn-growing districts faced landlords with the unpalatable choice of taking farms in hand or importing tenants from elsewhere on whatever terms could be had.[11]

This article, therefore, tests Stead's argument by examining the extent to which Cheshire landowners supported their tenants when disaster struck and whether, in that situation, they themselves shouldered some of the risk of farming. Whilst Caird observed in 1850 that of all the counties that he had visited, landlords in Cheshire took the greatest share of the farmer's profit from the land, a researcher considering the relationship of landlord and tenant in Cheshire in the middle of the nineteenth century is struck not only by the number of gentry families who ran its affairs but also by the survival among them of a paternalistic attitude in which uninterrupted maintenance of the landscape was regarded almost as a family duty. Consciously or not, they accepted a distinction between their share of profit in normal times and their responsibility, not so much for their tenants as for the landscape they owned, in times of real adversity.

I

Although there were other cattle diseases that caused concern, such as pleuro-pneumonia, these could be contained within normal arrangements. None had the devastating effect of the outbreak of rinderpest, which brought ruin to rural Cheshire from the end of 1865 until June of 1866, when it died down. The disease entered the country through a consignment of cattle from the Baltic landed at Hull on 19 May 1865. By the time the infection had become apparent, the cattle had been widely dispersed throughout the country so that by the end of July there were 82 known sites of infection. It was the first week of October before the first cases were reported from Cheshire and the beginning of December 1866 before the last cases were identified. The spread of the disease in the county was undoubtedly assisted by delays in restricting the movement of cattle, the tendency for farmers to try to dispose of suspect beasts and the reluctance of the hunts to suspend their activities.[12]

A royal commission was established in late September to advise on the best ways to deal with the epidemic. Its interim report held that the policy of slaughter was unnecessary: its final report called for its reinstatement. Its final recommendations were enacted in the Cattle Diseases Prevention Act of February 1865. This made the destruction of diseased stock

[10] Stephen Matthews, 'Landlord, agent and tenant in later nineteenth-century Cheshire', *Trans. Historic Soc. of Lancashire and Cheshire* 156 (2007), p. 208.

[11] P. J. Perry, *British Agriculture, 1875–1914* (1973), p. 72.

[12] Stephen Matthews, 'The Cattle Plague in Cheshire 1865–66', *Northern Hist.* 38 (2001), pp. 109–10, 118.

compulsory and authorized the payment of compensation from locally-raised funds. It was this, and a general tightening of the regulations, which allowed the authorities to gain some purchase on the epidemic and stamp out the disease.[13]

Although rinderpest was feared in most English counties, Cheshire was uniquely affected, both in the proportion of cattle lost and the absolute number that died or were slaughtered. No other county came near that level of damage: 491 townships out of 555 in the county were affected. 79,469 head were lost, about 68 per cent of the total holding. Although it may be that there were not many farms entirely free of disease, such evidence as there is suggests that the incidence may have been patchy, with a bias towards a lesser impact on smaller herds.[14] There were various estimates of the cash loss, but it is not always clear whether they include capital value and income loss, as the county's High Sheriff, Robert Barbour probably did when he estimated the loss at £950,000. No estimate of capital loss will be accurate because, as is shown below, cattle that had only a modest value when insured in cattle clubs, acquired a much greater one in the compensation claims, and it is hard to see how any income loss could be accurately measured.

II

We have already noted that insurance had no role to pay in overcoming this catastrophe.[15] Farmers looking to maintain an income during the crisis, and then to restock afterwards, had four options: government intervention, charity, assistance from their landlords, and their own resources. The last is the hardest to address. On this occasion we concentrate on the role of the landlord community, having first considered the limited role of both charity and government aid.

A vocal lobby, and not only from Cheshire, felt that government should underwrite the losses, either by setting up a compulsory state insurance scheme or by exacting a levy on all horned cattle to provide compensation for those who had suffered losses. Either could have been effective but the government was not prepared to depart from the traditional principle of county (or borough) responsibility. It could not conceive of a national response to what rapidly became a one-county crisis. Its treatment of Cheshire was part of a larger pattern of response to disaster. It refused to intervene in the Holmfirth disaster in Yorkshire (1852) when a dam burst and caused extensive devastation. Nearer home, government had refused to intervene in the Lancashire Cotton Famine (1861–5). Aid was organized locally but only for the benefit of destitute mill-hands and their families who did not have reserves to fall back on and had not had the opportunity to create them. Nothing was offered to the manufacturers themselves. The parallel between the cotton manufacturer and the farmer was explored in newspaper

[13] Brassley, 'Animal health', pp. 588–90. For a fuller treatment of events in the county, see Matthews, 'Cattle Plague in Cheshire 1865–6'.

[14] This inference conflicts with the evidence from Astbury, Stephen Matthews, 'Cattle Plague and farming survival in a Cheshire parish, 1865–6', *Veterinary Hist.* (forthcoming).

[15] It was held after the crisis in a Commons debate by the Stockport MP, J. B. Smith that 'the owners of cattle should provide against accidents by insuring their property, just as the owners of horses and ships were obliged to do'. *Parliamentary Debates* (*PD*), 3rd ser., 197, col. 1763.

correspondence: were they, or were they not, of the same class? Most comment concluded that the farmer, like the mill-owner, was a capitalist. If he had been imprudent and not put money by for times of adversity, then that did not qualify him for aid. Government had offered some assistance to the Irish during their famine. The recollection of this caused some resentment: in a letter to the *Chronicle*, J. W. Watkin, DCL, magistrate for parts of Lindsey, noted that although the government had refused to lift a finger to help true, loyal, hard-working English farmers, 'They gave the lazy rebellious Irish ten millions in the time of the potato blight'.[16] Overall, though, the view prevailed that, if the farmers' plight was the concern of anybody, it was their landlords'. All the talk of government aid came to nothing, for the Exchequer refused to budge.

A partial solution was found by authorizing local authorities to levy a special rate to fund the compensation authorized by the February Act. This was limited to half the value of the beast, capped at £20, and not backdated earlier than the date the Act was passed, thereby excluding many farmers. The government refused to move on this point, for reasons that are far from clear, but limiting cost was probably at the root of their decision.[17] A further perceived unfairness for Cheshire was that boroughs that had their own quarter sessions did not have to pay the rate, and the county's biggest markets lay outside its borders and again did not contribute. Given the demography of the county, it was inevitable that the greater part of the increased rate would be paid by the countryside, and, since tenants were entitled to pass on their share, in practice this meant the landlords themselves. We will see the effect of this below. The county finally had to borrow £270,000 to finance the compensation authorized by the February Act. Farmers did receive a measure of compensation for their capital losses, but there was none for income loss, and it was the loss of cash flow that seems to have worried contemporaries most.

A charitable relief fund was established in the county at the beginning of March 1866 despite much debate about whether it was appropriate. It served to compensate those who had lost cattle before the passage of the February Act and who were excluded from its terms. Contributions were not limited to landowners. It does not seem to have been greatly successful. The *Stockport and Cheshire County News* recorded its progress until 16 May, when it had collected £25,715 2*s*. 4*d*. It was desperately soliciting funds after that date, for Richard Brooke wrote to R. E. Warburton of Arley Hall on behalf of the Cattle Plague Compensation Committee on 22 June, asking for a subscription, noting that, whilst all the Cheshire Baronets had subscribed, only seven out of the fourteen Lords had done so.[18] Probably the largest contributor was the Marquess of Westminster, allegedly with £5000, but one of the Stockport MPs, J. B. Smith, contributed £250 when it was launched (though, as he was not 'county gentry', he perhaps has no place in this essay). It was reported some years later that the fund had reached £30,000.[19] We might also include under the heading of charity the assistance of the clergy, some of whom declared that they would make a gesture to help, mostly by waiving some or all of their tithes. It is hard to discover their motives, for some clergy saw the plague as a way of encouraging the farmers in their congregation to return to righteousness, or at least church attendance.

[16] *Chester Chronicle*, 12 May 1866.
[17] *PD*, 3rd ser., 177, cols. 1117–8.
[18] Matthews, '"Our suffering county"', p. 120.
[19] *PD*, 3rd ser., 198, col. 1808.

The Rector of Astbury announced in his parish magazine that he was 'willing to REMIT to all tithe payers who are not at this date in arrear, a part of the tithe payable at the next audit, *in proportion to the losses* of each'. Claims had to be lodged before the 30 June following, setting out the numbers of stock lost and surviving.[20] That is all we know.

III

The attitude of most Cheshire landlords towards their tenantry can be best summarized as self-interested paternalism. They felt a measure of responsibility for their tenants' well-being and continuation but, whilst bonhomie should not be discounted, there was an advantage in this for them, for their main aim was the preservation of their estates for themselves and their heirs. They owned the landscape: it was their duty to conserve it. This paternalistic attitude underlay the management of many Cheshire estates, though the surviving evidence does not enable us to judge whether it was dominant or whether distinctions should be made between the attitudes of resident and absentee landlords. It is hard to define 'absentee'. A simple definition of one who had the centre of his interests outside the county is not sufficient, for that would include grandees like the Marquess of Westminster, who, despite his many interests, had the Cheshire estates very much in mind.

There was an appreciation however that not all landlords were the same. Here is a correspondent writing under the pseudonym 'Vindex' in the *Chester Chronicle* in November 1866:

> Much has been said recently about the absentee system that works such sad consequences in Ireland, and much the same might be urged against the same evil in this country. In the cases to which I have referred, the difference between the conduct of the landlords may in great measure be traced to that cause. The good landlords are those who are living in constant sympathy with their tenants, whereas the other leaves them to the tender mercies of middlemen, whose precarious living may be dependent upon the success with which they can exact the last farthing from the hardworking farmer, whilst the head of the firm attends banquets in Southampton, in honour of Governor Eyre, his burnings, shootings and hangings in Jamaica.[21]

But the difference between resident and paternalist landowners and absentees is very hard to pin down as most our evidence comes from resident families.

Amongst the 'paternalists', the preference was for tenancies to pass from father to son and on to grandson even after the system of three-life tenancies had been replaced by rack-renting. The land agents' maxim seems to have been 'better the Devil you know' to the extent that sometimes one senses that they were seeking a reason to allow a failing tenant to stay, rather than face reality and find a replacement. It shows also in the criteria for judging a potentialist new tenant, as is shown by the memorandum book of E. H. Martin, the Crewe agent.[22] This paternalist attitude was clearly stated in the introduction that Rowland Egerton

[20] Astbury Parish Magazine, May 1866.
[21] *Chester Chronicle*, 10 Nov. 1866.
[22] Matthews, 'Landlord, Agent and Tenant', pp. 207–9.

Warburton of Arley Hall (the 'Uncle Arley' of Lear's poem) provided for his pamphlet on the eighteenth-century cattle plague, published in 1866, in which he said:

> I trust that we may still see, as heretofore, the same farm occupied for generations by the same family, and that the practice of letting for a term of years to the highest bidder, with no tie between landlord and tenant beyond that of the lease they sign, may never be introduced into Cheshire.

By custom, a tenant who worked the land well could expect to be able to keep his farm to the end of his working life and then pass it on to a younger generation, whether his son or another relation, and the level of continuity suggests that few had greater social aspirations.[23] This assurance meant that the tenant did not need to accumulate for a pension and if the husband died prematurely, his widow could usually continue on the farm. There was always a need for land improvement but the capital costs were generally borne by the landlord, albeit reflected in increased rent at the next review, as shown, for example in detail in the Crewe accounts.[24] The laying of millions of drainage pipes in the first half of the century had been the landlords' responsibility. John Tollemache was still paying for the cost of drainpipes, the spreading of bonemeal as manure and the planting of trees, as well as following a formidable programme of farm building and improvement well into the 1870s.[25] Why, then, did the tenant need to accumulate capital? In some counties any spare money was used for social advancement, but in Cheshire, that was less often the chosen path. A background of formal or virtual religious dissent, and especially Quakerism, had caused farmers to turn any accumulated capital towards business opportunities outside farming.[26]

The system had its failings and some landlords had differing views, but as a broad generalization, most Cheshire landlords of the middle of the nineteenth century seem to have shared this ideal of 'enlightened paternalism'. One must observe that the tenants, in return, were expected to follow the landlord's lead on agricultural matters, perhaps on other matters too. Warburton, once more, expressed this sentiment succinctly in a poem that he wrote in old age, in 1881:

> My tenants, though many I trust that from any
> I ne'er may unjustly have taken one penny;
> Farewell! May they thrive and still prosperous be,
> I love them right well as I hope they love me.[27]

There are examples to show that the tenants' regard for the landlords could be genuine. When Lord Crewe's mansion burnt down in March 1866, at the height of the plague, he was not deterred from continuing his promised assistance to his distressed tenants and the memorial

[23] Id., 'Cattle Plague and farming survival'.

[24] Cheshire RO [hereafter CRO], DCR 59/5/101–3.

[25] C. Stella Davies, *The agricultural history of Cheshire, 1750–1850* (Chetham Soc., third ser., 10, 1960), pp. 108–9; Stephen Matthews, 'Running the countryside: the Tollemache estates, 1860–1872', *Cheshire Hist.* 46 (2006–7), p. 79.

[26] C. F. Foster, *Capital and Innovation: How Britain became the first industrial nation. A study of the Warrington, Knutsford, Northwich and Frodsham area, 1500–1780* (2004), *passim*.

[27] R. E. Warburton, *Arley in Idleness* (1881). I am grateful to Mr Charles Foster for a copy of this poem.

they subsequently presented to him reflected their appreciation.[28] In a smaller way, the papers of Sir Philip Egerton of Oulton contain a letter from an unnamed tenant thanking him for advice on keeping his herd free from disease.[29] It was not obsequious, simply an acknowledgement of help. All this is in the nature of paternalism and their concern may not have prevented some of the landlords taking too much of the profit of the land, even if they did so without any feeling of guilt.

The relationship of landlord and tenant was both public and private. Landlords may well have insisted on a proper confidentially in their dealings with individual tenants: in addition over-generosity in making rent remissions to one might well have encouraged others to seek the same. Lord de Tabley threatened dire consequences should the terms of the help he was about to give his tenants be leaked to the newspapers.[30]

But the relationship also had a public aspect, and might be discussed in the press. This perhaps served to maintain paternalism as those who wished to shift the character of the relationship way from it might find themselves criticized. Press scrutiny can be seen in the context of the cattle plague in an odd exchange in the *Chester Chronicle* concerning the dealings of a Mr Leche with some of his tenants. Leche claimed to be annoyed because it had been suggested in the paper that he had decreased a tenant's rent and that this put him under pressure to reduce others. 'Rent audits, "he says" are matters between each individual landlord and tenant, and are not matters to be blazoned in the public print, as they do not concern the public'.[31] So far, he would be in good company with Lord de Tabley but the Editor of the *Chronicle* went on to assert that if Mr Leche's statements were true, 'it was only correct to a very small extent, as many of the tenants appear to be not at all conscious of any such boon as it referred to'. The editor seemed to think that such shyness was unnecessary as farmers were not the sort of people 'who would throw out broad hints in order to obtain [alms]'. He then broadened his censure, pointing out that Providence had swept away the livelihood of some of the 'most respectable and upright members of the community' and that it was prudent for any landlord 'to offer the tenants every inducement to remain on their farms'. In the long term, a landlord would benefit from being generous for 'it is sometimes convenient when a debtor really cannot pay, to make him a present of his debt'. This episode displays the weakness of paternalistic secrecy. I have not been able to establish what Leche did, but, bearing in mind that he had argued against the injustice of refusing compensation to farmers who lost stock before February, and was therefore not unsympathetic to their plight, it is likely that he had given assistance to a few, maybe only one or two, of his tenants on his own terms, which, contrary to the editor's conviction, made the others jealous.

IV

Having established the social context of landlordism largely through the eyes of the landlords themselves, what did they do when confronted by an almost apocalyptic state of affairs?

[28] Matthews, '"Our suffering county"': pp. 99–101.

[29] CRO, DEO 210/13 (un-numbered).

[30] CRO, DLT 2173/137/7 (printed circular to the tenants, 27 July 1866).

[31] *Chester Chronicle*, 5 May 1866.

Cheshire was famously a county of small estates: the 1873 return showed only 22 that exceeded 5,000 acres, but a number of these are included in the discussion which follows. But the response of the landlords cannot be described in anything like the detail one would wish. There is a remarkable dearth of fiscal information from the larger estates. Many records have simply disappeared, and few landlords kept accounts in the sense that we would now describe them. The characteristic form was a record of rentals, farm-by-farm, with expenses separately recorded, but there were only rare attempts to strike a year-end balance. Tollemache was an exception, from at least 1860, although his agent's year-ends were not entirely consistent, but his friend Egerton Warburton did not adopt a similar format until 1873, when he appointed his nephew Geoffrey Egerton Warburton as agent.[32] It is therefore difficult to translate stated intention and individual rent remissions into a comprehensive calculation.

In the following section we review the experience of those estates with tolerable financial records (although as will be found, some of the evidence is far from conclusive), before turning to those for which correspondence or other statements of policy survive.

(a) Tollemache: Woodhey and Beeston

Among the best-documented estates are those of John Tollemache of Peckforton Castle, lying in the townships around the castle and detached in the extreme north-east of the county. Although income from the southern and the eastern estates was separately recorded, only one set of expenditure accounts was maintained. In practice, that mattered little for the years under review as virtually all expenditure was spent on the southern Woodhey and Beeston estates, in contrast to those in the eastern 'panhandle' of the county. These have been separately studied and there is no need to repeat the detail here.[33] Sufficient to say that, when the rinderpest struck, it left much of the east untouched, but hit south Cheshire with a vengeance. Herds were wiped out and farmers were left with no income to pay their rents. Tollemache took the initiative early on, his meeting with his tenants being reported in the *Chester Chronicle* on 9 December 1865:

> [He] met the farm tenantry at host Richard Stockton's, Bunbury, and made an encouraging offer to all who were insured against the Cattle Plague, promising them 25 per centum on all losses they might sustain, and more where he thought it required.

This did not go far enough and in the end Tollemache had no option but to write off a substantial amount of rent, as is shown by Table 1. The dramatic reduction shown for the year ending March 1867 was probably a permanent loss. It was not carried forward, although a much smaller amount of allowances was carried forward to be recovered later. Allowances were a permanent feature of the accounts, arising from a variety of other causes, but they varied little from year to year and never came to more than a few hundred pounds in normal circumstances.

The reduction in income could not be painless: expenditure was slashed and that had an effect on the tenants, for building work and agricultural improvements ceased. The immediate

[32] Information from Mr Charles Foster.

[33] Stephen Matthews, 'The Cheshire estates of John Tollemache of Peckforton, 1861–72', *Trans. Historic Society of Lancashire and Cheshire*, 154 (2005).

TABLE 1. Tollemache's income, 1861–70 (£).

Year ending 31 March	*Southern Estates*	*Eastern estates*	*Total*
1861	17,526	3907	21,433
1862	17,906	3896	21,802
1863	18,285	3860	22,146
1864	19,070	4062	23,132
1865	19,762	3976	23,738
1866	20,078	4089	24,168
1867	12,955	4210	17,165
1868	18,643	4469	23,112
1869	21,724	4302	26,026
1870	22,570	5503	28,074

Source: Estate accounts.

and beneficial effect for the tenant farmers in the southern estates was that Tollemache wrote off over £7,000 of their rent.

(b) Lord Crewe of Crewe

What happened on the Crewe estates was possibly the most remarkable of all. Lord Crewe was keenly aware that the legislation of February 1866 produced great unfairness between individual tenants according to when they lost their stock. In a spirit totally opposed to Mr Leche of Carden, he felt that everything should be open and equal. The result was that a legal document was drawn up in which his tenants assigned their right to compensation or any other payment to his agent, E. H. Martin. In return, he undertook to make an immediate payment of £5 for every beast lost, with more to come, irrespective of cause or date, save only that Martin had to be satisfied that the loss was due to the plague. This document was signed by the tenants on 9 May 1866. Just over a year later another agreement was drawn up and signed giving an indemnity to Martin, with a further undertaking that remaining monies would be used for the mutual advantage of all, which in practice meant a restocking fund. The advantages, set out in full, were that the tenants received compensation immediately and equally (according to loss), and a surplus was created, to which Crewe contributed his own money on top of county compensation. This undertaking was made only two months after a disastrous fire had virtually destroyed his mansion, Crewe Hall. The arrangement shows a remarkable degree of trust between the landlord, his agent and his tenants, which was exemplified by the illuminated memorandum of acknowledgment and thanks that the tenantry collectively presented to Lord Crewe shortly afterwards.[34]

The effect of the plague on income can be seen from the rental ledger but it has not been possible to establish changes in expenditure (Table 2). The drop in income was 18.1 per cent,

[34] Matthews, '"Our suffering county"', pp. 100–1.

TABLE 2. Crewe Accounts: annual totals (rounded to nearest £).

Year	*Arrears brought forward*	*Yearly rent*	*Total due*	*Net cash received*	*Taxes and allowances*	*Arrears carried forward*
1865	355	25,082	25,438	25,177	53	207
1866	207	25,223	25,431	20,666	4575[a]	190
1867	190	25,264	25,454	21,032	4321	102
1868	102	25,493	25,594	25,374	143	137

Source: Estate account ledgers.
Note: [a] Described as 'Allowances in respect of losses by the cattle plague'.

but the reduction was probably less than it might have been because of the numbers of urban properties on the estate, which were not affected by the plague. In Sandbach, for example, there were at least 73 cottages in one block as well as public houses and other commercial properties. It is a little surprising that it took much longer for the estates to recover than elsewhere, for there were two years of reduction rather than one, but that might be in part a trick of the staggered accounting dates. Altogether the epidemic cost Lord Crewe nearly £8,900 before any cash contribution that he may have made. The annual totals disguise wide variations between the townships. A sample of nine townships reveals a range of write-offs from 4 and 7 per cent of rental to between 20 and 25 per cent (five of the nine).

(c) Marquess of Westminster.

Richard Grosvenor, the second Marquess (1795–1869) remains one of the most frustratingly elusive of the major landowners. He was applauded for his generosity both to his own tenants and to the county compensation fund. In a letter to the *Chester Chronicle*, Vindex went on to name him especially, though not solely, for his generosity. 'His princely gift to the voluntary subscription and his subsequent allowance to his tenantry, would make an ample fortune'.[35] By report, the Duke gave £5,000 to the county fund and distributed £3,000 among his tenants, £8,000 in all. Unfortunately, this all remains beyond demonstration. The oddity is how he did this, for the ledgers show no diminution of income attributable to the plague. There were the arrears and write-offs that one would expect, like that of an old and poor tenant, Lloyd, and the greater loss of £202 from a defaulting farmer Wainwright, but there are no entries for allowances made. Table 3 summarizes the amounts due and the amounts collected (both to nearest pound). The accounts of a Grosvenor tenant, John Byram of Overpool in the Wirral, show him paying the same rent continuously through the 1860s with no diminution in the plague year (although Byram was certainly affected by cattle plague).[36]

Each account closed with a calculation of the arrears to be written off; a reconciliation of any increase or reduction in the amounts due; and a reconciliation of the cash received with the

[35] *Chester Chronicle*, 10 Nov. 1866.

[36] Stephen Matthews, 'Hard work but a fair reward: the farming life of John Byram, 1831–1871', *Trans. Historic Soc. of Lancashire and Cheshire* 157 (2008), pp. 112–24.

TABLE 3. The Marquess of Westminster's income (£).

Year	*Arrears brought forward*	*Amount due*	*Cash received*	*Arrears carried forward*
1864	380	25122	24804	317
1865	250	25034	24884	150
1866	87	24966	24696	270
1867	270	24783	23679	1104

Note: the closing and opening arrears do not always match because of arrears written off in a separate calculation.
Source: Westminster ledgers.

amounts paid into the Marquess's bank account with Dixon's of Chester. These figures leave no room for a write-off of rent on account of the plague. From the last of the reconciliations, we can be certain that the cash received was a real figure and not a fictional or deemed one, intended to keep the books straight. I am forced to conclude that what he did was give a cash subsidy to his tenants on a basis and by a mechanism that we cannot now establish. They could use this to restock and pay the rent out of income or, perhaps, depending upon the date and circumstances, simply hold it and use it to pay the rent. The present Westminster archivist reports that no bank ledgers or other papers survive to resolve the question but if that is what he did, it may be that others did the same and that the level receipts on some other estates conceal some similarly hidden form of subsidy.[37] Unfortunately, it leaves us with no idea of the extent of his help to individuals, and the best we can do is accept the reported assistance of £3,000 as being 12.1 per cent of the rents due for the year. That may not do him justice, but if correct it was proportionately less than Tollemache's contribution, though he was more probably more generous towards the general relief fund.

His son, Hugh Lupus, then Earl Grosvenor but later third Marquess (and created Duke of Westminster in 1874), had written to Gladstone in January 1866, urging stricter measures which, he argued, should have been taken months before. As a Chester MP he was to return to the issue of compensation in a parliamentary debate on cattle diseases on 13 July 1869. His concern then was more for the ratepayers of Cheshire generally rather than the tenant farmers. The proposals that he and others returned to for a national scheme of compensation were firmly rejected on the grounds that although the county had entered into an unwelcome and onerous commitment, it had done so freely and there was no commercial justification for altering it.[38] The debate served more to illustrate the urban-rural divide than any additional concern for tenant farmers.

(d) Egerton of Oulton

Also centred towards the south of the county were the estates of a branch of the Egerton family. We do not have accounts but surviving papers provide a significant amount of

[37] Miss Eileen Simpson to the author, 29 Jan. 2008.
[38] Gervas Huxley, *Victorian Duke* (1967), p. 89; *PD*, 3rd ser., 197, cols 1807–10.

information.[39] First, we can gain something of Sir Philip Egerton's policy from letters he received and an interesting copy of one third that he wrote. Two letters from Philip Humberstone in January 1866 set out plans for financial remedies. In the first, Humberstone advocated landlords adding to any subscriptions to a cattle association that their tenants might make. He suggested that the landlord pay ⅓ of the calls (subscriptions) which, in his theoretical exercise, would cost the landlord £600 a year. That was not a real figure, only an illustration, but it suggests the sort of contribution that he thought reasonable. In a second letter he advocated a relief fund with a contribution from the government (a vain hope), with the balance being raised by a county levy akin to the rate, 'landlord and tenant to pay one half'. It is not clear whether Sir Philip agreed with this, but the terms suggest that the letters arose from earlier discussions and he must have been at least sympathetic. He himself was able to help his tenants in three practical ways. First, he remitted some of the rents for Michaelmas 1866 as is shown in a schedule preserved for Bickerton, Broxton, Egerton and Upton. We do not know whether he made similar remissions for other townships nor whether the reduction was repeated the following Lady Day. For those four townships he gave reductions to nineteen tenants, in sums ranging from £5 (22.2 per cent of the original rent) to £40 (21.1 per cent). The percentage remissions ranged from 10.0 to 25.1 per cent, and the average was 18.8 per cent. The variations make clear that his was an individual case-by-case approach, as we will see again at Arley. We do not know his total rental, though the nominal total was £14,676 according to the 1873 Return, but for those 19 tenants he remitted £333 14*s*. from a gross of £1782 15*s*. 19*d*. This probably helped to ensure that they stayed with him, for, in a review in 1870, twelve of the nineteen were still tenants, with possibly one more as well, but the handwriting is unclear.[40]

Sir Philip's last form of aid was to support his tenants in their claims for compensation from the charitable fund and this is revealed by an exchange of letters between him and Robert Barbour, the High Sheriff. Sir Philip wrote to Mr Durham, chairman of the local relief committee, reporting dissatisfaction over the way the fund was being operated and threatening not to pay his next instalment unless matters were corrected. Durham must have passed the letter to Barbour, who replied in aggrieved terms defending the procedure and the committee's actions. He also asked for examples. Sir Philip supplied eight, which Barbour discussed in a second letter. Five claims had been rejected by the local committee, on unspecified grounds: one had been paid in full 'in the first instance'; one had 'since' been paid and the last had been paid in part owing to a discrepancy in the return, but the balance would probably be paid at the next meeting. Further, he stated, the local committee would look again at the five that had been rejected. As is the way, some complaints were not justified but some were, and Barbour did not say how long it was before the two payments had been made. The point, for our purposes, was that Sir Philip was prepared to lend his weight to his tenants' claims.

[39] The letters are in CRO, DEO 210/13.

[40] In four cases the tenants were different but had the same surname, so were probably sons.

(e) Egerton Leigh

Another, smaller, landlord who seems to have held the same views as Warburton, was Egerton Leigh. He owned land well to the south at Jodrell as well as at High Leigh, only a few miles from Arley. In a letter to Warburton, written on 12 April 1866, when the epidemic was still at its peak, Leigh set out the arrangements he was making:

> I had a very satisfactory rent day considering that my farm fellows on my Jodrell estates have lost 520 animals. I had only 3 arrears, one of £20 in a £100 rent (man had lost 26 animals); another of £55 in a rent of £215 (75 animals dead); & a third of £55 in £110 (lost 53). With the exception of the last, they both promised of their own accord, to [pay] the rest. I had three men who had lost cows before the Act, to one who had lost 88 I gave £40 & promised the same or rather 50 at the next rent day – [To another] who had lost 13 before the compensation, I gave £30 (this man lost 25 after the Act) to another who had lost 2 before the Act I gave £5 – he had lost 75 altogether – to another I gave £8 who had lost three. Thirty-two tenants have been caught 18 small ones two to 14 cows) so far escaped. & I reckon I shall not get off under [600] at Jodrell & perhaps 200 at High Leigh.[41]

This is not a complete picture, but it mirrors what we have seen elsewhere. It is not entirely clear whether Leigh was 'giving' the money as cash or in the sense of 'forgiving' it, but it may be that he was giving a direct and immediate subsidy. He was helping tenants who had lost cattle before the Act was passed. For the three tenants for whom he gave sufficient information, his remissions ranged from 20 to 50 per cent, an average of just under 32 per cent. The varying amounts paid per beast, and why he seems to have given nothing to the remaining 26, remains unclear. It may be that they were compensated by the Act, or it may be that he felt that some tenants were financially sound enough to stand the loss, whilst others were not. Notice too the way in which the plague struck harder at the bigger herds, with the 18 smaller herds so far escaping. Altogether, this letter shows him paying or committing £263 to his tenants: that this was only on one rent day, and, as we shall see, the tenants feared they would not be able to meet their following rent.

(f) Warburton of Arley

It is unfortunate that the Arley records, though voluminous, are quite unhelpful. Although there is a continuous payment record for every tenant, there is no indication in the rental ledger of the nature of the tenancy, and the rents themselves are not totalled. The cashbook shows every payment, with all incidental receipts and a very few rental entries, but the overwhelming majority of rents received is not summarized, there or anywhere else that can be found. As a result, we cannot produce a statement comparing sums written off compared with rents received, and have to settle for a picture that is less comprehensive, though still valuable. Examination of the rental ledger, page by page, shows that allowances were made on account of the plague to 22 farmers, 28 per cent of the whole. The allowances amount to £604, which was an average of 18.3 per cent of the rents for those farmers, though a smaller percentage of the total rental. The allowances ranged from 5.7 to 28.5 per cent, and in cash

[41] Matthews, '"Our suffering county"', pp. 119–20.

terms from £5 (14.7 per cent), to £100 (25 per cent). He may have been giving a subsidy only in respect of livestock lost before the passing of the Act. The relatively low payments, which must reflect the number of cattle lost, accord with the patchy nature of losses in Bucklow Hundred.[42]

(g) Cornwall Legh

Another neighbour of both Egerton Leigh and Warburton was Cornwall Legh, also of High Leigh. Probably following a suggestion from Warburton, he wrote to him on 24 March 1866, agreeing that a co-ordinated response to the threat would be best.

> It must be a matter of very serious consideration what will be the proper and best course to adopt with reference to our Tenants – for to renew their stock soon if they have the capital, is most imprudent at present the land being so much tainted & mere allowance in Rent can only be a [partial] or temporary relief to individuals – & leaves the main question of future management of farms quite undecided – I cannot help thinking that it would be a wise course, if [our] neighbours with our respective agents met together to have a conference in a few weeks, and could come to some resolution of making a suggestion to our tenants, [tending] to encourage them and advise them at this severe moment of trial – if [aid] be given at least a couple of years or more [under] any circumstances to [set] matters into an improving state. Loss of Rent may of course be expected, but the future management and cultivation of the farms appears to me a question of more serious importance [ ], as being of a more permanent character – I do not know if you will agree with me in any of these remarks, hurriedly thrown together, but having the opportunity of thanking you for your most interesting papers, I was led into a few thoughts upon our state – so similar to that of our Ancestors.[43]

Unfortunately, we do not know what Legh actually did, but the tone of his letter suggests that he agreed with Warburton and Egerton Leigh. Significant for our purpose is his explicit concern the future of the countryside.

(h) Marquis of Cholmondeley

It is unfortunate that accounts have not survived but in the letter from Vindex cited above there is an anecdotal reference worth recording.[44] He wrote

> Another tenant of the same [un-named] noble lord had given notice to leave his farm last year, but a week or two before the term of his holding was up, the plague broke out among his cattle and most of them died or were destroyed. Of course he left the farm, and went to his new place under Lord Cholmondeley. His former landlord refused to allow him a penny towards his loss upon the paltry and mean plea that he was no longer his tenant. Although the circumstances were such that the poor fellow had no claim whatever upon the consideration of his new landlord, yet at the first audit Lord Cholmondeley treated him

[42] Arley Hall estate ledgers.

[43] Cited in Matthews, '"Our suffering county"', pp. 113–14.

[44] *Chester Chronicle*, 10 Nov. 1866.

> the same as he did his older tenants, and made him a liberal deduction from his half year's rent.

Vindex went on to reflect upon the nature of good landlords.

(i) Lord de Tabley

Once more, the accounts for the Tabley estates have not survived, but we have two pieces of evidence. The first is a contemporary statement of policy, issued by Lord de Tabley through his agent. Its terms reveal the difficulty in conducting a review of this kind, for whilst setting out a tariff of compensation for his tenants, he also threatened extreme displeasure should its terms be disclosed to the wider public. He also expected that, having received the money, his tenants would stay and use it wisely:

> I wish it, however clearly to be understood that I make this allowance in the full belief that my tenantry will continue to shew their confidence in agriculture by remaining on their farms, and that the money thus allowed to them will be devoted to the renewal of their stocks, and to the cultivation of their land.

The allowances he made ranged from £1 for a calf, to £5 for a cow for beasts lost before the passing of the Act, with an undertaking to pay more should public compensation not be received. We cannot establish how much this cost him in total.

The crisis prompted by cattle plague was met by rent remissions and, in some cases, grants by landlords to compensate tenants for their loss of animals. The question might reasonably be asked whether the landlords managed to recover any of these costs through higher future rents. There is no conclusive evidence that they tried to do so. On the Tollemache estates between 1864 and 1873, rents grew by 28 per cent on the family's southern Cheshire estates, and 12 per cent on their eastern estates. It was the former estates which were worse affected by cattle plague, but both estates saw continued heavy investment in improvements in the years after the cattle plague years, and any attempt to recover lost rent from tenants cannot be distinguished from the interest Tollemache charged his tenants for his investment. The appearance is then that the cost of the disaster was, to some degree, at least carried by the landlords.

V

The impact of the plague on the tenants can be described least well of all. It is plain enough that the mix of landlord rent remissions, landlord compensation and charitable grants could not have entirely covered the losses suffered by the tenants. There was, in the first place some anxiety about tenant liquidity, but a search of the Cheshire newspapers finds no instances of farmer's bankruptcy. Comparisons of rentals before and after the plague do not suggest any great turnover of tenants. Exactly how they survived must remain, for the time being, something of a mystery.

Three factors must be considered here. The first is that cheese was kept to mature for some months on the farm before it was sold: the crisis of liquidity would follow the loss of animals

by some months. As Egerton Leigh said in a letter to Rowland Egerton Warburton in April 1866, discussing his last rent day:

> They all said that the next rent would be a most doubtful affair as the present one was a cheese rent and a cowless cheese is not yet invented. I told them I should be ready to meet their hopes at the next rent day with every consideration and that every case would have its own arrangements.[45]

The second is that it was not prudent to restock a farm (even if it was possible once restrictions on the movement of cattle had been introduced) until there was confidence that the disease had burnt it self out and posed no further danger. Egerton Leigh had evidently suggested that his tenants bought sheep to tide them over: 'They all said sheep would never pay at present prices besides not understanding them'.[46] There are reports of farmers who restocked too soon and lost a second herd to rinderpest.[47] The third is that some cheese and milk production may well have continued at a low level on affected farms, for the disease may not have carried all before it. But exactly how individual farmers survived the crisis must, for the moment, remain elusive. The one available farmer's account book spanning the mid-1860s does not greatly help us here. John Byram's accounts are really accounts of his cheese sales and a limited range of outgoings, and are by no means comprehensive farm accounts. They show that he paid his rent in full to the Grosvenor estate throughout the years of crisis, but that his turnover barely covered his rent in 1865 and 1866, years in which he really did work for his landlord. The accounts do not show that Byram received an allowance from the estate for his losses, but most crucially, with their focus on cheese sales, they tell us nothing about his purchase of cattle. They show that he quickly bounced back. In 1866 he lost all his cattle save six but by 1868 he was back to 43 animals and produced 4.4 tons of cheese. When, where and at what price he restocked is simply not reported by the accounts, and yet his income from cheese had returned to normal levels in 1868. It is possible that Byram liquidated some of his investments in the Mersey Docks and Harbour Board to release capital, but the extant accounts do not tell us. On the Arley estate, one tenant with 50 cows in 1865 was reduced to a mere six the following year, the remainder taken by rinderpest. In 1867 he had 38 and the following year 41 head. How he managed this we are not told.[48] It is thus frustrating that a question whose answer must have been so well known and familiar to contemporaries, has left so little trace in the records.

VI

Having reviewed the evidence we must return to our opening question: to what extent does Stead's argument hold when measured against the crisis year of 1865–6? In Cheshire, few farmers had holdings big enough to generate the surplus needed for them to become truly independent. Even Byram was helped on two occasions, once in disaster but once in much less serious circumstances. Most improvements whether to buildings or land were usually funded by the landlords, albeit recouped through a rent supplement – for drainage five per

[45] Matthews, '"Our suffering county"', p. 119.
[46] Ibid.
[47] Ibid., p. 113.
[48] Ibid., p. 102.

cent of the capital value on the Crewe estates – but the landlord bore the risk of their not being properly undertaken. In entering into a lease for a small farm, the landlord could not avoid a continuing responsibility for the maintenance of the landscape: he had to pay but bore the risk of incompetence or neglect by a poor tenant. That risk continued in well understood terms in normal years, but, when there was a crisis, or even a difficulty short of a crisis, the landlord had no option but to assist his tenants. He could do so selectively according to their individual needs, and depending upon the varying impact of disease some might need more help than others. A few might be allowed to go if they were weak or incompetent but no landlord could afford to lose them all. His pocket was all that lay between tenant and ruin and most landlords accepted the challenge either through a feeling of benevolence, social pressure from outside or their own sense of obligation. The landscape was theirs and they had to preserve it. In these extreme circumstances, as in periods of prolonged depression, Stead's argument does not hold, for it was the landlord, and not the tenant, who bore the ultimate risk.

The White Paper, *Agricultural Policy,* of 1926: its context and significance*

by John Sheail

Abstract

The dislocation caused by the repeal of the Agricultural Act of 1920 had made any agreement, either within farming itself or between the different political parties, as to how the highest economic return might be obtained from the land whilst providing a reasonable livelihood for those engaged in the industry, even more elusive. The White Paper, *Agricultural Policy,* of 1926 claimed its provisions, when taken together, offered the support and confidence farmers required to help themselves, whilst avoiding any controversial initiatives. The synthesis of 'expert' opinion, parliamentary lobbying and ministerial discussion, encapsulated in the White Paper, affords an example of the difficulties government met in reconciling expectations of a more proactive approach to policy making with the variety of insight and enterprise called for in 'modernizing' an industry so diverse in its circumstances as agriculture.

Analyses of the implementation of the hurried abandonment of government intervention in the economy following the Great War have ranged little further than the immediate post-war years. The impacts of the desire to return to the 'normalcy of 1914', and to restore 'home rule for industry', were felt over a much longer period. The Ministry of Agriculture provides an outstanding example of the severe constraints upon policy making experienced by the inherently interventionist departments established immediately after the war, covering the major domestic fields of agriculture, health, labour and transport.[1]

Given that the White Paper, *Agricultural Policy*, of February 1926, was the first major policy appraisal to be published by the Ministry of Agriculture covering the totality of its field of responsibility, agricultural historians have paid surprisingly little attention to its content, or indeed its authorship.[2] Edith Whetham referred briefly to its 'minor ameliorations', farmers being left otherwise to find their own 'financial salvation'.[3] Andrew Roberts, the most recent biographer of Edward Wood (Lord Halifax) found nothing auspicious about his single year (November 1924–October 1925) as Minister of Agriculture, except perhaps in providing an early example of his later endeavours as Foreign Secretary to 'strike' balances in what proved

* I am grateful for the constructive comment of the anonymous referees, and the guidance and assistance of The National Archives and Cambridge University Library.

[1] R. Lowe, 'The erosion of State intervention in Britain, 1917–24', *EcHR* 31 (1978), pp. 270–86.

[2] British Parliamentary Papers (BPP), 1926, XXIII, Cmd 2581, *Agricultural Policy.*

[3] E. Whetham, *The Agrarian History of England and Wales,* VIII, *1914–39* (1978), p. 165.

to be fruitless negotiation.[4] Halifax recalled his position as one of 'almost complete futility and frustration'. Given the political atmosphere, the only sound advice which he could give to farmers was to lay down their arable to grass, cut labour, and run their holdings on dog-and-stick lines. Fortunately he was soon appointed Viceroy of India.[5] The state of the economy limited such 'amelioration' as his successor, Walter Guinness, was able to announce in the White Paper.[6]

Only recently has the White Paper attracted substantive notice. Paul Brassley cited its main recommendations as illustrative of what ministers believed to be 'the right course in the best interests of the industry itself and of the nation as whole', namely:

> to proceed on the lines of education and encouragement rather than of coercion, to endeavour to create that confidence which is essential for progress, to stimulate the private enterprise of those engaged in the industry, to assist them to organise themselves on an economic basis, and to protect them from the dislocation of reversals of policy and from rash proposals which would impair progress and breed insecurity.[7]

The purpose of this paper is to explore the chronology of conferences and consultation, and of ministerial decision and parliamentary pressures, which led to the publication of the White Paper. Such policy making is perceived neither as 'a complete disjunction' between those wanting to preserve some kind of 'traditional hierarchical society' and advocates of a more 'narrow business approach', nor indeed as a jostling for influence between modernizers and those of a more paternalistic stance. The inception and drafting of the White Paper would appear much more characteristic of what Philip Williamson described as the Conservative method of efficient and economical administration, sound finance, prudent tax relief, preservation of imperial interests, and consolidation of well-established official policies.[8]

This paper seeks to place the 1926 White Paper in a longer perspective starting with agriculture's reversal of fortune in 1920. It falls into seven parts. The first considers the problems faced by the newly-established Ministry of Agriculture, the second the 'Great Council of the Soil' and the third the sectoral consultation which followed, the fourth and fifth the development of

[4] A. Roberts, '*The Holy Fox*'. *A biography of Lord Halifax* (1991), p. 17.

[5] Earl of Halifax, *Fulness of Days* (1957), pp. 100–1. Edward Wood (1881–1959), latterly Viscount and finally Earl of Halifax, was a large landowner in Yorkshire. His first class degree in modern history had been followed by election to a fellowship at All Souls. Elected as a Conservative Member of Parliament in 1910, he had, following military service and appointment in the Ministry of National Service, served as Under-Secretary for the Colonies in 1921, and President of the Board of Education in 1922. He served as Viceroy of India, 1926–31.

[6] Walter Guinness (1880–1944), cr. Lord Moyne, 1932. Following military service, Guinness served successive Conservative Governments as Under-Secretary of War, Financial Secretary to the Treasury, and Minister of Agriculture (F. Mullally, *The Silver Salver: The story of the Guinness family* (1981), pp. 65–6). As Minister of Agriculture he was responsible for the introduction of the national mark on eggs. He was assassinated by Zionist terrorists in Nov. 1944. *ODNB*.

[7] P. Brassley, 'British farming between the wars', in P. Brassley, J. Burchardt and L. Thompson (eds), *The English countryside between the Wars* (2006), pp. 190–1; *Agricultural Policy*, p. 3.

[8] A. F. Cooper, *British agricultural policy, 1912–36* (1989), pp. 64–93; P. Williamson, *Stanley Baldwin* (1999), p. 34.

policy which preceded the publication of the White Paper, and the sixth part the publication of the White Paper. A conclusion follows.

I

Edith Whetham's portrayal of the hasty repeal of the Agriculture Act of 1920 as the 'Great Betrayal' has encouraged historians to investigate who actually betrayed whom.[9] The National Farmers' Union (NFU) was as keen as the government to secure some kind of permanent settlement. That appeared to be met by the guarantees given to prices and wages under the Agriculture Act of 1920, with its four years' notice of any termination. Market prices began to fall in early 1920 as overseas supplies became more plentiful. Not only was the cost of honouring such guarantees deemed prohibitive, but politically such 'artificial assistance' became untenable as other 'great' industries were affected even more severely by trade depression and unemployment. The NFU was supportive of withdrawal to the extent of obtaining abolition of the wages boards. Even if not an instigator of tariffs or subsidies, the Ministry might facilitate the means by which farmers could once again find their own salvation.[10]

There had never been consensus as to the scale and character of support for post-war agriculture. The majority report of the Royal Commission on Agriculture of 1919 might have prevailed, in as much as the Agriculture Act of December 1920 incorporated its main recommendation of guaranteed prices for wheat and oats as a means of sustaining the ploughed area. The minority report anticipated, however, many of the arguments which came to prevail in assessing the balance between prices, production costs and remuneration of labour, claiming that there:

> was nothing in the conditions under which the industry was carried on before the War, or in the prospects now before it, [that] would justify us in recommending the continuance of the policy of guaranteed prices for cereals.

But whilst the farmer should be left free in normal times 'to use his own judgment as to what he shall produce and as to how he shall produce it', the minority report also argued that 'the State must be prepared to take a very active part in its development'. There was 'a great need for the thorough exploration of such subjects' as education, including research and demonstration, dissemination of information, the equipping and capitalization of farms, and reform of 'the Agricultural Holdings Acts, local rating, cooperation and transportation' in promoting 'the general well-being of the industry'.[11]

The legislative adjustment to peacetime conditions had begun in the autumn of 1919, with

[9] E. Whetham, 'The Agriculture Act 1920 and its repeal – the "Great Betrayal"', *AgHR* 20 (1974), pp. 36–49.

[10] A. F. Cooper, 'Another look at the "Great Betrayal": agrarian reformers and agricultural policy in Britain', *Agricultural Hist.*, 86 (1986), pp. 81–104; E. Penning-Rowsell, 'Who "Betrayed" whom? Power and politics in the 1920–1 agricultural crisis', *AgHR* 45 (1997), pp. 176–94; J. Brown, 'Agricultural policy and the National Farmers' Union, 1908–1939', in J. R. Wordie (ed.), *Agriculture and politics in England, 1815–1939* (2000), pp. 180–1.

[11] BPP, 1919, VIII, Royal Commission on Agriculture, *Interim Report*; Whetham, *Agrarian History*, VIII, pp. 119–21.

a debate on the Agriculture and Fisheries (Councils etc.) Bill. In moving the Second Reading, the Parliamentary Secretary, Sir Arthur Boscawen, spoke of how the Board of Agriculture had reflected the decades of agricultural neglect, it being a 'sort of negative department', with certain 'policing' duties such as eradicating animal diseases. It had taken no active role in developing farming and 'looking after the possibilities of rural life'. Although the War had changed all that, and the Board was now expected to maintain and stimulate production, Boscawen warned that there must be no slipping back, as 'the immediate submarine menace' passed. One effective way of achieving that was to put the county war agricultural executive committees on a permanent, peacetime footing, and for the Board to appoint Councils of Agriculture for England and Wales. The Minister hoped the Councils, representative of each county committee and of the respective farming sectors (the landowner, farmer and agricultural worker), would come in time to act as 'agricultural parliaments'. Captain Edward Fitzroy successfully moved an amendment during the Bill's second reading, whereby parliament recognized the Board's considerably enhanced, peacetime role by giving it the title of 'a real Ministry'. It became the Ministry of Agriculture and Fisheries Bill.[12]

However much it was 'a machinery of government' bill, there was political intent. The Liberal member, Francis Dyke Acland, saw the affirmation of the county committees, as the local counterparts of the Ministry's 'headquarters', to be essential in assuring the public of minimal levels of production, trading and organization. Fitzroy rejected all notion of 'a spoon-fed industry', but he believed 'a little wise expenditure, most obviously on research, would produce results of 'incredible value'. Whilst the Corn Production Acts (Repeal) Act of 1921 removed the regulatory element, the committees' potential as a facilitatory, educative force remained.[13]

The Ministry may not have been a new department, but its enhanced responsibilities were integral to the same post-war aspiration which caused the Ministries of Labour, Health and Transport to be established. It too was exposed to what Rodney Lowe has characterized as the political ambivalence, stultifying Treasury control, and inherent weaknesses which afflicted those other departments.[14] Much has been made of Stanley Baldwin's evocation of the qualities of farming and the countryside but, as Williamson has argued, his over-riding concern was electoral, especially following the trebling of the franchise to include working class and female voters. It made for an even more 'kaleidoscopic picture' in which, as Baldwin expressed it, as President of the Board of Trade in June 1921, 'we find ourselves in the presence of a phenomenon, strange to us, and to which we are unaccustomed'. The whole economic environment was changing so much. His decision, taken on a balance of risks in the autumn of 1923, to use tariffs to revive manufacturing industry and subsidies to maintain the arable

[12] *Parliamentary Debates* (*PD*), *Commons*, 121, col. 267–76, 281–4, and 1955–7, and *Lords*, 37, col. 812–5. Edward Algernon Fitzroy (1869–1943), Northamptonshire landowner, was the second son of the third Baron Southampton, and sat for Northamptonshire seats from 1900 to 1906 and from 1910 onwards. He served as deputy chairman of committees 1922–24 and 1925–28, when he became Speaker of the House of Commons, a post he held to his death. His widow was created Viscountess Daventry. He was described in 1918 as one of the 'solid block of county members who really are the backbone of our Party'. *ODNB*.

[13] *PD*, *Commons*, 121, col. 300–2. See, for example, E. Melling, *History of the Kent County Council* (1975), pp. 35–9.

[14] Lowe, 'Erosion of state intervention'.

area, met with electoral defeat.[15] He thereafter spoke of his willingness to give sympathetic consideration to any practical proposal, but emphasized how agriculturalists, for their part, must recognize how the electorate had made plain its opposition to import duties on staple articles of food, and of how taxation was already so heavy as to rule out such 'expedients' as subsidies, which would add materially to national expenditure.[16]

Ramsay MacDonald, as Prime Minister of the first Labour government, similarly recognized such constraints. Not only had the Cabinet's Agricultural Policy Committee wanted further 'expert' consultation before recommending any 'full policy', but the Treasury's Controller of Supply Services, Sir George Barstow, wrote of his 'immense relief' that the Prime Minister had accepted that neither protective duties nor food subsidies should be adopted. 'Agriculture must be conducted on an economic basis without artificial supports from the public purse'.[17] MacDonald, in his statement of February 1924, spoke of how 'all extraneous aids to agriculture' would only cause 'a further deterioration of the agricultural mind'. Farmers would come to depend upon 'the power of the State and their influence in Parliament to get doles from the public purse, instead of solving their own problems by applying their own energy'. Towns would be induced 'to regard agriculture as something that preys upon them'. There would have to be 'control of the most definite, detailed, and oppressive kind' to assure parliament that such bounties were achieving their object. MacDonald was perfectly certain that 'farmers would not agree to it'. MacDonald's statement, as drafted by the Cabinet's Agricultural Policy Committee, insisted that the government's role was one of restoring the machinery to ensure a reasonable level of wages and to provide such encouragement as might develop and extend co-operative organization and credit facilities. Every assurance should be given to smallholdings and allotments, and for the further extension of education and research. Funds for land drainage should be increased, and greater use made of the county councils' agricultural committees in raising farming standards and generally improving village life.[18]

Such political statements drew heavily upon 'expert' inquiry. The unfavourable comparisons drawn by some members of parliament between agricultural productivity in Britain and Germany had caused an 'expert' Agricultural Tribunal of Investigation to be appointed, in December 1922, to look into:

> [the methods] adopted in other countries during the last fifty years to increase the prosperity of agriculture and to secure the fullest possible use of the land for the production of food and the employment of labour at a living wage, and to advise as to the methods by which those results can be achieved in this country.[19]

[15] Williamson, *Baldwin*, p. 172; PD, Commons, 142, cols 1573–4.

[16] Cambridge University Library (CUL), Baldwin MSS 25.

[17] TNA, CAB 23/47 (Cabinet Conclusions (C) 9(24)5, and C 11(24)3, and Appendix III (Cabinet Paper (CP) 81(24)), and T 161/179 (Agricultural policy 1924 – financial requirements, and Agricultural policy – proposals 1925–26).

[18] *PD*, *Commons*, 169, col. 764–7.

[19] BPP, 1923, IX, Cmd 1842, Agricultural Tribunal of Investigation, *Interim Report*. The Prime Minister appointed Sir William J. Ashley, Emeritus Professor of Commerce, Birmingham University; Professor W. G. S. Adams, Gladstone Professor of Political Theory and Institutions, Oxford University, and Professor D. H. MacGregor, Professor of Political Economy, Oxford University, to comprise the Tribunal. C. S. Orwin was appointed Agricultural Assessor.

The three leading economists, in acknowledging the industry to be in a 'very serious crisis', attributed the post-war decline in the arable area to two factors. Whereas farming remained the largest industry in most countries, the fact that it had fallen to fourth place in Britain meant a larger proportion of the population had a vested interest in food imports, both for their comparative cheapness and for the potentially-larger export markets for British manufactured goods. The second level of explanation focused not so much on the productive side of home agriculture, but on 'the dissipation of the monetary return'. The leading continental producers had a much more organized provision of agricultural credit, more farming 'advisors', more small-scale cultivation, and highly developed cooperative organizations.[20]

The Agricultural Tribunal warned, however, that even if farming met its potential efficiency and profitability, there might still be a reduced area of arable and, therefore, reduced food output and employment. Why then was so much significance placed on arable farming? Of the three reasons adduced, namely the inseparability of farming from the plough and the store set by 'a flourishing rural population in the concentrated and intense life of the modern industrial state', the most pressing recently had been that of defence. It was however highly unlikely that all-party support would match the level of 'national insurance' required to restore the arable area to its level of 1918, namely the ploughing up of 2.5 million acres. It would require a public subsidy of £7 million, almost the cost of building a battleship each year. Nor did the Tribunal believe that 'the more scattered, more individual and less corporate nature' of farming merited such exceptional support. The requirement was rather for 'a policy pursued year in, year out, which combines research, education and organization'. As the Tribunal's interim report of March 1923 expressed it, 'Better farming, better business, better living' was 'the complete policy, and no part of this can be neglected'. With a more focused provision of agricultural credit, and expansion of the training and research required to instil a greater scientific and business-like awareness at the individual-farm scale, the Tribunal believed there was every reason to expect farmers to achieve, on their own initiative, the 'great developments in cooperative purchase and sale' found in some other European countries.[21]

Alongside such 'expert' opinion, Noel Buxton (the Minister of Agriculture in the first Labour Government) wanted intimation of what prominent agriculturalists and farming organizations believed should constitute 'a stable and permanent policy'. As Buxton wrote to George Dallas of the Agricultural Section of the Workers' Union, 'the government is not prepared to adopt either protection or subsidies as a remedy for agricultural depression, but, apart from those forms of assistance, we are anxious to consider any suggestions which might be made to us'. The replies to 'the Minister's questionnaire on agricultural policy' were analysed in late April. Only increased expenditure upon agricultural education and research was likely to be universally welcomed. There was little enthusiasm for the development of credit schemes, or indeed for cooperation. There was deep division as to wage regulation. But most strikingly, there was an insuperable 'cleavage between those who do and those

[20] BPP, 1924, VII, Cmd 2145, Agricultural Tribunal of Investigation. *Final Report*.

[21] Ibid., pp. 192–204. The report of Professor MacGregor.

who do not regard a subsidy, guaranteed price or protective duty as an essential condition of agricultural revival'. Taken together, there appeared little 'ground for hoping that any comprehensive agricultural programme' could be 'drawn up on non-party lines which will commend itself to the agricultural world generally'.[22]

II

There was political consensus only to the extent that both the Conservative and Labour parties believed there could be no permanent solution to the problems of agriculture without the common agreement of all parties. Confronted therefore by an impasse as to what that agreement should comprise, the Conservative Party's election manifesto of 1924, *Looking ahead*, went no further than to promise that 'the Unionist Party, when returned to power, will call a conference representative of all those interested in agriculture, and of the various political parties, with the object of arriving at an agreed policy'. Both agriculture ministers in the new Conservative Government, Edward Wood and the Secretary for Scotland, Sir John Gilmour, saw their priority as agreement within the industry. The Cabinet of 12 November 1924 agreed to a conference being held with agricultural interests to agree, if possible, 'the general lines of an agricultural policy' which, subject to the agreement of the other political parties, might be adopted as 'a national policy'.[23]

Wood was first off the mark with what one biographer called 'a high-sounding statement', on 28 November 1924, observing that, whilst there had been numerous and exhaustive inquiries, there was still no agreement on the main principles of agricultural policy.[24] A further attempt should be made, by way of a conference, the object being to agree:

> that the industry should be conducted in such a manner as will secure the maximum employment of labour at reasonable rates of wages, together with the full use of the land for the production of food at the lowest possible prices consistent with a fair return to all those engaged in the industry.[25]

Wood had warned the Cabinet, in obtaining its consent to the conference, that, unless all the objects were simultaneously attained, 'no measure for the relief of agriculture', nor assistance for any particular section, would 'secure the lasting support of the industrial population of this country'. But with that accord, there was a good prospect that such a programme, however radical, would be accepted by all the political parties. In asking the Conference to assume the need to raise the arable area by at least one million acres in order to obtain greater employment and volume of saleable-produce, he also emphasized the need for every type of land use to be as productive as possible, noting that livestock production contributed some 75 per cent of the total annual value, with fruit and vegetables representing a further 10 per cent. The Cabinet approved a parallel Scottish conference to consider 'what measures,

[22] TNA, MAF 38/640 (Agricultural policy 1924 – invitations to various sections of agricultural industry to submit views).

[23] TNA, CAB 23/49 (C 59(24), 3).

[24] A. Campbell Johnson, *Viscount Halifax* (1941), pp. 126–7.

[25] TNA, MAF 53/120 (Agricultural policy, 1924–1938).

if any, are necessary, either by the State or by the agricultural industry itself, or by both in concert', to maintain and to increase the arable area, and 'by what further measures the economic maximum production of food from all the agricultural land of the country can be stimulated'.[26]

The Scottish Conference, comprising leading landowners, tenant farmers, smallholders and farm workers, held the first of its eight meetings on 31 March 1925. It recognized farming to be 'one of the especial cares of the State', and that tariffs or subsidies were the only way of reversing quickly the 'retrograde' loss of some 200,000 acres of arable land since 1918. There was however so little possibility of their political acceptance that the Conference could recommend only less heroic remedies which, although not very far-reaching in themselves, might have the cumulative effect of maintaining the arable area, producing to a better average standard of farming, and securing a larger rural population.[27] Gilmour responded to criticism of the recommendations as being too timid and 'anaemic' by praising the Conference for avoiding 'propositions which were in the main outside the possibility of achievement'.[28] The fact that the Conference's report was not published until June 1925 meant account could be taken of the *debacle* of Wood's proposed Conference.

Biographers describe Wood's bitter disappointment at the failure of his own 'Great Council of the Soil' even to meet.[29] The invitations had explicitly required delegates to carry the full weight of their respective bodies. The landowners' organizations agreed to send three representatives. The NFU believed the Conference pointless, given the Government's pledge not to raise food prices and therefore not to invoke tariffs. In a sharp exchange, Wood both dismissed the Union's claim that there was nothing which the industry could do to improve its position, and insisted that the government would have a duty to consult the other political parties, whatever the Conference's recommendations as to some form of State action.[30] The National Union of Agricultural Workers and the Workers' Union both refused to participate. As Tom Williams, a Labour Party agricultural spokesman, recalled later, they refused to be led into a trap where the employers and landowners were bound to vote them down.[31] Despite pressure from the Unionist Agriculture Committee to proceed, Wood was adamant that the whole purpose of the Conference was lost.[32] Some little time later, Lloyd George produced his Land Reform plan for the Liberal Party, which was followed by publication of the Labour programme for land nationalization, control of cultivation, and stabilization of prices.[33]

[26] TNA, MAF 53/61 (Agricultural policy, Nov. 1924-Feb. 1926) and 66 (Government's agricultural policy, 1925); CAB 24/169 (CP 504(24)), and CAB 23/49 (C 64(24), 7).

[27] Secretary for Scotland, *Report of the Scottish Conference on Agricultural Policy* (1925); National Archives of Scotland (NAS), AF 43/243 (Scottish Committee on Agricultural Policy, 1925).

[28] *PD*, *Commons*, 197, col. 666–7, and 683–4.

[29] S. Hodgson, *Lord Halifax. An Appreciation* (1941), pp. 51–3; Earl of Birkenhead, *Halifax* (1965), pp. 162–5.

[30] TNA, CAB 24/169 (CP 519(24)), and CAB 23/49 (C 65(24), 7).

[31] T. Williams, *Digging for Britain* (1965); J. Sheail, 'Agriculture in the wider perspective', in Brassley *et al.* (eds), *English countryside between the wars*, p. 151.

[32] TNA, MAF 53/61, and CAB 24/171 (CP 93(25)); *PD*, *Commons*, 191, col. 109–14.

[33] C. Griffiths, *Labour and the Countryside. The politics of rural Britain, 1918–1939* (2007); M. Tichelar, 'The Labour Party and land reform in the inter-war period', *Rural Hist.* 13, (2002), pp. 85–101.

III

Wood had obtained Cabinet approval on 25 February 1925 (even before the Scottish Conference met) for a two-part reply to an arranged Parliamentary Question. It blamed the labour unions for destroying what might 'have proven the foundations of an agreement between political parties as to a permanent national policy'. It was now for the government to frame such proposals as were 'consistent with the necessity of protecting the industry from the danger of sharp reversals of national policy'. To that extent, and in obtaining the Cabinet's approval to his having separate consultations with a much wider array of agricultural bodies, Wood had ratcheted forward the policy-making process.[34]

Wood's position, in undertaking such consultation, was set out by Sir Francis Floud, his Permanent Secretary. Newspapers continued to refer to 'the plight of agriculture' but, as Floud pointed out, prices had stabilized. Lower wages and cheaper feedstuffs and fertilizers had helped to bring expenditure more into line with receipts. The Ministry's Chief Scientific Adviser, Sir Daniel Hall, confirmed, in April 1925, that world prices for agricultural produce showed every promise of continuing to rise. Nor was the industry so disadvantaged as often claimed. Agriculture had received greater government attention than in any previous decade. Nearly £66.5 million had been provided by way of support over the previous seven years. Citing the recently-published 'expert' reports, Floud contended that the government should 'concentrate on strengthening the weak places in the industry', recognizing that, in so far as there was 'no royal road to the agricultural millennium', this must necessarily be a somewhat slow process. Hall similarly believed it was better, for the time being at least, 'to trust to the slow progress achieved by education and to minor measures for the improvement of farming'.[35]

Turning to the opinions Wood was likely to encounter in his consultations, Floud wrote of how the abandonment of the Conference had shown most forcibly the difficulty of raising food production and the standard of living of those engaged in the industry in a way that was to the national advantage. Tariffs must not be allowed to sacrifice 'Britain's industrial supremacy', however small the agricultural base might become. The country's best interests were most effectively met by concentrating on manufactured exports, importing food from wherever it was cheapest and, thereby, supporting a much higher population than by any spurious policy of self-sufficiency.

As to the other 'heroic remedy', some form of subsidy, Wood had signified, on the day of his original announcement of a Conference, the adoption of the previous government's Sugar Beet (Subsidy) Bill. His 'patient competence' secured its enactment.[36] Crucially, he overcame fears of farmers being paid to do what they should have done anyway. If successful as a new crop, the ten-year diminishing subsidy would assuredly raise output and employment. At his meeting with Wood on 30 March 1925, the NFU President, Rowland R. Robbins, was concerned lest the Union was manoeuvred into a position where, by accepting subsidies in 'homoeopathic

[34] TNA, MAF 53/61, and CAB 23/49 (C 10(25), 5); *PD, Commons*, 181, col. 18–9; Anon., 'Council for Agriculture for England', *J. Ministry of Agriculture* 32 (1925), p. 54.

[35] TNA, MAF 53/62 (Agricultural policy, Nov. 1924 to Feb. 1926. Conservative administration) and 66.

[36] Campbell Johnson, *Halifax*, p. 127.

doses', it had to accept such conditions as the Exchequer might impose, particularly given that a subsidy of at least £2 per acre might be required to have any impact. On the premise that farmers were more hostile to control than they wanted subsidy, Wood affirmed in a note to Baldwin in May 1925, that both subsidies and tariffs were outside 'the pale of practical politics'. It was 'both sound and politic to stand upon the ground that encouragement is more powerful than coercion'.[37]

The separate consultations made little headway. John Beard and George Dallas of the Agricultural Section of the Workers' Union, at their meeting with Wood in May 1925, indicated that they had come not to make 'any concrete suggestions', but rather to give their opinion on any points the Minister wished to raise. Nor was there positive recommendation from the NFU. When Wood asked for the 'real view at headquarters' as to how the inefficient, idle and bad farmer should be dealt with (particularly with the proportion of holdings in owner-occupancy increasing), Robbins conceded that theoretically, wilful neglect should not be tolerated. The Union would, however, incur much abuse if it were publicly to support such intervention. Recalling their wartime experience, members would be afraid that any move to deal with bad farmers would soon encompass those farmers whom, however diligent, were adjudged to be making insufficient use of their land. It was no injustice to a future Labour government to assume its drastic use of such a power in deciding what was essentially the mode of cultivation.[38]

There remained the one body which the Minister was required to consult, the Council of Agriculture for England, as established by the Ministry of Agriculture and Fisheries Act of 1919. A representative committee was appointed to draft its response to Wood's request for advice on how the industry might achieve 'the maximum employment at a reasonable rate of wages, together with the full use of land for food production at the lowest possible price consistent with a fair return'. The draft of August 1925 went further than had other consultees in actually suggesting what it perceived to be the most efficacious form of subsidy. Rather than being paid on all arable land, the sum of £2 per acre might be given on roughly a quarter of that area, namely upon the fallow crops and land forming part of the farm rotation. It would both help to keep the land in good condition and provide for a full complement of men, horses and equipment. Yet even such a compromise was severely criticized when debated at a special meeting of the Council in August 1925. The Committee's chairman, Lord Clinton, protested that the intention was not to help farmers 'carry on'. They had never asked for a subsidy. Nor did they need one to make a living. The purpose was rather to enable 'a satisfactory number of men to be employed at a decent rate of wages'. The Conference agreed by 49 to 14 votes to recommend the subsidy.[39]

Nothing had really changed, in as much as Lord Clinton had made any subsidy conditional upon there being an overriding imperative. None was found. Floud was confident that farmers could sufficiently adapt, provided they were told clearly by all political parties what was expected of them. The NFU did not demur. When asked by Wood whether 'the industry

[37] TNA, MAF 53/61.
[38] TNA, MAF 53/62.
[39] Anon., 'Council for Agriculture for England', *J. Ministry of Agriculture* 32 (1925), pp. 525–35; Council for Agriculture for England, *Report on Agricultural Policy* (1925).

should be left to work out its own solution on purely economic lines' – that it should follow whatever course was profitable, even if that meant less output and labour – Robbins indicated that 'if the country were prepared to face the consequences', his members would have no complaint. Crucially, the Cabinet Committee for Imperial Defence had found no case for requiring farmers to produce more in peacetime than economic considerations permitted. Lord Bledisloe, the Parliamentary Secretary, wrote of how the farming community must accept such a verdict as final. It was not only better business for farmers to devote their energies to livestock husbandry, but it had been 'the unturned grass' which had provided the fertility so desperately needed for the crops grown in the Great War.[40]

The eventual White Paper of February 1926 confirmed wide support for a national policy aimed at securing the 'highest economic possibilities' for food production and 'a reasonable livelihood for the greatest number of people'. The tariffs required by such a policy would be contrary to Government pledges and the policies of the other political parties. A subsidy of even £2 per acre might be insufficient to achieve any significant increase. As with many industries, farming had been severely hit by the post-war fall in prices, but had weathered the storm. The government accordingly believed the right course was to proceed along the lines of education and encouragement; to assist the industry itself onto a more economic basis, and to protect it from such dislocation as would impair progress and breed insecurity.[41]

IV

The special meeting of the Council of Agriculture for England in August had approved, without dissent, the greater part of the drafting committee's report, supporting the emphasis placed by Wood upon cutting costs and improving agricultural marketing. It was the approach long advocated by Lord Bledisloe, the Parliamentary Secretary.[42] His admonitory stance had been well displayed by his address to a Gloucestershire branch of the NFU in January 1925, and his enunciation of what were rhetorically called his 'five extremely unpopular propositions'. The first of these was that the farming community would never win the respect it deserved without greater unity on the broader issues. Second, Bledisloe argued that it must cut production costs, paradoxically through larger outlay on labour-saving machinery and 'the instructed, far-sighted, and well-informed use of artificial fertilisers'. Third, there needed to be a greater resourcefulness, most obviously in keeping abreast of scientific and technical advances. Fourth, there had to be greater cooperation in the production and sale of produce, and fifth much more focus on providing both what consumers wanted and to a higher and more uniform standard. The Scottish Conference and the numerous other memoranda and consultations came to very similar conclusions, any differences arising from the priorities set in tackling them.[43]

[40] TNA, MAF 53/62; PD, Lords, 61, col. 418.

[41] *Agricultural Policy*, pp. 2–3.

[42] The owner of a 4000-acre Gloucestershire estate and Unionist Member of Parliament, Charles Bathurst (1867–1958) had been ennobled as Lord Bledisloe for his war services (he was later elevated to a Viscount), served as President of the Central Landowners' Association and, at times, was closely associated with the agricultural policies of both Lloyd George and Ramsay MacDonald. *ODNB*; E. J. Russell, 'Obituary', *J. Royal Agricultural Society of England*, 119 (1958), pp. 57–9.

[43] CUL, Baldwin MSS 25.

Floud had remarked that the most valuable stock on any holding were people but, as Bledisloe warned, in commenting on a draft Cabinet paper of September 1925, any greater opportunity for training and research would never carry conviction without reasonably certain prospects of using them. Of the various lines of 'useful' assistance, the White Paper placed credit at the forefront. An 'official' Cabinet sub-committee had reported on the inadequacy of agricultural credit in January 1923.[44] Floud identified the unprecedented break-up of the landlord-tenant relationship, and consequent loss of cheap capital, as the weakest part of the agricultural system. As Wood spelt out to Baldwin, the large landowners, so often the pioneers of nineteenth-century 'high' farming, had sold up, or had become so impoverished that they were mere rent-collectors. Especially where they had been forced to buy their holdings or face eviction, many of the new owner-occupiers were forced to economize in all directions. The Council of Agriculture perceived the unprecedented changes in land ownership as simply exacerbating the chronic under-capitalization of the industry, pointing to the great advantage of the agricultural banks in other countries with their commitment to, and detailed knowledge of, the sector.[45] The White Paper acknowledged the need to bring 'the general credit machinery' more into line with existing economic needs. Bledisloe added, in the House of Lords' debate on the White Paper, how negotiations were underway with the joint stock banks. A report recently published by the Ministry's economists had identified how they might act as a channel for a central bank in raising moneys through the issue of debentures to the public for both long-term mortgages and loans for land improvement. Short-term credit was much more difficult. The concept of chattel mortgages had been successfully taken up in New Zealand.[46]

As the White Paper observed, the question of marketing had been investigated by a Departmental Committee under the Marquess of Linlithgow, with a final report of November 1923. It contrasted the prevailing parochial, haphazard and obsolete methods of marketing with the moves made by other industries, and by agricultural competitors abroad, to consolidate and form large-scale trading units. In a series of published reports, the Ministry's own economists emphasized the need to follow foreign examples.[47] The Council of Agriculture particularly pressed the pivotal role of cooperatives in farming generally and smallholdings particularly, there being significant economies to be made in establishing, say, farmers' auction markets and combinations to force down railway companies' carriage rates, which Bledisloe claimed to be the highest in the world. Whilst promising to consider sympathetically applications to assist sound schemes for cooperatives, the White Paper insisted, as had the Council of Agriculture, that the main initiative must come from farmers. An insight into the potential obstacles came from Floud's observation to NFU representatives of how much the Ministry's own economists were impressed by the way Californian fruit was brought to central points, graded and packed. As Robbins pointed out, whilst such

[44] BPP, 1923, IX, Cmd 1810, *Report of the Committee on Agricultural Credit*.

[45] TNA, MAF 53/62; Council of Agriculture, *Agricultural Policy*, pp. 8–12.

[46] *PD*, *Lords*, 63, col. 212.

[47] BPP, 1924, VIII, Cmd 2008, *Departmental Committee on distribution and prices of agricultural produce. Final Report*; Cooper, *British agricultural policy*, pp. 73–4.

cooperatives were helpful where large areas grew a few varieties, British orchards had a hundred-and-one varieties, not out of stupidity, but rather to spread the risks in such variable growing conditions.[48]

Wood had emphasized to Baldwin, in his note of May 1925, how any national policy must demonstrably benefit each of the agricultural classes. To help prevent the landlord-tenant system from breaking down completely, £5 million was proposed by way of loans for estate improvement. As for farmers themselves, Wood pressed for a 'state-assisted land-purchase' scheme. A scheme of £20 million might enable one million acres to be subdivided between 5,000 owner-occupiers – a very small proportion, as Barstow pointed out, of the total population of 300,000 farmers. The Treasury's formal response was to distinguish between proposals intended to increase the country's productive powers and those simply to make agriculturalists relatively better off. Not only was there nothing to be gained from a further shift of the burden onto 'the hard-pressed industrialist', but the only way of raising more government-credit was upon the open market and, therefore, contrary to post-war financial policy.[49]

To aid the farm labourer, Wood believed that a capital investment of £15 million over five years would enable a further 250,000 acres to be turned over to smallholdings for some 20,000 families. The county councils were empowered, under the Smallholdings and Allotments Act of 1908, to acquire land for such purposes. The wartime embargo on their borrowing had ended such development, but a further £20 million had been provided under the Land Settlement Facilities Act of 1919, for the settlement of ex-servicemen. It made the county councils the largest landowners, with a combined estate of nearly 450,000 acres, occupied by some 30,000 smallholding tenants. Wood pressed for legislation to address the ten-year cessation in providing holdings, so as to enable those with the most relevant skills, the farm labourers, to climb onto 'the farming ladder'.[50]

Whatever the right course for 'this small and densely populated country', Bledisloe had written to Baldwin, in March 1925, the future was certainly not that of the 'territorial magnate', with thousands of acres of half-cultivated land. Such neglect would only make the nationalization of land even more attractive to ill-informed urban politicians. The small owner-occupier was the greatest buttress against Bolshevism, developing 'in his family and environment the habit of industry and thrift'. In suggesting the publication of an anonymous *ballon d'essai*, Bledisloe emphasized to Baldwin how much more was at stake than merely the economic salvation of the countryside. Rural prosperity was of increasing importance to the great urban populations as exports fell and manufacturers became more reliant upon the purchasing power of home markets. Such a system of 'peasant proprietorship' on the Danish model could, furthermore, be 'a breeding ground' for just the kind of prospective British settler the Dominions were seeking to attract. Bledisloe had seen for himself how the Scandinavians were the most successful migrant-settlers of the prairies. Canada, and perhaps Australia too, would ultimately be lost to Britain unless such settlers were forthcoming.[51]

[48] Council of Agriculture, *Agricultural Policy*, pp. 8–13; TNA, MAF 53/62.

[49] TNA, MAF 53/62, and T 161/179.

[50] F. L. Floud, *The Ministry of Agriculture and Fisheries* (1937), pp. 143–63; TNA, MAF 53/62.

[51] CUL, Baldwin MSS 25.

V

Few objected to the principle of the State giving modest assistance to agricultural enterprise. Its priority among all the other claims upon the national purse was, however, bound to be contested. It called for both discrimination as to what might be sought by ministerial negotiation, and considerable concession in what eventually could be announced in the White Paper. Such concession was all the greater for the ambivalence shown by both the agricultural industry and the Ministry in formulating what Winston Churchill, as Chancellor of the Exchequer, described as 'these vague, half-considered projects for spending money and exhausting credit'.[52]

Policy making was driven by the expectation that Wood would make a parliamentary statement as to the outcome of his consultations following the Summer recess. Where Wood's impulse was simply to itemize the measures needed, Floud emphasized the importance of the Cabinet discussing them within some over-arching policy. Given that subsidies were 'off' (as Wood expressed it), the government's duty was both to encourage and assist enterprise and to protect it from political dislocation. It was, as Floud wrote, an obvious and appropriate course for a Conservative government – not copying, but attacking the other parties – basing its policy upon owner-occupancy rather than State ownership and, therefore, providing for assisted land-purchase, for those who wish to buy their farms, and the development of smallholdings on prudent lines. Bledisloe wrote warmly of how he concurred in every way. Wood similarly agreed such definition of Conservative agricultural policy would both advance the national *desiderata* and command general sympathy.[53]

However strong the political case, such forthrightness was soon dissipated by what Lowe has described, in the wider context, as the Treasury's debilitating effect and departmental weakness. The pre-war requirement, that there had first to be discussion with the Treasury before any item could be put on the Cabinet agenda, was renewed in April 1924.[54] The Treasury's Controller of Finance, Sir Otto Niemeyer, found Floud remarkably accommodating, he having been previously warned of opposition to any large scheme of government credit, whether 'for agricultural, electrical or other schemes'. According to the Treasury note of the meeting, Floud had conceded almost straightway that the 'more ambitious schemes of Mr Wood's programme' were politically impossible. To the Treasury's surprise, 'he did not maintain that they were vital to agriculture – indeed he seemed not to combat the view that our agriculture is in a pretty good way, as compared with some other countries'. Floud agreed that serious consideration might only be given to grant aid for smallholdings and land drainage. Wood, for his part, suggested that he should convene a ministerial Agriculture Committee to draft a Government statement on the outcome of his consultations. The Cabinet of 5 August 1925 approved the appointment of such a committee, as well as grant aid of £1 million over five years for land drainage, largely as a replacement of the annual unemployment relief schemes of previous years.[55] Of all agricultural

[52] TNA, T 161/179.

[53] TNA, MAF 53/62.

[54] Lowe, 'Erosion of state intervention', p. 282; G. C. Peden, *The Treasury and British public policy, 1906–1959* (2000), p. 167.

[55] TNA, T 161/179, MAF 53/62, and CAB 24/174 (CP 376(25), and CAB 23/50 (C 43(25), 4).

operations, cooperative organization was most obviously needed where the neglect of even a single watercourse prejudiced the farming of extensive areas. The Scottish conference had perceived it to be the first essential for agricultural progress, the unemployment relief schemes having shown what might be accomplished in rehabilitating and extending earlier schemes.[56]

Wood spoke from the chair, at the first meeting of his ministerial Agriculture Committee on 13 October 1925, of how government policy must not only be based on economic considerations but also offer some alternative to the policies of other political parties, namely of promoting both greater owner-occupancy and more smallholdings. The formal minutes, however, record how the meeting concluded that 'the moment was not a favourable one for launching a large agricultural credit scheme'. Churchill saw no political, social or economic advantage in increasing the number of smallholdings. So great was the plight of smallholders in the eastern counties that Walter Guinness, the Financial Secretary to the Treasury, deprecated any further move to put pressure on local authorities to increase their number. Bledisloe pointed to how most of the bacon, eggs, poultry, butter and cheese imported to Britain came from such smallholdings. Gilmour recounted the particularly impressive record of Scottish smallholders at the Committee's second meeting – only 2 per cent of smallholdings in Scotland (4 per cent in England and Wales) had failed. Ministers' scepticism as to whether farmers required help to purchase their holdings was, however, reinforced by the revelation that the proportion of holdings in owner-occupancy had risen substantially from 13.7 per cent (4.1 million acres) in 1920 to 23 per cent (6.5 million acres) in 1924.[57]

Such misgivings as to the core elements of the proposed government statement had been well rehearsed. Barstow at the Treasury had argued strongly that a farmer's capital was best kept liquid for investment directly in food production and wages. The NFU representatives had made a similar point at their meeting with Wood. Far from raising food output, the overall effect of any State loans might be further to inflate land values, causing a farmer to be better off as a tenant. As to smallholdings, the same NFU representatives had cited a recent speech by Ramsay MacDonald who, whilst a strong advocate of smallholdings, had also conceded how modern machinery and improved husbandry methods were bound to favour the larger producer. The overall effect of any increase in smallholders might be to depress market prices further in their producing what was already in over-abundant supply.[58]

Wood responded to Churchill's assertion that 'Agriculture was asking too much from the Exchequer' by emphasizing how the Agriculture Committee 'must also bear in mind his own difficult position in guiding the (Unionist) Party away from the idea of subsidies'. He recognized the need for 'the most rigorous retrenchment and economy', but he could not be responsible for an agricultural policy which did not make some provision for smallholding development. The Lord Privy Seal, the Marquess of Salisbury, thought nothing would be more disastrous than for the Government to have to repudiate in the spring some part of an autumn statement. The Committee, fearful that such a further deterioration in public finances might well arise, agreed to adjourn. It was not until mid-January 1926 that a further draft policy-statement

[56] Secretary for Scotland, *Agricultural Policy*, pp. 7–9; J. Sheail, 'Arterial drainage in inter-war Britain: a legislative perspective', *AgHR* 50 (2002), pp. 253–70.

[57] TNA, MAF 53/62, and CAB 27/293 (Agricultural Committee (A(25)).

[58] TNA, T 161/179, and MAF 53/61.

was circulated, with the intention of its becoming the eventual White Paper. Wood wrote, in correspondence, of its reading well. By the time the Agriculture Committee met again, Wood had become Viceroy of India. His successor as Minister, Walter Guinness, spoke from the chair of how, rather than his original claim for £15 million over five years, he had agreed with the Treasury that £6 million should be provided over four-and-a-half years where the provision of small- and cottage-holdings should be further encouraged by the county councils. Churchill confirmed that the Treasury would do its utmost to persuade the joint stock banks to accept, and give every encouragement to, an agricultural credit scheme. Gilmour asked that Scottish farming should be explicitly included within the compass of the White Paper, the text of which was approved, with minimal amendment, by the Cabinet of 29 January 1926.[59]

VI

The White Paper had a thoroughly bad reception. Opposition spokesmen, in a House of Lords debate on the White Paper, attacked the Government for failing to either obtain a consensus, or develop any constructive policy of its own. It reminded an NFU representative on the Council of Agriculture of the 'fussy housewife who is always sweepin' and dustin', but there's never any smell of cookin".[60] Guinness countered such charges by pointing to the bills that had been brought forward, which included the Smallholdings and Allotments Act, advancing 'the small occupying owner side by side with the tenant', followed by an Agricultural Credits Act. But none addressed, as Guinness himself acknowledged, 'the root causes of agricultural depression'.[61]

Why had the Government (as Guinness later wrote) been 'forced back' on the policy as encapsulated in the White Paper, of simply hoping that these 'small reforms' might have such a cumulative effect as to make significant, long-term advance possible? The Ministry of Agriculture, although not a new department, had been given an explicitly more-interventionist role. Wood seemed well-suited to the challenge. A scholarly figure knowledgeable in agriculture, he wanted, in his own words, to encompass all shades of political opinion in tackling 'the gravity of our social problems and the importance of getting fundamental things right'.[62] Yet as Bledisloe wrote, in April 1925, the Ministry of Agriculture found itself powerless to formulate any scheme for the permanent security of agriculture, or to augment materially food output and employment.[63] Alongside the constraints of a policy of 'sound money' and continued commitment to free trade, there was the enormity of the stigma which continued to be attached to the enactment (as much as the repeal) of the Agriculture Act of 1920. The rashness of Lloyd George's government in entering into a guarantee of that kind, and the cost of its repeal both to industry and the Exchequer (by way of compensation), was adjudged to have caused such disruption and loss of confidence that any such future

[59] TNA, MAF 53/62, and CAB 24/178 (CP 25(26)), and CAB 23/52 (C 2(26), 3).

[60] *PD*, *Lords*, 63, col. 185–205; *PD*, *Commons*, 196, col. 2106–14; Anonymous, 'Council of Agriculture', *J. Ministry of Agriculture*, 33, 1128–9.

[61] *PD*, *Commons*, 198, 786, and 217, 269; NAS, AF 43/210 (Agricultural policy. Conference of agricultural interests in Scotland, 1924–5).

[62] H. Begbie ('A Gentleman with a Duster'), *The Conservative Mind* (1924), pp. 47–59.

[63] TNA, MAF 53/62.

assurance of continuity and permanence must be backed by the most explicit, cross-party support. Neither the first Labour government, nor Baldwin's governments, were able to obtain such consensus for an overall agricultural policy, even among the relevant agricultural bodies.

Wood's dogged pursuit of consultation hardly accords with David Cannadine's characterization of him as representative of an 'essentially decorative marginality', with little interest in his ministerial posts.[64] His perseverance might rather be criticized for quite the opposite reason. The debacle of the abortive Conference might seem rather to support the cynicism voiced by Edward Fitzroy in moving his amendment to establish a Ministry of Agriculture and Fisheries in 1919. It was naïve to believe that the representatives of the various sectoral interest groups would act as a unified whole upon such bodies as the wages boards. As Fitzroy contended, each would continue to fight its corner.[65] Yet it was only by imposing such accountability upon delegates to his abortive Conference that Wood could hope to address what Ramsay MacDonald, in his earlier parliamentary statement, had acknowledged as the fact that the State could offer nothing by way of substantial benefit until the farming community organized itself along more competitive lines. There was so little evidence of agriculturalists embarking upon the structural reforms so urgently needed to break away from what Cooper has called 'the inertia of custom'.[66]

Wood was not so much naïve as manipulative in the sense that, as Lord Harris remarked in the Lords' debate of July 1925, he must have known the impossibility of increasing the arable area and labour force without tariff protection, or subsidy.[67] With all the 'expert' evidence to hand, Floud himself wrote of how:

> the whole ground of agricultural politics has been so thoroughly surveyed and dug by numerous inquiries in recent years that we cannot expect to find any completely novel remedy which has not previously been conceived.[68]

Yet it was only by relentlessly focussing the attention of the disparate interests which comprised the agricultural industry upon the salient issues that Wood could hope to secure some responsibility on their part for the organizational enterprise that would enable government to discharge a facilitatory role. The emerging lesson of the post-war 'catastrophic' intervention on the part of the Lloyd George government was not the rejection of State intervention, but rather the need for a considerably more informed and, therefore, relevant assessment of the scale and nature of the under-pinning support required.

Guinness later claimed that such apparent lack of policy making arose from fundamental disagreement as to whether the problems of agriculture stemmed mainly from low market prices, as the Government contended, or from the system of tenure, as the other parties claimed. Perhaps more accurately, account had to be taken not only of the inextricable linkages between these two issues of market prices and tenure, but of the dilemma of

[64] D. Cannadine, *The decline and fall of the British aristocracy* (1990), p. 220.

[65] *PD*, *Commons*, 121, col. 284.

[66] *PD*, *Commons*, 169, col. 764–7; Cooper, *British agricultural policy*, p. 72.

[67] *PD*, *Lords*, 61, col. 445–6.

[68] TNA, MAF 53/62.

[69] CUL, Baldwin MS, 25.

reconciling what was deemed best for those comprising the agricultural classes with what was variously defined as the national interest.[69] As Tom Williams put it, on the evening the White Paper was published, simply leaving agriculture to look after itself was tantamount to the Government telling farmers to treat land as their particular reserve to be used only to their best advantage, domestic food-production being of so little importance. In fact, the agricultural and public perspectives were inextricably linked. Although regretting that the national output of breadstuffs had fallen from 20 per cent of domestic consumption in 1914 to 18 per cent in 1925, Bledisloe was even more alarmed that the market share of domestic meat production had fallen from 80 to 40 per cent, a very striking feature being the proportion of fresh meat imported from such countries as Holland.[70]

VII

Edith Whetham chose, in her *Agrarian History* of the period, to focus upon how legislation and ministerial pronouncement influenced farmers' plans for production, and the decisions of landowners whether to invest in, or sell, their estates.[71] But as this paper has emphasized, the respective agricultural and landed bodies also profoundly affected Whitehall and Westminster policy making. It was a two-way process. Such interpenetration was most obviously achieved through the kind of statutory advisory-bodies, whose utility was assessed by a volume published under the auspices of the Oxford University Politics Research Committee in 1940. Ministers of the various government departments could be much more confident of their policy making, where so advised. Such bodies were:

> an opportunity for meeting and answering the criticisms anticipated, weighing the alternative suggestions and finding them wanting, and doing all this in a committee room sheltered from the boisterous weather of public controversy.[72]

That was not, however, how the Ministry of Agriculture appeared to function. That same academic study characterized the Ministry as:

> sailing for two decades through waters, which are always troubled and were then invariably stormy, with no clear idea either of its destination or its course.

Perhaps more perceptively, the Ministry and those who offered it advice, statutory and otherwise, rightly concluded that any amelioration must come through facilitating what farmers themselves saw as their priority, rather than some definitively interventionist, and therefore top-down, policy.

It was not until a further war that agriculture attained such recognition as 'a senior partner in our economy' that the fiscal resources were secured that made such facilitatory support significant. But even in promoting the Agricultural Bill of 1947, there was a striking continuity in the emphasis laid by Tom Williams, now the Minister of Agriculture, upon the close

[70] *PD*, *Commons*, 181, col. 109–14, and *Lords*, 63, col. 220; TNA, MAF 53/62.

[71] Whetham, *Agrarian History,* VIII, p. xxii.

[72] R. V. Vernon and N. Mansergh, *Advisory bodies. A study of their uses in relation to central government, 1919–39* (1940).

consultation there had been with representatives of that industry. The bill was the product of 'the combined wisdom of all the different sections of that industry, and of the advertised views of the three major political parties'.[73] Such close accord between government and governed, as embodied in both the promotion and year-on-year operation of the act, was especially pertinent, given how, as the White Paper *Rural England* re-emphasized in 1995, the health of the countryside was not something to be determined centrally. In so far as rural wellbeing arose from a myriad of human actions, the success of any policy, and more particularly that of farming, depends upon lots of small-scale changes. Such enterprise must heed not only the profoundly different expectations of the towns and cities but, more particularly perhaps, those pursued within the different parts of the extraordinarily diverse rural environment.[74] Such an observation might well illustrate the dilemma confronted by the authors of the *Agricultural Policy* White Paper, some two generations earlier in the mid-1920s, in obtaining accord at so formative a point in the twentieth-century adjustment of central governance to the countryside.

[73] *PD*, *Commons*, 432, col. 625–6.

[74] BPP, 1994–95, Cm 3016, Secretary of State for the Environment and Minister of Agriculture, *Rural England*.

The wild rabbit: plague, polices and pestilence in England and Wales, 1931–1955

by John Martin

Abstract

Since the eighteenth century the rabbit has occupied an ambivalent position in the countryside. Not only were they of sporting value but they were also valued for their meat and pelt. Attitudes to the rabbit altered though over the first half of the century, and this paper traces their redefinition as vermin. By the 1930s, it was appreciated that wild rabbits were Britain's most serious vertebrate pest of cereal crops and grassland and that their numbers were having a significant effect on agricultural output. Government took steps to destroy rabbits from 1938 and launched campaigns against them during wartime, when rabbit was once again a form of meat. Thereafter government attitudes to the rabbit hardened, but it was not until the mid-1950s that pestilence in the form of a deadly virus, myxomatosis, precipitated an unprecedented decline in their population.

The unprecedented decline in the European rabbit (*Oryctolagus cuniculus)* in the mid-twentieth century is one of the most remarkable ecological changes to have taken place in Britain. Following the introduction of myxomatosis into Britain in September 1953 at Bough Beech near Edenbridge in Kent, mortality rates in excess of 99.9 per cent were recorded in a number of affected areas.[1] Indeed, in December 1954, the highly respected naturalist Robin Lockley speculated that 1955 would constitute 'zero hour for the rabbit', with numbers being lower by the end of the year than at any time since the eleventh century.[2]

In spite of the rapid increases in output and productivity which British agriculture experienced in the post-myxomatosis era, the importance of the disease as a causal factor in raising agricultural output has been largely ignored by agricultural historians.[3] The academic neglect of the rabbit as a factor influencing productivity is even more apparent in respect of the pre-myxomatosis era, particularly the period before the Second World War. There are, however, exceptions, the most important being the work of John Sheail.[4] More recently Peter

[1] P. W. J. Bartrip, *Myxomatosis. A history of pest control and the rabbit* (2008), p. 57.

[2] R. M. Lockley, 'Myxomatosis, a factual survey', *Field* (Dec. 1954), pp. 1174–5.

[3] Bartrip, *Myxomatosis*, p. 142.

[4] The leading historian of the rabbit is John Sheail. See, for example, his *Rabbits and their history* (1971), 'Changes in the supply of wild rabbits', *AgHR* 19 (1971); 'The management of an animal population: changing attitudes to the wild rabbit in Britain', *J. Environmental Management* 33 (1991); 'Wartime rodent control in England and Wales' in B. Short, C. Watkins and J. Martin (eds), *The Frontline of Freedom. British agriculture in the Second World War* (2007). A useful contemporary source is H. V. Thompson and A. N. Worden, *The Rabbit* (1956).

Bartrip's *Myxomatosis: the history of pest control* has appeared, although this focuses primarily on the history of the disease.[5] A number of issues about the population dynamics of the rabbit have been largely ignored, in particular, the reasons for the long-term increase in numbers which we can attribute to the effects of game preservation and rabbit trapping. Similarly the work of the Oxford Bureau of Animal Population, which, during the 1930s and war years, undertook extensive research into methods of rabbit control, has received scant attention. The most obvious neglect however is the question of how far the changing demand for rabbits as a source of meat influenced their numbers and in turn determined the amount of damage they inflicted on the agricultural sector in the pre-myxomatosis era.[6]

I

The European rabbit was transformed from an animal protected and preserved as a source of meat and fur in the late nineteenth and early twentieth centuries to the status of agricultural pest. Following their initial importation as a captive species in about the twelfth century, rabbits were conserved in warrens or coneygarths in which they were hunted, and later farmed, for their meat and fur.[7] Here, they were protected by warreners who were employed to ward off both predators and poachers. Those animals which escaped formed feral colonies.[8] But it was during the agricultural revolution of the late eighteenth and early nineteenth centuries, when the emergence of new rotational field systems provided the rabbit with a constant supply of food throughout the year, that they began to proliferate in the wild.[9] These changes in the management of the countryside enabled the species to prosper at a time when commercial enclosed warrens were being abandoned. Rabbits thrived in particular on free-draining lighter soils where waterlogged burrows were not a problem, and on estates where game preservation predominated. Not only did gamekeepers protect the rabbits from poachers, but they also ensured that tenant farmers did not engage in their indiscriminate destruction.

It was not until the legislation of the Ground Game Act of 1880, which conferred the right to kill rabbits and hares on the occupiers of land, that the legal monopoly enjoyed by the gentry was finally broken. This legislation was highly significant in that it acknowledged the deleterious effects of game conservation and hunting on the agricultural output of many estates. It stated that 'in the interests of good husbandry, and for better security for the capital and labour invested by the occupiers of land in the cultivation of the soil' that 'further provision should be made to enable occupiers to protect their crops from injury and loss by ground game', which the legislation denoted as rabbits and hares.[10] The indiscriminate or excessive killing of animals by tenant farmers was, however, prevented by 'threats of eviction and half-promises of compensation'.[11]

[5] Bartrip, *Myxomatosis.*

[6] J. Martin, 'The impact of government intervention on agricultural productivity in England and Wales, 1939–45' (Ph.D thesis, University of Reading, 1992), pp. 239–61.

[7] Sheail, *Rabbits,* pp. 74–80.

[8] Id., 'Changes in the supply of wild rabbits', p. 175.

[9] Id., *Rabbits,* pp. 133–41.

[10] Ground Game Act, 1880.

[11] J. Sheail, 'The Rabbit', *Biologist* 31 (1984), p. 137.

The subordination of agriculture to shooting and game preservation intensified during the late nineteenth century, reaching its zenith in the golden days immediately preceding the outbreak of the First World War. By this time approximately 50 per cent of the agricultural land of England and Wales was subject to some form of game preservation.[12] Game shooting was the country's most rapidly expanding rural sport, with new participants outnumbering those in fox hunting. In 1911 more than 25,000 full time gamekeepers were in employment and, in many rural parishes, they were twice as numerous as policemen.[13] Nor were they the only group employed to assist with game conservation. At an extreme, on the 23,000-acre Elveden estate in Suffolk, 70 men were employed in the game department, including 24 liveried men, 30 warreners, 16 horsemen, wire-fence men and others.[14]

Sharing the same natural predators as the pheasant and partridge, hares and rabbits benefited from the increased number of gamekeepers and the prevailing system of game preservation. Vermin control on shooting estates eliminated a wide variety of game bird predators, including weasels, stoats, and foxes, which had also kept the rabbit and rat populations in check. While Lord Walsingham and Sir Ralph Payne-Gallwey cautioned against the indiscriminate slaughter of every living creature that might possibly interfere with game preservation, they nevertheless stressed the need to exterminate stoats and weasels which posed a threat to both game birds and rabbits.[15]

Rabbits benefited from the fact that whilst they were occasionally killed in large numbers on sporting estates, they were not usually shot during formal battue shooting in the autumn.[16] Targeting low flying birds and ground game at the same time was potentially dangerous to beaters and adjacent guns. There are isolated examples of landowners vying with one another to shoot the largest number of rabbits on dedicated rabbit shooting forays, which usually took place in parks or land where bracken abounded. At Rhiwlas, just west of Oswestry, R. J. Lloyd Price's unstinting efforts to develop rabbit farming as well as game shooting culminated, on a day in 1885, when nine guns killed 5,086 rabbits. The record bag of all time was achieved on the Duke of Marlborough's Blenheim estate on 7 October 1898, when 6,943 rabbits were killed, together with 23 hares and 13 partridges.[17]

Rabbits were generally regarded as the prerogative of the gamekeeper. On hunting estates rabbits might be encouraged in order to provide an alternative food supply for foxes, thus distracting them from killing game birds. They were also killed in the late spring and early summer, when their meat was cooked and used as a source of protein for young pheasant and partridge chicks in the rearing pens. Before the development of blended rearing crumbs for pheasants in the 1950s, gamekeepers used a combination of biscuit meal and rabbits which had

[12] R. J. O'Connor and M. Shrubb, *Farming and birds* (1986), p. 232.

[13] F. M. L. Thompson, 'Landowners and the rural community', in G. E. Mingay, *The Victorian Countryside* (2 vols, 1981), II, pp. 459–62.

[14] G. Martelli, *Elveden Enterprise* (1952), p. 50.

[15] Lord Walsingham and Sir Ralph Payne-Gallwey, *Shooting: Field and Covert* (sixth edn, 1900, repr. 1987), p. 276.

[16] There were some important exceptions such as the Elveden estate where rabbits were shot along with hares on game shooting days. See E. Bujak, 'Sport and the survival of landed society in late Victorian Suffolk', in R. W. Hoyle (ed.), *Our hunting fathers: Field sports in England after 1850* (2007), pp. 78–9.

[17] E. J. T. Collins (ed.), *The agrarian history of England and Wales,* VII, *1850–1914* (2 vols, 2000), I, pp. 799–800.

been cleaned, skinned and boiled before mincing. Even rabbit skins which, in late spring and early summer, were of little value to the fur trade, were not wasted, but placed in small heaps so that they could be attacked by blowflys when ripe, and the maggots shaken out for young poults as a delicious, protein-rich treat.[18]

Conventional shooting, as an adjunct to game shooting or rough shooting, although it provided sport for the participants, was a relatively ineffectual and costly means of dealing with rabbits from a pest control point of view, or for commercial gain. Indeed, as the research by the Bureau of Animal Population was subsequently to show, casual shooting had little effect on total numbers. More rigorous control methods were required.[19] While rabbits and hares accounted for two-thirds of the poacher's haul, they were usually acquired by a variety of methods including ferreting, snaring or long netting rather than by shooting.[20]

The most effective and cheapest way of catching rabbits on a commercial basis was trapping. This was a solitary activity as the Ground Game Acts had specified that, apart from household members and farm employees, landowners were only allowed to employ one trapper.[21] Professional rabbit catchers operated primarily during the winter and early spring when the demand for meat and the quality of pelts were at their highest. Having low overheads, trappers covered substantial areas of land in order to catch a harvestable surplus. Their strategy was not to exterminate rabbits but to ensure that a viable breeding stock remained.

Spring or gin traps, developed in the late nineteenth century, were specially constructed, spring-loaded steel traps with four-inch steel jaws. The traps were set adjacent to the rabbit's burrow. When an animal or bird touched the pressure-sensitive plate, it caused a trigger release of the jaws, which tightly clasped the animal, often breaking its limbs in the process, and restraining it until the trapper returned to finish it off. Trapping was widely condemned by animal welfare groups as inhumane. One of the indirect consequences of trapping was that a disproportionate number of the rabbit's natural predators such as stoats and weasels were also caught, removing a preventative check on population growth.[22] According to estimates provided by Lockley, between ten and fifteen per cent of the daily catch was made up of other species.[23]

Trapping using gin traps was cheaper than shooting, and the meat acquired in this manner commanded higher prices as it was not contaminated with lead shot. Shot marks in the carcass became suffused with blood, making them less attractive to the consumer. More importantly pelts punctured by shot were not of sufficiently high quality to be used by the furrier for fashioning gloves, trimmings, coats or linings.[24] Much lower prices were obtained for damaged pelts which had to be sold to cutters, who treated them with chemicals, then shaved and

[18] Information from R. Lillywhite, the wartime owner of 'The Wilts' game farm, Andover, Hampshire.

[19] Bureau of Animal Population [hereafter BAP], *Report Number 2, Recommendations for the organisation and technique of rabbit control through the Agricultural Committees during the spring of 1940* (1940), p. 3.

[20] D. J. V. Jones, 'The poacher: a study in Victorian crime and protest', *Historical J.,* 22, (1970), pp. 825–60.

[21] *Parliamentary Debates* (*PD*), *Lords*, 152, col. 9.

[22] R. M. Lockley, *The private life of the rabbit* (1976), p. 126.

[23] Ibid., p. 107.

[24] A. V. Campbell, 'The Rabbit problem', *J. Ministry of Agriculture* 46 (1939), p. 287.

cleaned the hair before selling them onto processors who retailed them to hatters. Yields of fur secured in this way were in the region of 7lbs per 120 pelts.[25] Premium prices were achieved by killing, gutting and skinning the animals according to specific criteria, and when the colour of the pelts was preserved by cooling and refrigeration.

In spite of the demand for rabbits for fur and meat, population levels continued to increase as a result of their ability to breed rapidly under a wide variety of conditions. Those born in early spring, for example, would produce their own litters before the end of the same year. Changes in land management and ownership initiated by the First World War further contributed to their long-term increase. In an effort to raise wartime agricultural production, game shooting and conservation were often severely curtailed, or even suspended. The number of gamekeepers plummeted as a result of enlistment into the Armed Forces.[26] As Mark Rothery has shown, the war years heralded a marked decline in both the number of shoots and the number of game birds shot.[27]

With the cessation of military hostilities in 1918, there followed a brief revival in the fortunes of game shooting but, in 1921, the abrupt collapse in agricultural commodity prices compelled estate owners to prune their expenditure once more, particularly on extravagant activities such as game conservation. According to F. M. L. Thompson, nearly one quarter of the land of England and Wales was sold between 1914 and 1927, a figure which has been both challenged and maintained.[28] The majority of estates were purchased by sitting tenants who did not have the financial resources to continue with game preservation on the scale seen before the war. As the amount of game preservation declined, there are signs that rabbit damage increased.[29]

By the 1930s the number of full-time gamekeepers had fallen by more than 44 per cent to 14,000.[30] Of these more than two in every three worked alone. The rest were either beat keepers working under the jurisdiction of a head keeper and looking after part of the estate, or apprentices in training. Even on a conservative estimate, only about 40 per cent of the agricultural land of Britain was subject to some form of gamekeeping in the 1930s.

A further factor which helps explain the explosion in rabbit numbers during the inter-war period was the resumption of the agricultural depression. This resulted in a rapid fall in agricultural prices, which undermined the viability of conventional methods of farming. It encouraged a switch to low-input methods of extensive production with the aim of economising. One of the most obvious features of this transformation was the reduction in

[25] Ibid., p. 286.

[26] G. K. Potts, 'The Effects of Modern Agriculture, Nest Predation and Game Management on the Population Ecology of Partridges (Perdix perdix and Alectoris rufa)', *Advances in Ecological Research* 11 (1980), p. 27.

[27] M. Rothery, 'The shooting party: the associational culture of rural and urban elites in the late nineteenth and early twentieth centuries', in Hoyle (ed.), *Our hunting fathers*, p. 114.

[28] F. M. L. Thompson, *English landed society in the nineteenth century* (1980), p. 332; D. Cannadine, *The decline and fall of the British aristocracy* (1990), pp. 704–5 and the debate between John Beckett and Michael Turner, 'End of the Old Order? F. M. L. Thompson, the Land Question and the burden of ownership in England, *c.*1880–*c.*1925', and F. M. L. Thompson, 'The land market, 1880–1925: a reappraisal reappraised', both in *AgHR* 55 (2007), pp. 269–300.

[29] TNA, MAF 44/33; Campbell, 'Rabbit problem', p. 287.

[30] Potts, 'Population ecology', p. 65.

the arable acreage which, in the 1930s, fell by 8 per cent. This contraction was not indicative of economic failure as such, but was more the result of changing patterns of output and the re-allocation of resources between sectors in response to shifts in relative costs and prices. As research by Paul Brassley has shown, the gross output for UK agriculture at current prices increased from an average of £245.57 million for the period 1930–4 to £293.00 million for the period 1935–39. His computations not only seriously challenge the prevailing wisdom about the 1930s being a period of sustained depression, but indicate that agricultural output by value increased by nearly 20 per cent.[31]

The continuing contraction in arable farming, coupled with the increasing dereliction of the countryside, allowed hedges to grow unchecked, favouring the rabbit population. As Richard Hoyle noted in the context of hunting, 'the new farmers had neither the obligation placed on them to eschew wire nor the labour at their disposal to maintain hedges'.[32] Not only did the widespread adoption of barbed wire as a cheap and efficient fencing material undermine the need to maintain hedges, but increased scrubbiness created an environment favourable to the rabbit.

III

By the 1930s the rabbit population in Britain had increased to between 60 and 100 million, two or three for every acre of agricultural land. They were not equally distributed throughout the country, but predominated in areas of lighter soils, particularly in the eastern counties which also had the highest incidence of game preservation.[33]

Little attention had been paid to the population dynamics of rabbits. As the leading animal ecologist and head of the Bureau of Animal Population at Oxford, C. S. Elton, noted in 1937, 'It does not seem to be recognized how very little we know about the interacting populations of wild mammals and game birds'. Moreover, he lamented that 'there are no authentic figures of the reproductive potential, life expectancy or sex ratio of even the common rabbit'.[34] In spite of his concerns, five agricultural bodies refused him funds for research into this area on the grounds that any findings on such a common animal would only be of interest to zoologists.[35]

The size of the wild rabbit population was determined by a complex set of interrelated variables including predator-prey relationships and, most importantly, prevailing demand for rabbits as a source of meat. Historically rabbits were regarded as 'poor man's chicken'. They were consumed primarily by low income groups who were compelled by economic necessity to eat cheaper types of meat, including offal. As a result of mass unemployment caused by the Great Depression (1929–32), rabbit consumption increased.

The market for British wild rabbits in urban areas at this time was undermined by the increasing availability of keenly-priced imported rabbits, mainly from Australia. By the 1930s,

[31] P. Brassley, 'Output and technical change in twentieth-century British agriculture', *AgHR* 48 (2000), p. 86.

[32] R. W. Hoyle, 'Introduction: field sports as history' in Hoyle (ed.), *Our hunting fathers*, p. 10.

[33] Thompson and Worden, *Rabbit*, p. 60.

[34] Sheail, 'Wartime rodent control', pp. 204–5.

[35] Ibid., p. 204.

TABLE 1. Gross imports, re-exports and net imports of frozen rabbits retained for home consumption

Year	*Imports cwt*	*Re-exports cwt*	*Retained for Home Consumption*	
			number	*cwt*
1932	546,238	23,354	20,915,360	522,884
1933	470,321	21,885	17,937,440	440,436
1934	508,421	12,330	19,843,280	496,082
1935	245,946	10,915	9,401,240	235,031
1936	162,808	8,499	6,172,360	154,309
1937	123,167	6,516	4,546,040	113,651

Source: A. V. Campbell, 'The rabbit problem', *J. Ministry of Agriculture* 46 (1940), p. 284.

rabbits had reached plague proportions in the Antipodes. As Table 1 shows, in 1932 nearly 21 million frozen or chilled rabbits were imported into Britain, 546,000 cwt by weight.[36] These high levels of exports partly reflected the policy of the Australian government to deal with the effect of the Great Depression by increasing exports of all agricultural commodities, including rabbits. Although imports quickly declined, as late as 1937 they amounted to more than 10 per cent of home-produced rabbits. Imported rabbits were not only significantly cheaper than fresh British rabbits, but were also more consistent in terms of quality and size. They were sold mainly in wholesale markets serving urban rather than rural areas, which were still well supplied with locally caught fresh rabbits.

In Britain, a conservative calculation of the number of wild rabbits killed each year in the 1930s, based on the number of home-killed skins available for export combined with those used in the hatter's fur industry, arrived at a minimum figure of 36 million.[37] These calculations were broadly confirmed in a speech by Lord Forres to a trade conference in 1941, in which he suggested an annual catch of between 40 and 60 million rabbits.[38] In terms of the area of land used for agricultural purposes, this equated to 1.2–2.0 rabbits per acre per year, equivalent to between 2.4 and 4 lbs of meat per acre. Even on pastures with good levels of management, this level of output was insignificant by comparison with the 90 lbs per acre of meat derived from cattle and sheep farming.[39] On poorer pastures, and particularly hill grazing, the national average for meat produced per acre was little more than 5 lbs per acre.[40] But in quantitative terms, the rabbit trade in the 1930s was a minor part of the meat trade as a whole, accounting for approximately only half the meat obtained from poultry production.[41]

During the years 1931–6, faced with an abundance of low-priced imported rabbits, shot

[36] Campbell, 'Rabbit problem', p. 284.

[37] Ibid., p. 284.

[38] Reported in the *Shooting Times*, 15 Nov. 1941, p. 405.

[39] T. H. Middleton, *Food Production in War* (1923), pp. 58–9; K. A. H. Murray, 'Food supplies in peace', *Lloyds Bank Rev.* (Oct. 1938), p. 486.

[40] Middleton, *Food Production,* p. 79.

[41] K. A. H. Murray, *Agriculture* (History of the Second World War, 1954), p. 375.

rabbits could not be sold for more than 2*d*. or 2½*d*. a pound.[42] Even in the late 1930s, when the demand for fresh rabbits was more buoyant, Wentworth Day had noted that a brace of shot rabbits was still worth less than 12*d*.[43] Rabbit consumption, like pork, was also very seasonal, with demand concentrated mainly in the autumn and winter months, when fewer, less appetising, 'milky' does, which were suckling young, were available. Given the rapid rate at which rabbits bred, the numbers killed in the 1930s were insufficient to prevent increases in the overall rabbit population.

By the 1930s rabbits were Britain's most serious vertebrate pest of both cereal crops and grassland. According to contemporary estimates, they reduced agricultural output by about 5 per cent. Crop damage by vermin amounted to an estimated £50 million per annum, or slightly more than 10 per cent of the annual output of British agriculture. Approximately half of this damage was caused by rats, 40 per cent, or in the region of £20 million, was attributed to rabbits and the remaining 10 per cent caused by other pests, primarily pigeons.[44]

Subsequent research by Lockley indicated that this was a rather conservative estimate. Before the war, crop damage caused by rabbits alone was costing at least £20 million, possibly even as much as £50 million per annum. This was completely out of proportion to the income generated from the sale of dead rabbits and fur which he estimated at less than £2 million each year.[45] But even his figure for the loss of agricultural output was a conservative estimate of £20 million, which simply took into account the actual physical reduction in the yields of existing crops, and excluded the reduction in the area of land devoted to growing cereals or intensely-managed grassland because of the threat of rabbit damage. Not all farmers were able to distinguish adequately between crop damage caused by rabbits and that caused by leatherjackets.[46] Even the Ministry admitted that rabbit damage probably outweighed all other causes of loss.[47] In areas of lighter, drier soils where up to 16 rabbits per acre were recorded, damage was substantially more extensive than these national figures indicate.

Rabbits were also the cause of indirect problems for both cereals and grassland. The intensive grazing of winter cereals by rabbits seriously undermined the yields which could be obtained, and often discouraged farmers from pursuing tillage farming. Rabbit-infested fields were frequently subject to the total removal of crop cover for the first 15–20 yards from the boundary hedge where the burrows lay, allowing the incursion of weeds and a variety of plant parasites. Rabbits changed the composition of grassland by their close cropping of the best clovers and grasses, leaving behind unpalatable species.[48] Intensive close grazing by rabbits favoured the persistence of inferior species such as *Agrostis* which could flower at the height of a few centimetres.[49] As Sir George Stapledon acknowledged,

[42] R. M. Lockley, 'Some experiments in rabbit control', *Nature* 145 (1940), p. 768.

[43] J. Wentworth Day, *Poison on the land* (1957), p. 68.

[44] Estimate undertaken for the Ministry of Agriculture by a Mr R. Genover in 1941. See TNA MAF 44/33.

[45] Lockley, *Private Life,* p. 127. Forres gave the pre-war value of the rabbit fur export trade as £930,000: *Shooting Times*, 15 Nov. 1941, p. 405.

[46] D. Moreton, 'Leatherjackets or rabbits?', *Farmer and Stock Breeder,* 21 Mar. 1944, p. 471.

[47] 'Rabbits, wireworm, leatherjackets – caused most damage to crops in 1940', *Farmers Weekly,* 27 Dec. 1940, p. 17.

[48] R. G. Stapledon and W. Davies, *Ley farming* (1942), pp. 19–29.

[49] W. M. Phillips, 'The effect of rabbit grazing on a reseeded pasture', *J. British Grassland Society* 8 (1953), pp. 169–81.

rabbits were an important but largely ignored factor accounting for the general poor state of English grasslands.[50]

Officials recognized that grassland improvement was of little value without adequate measures being implemented to control rabbits. One correspondent to the Ministry of Agriculture commented it was 'useless ploughing and reseeding run out, rabbit-ruined, and unproductive grassland just to feed more rabbits'.[51] But the message was not fully endorsed by the farming community. In Wales, there was little concern about the damage caused by rabbits since 'they had become an accepted evil' and an endemic problem.[52]

The key question was whether the problem should be tackled from the standpoint of extermination or control. Rabbit clearance was considered as a solution.[53] Instances have been noted of private individuals or organizations combating rabbit damage by protecting the perimeters of their holdings with rabbit-proof fences. Initiatives of this type were only cost-effective on larger blocks of land which could be economically fenced.[54] Given the ravages rabbits could inflict on young tree seedlings, the Forestry Commission actively pursued such a policy. Plantation land was initially cleared of rabbits, then close-mesh, rabbit-proof fencing was erected in an effort to prevent reinfestation.[55]

An ambitious approach to reducing rabbit damage was adopted on the Elveden estate. Following the death of Lord Iveagh in 1926, his successor embarked upon a scheme to revive agricultural activities on the extensive heathlands, sandy brecks and tracts of bracken and heather where rabbits were particularly abundant. During the shooting season of 1921/2, 128,856 rabbits were killed, amounting to nearly six rabbits for every acre. In the late 1920s, in order to reconcile farming activities with the needs of shooting, thirty miles of rabbit-proof fencing were erected over two years as part of a policy of containment.[56]

The most systematic pre-war attempt to deal with rabbits under commercial conditions was undertaken by the brothers A. J. and F. N. Hosier, who farmed in Wiltshire and Hampshire. Their overriding priority was to maximize profitability by exploiting economies of scale through a low-cost system of outdoor milk production. Hedges and even external boundaries were grubbed out and barbed-wire, stock-proof fences erected to increase the amount of land which could be used for crop production. This had the added benefit of reducing the number of rabbits on their holdings but did not prevent infestation from adjacent land. In an effort to address this issue, the Hosiers erected an eight-mile long, four-foot high, small-mesh fence, dug one foot into the ground, round part of the lands they farmed. This proved expensive to maintain, and the mesh was too large to keep rabbits out. Consequently they continued to employ two or three full-time rabbit catchers to keep populations in check.[57] Eradicating rabbits throughout the summer months, rather than killing them in the autumn and winter when demand was buoyant, frequently necessitated the burial of thousands of dead rabbits

[50] Stapledon and Davies, *Ley farming*, pp. 19–29.

[51] TNA, MAF 44/19.

[52] *Farmer's Weekly*, 15 Nov. 1940, p. 17.

[53] Campbell, 'Rabbit problem', p. 283.

[54] A. J. and F. H. Hosier, *Hosier's farming systems* (1951), pp. 109–110.

[55] Thompson and Worden, *Rabbit*, p. 162.

[56] Throughout most of the nineteenth century Elveden was primarily a sporting estate renowned for its excellent shooting. See B. P. Martin, *The Great Shoots* (1987), pp. 126–41; Martelli, *Elveden Enterprise*, p. 96.

[57] Hosier and Hosier, *Hosier's Farming System*, p. 105.

for which they had not been able to find a purchaser.[58] A more selective response to the rabbit problem by fencing was pursued by the progressive dairy farmer George Odlum of Manningford, Wiltshire. On his farm, close-mesh, rabbit-proof fencing was used solely as a stop-gap measure on those boundaries where the adjacent land was heavily infested with the animals.[59]

For many farmers there was, as S. J. B. Thorburn noted, 'a temptation to resign themselves to the inevitable' as, at a time of low agricultural prices, they were able to generate an income from the rabbits in the short term, either directly or by selling the trapping rights.[60] The pursuit of rabbits was also an entertaining leisure activity.[61] There were plenty of farmers' sons dependent on rabbits for pocket money in lieu of wages.[62] So long as the rabbits generated an income, there was a tendency to ignore their real costs.

III

The attitude of the state to the agricultural sector changed radically during the First World War. The Corn Production Act of 1917 established the principle of guaranteed prices for wheat and oats in order to encourage increases in output. In an effort to deal with the problem of pest damage, an Order in Council in March 1917 allowed the Board of Agriculture to authorize such action as was deemed necessary to prevent or reduce damage by game birds, hares or rabbits. War Agricultural Executive Committees were empowered to authorize entry onto any land to kill rabbits.[63] The Corn Production Act conferred similar powers on the Board of Agriculture and Fisheries with the proviso that the cost of such measures was to be recovered from the owners of the land. While Sheail acknowledges that these developments were 'unprecedented', lack of documentation means that it is not possible to ascertain how they operated in practice.[64] What is evident, however, is that the legislation was of short duration, as the need for financial retrenchment following the international crisis of 1921 and the collapse in cereal prices led to its repeal.[65]

In wartime conditions rabbits might be redefined as vermin, but in peacetime the view of rabbits as property tended to reassert itself. Rabbits remained protected, both legally and informally, often with draconian penalties imposed upon transgressors. For example, at Lancaster County Sessions at St Helens in 1927, John Ramsbottom and Samuel Seddon were fined £10 and £5 respectively for trespassing with three long nets and for catching three rabbits. Despite questions being raised in the House of Commons about the severity of their fines, the Home Secretary, Sir W. Joynson Hicks, explained that it was not simply 'ordinary trespass' as the culprits were repeat offenders.[66]

[58] Ibid., p. 110.

[59] *Odlum v Stratton. Verbatim report of proceedings* (1946), p. 44.

[60] J. B. Thorburn, 'The rabbit racket', *The Countryman*, 30 (1944), p. 262.

[61] A. W. Ashby, 'The farmer in business', *J. Proceedings of the Agricultural Economics Soc.* (Feb. 1953), p. 93.

[62] Thorburn, 'Rabbit racket', p. 262.

[63] Bartrip, *Myxomatosis*, p. 27.

[64] Sheail, *Rabbits*, p. 197; Bartrip, *Myxomatosis*, p. 27.

[65] E. C. Penning Rowsell, 'Who "betrayed" whom: power and politics in the 1920–1 agricultural crisis', *AgHR* 45 (1997), p. 176.

[66] *PD*, *Commons*, 213, cols 1785–6.

Nonetheless, attitudes to rabbits were shifting. In an effort to alleviate the problem of crop damage caused by rabbits, a bill was presented to Parliament as early as 1922, authorizing local authorities to implement appropriate control methods. By 1930 no fewer than eight private members' bills to this purpose had been proposed, all of which failed to pass into law.[67] Measures were also introduced which would make the control of rabbits more difficult. In 1935 a campaign to abolish the use of the gin trap on humanitarian grounds, headed by Major C. W. Hume, chairman of the University of London Animal Welfare Society, resulted in the presentation of a private member's bill in the House of Lords.[68] It was narrowly defeated by a majority of 46 votes to 42, mainly due to opposition from rabbit trappers and the fur trade, who argued that there was no effective alternative method to the gin trap. The Ministry of Agriculture remained unsure of the most appropriate strategy to pursue.

The failure of so many private members' bills to reach the statute books prompted the House of Lords to establish a select committee in 1937 to investigate the effects of rabbit damage.[69] The two opposing sides on the committee were the large estate owners whose game preservation practices ensured a buoyant rabbit population, and enlightened farmers and foresters who resented the excessive damage caused by rabbits.[70] Humanitarian reservations about rabbit trapping were raised by the Committee. It suggested that traps might result in less physical suffering if they had rubber jaws instead of steel teeth. Extensive field trials run by the Ministry of Agriculture concluded that this was not a practical solution.[71] But the experiment confirmed that using the gin trap in the open was considerably more indiscriminate in trapping and maiming a range of animals than if it was confined to the lip of the rabbit's burrow.

The possibility of controlling rabbits through the use of *Myxomatosis cuniculi* was also considered. This lethal virus had originated in South America in 1898, and appeared in California in 1930. Then, in 1933, at the invitation of the Australian authorities, Sir Charles Martin, the internationally renowned physiologist and pathologist, carried out a series of experiments on the virus and potential methods of transmission.[72] His investigations, conducted under the auspices of the Cambridge University Department of Experimental Pathology, revealed that, in an enclosed paddock area of 500 square yards, the disease was 100 per cent fatal to wild rabbits.[73] More extensive experiments on the rabbit-infested island of Skokholm off the Pembrokeshire coast, however, had shown that the strain of the virus used required intimate contact between infected and healthy rabbits in order to ensure transmission of the disease.[74] The lack of suitable vectors to spread the disease, coupled with the tendency of the infected animals to isolate themselves and to squat in the open during the most contagious

[67] Editor's Diary, *Farmers Weekly*, 4 Aug. 1939, p. 2.

[68] *PD*, *Lords*, 97, cols 2–48.

[69] *Report of the Select Committee of the House of Lords on Agriculture (Damage by Rabbits) together with the proceedings of the committee and minutes of Evidence* (1937).

[70] TNA, MAF 44/18.

[71] Anon, 'The control of rabbits' in *Agriculture* 46 (1939), p. 588.

[72] C. J. Martin, 'Observations and experiments with Myxomatosis cuniculi (Sanarrlli) to ascertain the suitability of the virus to control the rabbit population' (Fourth Report of the Institute of Animal Pathology, University of Cambridge, 1934–5), pp. 16–38.

[73] Lockley, 'Some experiments in rabbit control', p. 768.

[74] Martin, 'Observations and experiments'.

period of infestation, was responsible for the failure of this experiment.[75] Martin concluded that the virus was not a viable way of dealing with the common rabbit.

Doubts were also expressed about the level of suffering inflicted on the animals before their death. In 1938 the Universities Federation for Animal Welfare undertook more field trials on Skokholm's rabbit population. These showed that the traditional method of gassing (by pumping smoke from a cartridge containing sulphur), caused a painful death. It could be more humanely undertaken by the use of calcium cyanide in the form of dust sold under the trade name of 'Cyanogas'.

Proof of the extensive damage caused by rabbits was also highlighted during these experiments. Following an estimated 96 per cent decline in their numbers, white clover proliferated where it had been rare, and the previously stunted grass grew much longer. Fields which had not been cut since the land had last been farmed in the nineteenth century yielded up to four tons of hay per acre. One hundred sheep were imported to graze down the aftermath, but these proved inadequate and the surplus grass was eventually beaten down by winter storms.[76] One significant finding of the trials was that the rabbits' reproductive rate was commensurately higher following depletion of their numbers. Under favourable conditions of abundant food supply, they continued to breed throughout the year rather than solely during the summer months.[77]

There followed a number of legislative measures introduced by the government. The Destructive Animals Act 1938 gave local authorities the power to request the control of rabbits on private land. But it was not until May 1939 that the Prevention of Damage by Rabbits Act finally passed through both Houses of Parliament and received Royal Assent. The legislation specified that gin or spring traps should only be set within rabbit holes and not in the open. The editor of the *Farmers Weekly* heralded it as 'an end to the Rabbit Plague'.[78] Local authorities were empowered to compel owners or occupiers of land to destroy their rabbits when they were becoming a nuisance to their neighbours. Landowners who fell foul of the new law were liable to a £25 fine, in addition to a further £5 a day until necessary steps were taken. Section 4 of the act authorized the gassing of rabbits underground.[79]

IV

The outbreak of the Second World War heralded an unprecedented shift in the state's relationship with the agricultural sector. Domestic food production had to be raised to compensate for reduced levels of imported feedingstuffs, which declined from 22 million tons in 1938 to 11 million tons by 1944.[80] The aim was to maximize the production of carbohydrate foods, particularly wheat and potatoes, which were regarded as the staple components of a

[75] Ibid., pp. 10–39; id., 'Observations on Myxomatosis cuniculi (Sanarelli) made with a view to the use of the virus in the control of rabbit plagues', *Bull. Council for Scientific and Industrial Research (Australia)* 96 (1936).

[76] Lockley, 'Some experiments in rabbit control', p. 768.

[77] Ibid., p. 768.

[78] *Farmers Weekly,* 4 Aug. 1939, p. 10.

[79] Prevention of Damage by Rabbits Act 1939.

[80] R. J. Hammond, *Food: The growth of policy* (1951), p. 5.

wartime diet. In contrast, the livestock sector, which was less efficient in terms of producing calories, was required to contract. The effect of wartime restrictions was particularly noticeable in the pig and poultry sectors, where output in 1944–45 was little more than 35 per cent and 65 per cent respectively of their pre-war levels.[81]

The newly established Ministry of Food took responsibility for purchasing agricultural commodities at the farm gate and for organizing the distribution of food to consumers. The Ministry of Agriculture continued to be responsible for coordinating production on the farm. The Defence of the Realm Act 1939 empowered the Minister of Agriculture to:

> preserve and maintain agricultural land solely for the production of food, to control, by order, the cultivation, management and use of the land in order to secure maximum production of food from the farms: to terminate any tenancy of agricultural land where it is considered that the land was being neglected or badly cultivated: to introduce special measures for the destruction of birds, rabbits deer, vermin and pests.[82]

In order to coordinate the food production campaign at local level, a County War Agricultural Executive Committee (CWAEC) was established for each county, with the task of implementing national policy objectives by encouraging farmers to carry out their directives. The terms of reference under which they had been established required them to take responsibility for the control of rabbits, rats, mice and other pests that reduced agricultural productivity.

In the early stages of the war, CWAECs experienced administrative difficulties in coordinating the pest control campaign. The Rabbits Order 1939 gave CWAECs new powers under Regulation 63 of the Defence Regulations to enter and take rabbits upon any land.[83] The Ministry of Agriculture was very circumspect about implementing this Order. In a circular letter sent to all CWAECs on 13 October 1939, they instructed that action should, as far as possible, be taken under the Prevention of Damage by Rabbits Act and, if it was necessary to resort to the Rabbits Order, details of each case must first be sent to the Ministry.[84]

The powers of the CWAECs were subsequently extended[85] and, following the recommendation of the Bureau of Animal Population, Rabbit Control Officers were appointed to coordinate the task of destroying rabbits.[86] During the initial stages of the war, the Bureau continued to research and develop more effective methods of rabbit control. In the spring of 1941, Douglas Middleton, a leading researcher at the Bureau, embarked upon a twelve-month, half-time project with the Norfolk CWEAC to record and advise upon a large rabbit control campaign to establish the cost and effectiveness of cyanide under field conditions. According to the conventional wisdom this method proved so successful that the Bureau abandoned further

[81] Murray, *Agriculture,* p. 375.

[82] 'Britain eats to fight', *Fortune*, 27 (4), Apr. 1943, p. 162.

[83] The 1939 Rabbits Control Order transferred powers given to the Local Authorities to the War Agricultural Executive Committees under Section 63. The correct number was 66 not 63 as given so, in effect, by statute the WAECs had not been legally entitled to the right of entry onto private land.

[84] Circular letter to County WAECs in England and Wales, 13 Oct. 1939, WAC1151, Serial No. 41. See also BAP Report no. 12, *'An enquiry into County Organisations and Procedure for dealing with Rats and Rabbits in England and Wales'*, (1940), pp. 1–10.

[85] Ibid., p. 10, Ministry's Circular letter, 10 Jan. 1940.

[86] BAP Report no 2, *Recommendations,* p. 1.

research on the rabbit.[87] But pressure of work, particularly the need to expand the rat control study that was being undertaken at the same time, meant that the data had not been analysed by May 1942 when the work was suspended. Middleton was seconded to work full-time on what was deemed to be the more pressing problem of rat infestation.[88] In the following year the Bureau concluded that, while the rabbit remained a 'serious pest', it had 'made sufficient contribution to the control methods, for the rabbit problem to become mainly a human and administrative problem, which has not been completely mastered'.[89]

The most popular gas used for rabbit destruction was Cymag, a derivative of cyanide which had been used in the 1930s.[90] This method was not always successful on dry, sandy soils that could not maintain a lethal density of the gas in the burrow.[91] Experiments also revealed that its effectiveness was also limited by a tendency for rabbits to bunch themselves in the extremities of their burrows, enabling them to remain unharmed by the gas.[92] Gassing was also unpopular amongst the farming community as dead rabbits could not be recovered easily, and there were concerns about whether the meat was fit for human consumption.[93] Despite assurances from the Ministry of Health that rabbits killed in this way were not contaminated, there remained widespread opposition to eating them.[94]

The wartime decline in the incidence of rabbit damage was very impressive. As Table 2 shows, in July 1942, 46 per cent of the 296 crop reporters classified the decline as substantial and important, 69 per cent as measurable but not large, and only a mere 11 per cent as insignificant. A very similar response was provided in the following year. Sixty-five per cent of responses identified the decline as substantial, 28 per cent as measurable and only 7 per cent as insignificant. The accuracy of these responses is questionable, being based on the reporter's subjective assessments of the particular pests they observed, coupled with surveys of damage caused to particular crops. By 1944 according to officials, the survey had served its purpose and no further surveys were undertaken.[95]

Quantifying the precise significance of these responses is rather problematic, since rabbits were not uniformly distributed throughout England and Wales. Data extracted from a random sample comprising 14 per cent or 40,000 of the 300,000 holdings investigated by the National Farm Survey, showed that 9 per cent of holdings (forming 12 per cent of the total area of crops and grass), were affected by rabbits or moles. The low incidence of infestation can be explained partly by the subjective assessments of damage that were carried out. Rabbits were not classified as having reached pest status until they were sufficiently numerous to affect production significantly, or until their presence imposed a limit on the range of crops that

[87] A. D. Middleton, *The control and extermination of wild rabbits* (1940); P. A. Crowcroft, *Elton's ecologists. A history of the Bureau of Animal Population* (1991), pp. 23–6; Sheail, 'Rodent control', p. 59.

[88] BAP, *Report No. 21A*, *Report by the Director upon progress in research during 1941–42*, p. 2.

[89] BAP, *Report No. 21B, Report by the Director on progress in research during 1943*, p. 8.

[90] TNA, MAF 131/5.

[91] Anon, 'The control of rabbits', 588.

[92] For a detailed analysis of the use of this gas see BAP, Report 12, *Enquiry into county organisations*, p. 6.

[93] Martin, 'Impact of government intervention', p. 249.

[94] BAP Report no. 2, *Recommendations,* p. 3.

[95] MAF 44/33.

TABLE 2. Responses of 296 crop reporters to the Ministry of Agriculture, August 1941–August 1943

Improvement in rabbit damage	*Percentage of crop reporters responding to each category*		
	1941	*1942*	*1943*
Substantial and important	46	69	65
Measurable but not large	41	20	28
Insignificant	13	11	7

Source: TNA, MAF 44/33.

could be grown.[96] Farmers had a vested interest in under-recording the extent of damage in case it incurred the wrath of their local CWAEC. What is clear is that the war brought about a significant decline in the incidence of rabbits. The debatable issue is the relative importance of the causal mechanisms which brought about this decline.

The Ministry of Agriculture and the CWAECs must take some of the credit for persuading farmers to address the rabbit problem, as they distributed a number of instructional pamphlets. These were prepared by the Bureau of Animal Population, who also organized courses for Pest Control Officers.[97] The campaign materials also included instructional films.[98] Campaigns were initiated for the widespread destruction of rabbits by trapping, snaring and ferreting, followed by gassing in an effort to eradicate any surviving pockets of rabbits. Individuals and groups under the jurisdiction of the CWAECs also played their part, although not all wartime activities were beneficial. For example, on the Elveden estate, which was used for tank manoeuvres, the military authorities pulled up some 25 miles of the estate's rabbit-proof fencing and left it in huge dumps along the main roads, allowing the rabbits to gain unfettered access to the growing crops.[99]

The relaxation of pre-war restrictions on poaching also contributed to the reduction in the rabbit population. There was a tendency for some estate owners to pursue a less draconian approach to such illicit activities. However, it is easy to exaggerate the extent to which this took place nationally. A detailed scrutiny of local newspapers reveals that, even during the war, rabbit poachers were assiduously pursued as the authorities wanted to demonstrate that the old order still had its hand on the rural tiller.

Opportunities for poaching were increased through the 65 per cent reduction in the number of gamekeepers during the war, which meant that estates were less well preserved than in the past.[100] Unlike most other forms of agricultural employment, gamekeeping was not a reserved occupation. Recruitment had a disproportionate affect on younger men, leaving older, less

[96] 'Rabbits, wireworm, leatherjackets – caused most damage to crops in 1940', *Farmers Weekly*, 27 Dec. 1940, p. 17.

[97] BAP, *Report No. 21C,* 'Report by the Director on progress in research during 1944', p. 2.

[98] BAP, *Report No 2*, *Recommendations,* p. 3; *Farmers Weekly*, 13 Sept. 1940, p. 20. For an example of the films produced, see *The Rabbit Pest* (1941), produced by Plant Protection Ltd, a copy of which is held by the Museum of English Rural Life, University of Reading, TR MAFF PH6/295.

[99] Martin, *Great shoots*, p. 134.

[100] Martin, 'Impact of government intervention' pp. 240–2.

active gamekeepers in charge of estates. Moreover many gamekeepers who retained their positions were required to undertake other forms of war work such as enlisting in the Home Guard, which distracted from their role in game preservation.

Enlistment or conscription into the armed forces also affected shooting. Dwindling numbers of paying guests and wartime shortages of petrol for private motoring caused rentals on the larger, more isolated estates to plummet. A shoot on a 2,500 estate near Salisbury with a keeper was being advertised for £170 in the summer of 1941, whereas before the war its rental value was £400.[101] In contrast, the demand for rough shooting, which offered the opportunity to secure game and, more often, rabbits, was at a premium. By 1943, Scolopax, the renowned contributor to *The Field*, was advising his readers that 'It is a waste of time and money looking for rough [shooting] in the Home Counties – unless you are especially favoured. I have tried it and I know'.[102]

Shooting activities were also disrupted by wartime restrictions on the production of cartridges.[103] In 1943 a quota was introduced which restricted each sportsman to 50 per cent of the number of cartridges he had purchased in the previous year. This particularly affected members of the forces who had been engaged on active service in 1942 and had purchased few, if any, cartridges. The rationale for this reduction was not necessarily prompted by a desire to curtail shooting but by the wartime shortages of gunpowder, and the need to prevent limited supplies from being diverted away from military purposes.[104] By this stage, however, there had been important and subtle changes in the motives for shooting, which changed from an activity the participants undertook primarily for sport or pleasure to a means of securing additional sources of meat. Consequently there was a more liberal approach to shooting etiquette, in particular the willingness to pursue a wider variety of methods such as trapping and snaring in order to achieve the objective.[105]

This shift was prompted by the fact that, by 1943, meat output in Britain had fallen to 69 per cent of its pre-war level.[106] These quantitative changes obscured an even more fundamental qualitative change in the type of meat available. When consumers went to the butcher with their rationing coupons, they were given meat whose origin was not specified in terms of country. Nor was the type of animal from which it had come divulged, nor whether it was fresh, chilled or frozen. Many consumers purchased what was denoted as beef, but in reality the meat originated from dairy cows or other nondescript animals which had been culled as part as the wartime rationalization of the livestock sector. Rabbit, therefore, became an attractive form of meat. As the headline in *The Field* exclaimed, 'Once a Pest, Now a

[101] *The Field*, 30 Aug. 1941, p. 1.

[102] Scolopax, 'Rough Shoot Wanted!', *The Field*, 7 Aug. 1943, p. 135.

[103] Cartridge production was severely curtailed during the early stages of the war. In the days after Dunkirk, and in response to a feared German invasion, large numbers of 12-bore cartridges were loaded with a 16-bore size single ball which could be fired without damage by a 12-bore choked barrel. Such loads were completely useless for normal shooting and their accuracy was impeded.

[104] Written communication from the Eley Company, 19 Dec. 1985. They had no surviving records of the war period but were confident that the output of shotgun cartridges for game shooting was seriously curtailed in response to the need to produce ammunition for war purposes.

[105] Scolopax, 'Rough Shoot Wanted!', p. 135.

[106] A. S. Milward, *War, economy and society* (1977), p. 252.

Necessity for the Larder'.[107] Not surprisingly, the prize-winning recipe in the wartime cookery competition organized by the *Farmer and Stockbreeder* in the spring of 1940 was for Baked Rabbit.[108] It has been claimed that wild rabbit was the only meat that some countrymen ate during the war years.[109] Such a claim about the increased popularity of rabbit meat is difficult to square with the view that the supply of rabbits declined rapidly during this period.

According to the official statistics, reproduced in Table 3, following a short lived increase in the supply of wild rabbits in the first year of the war, output had fallen by more than 60 per cent by the end of military hostilities in 1945. Based on the average rabbit weighing slightly less than 2¼ lbs when skinned and gutted, this would suggest an annual pre-war kill of less than 39 million for the UK as a whole in 1939, whereas from 1942 onwards the number of rabbits killed for meat was less than 14 million a year. However MAF openly acknowledged that these figures were subject to a wide margin of error. It is not clear, for example, how they were collated, or if they related exclusively to agricultural land. Wartime meat shortages encouraged a buoyant black market, resulting in large numbers of rabbits not being recorded in the officially collated statistics. (The 4 June returns omit rabbit production.[110]) But even if the official statistics fail to reveal the true dimensions of the trade in rabbit meat, they do show that throughout the war rabbits remained an important form of livestock production. In Pembrokeshire, for example, an area ideally suited to rabbits, the estimated production of rabbit meat in 1945 was 1460 tons compared with 2910 tons of beef, 352 tons of veal, 557 tons of sheep meat and 190 tons of pigmeat.[111]

After 1940, rabbit meat was subject to a Maximum Price Order.[112] This fixed the price at a mere 6*d*. a pound in order to foster the complete destruction of the wild rabbit population. As the Deputy Prime Minister, Clement Attlee, explained to the House of Commons: 'the maximum price encourages the complete destruction of rabbits during the breeding season by gassing, any decontrol of the price might encourage the retention of a breeding stock'.[113]

The food production campaign of the Second World War has conventionally been hailed as bringing significant increases in agricultural output and, by inference, productivity.[114] Explanations have focused on increased levels of investment in agricultural machinery and other infrastructure improvement such as drainage, raised crop yields per acre, and the expansion in the use of artificial fertilizers.[115] The extent to which the decrease in rabbit damage contributed to the wartime increase in food production has received little attention.

According to contemporary estimates, the 40 per cent reduction in pest damage, over half of which can be attributed to rabbits, was equivalent to at least one million tons of food

[107] *The Field*, 14 Feb. 1942, p. 181.

[108] *Farmer and Stockbreeder*, 16 Apr. 1940, p. 893.

[109] J. Davies, *The wartime kitchen and garden* (1993), p. 183.

[110] Martin, 'Impact of government intervention', p. 254.

[111] Lockley, *Private life of the rabbit*, p. 129.

[112] R. J. Hammond, *Food,* I, *The growth of policy* (History of the Second World War, 1951), p. 185.

[113] *PD, Commons*, 389, col. 1728.

[114] For a detailed critique of the wartime changes in agricultural output, see J. Martin, *The development of modern agriculture since 1931* (2000), pp. 47–56.

[115] For a detailed critique of the main explanations for the wartime increase in agricultural production, see P. Brassley, 'Wartime productivity and innovation, 1939–45' in Short *et al.* (eds), *Frontline of Freedom*, pp. 36–55.

TABLE 3. Estimated quantity of the output and value of rabbits from agricultural holdings in the United Kingdom, 1936–9 to 1945–6

	Pre-war average	*1939–40*	*1940–41*	*1941–2*	*1942–3*	*1943–4*	*1944–5*	*1945–6*
Quantity of Rabbits (000 tons)	39	44	29	19	14	14	14	14
Value (£000)	1820	2670	1894	1507	1111	1111	1111	1111

Note: the Ministry decided not to try to differentiate the last four years of the war.
Source: Ministry of Agriculture and Fisheries, Department of Agriculture for Scotland, Ministry of Agriculture for Northern Ireland, *Agricultural Statistics, United Kingdom, 1949*, pt 2, p. 24.

and feedstuffs.[116] The calculated increase in cereal output caused the Permanent Secretary of the Ministry of Agriculture to lament that from a 'psychological point of view' it would be unfortunate if publicity caused the public to attribute the increase in output entirely to pest destruction rather that the government's agricultural policy as a whole.[117]

More detailed research undertaken after the war by W. M. Philips in West Wales suggests that these official figures for rabbit damage were conservative estimates. Experimental plots of herbage which were free from rabbits produced between two and eight times the amount of herbage per acre, depending on the season, compared with those grazed by rabbits.[118] Subsequent research revealed that the food requirements of a sheep weighing 120 lbs was equivalent to that of ten adult rabbits weighing about 40 lbs in total.[119] However, sheep were three times more effective than rabbits in converting herbage into meat. This marked difference reflected not only the biological difference between the digestive systems of the two animals, but also the fact that sheep were managed so that lambs were slaughtered before their feed conversion ratio began to significantly decline. Conversely the majority of rabbits, when not subject to sustained culling, would reach adulthood with longer periods of low conversion rates. As Lockley's pioneering pre-war research into rabbit control on Skokholm Island had shown, rabbits, under favourable conditions of abundant food supply, had the ability to increase their depleted numbers by breeding throughout the year rather than solely during the summer months.[120] Hence, while the rabbit population may have been reduced by culling, its rapid reproduction rate was sufficient to allow for compensatory gain via an increase in the number of litters each adult produced throughout the year. In effect the 'harvestable surplus' of rabbits which could be killed without seriously depleting population levels was greater than contemporary accounts of its population dynamics suggested.

The wartime reduction in rabbit damage was sufficient to account for a significant part of the wartime increase in agricultural output measured in financial terms at constant 1945–46

[116] Sheail, 'Rodent damage', p. 57.
[117] Ibid., p. 57.
[118] Philips, 'Effect of rabbit grazing' pp. 165–81.
[119] Lockley, *Private life*, p. 129.
[120] R. M. Lockley, 'Some experiments in rabbit control', *Nature* 145 (1940), p. 769.

TABLE 4. Expenditure on pest control and estimated reduction in level of damage

Year	*Expenditure on pest destruction by the Ministry of Agriculture (£)*	*Reduction in pest damage (%)*	*Financial equivalent (£m)*
1939	9000		
1940	8000		
1941	11,000		
1942	24,000	20	9
1943	29,000	41	19
1944	52,000	40	18

Source: TNA, MAF 44/33.

prices, which were calculated by the official history as being in the region of 15 per cent.[121] Even taking into account the conservative bias inherent in these official calculations, the wartime reduction in pest damage raised agricultural output by somewhere in the order of 3 to 4 per cent. Martin's revisionist critique has suggested that the figure was substantially less.[122] This revised calculation has been supported by research carried out by Brassley.[123] Taking into account these revisions, the wartime decline in rabbit damage appears to be the single most important factor accounting for the wartime increase in agricultural output.

In economic terms the wartime expenditure on pest control appeared to be very cost effective, amounting, according to Murray, to a mere £52,000 in 1944–5, whereas the reduction in pest damage was estimated at approximately £18 million.[124] As Table 4 shows, a conservative estimate would suggest that a reduction in pest damage of this magnitude benefited the country by £19 million by 1943 for a mere additional cost of £29,000. In the region of 50 per cent of this could be attributed to the decline in the incidence of rabbit damage. But the cost effectiveness of these figures is not quite as impressive as it may appear at first sight. This decline was not simply the result of activities of personnel under the jurisdiction of the WAECs, but also the efforts of a multitude of rural inhabitants who responded to the increased demand for rabbit meat.[125]

V

In 1947 the Agriculture Act transferred the powers of the Rabbits Order 1939 to the County Agricultural Executive Committees. The new legislation introduced grant aid to assist farmers and landowners with the costs incurred in controlling rabbits through the establishment of Pest Destruction Societies. Lack of publicity, however, meant that there was little awareness amongst

[121] Murray, *Agriculture*, p. 243.
[122] Martin, *Development of modern agriculture*, pp. 56–7.
[123] Brassley, 'Wartime productivity and innovation', p. 54.
[124] Murray, *Agriculture*, p. 384.
[125] BAP *Report No. 21A*, p. 2.

farmers that financial assistance was available or what procedures were to be followed to secure it.[126] As Sheail has noted, 'Behind the rhetoric of the bargain struck between government and industry which offered guarantees of economic stability in return for higher productivity, little had been absorbed as to the detail by which such technical and organizational aspirations might be achieved'.[127]

Pressure on the rabbit population was intensified by the post-war meat shortages. By the late 1940s, when austere and stringent rationing controls were worse than at any time during the war, the demand for illicit fresh meat, including rabbit, was at its highest. Indeed in towns such as Leicester the shortage of fish resulted in fishmongers reclassifying their stalls as Fish and Rabbit stalls.[128] This encouraged rural inhabitants of all descriptions to see rabbits not only as a desirable addition to their own pot, but also as providing a pleasurable activity which could be undertaken for commercial gain.

The revival of game rearing and battue shooting of the type which had prevailed before the war was slow to reappear. In particular the artificial rearing of game birds did not increase rapidly until the latter part of the 1950s.[129] In contrast rough shooting proliferated, with rabbits being regarded as a legitimate quarry not only by the shooting fraternity but also by poachers.

In his pioneering study of post-war poaching, Tom Shakesheff discussed several former poachers who felt that their activities had made them 'local celebrities' and the first point of call for fresh meat.[130] Indeed, the immediate post-war period was best remembered for the opportunities it provided for the illicit taking of game and rabbits.[131] While newspapers and accounts of the petty court sessions provided occasional graphic accounts of prosecutions of those caught poaching, not only in game preserves but also on farmland, landowners' ability to prevent poaching had been undermined by the reduction in the number of gamekeepers.

Given these pressures on the rabbit population, the damage they inflicted was at considerably lower levels than had prevailed before the Second World War. Measuring either the magnitude of the rabbit population or the extent of the damage they inflicted on agriculture is problematic, with estimates of the latter varying from the widely quoted figure of £50 million per year cited by the Ministry's own Myxomatosis Advisory Committee to less than £20 million per year according to the Labour peer Lord Archibald.[132]

What is clear, however, is that in the autumn of 1953, pestilence in the form of myxomatosis devastated the rabbit population. The disease was introduced into France by the bacteriologist De Paul Armand Delille, who used the virus to rid his private estate of rabbits in June 1952. By 1954 it had killed 90 per cent of the wild rabbits in France. In the first English outbreak

[126] TNA, MAF 44/5.

[127] Sheail, 'Rodent control', p. 66.

[128] Interview with Thomas Mattock, farmer and member of the Leicestershire War Agricultural District Committee, 16 Jan. 1991.

[129] Hoyle, 'Introduction: field sports as history', pp. 20–1.

[130] T. Shakesheff, 'For profit and pleasure: poaching in post-war Herefordshire, 1945–52', paper presented to the Social History Conference, Belfast (2003), p. 5.

[131] Ibid., p. 3.

[132] For a detailed critique of the different figures see Bartrip, *Myxomatosis,* pp. 134–5. The Myxomatosis Advisory Committee was established by the Minister of Agriculture, Thomas Dugdale on the appearance of the disease in England. Bartrip, *Myxomatosis,* p. 78.

at Bough Beech near Edenbridge, Kent, in October 1953, mortality rates in excess of 99.9 per cent were recorded.[133]

By the end of 1954, myxomatosis had been reported in eight localities in four south-eastern counties. It spread relatively slowly with the average advance being about 1.5 miles per month.[134] By 1957 it had been recorded in 34 counties, while six years later there was only one county in England and one county in Wales without any known cases of the disease.[135] By 1955 it had killed in the region of 95 per cent of the country's rabbits and it was initially feared that it could lead to their extinction.[136] The decimation of the rabbit had profound implications on the balance of nature.[137] Primarily it encouraged the spread of more palatable herbage and flowering plants.[138]

Myxomatosis has been widely acknowledged as the main causal factor accounting for the decline of the rabbit population. For the first time farmers realised what tolerating the rabbit plague had really cost them in terms of reduced levels of production. In an effort to ensure complete eradication, the government established mandatory Rabbit Clearance Societies in a number of areas to coordinate their clearance. Members contributed money on an acreage basis and the Ministry of Agriculture matched their contribution. Each society employed a roving team of rabbit catchers, who used ferrets or gas to deal with local infestations. Non-compliance could lead to rabbit destruction squads undertaking the task themselves, with costs being recoverable from the landowner, and fines in accordance with those specified by the Agriculture Act 1947.[139] In spite of the number of Societies increasing to 717 by 1964, they only covered 23 per cent of farm and woodland in England and Wales.[140] Even in areas under their jurisdiction, complete eradication of the promiscuous rabbit proved elusive. Having a gestation period of only 28 days, the ability to breed at six months and to produce four to six litters a year, with between three and nine offspring (kittens) in each litter, the rabbit's rapid reproduction rate ensured its long-term survival.[141]

Rabbit populations were also adversely affected by changes in agricultural practices in the post-war period, in particular cleaner farming, the grubbing up of hedgerows, scrub clearance and the state-directed emphasis on maximizing agricultural output. In addition, the Pests Act (1954) made the use of the gin trap illegal. This came into effect from July 1958 and led to an increase in the numbers of predators such as stoats and weasels. But following the low point of the mid-1950s, the rabbit population gradually revived after the initial single destructive strain of myxomatosis was replaced by a multitude of strains differing widely in virulence.[142]

[133] C. J. Armour and H. V. Thompson, 'Spread of Myxomatosis in the first outbreak in Great Britain', *Annals of Applied Biology* 43 (1955), pp. 511–18; Bartrip, *Myxomatosis*, p. 57.

[134] A. R. Mead-Briggs, 'Rabbits and Myxomatosis', in *Agriculture*, 73 (1966), p. 197.

[135] For a detailed account of the spread of the disease see ibid. p. 197.

[136] Ibid., p. 199; H. N. Southern, 'A Britain without Rabbits', *Discovery* 16 (1955), pp. 186–9.

[137] H. N. Southern, 'Myxomatosis and the balance of nature', *The Listener,* 16 Feb. 1956, pp. 247–8.

[138] Philips, 'Effects of Rabbit Grazing', p. 137.

[139] Bartrip, *Myxomatosis*, p. 110.

[140] Ibid., p. 120.

[141] B. Vesey Fitzgerald, *British Game* (1946), p. 169.

[142] J. Ross and M. F. Saunders, 'Changes in the virulence of myxoma strains in Britain', *Epidem. Inf.* (1978) 98, pp. 113–7.

VII

The period from the early 1930s to the mid-1950s witnessed a fundamental reappraisal in the state's approach to the common rabbit. This study illustrates that rabbit population dynamics were changing even before 1953, a factor which has received scant attention.

By the 1930s, rabbits, which were initially regarded as perquisites of the landowning and sporting fraternity, had reached plague proportions. They were having a significant impact on domestic food production, the magnitude of which was not fully acknowledged by contemporaries. The decline in the rabbit population during the Second World War and its immediate aftermath played a major role in accounting for the increase in agricultural output. The success of the state-directed campaign to kill rabbits reflected both a growing recognition of the damage they inflicted on field crops, including grass, but also their contribution as a valuable supplementary source of meat for a population engulfed by austerity and rationing. As the Ministry of Agriculture acknowledged, disseminating the benefits of the unprecedented wartime decline in the extent of rabbit damage would have been politically unwise in that it would have cast serious doubts on the effectiveness of the wartime control of agriculture. This has inadvertently established a tradition which has continued to resonate amongst agricultural historians who have focused on eulogizing the more conventional explanations for the increases in agricultural output during the pre-myxomatosis era.

Book Reviews

Great Britain and Ireland

BRUCE M. S. CAMPBELL, *Land and people in medieval England* (Ashgate Variorum Collected Studies series, 2009). xxii + 320 pp. £70.

This is the third volume of a trilogy of collections of essays in which Professor Campbell gathers together many of his significant contributions to our understanding of medieval England. The earlier volumes looked specifically at agricultural innovation and at fields and farming systems, but the present volume is no less firmly rooted in agricultural history. In the author's own words, it is concerned with 'the numbers, types, and conditions of people in late-medieval England and the relationships of those people with both each other and the land'. It contains only eight essays, some of them much longer than normal article length; among them is Campbell's 70-page seminal analysis, from 2005, of the early fourteenth-century agrarian problem.

Within this broad field, the essays cover an impressive range of topics. Given the extent and depth of Campbell's knowledge of medieval Norfolk, the detailed studies of population and the land market at Coltishall and of the complex manorial structure at Hevingham come as no surprise, and Norfolk evidence is brought to bear in other contexts too. But another article discusses, no less knowledgeably, the Winchester pipe rolls and there is a particularly thought-provoking study of the contrast between north and south in medieval England. The three other essays are more in the nature of general surveys, but always firmly based on the evidence of specific documents and places.

In the introduction, Campbell refers to earlier economic historians whose work was 'unencumbered by an excess of detailed empirical information'. No one could say this of his own work – which is not to say that it is overweighted with evidence, all trees and no wood. On the contrary, the evidence is brought to bear on general issues with impressive effect. One of Campbell's strengths is his use of numerical analysis; another is his undaunted capacity for sheer slogging. We see both in his account of 4090 Inquisitions Post Mortem and in the new and interesting light they throw on lords' revenues: the relative importance of tenants' rents and their services, free and customary, in the first half of the fourteenth century and the way this varied from one part of the country to another. Where evidence is defective – as in the gaps in the series of manorial court rolls at Coltishall – computer-based statistical methods are used to get round the difficulty. Campbell is well aware of current technology and much of the work in the book demonstrates how the computer has opened up a whole new approach to the relevant records. There is still a place for the detailed case study, but we are now for the first time in a position to test it against a much broader body of evidence, the total picture, to discover what is typical, what is unusual in a particular area or region.

Campbell no less properly points the way forward to work that needs doing, areas where we have more to learn. One is a corollary to his comparison of north and south in medieval England: 'Research into social and economic relationships and developments in the remoter, less congested, less urbanized, and more pastoral northern and western parts of the realm (and beyond in Wales, Scotland, and Ireland) has lagged far behind' – though the pioneer work of Dr Angus Winchester and others is beginning to set this right. Another is the need for more work on free tenants, still an under-researched area despite all that has been done since F. M. Powicke first drew attention to them in 1938.

Most readers of the trilogy of essays will already be familiar with some or much of the contents. But it is invaluable to have them brought together in this way. They are coherent, interesting and easy to read. And they remind us how much we owe Campbell for our expanding and deepening knowledge of the English medieval countryside. They are an important contribution to this knowledge.

P. D. A. HARVEY
University of Durham

JOHN BARRATT and NICOLA BANNISTER, *The archaeology of a great estate: Chatsworth and beyond* (Windgather Press, 2009). xiv + 218 pp., 93 figs. £20.

Most of the historic landscape surveys commissioned by English Heritage, its Scottish and Welsh counterparts, or by private landowners remain as typescript reports with limited circulation. They are working documents intended, firstly, to record the surviving historic features and, secondly, to provide agreed methods of management to ensure the preservation of the archaeological remains. The Chatsworth survey has broken free from the confines of this type of document, and the series of commissioned studies of the landscape archaeology of the estate around the great house have been re-cast as a book for a wider audience. In fact, it is the second such book; the earlier one examined the features of the park and gardens. These books are aimed at the reader who might want to investigate in detail the local landscape and understand how it reached its present form.

The area of the survey was defined by the current Chatsworth estate, but it is a broad swathe of Derbyshire landscape, measuring some 35 square kilometres, and provides a cross-section of the Peak District. It takes in the better land of the Derwent valley and the upland heather moors to the east. The ephemeral prehistoric remains have survived in the uplands alone: elsewhere they have been removed by subsequent agriculture. The Bronze Age fields on the moors are often poorly defined, sometimes marked only by cleared stone in otherwise stony ground. These uplands reverted to open moorland in the late Iron Age and Roman periods because of the deteriorating climate. Evidence for contemporary agriculture in the Derwent valley is slight, as it has been erased by later activity. A clearer picture only emerges again in the late medieval period. The ridge and furrow of the open fields has been preserved within the later parkland around Chatsworth, where there is particularly fine survival of the landscape. In each township there was a village or hamlet, usually of irregular form, set in the middle of its open fields. In areas of the poorer soil there were holdings in severalty, sometimes associated with isolated farmsteads. Harewood Grange is one of these, and is defined by a boundary earthwork on one side and moorland on the others. Medieval charters indicate that it had rights of grazing on the adjoining wastes on Harland Edge. A surviving medieval cross base on Beeley Warren might mark the boundary of the monks' holding.

The present-day landscape is largely the result of the work undertaken since William Cavendish purchased the Old Hall at Chatsworth and the associated land in 1549. The estate was progressively extended during the seventeenth and eighteenth centuries, but the largest addition was made through an exchange of land with the Duke of Rutland in 1823–5. It is not possible to make a sharp distinction between the parkland around the house and the surrounding farmland. The entire landscape around an eighteenth-century great house was modelled to provide gardens and vistas stretching far beyond, and in the nineteenth century, aristocratic influence extended to the creation of estate landscapes proclaiming wider ownership. At Chatsworth this is seen in the extension of the gardens and the diversion of the coach road in the early eighteenth century. In the 1760s the park was remodelled by Capability Brown and again from 1826 onwards under Joseph Paxton. The buildings of the village of Edensor at the gates of the park were reconstructed or altered in the 1830s and 1840s to create a model estate village.

This sequence of landscape development is repeated around numerous great houses across England. Chatsworth is by no means unique. The strength and the limitation of this volume is that it is a detailed study of one place. It does not seek to set the history of the estate landscape into a wider context and is essentially descriptive rather than analytical. It is clearly aimed at the visitor to Chatsworth and has an excellent chapter describing and illustrating the historic features to be seen along a series of walks through the park and estate. Agricultural historians may quarry this volume for examples of features found elsewhere, but the limited use of the estate archives and the emphasis on the visible landscape suggest that it has not been written with that audience in mind.

MARK GARDINER
Queen's University Belfast

GLENN FOARD, DAVID HALL and TRACEY PARTIDA, *Rockingham Forest. An atlas of the medieval and early-modern landscape* (Northamptonshire Record Society 44, 2009). 312 pp., 46 figs. £20 excl. p. & p.

This attractive new historical atlas covers some 221 square miles of northern Northamptonshire, encompassing the entirety of the royal Forest of Rockingham as defined in the late thirteenth century, as well as additional historically wooded areas to its south. It is an area with huge potential as a testing ground for theories about historic landscape evolution – a zone firmly within 'village England', but heavily wooded until the later medieval period, with open fields surviving until the eighteenth and nineteenth centuries and excellent conditions for earthwork preservation.

This is an eye-catching, colourful, large-format volume that will be valued for its superb visual material as much as its textual content. The mapping that forms the centrepiece of the volume is derived from methodical field surveys and scrutiny of available documentary sources, combined with systematic use of Ordnance Survey mapping and earlier cartographic sources. The work builds on David Hall's meticulous mapping of open fields in the 1960s, enhanced by the application of Geographical Information System technologies. Following a concise introduction to the area's topography and medieval administrative structure, readers are afforded a useful overview of the Forest and its hunting landscapes and woodland management; the development of the area's open fields and the pattern of enclosure are also summarized. Especially detailed is the section on the origins and character of medieval settlement. Characteristic plan-forms in the region include villages that developed in linear fashion along valley sides (including some notable 'paired' settlements on opposite sides of valleys), and others that grew by infilling broad droving routes. The authors like to see manorial sites and churches inserted into settlements at the same time as Saxon estates were fragmenting, although in most cases direct evidence for the dating of village origins is tenuous at best. Some of the accompanying historic map extracts are spectacular, and the full-colour production does them justice; in particular, features of the elite landscape, such as parks, lodges, castles and mansions, leap out at the reader.

Maps for three different periods (*c.*1300, *c.*1700 and the 1880s) are spread over many pages and form the core of the volume; the first two map types are in full colour and the last takes the form of compiled black and white OS sheets. With this quality of mapping it can only be wondered how a nasty grainy image found its way on to the front cover. That large chunks of the entire data set are available online (at http://www.rockingham-forest-trust.org.uk/) poses interesting questions about publication in the traditional form of an historic atlas. Digital technologies, affording the user the ability not only to pan across and zoom into seamless maps, but also to overlay different sources, means that some might question whether traditional publication is, indeed, the ideal medium for a data set of this sort. At the end of the volume a handy gazetteer is ordered by township, and serves well to bring up to date earlier work published in the 1970s by the Royal Commission on the Historical Monuments of England.

It is refreshing to be able to avoid the customary quibble about the price of such an elegantly produced volume: at £20 it represents exceptional value for money. Overall, the level to which diverse data sources are integrated and analysed is remarkable and the entire exercise is a model that deserves future application to other contexts.

OLIVER CREIGHTON
University of Exeter

JOHN MULLAN and RICHARD BRITNELL (eds), *Land and family. Trends and local variations in the peasant land market on the Winchester bishopric estates, 1263–1415* (University of Hertfordshire Press, Studies in Regional and Local History 8, 2010). xv + 175 pp., 15 figs., 38 tabs. £18.99.

The Winchester pipe rolls – the series of enrolled accounts of the manors of the Winchester bishopric estate, the earliest of which dates from 1208/9 – offer many riches to the agricultural historian. One is the information they contain on the entry fine, or the money paid by peasant tenant to landlord in the manor court whenever a villein or customary landholding was taken up by a new owner, and on similar fines paid on the marriage of a customary tenant, an occasion which often involved land transfer. These entry and marriage fines and their accompanying details represent a formidable body of evidence for the peasant land market. This book analyses thousands of fines, taking as its start date 1262/3, the year from which a new arrangement of the relevant entries in the sources permits systematic analysis. Collectively, the fines provide a rich picture of the inheritance, sale, and leasing of peasant tenements on well over 50 manors scattered across seven southern English counties.

The volume is the culmination of two major research projects that ran between 1996 and 2003. Mullan has published some project results in previous chapters and articles, and Mark Page, who undertook the original data collection on the period to 1349, has published others. It is only with the appearance of the present book, however, that one can begin to appreciate the sheer quantity of data generated by the projects, as well as the wide range of issues in the study of the peasant land market upon which this information sheds light. The book's detailed findings are set in context through an introductory chapter by Paul Harvey, which surveys previous work in the field.

The eight substantive chapters begin with a discussion (ch. 2) of the conditions on the bishop's estate, which provides the context in which the market in peasant property evolved. The next two chapters describe the units of property transferred, and the tenure by which they were held. While unfragmented standard units (virgates, half virgates etc.) were very important, the

traffic in a range of miscellaneous plots of unvirgated land and of cottages, messuages, and houses is a central theme. Then, in Chapters 5 to 9, the fines are used to trace the major changes in land transfer patterns over the period. There is a special focus on the extent to which transfers took property outside the family and to the degree to which *inter-vivos* rather than *post-mortem* transfer predominated. The book's broader findings are in many respects in line with the existing picture, describing the population losses of the fourteenth century that lead to a breakdown of links between family and property and to the emergence of a genuine market in land, which in turn permitted substantial individual accumulations.

The book does not restrict itself, however, to a broad-brush overview of the whole estate. One of the criticisms often made of the Winchester pipe rolls is that, while they yield unparalleled data, they were created by an exceptional landlord who practised a centralized and conservative estate policy. Mullan and Britnell tackle this issue head on, demonstrating how their evidence reveals variations in the land market – at the manorial and regional level – that have nothing to do with seigneurial directives, but everything to do with local conditions. In this way, they are able, using a number of examples, to show how general trends played out in specific manorial contexts.

The study is also admirably alert to the significant role of subletting. The holdings transferred between peasants represent units of ownership, and not necessarily of cultivation. Holdings could be sublet, but the extent and functioning of this practice is as yet inadequately explored. Mullan and Britnell explore it for the Winchester estate as far as they can. They find, though, that many of the recorded subleases were for lives, and conclude that shorter subletting contracts went unrecorded. Parts of the large, late medieval accumulations of holdings – such as the 100 acres or more scattered across East Meon manor, passed on by Thomas Knoller to his widow Nicola in 1399/1400 – were presumably sublet, as the authors note. However, it is difficult to observe this happening in practice.

All in all, this is an impressive study. Its generalizations about broad patterns are compelling, because they are based on such large quantities of data, while its local case studies enhance our understanding of how specific features, such as inheritance customs or soil quality, could either encourage or hold back traffic in land. It should offer a welcome stimulus to research on the medieval peasant land market.

CHRIS BRIGGS
University of Southampton

SHERRI OLSON, *A mute gospel. The people and culture of the medieval English common fields* (Pontifical Institute of Medieval Studies, 2009). ix + 242 pp. $75.

The 'Toronto School' of medieval historians, established by the late J. A. Raftis in the 1960s and 1970s, specializes in the court roll-based study of Ramsey abbey manors in eastern England. Characterized by the detailed reconstruction of individual families and communities, Sherri Olson's analysis of two Huntingdonshire villages is firmly rooted within that tradition. *A mute gospel* examines several different aspects of rural society and culture, including the extent and uses of peasant literacy, the prosecution of trespass in the manor court, and changing patterns of personal naming. Two distinctive features of the book call for special mention. First, Olson is heavily influenced by modern cultural theory, and analogies are drawn with such varied societies as those of classical Athens and nineteenth-century slave communities in the United States. Secondly, the author does not engage with critics of the Toronto School's methodology and overlooks much recent relevant research, particularly that published by British historians.

The book focuses on the well-documented manors of Ellington and Upwood, both open-field parishes to the south-west of Ramsey. Conveying a sense of place is not Olson's chief concern and she provides no description of these manors, or even a map outlining their distinctive features of landscape and settlement. Reconstruction of the physical landscape is very much secondary to reconstructing the mental landscapes of the inhabitants, though several chapters demonstrate that the two are inextricably intertwined. At Ellington, for example, Olson claims that distinct neighbourhoods (called Coten and Sybethorpe) emerged in the late thirteenth and early fourteenth centuries and entered into local consciousness because they were inhabited by an unusually high proportion of women. The suggestion that some places were distinctively female in the Middle Ages may be true, though difficult to substantiate with any certainty. But it is not tenable, in this case, to argue that the preponderance of women created newly recognizable communities. Nowhere in this book does Olson make clear that, like many other parishes with nucleated villages, Ellington also included some dispersed settlements. Coten and Sybethorpe were hamlets whose separate histories and identities almost certainly long pre-dated their first appearance in the surviving manor court rolls.

Other assertions made by Olson are also unlikely to go unchallenged. In a discussion of the village court as an arena for performance, ritual and storytelling,

an incident of park-breaking in which several villagers 'maliciously' ploughed up land is related to the observance of Plough Monday celebrations, marking the resumption of labour in January after the winter holiday (p. 82). But an alternative explanation of the case, which was heard on 3 December 1299, is that land-hungry tenants attempted to convert a few extra acres to tillage during the winter sowing season. More successful is an interesting chapter on the chronology of trespass, in which Olson argues that, before the Black Death 'the term *transgressio* for landed trespass showed a strong, though not exclusive, tendency to refer to trespass against the lord's landed interests' (p. 161). By contrast, in the post-plague era, trespass was as likely to be committed against neighbours, individuals, and the community. The nature of the offence had also changed, from deliberate acts of damage (to wood, grain, and meadow) before the plague, to a 'new spirit of violation by inaction' thereafter, in which tenants failed to clean ditches, mend hedges, and clear footpaths (p. 170). By the fifteenth century, it is claimed, an atmosphere of lawlessness had arisen, caused by the increasing number of animals in streets that seemed so empty of people.

This is in many ways a disorientating book for British agricultural and social historians. The emphasis on cultural theory, the failure to take account of much relevant historiography, and the lack of topographical context make it difficult for readers to fully engage with the arguments presented and to evaluate the interpretations proposed. By no means is this a bad book, but it stands somewhat apart from the mainstream of current medieval social and economic studies. For that reason its impact, like the countryside it describes, will probably be muted.

MARK PAGE
Victoria County History, Oxfordshire

CHRISTOPHER DYER and RICHARD JONES (eds), *Deserted villages revisited* (University of Hertfordshire Press, Explorations in Local and Regional History 3, 2010). xix + 207 pp., 40 figs., 6 tabs. £14.99.

This book originated in a 2008 conference to mark the sixtieth anniversary of the study of deserted villages as a field of academic research. Bringing together a number of writers from a variety of academic backgrounds – archaeology, geography and history – the editors have sought to rejuvenate and reinstate the subject as an important and dynamic field of research and one that has much broader implications far beyond settlement studies. It is a timely contribution providing an opportunity for scholars to take stock of research to date and, in the light of recent theoretical and methodological developments, to question many of the assumptions and myths that have adhered to the subject over the intervening years.

The difficulties of dating and assigning a single cause to settlement desertion, and indeed the extent and nature of abandonment itself, are highlighted in interesting ways in this collection. In an early chapter, Richard Jones addresses the problems inherent in the vocabulary of settlement classification and periodization, which prioritizes 'deserted medieval villages' above other settlement types and phases of abandonment. More than a matter of linguistic nitpicking, inadequate terminology continues to frame, often without consistency, county archaeological databases and thus impacts upon the interpretation and understanding of regional and local patterns of settlement desertion. Thoughts on the problems and possibilities of field work and the interpretation of the remains of deserted sites are offered by Paul Everson and Graham Brown in an engaging account of their field visit to a number of village sites in Leicestershire, equipped with the earthwork plans originally published in an article by W. G. Hoskins in 1956. Their discussion reflects the dissatisfaction with 'comfortable pigeonholing', welcoming instead inconsistencies and the possibility of change over time. Reflecting upon his work at Wharram Percy, Stuart Wrathmell similarly urges a more sophisticated analysis of settlement histories beyond simple classifications. In his chapter on the material artefacts recovered from deserted medieval sites, archaeologist David Hinton questions the often-assumed correlation between poverty and abandonment. Finding little difference in the objects found in peasant and high-status households, and little in the way of distinctive regional characteristics of assemblages, he invites reflection upon our modern notions of economic worth tempered by a more sensitive consideration of the cultural and social meanings afforded to material goods.

The question of settlement size and socio-economic viability is a recurring theme. In an essay on upland settlements, Robert Silvester reconsiders the retreat from 'marginal land' hypothesis, prominent twenty years ago. He cautions against equating the cessation of cultivation with abandonment and argues, as do others, that abandonment is complex and unpredictable and cannot be pinned down to a single process. As several contributors point out, the extent and meaning of desertion needs to be carefully contextualized. Many deserted medieval settlement sites were not entirely abandoned, with some continuing to exist well into the eighteenth century. It has long been recognized that settlement size constituted an important factor

in areas dominated by wealthy landowners and yet, as Williamson forcefully argues, the relationship between post-medieval designed landscapes and settlement desertion was complex and not necessarily concurrent. Whereas depopulation and shrinkage once signalled the terminal demise of a community, this volume shows the resilience of settlements, including hamlets, isolated farmsteads and, in Wales, seasonal dwellings.

An important investigative strand of the book deals with the experiences of individual communities and households. The most explicitly theoretical perspective is provided by the archaeologist Sally V. Smith, who offers a spatial reading of late medieval peasant households, highlighting the profound differences in dwelling across a compact geographical area. Christopher Dyer brings new documentary evidence to bear on debates concerning the dating and causes of desertion. Exploring the destabilizing impact of neighbourhood disputes and anti-social behaviour, Dyer moves away from economic and environmental determinants to consider instead the internal disruptions to village life caused by the breakdown of socio-economic relations. The activities of non-elites in bringing about settlement change are also examined by John Broad in his study of abandonment and the 'metamorphosis' of two Buckinghamshire villages in the seventeenth and eighteenth centuries. While acknowledging the role of landlords in bringing about village depopulation, he also highlights the incremental changes brought about by tenant farmers, often newcomers, following the enclosure of common land by agreement and the creation of ring-fenced farms. As well as recognizing the agency of non-elites in transforming settlement patterns, the essays demonstrate how micro-studies of spatial organization, socio-economic relations and underlying cultural shifts can offer valuable insights into patterns of survival, shrinkage and abandonment among broadly comparable economic and physical environments.

Unsurprisingly, important and fundamental shifts have taken place since the mid-twentieth century in the ways settlement sites are surveyed and interpreted yet, as each chapter in turn effectively demonstrates, we still do not fully understand the causes of settlement desertion. The lack of a coherent explanatory model, once accepted within 'deserted medieval village' studies, has been replaced by an inquisitive approach that celebrates complexity and diversity and problematizes the labels and assumptions that have long been attached to the subject. Though the editors set out to raise the profile of deserted settlement studies, the overall value of the volume is somewhat underplayed in their concluding comments. The issues and questions raised here do indeed resonate far beyond settlement studies, not least among social and environmental historians interested in issues of sustainability, household economies, meanings of place, belonging and the reformation of community identities in the face of change. For its chronological depth, interdisciplinarity, wide-ranging insights, and relentless questioning of prescribed knowledge, this collection is to be highly recommended.

NICOLA WHYTE
University of Exeter

NICOLA WHYTE, *Inhabiting the landscape: place, custom and memory, 1500–1800* (Windgather Press, 2009), ix + 181 pp., 40 figs. £20.

The field of landscape history has long been dominated by a preoccupation with tracing the ways in which the emergence of agrarian capitalism and associated economic processes steadily and inexorably transformed the physical environments occupied by people in the past. Nicola Whyte's important and pioneering book challenges this prevailing paradigm through a close study of the county of Norfolk. It forges a fruitful link between recent theoretical approaches to the landscape as a cultural construct and perspectives and arguments that have been a hallmark of influential work on the social history of early modern England over the last two decades. The result is a monograph that significantly recasts our understanding of both the making of the post-medieval landscape and the spatial dimensions of the formation of social and economic identities and relationships between 1500 and 1800. Through skilful examination of two key sources – cartographical material surviving in local and national archives and records from the central law courts – Whyte is able to reconstruct in revealing detail how the early modern inhabitants of East Anglia perceived, negotiated, and appropriated the material world surrounding them. The keynotes of her analysis are an emphasis on the agency of the populace at large in shaping the rural environment and recognition of the capacity of the landscape to function as a powerful catalyst and stimulus to custom, right, and memory. Reacting against the tendency to regard the landscape as merely a passive backdrop to structural forces that fundamentally altered its use and reconfigured class relations, Whyte paints a picture of the complex interactions and conflicts that occurred between individuals of all social ranks over the spaces and places that they inhabited and traversed.

Chapter two of the book examines the extent to which the Reformation altered the spatial framework

of sixteenth-century spiritual topographies, not merely by eliminating many reminders of the Catholic Church that demarcated the landscape – monasteries, chantries, hermitages, pilgrimage chapels and wayside crosses – but also by re-orienting religious practice more firmly around a reduced number of parish churches. Whyte's findings about Protestantism's 'rationalisation' of the traditional foci of religious and liturgical life are particularly striking and have implications that call for further investigation. Chapter three explores the effects of administrative developments that led to the growing encroachment of the Tudor and Stuart state on local communities, notably through the consolidation of the parish as an instrument of welfare provision and jurisdiction. It also highlights the gradual transformation of Rogationtide perambulations from a religious ritual into a mechanism for demarcating parochial boundaries and articulating rights and responsibilities. In chapter four, Whyte turns to the local 'geographies of custom and right', and shows how enclosure and other changes in land use fostered networks of association that cut across conventional socio-economic divides. In contrast with accounts predicated on a polarity between ambitious and avaricious landowners and subjugated tenants and commoners, she underlines the extent to which enclosure and other changes in land use could result in alliances as well as clashes and tensions. Chapter five assesses how physical landmarks surviving from the past were assimilated into new matrices of belief and action. The 'afterlives' of standing crosses as territorial markers, of saints' days as critical junctures in the agricultural calendar, and of prehistoric barrows as sites for the interment of the deviant dead, illuminate the manner in which material relics and remains affected the lives of future generations. In a culture of limited literacy and vibrant orality, such physical structures were critical in shaping contemporary outlooks.

Sensitive, nuanced, and persuasive, *Inhabiting the landscape* demonstrates how local and micro-history can illuminate larger questions about religious, social and economic change. Straddling the boundaries between landscape and social history, Whyte's book has significant implications for scholars in both fields and should help to encourage greater dialogue between them. Its publication coincides with a kind of 'spatial turn' in historical studies that is gathering momentum. A model of interdisciplinary endeavour, it also sets a fresh conceptual agenda and a methodological example that deserves wider emulation.

ALEXANDRA WALSHAM
Trinity College, Cambridge

TOM ARKELL with NAT ALCOCK (eds), *Warwickshire Hearth Tax returns: Michaelmas 1670, with Coventry Lady Day 1666* (British Rec. Soc. Hearth Tax Ser. 7; co-published as Dugdale Society 43, 2010). xiv + 566 pp., 25 figs., 29 tabs., 18 maps. £35.

Seventh in the British Record Society Hearth Tax series, the volume for Warwickshire is a monument to the excellent research and analytical skills of its editors. In addition to a transcript of a full set of returns and a selection of exemption certificates, it offers an extensive introduction to using the returns, in conjunction with other records, to illuminate a very wide range of features of Restoration Warwickshire. Although the detailed discussion of the administration of the Hearth Tax (pp. 12–23) applies specifically to that county, the guides to the various methods of collection tried by the government – sheriffs, receivers, farmers and receivers again – and to the qualification for exemption are lucid accounts of complex issues that will be invaluable to anyone studying the Hearth Tax.

Apart from Coventry, which was assessed separately, Warwickshire is blessed with no fewer than eight virtually complete returns. In his meticulous analysis of the 1670 lists, however, Arkell concludes that even these are far from perfect; for example, about 4 per cent of the householders were named incorrectly (p. 43). Moreover, since there are numerous inconsistencies in household numbers, including exemptions, within each parish, he urges caution when using tax returns as indicators of household numbers in a community. Perhaps he is being rather too negative here, since such problems are only apparent precisely because so many Warwickshire returns have survived; elsewhere one has to use what few returns are available, and be grateful.

There is a complex analysis comparing the county's towns with their rural hinterlands. Arkell reconstructs rural 'sub-regions' of at least a thousand households by 'spotting those parishes that were broadly similar and then grouping them together' (p. 62), the similarity being the proportion of households with three or more hearths. Although he justifies these groupings, the written analysis of his findings does not always tally with the percentages plotted on Map 3. The histograms illustrating hearth numbers within individual parishes (Figure 1) provide much more convincing graphic evidence of differences between various regions.

Arkell then deconstructs the connection between the number of hearths in a house and the householder's social status (pp. 73–87). Looking at the 'meaner sort', for example, he compares the occupations of non-chargeable and chargeable male householders. He concedes, not surprisingly, that 'simple hearth numbers alone can rarely be equated with different occupations

or status' (p. 87), not least since occupational data rarely disclose dual employment. 'Wealth and poverty: the elusive issue' (pp. 88–102) reassesses the crude equation of wealth with hearth numbers that has bedevilled many previous studies. Arkell analyses a sample of 50 probate inventories using various methodologies – calculations not only of the total inventory value, but also of 'material wealth' and 'consumption goods' – and compares them with hearth numbers but, again, few clear correlations can be identified, not least because crop values varied according to the time of year. His analysis of poverty (pp. 97–102) is particularly sophisticated: drawing on various poor relief records he demonstrates that contemporaries distinguished between those of the 'poorer sort' who did or did not receive relief, as well as between those who did or did not pay taxes.

Within the introduction there is a marked inconsistency in the geographical units used to assess the significance of the returns. In his own analyses, Arkell has consistently followed contemporary parochial boundaries by drawing together relevant 'constableries', chapelries and 'ends' into whole parishes. In the mapping section, however, Alcock has attempted to retain those smaller units as separate areas, but has only done so where their boundaries can be defined. The various maps showing percentages of households with particular numbers of hearths follow the style of those in previous BRS volumes: the Hearth Tax Project's funding dictates the presence of such maps, but this reviewer has yet to be convinced of their usefulness.

Alcock's section correlating standing and depicted houses with Hearth Tax returns is fascinating. Particularly relevant is the design and construction of Warwickshire housing: much work on the Hearth Tax has ignored local building styles, which dictated the number of hearths almost as much as the 'wealth' of the builder or occupant. The discussion of the use of coal for fuel draws attention to different methods of heating, although braziers, which did not need a hearth, are not mentioned: in coal-burning areas, one hearth did not necessarily mean only one heated room. The detailed analysis and tabulation of 681 probate inventories that can be linked to hearth numbers and room totals (Table 25) deftly dispels the fallacy that one-hearth houses (whether chargeable or non-chargeable) were *by definition* pitifully small, although of course the homes of those too poor to be inventoried probably were.

In addition to the comprehensive introduction, there are the returns themselves; detailed digests of those returns (Tables 28 and 29); separate indexes of persons, places and subjects; and two keys for the mapping units. Warwickshire historians are fortunate to have not only eight full sets of Hearth Tax returns but also such an all-encompassing printed volume, which, for all my gripes, contains the best introduction to any published returns and which historians of other counties would be well advised to read.

HEATHER FALVEY
Rickmansworth

COLIN PHILLIPS, CATHERINE FERGUSON and ANDREW WAREHAM (eds), *Westmorland Hearth Tax, Michaelmas 1670 and surveys, 1674–5* (British Rec. Soc., Hearth Tax Ser. 6; co-published as Cumberland and Westmorland Antiquarian and Arch. Soc. Rec. Ser., 29, 2008). xvi + 355 pp. £35.00.

This is the sixth volume in this series, three of which have been of northern counties, County Durham, the West Riding and now Westmorland. We may have to wait a long time for the volume for Cumberland, because it is reported here that the county's returns are not only incomplete but also in poor condition, and so for the time being this volume will have to serve to illustrate the economy of the far North.

The volume proceeds on lines that are well established and familiar. It prints the return to the Exchequer of the Michaelmas 1670 tax and a rather exceptional survival, a survey made by the farmers of the tax for Westmorland in 1674–5 for the Westmorland JP, Sir Daniel Fleming, which remains amongst his papers. A shorter survey for Kendal is also included. Rather alarmingly, the surveys show how much more assiduous the farmers were in finding taxable hearths than the parish constables. The total number of households found in 1670 was 5131, the total in 1674/5, 6833, and, for hearths, 7110 and 10,446 respectively (Table two). Such is the efficiency of seventeenth-century private enterprise over parochial administration! Table three shows just how volatile from return to return the number of households was, as well as the difficulties of comparing differing returns for neighbouring counties. All of this is explained and tabulated with clarity. The centrepiece of the volume for those uninterested in the micro-topography of the county are the two essays by Colin Phillips, one on the economy and society of the county about 1670 and the other on 'Westmorland in the Hearth Tax documents' in which he deploys a career-long interest in the county (and Kendal in particular) to good effect.

This was an extremely poor county. In the county as whole, 83 per cent of all households were one-hearth households in 1670 and 73 per cent in 1674/5. The proportion was higher in the north of the county ('The Bottom') than in the south ('The Barony'), 89.9 per cent and 67.5 per cent respectively in 1674/5. Phillips is

adamant that individual poverty should not be inferred from the possession of a single-hearth property and shows that some of those living in apparently poor conditions had high levels of wealth at probate. In general, the use of probate documents in his contributions is very attractive, and Phillips integrates recent work in vernacular architecture. He contributes a couple of pages of discussion on the problem of fuel in the county – no local coal, little woodland and a reliance on peat and turf. In the end, though, the problem of fuel supply, and the difficulties it posed for housing, were probably greater than he allowed. He draws attention to the significance of the 'grate' in inventories but does not draw on the architectural evidence of chimneys at this point. Others might want to take this up. Phillips's discussion of the shifting occupancy of houses in Kendal is of great interest.

Like its predecessors, the book is a delight to handle. Being a much smaller county, the single page maps (by Mike Shand) work much better than in the West Riding volume. It is also well illustrated with pictures of representative buildings and pictures reproduced from manuscripts. Amongst the latter are two splendid drawings by the herald (and later political arithmetician), Gregory King, of Appleby and Kendal seen from the west. The latter, shows a very significant (and modern for its time) house on the east side of Highgate close to Kendal church. Whose house was it? Phillips does not tell us, but it would be interesting to know.

In assessing the earlier West Riding volume, this reviewer made some sharp comments on the index. It is doubtless not the power of my pen that has made the Hearth Tax team prepare a proper index of persons on this occasion, but it is extremely welcome. So, all in all, this is a job well done. One hopes that the series can maintain the momentum – and the funding – to make the appearance of further volumes a regular event even if some of them will have to be of southern counties.

R. W. HOYLE
University of Reading

ALAN W. FOX, *A lost frontier revealed. Regional separation in the East Midlands,* Studies in Regional and Local History 7 (University of Hertfordshire Press, 2009). xiv + 210 pp., 86 figs., 11 tabs. £35.

Like topless sunbathing or tear gas in the streets, some things that seem natural in France do not always translate very well to Britain. This has been true of the quest for regions and regional identities in historical perspective. After a century of Febvre, Braudel and a plethora of theses and books reconstructing the geo-social regions of France, the idea that people, as well as vines, should have their own particular *terroir* is almost a cliché of Francophone scholarship. In England, by contrast, although Charles Phythian-Adams's innovative work on regional formations has been widely admired, it has not been much imitated or developed.

Alan Fox's in-depth depiction of a social-spatial faultline between east Leicestershire and west Lincolnshire provides a highly methodical, meticulously researched, well-grounded and very welcome test of Phythian-Adams's hypotheses about regional 'societies'. Phythian-Adams's thesis is, broadly, that the geographical distribution of social contacts and interactions is shaped by natural features such as major watersheds. These have provided barriers to communication and mobility for millennia, and have even helped to define (and been reinforced by) administrative boundaries. This is not crude geographical determinism, but might be described as geographical 'structuration' – that is, such watersheds provide some of the parameters that shape, channel and delimit human interactions, and therefore contribute to the definition of the experiences and identities of the populations within them (not always in predictable ways). Although to the outside observer the barrier between Leicestershire and Lincolnshire seems to lack the existential drama of that between Yorkshire and Lancashire, Fox explains that it fits most of Phythian-Adams's criteria. The bulk of the population was concentrated within major river basins, while the frontier between the counties coincided with a relatively sparsely populated limestone heathland. Each of these areas was oriented towards a 'primate' town – Leicester, Nottingham, and Lincoln. This seems to have been recognized by a county structure established early in the eleventh century, under Danish rule.

Fox tests this hypothesis carefully and systematically through this volume. He organizes his analysis into three parts. Firstly, he explores the applicability of Phythian-Adams's hypothesis to the border area that he has selected, particularly in relation to its physical geography and history. Secondly, he examines aspects of the area's economic, social and cultural history, to determine whether different experiences of population growth, wealth and poverty, enclosure and vernacular architecture and culture indicate a sharp separation around the county boundary. The evidence is mixed. West Lincolnshire was marginally more prosperous than east Leicestershire. Enclosure histories did not vary dramatically, but there may have been a small net inflow of population from populous Leicestershire into unenclosed parishes in Kesteven in Lincolnshire. Patterns of vernacular architecture and speech exhibited some quite marked differences. Thirdly, Fox moves onto examining the evidence of spatial contacts, generated

by marriage alliances, probate links, kinship and dynasties, and then transport and economic flows.

This evidence is the most suggestive. Marriage links were comparatively weak across the heathland, compared to intra-county alliances, both among marriage partners and their sureties. While Fox does not find strong evidence of the presence of 'dynastic families' spreading out across several parishes, the paucity of cross-border connections appears to confirm the marriage data. Even so, his comment that 'some of the Lincolnshire bondsmen also hint at a connection with farm animals' (p. 120) could, perhaps, have been rephrased, although it may embody dark Leicestershire suspicions! In some ways, Chapter Eight is the most interesting one in this third section, because it mentions two impediments to mobility that could have been embedded more firmly in this analysis. The first of these was that Leicestershire and Lincolnshire hiring fairs were out of phase. In Leicestershire servants were hired annually from Michaelmas, whereas in Lincolnshire hiring was concentrated around Mayday. These fundamental differences in the agrarian labour cycle must have had profound effects on the movements of the (most mobile) unmarried labouring population. Secondly, it deals effectively, but in a relatively limited number of pages, with the road network, which was oriented very strongly north–south rather than east–west. The Great North Road ran through the eastern side area, and must have exerted a tremendous alternative 'field-of-force', pulling migrants south towards London. The modern A606 speared north–west, taking travellers to Melton Mowbray and Nottingham. Roads carry possibilities as well as people, and it may be that the powerful influence of these prospects crowded out many cross-border links. Neither of these observations denies Fox's assertion that the border between the two counties appears to have formed a tangible societal barrier, or that the county boundaries may have been drawn up to reflect a pre-existing disposition of connections and networks. Instead, they merely suggest that some of the reasons for the patterns within this region may lie outside it.

This study is the most thoroughgoing test and demonstration of aspects of Phythian-Adams's thesis. It is based on rigorous and exhaustive parish-by-parish analyses, including a phenomenal family reconstitution of fourteen parishes in this border area. Fittingly, perhaps, this is research on the epic scale of an *Annaliste* doctoral thesis. The end result is persuasive, even if the concluding discussion, which pushes back the 'region' to the Danelaw, based on surname and place-name, might not persuade early medievalists. Yet, although the idea of geographical 'structuration' is fascinating, and plausible, this reviewer suspects that further research will be necessary before the sceptical *rosbifs* are fully convinced. In particular, Phythian-Adams's ideas now seem quite a long way removed from recent work on identity formation, which stresses the multiple, overlapping and contextual nature of identity. While this can sometimes be stretched to atomized anomie, it does imply that although the spatial boundaries of regional 'societies' were formative in some contexts, it may yet be difficult to demonstrate that these provided the hook on which all else hung.

H. R. FRENCH
University of Exeter

J. BRENT and P. GOODWIN, *Working the land in Romsey: a history of farms and farming in a Hampshire parish* (Romsey: Lower Test Valley Archaeological Study Group, 2009). 208 pp., 42 figs. Available from http://ltvas.org.uk, £5.95.

Romsey is a market town on the River Test in Hampshire, most notable for its 'big house', Broadlands (home of the late Lord Mountbatten). Today it provides little agricultural employment, but it still has the feel of an agricultural town, particularly on market days. The proximity of the river and the Broadlands estate mean that there are still fields close to the town centre, and Romsey continues to host the oldest surviving agricultural show in England.

The genesis of this little book lies in a project initiated by Hampshire County Council, who were concerned by the 'inappropriate conversions of old barns'. A team started work, but concluded that it would be more interesting to take a wider look at the history of farms and farming in the area. This book is the result. The authors, who are not attributed on the cover of the book, acknowledge 'contributions from LTVAS colleagues & members of the local farming community'.

A wide range of source material has been used – from archaeological reports, through Dr J. Latham's 'Notes for a history of Romsey', to the National Farm Surveys of 1940–3 – to trace farming in the area from the Early Iron Age to the present day. The first chapter covers the period 'Before the founding of the abbey' in *c.*907 in just a few pages: limited archaeological evidence tells us that an Iron Age presence was followed by a Roman villa and some activity in the mid-Saxon period and later. 'The Lady as Lord: 900AD to 1539' is much longer, padded out with background material explaining the significance of the Romsey information. There are delightful illustrations from manuscripts in the British Library, including one of medieval nuns netting rabbits with ferrets, and a painting of the last

Abbess of Romsey herself, on the reredos of the Abbey Church. In 'The dissolution of the Abbey to the first Lord Palmerston', our attention is drawn to yeoman farmers and their 'well-built houses', which can still be seen in the area today.

The strength of the book lies in its treatment of the eighteenth and nineteenth centuries, in the chapters on 'The great landlords: Palmerstons & Flemings, 1736–1840' and 'The Golden Age, 1840–1870'. Here, use is made of the two estate archives – the proportion of Romsey-specific material is much higher than in earlier chapters – showing that 'the agricultural history of Romsey has mirrored national trends': the disappearance of husbandmen, the increase of 'landless poor', the replacement of copyholds by leases for lives, and the decline of yeomen farmers. Romsey, in common with many other places in the South, experienced its share of rural poverty, 'Game Wars' – illustrated by the exciting story of a Broadlands poacher who was eventually hanged for the murder of one of Palmerston's gamekeepers, despite the whole town, including Florence Nightingale, rallying behind him – and the Swing Riots. During the 'Golden Age', improvements such as the model farm built by Lord Palmerston, the plan for which (unfortunately reproduced too small for the captions to be legible) is still recognizable in the aerial photograph, were offset by impoverishment of farmland in favour of game (later, bizarrely, Palmerston's step-son, Cowper-Temple, was to cause problems for tenant farmers by not allowing rabbits to be killed, out of concern for animal welfare). This chapter ends with a great deal of entertaining information about prizes given to agricultural labourers by Palmerston, for example, to 'Moses Sillence and his wife for the neatness and cleanliness of their cottage and premises'.

Once we reach the late nineteenth and early twentieth centuries, in 'Troubled times: 1870–1914' and 'Agriculture at war: 1914–45', the text is enlivened by photographs. The theme of 'mixed farming', which seems to have run through the whole story, is now broken by some interesting specialization, including chicken farming, dairying, and tomato growing under glass. In the last chapter, 'Within living memory', we see the tomato nursery being replaced by a garden centre, farmland close to the town being gobbled up for housing, and even the Broadlands estate being encroached upon for sports fields.

The original 'barn conversion' project is memorialized by the 'Gazetteer of major farm buildings today' which gives the farm name, grid reference, current use of lands and surviving buildings, a few historical and other notes, and the estate to which the farm belonged. Although there is a bibliography, there is a complete lack of footnote references. But there is much of interest here for anyone who knows the area, particularly the denizens of those 'housing developments', who may have wondered what the land was like before they arrived.

C. E. M. GLOVER
University of Winchester

MICHAEL HEATON, *A farming history of Spratton, 1766–1914* (Spratton Local Hist. Soc., 2009). 72 pp., 66 figs., £4. Available from Spratton Local History Society, 6 Yew Tree Lane, Spratton, Northampton, NN6 8HL.

The village of Spratton lies six miles north-west of Northampton in the rolling countryside on the edge of the Northamptonshire Uplands. Like the surrounding parishes, it was enclosed at the height of the parliamentary enclosure movement in the second half of the eighteenth century. Today the compact village and medieval church are surrounded by a landscape of neatly hedged, straight-sided fields. Most of the agricultural land in the parish is currently in the hands of six or seven big and medium-sized farmers who mainly have it down to livestock along with smaller acreages of wheat, barley, beans and rape (pp. 45–9).

Such was not always the case, as Heaton's short history of the parish in the 250 years since the parliamentary enclosure amply demonstrates. Thus for example, landholding was more equally split between big and small landowners at the time of the enclosure in 1766, when those holding less than 100 acres farmed about 25 per cent of the parish (p. 12), while in the mid-nineteenth century most of the parish was farmed by a small number of large landowners (p. 27). Extensive research has allowed Heaton to trace the changing landholding structure of the parish from 1766 up to the Second World War, as well as to include detailed information on landholding, crops and rotations practised in 2009. The changing fate of Spratton's farmers is represented on eleven maps – some in colour, some black and white – which show the location of the various landowners' and tenants' properties. All this is accompanied by detailed genealogical information on the leading farming families in the parish, as well as other useful illustrations including a reproduction of the landscape historian David Hall's map of the pre-enclosure field system and Heaton's own reconstruction of the now lost 1766 enclosure plan.

Nevertheless, Heaton could have said more about how the shifting landholding structure of the parish impacted upon other aspects of the village experience, as well as about the parish's changing appearance in the

250 years since enclosure. The information represented on the impressive series of maps also cries out to be more clearly summarized at the end of the book, either by means of some basic statistics or in a concluding discussion. More importantly, considerably more could have been done to set Spratton's history in the context of wider research on Northamptonshire, the Midlands and Britain more generally. While Heaton does briefly discuss how climatic shifts, the coming of the railways and fluctuating wheat prices affected farming in the parish, some of this analysis would have been improved by reference to the wider literature. Significantly, a number of key works on Northamptonshire are never mentioned, perhaps most notably Jeanette Neeson's *Commoners*.

Overall then, this is a highly detailed and lovingly researched piece of local history abundantly illustrated with maps and photographs. That said, ultimately it needs to do rather more to be either of interest to those without a local connection or of use to those looking for comparative material to draw on in more substantive histories of rural landholding.

BRIONY MCDONAGH
University of Nottingham

VAL PORTER, *British pigs* (Shire Publications, 2009). 56 pp., 84 figs. £5.99.

The majority of British pigs are intensively reared white hybrids living indoors in large units. This book is not concerned with them, although it recognizes their existence. It is about the sort of pigs, mostly belonging to traditional breeds, more likely to be found on smallholdings or in farm parks, and is presumably aimed at visitors who want to know more about the pigs they have seen, or smallholders interested in the origin of their pigs. This is not an insignificant number of people, since 46 per cent of all herds had less than ten pigs in 2005, but it is only a small proportion – 3.1 per cent in 2005 – of the national pig herd.

After an opening chapter on the traditional role of the pig (which includes the only picture that this reviewer has ever seen of a pig being hand-milked), there is a discussion of the evolution of domesticated pigs in Britain, followed by chapters on individual breeds. These are divided into the coloured breeds, such as the Large Black, Saddleback, Berkshire, Tamworth, and Gloucester Old Spots among others, and the white breeds, such as the Large White, Middle White, Landrace, British Lop, and the now-extinct Lincolnshire Curly Coat. Most of the breeds covered in these chapters will be familiar to agricultural historians, but we might not be so well acquainted with what are called 'new pigs'. These are covered in a third chapter and include the Jinhua and the repulsively wrinkled Meishan – both imports from China; the woolly-coated Hungarian Mangalitsa – probably related to the Lincolnshire Curly Coat; the Froxfield Pygmy – bred, unlike most pigs, to be small, because that is an advantage in the laboratories where they are most likely to be found; and the Pennywell miniature pig – also bred for small size because children prefer to pet small animals in the farm park in which it originated.

The main strength of this short book is in the illustrations, which are numerous and comprehensively captioned. Readers requiring a rapid identification of traditional breeds will also find it useful, but as an introduction to the history of the pig it fails to provide much detail or further reading. All the modern references are to the author's own works, with no mention of Julian Wiseman's *A history of the British pig* (1986) or Malcolmson and Mastoris's *The English pig: a history* (1998). There is also one intriguing but unreferenced statement: the Berkshire breed is 'said to have a good sense of humour' (p. 24). Is this, perhaps, an allegation arising from P. G. Wodehouse's identification of Lord Emsworth's prize sow, the Empress of Blandings, as a Berkshire? I think we should be told in a future edition.

PAUL BRASSLEY
University of Exeter

MATTHEW REED, *Rebels for the soil: the rise of the global organic food and farming movement* (Earthscan, 2010). ix + 168 pp. 4 tabs. £49.99.

Rebels for the soil is not a work of history. The author, Matthew Reed, is specific on this point, stating that it is not 'an encyclopaedia of who did what and when in the organic movement across the planet over the last century' (p. 11). Instead, it is a work of political sociology underpinned by a substantial and – in this reader's opinion – problematic historical account.

Reed's primary argument is that the global organic food and farming movement should be seen as a persistent and durable social movement whose history can be organized around four phases or 'waves'. The first wave occurred during the inter-war years, when a 'critical community' coalesced in Britain and Germany, concerned about the consequences of modern farming for soil fertility, nutrition and the spiritual health of society. From the Second World War and through the 1960s the organic movement became an organized 'transnational' force co-ordinated by organizations such as the Soil Association and the Rodale Institute. This was, according to Reed, the movement's second wave and a time when it was highly marginalized. Reed is correct to insist that these wilderness years should

not be dismissed as a failure, since it was during this difficult time that much of the groundwork for later success was laid. He also points out that this second phase included a focus on research farms, such as the Soil Association's farms at Haughley Green in Suffolk, which mirrored the emphasis on experimental farms by the conventional agriculture of the period.

A third 'wave' in the history of the organic movement began in the early 1970s, Reed argues, when environmentalism and the threat of pollution overcame the movement's earlier, narrower focus on soil fertility and nutrition. This was also the moment when standard setting and marketing of organic food became a priority, eventually leading to the successes of the last decade of the twentieth century and the first years of the twenty-first, when organic products became a significant niche element of mainstream food culture in the developed world. A fourth 'wave' is currently emerging, says Reed, centred on the ways in which organic agriculture fits, or does not fit, within increasingly urgent policy debates about food security – or 'peak food'.

This bird's eye view of developments within the organic movement is useful and, at times, thought-provoking, although it must be acknowledged that Reed's four-wave schema is relevant only in terms of the British movement. The claim on the cover of *Rebels* that it charts the global organic movement is misleading. This reviewer presumes that the publisher, Earthscan, insisted on a global history; the decision has done Reed no favours, since his consideration of organic developments in continental Europe, the USA, Australia and New Zealand is sufficiently cursory and erratic as to be almost insulting.

Reed's far more substantial historical account of the British organic movement is also frustrating. The level of detail, pace and approach to explaining the movement's history varies so considerably and shifts so often and unpredictably that the book should come with a warning that it is not to be read by those who are not already well informed about the history of the British organic movement. Yet *Rebels* seems designed by Earthscan as an introduction for FE students, the very people least equipped to gain from Reed's convoluted and, at times, mildly inaccurate historical account.

At times, Reed plunges into highly detailed explanations about, for example, the founding of the Soil Association, while in other places he fails to name significant actors involved in shaping the key organic ideas he has outlined. There are also some inaccuracies and odd bits of trivia. Why does Reed include a small box about Eve Balfour's participation in the 1930s anti-tithe protests in a chapter that is not focused on the inter-war period? What is more, what has prompted him to assert that Eve Balfour had close dealings with Sir Stafford Cripps? If she did, this reviewer would love to know the basis for this claim. Reed also concentrates on the political tenor of the early Soil Association, to the exclusion of its primary activities and achievements.

Essentially, the problem with *Rebels* is that it offers an unbalanced historical account designed to substantiate a more interesting set of political arguments about the contemporary organic movement. Provided this is accepted and the book is read with caution, Reed's discussion about the nature of the British organic movement today and about recent and current events is interesting. In particular, Reed's comments about the movement's long-standing aversion to public protest (with the exception of the successful participation by organic supporters in a confrontational late-1990s and early-2000s campaign against genetic modification) are useful.

ERIN GILL
Aberystwyth University

CHARLES BOWDEN (Director), *The last sheep sale* (Bellingham: The Heritage Centre, n.d.). DVD, running time approx. 45 mins. Available from http://www.northern-heritage.co.uk, £12.99.

Bellingham is close to where the river Rede meets the North Tyne, and behind the High Street lies an extensive area of sheep pens and sale rings that formed the livestock market, or 'mart' as it is more commonly called in Northumberland. There thousands of sheep from the surrounding hills were sold every year, until 1 October 2004, when the last sale, which forms the subject of this DVD, was held. In the late nineteenth and early twentieth centuries, as railway branch lines spread across rural Northumberland, Bellingham was part of a network of livestock markets, with counterparts in the neighbouring small towns. The town's market was established in 1861, but by the middle of the twentieth century several of the smaller markets in the district began to close as motor transport took over from the railway, the post-Second World War expansion of Kielder Forest took over the land previously devoted to sheep-rearing, and new regulations favoured concentration on the larger markets such as the one at Hexham, further down the Tyne valley. Eventually Hexham and Northern Marts, the firm that owned both the Bellingham and Hexham markets, decided to close the smaller of the two.

The story presented here is a conflict between those who saw the decision as the sad end of an era and others who believed it inevitable, with several seeing it as both. There are interviews with farmers who sold their sheep at Bellingham for decades, with the auctioneers, and

with a director of Hexham and Northern Marts who has a detailed knowledge of the history of the market and appears from time to time to put what is happening into historical context. It is a well crafted and clearly structured production that presents a vivid picture of what used to be an event of great local importance, and explains why it has disappeared.

From the wider perspective of agricultural history this DVD provokes two reflections. It is, as far as I know, the first non-print text to be reviewed in this *Review*. Does its use of old still photographs, and its account of why the market rose and fell in economic significance, raise the end result beyond a piece of primary evidence into a work of explanatory history? And if so, should we also review television history programmes, exhibitions, re-issued archive films, vintage machinery shows, museum displays, websites, e-books, or any other non-print format that attempts to shed light on the rural past?

PAUL BRASSLEY
University of Exeter

JAMES G. PATTERSON, *In the wake of the Great Rebellion. Republicanism, agrarianism and banditry in Ireland after 1798* (Manchester UP, 2008). vi + 201 pp. £50.

Hitherto the historiography of eighteenth- and nineteenth-century Irish rural rebellion has been dominated by studies that could be described as belonging to the 'spasmodic' school of protest studies. In a sense this is not too surprising, for, to many commentators at the time, Ireland was seemingly in a state of constant rebellion. Against a limited metropolitan toll of the Jack-a-Lent riots, Luddism, the Bread or Blood riots, and Swing, historians of Irish protest have documented the Houghers' movement, Whiteboy movements, Rightboy movements, Ulster Oakboy and Steelboy movements, Ribbonism, Rock, and the Tithe War. Arguably the most important – and certainly the most politically iconic – 'movement' of all was that instigated by the United Irishmen, the initially middle-class and Belfast-based organization that blended republicanism and Tom Paine's natural rights discourse in seeking parliamentary reform and Catholic and Dissenter emancipation. Such a heady mix of doctrines and goals proved massively attractive not only to the merchants and traders of the major Irish towns but also to the tenant farmers and cottiers of rural Ireland. Their planned rising of 1798 was brutally put down by the combined forces of Dublin Castle and the British state, and the last of the republican rebels was crushed at Vinegar Hill, County Wexford, on 21 June.

Conventional understandings relate that, thereafter, with the exception of a small-scale rising supported by a French landing at Killala, County Mayo, in July 1798, the United Irishmen had been totally routed, the absolute nadir coming in July 1803 when Robert Emmet returned from his exile in France to lead one last failed rising on the streets of Dublin. Patterson's welcome study, building upon Nancy Curtin's pioneering revisionism, offers a useful corrective. Focusing upon counties Antrim and Down in Ulster, south Muster, Galway and Mayo, and South Leinster, Patterson not only shows the value of studies of republicanism and agrarian protest between the landmark episodes of rebellion, but also demonstrates that wherever one looks in the archive it is possible to find evidence of continued United Irishmen organization and activity after 1798. This persistence in the face of the bloody repression of the 'Great Rebellion' and the subsequent imposition of martial law over large parts of Ireland attest to the widespread popular adherence to the tenets of the United Irishmen and the continued fear of reprisals amongst landlords, Church of Ireland clergymen and magistrates. In Antrim and Down – major Presbyterian settlements – overtures by the Orange Order proved remarkably ineffective at converting Presbyterian farmers and linen weavers to Loyalism: Patterson shows that the resurgent Defender movement proved a greater attraction, thus rejecting the received notion that Dissenters flooded to Orangeism. Sectarianism was not a by-product of the failure of the 1798 rebellion: its emergence can be pushed back, Patterson persuasively argues, at least another five years. Indeed a broadly based United Irishmen organization is shown to have been remarkably enduring against the repeated purges and systematic sweeps of the countryside by the yeomanry. Even post-1798 fissures and a failure to agree on strategies did not render the organization politically inert.

In Cork, an agrarian county then wealthy on the back of the Atlantic provisions trade, and in the surrounding counties, much of the post-1798 protest assumed forms and practices of earlier Whiteboy-ism, secret agrarian societies noted for their use of violence against the persons and property of tithe-holders and rack renters. Yet such an interpretation masks the more complex organizational forms and political doctrines assumed by the protestors. They were, Patterson shows, without doubt, United Irishmen. In large part, protests in this area as well as in South Leinster, can be attributed to the extraordinary efforts of 'rebel' leaders, individuals who often had links with France. Arguably though, Patterson's most important contribution is to show that, against the ready resort by Loyalists to violence against Catholics and their property, and in the form of Dublin

Castle's use of summary and post-trial executions, the post-1798 actions of the United Irishmen were far more violent than before. This 'brutalization' of Irish society was the important legacy of the failure of the Great Rebellion.

In conclusion, Patterson's superb book stands as a landmark in the study of Irish society at the turn of the nineteenth century. It is splendidly researched and constructed, convincingly argued and does not pull its punches. One minor criticism is that Patterson tends to over-egg his pudding by offering copious detail and multiple examples to back up his assertions, thereby disrupting the flow of his argument. But this is small beer. Together with Dooley's *The murders at Wildgoose Lodge* (2007) and Huggins's study of protest in pre-famine Roscommon (2007), Patterson's study offers a useful new model for Irish protest studies wherein the dramatic episodes of conflict are grounded in the local socio-political contexts as well as the prior and subsequent protest histories.

CARL J. GRIFFIN
Queen's University, Belfast

DEBORAH WILSON, *Women, marriage and property in wealthy landed families in Ireland, 1750–1850* (Manchester UP, 2009), xiv + 233 pp., 15 tabs. £55.

This is a substantial addition to the scholarly treatment of the financial and property arrangements of landed society, which stems from Habakkuk's pioneering work. Deborah Wilson's book is indeed devoted to Irish, largely Ulster, landed families, but needs to be read in the wider context of the British Isles. Her study is based on an exhaustive, detailed, analysis of the records, mainly in the Public Record Office of Northern Ireland, of twenty landed families. These were all in the magnate class, with Irish estates yielding at least £10,000 a year in gross rentals, and hardly surprisingly, with that scale of wealth, most of the twenty were either Anglo-Irish, with estates in England or Scotland as well as in Ireland, or were inescapably part of metropolitan aristocratic society when important family concerns like the marriage market were involved. Thus although Wilson goes to great pains to try to show that the arrangements and conventions of her Irish group were significantly different from the British model, the evidence she supplies scarcely supports that view. All of them habitually used the same form of marriage settlements, with trustees to preserve contingent remainders, as their mainland peers. Admittedly there was a sharp difference between Irish and Anglo-Scottish marriage law from the early eighteenth century, when Irish statutes designed to prevent Catholics marrying Protestant heiresses were passed; but there seem to be no instances among the sample of twenty families in which these laws were of any relevance. There were indeed instances of marriages entered into without parental consent or approval, but these were because of financial or social disapproval, not religious difference, and similar cases in mainland families are not hard to find.

The strength of the book lies in the thoroughness with which Wilson has combed through all the marriage settlements and wills of these twenty families, and a fair amount of correspondence and accounts, extracting and tabulating a large amount of data on the portions brought to their marriage by brides, the pin money secured on the husband's estate, the jointures provided for widowhood, the portions envisaged for daughters and younger sons, and the bequests made in widows' wills. There is also plenty of information on the appointment of trustees to secure a wife's independent control of specified property, usually estate she had brought to the marriage, possibly a postnuptial addition to her portion given by her father, or sometimes a life interest in property given by an affectionate husband. All this shows that there was frequently a substantial difference between the sums provided in a settlement made before marriage and the amounts of income actually received by wives and widows, a point with considerable importance for arguments about the position and fortune of women of landed families that derive solely from the provisions made in marriage settlements. A favourite argument has been that, from the sixteenth century onwards, aristocratic women were increasingly subordinated to their men-folk, mostly because on marriage they were forced to surrender their common law right to dower in return for securing a specified jointure in the event of widowhood. Ignoring evidence of the uncertainties, difficulties, and costs of enforcing claims of dower, which seemed to make the promise of a fixed amount of jointure a good bargain, it has been claimed that the annual value of jointure was consistently much less than the one-third of the husband's estate that dower provided, proving that the position of women was weakened by this central feature of marriage settlements. The actual position, Wilson shows, could be much more complicated and confusing. In at least a third of her twenty families, widows enjoyed jointures that were around one third or more of the gross rental of their husbands' estates and, while the rest had jointures that were certainly worth less than half the hypothetical dower-third, only one was left with less than £1,000 a year, which was twice the annual rental of many country squires.

Doubtless there was no shortage of women who would have been happy to be 'marginalised' at this level. Nevertheless Wilson likes to retain the fashionable

language of 'the marginalisation of women's interests in the landed estate' at the same time as providing much evidence that casts doubt on the concept. Her sample, after all, includes such eminently strong, not to say formidable, characters as Theodosia, Lady Clanwilliam, who elbowed aside her drunken husband and took control of the family's affairs, and above all Frances Anne, Lady Londonderry, who was not only the wealthiest heiress of her time but also an outstandingly successful businesswoman of early Victorian Britain. This book is not an easy read – Americans would instantly recognize it as an unredacted thesis, densely precise, where every will has always to be described as a 'last will and testament' – but patience is rewarded with ample supplies of original and interesting information.

F. M. L. THOMPSON
Institute of Historical Research

Europe and elsewhere

Études réunies par CORINNE BECK, FABRICE GUIZARD-DUCHAMP and JACQUES HEUDE, *Lit mineur, lit majeur, lit voyageur: mémoires et cours d'eau* (Revue du Nord. Hors série. Collection art et archéologie 14, 2009). 231 pp., 91 figs., 2 tabs. €45.

At the present time, when 'natural environments' are being transformed by human action at a greater pace than ever before, policy makers and spatial planners are directing increasing attention to the conservation of selected sections of the natural world. The management challenges that confront them intensify year upon year, but relatively little thought has been given as to just how 'natural' our natural environment really is. This question is the starting point for the volume under review, which contains the proceedings of a two-day colloquium convened by historians at the Université de Valenciennes et du Hainaut-Cambrésis at the behest of the *conseil-général* of the Nord *département*. The meeting was held in September 2008 at the Liessies abbey conference centre near Avesnes. Rather than examining the breadth of the natural world, participants focused on the issue of water in the environment, and on the ways in which the morphology and location of watercourses changed through time. Their sources ranged from archival records to observation and sampling in the field, with methods of analysis spanning the patient exploration of historic maps, meticulous scrutiny of historic texts, and examination of soils and sediment cores. Disciplinary approaches included not only medieval history and historical geography but also environmental archaeology and physical geography. Thirteen chapters plus a couple of brief notes explore three themes: the changing location and use of watercourses; the relationship of the fluvial environment to human groups living nearby; and the ways that changes in watercourses are perceived and represented by local residents. Most of the discussion is directed to various parts of northern France, but stretches of central, southern and western France are not ignored. Most of the authors come from institutions in northern France but universities in other regions are also represented.

Five of the first six papers are emphatically northern in emphasis, with the changing relationship between land and water in the Canche valley being presented by three groups of authors who draw, in turn, on palaeoecological analysis (including carbon-14 dating), on the record of historical maps, and evidence from archaeological excavations of the Beutin shipwreck. A discussion of the changing course of the river Scarpe near Douai in early medieval times combines the use of documents with the analysis of soil profiles, whilst the paper on the changing course of the Rhône upstream of Lyons is derived in part from sediment analysis in the laboratory. The central section of the volume is more conventionally 'historical' in approach, with old maps and archival documents elucidating the changing configuration of the river Scheldt near Tournai, of the Meuse valley in Belgium, and of the Moselle at Metz in northern Lorraine. A remarkable photograph on p. 150 showing the old bridge at Moulins-les-Metz, now high and dry in a meadow, reveals just how much the fluvial environment of the Moselle has changed over the past five centuries. Two further papers trace the 'disappearance' of watercourses beneath the spread of suburban Nice, and the use of wetlands near Laon as defensive features to be flooded in times of war and drained once peace had been restored. The two papers comprising the final section identify the distribution of watermills in part of western France and their role as heritage features in local tourism schemes, and the on-going 'Confluence' project to revitalize the southern tip of the peninsula between the Rhône and the Saône at Lyon. Two short notes on the changing morphology of the Scheldt and on the culverting of much of the Furan beneath Saint-Etienne conclude the collection of essays.

This special theme issue of the *Revue du Nord* certainly provides ample evidence that the 'natural world', as exemplified by watercourses, is far from stable across time and has been changed profoundly as a result of human perceptions and action. A brief conclusion to this effect is entitled 'Des hydrosystèmes aux anthroposystèmes'. The volume is illustrated with a large number of maps, diagrams and photographs,

some of which are in full colour. Each chapter is provided with an abstract in English as well as in French, and a detailed bibliography. Readers of this review will identify with the debate about the 'naturalness' of 'nature', and with the complementarity of literary, cartographic and scientific modes of investigation, even if watercourses – and especially those in urban settings – are rather removed from their usual fields of enquiry.

HUGH CLOUT
University College London

JONAS LINDSTRÖM, *Distribution and differences. Stratification and the system of reproduction in a Swedish peasant community, 1620–1820,* Studia Historica Upsaliensia 235 (University of Uppsala, 2008). 235 pp. 45 figs., 64 tabs., 2 maps.

The structure of agrarian society and social differentiation are venerable themes in rural history. Yet, despite a wealth of work from the very grand scale to local village studies, our knowledge of these issues is still patchy. It is particularly the case that much work on Scandinavia tends to be squeezed out of debates organized around 'ideal types' based on southern England, the Netherlands, and east Elbian Europe. To fill in some gaps, historians are well advised to read Jonas Lindström's excellent work, which approaches the issue of stratification in peasant society with admirable theoretical and linguistic clarity. It should be consulted by anyone interested in pre-modern agrarian society, landholding, and kinship relations.

The volume is a doctoral thesis employing excellent records from the central Swedish parish of Björskog, largely parish registers, land and livestock surveys, and tax assessments from the 1640s, 1713 and 1810. Before discussion of Lindström's results, some caveats are in order. He only examines *peasant* stratification, that is, the distribution of wealth in various forms among landholders. This might be justified by the limitations of the sources, especially as longitudinal studies of landholding kin are a key ingredient of his research. But forms of peasant stratification can only be understood in the context of the wider labour market. By the end of the study period, 'peasants' made up only just over half of households in the parish. This is thus not a study of social stratification more widely. At times, particular sources are pushed to their very limits and beyond, such as with the parish's probate inventories, whose coverage of even the landed population varies considerably over time, and can thus tell us little about changing relative wealth. Lindström's very specific focus on differentiation also leads him to use relative rather than absolute measures, which say something about distribution, but nothing about the actual experience of being at different points on the distribution. Most of the study is based on the examination of quartiles, but as these quartiles are drawn from different measures in different sources at different dates, the possibility of comparison is sometimes weak.

There are nevertheless plenty of rich pickings, only a few of which can be covered here. Swedish land was owned by nobles and institutions, the Crown or as freehold. The latter was subject to a land tax that Lindström sees as a form of feudal tenure and it is thanks to this that source coverage of landholding in Björskog can be complete. By the 1810s we learn the salutary lesson for studies in other parts of the continent that the great majority of landholdings comprised a mix of owner-occupied and leased land. Rights of inheritance were generally strong and partible, but the Crown gave a right of redemption to one heir, leading to a common pattern that heirs paid off kin and became indebted earlier in life, and then paid off their debts by their fifties. Stratification was not Chayanovian and linked to the life-cycle, and family labour shortages were smoothed over by a wider labour market.

Over the whole period differentiation among peasants changed little but, especially following national policy during the eighteenth century, fixed rents led to a great decline in real burdens on Crown and freehold land. Households tended to respond to fortune by creating new local households rather than investment and accumulation, inevitably leading to quite high rates of downward mobility. Lindström's ability to trace the dynamics of kin relations and property devolution over time is one of the great strengths of his work. Demographic behaviour was no different among wealth groups, but the children of the wealthy had better access to land, and were more likely to stay. This led to an eighteenth-century paradox: lessening availability of land as population grew, but cheap rents. Increasingly, family ties became more important as a route to landholding, especially through marriage. Patrilineal descent was rare but land usually stayed within wider family, with an increasing but by no means overwhelming share of transfers to close kin. Lindström finds, as others in Europe have, a strongly segmented land market with some holdings being highly stable, with family members succeeding each other, while others had a high turnover of short-term residents. But over time the family-land bond became greater. In 1713 less than third of poorest quartile of landholders inherited their land, but by 1810 some 80 per cent did.

Comprehension of these dynamics also uncovers a notable issue in how we view the peasant community

and attachment to the land. Looking retrospectively, these ties seem very strong. Eighty-three per cent of those holding land in 1810 descended from people who held land in 1713, and 80 per cent of peasants had at least one ancestor from among a sample of 25 peasants present in 1641! But if we look 'forward', disappearance rates are high: only 56 per cent of landholders in 1713 had descendants in 1810. This sheds important light on the nature of village communities. Because of the greater propensity of the poor to leave, those with ancestors in the village were increasingly likely to be descended from the rich, whatever their own social position, leaving a dense network of ties to wealthy peasants. Given this, the poor unsurprisingly came from both rich and poor backgrounds. High turnover was thus quite compatible with dense kin networks and long-standing community ties.

Lindstrom's thesis is structured around tests of some of the traditional narratives of agrarian society. It is always easier to reject old hypotheses than to secure new ones, and the Björskog case does not fit these analyses well: he provides no new magic bullet to explain agricultural progress or stagnation. But in their wake, he leaves much to intrigue the reader and promising lines of inquiry for others to pursue.

PAUL WARDE
University of East Anglia

SUSANNE FREIDBERG, *Fresh. A perishable history* (Belknapp Press of Harvard UP, 2009). 408 pp., 28 figs. £20.95.

The human victory over enzymes, miasmas, and bacteria was preceded by a protracted and extremely rocky road. All the highlights, extremities, disillusions, and blind alleys, which characterize the pursuit of freshness, warrant a breathtaking story – and even more so if the author (as in this instance) is well-equipped to write it.

The basic premise of Susanne Freidberg's monograph is that freshness is a qualitative rather than a quantitative category. In other words, freshness is not a quality that can be *grasped* or *caught* by measurement or exact labelling, it is – to put it in the words of a food lobbyist – 'a state of being' (p. 2). By revealing the deeper layers of this notion, Freidberg – professor of Geography at Dartmouth College – manages to analyse the very cultural sediments of a classification which (during our daily food shopping expeditions) is usually taken for granted. But readers of this book are likely to come away with their attitudes to freshness and shelf-life revolutionized. The obsession of consumers and marketers with freshness is symptomatic of the pathological way in which modern societies deal with food, especially in the United States. In particular, Friedberg illustrates the systematic denial of the alienation of consumers by food producers that has continued since industrialization. This growing rift between the origin and presentation of food ensures that modern appetites sometimes look like exercises in mental acrobatics, as they attempt to reconcile extremities such as novelty and nostalgia, convenience and authenticity, high-tech and unprocessed products (such as milk or dairy items) that represent *real* freshness in the original sense of the word.

Friedberg shows that freshness became a manipulated category relatively recently, as consumers began to seek labels to distinguish fresh from cold-stored foods. This paradise of 'real' freshness is no more, because in most cases so-called 'fresh' foods also turn out to have been processed and stored. It is an unmistakable merit of this book to have unearthed this original sense of freshness and its gradual erosion. After an introductory chapter on the history of refrigeration, Freidberg retraces the different fronts on which this silent revolution took place, by presenting case studies of a wide and well-chosen variety of perishables, namely beef, eggs, fruit, vegetables, milk, and fish.

Although the book focuses on the United States, it also offers detailed discussions of other countries and continents, and the bibliography incorporates European sources and research literature. Nearly all chapters are enlivened with personal impressions and telling anecdotes. Usefully, each case study not only contains technical–chemical information on the specific spoilage characteristics of the particular perishable item, but also highly instructive inside information about industry practices, gained from fieldwork or from interviews with lobbyists and other representatives of the respective food sector. This firm grip on the practical dimensions enables the author to offer more than a mere historical analysis, by providing critical reflections on the moral, social, economic, and ecological implications of the daily pursuit of freshness in the Western world. The shiny patina of freshness commonly obscures the systemic disruption of natural and human resources, but Freidberg mercilessly unveils the collateral repercussions of purchasing, say, for example, 'fresh' haricots from Burkina Faso. It is this wide scope, and the critical (but not moralistic) tenor, that indicate the strength of a book in which great scholarship is combined with a remarkable gift for observation and a superb writing style. In this sense, Freidberg's study presents an excellent example of what humanities and social sciences are, and should be able to do: to offer sound, enjoyable, and thought-provoking analyses of omnipresent cultural phenomena that are

usually received unquestioned, and therefore deserve a critical examination.

RENGENIER RITTERSMA
Saarland University, Germany

ROBERT BEVAN-JONES, *Poisonous plants. A cultural and social history* (Windgather, 2009). xv + 200 pp., 108 figs. £25.

It is hard to imagine the trials and errors experienced by our ancestors as the safe plants were distinguished from the unsafe. We benefit from such 'inherited knowledge', as Bevan-Jones describes it, but until written documents were available it could only be transmitted orally. It is to the writings of such giants of medical history as Hippocrates and Dioscorides, and to the authors of the herbals that followed, that we owe so much. This book forms a bridge between these old works, in which 'Quite sensible views could be followed by utter nonsense', and the latest advances in the biochemistry of plant toxins. The toxicological aspect of ethnobotany is covered in an eminently readable manner, the emphasis throughout being on the use (and abuse) of plants for medicine rather than for food.

In part one (pp. 5–27), 'Concise History…', there are tantalizing glimpses of the use of poisonous plants, such as a Palaeolithic spear tipped with yew; poisons being tested on criminals in the third and second centuries BC; the 'bespoke' poisons of Roman times; the practices of the Saxon leeches ('If a man's hair fall off, work him a salve…'); manuscripts on herbal medicine from religious institutions in medieval Europe; the four humours; the astrological approach of Culpeper; the seventeenth-century London grocers who stocked 'roots, herbs, gum, oils, confectionery, ointments and plaisters' as well as food; the chemists and druggists who replaced the apothecaries; and finally the carefully prepared, plant-based pharmaceutical medicines of the twentieth and twenty-first centuries.

In part two (pp. 28–157), there are entries on 36 plants and the medicaments of which they are ingredients. The plants are listed alphabetically by an English common name, but this gives rise to occasional confusions, such as the entry on cherry laurel (*Prunus laurocerasus*), which is not in the index and is found with spurge laurel (*Daphne laureola*) to which it is not related either botanically or by its toxins.

Almost all of the text applies to herbal remedies for human diseases, but there are a few references to animals, an example being the treatment of cattle diseases 'by boring a hole in the ear and inserting hellebore', after which, 'whiles the part which is circled aboute dyeth and falleth awaye yt hole beast is saved with the lose of a very small part'.

Plant toxins have been described as intoxicating, stupefying, mind-altering, medicinal, dangerous or even lethal, and the case reports that cover these aspects make fascinating reading. Some reports are presented as quotations that retain all the quaintness of style, word use, and spelling of the original, while others are translated or cited. A good balance is maintained between the useful and the dangerous, the authentic and the magic, and the therapeutic and the toxic.

Part three (pp. 158–72) is on fungi, and begins with a consideration of the types of poisoning they can cause. There is a general absence of fungi from old texts, but an exception is shown by a quotation from the *Grete Herball*: 'Fungi ben musherons. There be two maners of them, one maner is deadly and sleeth them that eateth of them and the other dooth not.' There are details on the death cap (*Amanita phalloides*), probably the most deadly poisonous fungus known, and on three others that have psycho-active properties.

Superb illustrations are supplied profusely throughout the book, and some have useful extended captions. Many of the plates are colour photographs taken by the author, and there are reproductions from old literature. The three appendices include a list of poisonous plants mentioned in European texts, and notes on a further 17 plants, eight relevant websites, and three UK gardens. There is a glossary, a list of 387 references – which is a tribute to the extensive research carried out by the author – and a bibliography with 93 entries.

Bevan-Jones's stated aim of writing a 'celebration' of poisonous plants and exploring 'their diverse and powerful properties' has been amply achieved, and there is a wealth of information in every paragraph. The book will be of interest to historians and agriculturists, as well as botanists and toxicologists.

MARION R. COOPER
Walton-on-Thames

Conference Report: The Society's Spring Conference, 2010

by James P. Bowen

The Society's Spring Conference, organized by Dr Nicola Verdon, was held from 29 to 31 March at St Mary's College, Durham. In this attractive setting, 49 delegates enjoyed a wide range of stimulating papers. After the welcome and introduction by Prof. Christopher Dyer (University of Leicester), the conference began with Dr Angus Winchester (Lancaster University) speaking on 'Local custom and the evolution of property rights on common land in England and Wales, 1550–1850' drawing on findings from the AHRC-funded project, 'Contested common land: Environmental governance, law and sustainable land management, *c*.1600–2006', which concluded in January 2010 (http://commons.ncl.ac.uk/). Taking the four case-study areas of the project (Eskdale in Cumbria, Brancaster and Thornham in North Norfolk, Ingleton in North Yorkshire, and the Elan and Claerwen Valleys in Powys), this paper examined changes in the conception of common property rights and the relationship between law and local practice. Central to the paper was the apparent successive layering of perceptions of common, from that of a communal agrarian resource – a key component of early modern agriculture – through wasteland to be improved, to valuable open space in need of conservation for recreational and ecological purposes and the formal legal framework based on the interplay between seigneurial right, use rights and common rights. Emphasis was placed on the importance of custom, which E. P. Thompson argued was *lex loci* (*customs in common*), so-called good neighbourhood, and the 'moral precepts governing how communities regulated the exploitation of common resources'. It was suggested that three strategies for the effective means of governance were used historically: the restriction of quantity, spatial definition (the allocation of a defined section to a particular uses), and seasonal limitations. This was explored in detail with regard to the Eskdale case study, where grazing practices were regulated by the rule of levancy and couchancy, and the heafing of sheep flocks on the fells of Scafell. Similarly the practice of stinting was discussed in relation to Ingleton common. That both management practices were not explicitly quantifiable was highlighted. But legislation such as the Commons Act 1876, and commentators associated with the poor, increasingly sought to question the value of common resources. The mapping of sheep walks in the Cambrian Mountains by Birmingham Corporation, with the compulsory purchase of the extensive area of upland common for its water rights, further demonstrated exclusive right to pasture and the apparent division of commons landscapes. It was suggested that the severing of the right to common land from the appurtenant holding to which it was attached marked the dramatic change in the common property regime, which, with the division of Common Land units with the Commons Registration Act 1965, effectively marked the privatization of common land without the formality of the enclosure process. In particular, the Thornam and Brancaster case study sparked much interest given the modern legal recognition of a multiplicity of customary uses and the wide variety of rights registered. Moreover, it demonstrated the opposite trajectory to stinting and rights in grass appurtenant to holdings, rather than the attempt to reassert personal rights to commons resources. The paper concluded with the suggestion that changes in the conception of common property rights varied and, where common land survived, so did its traditional uses until they were destroyed by the Commons Registration Act (1965) which, as Dr Winchester highlighted, Prof. Christopher Rogers (Principal Investigator, Contested Common Land Project) has suggested is the real 'Tragedy of the Commons' rather than that propounded by Garrett Hardin. The papers raised issues of the relationship between custom and by-law and, moreover, the

problematic nature of the post-manorial governance of common land.

After dinner, the conference was addressed by Seb Littlewood, Keeper of Rural Life at the Beamish Open Air Museum, the venue for the society's field trip. After giving an account of the early history of the museum and its establishment at Beamish, he discussed aspects of the museum's rural collections, including its collection of regional carts. He also outlined recent attempts to farm according to a Norfolk four-course system, and described future developments, including the reinstallation of steam working at the model Home Farm. The problems encountered by museum practitioners in cataloguing and conserving the collection of historic agricultural implements and machinery and the difficulties of representing British agricultural heritage in a museum environment were both highlighted. Questions centred on the lack of interest in developments in agriculture in post-war Britain and the apparent overemphasis on presenting agriculture and rural life as a nostalgic image of something lost.

Tuesday opened with thick mist and heavy rain. Dr Jonathan Healey (University of Oxford) began proceedings with a paper on 'Communal farming and the "politics of the parish" in early modern England'. Developing many of the themes discussed by Dr Winchester and drawing on research undertaken using the manor court rolls for Staveley, Westmorland which formed part of the Barony of Kendal, his paper sought to examine the politics of a vast common in the early modern period. After a brief discussion of Elinor Ostrom's new institutional economics approach to the management of Common Pool Resources, the papers contested that the intense politics of common land has only been touched on by historians, with few studies of their regulation by manorial courts and little examination of commons as a system of action rather than as a subject for enclosure. It was argued that the politics of the commons was firstly physical, often taking a violent form, secondly oral, the naming of particular places conferring a break with the sense of the past from time immemorial. Lastly, it was suggested that the politics of the common took a kinaesthetic form reflected in the impounding of animals and perambulation of boundaries illustrated by the 1578 commissioners' map of Sadgill Moor. It was argued that custom was, therefore, in its very essence contested and controversial, in many ways demographic and economic change increasing pressure on the carrying capacity of the common resource. Examining a series of suits from the Court of Exchequer between 1577 and 1584 over the destabilizing effect of agistment and complaints of overstocking in excess of levancy and couchancy, Dr Healey argued that the politics of commons extended beyond the manor, from the peasant household right up to central government. Apparent was the close control of the commons by the manor court found by previous studies, but the link made between centre and locality enters into debates regarding English state formation. Moreover, it was suggested that, where the Crown had a fairly direct interest in the common, its courts favoured its tenants rather than local landlords. Dr Healey argued that in contradiction to the Ostrom model of Common Pool Resources, commons management institutions were not solely local governance regimes with no state influence. Law courts effectively crystallized common rights, formalizing what had previously been based on shared memory and oral custom. The paper concluded with a call for a wider narrative of commons and greater emphasis on the politics of the parish.

The second paper of the morning was given by Professor Carsten Porskrog Rasmussen (Aarhus University, Denmark). His paper, entitled 'The state and the manor in early modern Scandinavia and Schleswig-Holstein: studies in the relation between government policies and manorial developments', was belied by its impressive breadth of coverage ranging across European economic history. Beginning with a comparison of trends in English manorialism, this paper examined the rise of early modern manorialism in Eastern and Central Europe around 1500 and the increase in lordly demesne farming with the work of dependent labour, resulting from the demand for grain from Western Europe, in particular Dutch and German importers in the seventeenth century, and the relatively economically weak market position of peasants. Comparing developments in Sweden and Denmark and identifying clear phases in their respective narratives beginning with the political situation created by absolutism, frozen rents but unfrozen feudal obligations, the privatization of crown lands in Denmark between 1661 and 1664, the confiscation of donated lands in Sweden in 1680 and the strength of the respective nobilities, Prof. Rasmussen emphasized the significance of the interaction between state politics and the manor since the sixteenth century. In Denmark, during the age of reform, there was a focus on the affairs of manors with a political reduction or fixation of labour services, which prevented the development of English-style capitalist tenancies. It was highlighted that there was no obligation before 1919 to sell to freehold. In Schleswig-Holstein until 1795 there was a focus on Crown and freehold lands, a long time after debates in Denmark had concluded. It was argued that the legal ending of serfdom between 1795 and 1805

was an important moment after which most manors were parcelled out, marking a transition to capitalist tenements. In Sweden and Scania, it was shown that the parliamentary system was not necessarily the most advantageous for dependant tenants: it did nothing to prevent a massive transfer of land from peasant tenant farms to demesnes or large leasehold farms between 1790 and 1840. In the same period, there was a dramatic increase in labour service. Prof. Rasmussen concluded that the outcome in 1850 of the main state policies identified was the relative strength of noble privileges, with opposite solutions in Denmark and Sweden being evident. In the former manors they were almost a rule whereas, in contrast, in the latter manors they were a minority, particularly throughout the central and northern extremes of the kingdom, which remained heavily forested, uncultivated and sparsely inhabited. Finally, Prof. Rasmussen suggested that this difference was the result of strong political intervention on manors in Denmark, which happened to a lesser extent in Sweden and Schleswig-Holstein.

The last paper of the morning, entitled 'Captain Swing and the politics of "everyday life"', was given by Dr Carl Griffin (Queen's University, Belfast). Beginning with William Cobbett's, *Rural Rides* and *Political Register*, this animated paper sought to consider the instrumental politics of everyday lives in the way Keith Wrightson had done for the early modern parish. Building on the well established historiography of Swing, in particular the work of Andrew Charlesworth and Roger Wells, Dr Griffin argued that the twin codes of responsibility and rights provided the rules which determined the rising tide of rural protest and the subsequent patchwork of rural activism. Farms and the parishes engineered the situation, as work was not the only way by which the politics of the parish were asserted, but which was exacerbated by the chronic dislocation between the poor and the parish. Grounded in specific examples of local communities in southern England, emphasis was placed on the linkage between work and welfare, the parading of a mocked-up pair of scissors through the streets of Battle, East Sussex being a notable example of 'cultural xenophobia' at a distinctly local level.

After lunch delegates donned waterproofs for the fieldtrip to Beamish Open Air Museum. Seb Littlewood led a tour of Home Farm, once the model farm of the Beamish estate, which encompassed the farmstead, stables, bull pen, blacksmith's forge and cart shed. Unfortunately the tour had to be curtailed on account of the torrential and unrelenting rain. Many bedraggled delegates then took the historic tram and alighted at the town, retiring for refreshment and warmth to the *Sun Inn* (originally from Bishop Auckland) before perusing items in the souvenir shop. After the excursion, the Society's Annual General Meeting was held and, in the evening, the Annual Dinner. The retiring President, Professor John Chartres (University of Leeds), addressed the delegates after dinner.

Wednesday morning saw the new researchers' panel chaired by Prof. Chartres. The first paper, 'A comparison of peasant and demesne agriculture at Oakington, Cambridgeshire', given by Ms Alexandra Sapoznik (University of Cambridge), provided a community case study of the level of peasant arable production and land-intensive pasture indicative of a degree of economic rationality. As research has shown, average peasant holdings were 5–10 acres of mixed cropping and legumes and peasant yields per acre were lower than demesne. It was highlighted that in the case of Oakington, a manor on the edge of the Cambridgeshire fens, arable common field was burdened by the apparent lack of pasture, woodland and waste as clearly fodder concerns influenced cropping rotations. Hence the maximization of fodder crops formed the focus of subsequent discussion, which questioned the importance of hay and the cutting of straw in relation to the competition resource model.

The second paper was by Mr Jameson Wooders (University of Reading), who gave an account of 'Local economies of early modern Berkshire, 1650–1750'. Acknowledging the earlier work of Prof. Overton and Dr Whittle and their associates, this research employed the software used in their earlier study of 8000 probate inventories from the counties of Cornwall and Kent, the problematic nature of the source and sample size in particular stimulating much discussion. Mr Wooders highlighted that the smallest sample size for a parish was 80. Adopting a localized approach, this paper described a diverse range of household production and increasing prosperity corresponding with specialization. Using inventory evidence Wooders identified regional trends including the south-west Downs where, during the period under study, the percentage of commercial farmers increased from 37 to 58 per cent and, with the emergence of larger farmers, mean sheep flock size doubled. Similarly it was pointed out that the largest cattle herds were recorded in north-west Berkshire, with the highest percentage of cattle ownership recorded in the eastern Kennett valley. Other interesting trends identified were the increased demand for servants between 1650 and 1750, the listing of turnips in 4 per cent of inventories in 1700, and a similar increase in clover. It was concluded that both patterns of Cornwall and Kent identified by Prof. Overton *et al* are identifiable in the example

of Berkshire and, moreover, that county-level studies highlight the availability of differing resources, often neglected in studies of rural economies.

The final paper of the new researchers' session was given by Mr Alexander Lock (University of Leeds) whose paper, 'Estate management and agriculture at Parlington Hall, Yorkshire: the interests and innovations of Sir Thomas Gascoigne (1745–1810)', sought to highlight the significance of the penal laws in influencing the estate management of Catholic landowners. Exploring the causal relationship between religious dissent and economics, it was argued that the improvement of the estate as the most important capital asset established a family tradition. Improvement took several forms: the marling of arable, the enclosure of wasteland, the floating of water meadows and the exploitation of valuable mineral resources, primarily coal. It was suggested that through the proficiency of estate improvement as a teleological process, Catholic landowners sought to engage with the social hierarchy despite being religiously ostracized, sharing with their Protestant contemporaries an interest in improvement. In particular, the significance of the gardener John Kennedy – whose treatise outlined the methods of cultivation and improvements pioneered by Gascoigne – was explored. The persistence of annual leases, despite the warnings of the Board of Agriculture, was identified as indicative of the deliberate attempt to create a Catholic enclave amongst the estate tenantry whilst conversely more overt displays of religious conviction were not prominent. Mr Lock concluded that, whilst in some cases recusant gentry threatened by the penal laws maintained inefficient manorial estates, the example of Sir Thomas Gascoigne demonstrates that many Catholic landowners did the opposite.

After coffee, Dr Hilary Crowe (University of Cambridge) gave the final paper of the conference, entitled 'Farming the margins: the changing profitability of upland agriculture', based on the National Farm Management Survey for part of the county of Westmorland. Building on previous doctoral research, which was centred on the period 1910–47, this paper outlined some early findings from the period 1947–70 and the value of this standardized survey to agrarian historians particularly when mapped using a suitable GIS package. Outlining the chronology of government legislation, notably the supposed new deal for agriculture with the Agriculture Act (1947) and the Livestock Rearing Act (1951) which extended the Hill Farming Act (1946) and acknowledging the detrimental impact of the bad winter of 1947, Dr Crowe identified the main objectives of subsidy: to produce increased efficiency, to give the farmer an adequate return and remuneration in comparison with other industries and lastly, to provide improved living conditions for farmers and their families. Anticipating the spatial variation in the effectiveness of subsidy on production, Dr Crowe sought to address the question of whether subsidy actually achieved its intended aims and objectives in the context of the uplands. She highlighted that, at parish level, the declining profitability of sheep was marked, with the shift to milk and the distinction between rearing, dairy, and hill sheep farms reflected in the variation of average farm sizes of 170, 270 and 223 acres respectively. Also, the consideration of the average cash surplus, including subsidy per farm, with regard to the inflation of the 1960s and 1970s (indexed from 1947) provided the necessary context for the interpretation of such statistics. Whilst the graphing of data highlighted yearly volatility in agriculture, trend lines outlined the broad patterns of farming profitability and production: that profit margins and returns on tenants' capital declined and that livestock rearers, being the most productive, gained the greatest rise in receipts of subsidy. There was a general decline in the profitability of hill sheep farming. Returning to the importance of subsidy, Dr Crowe concluded that 'overall subsidy failed to create viable holdings and was least effective on the most marginal farms where subsidy delayed rationalization of the industry'. It was, therefore, suggested that subsidy failed to stimulate improvements in efficiency and that consequently the system of subsidy was effectively a disguised form of welfare.

It was on this challenging note that the conference closed, with thanks expressed to Dr Verdon for organizing such an interesting and successful conference.

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