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*

Land Improvement in Scottish Farming: Marl and Lime in Roxburghshire and
Berwickshire in the Eighteenth Century

ROBERT A. DODGSHON

'The Farmers' Alliance: An Agricultural Protest Movement of the 1880's

J. R. FISHER

The Spread of the Threshing Machine in Central Southern England

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Further Progress with the Early Threshing Machine: A Rejoinder

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White and the *Rustici*

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Annual List and Brief Review of Articles on Agrarian History, 1976

RAINE MORGAN

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Land Improvement in Scottish Farming: Marl and Lime in Roxburghshire and Berwickshire in the Eighteenth Century

By ROBERT A. DODGSHON

TO the eighteenth-century Scottish farmer, land improvement, or any means by which the physical, chemical, or biological condition of the soil could be made more conducive to agricultural production, was as much an object for his attention as was the search for better farming systems. To date, however, few of the various aids to improvement which the farmer had at his disposal have been studied in any depth. This neglect is especially serious with regard to marl and lime.¹ Prior to the disappearance of infield-outfield and the subsequent adoption of new farming systems, many Scottish farms, even in the Lowlands, had their arable interspersed with poorly drained and invariably acidic patches of bog, moss, and muir, whilst even the land in cultivation suffered from a general deficiency of manure and of calcium in particular. It need occasion no surprise, therefore, to learn that the spread of the Improver's Movement through Lowland Scotland during the second half of the eighteenth century was presaged by extensive and costly programmes of land improvement in which marling and liming occupied a central place. As one writer remarked, they formed the "first and most important step in the new system of husbandry."² Some idea of the extent and economics of their use can be gained by looking at the experience of Roxburghshire and Berwickshire, two counties which re-

sponded willingly to the farming opportunities of the period.

I

First, some background notes on marling and liming may be useful. They were not, of course, innovations of the eighteenth century. In Britain as a whole, traces of their practice exist even for the prehistoric period. Altogether though, their use appears to have remained sporadic and localized right up until the end of the medieval period. According to E. Kerridge, they were adopted by English farmers, at least, on a much more widespread scale during the sixteenth and seventeenth centuries, forming one of the key improvements in the agricultural revolution which he postulates for the period.³ Even in Lowland Scotland, lime, if not marl, was used on a growing scale in areas like the south-west and the Lothians from the early seventeenth century onwards.⁴ Its later use along with marl as the basis of eighteenth-century land improvement, therefore, was not entirely without prior knowledge or experience.

As soil additives, lime and marl were valued by farmers for their positive effects on the chemical and biological activity of the soil and for their very marked effect on soil structure. As regards the former, they not only corrected any tendency towards calcium deficiency, and thereby acidity, but they also helped to make available for plant growth a wider range of nutrients like phosphate and trace elements like

¹ To date the only discussions of liming or marling in Scotland before 1800 are those provided by B. C. Skinner, *The Lime Industry in the Lothians*, Edinburgh, 1969; J. E. Handley, *The Agricultural Revolution in Scotland*, Glasgow, 1963, esp. ch. v; T. C. Smout and A. Fenton, 'Scottish Agriculture Before the Improvers—An Exploration', *Ag. Hist. Rev.*, XIII, 1965, pp. 82–4.

² D. Ure, *General View of the Agriculture of the County of Roxburgh*, 1794, p. 26.

³ E. Kerridge, *The Agricultural Revolution*, 1967, pp. 244–50. A slightly later chronology for their adoption on a widespread scale is preferred by J. D. Chambers and G. E. Mingay, *The Agricultural Revolution, 1750–1880*, 1966, pp. 62–4.

⁴ Smout and Fenton, *loc. cit.*, pp. 82–4.

molybdenum. As regards the latter, when applied to clays, they facilitated the formation of a more open and friable structure, so essential in a soil that could be naturally structureless; whilst when applied to light or gravelly soils, they had the effect of binding the various fractions together into a more compact and consolidated soil. Marl, in particular, has long been known to have an enhanced effect on light soil, since as a mixture of clay and calcium carbonate it countered the soil's physical, as well as its chemical, deficiencies. Its use on clays, though, was avoided if lime was available: this was not only because clay-soil farmers did not relish the labour of applying very large quantities of marl for the sake of the relatively small amounts of calcium carbonate which it might contain, but also because marl, to be effective, required a thorough mixing with the soil, an operation that could prove costly on clay. In an area like Roxburghshire and Berwickshire, with its well-defined clay and light soil sectors on the lower ground, these differences between lime and marl cannot be ignored.

Two types of lime were used: burnt lime and ground lime. The former represented limestone or shells which had been calcined by burning in a kiln. At first, only lime produced in this way was thought to yield the full effects on the soil. However, during the eighteenth century it was realized that ground lime, or lime produced by the simple crushing and grinding of limestone or shells, could have an equal effect. Significantly, Lord Kames, a local Berwickshire landowner, did more than most to publicize this fact. His efforts can hardly have gone unnoticed by a local farming community which possessed scattered deposits of limestone but lacked suitable fuel supplies. Whatever its meaning to present-day geologists, to the eighteenth-century farmer, marl was a generic term covering a range of deposits. Within the area covered by this article, three different types were recognized: clay, rock, and shell marl. The first two were, respectively, clay, and any soft rock such as a mud or silt stone with a high calcareous content. The pre-

cise composition of the third, or shell marl, is a little uncertain, but it appears to have been a clay-based marl with a high shell content: this would have given it a higher calcium-carbonate value and made it an attractive substitute for lime, especially on light soils.

II

Taking an overview of the problem, liming was first practised in Roxburghshire and Berwickshire as a supplement to outfield tathing (manuring) during the pre-Improvement period.⁵ However, in spite of this early use of lime, marl was the first of the two to be used on a large scale. Following its pioneer use on the lowland Berwickshire estates of Ninewells, Swinton, and Eccles in the early 1730's,⁶ marling quickly became established as the prime aid to what most Improvers saw as the necessary task of land improvement. The widespread use of marl, though, lasted only until the 1760's, when lime became much the more popular of the two. This pattern of change is borne out by a number of writers. A. Bruce, for instance, writing on Berwickshire farming in 1794, reported that "lime . . . is here entitled to the first place; though marl amongst the early improvers had the preference."⁷ Likewise, A. Lowe, after noting that "marl was deadstock after the general introduction of lime," went on to observe that "the period of the greatest avidity for lime in Berwickshire" was from 1760 up to about 1780 when the scale of its use began to decline.⁸ A similar shift from one to the other is documented for Roxburghshire, but here it was less sudden and sweeping in its character, with shell marl continuing in use until the early nineteenth century.⁹

⁵ A. Lowe, *General View of the Agriculture of the County of Berwick*, 1794, p. 93. Late surviving examples of outfield liming can be found in late eighteenth-century leases for the Scott of Harden estate; see Scottish Record Office (hereafter S.R.O.), GD 157/1172.

⁶ J. Home, *Rectified Report of Berwickshire Agriculture*, Berwick, 1797, pp. 24-5; A. Bruce, *Appendix to the General View of the Agriculture of the County of Berwick*, 1794, pp. 103-4.

⁷ *Ibid.*, p. 121. ⁸ Lowe, *op. cit.*, p. 93.

⁹ R. Douglas, *General View of the Agriculture of the Counties of Roxburgh and Selkirk*, Edinburgh, 1798, pp. 138-9.

There can be little doubt that one of the reasons for the initial popularity of marl lay in the convenience of local deposits. An attempt to map those areas in which marl pits were concentrated can be seen in Figure 1. The most important were along the Rivers Dye and Whiteadder in north-central Berwickshire, where extensive beds of clay marl were to be found, and in the parishes of Bowden, Lilliesleaf, Ashkirk, Wilton, Minto Robertson, and Hawick in south-western Roxburghshire, where rich deposits of shell marl were to be found under the many mosses that dotted the area. Outside these two main areas, smaller concentrations of marl pits existed within reasonable distance of most parts of the lower ground.

Encouraged by the prospect of finding local deposits, many landowners did in fact search for marl beneath suitable parts of their property. For example, work and stock books for the Marchmont estate in central Berwickshire contain, on the one hand, regular instructions for marling particular fields, such as the entry in 1759 that the "whole of the Woodsidehill not marled, is to be plowed, as level as possible, the stones gathered off and to be made fit for Marling."¹⁰ On the other hand, they also contain directions for locating marl deposits, such as in 1756 when it was instructed that "all the stones be led off the Cothill Bank, and a ditch be drawn through the boggy part of it on the northside of the oats so as to see if there be any marle in it."¹¹ Similar activity took place on the Roxburgh estate once it became clear that beds of shell marl existed under its property in the parish of Bowden. To some extent, the estate's interest in surveying the location and extent of marl in this area was prompted by the fact that the mosses under which the main deposits lay, Blackpool and Murder Mosses, were used by the feuars (perpetual leaseholder) of Midlem for casting peat. As the value of marl became established in the area, the feuars seized the opportunity of exploiting it along with their peat. Naturally, the estate, mindful of the loss of

¹⁰ S.R.O., GD 158, Marchmont Stock Book, 1746-62, Directions for the year 1759.

¹¹ *Ibid.*, Directions for the year 1756.

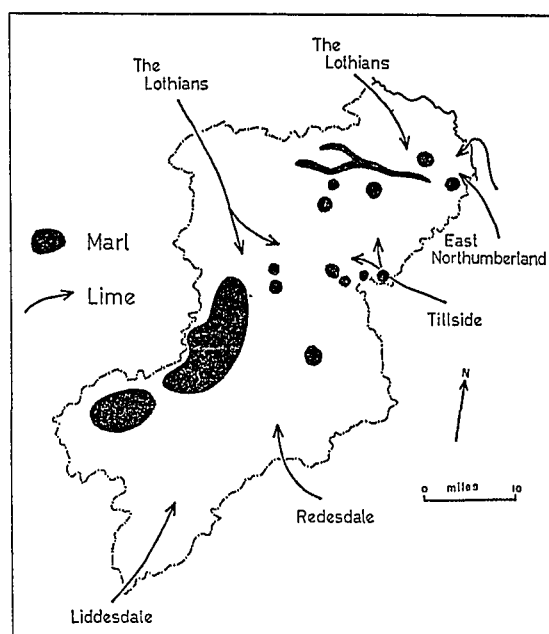


FIG. 1. Roxburghshire and Berwickshire: Sources of Marl and Lime.

potentially valuable estate resource, sought to resist this unfounded extension of rights.¹² However, once its interest had been awakened, the estate began to sanction the use of the marl by its own farms, particularly those which bordered the Mosses. Thus, within a few years, marl from Blackpool Moss was being used on the adjacent farms of Faughill and Hollydean.¹³ Similarly, amongst the plans for the creation of a farm out of part of Clarilaw Muir, on which Blackpool and Murder Mosses were situated, was a proposal for draining two small mosses within the bounds of the planned farm and extracting marl for its necessary improvement.¹⁴ However, a later report commissioned by the estate, did not consider these farms to be especially suited to marling. To use the report's own words, marl

¹² Roxburgh MSS., Floors Castle, Kelso, *Memorial for His Grace The Duke of Roxburgh concerning Clairilaw Mosses*, 1781, and *ibid.*, *Coppy Letter from WL to Mr Erskine anent Selkirk common—Claim of Marle Mosses*, Oct 31st 1777.

¹³ *Ibid.*, *Report of M.S. [Mathew Stobie] Blackpool Moss*, Oct 31st 1791, and *ibid.*, *Letter Andr. Blackie anent Blackpool moss & marle Drain*, 13th Nov 1771.

¹⁴ *Ibid.*, *Mr Stobie's observations for making a ffarm of Clarilaw Muir*, Octr. 1783.

is an excellent Manure, if it be properly Managed, and adapted to a Dry light Soil, I have seen better Crops produced by Marl, upon very poor Soils, than ever I have seen by Dung or Lime, its value is not known in this Country, by the very low price it is sold for which may be accounted for, as the Soils in the Neighbourhood of the Marle Pits, about Hollydean, Faughill xc. xc. are not proper Soils for Marle, no doubt it does a little good to the land, but if it were applied to proper soils, the produce would be more than double, it has bad effects in the adjacent Grounds about Blackpoolmoss, where it is got as it always makes the Crops later, and that being Generally a late Country whereas Lime has the Contrary effect, in making crops early. . . In my way to Faughill the other day, I did not see proper Soils for Marle till I came as far East, as Broomhouse, a Farm belonging to Sir Alexander Don, and about Rutherford, and the Barony of Roxburgh, Where the lands are of a light dry Soil Marle will have a good effect.¹⁵

A number of estates conserved their marl resources by restricting its sale or use to farms on the estate. This was certainly true of the Roxburgh estate pits on Clarilaw Muir, and was also true of pits opened on the Minto, Buccleuch, and Scott of Harden estates elsewhere in Roxburghshire.¹⁶ Indeed, in Roxburghshire generally, where marl had the greatest effect because of its fairly large light-soil sector, and where it was in fact used longest, the first public sale of marl was not until 1772 when the pits at Whitemoorhall in Bowden

parish were opened, followed shortly after by those at nearby Falkside.¹⁷ Inevitably, this restriction on the sale of marl must have contributed further to the active search for it by those farmers or estates who were otherwise excluded.

Further encouragement to the exploitation of local deposits was provided by the fact that marl, especially clay and rock marl, had to be applied in large quantities if it was to have a discernible effect. Exactly how much is difficult to say with any certainty, for most estimates involve figures based on "cart loads." Since cart loads could be one- or two-horse carts, with capacities ranging from as low as two up to six or seven bolls, it follows that estimates based on such figures do not lend themselves easily to comparison with each other. If a farmer reported using 25-50 cart loads of shell marl per acre,¹⁸ and another 150-200,¹⁹ or if a farmer recommended spreading as much as 450-600 cart loads of clay or rock marl per acre,²⁰ one has to allow for part of these variations as arising from differences in cart load size. What is clear, though, is that the considerable quantities of marl usually involved must have placed a high premium on the farmer's proximity to available deposits.

An important feature of marl was that its effect on soils was slow when compared with that of lime. As Bruce put it, "its process in fertilising the soil, for the first two years, is little more than discernible, whereas lime operates instantaneously."²¹ Part of the difficulty was that before it had any effect, marl needed to be thoroughly mixed with the soil. At Ninewells and East Mains in the Berwickshire parish of Chirnside, for example, both of which were extensively marled in the 1730's

¹⁵ Roxburgh MSS., Floors Castle, Kelso, *Report about Marle from Clarilaw Muir And where it might be used to advantage*, 1791 M.S. [Mathew Stobie].

¹⁶ The Minto estate opened a marl pit in a small moss called Crows Moss on the farm of Wellridge. See National Library of Scotland (hereafter N.L.S.), Minto Plan no. 5, Barony of Minto 1766. According to Douglas, *op. cit.*, pp. 134-5, Sir Gilbert Eliot of Minto was the first landowner to use shell marl in Roxburghshire. His Crows Moss pit was opened in 1755, and was used to marl 200 acres. For the Buccleuch estate, see *Old Statistical Account of Scotland* (hereafter O.S.A.), VIII, Edinburgh, 1791-8, p. 23. For Scott of Harden estate, see S.R.O., GD 157/1172.

¹⁷ Douglas, *op. cit.*, p. 134; Roxburgh MSS., *Letter from Andr Blackie—State of Mosses Clarilaw and proposal for settling marle affair*, 30th May 1782.

¹⁸ A. Wight, *Present State of Husbandry in Scotland. Extracts from the Report Made to the Commissioners of the Annexed Estates*. Edinburgh, 1778-84, II, p. 391, IV, p. 603.

¹⁹ O.S.A., VIII, Eckford parish, p. 23.

²⁰ Wight, *op. cit.*, II, pp. 295-300, and IV, p. 535; Home, *op. cit.*, p. 94; Bruce, *op. cit.*, p. 121.

²¹ *Ibid.*, p. 121.

and 1740's, it was estimated that it took three to five years to mix the marl adequately with the soil.²² This was a problem even with shell marl. Writing of the tenant of Burnfoot and Branxholmbræ near Hawick, A. Wight commented that "shell marl is his plight anchor. He gives 160 bolls to an acre; but he does not find from it the increase expected. The reason may be, either the quantity is too great, or that sufficient care is not taken to mix it intimately with the soil. The last appears to be the case; because the marl has no sensible effect till the land be frequently ploughed."²³ However, although slower to act, marl had a more lasting effect than lime, continuing "longer to aid the crop than either lime or dung; and shows itself again when the field is broken up from grass."²⁴ To farmers on a fixed-term lease, the slower action of marl must have been a dissuasive factor. Even those on fifteen- or twenty-one-year leases must have debated whether their interests were better served by adopting a quick-acting manure. The point is well made by a writer on the parish of Bunckle and Preston in Berwickshire, who stated in the 1790's that clay marl "was formerly used as a manure to great advantage... but its operations are very slow, though lasting. The obligation in tenant's leases, in regard to the rotation of crops, and the obligation of having so great a quantity in grass, at least for the last 10 years of a 21 year lease, have induced farmers to prefer lime as a quick manure, though they are obliged to drive it 15 miles."²⁵

Although liming had become the more favoured of the two by the 1760's, marling did not cease entirely. The easily worked beds of clay marl along the Rivers Dye and Whiteadder, for instance, were quarried until at least the 1780's.²⁶ By the 1790's, however, commentators living within the vicinity of the pits were able to report that local farmers mostly used lime carted from Midlothian.²⁷ Without

doubt the most important area for the late-continued use of marl was central and northern Roxburghshire. This was an area of light soils on which marl offered an advantage that lime did not possess. As one local farmer observed when writing about marl in 1782, "people are not so fond of it of late unless the lands are naturally of a light dry soil."²⁸ Strong encouragement to its continued use in this area was also provided by the fairly late discovery of large amounts of shell marl in parts of central and south-western Roxburghshire. Most of the marl pits opened in this broad area after 1770, such as those at Whitemoorhall (Bowden parish) or Wester Moss Side (Eckford parish), were designed to tap local shell marl deposits. A fine illustration of how late marling continued in this area is provided by extracts from the diary of James Grieve, a farmer who occupied the farm of Branxholm Park in Teviotdale, a few miles south of Hawick. Grieve drew his marl from a small loch called Easter Loch, which stood a measured "3840 paces, or two miles, and about 1/5th" to the west of Branxholm Park. The entry he made in his diary for 14 November 1796 provides some glimpse of the routine associated with marling:

Began to lead out marle with three carts to the Crossflat 3 men and one women helping to fill and 2 women for spreading, went down to Ormiston [five miles to the north-west] today to see the shaft Mr Curor is driving to his marle pit. The common method is to lay it down in small nols [mounds] and spread it from them, or spread it direct from the carts when it is tolerably dry and not meant to be very thick laid on. Which is the best and less labour attending it, and where the land is rough or uneven it is better to spread it off the carts, 30 carts to the acre, or only 20 or under if done lightly.²⁹

Grieve obviously maintained a scheme of marling for a number of years, for some months

²² O.S.A., XIV, Chirnside parish, p. 11.

²³ Wight, *op. cit.*, II, p. 398. ²⁴ *Ibid.*, p. 380.

²⁵ O.S.A., III, Bunckle and Preston parish, p. 156.

²⁶ Lowe, *op. cit.*, p. 94.

²⁷ O.S.A., III, Bunckle and Preston parish, p. 156; *ibid.*, I, Longformacus parish, p. 69.

²⁸ Roxburgh MSS, *Letter from Andr Blackie—State of Mosses Clarilaw and proposal for settling marle affair*, 30th May 1782.

²⁹ Wilton Lodge Museum, Hawick, Grieve Diary, 14 Nov. 1796.

later he can be found meeting a small party of other farmers at Easter Loch to arrange the setting aside of a 9-acre plot for "accomodating the man who is to take charge of the marle."³⁰

It will be apparent from what has already been said that the cost of marling varied in accordance with a number of factors. Needless to say, this makes it difficult to fix an exact cost per acre. All one can do is cite the two most detailed estimates available, and then underline ways in which its cost might vary from these estimates. The first estimate, compiled by A. Low, refers to his own experience in applying rock marl to his farm at Woodend on the Langton Estate in Berwickshire during the 1760's. His costs worked out at £35 per 10 acres, the marl being spread at a rate of 600 carts per acre.³¹ Although he does not make it

absolutely clear, Low's figures probably relate only to the labour of digging, carting, spreading, and mixing the marl. It is difficult otherwise to see how so much marl, even at the assumed low price of say 2d. a cart, could possibly have been applied for so little. In all probability, Low was using marl available to him without cost, perhaps from deposits on the farm at Woodend itself or from another part of the Langton Estate.³² The second detailed estimate is one published by R. Douglas in 1798.³³ Unlike Low's, it incorporates no allowance for the labour of spreading and mixing the marl. Instead, it costs only the marl itself and its carriage (see Table I). Regrettably, Douglas omits to mention what kind of marl he used as the basis for his estimate. Its fairly high price of 10d. per cart suggests it was shell marl, for near-contemporary figures provided by other

³⁰ *Ibid.*, 26 April 1797.

³¹ Wight, *op. cit.*, II, p. 315. Low's estimate can be compared with Bruce's estimate of "31. 10s. to 41. per acre": Bruce, *op. cit.*, p. 121.

³² *O.S.A.*, xiv, Langton parish, p. 579.

³³ Douglas, *op. cit.*, pp. 134-8.

TABLE I
COST OF MARL AND ITS CARRIAGE IN ROXBURGHSHIRE

Example A.	£ s. d.
Cost of 30 carts of marl from the pit at 10d. each	1 5 0
Carriage of 24 carts of dried marl 3 miles at 8d. each	16 0
Total	2 1 0
Example B.	
Cost of 60 carts of marl from the pit at 10d. each	2 10 0
Carriage of 48 carts of dried marl 3 miles at 8d. each	1 12 0
Total	4 2 0
Example C.	
Cost of 30 carts of marl from the pit at 10d. each	1 5 0
Carriage of 24 carts of dried marl 8 miles at 1s. 8d. each	2 0 0
Total	3 5 0
Example D.	
Cost of 60 carts of marl from the pit at 10d. each	2 10 0
Carriage of 48 carts of dried marl 8 miles at 1s. 8d. each	4 0 0
Total	6 10 0

Source: Douglas, *op. cit.*, pp. 136-7

sources fix the cost of shell marl when sold publicly at about 6d.-9d. per cart. As noted earlier, however, comparisons based on cart-load units need caution unless they are accompanied by the number of bolls which each cart load contained. Possibly the most valuable aspect of Douglas's figures is the importance which they clearly attach to transport costs. Thus, at three miles, the cost of carriage was only slightly less than the cost of the marl itself. If the distance involved rose to eight miles, transport costs per cart could be as much as twice the value of the marl. Given that clay and shell marl might be applied in quantities of 450-600 carts per acre, it scarcely needs stating that such manures must have been subject to very stringent cost restraints imposed by distance. Perhaps the utility of shell marl lay not simply in its higher calcareous content but in the fact that, by requiring smaller amounts per acre, it proved to be much more capable of withstanding the costs of transport. An important source of variation not mentioned by Douglas lay in the cost of the ploughings necessary to mix the marl with the soil. Compared with their light-soil counterparts, clay-soil farmers who marled faced the prospect of having to give more ploughings at a higher cost per ploughing, yet they were in no position to expect their returns to be proportionately greater.³⁴

³⁴ Comparison between these costs for marling in Roxburghshire and Berwickshire and its cost in other parts of Britain are complicated by variations in the amount applied per acre, and by such factors as whether farmers had to buy the marl or whether it was available to them free of charge. Thus, A. Young, *A Six Months' Tour Through the North of England*, III, 1770, pp. 214, 221, 314, and W. Marshall, *Review and Abstract of the County Reports to the Board of Agriculture*, II, York, 1809, p. 140, cite costs which are comparable with those for Roxburghshire and Berwickshire. However, A. Young, *General View of the Agriculture of the County of Norfolk*, 1804, pp. 402-12, and W. Marshall, *The Rural Economy of Norfolk*, I, 2nd edn, 1795, p. 157, cite figures which are noticeably lower. The latter, though, appear to make no allowance for the purchase of marl. In Roxburghshire and Berwickshire tenant farmers frequently paid for the marl quarried from their own farm. See, for instance, S.R.O., GD 157/1172, especially the lease for Oakwood and Huntly (1793) which allowed the tenant to use the marl on the farm at a rate of 3d. per single cart and 6d. per double cart.

III

The problem of liming differed in a number of ways. Although a few lime kilns were operated using local limestone, such as those around Hawick³⁵ or the solitary example reported in use on the Marchmont estate,³⁶ the region's main sources of lime were the kilns in the adjacent counties of Midlothian, Dumfriesshire, and Northumberland (see Fig. 1). In northern Berwickshire, the pattern of supply reflected proximity with lime being brought from Midlothian via Lauderdale or from East Lothian via the east coast. In the Merse, lime was drawn from Tillside and other centres in east Northumberland, the lime being transported across the Tweed at Berwick or Coldstream. The pattern in Roxburghshire was similar, with the northern part of the county drawing lime from the Midlothian kilns, and the eastern parts drawing lime from Tillside via Coldstream. Further south, as the distance from both these sources increased, farmers depended on the poor-quality lime produced by the handful of kilns around Hawick, or on lime drawn from the kilns along Redeswater in Northumberland or from Liddesdale. Whichever source was used, the distances involved were usually substantial. Small wonder then that some writers should attribute the swing to lime to the greater ease of cartage brought about by road improvements.³⁷

Lime of course did have the compensating advantage of needing smaller amounts per acre than marl. Writing in 1794, D. Ure reported it as being "used in various quantities, from twenty to fifty bolls English, per acre,"³⁸ or to put this another way, "six, eight or nine . . . cart loads, according to the nature of the ground."³⁹ Detailed evidence for the Paxton estate in Berwickshire suggest that the amount applied per acre on its farms certainly fell within these

³⁵ Douglas, *op. cit.*, p. 11.

³⁶ S.R.O., GD 158, *Report relative to the Lordship and Estate of Marchmont, The Barony of Hume, etc.* Compiled by D. Low, 1819, p. 3.

³⁷ O.S.A., VII, Westruther parish, p. 114; Bruce, *op. cit.*, p. 97; Douglas, *op. cit.*, p. 139.

³⁸ Ure, *op. cit.*, pp. 25-6.

³⁹ O.S.A., X, St Boswells parish, p. 205.

limits.⁴⁰ Elsewhere, however, the nature of the ground could demand much more. Thus, on the farms of Northside and Southside Upsetlington in the Berwickshire parish of Ladykirk, most fields were limed at a rate of 8 carts or 50 English bolls per acre, but some received amounts as high as 40 or even 82 carts per acre.⁴¹

As noted earlier, farmers in the Merse used lime as a supplement to outfield tathing during the pre-Improvement period. It is hardly surprising, therefore, that when the more progressive landowners in the region began to seek out ways of improving their estates during the 1740's and 1750's, lime was sometimes used, albeit on a lesser scale than marl. It was used on the farms of the Scott of Harden estate in Berwickshire, for instance, during the late 1740's, whilst on the nearby Marchmont estate small amounts were used alongside marl in the mid-1750's.⁴² A good illustration of the early use of lime nearer the Tweed is provided by the tenant of the farm of Paxton, who like other tenants on the Paxton estate was required by a lease of 1745 "to carry five pund Sterlings worth of lime each year dureing the last seven years of the present tack of the distance of five miles and no further and be laid on the sd. lands in the manner the sd. John Home and his forsd Shall direct"—though, at the same time, he was allowed "to dig for Marle anywhere on the grounds."⁴³

Late eighteenth-century writers give the impression that lime supplanted marl as the

preferred artificial manure round about the 1760's. Certainly, references to liming are much easier to find over the next two or three decades. Numerous examples, for instance, can be found in the relevant sections of A. Wight's *Present State of Husbandry in Scotland*,⁴⁴ and in the parish reports of the *Old Statistical Account of Scotland*.⁴⁵ Manuscript sources, likewise, are much more forthcoming. The Ladykirk estate, for example, appears to have followed a systematic liming programme on its farms of Northside, Southside, and Eastside of Upsetlington during the 1760's and 1770's, with frequent reference in the estate's work-books to fields being cleared of stones, their ridges levelled or straightened, and lime spread.⁴⁶ Farms or fields not limed by the estate were limed by their tenants.⁴⁷ On the Dunglass estate in northern Berwickshire, accounts and receipts show that during the 1770's a number of tenants, such as those on the farms of Carnside, Swinton Quarter, and Berryhaugh, were given discounts on their rent for liming.⁴⁸ A similar arrangement prevailed on the Billie estate nearby. Thus, in 1775, the tenant of Ashfield, Billie Hill, and Billie Mains was allowed "out of his rent the sum of Two hundred pounds Sterling for purchasing Shell lime at Berwick or Northumberland Kilns."⁴⁹ The Marchmont estate in central Berwickshire appears to have followed a similar policy, for an early nineteenth-century estate survey not only notes that a number of farms had been limed during the latter part of the eighteenth century, but

⁴⁰ S.R.O., GD 267/29/21. See, in particular, those manuscripts which, under the old Home-Robertson MSS scheme of classification, were numbered 225/6, 225/9, 237/5, and 232. The last mentioned manuscript, no. 232, contains a set of proposals by P. France for cropping a farm in Paxton (1783), and is especially forthcoming on the number of bolls or cart loads of lime to be applied per acre.

⁴¹ N.L.S., Robertson of Ladykirk MSS., no. 998, pp. 168, 175.

⁴² S.R.O., GD 157, Box 134 *Accompt Charge and Discharge for Croft*, 1749; *ibid.*, Box 135 *Accompt of Money Delivered for several things* 1753; S.R.O., GD 158, Marchmont Stock Books, 1746-62, *Account of Arable Ground*, 1755. The latter details the treatment of 14 fields, 1 of which was limed, 1 was part limed and part fallowed, 6 were fallowed, and 6 were marled.

⁴³ S.R.O., GD 267/29/21 (old classification no. 225/9).

⁴⁴ Wight, *op. cit.*, II, pp. 280, 319-20, 326-7, 332, 340, 344, 352, 361, 372, 378, 380; IV, pp. 535, 540, 544, 551, 555, 567, 581, 592, 600.

⁴⁵ O.S.A., XII, Abbey St Bathans parish, p. 61; I, Ayton parish, p. 80; II, Crailing parish, p. 326; III, Linton parish, p. 120; X, St Boswells parish, p. 205; X, Kelso parish, p. 577; XI, Foulden parish, p. 117; XI, Eccles parish, p. 231; XI, Ednam parish, p. 304; XI, Oxnam parish, p. 326; XII, Coldingham parish, p. 51; XIV, Langton parish, p. 579; XVII, Lilliesleaf parish, p. 174.

⁴⁶ N.L.S., Robertson of Ladykirk MSS., no. 998, pp. 118, 136, 148, 162-3, 168, 175.

⁴⁷ *Ibid.*, no. 999, Lease to Thos. Richardson, 1774.

⁴⁸ Reading University Library, Hall of Dunglass MSS., *Rental of Lands in the Shire of Berwick belonging to William Hall of Whitehall for Crop* 1775.

⁴⁹ S.R.O., GD 267/29/21 (old classification no. 237/5).

also states that in 1772 a tenant of Kingsrig farm had gone bankrupt despite receiving lime discounts.⁵⁰ To the south, the Scott of Harden estate, with farms in both southern Berwickshire and northern Roxburghshire, provides still more evidence for lime discounts. The estate's rental of 1785, for instance, records that the tenants of Magdalenhall "are allowed out of their rent £5 yearly, for lyme upon producing the lyme Grieves [overseer's] receipts for the same." Other tenants, meanwhile, on the farms of Bellfield and Crossrig are noted down as allowed discounts of £10 for lime.⁵¹ However, one must not overlook the fact that the Scott of Harden estate possessed extensive reserves of shell marl, and during the closing decades of the eighteenth century quite a number of its tenants, especially those in northern Roxburghshire, were encouraged to use these reserves rather than buy lime.⁵² On some estates, tenants were even compelled to lime by the management clauses inserted in their leases. The earlier-cited Paxton lease provides a good illustration of this. Another example amongst the Home-Robertson Papers is provided by a lease granted to the tenant who entered Blackspotts farm, near Coldingham, in 1766. Its management clauses included one which bound the tenant "to lime and Improve the whole arable Lands in a regular and sufficient manner."⁵³ So-called "improving leases" stipulating the use of limes were also issued by the Roxburgh and Minto estates in Roxburghshire.⁵⁴

Although the distinction is not necessarily a clear one, lime was used in two ways, either as a vital part of the process of land improvement, or as a general-purpose manure for use in the

routine of husbandry. In the former role it was naturally more important on land which had previously been outfield rather than infield,⁵⁵ and upon lowland moss and muir ground which was suitable for reclamation. Its effect on former outfields was particularly significant. On many lowland farms, outfield represented up to two-thirds of the entire farm, yet in consequence of past treatment it generally showed signs of too much cropping and too little manure. For many Improvers, then, putting heart back into their outfield was their most immediate task.⁵⁶ As outfield formed the only source of grass on the farm, some farmers approached its improvement by reversing the roles of infield and outfield, laying the former down to grass and subjecting the latter to a course of liming and fallowing. This was obviously the procedure followed on the farms of Woodheads and Harden on the Marchmont estate, for amongst the estate's 'Instructions for 1763' was a note to the effect that the "infield of Woodheads and Hardens till the Outfield be limed must be left in grass for working cattle."⁵⁷

Writing about Berwickshire in 1784, Wight made the point: "Forty years ago, the good land was checkered with moors and other barren ground. These have all disappeared in the Merse, a district comprehending the lower

⁵⁵ See, for instance, the comment by the reporter for Coldstream parish, *O.S.A.*, xii, pp. 50-1, that "lime seems only useful on the outfield not on infield where its effect was less dramatic."

⁵⁶ A good illustration of this is provided by the 1761 lease for Easter Muirdean, since it required the tenant "as soon as may be to improve the whole of the outfield thereof—(excepting the muir) by fallowing & liming or dunging." Roxburgh MSS., *Tack to J. Penman for Easter Muirdean, 1761*. According to Wight, *op. cit.*, II, p. 372, the tenant of Stodrig, also on the Roxburgh estate, began his scheme of improvement by liming the outfield.

⁵⁷ S.R.O., GD 158, Marchmont Stock Books 1746-62, *Directions for 1763*. See also Wight, *op. cit.*, II, pp. 319, 342-4, 397. A very detailed example is cited by *O.S.A.*, xii, Coldstream parish, p. 51. The origin of this approach to improvement can be traced back to Lord Belhaven, *The Countrey-Man's Rudiments: or, an Advice, to the Farmers in East Lothian how to Labour and Improve their Ground*, Edinburgh, 1699, p. 22, with his suggestion that one of the most urgent tasks facing farmers was the improvement of the grazing capacity of farms: the method recommended involved the laying down of infield to grass and the systematic liming of outfield.

⁵⁰ S.R.O., GD 158, *Report . . . Lordship and Estate of Marchmont, 1819*, pp. 17, 100, 116, 129.

⁵¹ S.R.O., GD 157, *Rental of Mr Scott of Harden's Mertoun, Berwickshire . . . and Harden Estate, 1785*.

⁵² Numerous references to the exploitation of these marl resources can be found in the late eighteenth-century lease transcripts provided by *ibid.*, 1172.

⁵³ S.R.O., GD 267/29/21 (old classification no. 237/10).

⁵⁴ Roxburgh MSS., *Tack to J. Penman for Easter Muirdean 1761*; N.L.S., Minto MSS., *Tacks and Inventories, 1786-93—Minutes of Agreement between Sir Gilbert Eliot and George Mitchelson for the farm of Minto, 1792*.

parts of the shire; and, at present, every field in it looks rich and fertile."⁵⁸ The prime aid to this transformation was almost certainly lime. Indeed, H. Home, when making roughly the same sort of point, ascribed the change directly to lime:

the "Berwickshire farmer, tho' desirous to dispense with the dear-bought manure of lime, . . . must at the same time gratefully acknowledge the present flourishing state of cultivation to be founded on the basis of that manure. Its predecessor, clay marl, too laborious for the means or patience of the farmer, . . . and too tardy in its returns . . . had not in the year 1750 made much visible impression on the great wastes of the country. Lime, portable to all distances, quick and instant in its action, unlocked at once on all soils the dormant powers of reproduction. Among its many wonderful effects, experience tells us, that laid upon barren moor, where, for centuries past, heath only had been known to grow, the sward covers with white clover; spread upon moss the moss vanishes away."⁵⁹

Other writers were just as inclined as Home to link reclamation with lime. A leading surveyor in Roxburghshire, for example, observing a stretch of waste ground on the farm of Sprouston Hill which had previously been common grazing land, commented that "it is a shame to see the Lands in Haddenrigg, upon each side of the Turnpike Road lying in a state of nature, when they are very Capable of Improvement being so near Lime."⁶⁰

Apart from small patches of waste which, like Haddenrigg, were present in most parishes, the region could boast of a number of large, lowland waste areas. Some, like those which fringed the southern edge of the Lammermuirs, were partially or wholly reclaimed during the late eighteenth century.⁶¹ Others, however,

like Coldingham Muir, proved more resistant to change, with only a small proportion of the Muir's 6,000 acres being reclaimed or improved. Commenting on the scene which he found during his second visit to it in 1784, twelve years after it had been divided out of common, Wight declared the Muir to be "the subject of much industry; parts are enclosed, trees planted, corn growing, and cattle pasturing on pretty good grass."⁶² However, the optimism present in this description is tempered by his further comment that it would "require so much labour and expence to make it productive of good crops that it would be beyond the ordinary endurance of a lease to attempt improvement"; any improvement must be carried out by the proprietor, and "even he must consider it a purchase."⁶³ Admittedly, one or two proprietors did attempt or plan to improve their shares of the Muir. Sir John Home, for instance, improved 280 acres, using ground shell lime; but out of his share in the division over 1,000 acres still remained unimproved.⁶⁴ The largest landowner on the Muir was Sir Patrick Home of Billie, with 1,375 acres, but none of the schemes which he planned for his portion ever came to fruition. Considering the prospect soon after the Muir's division, he did at least decide that the "most proper way for improving the Common seems to be, to Break the Turf Sufficiently by plowing burning & harrowing, to Lay on 40 bolls of Shell lime to the acre, and to sow up oats & grass seeds."⁶⁵ In another set of proposals, this time involving the creation of a number of small farms, the "tenants were to be allowed the prime cost of all lime . . . from kilns beyond the Tweed or in East Lothian."⁶⁶ A covering note to his various unrealized schemes ruefully reflected that "they

⁶² Wight, *op. cit.*, IV, pp. 532-3. Information regarding the division of Coldingham Common can be found in S.R.O., GD 267/621, *Decreet of Division of Commony of Coldingham, 1772*, and *ibid.*, *Copy Extrs. from the Surveyors Report of the Division of Coldingham Common, 1772*.

⁶³ Wight, *op. cit.*, IV, p. 533. ⁶⁴ *Ibid.*, p. 535.

⁶⁵ S.R.O., GD 267/2622, *Memorandas about Mr Homes Allotment in Coldingham Common*.

⁶⁶ *Ibid.*, *Proposed Conditions for sett of small farms in Coldingham Common*.

⁵⁸ Wight, *op. cit.*, IV, p. 587.

⁵⁹ Home, *op. cit.*, pp. 92-3.

⁶⁰ Roxburgh MSS., *Mathew Stobie's Report of Sprouston-hill Farm, May 31 1792*.

⁶¹ O.S.A., III, Bunckle and Preston, p. 153; XII, Abbey St Bathans parish, p. 61; XIV, Greenlaw parish, p. 512.

were found either imprudent or impracticable, I think the great error has been in not planting. They say it is never too late to mend—but the objection has been, I am apprehensive must continue to be, the Inconvenience of the immediate expence and the distant profite.”⁶⁷

Unlike marling, which was regarded as something of a once and for all treatment, liming established itself as a practice that could be repeated. Obviously, though, once any basic calcium deficiency had been made good, further applications of lime were unlikely to have the same effect as the initial application. This led to a certain amount of controversy over whether recurrent liming repaid the investment. D. Low of Woodend declared himself in favour of continuing applications: his policy was, he stated, “to lay lime upon the fallowed field; so that some of my land has been three times limed. I cannot agree, that lime laid on ground the second or third time, does no good though I have often heard the fact asserted.”⁶⁸ Although some farmers seemed bemused by its potentially dramatic effects when first applied to impoverished outfield and muir ground, and felt disappointed with anything less, farmers generally were inclined increasingly to Low’s view, and limed on a regular basis both their former infield and outfield.⁶⁹ Perhaps the best illustration of the acceptance of lime as a general-purpose manure is the management clause inserted into leases for farms in the Barony of Coldstream after 1788. It stipulated that each tenant was “to lead one Cart load of lime for every three cart loads of straw he sells.”⁷⁰ Older tenants, in particular, might have appreciated the precise significance of this clause, for a complete embargo on the off-farm sale of straw was one of the few restrictions which pre-Improvement leases contained.

Cost-wise, lime was not vastly different

from marl, its higher cost per cart and higher transport costs being offset by the smaller quantities needed per acre. An opportunity to see its cost in full is provided by material relating to the Ladykirk estate. As part of his comprehensive liming programme, R. Robertson, the owner, made two detailed calculations of how much liming cost him on two particular fields, one of which had previously been outfield, and the other an enclosure which presumably had formerly been infield (see Tables II and III). In both cases the lime used cost around 5s. per cart. Given that Robertson was using carts capable of holding seven to eight English bolls, this seems a reasonable price for lime when compared with the range of prices quoted elsewhere. In terms of lime alone, it represents a cost per acre of about £2 10s., though when Robertson applied lime at the rate of 40 or even 82 carts per acre his costs must have been of the order of £10 and £21 respectively. This, however, represents simply the cost of lime. Robertson’s calculations suggest that the cost of preparing the soil, spreading the lime, and then mixing it in with the soil could add anything up to a further pound per acre. Thus, his total costs worked out at about £3 to £3 10s. per acre. This can be compared with Low’s estimate of £3 17s. 6d. per acre for liming on his farm in Langton parish,⁷¹ with Douglas’s figure of £4 4s. per acre for liming an unspecified farm in Roxburghshire,⁷² or with the figure of £4 to £5 8s. per acre for the cost of lime and its carriage in St Boswells parish.⁷³ The higher value of these three estimates relative to that of Robertson is possibly explained by the fact that they were compiled twenty to thirty years later, and also that, being so close to Coldstream Bridge, and therefore the lime kilns of Tillside, Robertson probably had substantially lower carriage costs than most other farmers in the region. However, a total cost of between £3 17s. 6d. and £5 8s. per acre is still within the range of cost cited by writers like Arthur Young and William Marshall for

⁶⁷ *Ibid.*, untitled note accompanying *Memorandas about Mr Homes Allotment in Coldingham Common*.

⁶⁸ Wight, *op. cit.*, II, p. 315.

⁶⁹ *Ibid.*, II, pp. 372, 375, 378, 380, 381; IV, pp. 540, 551, 556, 578. Generally speaking, liming was followed by turnips on light soils, and wheat or barley on clays.

⁷⁰ S.R.O., GD 158, *Rental of the Barony of Coldstream, 1788*.

⁷¹ Wight, *op. cit.*, II, p. 315.

⁷² Douglas, *op. cit.*, p. 140.

⁷³ O.S.A., x, St Boswells parish, p. 205.

TABLE II
ACCOUNT OF EXPENCE OF IMPROVING . . . 16 ACRES NEVER HAD BEEN TOUCHED FOR 8 YEARS
WAS OUTFIELD ANNO 1763

(Abstracted from N.L.S., Ladykirk MSS., no. 998.)

Days Work	£	s.	d.
One winter ploughing, lay till 6 Aug	3	00	0
23 Several ploughing some parts more some parts less cross ploughing, cleavings, gathering &c in order to lay the Ridges all one way and Streight from 6 August to 21 Sept 23 days of a Three Horse plough Horses at Grass & Driver & Ploughmen tear & wear 2/6	3	00	0
2 Brake with three horses & driver 2 sh.		4	0
3 Harrows wt. two horses & driver 1/6		4	6
Price of 116 Carts of Lime Shells	28	00	0
9 Laying on lime from 21 Sept to 9 Oct two Carts one horse each & Driver 1 sh. Horse at grass - Men 1 sh. . . 2 sh.		18	0
9 Ploughing in said lime to ly all Winter from 27 Sept to 13 Oct 8 days whereof three horse plough at 2/6 £2 0 0			
Item a two Horse light Plough with feathered Sock Driver and greeve holding 6 days 2/6 . . . 15 0. Stopped with wett.		2	15 0
6 Days of 3 Horse plough in December to finish same Horses on Hay at 1/6 Men 1 sh 2/6			15 0
	£38	16	6

the closing decades of the eighteenth century.⁷⁴ If one sees the matter in terms of the total acreage limed by particular farmers, then it soon becomes apparent that it formed a significant use of farm capital. Not a few farmers it seems, were prepared to invest anything up to £1,000 on a liming programme designed to improve their farms, in addition to the amount they subsequently spent in purchasing lime as a general-purpose manure.⁷⁵ One local commentator, writing about Berwickshire farming in 1798, suggested that "lime had at least in one dressing overspread the whole cultivated area

of the county."⁷⁶ No doubt the same boast could be made in Roxburghshire. Even if it were only half true, it would make the regional investment in liming considerable.

It will be clear from the foregoing discussion that the shift from marl to lime can be ascribed to a number of factors. However, without discounting the idea entirely, the suggestion of some writers that lime became noticeably the cheaper of the two as roads were improved and transport costs lowered is not borne out by a comparison between the costs of liming and those of marling. More convincing reasons are the greater convenience of lime, its more rapid effect on the soil, its greater suitability for use as a regular manure, and its common availability on a commercial basis by the last quarter of the eighteenth century. Once the changeover had taken place, marl continued to be used only on light soils and where local supplies were available. Even taking the lowest possible estimate for liming, it is clear that these farmers must have spent over £1,000 on it. See *ibid.*, II, pp. 280-1, 318, 326, 371.

⁷⁶ Home, *op. cit.*, p. 93.

⁷⁴ See, for instance, Young, *Northern Tour*, III, pp. 62, 77, 127, 191, 205; Marshall, *Review and Abstract of the County Reports*, II, pp. 146, 243; *ibid.*, IV, pp. 38, 382-3, 532; Marshall, *Rural Economy of Yorkshire*, 1796, pp. 325-30.

⁷⁵ Douglas, *op. cit.*, p. 140, cites one farmer as paying out £545 14s. 7d. on an improving course of liming. Another farmer, in Ednam parish, reported spending £150 on lime "several" years running: see Wight, *op. cit.*, II, p. 340. Wight also provides a number of examples (Mordington, Kimmerghame, Fishwick, Stodrig, and Windywalls) in which farmers reported liming over 700 acres of land at rates of 50/60 bolls (or 7-8 carts) per acre.

TABLE III
ACCOUNT OF EXPENCE OF IMPROVING A SMALL INCLOSURE CONSISTING OF 10 ACRES
ENGLISH MEASURE

(Abstracted from N.L.S., Ladykirk MSS., no. 998.)

Imf. Sown by outgoing Tennant Anno 1754 remained in Grass 1755, 56, 57, 58, 59, 60. Sown with Oats 1761. Anno 1762 brought in thus:		
Days Work		£ s. d.
10 1 Ploughing before Marts. a Three Horse plough Ploughman & Driver at 3 sh pr day		1 10 0
10 2 ^d Ploughing same plough in April		1 10 0
12 3 ^d Plough ⁿ . from 16 May to 5 June being a Cross ploughing Horses on cutt grass at 2/6		1 10 0
7 4 Plough ⁿ . from 5 to 17 June at 2/6		17 6
2 A Brake with three Horses one Driver 2 sh Dung Cartfull of the Dung of 8 Horses 16 Cattle ledd out at different times		4 0
82 Cart full of Lime Shells price & carriage		20 00 0
7 Days spent in leading said Lime from several hutts with two carts each a Horse & a Driver at 2 sh pr Day—One Labourer to fill at 8 ^d —Ind 2/8 From 17 June to 24 June		18 8
9 Leading & spreading said Dung D ^o . Carts & D ^o . Horses from 17 June to 26 June 2 sh Labourer D ^o .		18 0 6 0
10 5 th Plough ⁿ . from 1st to 28 July 3 Horse Plough 2/6		1 5 0
		<u>£28 19 2</u>

able. Even where these two conditions were satisfied, the continued use of marl was not necessarily assured, for on light soils the special effects of marling on soil structure could be achieved just as easily by the folding of sheep on turnips, whilst the advantage of local supplies was ultimately a persuasive factor only if they were formed of calcium-rich shell marl.

IV

Any assessment of the impact of eighteenth-century marling and liming must begin with their effect on farm output. By exactly how much the latter rose it is difficult to say, for much depended on the particular circumstances and condition of each field. Those estimates available put the increase when marl or lime were applied for the first time at anything from

25 per cent to 100 per cent.⁷⁷ Inevitably, any increase in farm output was bound also to raise rent and land values. With other capital-intensive improvements taking place at the same time, it is almost impossible to isolate the precise contribution made by marling and liming to the recorded increases in rent and land values. However, writers who mention the matter leave no doubt the two were connected.⁷⁸ To the contemporary observer, a major contribution of marling and liming was their vital role in the transformation of the pre-

⁷⁷ Roxburgh MS., *Report about Marle from Clarilaw Muir And where it might be used to advantage*, 1791 MS.; O.S.A., x, St Boswells parish, p. 205; *ibid.*, 1, Longformacus parish, pp. 69–70; Wight, *op. cit.*, II, pp. 300, 310; J. S. L. Waldie, 'William Dawson, 1734–1815', *Agricultural Progress*, xxvi, 1951, pp. 97–8.

⁷⁸ Wight, *op. cit.*, pp. 341–4, gives the example of William Dawson at Frogden in Roxburghshire. Dawson took the farm of Frogden at a rent of £83 13s. After liming

Improvement landscape from its veritable patchwork of arable, moss, and muir into the regular and uniform pattern which we associate with the Improvers. Many a marginal soil must have owed its value to the stimulus pro-

and marling heavily, and then enclosing the farm, he sublet it for a rent of £331 6s. 8d. For further examples of increased rent and land values linked to liming and marling, see *ibid.*, IV, p. 544; *O.S.A.*, XIV, Langton parish, p. 579; *ibid.*, III, Ashkirk parish, p. 214; J. Thomson, 'Sketch of the Present State of Agriculture in Berwickshire', *Annals of Philosophy*, I, 1813, p. 262. Also worth mentioning is a reference by Mathew Stobie to "a Gentleman in Perthshire, who Doubled the Value of his Estate, by Marling, which he got at very great expence, he fished it with a Boat from a Loch, and afterwards carried it a considerable distance in Carts to his Estate, he took several of his farms into his own hand, at different times, and Marled them and then let them at double rent."—Roxburgh MSS., *Report about Marle . . . 1791*.

vided by marl and lime. Nor must one overlook the simple contribution to the farming scene made by the very routine of marling and liming. No better reminder of this can be cited than a local farmer's reminiscence about the mid-nineteenth century, a time when marling had virtually died out, and when lime was used on a reduced scale compared with the eighteenth century. Looking back across fifty years of farming life, he picked out the "scores" of carts which set out for the lime kilns at dusk and returned the following afternoon as one of his more enduring memories of the farming calendar.⁷⁹

⁷⁹ J. Wilson, 'Half a century as a border farmer', *Trans. High. and Agric. Soc.*, XIV, 1902, p. 41.

The Farmers' Alliance: An Agricultural Protest Movement of the 1880's

By J. R. FISHER

I

LAND tenure systems involve the distribution of property rights within a particular institutional framework. The relationship of landlord and tenant in nineteenth-century England was set within a framework of legal theory which had changed little since the Middle Ages. It is unnecessary here to describe in detail the full ramifications of this legal framework,¹ the implication of the concept of the law of fixtures is the major point of interest. As expressed in the maxim, "Quidquid solo plantatur, solo cedit," it was held that that which became annexed to the land became realty and not the property of the lessee. Thus "whatever improvements a tenant may make to his holding pass to the landlord."² The former might have increased the value of his holding by his own efforts but had no right of compensation at the end of his tenancy.

Such a maxim clearly entailed a major theoretical constraint to agricultural improvement on the part of the tenant. In practice, however, it is clear that such an unsatisfactory institutional arrangement was by no means incompatible with agricultural progress. The eighteenth and nineteenth centuries saw a remarkable change and growth in the industry, and F. M. L. Thompson has pointed to the large quantitative increase in capital investment on the part of tenants in the latter period.³ At the same time there has been a strong tradition of historiography which insisted (and still insists) that archaic institutions, perpetuated by the vested interest of English landownership in its own con-

tinued power and privilege, retarded this progress and entailed its impermanence.⁴ Plausibility is lent to this thesis by the unsure response of English agriculture to the very real problem faced in the last quarter of the nineteenth century, and the degree of friction between landlord and tenant in certain periods, over the question of legislative provision of compensation for unexhausted improvements.⁵ One such example of friction was the Farmers' Alliance. At one point in the 1880's this organization appeared to command substantial support among English farmers. Further, it has been held to have played a considerable part in the passage of the Agricultural Holdings Act of 1883, the first major piece of legislation regulating the legal relationship of landlord and tenant.⁶ An examination of the history of the Alliance provides an illustration of the response of farmers to such a thesis when presented in a period of considerable economic distress.

II

The year 1879 was an auspicious one for the inception of an organization whose aims, despite the disclaimers of its founders, were essentially antagonistic to the established English agrarian structure. The economic distress of that year was the background to the growth of a considerable degree of disaffection among English farmers, especially in the south and in

¹ For these see A. D. Hargreaves, *An Introduction to the Principles of Land Law*, 3rd edn, 1952.

² C. S. Orwin and E. H. Whetham, *History of British Agriculture 1846-1914*, 1964, p. 153.

³ F. M. L. Thompson, 'The Second Agricultural Revolution 1815-1880', *Econ. Hist. Rev.*, 2nd ser., xxi, 1968, pp. 63-77.

⁴ The best statement of this thesis is made by O. R. McGregor in his introduction to the sixth edition of Lord Ernle, *English Farming, Past and Present*, 1961, pp. cxvii-cxxvii, which also provides an extensive bibliography of the tradition.

⁵ The prevalence of the theme in Irish history need hardly be mentioned. For an important reconsideration see Barbara L. Solow, *The Land Question and the Irish Economy, 1870-1903*, Harvard U.P., 1971.

⁶ See J. R. McQuiston, 'Tenant Right: Farmer against Landlord in Victorian England 1847-1883', *Ag. Hist.*, 47, 1973, pp. 108-13.

the east, with their traditional associates and representatives in the landlord class. The Alliance, its primary objective a measure of tenant right, could capitalize on this sentiment and on a sense of grievance against a Conservative government which had nothing, beyond a Royal Commission, to offer to those whose interests it claimed to have at heart. Further, the Alliance could claim to be the logical successor of an earlier movement which had sought to enhance the legal standing of the tenant farmer. This earlier campaign, conducted through the organization of the Central and Associated Chambers of Agriculture, had sought legislation to give tenants a legal right to compensation for their own improvements. A partial success only, the permissive Agricultural Holdings Act of 1875, had been won in the face of landlord opposition in the Chambers and in Parliament.⁷ It was the Alliance's objective to advance on this measure. Its role, it was argued, was made necessary by the later impotence of the Chamber movement,⁸ and its objective was more urgent than ever in view of the parlous state of agriculture.

At the same time the credentials of the Alliance as a genuine tenant-farmer movement were far from impeccable. Early associations with Irish tenant-farmer organizations were fervently disclaimed as the latter became synonymous with agrarian violence and terror, but were not easily lived down.⁹ Political bias was a further accusation just as difficult of refutation. The major leaders of the Alliance were either Liberal politicians or known sympathizers with that party. The first Chairman, James Howard, had been Liberal M.P. for Bedford from 1868 to 1874. The Secretary and Treasurer, William Bear, an agricultural jour-

nalist, always took a markedly Radical line in his writings. Other members of the original leadership were drawn from the Parliamentary Liberal Party.¹⁰ Even more significantly, the name of Clare Sewell Read, the major leader of the earlier campaign for tenants' rights, was conspicuous by its absence from the original committee which began the Alliance.¹¹

The known political sympathies of the Alliance leaders belied the claim to independence of party. The claim to represent tenant-farmers also accorded ill with the paucity of their number on the Alliance committee. All members had some connection with agriculture, but seldom of an intimately practical nature. Howard was well known for his progressive farming on his own Bedfordshire estate, but his major source of income lay in the manufacture of agricultural implements. Bear had failed as a farmer in Essex before turning to agricultural journalism.¹² The stated programme of the Alliance called for the better parliamentary representation of farmers by their own class, but otherwise had little to offer in the nature of the sort of concrete benefit most attractive in a time of economic distress.

This was in fact a point on which the Alliance leaders laid some stress. Achievement of such aims as legal compensation for improvements, game law reform, and the abolition of the law of distress could bring little immediate succour of existing economic ills. As Howard put it, "without a return of more congenial seasons, no legislation will avail in restoring prosperity. . ."¹³ What the Alliance offered was a radical transformation of the English agrarian struc-

⁷ McQuiston, *loc. cit.*, pp. 105-8. See also J. R. Fisher, 'Public Opinion and Agriculture 1875-1900', unpublished Ph.D. thesis, University of Hull, 1973, pp. 143-76.

⁸ *Mark Lane Express*, 11 November 1878, for a Farmers' Club paper and discussion on "The Need of Greater Unity of Action in the Agricultural Interest."

⁹ See *The Times*, 13 April 1880, for the claim of the (then) Parnellite M.P., Frank Hugh O'Donnell, to have founded the Alliance. See the *Mark Lane Express*, 13 April, 5 and 12 May 1879, for some confirmation of an Irish role at its inception.

¹⁰ The original Provisional Committee included three Scottish Liberal M.P.s and one (moderate) Irish Home Ruler. All four Englishmen were connected with farming but two, J. P. Sheldon and Henry Evershed, were best known as agricultural writers. See *Mark Lane Express*, 2 June 1879.

¹¹ See J. R. Fisher, *Clare Sewell Read: An Agricultural Spokesman of the late Nineteenth Century*, University of Hull, 1975.

¹² *Royal Commission on Agricultural Depression*, 1894, *Minutes of Evidence*, II, Qs. 27, 472-82. (References to the two Royal Commissions on agriculture in the late nineteenth century are hereafter given as R.C.: date of publication: particular identification of volume.)

¹³ *The Times*, 10 July 1879.

ture to enable the industry to meet the future on a more stable footing. Immediate success was out of the question, and Bear warned that "great distress will prevail until our system of agriculture has been adapted. . ."¹⁴ In two articles in the *Nineteenth Century* he developed fully the case for change from paternalism to a commercial system appropriate to the changing economic circumstances which agriculture faced. Acknowledging the complacency with which farmers regarded landlord paternalism, especially where this entailed rents below market value, Bear felt this arose from ignorance. Low rents entailed political dependence, the neglect of agricultural investment, restrictive covenants, and the acceptance of injurious game laws. A system which embodied true commercial principles would be to the benefit of tenant landlord, and consumer. Despite its admitted past progress, English agriculture still possessed a great capacity for growth in productivity; the views of the Earls of Derby and Leicester, and J. J. Mechi, were adduced in support of this claim. The major constraint was the lack of capital investment on the part of the tenant, and this would only be forthcoming if he was given security to enjoy the full benefits of his improvements. In 1879, Bear argued, the gloomy economic circumstances made his message imperative. Tenants' security would mean not only greater investment in agriculture but investment on a more rational pattern. He felt that it was already becoming obvious that those farmers who had suffered least were those with sufficient capital invested in the land. The ability which others possessed to meet the prevalent depression was nullified by the insecurity of their position.¹⁵

Bear presented the programme and philosophy of the Alliance in the press, particularly in his role as editor of the *Mark Lane Express*. It was Howard who took the message to the country. After an initial meeting in Birmingham, which confirmed the suspicions of critics

as to the movement's radical nature,¹⁶ he turned to East Anglia, to be met by crowded and sympathetic farmers' audiences.¹⁷ Here in the major area of commercial cereal production, which had suffered most from bad weather and foreign competition, considerable dissatisfaction was evinced with the traditional representatives of the tenant-farmer. Despite considerable remissions of rent there was a general feeling that landlords had responded neither speedily nor fully enough. There was a further feeling that remissions should have been permanent reductions.¹⁸ At the same time, landlords had failed in their political function. It was evident that the Conservatives, the party of the "farmers' friends," had nothing to offer by way of redress for their woes.

Such disaffection gave the Alliance the sort of local power base it needed to gain any sort of credibility as a real farmers' movement. Several provincial agricultural leaders, mainly traditional Conservatives, as Bear pointed out gleefully, joined the Alliance in 1879. Men such as W. Wing Gray and Robert Gardiner in Essex, William Manfield in Suffolk, and Robert Lake and H. Nethersole in Kent gave the movement (in the south and east) the local stature that it needed. When the first national conference was held at the end of the year it was East Anglia and Kent which dominated numerically, although representatives came from all parts of England.¹⁹ Despite a slashing attack by Clare Read on the Alliance as anti-landlord, a branch was also successfully established in Norfolk in 1880.²⁰

The chance for the Alliance to demonstrate its political effectiveness came with the general election of April 1880. Unfortunately, "the announcement of the dissolution of Parliament has come too soon to find farmers prepared . . ."²¹ and the Alliance could mount no concerted campaign. It was reduced to the endorsement of candidates who were prepared to

¹⁴ *Mark Lane Express*, 25 August 1879.

¹⁵ W. E. Bear, "The Public Interest in Agricultural Reform", *Nineteenth Century*, v, June 1879, pp. 1079-90, and vi, September 1879, pp. 571-84.

¹⁶ *Chamber of Agriculture Journal*, 11 August 1879.

¹⁷ *Ibid.*, 18 August 1879; *The Times*, 21 October 1879.

¹⁸ The general view is succinctly presented in Ernle, *op. cit.*, p. 380.

¹⁹ *Mark Lane Express*, 29 December 1879.

²⁰ *Ibid.*, 16 February 1880.

²¹ *Ibid.*, 13 March 1880.

accept its major objectives; the overwhelming majority of these were Liberals. Nevertheless, the Alliance emerged from the election with considerably enhanced prestige.

The general election was a triumph for the Liberal party, whether the cause arose from Gladstone's dramatic Midlothian progress or the general economic malaise. In the *Fortnightly Review* Bear claimed that there had been "A Revolt of the Counties," the traditional identification of Conservative party and agricultural interest was ending, and rural dissatisfaction had played a major role in the Liberal victory. There had been a gain of 43 members in rural constituencies, 27 of these being in England. Of 63 endorsed Alliance candidates 42 had been returned, only two of these being Conservatives. The way was now open for major agricultural reforms.²²

Contemporaries, both Liberal and Conservative, tended to accept Bear's assessment. W. Saunders quoted the same figures in referring to "the disappointment of the farmers' hopes from the Conservatives," and the disregard paid by the latter to the newly formed Alliance.²³ Disraeli, rationalizing his disastrous decision for a dissolution, referred to the "insurrection of our old and natural friends, the farmers," arguing that a later election would have entailed an even more disastrous result.²⁴ However, although there were signs of a movement away from the Conservatives in rural areas, the notion of a farmers' revolt, or of any significant role played by the Alliance, amounted to a considerable distortion of the situation.

The majority of Liberal gains in the English counties entailed the recovery of seats lost in the *débâcle* of 1874; these also entailed a resurgence of the traditional Whig interest²⁵ rather than the

emergence of tenant-farmers as a separate force in politics. The figure of successful Alliance candidates was misleading, to say the least. Interested as such Radicals as Joseph Chamberlain, Jesse Collings, and P. A. Taylor were in agricultural questions, they were unlikely to have relied on farmers' votes for election. In fact the Alliance made no contribution at all towards the implementation of its major objective, the increased representation of tenant-farmers in Parliament. Only two active members were elected: James Howard in Bedfordshire, and W. C. Borlase in east Cornwall. Both were landowners rather than tenant-farmers. Borlase recaptured a seat lost due to a Liberal split in 1874, while Howard's victory was based on his local prestige and influence. It came after a series of tortuous negotiations with the Bedford interest; the Duke was prepared to spend £500 to have him stand anywhere but in his own county.²⁶

Two independent tenant-farmers were returned in 1880: William Biddell and Thomas Duckham.²⁷ Neither had any connection with the Alliance, both being influential members of the Chamber movement. Finally and paradoxically, the Alliance was generally reckoned to have been instrumental in the narrow defeat of Clare Read in South Norfolk,²⁸ the man accepted, even by William Bear, as the "historical tenant farmer representative." Read certainly blamed the Alliance for a defeat which did no-

tance of the renewed Yarborough interest in the constituency in 1880. See also W. Saunders, *op. cit.*, pp. 123-8, for biographies of newly elected M.P.s. The majority of those in rural seats had impeccable Whig pedigrees.

²⁶ See Janet Howarth, 'The Liberal Revival in Northamptonshire, 1880-1895', *Historical Journal*, xii, 1969, p. 89. Lord Spencer refused to give the necessary endorsement for Howard to stand in South Northamptonshire, so the latter returned to Bedfordshire. Here he was elected at the head of the poll, the Duke's heir, the Marquis of Tavistock, being elected in second place.

²⁷ For William Biddell (1825-1900), one of four brothers farming in Suffolk, see G. E. Evans, *The Horse in the Furrow*, 1960. Biddell was elected unopposed in West Suffolk, partly as a result of local discontent with Conservative policies on local taxation. Thomas Duckham (1816-1904) was elected in Herefordshire with Liberal support. In 1880 he was Chairman of the Central Chamber of Agriculture but he later associated himself with the Alliance on some political questions.

²² W. E. Bear, 'The Revolt of the Counties', *Fortnightly Review*, xxvii, May 1880, pp. 720-5.

²³ W. Saunders, *The New Parliament of 1880*, 1880, p. 188.

²⁴ R. Blake, *Disraeli*, 1964, p. 719; Disraeli to Salisbury, 18 April 1880.

²⁵ The dramatic victory of an eleventh-hour candidate in North Lincolnshire, instanced by both Saunders and Blake as an example of farmers' effective protest, was in fact an illustration of this theme. See H. J. Hanham, *Elections and Party Management*, 1959, p. 27, for the impor-

²⁸ *Mark Lane Express*, 12 and 19 April 1880.

thing to lessen his intransigent opposition to the organization.

However, the ineffectual nature of the Alliance as a political force in 1880 was to be further obscured by the seeming responsiveness of the new Government to the cry for agricultural reform. In the course of the election campaign, Gladstone, and other Liberal leaders, had promised further legislation to protect "the right of the tenant to the improvements which he makes."²⁹ The first piece of legislation enacted in the new Parliament was the Ground Game Act, giving tenants a concurrent right to destroy hares and rabbits on their own holdings. Later in the year, in the course of the Budget, the Malt Tax was repealed and replaced by beer duties. A perennial objective of Conservative agricultural spokesmen, this had seemingly proved impossible of achievement during their own term of office. With the Liberal party committed to various features of land law reform, even its usual antagonists admitted it seemed to be proving a "farmers' friend."³⁰

The Farmers' Alliance gained some credit from these initiatives, with Howard proving an effective spokesman in Parliament. At the same time its local organization was being extended, new branches being formed in the north-east, Cornwall, Hampshire, Lancashire, and Berkshire in 1880 and the following year. Other local organizations joined the Alliance and rapid progress was made, in particular in Kent, where farmers used it as a vehicle for agitation against the local grievance of the extraordinary tithe.³¹ The Alliance also won the plaudits of outsiders for its work on excessive railway rates, a subject of concern to numerous interests outside of agriculture.³² Its prestige was at its zenith in these two years.

²⁹ *The Times*, 19 March 1880.

³⁰ *Chamber of Agriculture Journal*, 14 June 1880.

³¹ *R.C.*, 1881-2, *Minutes of Evidence*, I: and III, Qs. 56, 498-501, and 58, 883-5; evidence of Charles Whitehead and James Howard.

³² P. M. Williams, 'Public Opinion and the Railway Rates Question in 1886', *English History Review*, LXVII, 1952, pp. 37-73. See also the *Select Committee on Railway and Canal Charges*, 1881, pp. XIII, *Evidence*, Qs. 1-628 and 700-1003, for work of Professor W. A. Hunter on behalf of the Alliance.

However, the decline of the Alliance into obscurity was almost as rapid as its original rise. Essentially, its prestige and political effectiveness depended on the willingness of a Liberal government to undertake measures favourable to agriculture, and upon the ability of the Alliance leaders to influence the nature of these. Changes in the laws governing land tenure remained the primary objective of the Alliance, and it was on this issue that its impotence with regard to legislation, and its irrelevance to the essential requirements of its local supporters were finally clearly revealed.

In 1881 the situation appeared superficially favourable to the enactment of effective legislation in the interests of protecting the investment of English tenant-farmers. Although English legislation was indefinitely postponed by the government's obsession with Ireland, this was an obsession with the nature of land tenure. Its result, the Irish Land Act of 1881, conceded the demand for the three F's: fair rent, fixity of tenure, and freedom of sale (of tenants' improvements). This amounted to the creation of a dual ownership in the land. If such interference with property rights could be countenanced in Ireland, won as it was by violence, then it could be argued that there would be little objection on the basis of principle to less extreme changes in England.³³ Certainly by this time, landlord spokesmen in England were in favour of compulsory legislation on compensation, and had put forward Bills embodying this principle.³⁴ Or at least, as J. C. Morton put it, "whatever may be the unuttered resolutions of the great body of landowners in this country, all our public speakers among them are far in advance of the position they defended but a year or two ago."³⁵

It was in these circumstances that the Alliance leaders drew up their own plans for legislation. It had already been decided that merely making the 1875 Act compulsory was an inadequate

³³ *Mark Lane Express*, 17 January 1881.

³⁴ Two from Liberals, Sir Thomas Acland and Edward Heneage; two from Conservatives, Henry Chaplin and A. Staveley Hill. See *ibid.*, 14 May 1883, for Alliance views on their respective merits.

³⁵ *Agricultural Gazette*, 5 December 1881.

method of protecting the tenant; on the other hand it was recognized that Irish principles would not be suitable in England. There was certainly no call for dual ownership from English tenants, and the principle had become associated with obnoxious Irish methods to the degree where it would have been vigorously opposed by many outside those directly affected in the landlord class. In particular, considerable distaste, among farmers and landlords alike, had been evinced for the notion of Land Courts providing a rent-fixing mechanism. However, rejection of Irish principles left a hiatus over one particular problem which had become of increasing concern to the Alliance leaders: the question of how to protect the sitting tenant who had his rent raised on his own improvements. The provision of compensation, however adequate, at the end of a tenancy would be of little value to a man in this situation. At most he would possess only a rather tenuous bargaining point.

In practice it was difficult, if not impossible, to safeguard the sitting tenant without adopting Irish principles; the crux of the matter was the extent and nature of outside interference in contractual relations between landlord and tenant. The final form of the Alliance's Land Bill, based largely on the proposals of J. W. Barclay,³⁶ leader of the Scottish Farmers' Alliance, attempted to disguise its Irish origins with little success. Its major provision centred around the right of the tenant, at the end of his tenancy or faced with a rise in the rent, freely to sell the value of his improvements to the incoming tenant or to the landlord.³⁷

Although it was emphasized that rents were to be negotiated normally between landlord and tenant it was obvious that freedom of action for the former would be circumscribed to the degree to which the latter would be able to

claim compensation. This in turn, given that no satisfactory arrangement could be reached, would depend on outside intervention. Here the spectre of Land Courts was raised and the implication, if Irish precedents were accepted,³⁸ that the tenant's compensation would be related to the whole increase in value since the beginning of his occupancy.

Both implications, of course, were seized upon by opponents of the Alliance for adverse comment. More ominously, they proved unacceptable to earlier sympathizers of the movement. As Morton pointed out, they struck at a fundamental theme in English agriculture, the role of the landlord in providing capital investment. If "the whole of the increment in value (is) to belong to one,"³⁹ then landlord investment in permanent improvements would come to an end. Howard might disavow any Irish precedent in the Alliance proposals,⁴⁰ Bear might claim that landlords still received adequate recompense in terms of higher land values;⁴¹ those who would determine the actual content of English legislation on the question, the Liberal leadership, proved unresponsive to such arguments.

The government's English Agricultural Holdings Bill did not appear until eighteen months after the Alliance had made public its proposals. In the interval those Liberal leaders most intimately concerned with the nature and passage of Irish land tenure legislation made clear their view on its appropriateness in the English context. Early in 1882, Gladstone spoke on the fundamental difference in the position of English and Irish tenant-farmers. As to the former, they themselves possessed their own remedy to any problem: they were not Irish peasants chained to the land.⁴² A year later, Shaw-Lefevre, rejecting an invitation to preside over a local Kent branch of the Farmers' Alliance, described the

³⁶ J. W. Barclay, Liberal and Liberal Unionist M.P. for Forfarshire, 1868-92, shipowner, agricultural merchant, and a major investor in American land companies. His own keen interest in tenants' compensation could be explained by his experience as an improving farmer; see R.C. 1881, *Evidence*, II, Qs. 42, 998-43, 061, and the *Farmer*, 30 May 1887.

³⁷ For a detailed presentation of the Alliance Land Bill see *Mark Lane Express*, 10, 17, and 24 October 1881.

³⁸ See Solow, *op. cit.*, pp. 161-81.

³⁹ *Agricultural Gazette*, 14 November 1881.

⁴⁰ McQuiston, *loc. cit.*, p. 111. Howard to Gladstone, 8 November 1881.

⁴¹ W. E. Bear, 'The True Principle of Tenant Right: A Reply to the Duke of Argyll', *Contemporary Review*, 41, April 1882, p. 655.

⁴² *Agricultural Gazette*, 21 January 1882. Annual speech at the Hawarden Tenantry Dinner.

Land Bill of the latter as too extreme in English conditions.⁴³ In the event, the official Bill, introduced in May 1883, was "to a considerable extent the former Agricultural Holdings Act (of 1875) made compulsory."⁴⁴ It differed in providing for compulsion, and in providing for "the measure of . . . compensation . . . to be the value of the improvements to the incoming tenant."⁴⁵ Although these aspects could be welcomed by Alliance leaders, in no way did they represent any concessions to the principles of that organization. Rather, they were in accord with the changes called for by farmers in the Chambers movement from 1875 onwards.

The stance of the Liberal leadership was made perfectly clear during the debate on the second reading of the Bill. Shaw-Lefevre, generally considered its major architect,⁴⁶ took the opportunity to stress that during the discussion of Irish legislation he had always pointed to "the great distinctions that lay between the case of the Irish tenants and that of the English tenants, and he frequently said that it was both impolitic and unjust to apply the system then proposed to England." As far as he was concerned, "one F involved the three Fs."⁴⁷ Members of both parties joined in condemning Alliance proposals on this score; Gladstone was seen to intimate his assent when Sir Walter Barttelot, noted mainly as a Tory obscurantist, claimed that its Bill "contained provisions for fixity of tenure, and for the establishment of Courts for the revision of rents, which he hoped would never become part of the law in this country."⁴⁸

Howard fulminated in vain against the in-

adequacies of the Bill; even his fellow Alliance member, W. C. Borlase, gave him little assistance in his attempts to gain fuller protection for the sitting tenant.⁴⁹ Nor was support forthcoming from the Radicals, previously regarded as being sympathetic to Alliance proposals. Thorold Rogers, noted for his rhetoric against contemporary landlordism,⁵⁰ echoed conventional orthodoxy on landlord investment in the Committee stages of the Bill.⁵¹ Of greater importance, Jesse Collings, Chamberlain's major adviser on agricultural questions, repeated earlier condemnations of the Alliance's Land Bill as making insufficient provision for land held by agricultural labourers.⁵² Although Collings was quite happy to see the judicial regulation of rent, he noted that the Alliance did not seek to extend this to small holdings of less than five acres, nor did they appear interested in encouraging a trend towards owner-occupancy. In 1883 Radical interest in farmers' problems was declining in proportion to an increasing concern with the agricultural labourer and the prospect of his enfranchisement in the near future. The first article of the series which was to become known as the Radical Programme had appeared in January in the *Fortnightly Review*.⁵³

The complete lack of influence of the Alliance was demonstrated most markedly in the Committee stages of the Bill. The only interest evinced by the Radicals was Collings's attempt to extend its provisions to cover the leasing of labourers' allotments; he warned that such questions were not receiving the attention "they would get in three years' time."⁵⁴ The rest of the Liberal party, including the leadership, seemed completely uninterested in the Bill's progress.⁵⁵ Accordingly, Tory county members, with a direct interest in its nature, were

⁴³ *The Times*, 19 January 1883.

⁴⁴ *Agricultural Gazette*, 25 June 1883.

⁴⁵ *Hansard*, 3rd ser., cclxxix, 10 May 1883, c. 512. J. G. Dodson, Chancellor of the Duchy of Lancaster, introducing the First Reading. The 1875 Act provided for compensation on the basis of the tenant's outlay over a number of years.

⁴⁶ G. J. Shaw-Lefevre (1831-1928) held posts in all Liberal governments between 1868 and 1895; in 1883 he was Postmaster General with a seat in the Cabinet; voluminous writer on land questions, chairman of the Commons Preservation Society, and chairman of the Royal Commission on Agriculture appointed in 1893. See also his article on 'The Agricultural Holdings Act, 1883', *Nineteenth Century*, xiv, October 1883, pp. 674-94.

⁴⁷ *Hansard*, 3rd ser., cclxxix, 29 May 1883, c. 113.

⁴⁸ *Ibid.*, c. 1111.

⁴⁹ *Ibid.*, cc. 1116-26.

⁵⁰ For example, see J. E. Thorold Rogers, *The Economic Interpretation of History*, 1901, pp. 174-81.

⁵¹ *Hansard*, 3rd ser., cclxxxi, 17 July 1883, c. 1695.

⁵² *Daily News*, 7 October 1881. See also J. Collings and F. L. Green, *Life of the Right Honourable Jesse Collings*, 1920, pp. 123-6.

⁵³ [T. H. S. Escott] 'The Future of the Radical Party', *Fortnightly Review*, xxxix, January 1883, pp. 1-11.

⁵⁴ *Hansard*, 3rd ser., cclxxxii, 24 July 1883, cc. 386-7.

⁵⁵ *Agricultural Gazette*, 25 June 1883.

able successfully to move various amendments which limited its scope considerably.⁵⁶ Howard's own amendments were defeated easily and with a minimum of discussion, being unacceptable to government and county members alike.

However, the lack of consideration given to Alliance proposals now owed as much to its poor credentials as a representative of tenant-farmer feeling, as to the unacceptability of its principles. In the debate on the second reading of the government Bill, speaker after speaker, from both sides of the Houses, denied its right to speak on behalf of English farmers. By 1883 the general accuracy of this contention had been well established.

The electoral record of the Alliance between 1880 and 1883 laid bare the superficiality of its role in the Liberal success of the earlier year. The major test had come in January 1882 in a by-election in north Yorkshire, where the local Liberal party selected Samuel Rowlandson, founder and chairman of a local Alliance branch, as its candidate. A farmer on 5,000 acres, and long a regional figure in agricultural politics, it was considered by the *Mark Lane Express* that, "as out of 20,212 electors nearly ten thousand are farmers, Mr. Rowlandson's success ought to be certain."⁵⁷ However, despite the financial support of local Liberals,⁵⁸ and the oratory of James Howard and other Alliance leaders, Samuelson was defeated by a Tory opponent whom enemy and ally alike agreed in describing as pleasant but ineffectual.⁵⁹ Later

by-elections in 1883, immediately before and after the introduction of the Agricultural Holdings Bill, confirmed the impotence of the Alliance as a force in rural elections.⁶⁰

At the same time local support in the southern and eastern counties, where originally the situation had seemed most promising, was fast ebbing. By 1883 the irrelevance of the major demands of the Alliance to the real economic problems of farmers in this region had become evident. The traditional alliance of landlord and tenant, political and economic, although severely tried in the early years of depression, began to emerge triumphant again.

Superficially, a major reason for renewed acquiescence in the traditional alliance seemed to lie in the fall of money rents after 1880;⁶¹ the decline in the Schedule of Income Tax Returns reflecting the belated, perhaps enforced, realization by landlords that the change in economic circumstances affecting agriculture was likely to be permanent, and that temporary rent remissions would have to become permanent. However, rent reductions were by no means of any great significance by 1882,⁶² and rents were to fall to much lower levels by the end of the century. The understandable reluctance of landowners to grant permanent reductions rather than remissions had not yet been overcome.⁶³

To this extent, the Alliance case for a change to a commercial system in agriculture might still be said to hold good, especially if it could be shown that rent levels and landlord intransi-

⁵⁶ For example, see *Hansard*, 3rd ser., cclxxxii, 31 July 1883, c. 1170, for the successful amendment put forward by Sir Michael Hicks Beach. "There shall not be taken into account as part of the improvements made by the tenant what is justly due to the inherent capabilities of the soil." This was to prove a fruitful source of contention in many cases brought under the eventual Act.

⁵⁷ *Mark Lane Express*, 9 January 1882.

⁵⁸ *Ibid.*, 24 April 1882. Rowlandson's campaign cost £5,599, a discouraging sum for those who sought for a politically independent farmers' movement.

⁵⁹ A. E. Pease, *Elections and Recollections*, 1932, p. 60. Pease, Liberal M.P. and son of a wealthy Quaker ironmaster turned landowner, explained the choice of Rowlandson, in a seat traditionally held for the Liberals by a scion of one of the great families of the region, in terms of the exodus of Whig magnates from that party over Gladstone's Irish legislation.

⁶⁰ *Mark Lane Express*, 19 March 1883, for a defeat in Mid-Cheshire; J. W. Lowther, *A Speaker's Commentaries*, I, 1925, p. 153, for a defeat in Rutland.

⁶¹ For example, see R.C. 1882, *Report on the East of England* by . . . Mr. Druce, pp. 28-9, and R.C. 1894, *Report on . . . Essex* by . . . R. H. Pringle, pp. 40-1, 87-90.

⁶² For estimates of the fall in money rents, see R. J. Thompson, 'An Enquiry into the Rent of Agricultural Land in England and Wales during the Nineteenth Century', *Journal of the Royal Statistical Society*, LXX, 1907, pp. 596-602. It is worth noting that real rents in this period did not fall, while rents as a proportion of factor income in farming fell only after 1883. See Colin Clark, *The Value of Agricultural Land*, 1973, pp. 80, 92.

⁶³ The lag in the fall of permanent rent values can be held to be as much a result of the realization of the difficulty of raising them again as a reflection of the uncertainty of long-term agricultural prospects.

gence were major obstacles to rational adaptation. But the more basic factor behind the change in attitudes would appear to be that local farmers had no real interest in tenurial changes, in particular of the radical type envisaged by the Alliance.

Evidence given by three local Alliance leaders, including the future Liberal candidate for north Yorkshire, to the Richmond Commissioner in 1881, tends to bear out this point. All three were landowners, albeit on a minor scale, as well as being farmers; little pressure from the Royal Commissioners was necessary to elicit the fact that their dissatisfaction was over general conditions pertaining to agriculture rather than specific questions of land tenure. William Manfield admitted that ownership of his holding gave him no advantage over his neighbours who rented land.⁶⁴ J. S. Gardiner and Samuel Rowlandson both rented land under leasing arrangements which afforded them no permanency of tenure and made no provision for compensation for improvements. Neither had any complaint to make of their own respective landlords.⁶⁵ Rowlandson himself let out 536 acres on a six-month lease which contained no provision for compensation. Queried by the Commissioners as to this seeming inconsistency, Rowlandson replied rather lamely that it was "the general custom in the district."⁶⁶

In so far as they condemned existing tenurial arrangements it was clear that this was with regard to the injustice of the legal presumption that all improvements which contributed to land value should go to the landlord.⁶⁷ Bonamy Price, expounding the "principles of abstract political economy (with) all their unmitigated authority,"⁶⁸ had little difficulty, even with James Howard,⁶⁹ in showing the disturbing

logical implications of the implementation of Alliance principles. All agreed that the outgoing tenant ought not to gain unduly at the expense of both landlord and incoming tenant. Further and significantly, for Gardiner and Manfield at least, compulsory legislation on tenants' compensation had little to do with their major concern, agricultural depression. The causes of the latter were firstly, foreign competition, secondly, poor seasons.⁷⁰ They evinced little interest in agricultural adaptation as a response to depression; they did agree that greater security for tenants would promote more investment in agriculture, but observed too, paradoxically, that those who farmed with adequate capital in existing circumstances had lost just as heavily, or more so, than those less well off.⁷¹ It was clear that such men would not have accepted William Bear's contention that "the really permanent remedy for agricultural depression will have to be looked for in an improved system of tenure."⁷²

It was remarkable, certainly, how frequently farmers who had once been local Alliance leaders were later to be found figuring prominently in Protectionist movements.⁷³ In this, however, they were merely reflecting a virtual unanimity of agricultural opinion in the south and east, noted by the second Royal Commission on Agriculture,⁷⁴ as to the real answer to their economic problems. By the end of 1884, the Alliance, which had earlier denounced Protection as "a delusion and a snare,"⁷⁵ had lost the vast majority of its local members to such causes. Despite the interest in land reform, including that of land tenure, created by Cham-

⁶⁴ *Ibid.*, Qs. 50, 006, 53, 346.

⁶⁵ *Ibid.*, Qs. 35, 471; 50, 049-53, 53, 843.

⁶⁶ *Mark Lane Express*, 31 May 1881.

⁶⁷ Manfield and Gardiner were both members of the Fair Trade League. W. Nethersole introduced the major Protectionist motion at the great Agricultural Conference of December 1893. As M.P. for Maldon from 1886 to 1892, Wing Grey was notorious for his Protectionist speeches.

⁷⁴ *Final Report of the Royal Commission on Agricultural Depression*, 1897, p. 161. The Final Report also noted that the belief in Protection as the only remedy for agricultural depression was often combined with a belief in its political impossibility.

⁷⁵ *The Times*, 13 September 1881.

⁶⁴ *R.C. 1881, Evidence*, II, Qs. 49, 981, *et seq.*

⁶⁵ *Ibid.*, Qs. 35, 481; 53, 584-91; 53, 646-51.

⁶⁶ *Ibid.*, Qs. 35, 497.

⁶⁷ *Ibid.*, Qs. 35, 300-14; 50, 221-3; 53, 521-49.

⁶⁸ Gladstone's description of Price's contribution to the Richmond Commission's investigations into Irish land tenure. See the entry on Bonamy Price (1807-88), Regius Professor of Political Economy at Oxford, in *Dictionary of National Biography*, XVI, 1921-2, p. 323.

⁶⁹ *R.C. 1882, Evidence*, III, Qs. 59, 611-75, for a confrontation between Price and Howard.

berlain's "Unauthorised Programme," the Alliance was a negligible factor in the great debates of 1885. It maintained a lingering existence as an annual forum for Liberal politicians interested in land tenure reform until 1888 when it disappeared.

III

The Agricultural Holdings Act has often been regarded as a significant milestone in the changing relationship between landlord and tenant which resulted from new economic circumstances in the age of industrialism. C. S. Orwin and H. C. Taylor, doyens of agricultural economics in Britain and America respectively, dwelt on the importance of legislation which contributed to the growing independence of the tenant-farmers.⁷⁶ As the argument has been put most recently: "Tenant right transcended the ordinary channel of agrarian dispute to facilitate and to advertise the disintegration of the long-honoured connection between landed proprietors and their farmers."⁷⁷ The last source also remarks that with "the Liberal Bill of 1883, the victory of the Alliance and Howard received the accolade that could not be questioned (*sic*)."⁷⁸ However, whatever the importance of the Act as a symbol, perhaps a portent, of later change, its immediate concrete relevance to English farmers, as with the Alliance, was almost nil.

In the two decades which followed the implementation of the Act few outgoing tenants utilized its machinery, and those who did ran into a variety of problems. Essentially its importance was limited to temporary improvements classified under its third schedule.⁷⁹ Based as it was on the Lincolnshire Custom, the Act here proved to be inflexible and, arguably, ill drafted. Valuers tended to base their assessments of compensation on a rough schedule which

took account of purchased inputs and the time over which they were expected to operate. Despite the principles of the Act, no account was taken of value added by stock fed from on-farm inputs, or of the value added to a holding by conversion of land from arable to pasture. However, while the tenant's claim to compensation was strictly limited on such lines, the Act imposed no such bounds on the landlord's right to dilapidations. Some landlords took full advantage of this position, aided, it was claimed, by the susceptibility of valuers to the interests of the stronger party.⁸⁰ The costs of a settlement of a dispute under the Act were a powerful disincentive militating against the use of its machinery.⁸¹

Some of these difficulties had been considered before the Act came into consideration. For more than a decade, J. B. Lawes had been pointing to the inadequacies of customary procedures in evaluating inputs as a basis for compensation. Both in 1875 and in 1883 Lawes presented tables based on his own scientific investigations, which gave, he considered, a more precise estimate of the value added by various inputs.⁸² It was also argued that compensation should not be limited by the value of the tenant's specific outlay on purchased inputs. John Clay, a member of the Richmond Commission, proposed that compensation be extended to "include fertility and value arising from skilful and thorough cultivation of the land, and its being kept in high condition." He made no precise suggestion as to how this should be assessed.⁸³

⁸⁰ For the most famous case, see the complaints of Clare Read against both landlord and valuer to the Norfolk Chamber of Agriculture in *Farmer and Stockbreeder*, 15 January 1890.

⁸¹ *Agricultural Gazette*, 31 December 1894, for a case where the counterclaim was reduced by 90 per cent but where the costs of the case were a third of the eventual compensation granted. For a summary of the most important actions brought under the Act see R.C. 1897, *Appendices to the Final Report*, pp. 111-21.

⁸² J. B. Lawes, 'On the Valuation of Unexhausted Manures', *Journal of the Royal Agricultural Society*, 2nd ser., XII, 1875, pp. 1-37. *Agricultural Gazette*, 25 February 1883.

⁸³ R.C. *Final Report*, 1882, pp. 39-40. *Supplementary Memorandum* by John Clay.

⁷⁶ See C. S. Orwin, 'The History of Tenant Right', *Agricultural Progress*, xv, 1938, p. 151; H. C. Taylor, *Introduction to the Study of Agricultural Economics*, New York, 1905, pp. 311-13.

⁷⁷ McQuiston, *loc. cit.*, p. 112. ⁷⁸ *Ibid.*, p. 111.

⁷⁹ The first two schedules of the Act covered permanent and semi-permanent improvements. Permission from the landlord was still required in these cases.

In principle, the 1883 Act did allow for compensation on such a basis. That assessment did not take this form could be attributed partly to the conservatism of valuers, but also, it should be stressed, to the lack of interest of farmers, certainly in the case of their major spokesmen. Clare Read was one who preferred traditional and concrete methods to concepts whose amorphous nature would involve radical changes of uncertain benefits.⁸⁴ Others pointed out to Lawes the extent to which his scientific evaluations failed to correspond to accepted practical observation.⁸⁵ Finally there was the problem of establishing the difference between "continuous good farming" and a standard norm of farming; attempts to draw up arbitrary benchmarks again raised the spectre of an intrusion upon the rightful sphere of the landlord in investment. Significantly, the concept of "continuous good farming" as a basis for compensation did become accepted, to some extent, in Scotland, where the landlord played a smaller role in the provision of agricultural capital.⁸⁶ In England a Committee of the Central Chamber of Agriculture spoke for most in concluding that the benefits of change were insufficient "to warrant our advising a departure from established custom."⁸⁷

In conclusion, it can clearly be argued that the concern expressed by a few contemporary agriculturists, and some later historians, on the inadequacy of land-tenure arrangements in England in the late nineteenth century was hardly of great relevance to the great changes

affecting agriculture. The very conditions of agricultural depression, which may be held to have been a vital factor behind the spectacular but brief career of the Farmers' Alliance, was also the cause of changes in the market for agricultural holdings, favourable to the farmer,⁸⁸ which made the proposals of that organization irrelevant. As Parker Norfolk, a Yorkshire land agent, put it in 1896: "It has never paid so well as in the last twenty years to be a popular landlord."⁸⁹ Further, the Irish experience in this period would appear to show that Alliance land-tenure proposals would have ended landlord investment on any scale⁹⁰—a result which English farmers, who did not share the Irish desire for owner-occupancy, would not have relished.⁹¹ On the other hand, it should be pointed out that many adherents of the more moderate demand for compensation for tenants' improvements were fully aware of the lack of relation between their cause and the major problems of agriculture. Men such as Clare Read always emphasized that their campaign was for justice for the farmer, the end of a blemish on, and not the radical change of, the land system. Legislation was needed to prevent a small minority of landlords from pursuing policies contrary to all interests including their own.⁹² As such, in the last resort, the campaign was probably of greater value to English farmers than many of the other political causes, such as Protection, pursued with zeal in the late nineteenth century.

⁸⁴ C. S. Read, 'English Tenant Right', *National Review*, 1, 1883, pp. 628-9.

⁸⁵ *Agricultural Gazette*, 3 and 10 March 1883. See Sir E. John Russell, *A History of Agricultural Science*, 1967, pp. 171-5, for problems encountered by Lawes at the Woburn Experimental Station. The scepticism of farmers was not surprising in view of the state of agricultural science at the time.

⁸⁶ *Farmer and Stockbreeder*, 24 March 1890, for the Midlothian case of Riddell v. Macfie, described as the first where compensation awarded on the basis of "accumulated fertility." Also R.C. 1897, *Appendices to the Final Report*, p. 129.

⁸⁷ A. H. H. Matthews, *Fifty Years of Agricultural Politics*, 1915, p. 185.

⁸⁸ In this context it is interesting to note that the only other agricultural tenure reform association of this period arose in 1892 to 1895 in the north-western counties. The Federation of Tenant Farmers' Clubs also received its impetus from a combination of bad weather and falling prices, this time for livestock produce, while money rents were initially maintained at close to historic levels. See R.C. 1894, *Evidence*, 1, Qs. 9, 338-607, 9838-10, 388, for evidence of William Smith, M.P. for North Lonsdale and Chairman of the Federation.

⁸⁹ R.C. 1896, *Evidence*, IV, Q. 60, 915.

⁹⁰ Solow, *op. cit.*, p. 198.

⁹¹ C. S. Orwin, 'Land Tenure in England', *Proceedings of the First International Conference of Agricultural Economists*, 1929, p. 7.

⁹² Read, *loc. cit.*, p. 631.

The Spread of the Threshing Machine in Central Southern England

By N. E. FOX

UNTIL recently there has been a considerable measure of agreement as to the progress of the threshing machine during, and in the decade or so following, the Napoleonic Wars. The consensus was that the threshing machine spread rapidly, if unevenly, during the war period, and that in some areas at least the expansion continued right up to the Swing Riots of 1830.

In a recent article,¹ however, Dr MacDonald argued that the "massive suspicion" with which the threshing machine was approached had led to its "virtual rejection—by most of England."² That this applied to central southern England is shown by a map accompanying the article where, on the basis of the Board of Agriculture's *Reports*, it is asserted that in or around 1808 there were only "several" machines in existence in Berkshire, Dorset, and Hampshire.³ (That there was "no information" for Wiltshire is due to the fact that an updated version of the first *Report* of 1794 was never published.)

"Several" is, of course, a "Humpty-Dumpty" word, but if any particular number or range of numbers is attached to it surely it would be between three and ten? (The numerical definition given in the *O.E.D.* is "more than two or three, but not very many.") A careful scrutiny of the *Reports* for the three counties mentioned above (published in 1809, 1812, and 1813 respectively) reveals that, even before 1815, there must have been more than thirty threshing machines in existence in each of them.

W. Mavor took note of only the "principal" machines in Berkshire; even so these amounted to fifteen machines, and his further reference to

"a considerable number" having been erected in the county "within the last two or three years" prior to 1809 suggests that the total number was well in excess of thirty.⁴ As early as the spring of 1808 a certain "William Baker, near the Corn Market, Newbury" was advertising "Threshing and Winnowing Machines" in the *Reading Mercury* (30 May 1808), and by 1814 it was possible for a Reading diarist to declare that "the Threshing Machine has now almost superseded the use of the flail."⁵

W. Stevenson also referred to "a considerable number of threshing machines" having been erected in Dorset, "nearly all of them in the present century". He gave details, or at least the names of the owners, of as many as twenty-eight machines and referred in passing to "several" others.⁶ C. Vancouver gave details of twelve of the more important Hampshire installations, and added that smaller machines of two to three h.p. were "getting into much use in the valley of the Avon."⁷

When using or interpreting the information contained in the Board of Agriculture's *Reports* we should bear in mind that it may have been collected some time before the date of publication. Thus the period which elapsed between the date of collection and 1815 may well have been long enough for the tendency for the machines to spread to have been strengthened; or, put another way, for the minor revolution indicated by the *Reports* to have become a major one. Certainly it would not be an extravagant claim that, even before the end of the wars with

¹ S. MacDonald, 'The Progress of the Early Threshing Machine', *Agric. Hist. Rev.*, xxiii, 1, 1975, pp. 63-77.

² *Ibid.*, p. 74. ³ *Ibid.*, p. 69.

⁴ W. Mavor, *General View of Berkshire*, 1809, pp. 129-36.

⁵ Anon., 'Reading Seventy Years Ago', 1887: Reading Public Library, Local Collection, R/D.

⁶ W. Stevenson, *General View of Dorset*, 1812, pp. 144-63.

⁷ C. Vancouver, *General View of Hampshire*, 1813, pp. 106-113.

Napoleon, certainly more than twenty and possibly as many as forty fixed threshing machines were in use in each of the three counties mentioned above. By 1815 the number may well have reached fifty.

Dr MacDonald admits the possibility that "some machines were built in the South in the first post-war decade," but finds support for his thesis that the threshing machine was virtually rejected by most of England in the fact that "the Swing Rioters could find but 390 threshing machines in twenty-one counties upon which to vent their wrath."⁸ Of course it would be a convincing demonstration of this thesis if it could be shown that less than twenty machines existed in each of these twenty-one Swing counties. However, this is one of those cases where the use of an average figure is most misleading. What is much more interesting, indeed much more important, is the way in which these 390 machines were distributed throughout the twenty-one counties:

274 (or nearly 70 per cent) were destroyed in just seven counties in south-east and south central England (i.e. Kent, Sussex, Surrey, Hants., Berks., Wilts., and Dorset);

217 (or 56 per cent) were destroyed in only three counties (i.e. Hants., Berks., and Wilts.); nearly 36 per cent were destroyed in West Berkshire and Wiltshire, while 97 (or very nearly a quarter) were destroyed in Wiltshire alone.⁹

However vigorously the agricultural workers of south-central England set about their self-imposed task of destroying every single threshing machine, it is unlikely that they completely achieved their objective. Hence, if ninety-seven machines were destroyed, there must have been many more than a hundred threshing machines in existence in Wiltshire alone in November 1830. That a three-figure number of machines must have been in use in the neighbouring county of Berkshire also, is shown by the

extent of the activities of the rioting labourers in one small corner of that county. In an area roughly demarcated by the sides of a triangle with its vertices at Newbury, Shalbourne (in 1830 part of Berkshire), and Great Shefford, but *excluding* the villages of the Lambourn valley, at least thirty-seven threshing machines were definitely destroyed.

As it was the practice of the local machine breakers to levy £2 for the labour involved in breaking one machine, it would be a fair assumption that the Revd Sloper, who owned the whole of the parish of West Woodhay, Berks., and who was asked to pay "£6 for the machines" possessed *three* threshing machines. The vicar of Kintbury informed Charles Dundas, M.P. (known to the local labourers as "the King of Kintbury"), that he had agreed with the latter's bailiff that "it would be better to bring your machines" to the centre of the village; the use of the plural suggests the possibility that Charles Dundas, like the Revd Sloper an owner of much land in the district, possessed more than one threshing machine. Three other farmers were each mulcted of £2, and money was demanded of two more.¹⁰ Thus the overall number of threshing machines destroyed in this small corner of Berkshire may well have been as many as forty-five. As this number of machines was destroyed in an area which was only 6 per cent of the ancient county of Berkshire, and covered between forty and forty-five square miles, the density of machines in this part of the county at least was as much as one per square mile. Thus, though we should not be justified in applying this density figure to the whole of the county, a number well in excess of a hundred would be a very conservative estimate of the number of machines in existence in Berkshire also. We have, therefore, positive evidence for three-figure numbers of machines in two counties of central southern England as at November 1830. Numbers of this order of magnitude must cast grave doubts on Dr MacDonald's general thesis that the thresh-

⁸ MacDonald, *op. cit.*, p. 75.

⁹ E. Hobsbawm and G. Rudé, *Captain Swing*, 1969, pp. 304-5.

¹⁰ P.R.O.: H.O. 52/6, T.S. 11/849-51; Berks. R.O.: papers of W. Hall, Solicitor, Hungerford; *Reading Mercury and Berkshire Chronicle*.

ing machine was virtually rejected by most of England, and wholly demolishes it as far as central southern England is concerned.

Comparing the two sets of figures provided by the second series of the Board's *Reports* and the documents relating to the Swing Riots, we can fairly conclude that the number of threshing machines in existence in central southern England more than doubled between 1815 and 1830. Whether this was due to steady growth or the result of an unprecedented increase in the year or two before the riots we cannot be sure. According to Hobsbawm and Rudé there is no clear evidence one way or another that the use of threshing machines was spreading abnormally fast in the years immediately preceding 1830.¹¹ Yet the difference in the character, timing, and period of the revolt in central southern as compared with south-east England is sufficiently striking to demand some explanation. In the latter area it extended over several months, during which the activities of the labourers involved were many and varied: they included rick-burning, riots over tithes, attacks upon overseers of the poor and upon work-houses, as well as the destruction of foundries and machines. In central southern England, on the other hand, the revolt was over within a few days, began round about the time when, in the pre-machine era, many of the labourers would have found employment in threshing by the flail, and was characterized by a virtually single-minded concentration on the destruction of threshing machines.

I would like to suggest that at least a partial explanation of the difference, and of the large number of machines which existed in Wiltshire and south-west Berkshire, lies in the operations

¹¹ Hobsbawm and Rudé, *op. cit.*, p. 85.

of a "Mr Rider, a mechanic and small farmer, residing upon the Wallop Estate in the parish of Westbury Wilts," who in 1829 had invented "a portable threshing machine," the cost of which was estimated as unlikely to "exceed £8 or £10."¹² Such a low price would have brought a threshing machine within the reach of the poorest farmer and, consequently, "This announcement caused a great deal of comment among the labourers of Dorset, Hants and Wilts [and Berkshire?]. They regarded the machine as certain to produce starvation and want amongst them and their families. It was in their opinion 'an infernal machine'. The man who invented it, the farmer who purchased or used one, and the man who took charge of it were 'a trio of rascals' who deserved no consideration at the hands of 'honest men'." Although "the inventor got frightened, and, acting on the advice of his friends, gave up making the machines . . . other persons took up the trade."¹³

Thus the farm workers of central southern England had no illusions as to the role of the threshing machine. As far as they were concerned it *was* "a major cause" of their dissatisfaction rather than, as Dr MacDonald believes, merely "a focal point" for it.¹⁴ They would have agreed wholeheartedly with Professor E. L. Jones that "the conjunction of a growing population with little alternative to agricultural work and the introduction of the threshing machine . . . resulted in chronic winter unemployment and distress in southern England during the early nineteenth century."¹⁵

¹² *Salisbury and Winchester Journal*, 20 April 1829.

¹³ *Poole and Bournemouth Herald*, 5 Oct. 1882.

¹⁴ MacDonald, *loc. cit.*, p. 74, n. 9.

¹⁵ E. L. Jones, *Seasons and Prices*, 1964, p. 64 (quoted by MacDonald, *loc. cit.*)

Further Progress with the Early Threshing Machine: A Rejoinder

By STUART MACDONALD

SOME years ago, I spent a week cloistered in the fine library of the Royal Agricultural Society in Belgrave Square.¹ Threshing machines were not then a primary interest, and their investigation was not the reason for my visit, but the Society's excellent collection of the various editions of the Board of Agriculture's *Reports* was enticing, and reporters' interest in the threshing machine proved infectious. Clearly, the reporters recognized the significance of such a recent innovation, and the form which this recognition took made it equally clear how their evidence should be presented.

The paper published in Volume XXIII of the *REVIEW* set out in map form evidence from the earliest and the latest *Reports* about the prevalence of threshing machines in individual counties.² This suggested that threshing machines were originally much more common in north-east England and south-east Scotland than in the rest of England, and that these regions retained much of their pre-eminence. The view that much of England showed some reluctance to adopt the threshing machine in the early nineteenth century was supported by a mass of literary evidence, but no single reason emerged to explain this reluctance. Instead, there were at least a dozen explanations, each of which appeared to have some credibility and, more important, to have had some contemporary credence. Though some explanations, especially those concerned with wage rates and farm size, were more plausible than others, no attempt was made to rank explanations in order of importance. No doubt this is a failing, but the

evidence did not permit such treatment, and there was every reason to assume that explanations varied with time and place. As Dr E. J. T. Collins has pointed out, while there may be one good reason for accepting an innovation, there are likely to be many good excuses for rejecting it.³

Impressed by evidence of resistance to the early threshing machine, but frustrated in all attempts to quantify it, the logical alternative seemed to be to resort to the work of Hobsbawm and Rudé, which has enumerated resistance to the threshing machine.⁴ I merely illustrated the coincidence between counties where reporters complained about the threshing machine in the last edition of the Board of Agriculture's *Reports* and those counties visited by Captain Swing two decades later. My conclusion, as inadequate as it seems, was that there had been widespread and continuous dissatisfaction with the threshing machine through much of England before 1830, and that this had hindered the diffusion of the innovation.

Mr Fox disagrees with me on several points. Firstly, he asserts that there were many more than "several" threshing machines in each of Berkshire, Dorset, and Hampshire by the end of the first decade of the nineteenth century. Secondly, he suggests that I have been misleading in noting that only 390 threshing machines were broken in twenty-one counties during the riots of 1830 when, in fact, ninety-seven of these were destroyed in Wiltshire alone, and it is possible that a similar number was in existence in Berkshire. Thirdly, he claims that the threshing machine was more than just a focal point of

¹ A part of the Society's archives has now been removed to the Museum of English Rural Life at Reading University.

² Stuart Macdonald, 'The Progress of the Early Threshing Machine', *Agric. Hist. Rev.*, XXIII, 1, pp. 63-77.

³ E. J. T. Collins, speaking to the Joint Conference of the British Agricultural History Society and the Institute of British Geographers Historical Geography Group, London, 6 December 1975.

⁴ E. J. Hobsbawm and George Rudé, *Captain Swing*, 1969.

discontent in 1830, and was the primary cause of the riots in central southern England. Many threshing machines in the area at this time, it seems, had been constructed on a small scale by local builders. I am grateful to Mr Fox for raising these points because it is always pleasing to know that others are actively engaged on the subject, and because they obviously demand an answer.

The Board of Agriculture's *Reports* do not say how many threshing machines there were in each county. Would that they did, but even the reporters could hardly have known for sure. Instead, each described the situation in his own way and in his own words, and these were the words chosen for my own rough-and-ready categories. I will not dispute the dictionary definition of "several," but certainly it comes somewhere between few and many and that was all that was required of it. To imply more precision than that would have been an abuse of the evidence. Mr Fox claims thirty or so threshing machines for each of Berkshire, Dorset, and Hampshire by 1815, and if he chooses to interpret that as "many" rather than "several," it would be unreasonable to complain. By the standards of the south of England it may well have been many. The latest Board of Agriculture's *Reports* claim a "considerable" number of threshing machines for all these counties. In Derbyshire that term meant a total of twenty-one threshing machines. This number I mentioned in my paper and also translated as "several." In general, I was suspicious of extravagant claims from reporters who then proceeded to identify individual threshing machines. That seemed to suggest that the machine was still something of a rarity, and it was not an approach adopted where the threshing machine was most common. I also warned that some claims about the early threshing machine were ridiculously wild, demanding extreme caution in their interpretation, and Mr Fox has produced an example. If the number of threshing machines in Berkshire in 1814 was well in excess of thirty, it is on the word of a Reading diarist, a man who, in years of undisciplined scribbling, rarely

concerned himself with agriculture, and only once turned his attention to threshing machines—to proclaim that they had almost superseded the use of the flail.⁵

Perhaps I was remiss in not explaining the high concentration of threshing-machine incidents in central southern England during the Swing Riots, but material which is not original should be treated with courtesy and perhaps some caution. The discovery is that of Hobsbawm and Rudé, and reference was therefore made directly to their work and indirectly to the secondary sources available for this area and used extensively by Hobsbawm and Rudé.⁶ It may be that many fewer cases of machine-breaking escaped the attention of Hobsbawm and Rudé in central southern England than in other parts. The existence of 100 or so threshing machines in each of Wiltshire and Berkshire in 1830 is not at all surprising, certainly not nearly as curious as the apparent shortage of machines to break in other southern counties—a matter to which I drew attention in my paper.

What Mr Fox has failed to appreciate—and I must accept blame for being insufficiently lucid in the presentation of my thesis—is that the whole argument is based on comparison. My thesis held that the threshing machine was always much more acceptable in the north than in the south in the early nineteenth century. In absolute terms, thirty, or later 100, threshing machines in Berkshire may seem a lot, but in relative terms the numbers are unimpressive. So, too, is the rate of diffusion, accepting Mr Fox's claim that the number of threshing machines in central southern England more than doubled between 1815 and 1830. In Roxburgh there were only ten machines in 1795, but between thirty-six and forty by the end of 1796.⁷ It is with that sort of rate of diffusion that I was making comparison and with total numbers that differ by an order of magnitude from those of Mr Fox.

⁵ Anon, *Reading Seventy Years Ago*, Reading, 1887, p. 32 (Reading Public Library, Local Collection, R/DX).

⁶ Hobsbawm and Rudé, *op. cit.*, preface and pp. 150, 371.

⁷ Robert Douglas, *Agriculture of Roxburgh and Selkirk*, 1798, p. 57.

Northumberland is a larger county than Berkshire, and one in which the threshing machine was described as being in "general" use, but it is not primarily a corn county. Threshing machines of the Meikle kind were employed there by the late 1780's, and by 1800 they had just begun to figure in farm advertisements in local newspapers. As virtually all such advertisements indicated the disposal rather than the adoption of the machine, this method of tracing adoption of innovation must allow for a time-lag of perhaps a decade. By 1825 some 246 second-hand Northumberland threshing machines had appeared in just one local newspaper, and by 1840 543 machines.⁸ It is reasonable to assume, though it cannot be proved, that these machines had been adopted by 1815 and 1830 respectively. It is also reasonable to assume that there were other threshing machines, perhaps many others, which appeared in other papers or which never figured in newspaper advertisements. Moreover, the numbers are of only those machines where the exact location has been traced, an exhausting process, but one which avoids the dubious extrapolation in which Mr Fox indulges.

I tried to emphasize that the threshing machine typical of the north was large and expensive and static, and altogether a much more elaborate machine than that typical of the south. For instance, while the hand threshing machine and portable machines attracted considerable attention in much of England, there is absolutely no evidence of even a single hand machine or a portable machine in Northumberland before 1830. Mr Fox estimates that many southern machines would have cost about £10 in 1830, making a total capital investment in threshing machines in Berkshire of at least £1,000 by that date. Let us treble that figure to £3,000 to be rather more safe. Of the

201 Northumberland threshing machines advertised in one newspaper in the decade 1831-40, the power source of 104 can be determined: 65 per cent were horse driven (95 per cent of these by four or more horses), 27 per cent were water powered and 8 per cent steam powered. Estimates of costs vary greatly, certainly some machines cost well over £1,000—but £500 for a water powered machine, £300 for a steam-powered one, and £100 for a horse-driven thresher would be cautious averages for 1830.⁹ Assuming a conservative 543 threshing machines in the county by 1830, the capital investment would be in the order of £120,000. It is not in isolation, but in comparison with the north, that the diffusion of the early threshing machine in southern England seems so sluggish. As there were no disturbances in the north in 1830, where the threshing machine was so predominant, and as there was considerable reaction against the threshing machine in the south, where it was comparatively unimportant, it does not seem too outlandish to suggest—and I did no more—that the threshing machine may not have been the only cause of discontent.

Mr Fox is probably quite right to stress the importance of local builders of threshing machines, though contemporary opinion generally queried the wisdom of very small, cheap machines. Unfortunately, it is difficult to trace the activities of such entrepreneurs, much less the impact they had. My own investigations into one northern builder uncovered his claim that he had not only invented the threshing machine but also had thereby permitted the construction of over 1,000 machines in Durham and Northumberland alone by 1810.¹⁰ I am relieved that Mr Fox has not produced such "evidence" for Berkshire.

In that my paper was imprecise about the magnitude of the early threshing machine's impact in the north, it was at fault. The

⁸ These figures are explored in much greater detail in Stuart Macdonald, 'The Threshing Machine in Northumberland before 1850', *Tools and Tillage* (forthcoming). The scale of threshing-machine usage in the county has already been indicated in J. A. Hellen 'Agricultural Innovation and Detectable Landscape Margins: The Case of Wheelhouses in Northumberland', *Agric. Hist. Rev.*, xx 2, 1972, pp. 140-54.

⁹ Stuart Macdonald, 'The Development of Agriculture and the Diffusion of Agricultural Innovation in Northumberland, 1750-1850', unpubl. Ph.D. thesis, University of Newcastle, 1974, pp. 462-3.

¹⁰ Stuart Macdonald, 'John Raistrick, Civil Engineer of Morpeth', *Durham University Journal* (forthcoming).

dominance of the threshing machine in the north compared with the south is the very heart of the thesis, and I had hoped that the weight of evidence would encourage its acceptance. There is absolutely no evidence that the early threshing machine had been accepted in the south by 1815 or by 1830 on anything like the scale on which it had been accepted in the north. To be challenged with evidence from Mavor's Board of Agriculture's *Report for Berkshire* is astonishing. Writing of threshing machines, Mavor is resolute in declaring, "I have little doubt that, in time, every consider-

able farmer will be furnished with one, as is usual in the North of England, and the more improved parts of Scotland."¹¹ Whichever of the several definitions of "considerable" is chosen this time, there was a substantial disparity between north and south which, despite the enthusiasm for the threshing machine of Mr Mavor and Mr Fox, was still apparent in 1830.¹²

¹¹ W. Mavor, *Agriculture of Berkshire*, 1809, p. 136.

¹² There seems no disagreement on this point: e.g. Hobsbawm and Rudé, *op. cit.*, p. 360; E. J. T. Collins, 'The Diffusion of the Threshing Machine in Britain 1790-1880', *Tools and Tillage*, II, 1, 1972, p. 24.

Notes and Comments

WYE COLLEGE LIBRARY CATALOGUE

The Library of Wye College, Ashford, Kent, has published a Catalogue of agricultural and horticultural books published between 1543 and 1918. In addition to some scarce early items by authors such as Blith, Fitzherbert, Markham, and Weston, the catalogue lists a wide range of eighteenth- and nineteenth-century books, runs of little-known journals, and of course sources particularly valuable for the study of Kentish agriculture. Copies, price £1.50, may be obtained from the Library.

BOARD OF AGRICULTURE COUNTY REPORTS

The second series of the Board of Agriculture's county reports published between 1798 and 1817 are now available in a microfiche edition. Details may be obtained from EP Microform Ltd, Bradford Road, East Ardsley, Wakefield, West Yorkshire WF3 2JN.

SOCIETY FOR A CHESHIRE RURAL LIFE MUSEUM

The Cheshire County Museum Service proposes to establish a Society for the study and collection of material relating to agriculture and rural crafts in Cheshire. There is already the basis of a collection of farm machinery, tools, and the personal possessions of the Cheshire country community, and it is hoped to develop eventually a Museum of Rural Life in Cheshire. Readers interested in joining the proposed Society should write to Dennis Petch,

County Museums Service, Weaver Hall, Northwich.

REVIEW

Volume I, Number 1, of *Review*, a Journal of the Fernand Braudel Center for the Study of Economies, Historical Systems, and Civilizations, has now been published. Articles are invited for publication and interested persons should write to The Editor, State University of New York at Binghamton, Binghamton, New York 13901.

WORK IN PROGRESS

Readers are reminded about the reply slip which was included in the last issue of the *Review*. Please make your return to Dr Hey as soon as possible.

ANNUAL CONFERENCE 1978

The 1978 Conference will be held from Monday, 3 April, to Wednesday, 5 April, at Traherne Hall, Residential Conference Centre, UWIST, Cardiff. The programme includes papers by Mrs Joanna Martin, Dr Edith Whetham, Dr John Chapman, Dr Richard Colyer, Dr David Howell, and Mr Geraint Jenkins. There will also be an excursion to the Welsh Folk Museum, St Fagans. Details of the conference, which is open to members and non-members, may be obtained from David Howell, Department of History, University College of Swansea.

(continued on page 46)

White and the *Rustici*

By SHIMON APPLEBAUM

THE study of Roman farming goes back some centuries, I think, beginning among the Italians of the Renaissance. The transmission of the Roman agricultural tradition is another question, and in some lands must be continuous; the Arabic *Kitaba al-Felaha* (twelfth century?) owes much to Greek and Roman sources, and in some eastern regions, such as the Balkans and Cyprus, peasants were recently working much as their forbears worked when their lands were part of the Roman Empire. But it would be interesting to establish how many of the more recent students of Roman methods had personal experience of farming. Adam Dickson, who wrote in 1788, certainly had; one suspects that Billiard knew his vineyards. Although the bibliography of classical agriculture is enormous (White himself has listed 918 items), it has been as difficult to distinguish authors who write as if they really knew the nature of agricultural methods as it has been to discover historians who have paid instructed attention to agriculture as the foundation of Roman society. Management, tenure, the labour problem, the plough, the relative importance of various branches—all these subjects and others have received ample study. But more often than not the bones of actual farming elude us in these works. In the last century some enterprising Gallic villa digs (Anthée, Chiragan) provoked their intelligent excavators to attempt to derive from the *bâtiments d'exploitation* estimates of areas, yields, and livestock; in the 'twenties and 'thirties in England, Cocks, Corder, and Radford began to look at villas as farms, and in the 'thirties Fritz Fremersdorf's splendid and meticulous excavation of the Müngersdorf villa demonstrated how an economy could be reconstructed by disclosing and analysing all the villa's outbuildings. More recently, the French have begun to look at Roman farming through mosaic pavements, and Tchalenko has used the

hitherto neglected rural remains of north-west Syria to essay a remarkable reconstruction of the area's agrarian history in the Roman and Byzantine periods.

Yet in most of the other various works something is missing, namely the conclusions arising from a personal involvement in agriculture. A rare exception to this was the late C. E. Stevens's account of the agriculture of the later Roman Empire. Generally, however, one of the missing elements has certainly been the connecting link between the archaeological remains and the agrarian reality, and their use to test the written sources, which in the Graeco-Roman period are (outside Italy) usually inadequate. Uncommon too has been the study of farmsteads in relation to their environment and to one another; the work on the *Ager Veientanus* of Ward Perkins, Threipland, and Kahane is excellent in this respect, but suffers from the lack of excavation in that region.

Professor White's *Roman Farming*¹ goes a long way to furnish the missing personal involvement with the craft, and he has not ignored what archaeology has to offer to this field of study. But the gravest deficiency of this book, which possesses numerous merits, is its misleading title. The error is only apparently semantic; the problem is, What do we understand by the word "Roman"? If it is here used to denote the farming of the Romans and their subject peoples (including the inhabitants of Gallia Cisalpina) in Italy only—well and good; if the title is intended to refer to the agriculture of the Roman Empire from Aswan to Inchuthill—then this is not the present book. By and large, this work deals with Italian farming of the later Republic and the earlier Empire, with a highly contracted account of developments elsewhere down to the end of the western provinces. Various brief references to

¹ K. D. White, *Roman Farming*. Thames and Hudson, 1970. 536 pp. 81 plates, 12 figs.

imperial provinces, such as those included in Gaul, Britain, Spain, Africa, Greece, and Syria, leave us unsteady and wondering if a standard agriculture prevailed throughout the empire. The answer, of course, is obvious: Roman techniques notwithstanding, in the Mediterranean and oriental regions local traditions and methods survived, perpetuated by natural conditions, and modified by Roman influence, while the temperate zones imposed their own climate and physiography on their farming, and the degree of Roman influence constitutes a complex and absorbing problem.

Of all this, I have no doubt, the author is well aware; but the lack of firm definition of the book's scope leaves the informed reader with an underlying malaise. The fact is, that the agriculture of the Roman Empire was both a palimpsest and a mosaic, and the history of the encounter between the indigenous husbandry and the Roman, whether in Belgica or in Judaea, is not only at the beginning of its investigation but of considerable, perhaps of decisive, importance to all who wish to understand the technology and society of the Roman world. That the present book should be preponderantly technical rather than sociological is no deficiency; we are profoundly grateful to White's unique mastery both of Latin texts and of agricultural economy and techniques. But the unbalance remains, and further scholarly effort will be needed to extend the picture to the various provinces, and to combine technical and economic considerations with other aspects in order to produce an agrarian and social history.

This said, we are all praise for the book's aesthetic format, for its well-selected illustrations which fluctuate from Italian winnowing to African landscape mosaics, and for its orderly and systematic treatment of literary sources, the geographic setting, crops, manures, cereals, arboriculture, animal husbandry, personnel management, organization, types of production and estates, farm-buildings, and technical progress. These chapters, moreover, are interlarded with down-to-earth appendixes on such subjects as the Roman authors' classification of

soil-types, ration-scales for working oxen, and a glossary of terms used in the cultivation of vines and olives. The notes embody a wide bibliography, but we miss a consolidated list (perhaps omitted for reasons of space) which would have made life easier, and this induces us to turn to White's invaluable *Bibliography of Roman Agriculture* (1970). In his bibliographical citations, nevertheless, the provincial question again raises its head: Does Professor White know what was going on on the fringes of the empire? Where is Tchalenko's remarkable survey of Roman rural society in north-west Syria, and what of Graeco-Roman dry-farming in Cyrenaica? Evenari's astounding and authoritative English book on the ancient agriculture of the Negev, unluckily for White, appeared a year after the work under review; the symposium on Roman agriculture in Germany (*Germania Romana*, iii, Gymnasium 7, *Römisches Leben auf Germanischem Boden*, ed. Hinz) almost concurrently with it. The fact is that Professor White's interest is primarily centred on the techniques described or implied by the *Scriptores Rustici*, and it is within this circumscription, on the whole, that the critic must wield his pen.

An interesting point arises, for instance, on the question of the "three-month" wheat referred to by Columella and Pliny. White terms its alleged time of maturation "a typical exaggeration". Maybe, but this rapidly ripening variety is referred to also by Theophrastus (*Hist. Plant.*, viii, 4), and in the reign of Ptolemy Philadelphus by papyri, which call it "Syrian" or "second-crop" wheat; a similar strain was known to the Judaeian farmers of the second century of the current era. As to the possibility of maturation within so short a space of time, the verdict must lie with the botanists, and a vital point may be that, in Egypt, the alleged variety was an irrigated crop.

As regards White's treatment of the problems of Roman fallowing and crop-rotation, I have a feeling that his discussion after a given point begins to ramble; the evidence is clear that the importance of rotational courses was well understood by experienced and literate

farmers, and areas where continuous cropping was successfully practised are referred to by the authorities. The problem is surely to what extent this knowledge was applied, and what were the factors that restricted its diffusion. As to Virgil's evidence for the frequency of rotations in Augustan Italy, one might draw precisely the opposite conclusion to that drawn by White from the text. The low rating of cattle manure in the scale of values recorded by the *Scriptores* is an instance of the inapplicability of Italian experience to temperate zones and even to the entire Mediterranean; it is clear enough from the byre accommodation in some Roman villas in Britain and Germany that cattle manure was valued in the temperate countries, while the extraordinarily high scales of farmyard manure prescribed by Jewish authorities in the first two centuries AD (twenty tons to the acre!) imply a close dependence on herds maintained in the stall or the farmyard. And *in pari materia*, how does White arrive at his equation of 24 loads = 12 tons? Columella does not state what the weight of the *velae* was; Dickson calculated it at 11 cwt, thus differing little from White, but the result is to attribute to the individual Roman cow an output of 66 tons per year. Eckles and Palmer make the average manure yield of the modern milchcow some 9 tons, and the Roman cow was certainly a smaller animal. Even assuming that litter is reckoned, 66 tons is an impossible quantity, and when I mentioned Dickson's estimate to an experienced Kentish stockman, his comments were, even in this permissive age, unprintable. Perhaps my own arithmetic is defective.

On the limitation of rye cultivation to the Piedmont, as reported by Pliny, it would have been worth while to add that this cereal was otherwise (so far as is at present known) confined to Europe north of the Alps, and is not mentioned again south of them until the promulgation of Diocletian's edict of prices. In discussing land-drainage schemes, White alludes to the draining of the Wash area of England and to the Fenland transport canals such as the Cardyke, but not to the most relevant and impressive feature of the project,

namely the long straight cuts which served to drain the upland runoff responsible for the formation of the Fenland swamps. On the subject of irrigated pasture, water meadows, not mentioned in the book, are discussed by the *Rustici*, and the siting of some Roman villas, for example in southern Wiltshire, strongly suggests the use of such for fattening stock, and doubtless other parallels could be found in a well-watered land like Gaul.

The interesting Roman practice of scattering dust on the vines in late summer before the vintage is explained by Pliny as aimed to hasten maturation; may we add that elsewhere this practice is known to check evaporation and hence to accelerate ripening. Similarly the thinning of the vine foliage executed by Roman vintners in May was not simply to admit sunshine but also to keep down pests.

The discussion of animal husbandry includes a brief allusion to the annual slaughter of livestock which could not be maintained through the winter owing to shortage of fodder. In the temperate zones, at least, recent specialist research has shown that in the British Early Iron Age and Roman periods animals were successfully maintained throughout the winter; in the Mediterranean region, although stockmen say (at least in Israel) that winter is the hardest season in which to maintain flocks and herds, the winter rain brings new pasture and the early spring green forages, and the ability to feed the animals adequately must differ greatly according to weather and environment. (Cf. White, p. 306, on sheep: "winter and spring feeding is much simpler.")

Transhumance is perhaps a more important phenomenon than the reader would conclude from the paragraph White devotes to it. It may have been, as he holds, the most efficient use of natural resources in parts of southern Italy, but there is no doubt of its negative effects in some Roman provinces. In densely farmed countries such as Cyrenaica and Judaea, its destructive element arose from its non-integration with the permanent farming pattern in certain periods, and this is an instance of the interaction between political-social change and agriculture.

Professor Brunt, indeed, has emphasized in relation to Apulia that the practice obliged the owners of transhumant flocks to control the tracts at both the summer and the winter ends of the annual movement; the same was certainly true in Cyrenaica, probably in Judaea. The persistent rabbinical denunciation of "small livestock" (i.e. goats and sheep) is to be explained on this basis.

Not the least absorbing of his themes is Professor White's discussion of the size of Italian smallholdings. The subsistence plot of 7-8 iugera for a family of 3.25 souls seems amazingly small, but recent investigations in western Samaria appear to indicate an average plot of about 6 acres per family ($9\frac{1}{2}$ iugera) in the hellenistic and Roman periods. Smaller units are recorded by the Jewish scholars elsewhere in contemporary Judaea.

The dominance of slave labour in Italian agriculture down to the later empire is emphasized by White as it has been by Brunt, Heitland, and their predecessors. Here, again, the effect of Italocentricity might distort estimates of the situation elsewhere. I am far from certain whether a considerable proportion of the labour was not provided by tenants, clients, dependants, and kinship groups even in provinces where the slave element was of some size. I have argued on these lines in relation to Britain on the evidence of house-types, field-patterns, and of some features of ancient Welsh law, and the matter deserves examination in other provinces in the light of the available epigraphical and archaeological evidence. (Edith Wightman's recently published paper on Roman Gaul, and my own forthcoming observations on Judaea in the same publication—*Aufstieg und Niedergang der Römischen Welt*, II, may repay attention in this regard.) Apart from a brief allusion, moreover, we do not find White considering the phenomenon of hereditary rural serfdom in the agriculture of the empire; his book, it is true, is not a social study, but any assessment of the labour factor cannot omit this element, common in the Middle East and existent in Gaul, Britain, Egypt, and, I would suspect, in Africa.

Lastly, the problem recently discussed by Finley and alluded to by myself in this journal in a review of his work, *The Ancient Economy* (1973): Why did the Roman rural economy fail to advance technically?—and was the outlook of the absentee estate owners, who regarded agriculture as a mere milchcow to support their prestige, the principal reason? White follows Finley on this question; but I am not sure if the answer is so simple. In the first place, to which region do White's own statements relate—to Italy or to the empire as a whole? And were all the provincial estates, large and small, maintained for prestige and without due attention to good management? Were the thousands of flourishing villas established in the course of centuries in Gaul, the Rhineland, Africa, the Danube countries, and the East, and whose steady growth can be traced by excavation, worked up out of motives of mere social ambition? I have written of this matter in the aforementioned review; and repetition would be tedious, expansion beyond the exigencies of space. Absence of technological advance does not necessarily indicate poor farming or inefficient management; in any case the number of absentee proprietors could be exaggerated. Over-taxation was one certain factor encouraging decline. Yet it is factual that fourth-century Britain possessed more small farms and villages than ever before, and that the lesser farms and villages of north-western Syria were booming down to the early seventh century.

All this makes the factors behind the decline and collapse of Roman imperial husbandry more complex than they look; climatic change seems to have played its part, but how far this affected the Mediterranean area is still unclear, and the possibility deserves a mention in a book of this category.

Roman Farming nevertheless is sound stuff; it is a milestone in investigation, and the author's rare combination of accomplishments has contributed a handbook to be used for many years to come. When someone appears to write a better book on the theme, it will probably be Professor White.

Annual List and Brief Review of Articles on Agrarian History, 1976¹

By RAINE MORGAN

THIS year's collection of articles reflects a more balanced geographical coverage, largely due to a welcome increase in the attention paid to Irish agrarian history. The English experience, none the less, continues to predominate, with much interest centred upon the nature and causes of rural protest. The traditional view that deprivation, and in particular food shortages, were to blame, is critically re-examined and found to be inadequate. In his study of Kentish evidence for the Elizabethan and early Stuart period, for example, Clark (34) finds no close correlation between the incidence of riots and scarcity. Rather price discrepancies between different markets were often the key factor in sparking off disturbances, which were typically small-scale and localized. The view that protest confirmed rather than challenged the established order of parish society is echoed in Walter and Wrightson's study of early modern England (241), and further supported by Thomas (225). The latter depicts eighteenth-century Derbyshire rioters as a group protesting mainly against farmers and middlemen who profited by hoarding and by-passing the market rate in times of dearth. Jones (123) explores the extent of violent protest in East Anglia towards the middle of the nineteenth century, and finds the root cause in the lack of employment opportunities and insecurity resulting from capitalist agriculture, the New Poor Law, and collapse of cottage industries.

For the prehistoric period, Jarman (116) emphasizes the need for a more economic approach to the study of domestication to show intermediate stages and underline the gradual nature of change. The usefulness of the approach is confirmed by Mellors' article (156) on the implications of controlled forest burning by mesolithic communities, the author suggesting that this may well have been the technique crucial to effecting the change from hunting to herding. Conscious manipulation of the environment by removal of undergrowth, it is argued, at once gave a measure of control over the movement of deer, facilitated hunting, allowed selective killing, and gave rise to the idea of ownership over live as opposed to dead animals. The role of man in the

decline of woodland is highlighted again, this time by archaeological evidence, mainly in the form of soil profiles. Findings from the Pennines leads Tinsley (228) to conclude, for example, that although climate was acting in the same direction, "the evidence for man as the prime factor in deforestation now appears to be overwhelming," while Atherden (5) claims that the Iron Age was most significant in this respect due to the introduction of clear-felling of woodland and permanent settlement. Returning to the subject of cereal cultivation in southern England, Dennell (51) uses the evidence from Windmill Hill to challenge Helbaek's thesis that wheat was the main crop during the Neolithic and Iron Ages, but barley in the Bronze.

Again, comparatively few articles relate to the medieval period. Fenoaltea (65) speculates about fluctuations in the scale of demesne farming in the late Middle Ages, while Reed (185) denies that the greater fall in prices than costs at this time necessarily meant falling profits. In a discussion of the significance of the scattering of arable land in the open field, Fenoaltea (66), in another article, maintains that this was not a means of spreading risk at the cost of productivity, but was rather a means of raising productivity by optimizing the distribution of labour. The medieval land market receives some attention. Smith (213) explores the background to the development of the "prie" and shows that although it was conceived as a means of stopping alienation it became a convenient and adaptable device which significantly aided the consolidation of property in Wales. Court Rolls of three Middlesex Manors are examined by Moss and Murray (163) who detect a flourishing market in land occupied by unfree tenants, although alienation was supposedly denied them. In his study of a deserted medieval village, Cameron (26) concludes that, contrary to popular belief, the site was not depopulated by the landlord to make way for a park, but was deserted as a consequence of its peculiar history and tenurial structure. The author also warns of the dangers of adopting a standardized procedure based on tax returns for determining the date of disappearance.

More has been written on the early modern period. In an important article on the growth of English agricultural output during the eighteenth century, Crafts (44) questions the assumptions behind Deane and Cole's estimates. He argues not

¹ Date of publication is 1976 unless otherwise noted. References to articles or off-prints should be sent to the Bibliographical Unit, Institute of Agricultural History, University of Reading.

only that output expanded faster between 1710 and 1740 than Deane and Cole allow, but faster even than between 1740 and 1780. In relation to Ulster, and perhaps with wider relevance, Crawford's study of landlord-tenant relations (45) shows how they reacted to significant changes in economy and society there. For Scotland, Dodgshon (56) examines income and expenditure at the farm level to show changes in profitability after 1750 in the upland sheep-farming economy. Findings show that the years between the 1780's and the end of the French wars were particularly advantageous to leanstock producers.

Rural credit is a much neglected subject, but Holderness (99, 100) has demonstrated that lending was more widely diffused than is generally realized. In an analysis of probate inventories as many as 40 per cent were found to contain reference to debts owed, showing that little money was allowed to stand idle, but was transferred from unproductive to productive uses. On the mechanics of innovation, Emery (59) describes the successful efforts of Welshmen at the top of the social hierarchy to introduce clover to Wales before 1750, and shows that Welsh producers were more responsive to new ideas than is generally assumed, demanding only that these were appropriate to their own situation and needs. Macdonald (141) asks whether the long lease was as necessary for farm improvement as many believed, maintaining that although it may have been of some importance where tenants provided finance and initiative, "it is doubtful whether lease covenants were generally regarded either by tenant or landlord as being worth a great deal more than the paper they were written on." England's article (60) on John Howard stresses again the human element, by describing one man's contribution to the introduction of the cluster potato, while Macdonald's description of an eighteenth-century implement maker (140) indicates the importance at the time of "engineers" in furthering the adoption of new machines.

On the social side there has been some discussion of the significance of poor relief and the settlement laws. Taylor (223) suggests that the more complex regulation of settlement after 1691 was a necessary consequence of a fuller acceptance of the right to relief from the parish, and while providing a framework within which improvements in welfare provision could develop, also served to regulate the mobility of labour constructively, thereby furthering industrial growth. This positive view is echoed in Coats' article (36) on the relief of poverty, in which he speculates that in so far as aid prevented living standards from falling in times of distress, it may have succeeded in sustaining the morale and energy of the work force, and after a long period of relatively cheap food, in "preserving these rising

expectations on which the incentive to increased productivity so often depended." Collins (38) examines the role of migrant labour flows in the nineteenth century, in both source and host economy, and argues that their contribution was often vital where the supply of local labour was inelastic at work peaks.

For the period of the Napoleonic Wars Hueckel (113) examines relative price movements and concludes that beef rather than corn was "king" at this time, while data from the accounts of three farms are used to illustrate the sensitivity of producers to price trends. Colyer's analysis of the home-farm accounts of a Carmarthenshire estate (39) further underlines the advance in livestock production around the turn of the century. Hueckel (112) in another article, estimates that the long-run equilibrium return to capital earned by farmers was equal to or slightly below the 9 to 14 per cent range earned outside agriculture, and that while much depended upon whether a farmer's rental obligation remained fixed during an inflationary period, "it was the landlord who stood to gain most from the wartime shift in relative prices."

The severity of depression during the post-war decades is called into question by Perkins (174), who implies that on the Lincolnshire Wolds a 20 per cent return on capital, and 45 per cent return on turnover were commonplace in the 1830's. Donnelly (57) looks at the difficulties of Irish agriculture between 1859 and 1864, and claims that these were more severe than either the Famine or the depression of the later 1870's. In a more familiar vein, Taylor's article (222) on the continued progress of the English dairy industry emphasizes the selective impact of the Great Depression. On the subject of enclosure, Chapman (32) describes how specific clauses written into awards to reduce the burdens of costs in areas of low-value moorland were an important influence on the timing of subsequent "improvement." Where fencing was made compulsory, for example, reclamation was carried out soon after the award was made, although subsequently the land often reverted to waste. Land enclosed under permissive clauses, by contrast, might be reclaimed over very long periods, but then reversion was unlikely. The background to the poor performance of the British agricultural machinery industry in the later nineteenth century is also examined, Jewell (119) noting its failure to respond to competition from abroad, persisting instead in the production of "one-off" heavier and more costly machines. An explanation is found in the traditional emphasis on quality rather than cheapness. McLean (147) is unconvinced that the cost-price factor was important in overseas markets, and contrasts the vigorous American sales policy and product adaptation in Australia with the passivity

of British makers there. Thompson (226) attempts a horse census and hints at the wide implications of his findings for the pre-motor economy. The impact of state intervention on land use and management between 1915 and 1919 is examined by Sheail (206).

Social themes of the modern period have received some attention. Ward (242) explains the varying tempo of pressure for land reform in England to 1940, pointing out that little was achieved partly because in an industrializing economy land reform schemes appealed neither to agricultural nor urban workers. Post (182) looks at European mortality levels of the early nineteenth century but finds no significant correlation with food shortages. He suggests this was due to improved social and environmental conditions, and in the case of plague, to climatic change which affected the chief vector, the rat flea. The working conditions and health of children in the English pillow lace industry are examined by Spenceley (216), who finds production a far cry from the picture of rustic bliss imagined by contemporaries.

- 1 ADAMS, I. H. Sources for Scottish Local History, 5. Estate Plans. *Local Hist.*, XII, 1, pp. 26-30.
- 2 ADAMS, S. L. The Composition of 1564 and the Earl of Leicester's Tenurial Reformation in the Lordship of Denbigh. *Bull. Board Celtic Studies*, XXVI, 4, pp. 479-511.
- 3 AMBLER, R. W. and WATKINSON, Martin. The Agrarian Problem in Sixteenth-Century Lincolnshire: Two Cases from the Court Star Chamber. [Depopulation, Enclosure.] *Lincs. Hist. & Arch.*, XI, pp. 13-19.
- 4 ARTHUR, Janet. Curds and Whey: the Last Hundred Years in the Cheese and Milk Trade seen through Derbyshire Eyes. *Derbys. Miscellany*, VII, 6, pp. 257-89.
- 5 ATHERDEN, M. A. The Impact of Late Prehistoric Cultures on the Vegetation of the North York Moors. *Trans. Inst. Brit. Geog.*, n.s., I, 3, pp. 284-300.
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NOTES AND COMMENTS

(continued from page 32)

WINTER CONFERENCE 1977

The winter conference was again held jointly with the Historical Geography Research Group of the Institute of British Geographers on 3 December 1977. The theme of the conference was 'The agricultural consequences of population change'. In the morning session there were papers on 'Intensive farming in open-field Norfolk during the high Middle Ages' by Dr Bruce Campbell, and 'Some demographic characteristics of the agricultural

labour force in nineteenth-century England and Wales, and their implications' by Dr Alan Armstrong. In the afternoon Dr Brian Short spoke on 'Population mobility and agricultural change in the Victorian weald' and this was followed by a panel discussion with all the speakers. Over sixty people attended the conference which showed once again the fruitfulness of co-operation between agricultural historians and historical geographers. Thanks are due to Dr Dennis Baker for organizing the conference and to the Polytechnic of Central London for providing such a convenient and well-appointed venue.

NOTES ON CONTRIBUTORS

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Dr R. A. Dodgshon is a Lecturer in Historical Geography at the University College of Wales, Aberystwyth. His doctoral thesis was on the subject of 'Agricultural Change in Roxburghshire and Berwickshire 1700-1820.'

Dr J. R. Fisher's research interests are in the English land-tenure system of the nineteenth cen-

tury, and the political movements of tenant-farmers. He holds the post of Lecturer in Economic History at the University of Newcastle, New South Wales.

Norman Fox is Deputy Headmaster of John of Gaunt School, Hungerford, Berkshire, and has a particular interest in the early history of the threshing machine and of agricultural labourers' unions.

Dr Stuart Macdonald is now a Lecturer in Economics at the University of Queensland. His current interests centre on the flow of information and he has worked on the subject in the fields of engineering and electronics, though innovation in agriculture remains a primary interest.

The Landowner as Millionaire: Part IV

[It is much regretted that owing to an editorial oversight the concluding section of the Silver Jubilee Prize Essay by David Cannadine was omitted from the previous issue of the *Review*. This section, Part IV, is printed below. The author is in no way responsible for the omission—Editor.]

It is now appropriate to return to the general reflections with which this essay opened, and to pose explicitly the questions implicitly stated there. First: How far does this account suggest that some modification of the popularly held views of the Devonshires' finances is in order? Second: What light does the experience of this individual family throw on the condition of millionaire landlords in general?

Like many other aristocratic millionaires, the Devonshires' acres were broad, their income large, and their involvement in non-agricultural ventures extensive. And none of the evidence presented here alters the conventional picture of the activities or consequences of the sixth Duke. Nor, as regards his character or reputation, has any revision been made of the seventh Duke. But there is much concerning his stewardship of the family finances which cannot be reconciled with the traditional interpretation. Far from restoring them, as he intended, he undermined them further. If the Barrow venture began well, it ended disastrously, and his other non-agricultural ventures were on too small a scale to outweigh so great a failure. Unable to eradicate debt out of a desire for economy, he ended by enlarging it out of a sense of duty. Motivated by the loftiest of feelings—towards Barrow rather than towards his estates as a whole—the seventh Duke encumbered his family estates to a greater extent than his two spendthrift predecessors put together. Sobriety and responsibility ultimately proved to be more costly than dissipation and self-indulgence. Far from being a turning point, therefore, the seventh Duke may most usefully be seen as the last in a line of Cavendishes going back to the first Duke and before.

They may have been temperamentally dis-

similar, and spent their money in different ways—some on houses, some on high living, some on politics, some on commercial and industrial developments. But they all shared the same basic presuppositions about the high and enduring status of land itself, landed aristocracy, and landed incomes, and it was on this basis that they all spent, whether out of sheer exuberance and self-indulgence or from a sense of duty and responsibility. In this sense the seventh Duke may be seen as the last of the old, rather than the first of the new.

For the Devonshires, as for many other landed families both super-rich and less wealthy, the pivotal decades were therefore not so much the early Victorian years but the period of and after the agricultural depression, which saw an end to these activities and presuppositions which had characterized landed society from the time of the Glorious Revolution onwards. More than many other landed millionaires the Devonshires entered the last decade of the nineteenth century with their prime non-agricultural venture an embarrassing, expensive, and worrying failure, with indebtedness larger than ever, and with current income disconcertingly reduced on all fronts. Yet, in extricating themselves from this gloomy predicament, the eighth Duke, his successors, and advisers, displayed resourcefulness and flexibility of a high order. If this family, so burdened and encumbered in the late nineteenth century, could adapt and survive with such conspicuous success in the first decades of the twentieth, then how much more true must that have been of those superpowers less disadvantaged—the Bedfords, the Westminsters, the Dudleys, the Sutherlands, and the Butes? In outlining the fluctuating fortunes of the Devonshires, this article may have thrown more general light on that curious hybrid, part businessman and part landowner: the aristocratic millionaire.¹²²

¹²² I am most grateful to Dr D. E. D. Beales, M. W. Dupree, and Dr H. C. G. Matthew for help with three specific references.

Book Reviews

BARBARA BENDER, *Farming in Prehistory: From Hunter-Gatherer to Food-Producer*. John Baker, 1975. xi + 268 pp., 5 plates, 36 figs. £5.50.

This is a courageous attempt to bring together the considerable amount of work on this subject in recent years. One assumes that the author is an archaeologist, and that the book is written for undergraduates in prehistory, because the research worker will soon wish to desert this introductory treatment for the original and more specialized accounts. The illustration of the ears of a cereal crop on the cover accords with my impression that there is more about plants than animals.

The domestication of plants and animals provides a major theme, and as an illustration of the *naïveté* with which this subject has been regarded by archaeologists a remark by the author in the preface might be quoted—that she thought the book would take 18 months to write, but it took five years to complete. The end product is a good synthesis of world-wide evidence.

Domestication is very much a biological problem, and the lack of appreciation of this fact leads archaeologists into errors and irrelevant considerations. The statement in the second sentence on page 1, that domestication created new species, is one such error. Geneticists have long shown that domestication did not create any new inheritance—it merely allowed a greater range of variation to survive.

The author devotes twenty pages to a theoretical consideration of domestication, and largely ignores the genetic literature on the subject. Possibly the most important factor in domestication, the ecological relationship between man and animals, is dismissed in a few words because it is incompatible with economic considerations. The most likely explanation of domestication is that it was a very gradual ecological process, and that the economics of the situation came later (as repeatedly stated by such authors as C. A. Reed). This accords with the religious evidence quoted by Barbara Bender.

In chapter 3, 'The Recognition of Domestication', the author is on safer ground, but recent evidence from chromosome numbers, that the author could not be expected to know, has come down firmly in favour of the Mouflon, and not the Urial, as the ancestor of domestic sheep. Two sentences are devoted to the fleece, and although only one paper of mine on the subject is listed in the bibliography, this is not referred to in the author index, and so is apparently not quoted in the text. In discussing carcass weight, only one reference is used, and instead of making sweeping statements about milk yield and the consumption of blood,

quantitative evidence could have been given from modern anthropological literature.

The author continues with a chapter on climatic change in which Meso-America and Peru are included, and another one on the distribution of potential domesticates in the old world; those of Central and South America are covered in an appendix.

It is excellent that Barbara Bender does not perpetuate Payne's erroneous statement that sheep and goats formed an interbreeding population as late as the Palaeolithic period. She quotes Curtin's evidence from blood types opposing this view, but has apparently missed my own paper on the subject in the same volume (*Antiquity*, XLV, p. 220, 1971).

The book then ends with chapters detailing archaeological evidence from South-West Asia, and Meso-America and Peru. This last chapter is a very commendable feature of the book since few syntheses covering this area are available. There is also an appendix covering Africa, India, China, and South-East Asia.

M. L. RYDER

E. S. HIGGS (ed.), *Palaeoeconomy*. Cambridge: C.U.P., 1975. ix + 244 pp. Maps. Illus. £8.50.

This second volume of papers in economic prehistory by members and associates of the British Academy Major Research Project in the Early History of Agriculture has a different title but follows the same pattern as the first.

It is accordingly just as difficult to review, and poses the question: "when does a volume of papers become a periodical?"—because by publishing its own work in this way the group could be accused of avoiding the rigours of refereeing that is usual with publication in academic journals. One advantage of these volumes over a journal, however, is the provision of a subject index and a name index, and there is an introduction by the editor and M. R. Jarman.

Although this volume is somewhat longer than the first, there are only six instead of eight papers. There are, however, two appendices and a glossary of terms—is this partly in answer to the request in my review of the first volume? The papers are lengthy and detailed, and seem likely to have run into difficulties had the authors sought publication elsewhere.

In the first paper on palaeoeconomy, E. S. Higgs and M. R. Jarman discuss the changing attitudes of archaeologists and the increasing use of science. As one who has always regarded archaeology as a science, I was particularly impressed with their last paragraph which concludes with: "It is only by bridging the gap at a theoretical level that a worth-

while discipline centred on man can be built, or that the sciences can make a major contribution to it. This demands the acceptance by archaeologists of the relevance of science theory to archaeological problems, and the acceptance by scientists that archaeology can contribute worthwhile objectives in which they can participate more fully than by the refinement of existing techniques."

P. F. Wilkinson adds more on the musk ox with a discussion on the relevance of its exploitation to the study of prehistoric animal economies. This is one example of the way in which archaeologists are more and more using long-established biological techniques, but at the same time full use of anthropology is made in his detailed consideration of the interpretation of archaeological data.

Then follows an account by D. A. Sturdy of some reindeer economies in prehistoric Europe in which he concluded that herd following was probably universal among groups mainly dependent on this species. Since sites were frequently located on natural routes, or on the edges of a grazing area, the author also concluded that the animals could be observed and exploited with the minimum of disturbance.

R. W. Dennell and D. Webley in a study of prehistoric settlement and land use in southern Bulgaria consider that in Neolithic and Bronze Age times the settlements there were so close together that they could be regarded as parts of an integrated and interdependent system of considerable economic strength.

In a similar survey of central Italy G. W. W. Barker demonstrates marked regional differences which indicate that the findings from a single site cannot be taken as representative of an entire area. He also shows that a changed economy can no longer be thought of as necessarily associated with a complete change of culture and the influx of new people. Of particular interest to the reviewer is the hint that transhumance of flocks to lowland winter pastures might have occurred as early as the Neolithic period.

The concluding paper by M. R. Jarman and D. Webley covers settlement and land use in Capitanata, Italy, in which it is shown that the appearance of cereal-dependent economies with the Neolithic era caused a movement of settlements from the hills to the plain. A later hiatus in their development they consider as being due to climatic deterioration.

In a volume placing emphasis on land use and territory it is useful to have appendices, A on site catchment analysis, and B on related territories and alluvial settlements. Appendix C gives a full list of other publications of the group since its inception.

On the whole this volume is more mature than the first, and there is less of the euphoria about the

discovery of scientific method which is now well established.

M. L. RYDER

R. PUJOL and R. LAURANS (eds.), *L'Homme et L'Animal: Proceedings of the First Conference of Ethnozoology*. Paris, Inst. Int. d'Ethnoscience, 1975. 644 pp. £9.

This collection of papers in French (with summaries in English) covers the entire spectrum of relationships between man and animals from primitive hunting to the modern concern about the conservation of declining breeds of livestock.

The first section contains eleven papers under the heading ethnoecology, going back to the relationships that must have existed between man and animals before domestication, and using as evidence present-day associations between man and animals in Asia, Europe, Africa, and South America.

The next section has seven papers on symbiotic and hunting relationships, again taking evidence from primitive African and South American tribes. Then follows a miscellaneous collection of ten papers concerned with the role of animals in ritual and magic, and the utilization of insects (e.g. the honey-bee). Also in this section is an account of the goose-raising of Poitou for feathers which are plucked twice a year.

The next fifteen papers cover the place of animals in language and thought, including such aspects as local names and classifications, symbolism, taboos, and the psychology of man-animal relationships. Of particular interest to readers of this journal are papers on the horse and the water-buffalo.

The final third of the book will be of most interest to agricultural historians, this subject being termed "ethnozootechnie" in France where the emphasis is rightly on technological change rather than on economics as in Britain. Following an introduction by R. Laurans on the contribution of ethnozootechnie to ethnoscience, there is a paper surveying the domestic animals of France during the Neolithic period.

The second paper of this section discusses the evidence of horses in ancient Nubia. The next paper describes the domestication of the guinea-fowl, and provides evidence for its keeping in Greece at least as early as the domestic fowl. There then follows an account of the recent experimental domestication of large ungulates such as the gazelle in south and east Africa, and in the same category there is a short paper on the domestication of the white rat and the hamster.

The subject then changes to the linguistics associated with husbandry. An informant's account of a mountain pastoral economy is used to illustrate the techniques of transcription, data analysis, and translation, and two more papers give the results of a

study of a rural community in France, and the mountain way of life of the Pasiegos, presumably of the Pyrenees. The final paper of this section describes a new method of synchronizing the analysis of physical and oral expression by the use of photography at the same time as speech recording.

Details are given of the training and harnessing of oxen in Ethiopia, and the method by which a female camel is made to adopt a young orphan. Attempts made to preserve the "Nooitgedacht" horse of South Africa, a type introduced in the seventeenth century, are described. The husbandry and usage of the horse by the Moussey tribe of Chad and Cameroon are detailed. Then follows a paper on pig husbandry in medieval France and another on the pig in modern China.

The next seven papers are about sheep in France: the unique husbandry on the island of Ushant; the integration of agriculture and animal husbandry in the Toulourenc valley (Vaucluse); sheep-raising on the Blandas Causse (Gard), and four papers on the seasonal transhumance of sheep between summer mountain and winter lowland pastures, over one million sheep still being involved in these movements.

The final paper makes the case for the preservation of declining breeds of livestock in France, not only for historical study but also to maintain adequate genetic variation for future selective breeding. The book has an index by animal species, and another by places, and the French can be congratulated not only on the detailed recording of the husbandry of their own country but also on the excellent synthesis of many diverse ethnographical instances of the association of man with animals throughout the world.

M. L. RYDER

J. G. EVANS, SUSAN LIMBREY, and HENRY CLEERE (eds.), *The Effect of Man on the Landscape: The Highland Zone*. The Council for British Archaeology, Research Report no. II, 1975. viii + 129 pp. 62 figs, 14 tables, 8 plates. £7.50.

In 1974, the Council for British Archaeology held a conference at Lancaster University on the theme of man's impact on the landscape of highland Britain. The proceedings of the conference have now been published as the C.B.A.'s research report no. II. Archaeology is of course notoriously catholic in its breadth of interests. The contents of this report are no exception. As well as various types of archaeologists, its contributors include pedologists, paleobotanists, zoologists, and geographers. Their common theme is man's interaction with the landscape. The meaning attached to the term landscape is worth mentioning because it is not always used in the same sense as a Hoskins might use it, with a heavy emphasis on the pattern of man's activities.

A number of contributions treat it simply as another term for the physical environment. However, even those in which man finds a place only as a possible and not a certain cause of environmental change do not lack interest for the agricultural historian.

The report begins with a somewhat eclectic but enjoyable essay by Professor Estyn Evans. After some penetrating observations on the validity of the highland zone concept as originally conceived by Halford Mackinder and Sir Cyril Fox, Professor Evans stresses that hallowed quality of the region, its high degree of cultural continuity from early times. His skilful and, at times, anecdotal blend of archaeology and folklife provides a forceful demonstration of his point. Given the trend of recent work though, one wonders whether a more qualified statement of this view rather than a bold reaffirmation would have been more appropriate. By giving such emphasis to the archaic and stable characteristics of culture in the highland zone, we sometimes stand in danger of overlooking the changes which nevertheless have occurred.

Following Professor Evans's introductory overview is a paper dealing with the effect of upland climate on prehistoric man's choice of habitat. Its author, Mr J. A. Taylor, has set himself no mean task. He responds to the challenge of the problem by catering for all needs, suggesting that one must have had a "veritable mosaic of climatic habitats," whose sheer variety was extended further by "short term periodicities." His paper underlines a point which is not overemphasized elsewhere, that quite apart from any variations brought about by man's treatment of the environment, highland Britain is naturally an area of sharp local contrasts which make the task of generalization both difficult and hazardous. Amongst the most technical papers in the report are three on soils. A general paper by Dr D. F. Ball looks at soil degradation in upland areas and man's role in this process. Another by Mr J. C. C. Romans and Mr L. Robertson approaches the same problem by analysing soil profiles at select prehistoric sites in Scotland (mostly of Bronze and Iron Age dates), and commenting on the evidence which they provide for the onset and progress of podzolization, a specific form of soil degradation. A broadly similar approach is taken by Dr R. F. Smith in his study of soil profile development under the Iron Age and Romano-British field systems of the Yorkshire Pennines.

Readers of the *Review* will probably find the papers on man's early relationship with deer and *Bos primigenius* particularly valuable. The former is covered in papers by Dr R. E. Chaplin and Dr P. Mellars. Both make extensive use of modern work on herd behaviour and stocking levels. Although both are instructive, that by Mellars possibly makes

the more imaginative use of data, arguing in detail how Mesolithic man may have manipulated stock movements and local densities by the controlled use of fire. His paper illustrates the trend amongst archaeologists towards seeing the Mesolithic as a period of protopastoralism, a period when man learned to exercise an unobtrusive influence if not a direct control over such animals. Complementing the contributions by Chaplin and Mellars is a provocative essay by Mrs P. Evans on the link between *Bos primigenius*, or the wild auroch, and late Mesolithic settlement in the highland zone. She argues that the late Mesolithic witnessed a "shift in emphasis between animal imposed and human selected habitats," the former becoming more important. It is her view that the widespread use of coastal occupation sites during this period was linked to local concentrations of *Bos primigenius* whose traditional grazing grounds were slowly being whittled away by a rising sea-level.

In a paper that might have been better placed earlier in the book, Dr I. Simmons examines the total structure of natural eco-systems and man's influence upon them. Given this wider perspective, one of his main conclusions is worth repeating. It is that "the main feed back loop from man to environment was probably fire." His paper is followed by four concerned with man's impact on vegetation. Those by Professor A. G. Smith on Ulster and Dr W. Pennington on the Lake District have much in common. Both explore the problems of the elm decline during the early Neolithic, and the general decline in tree cover which followed soon after. Dr Pennington is especially good on this latter problem, spelling out for us the different stages and side-effects of environmental degradation in the highland zone: deforestation and soil erosion, then podzolization, gleying, and water-logging, ending eventually with peat formation. Professor Smith favours climate as the basic cause of these changes, with man as an accelerating agent. Dr Pennington is also impressed by the role of climate as the primary cause, but still prefers to give early man a determinant role. She hypothesizes a "situation of ecological tension in which human activities led to the crossing of threshold values." Of great interest is a paper by Dr J. E. Turner on her work at Bloak and Kennox Mosses in Ayrshire. It represents a fine example of how three-dimensional pollen diagrams can be used to disentangle local and regional phases of forest clearance. The final paper in this group demonstrates the value of land snails as an indicator of former vegetation change.

The remaining papers in the report focus more directly on prehistoric man and his settlement. They include a sobering reminder of the inadequacies of distribution maps, and a short note on the value of air photographs. In a paper that poses problems,

Dr W. H. Manning suggests that Roman military units in Wales and the north of England must have been maintained by locally grown grain rather than by regional imports. In an equally suggestive contribution, Professor L. Alcock compares early manuscript evidence for animal husbandry with bone counts based on refuse tips at such sites as Dinas Powys in order to show that interpretations of the latter's meaning are not always convincing. In a brief rejoinder, though, Dr R. E. Chaplin points out that the number of bones analysed at Dinas Powys would not in any case be considered sufficient by modern standards of analysis. A paper by Miss F. Lynch then considers whether prehistoric man had a strong aesthetic sense of landscape. Did he locate his settlements with an eye for a fine view? Were some of his henge monuments deliberately sited to exploit a fine horizon or to heighten the dramatic content of a particular vista?

Altogether, this report will prove a valuable source of ideas and evidence. The only major criticism one might make concerns the overall balance of contributions. Over half of them see the problem from the standpoint of the natural scientist, looking to explain why a certain type of environmental change had taken place. In seeking to make their point, some make very specific assumptions about the nature and chronology of man's interference with upland eco-systems. In view of this, one would have welcomed a more explicit and substantive review of the archaeological evidence for man's economic activities in the highland zone. One suspects the lack of such discussion reflects the lack of sufficient research on this aspect. Hopefully, this book will encourage such work. It certainly sets a fine standard of argument and presentation for it. Its numerous diagrams are well drawn and clearly reproduced. Although a little expensive at £7.50 for a paperback, it undoubtedly forms a worthwhile addition to the literature.

R. A. DODGSHON

CYRIL HART. *The Hidation of Northamptonshire*. Leicester U.P., Department of English Local History Occasional Papers, second series, VI, 1974. 67 pp. £1.20.

Dr Hart continues his county-by-county studies of the units on which taxation was rated and raised in the late Anglo-Saxon kingdoms and on into the eleventh and twelfth centuries. His chief concern here is the changing assessment in hides of Cambridgeshire, and his chief sources are the late eleventh-century Domesday Book and its more detailed county companion known as the *Inquisitio Comitatus Cantabrigiensis*.

In tackling these early units Dr Hart encounters two long-standing problems in Domesday interpretation: the hide and the ploughland, and their re-

spective functions. He brings out the important point that during the very year of the Domesday survey reassessment was taking place: in Cambridgeshire "six of the sixteen hundreds in the shire succeeded in obtaining a substantial reduction," and the equally important point that this reduction was "only a temporary affair." But interesting as is his suggestion that heavy clay soils and resulting agricultural difficulties may be responsible for the location of reduction, it is unlikely that it is some localized calamity that is responsible. A widespread but temporary reduction also obtained elsewhere in England, most notably in the south-eastern counties. Diagnosis of the Cambridgeshire situation shows the historical importance of the subject as well as its complexity. Whether a temporary reduction already conducted seems to dissociate Domesday from a fiscal function, or whether such a reduction seems to make the Domesday inquiry more immediately functional, it must be taken into any consideration of the purposes of that inquiry. As Dr Hart insists, the hide and its yields were still of intense interest in 1085-6.

The ploughland (often expressed *terra est x carucis*), which Dr Hart calls with reason "perhaps the most difficult and controversial topic" in current Domesday studies, may be potentially of the most interest to agricultural historians. It may, or may not, represent the land under arable, potential arable, or agricultural land generally, at 1066, 1086, or some other date. With examples of duodecimal units, Dr Hart upholds the view that the ploughland represents an imposed assessment of some kind rather than agricultural reality; and he supplies helpful tables of the relation between hides and ploughlands. But his revolutionary dating of ploughlands to an assessment by the Danes in 877 is not supported by evidence other than that of their duodecimal groupings. Misgivings continue as this early dating has led Dr Hart in similar work on Huntingdonshire to conclude that ploughlands being "usually equal to the number of ploughs employed on each estate at the time of Domesday, there was no great advance in the exploitation of arable land between the period of the Danish settlement and the Norman Conquest" (*Proc. Cambridge Antiq. Soc.*, LXI, 1968, p. 56). But the question why the working ploughs and possible working ploughs on Cambridgeshire estates in 1086 add up neatly to the ploughland figure of suggested 877 date is not asked in the work under review. The close correspondence between the two sets of figures provokes a more contemporary definition for the ploughland, especially as its details are usually in the present tense, whereas even data for 1066 are in the past tense. But the problems of ploughland and hide will be solved and their full meaning developed only when more work and more tables such as

those provided abundantly in text and appendix by Dr Hart for Cambridgeshire make a secure basis for a general theory.

SALLY P. J. HARVEY

CHRISTIAN PFISTER. *Agrarkonjunktur und Witterungsverlauf in westlichen Schweizer Mittelland 1755-1797. Ein Beitrag zur Umwelt- und Wirtschaftsgeschichte des 18. Jahrhunderts*. Geographica Bernensia, Reihe G, Heft 2, Geographisches Institut der Universität Bern, 1975. 229 pp., 28 tables, 20 figs., 1 map, English and French summaries. 48 Fr.

In this well-written treatise, almost excessively rich in fascinating ancillary detail, Dr Pfister provides a public account of the research, which he presented for his doctorate under Professor B. Messerli at Bern, upon the relationship from 1755 to 1797 between the weather and the yield and prices of grain in the canton of Bern and its vicinity. He claims to be working within the Annales school of "total history", but he takes his cue from W. G. Hoskins's view that harvest yields have a great bearing on history.

Pfister was studying a period when, in Switzerland, the "economic patriots" had set up a society and were seeking a deep understanding, divorced from peasant superstition and based on observation and science, of the relationships between crops, the weather, prices, and other variables, such as demographic change, and the improvement of agricultural methods. He is therefore dealing with a period when information on meteorology, crop yields, and prices was coming under direct and critical scrutiny. This enables him to produce a work—to borrow from the title of his dissertation—of "historical ecology".

Locally, up to six stations using uniform instruments and units were observing the weather, and the minister, Johann Jakob Sprüngli, made 4,000 observations in phenology. The weather, at the time, was rather more continental than that of today, and certain cold winters and wet summers were more severe than any in this century. Thus there were crucial moments when yields might be catastrophically affected.

Production, however, requires much more difficult investigations. It can only indirectly be reached by means of tithe yields: tithes were here a tenth or an eleventh, did not apply to all, and came to diverse beneficiaries, not ecclesiastical. Still these yields can be estimated fairly safely. It was a period of change in agricultural methods, and a period of reclamation. These yields show a fairly continuous increase, but there are annual variations. The residual differences between the presumed yield taken from the continuous curve of the trend and the actual annual yield show a very tight correlation with the weather,

and particularly with those parts of the weather pattern which affect grain crops (here usually *dinkel*).

Similarly the links between prices and yields are very close, taking fully into consideration the lags and adjustments that occur. Pfister also notes the extent to which trade could buffer price change, but notes that there were many bad years when potatoes would have yielded well (they were tithed in money) and would have saved the situation. Moreover, grain reserves, rather small in quantity—perhaps one-seventh of annual needs—and rotated often in an eighteen-year cycle, must have had their effect. He is less concerned with animal and other harvests: but by no means neglects their significance.

There is perhaps a slight tendency for a geographer to look for explanations in the natural world. Pfister is, however, as much a local patriot, an economic historian, a man sympathetic to agricultural anxieties and trends, as a pure geographer. He is well aware of thought in Germany, France, and Britain, and of the several other Swiss investigations in this field. He is, for instance, concerned with the problem of the interaction between population numbers and agricultural change. His evidence agrees with such writers as Tooke and Newmarch (1838), who were much concerned with natural causes, rather than with the wide and spacious views of Abel (1966), who looked to monetary and other economic reasons for price fluctuations.

His conclusion (p. 196) runs as follows: "A comparison of the price residuals and tithe residuals (i.e. the differences between actual tithes and prices and those that the upward trend of both would suggest) shows that the market price in the harvest year to a large extent, but not exclusively, depended upon the size of the grain harvest. In addition to the store of grain kept by the authorities, and imports in crisis years, potato yields played an important role. If these, after long summer spells of drought or heavy rains, were low, the main source of food for a wide range of consumers became scarce, and this drove up the prices of grain. On the other hand good potato harvests restricted the rise in price of grains when the harvest failed." And on p. 190 he says, "The environmental factor appears to have influenced economic prices and population changes in earlier centuries in a much more powerful degree than has been assumed up to now."

To reach these conclusions Pfister had the assistance of a computer to do his sums and correlations. They have assisted him in his tedious calculations—though he appends the actual data for others, if they wish, to scan by eye—but this is a thoroughly humane account which should appeal to a wide variety of readers.

D. J. DAVIS

GÜNTHER FRANZ. *Geschichte des deutschen Bauernstandes vom frühen Mittelalter bis zum 19. Jahrhundert*. 2nd edn. Deutsche Agrargeschichte, vol. iv. Stuttgart: Ulmer Verlag, 1976. 301 pp, 22 figs., 16 illus., 4 tables, bibliographies. DM. 88.

This volume, the fourth of five on the history of German agriculture, has a rather curious role. Vol. i, by Jahnkuhn, deals with prehistory and the period up to the Völkerwanderung, while vol. v, by Haushofer, deals with the age of technology: the nineteenth century onwards. But there are three volumes dealing with agriculture from the Frankish period to the nineteenth century: W. Abel writes on agricultural methods, F. Lütge on the constitutional history of agriculture, while this volume deals with the peasant class or community. All are compressed, well organized, and written by leading authorities, and inevitably overlap. Certainly one must read all three and build up a synthesis for oneself. Only by reading all three can one judge whether this subdivision of labour is the best one could conceive. Yet, how otherwise could the mature work of these three supreme authorities have been brought together?

As one reads this rich and rewarding volume one wonders what is its real focus. The author assures us that initially the peasant did not make history: he was too much at the bottom of the human system; but surely he was so basic to this system as to be its key figure, for until recently it required at least four peasants to maintain one townsman. Yet he remained anonymous, and what sights we have of him, either idealizing him or traducing him, are extremely few until very recent times. Franz attempts, at all periods, to understand these taciturn peasants. He is, of course, the leading authority on the sixteenth-century peasant risings, and in the classic chapter on this period he clearly reveals the weaknesses and strengths of the group. The somewhat less tightly written chapter by Peter Blicke, on the achievement, in certain areas and times, of local peasant representation in political affairs, is original, and reveals the peasant group in action but rarely the individual. Franz seems progressively less interested in the peasant in his weakness during the seventeenth and eighteenth centuries: but he works out the contrasts between western and eastern Germany. The passages which reveal the peasant as a minority within the village for many centuries are acute. The work ends oddly, as the author realizes, somewhere round the end of the Napoleonic era, and in a weak postscript, by way of recompense, he outlines changes up to the present, reminding us that the family farmers of today resemble closely the traditional peasant.

This volume is very compactly written, full of mature wise sayings, everywhere referring in footnotes to helpful sources, and several times on every

page to the source volumes collected by the author himself, *Quellen zur Geschichte des deutschen Bauernstandes*, vol. I, 1966, vol. II, 1963, containing both sources and translations. The bibliography cites writings up to 1975, both leading texts and detailed references. It is strange that Franz cites so little work by historical geographers, excepting only Krenzlín and Grees, for they have provided as great a contribution to agricultural history as in Britain, some of it particularly original and local. While this volume deals often with relatively local matters it rarely reaches down to the individual village or farm. This is perhaps a defect in German agricultural history. There is little reference to work on agricultural history in other countries, while the sharp views of writers in the D.D.R. are little heeded, for this is not a work of controversy or discussion. On the other hand, this volume deals with German-speaking peasants wherever they are found, as on the Volga, in the Banat, in Pennsylvania, Austria, or Switzerland.

This volume and the others in the series reveal that a large proportion of the most talented German historians have engaged in agricultural history from well within last century, through the period of the Weimar Republic, working quietly during the Hitler regime—though some spurious work was done then—constantly keeping the peasant within focus. A great deal of this work is crystallized in this series, and especially in this volume, written in a dignified and sober prose. The manner of writing is pure, with no strained subtleties, resisting psychologizing and loose sophistry. It is a well-made book. The illustrations are far from hackneyed, though not exciting. The figures are mainly maps, rather too small, and a detailed one on page 223 has no key. The author does not refer to these maps, and does not seem comfortable with them.

These three volumes dealing with the same period are worth reading in any sequence as they both supplement and revise one another. One would have preferred this particular volume to have been longer, to have been freer to digress, to have had space to paint individuals and groups, to quote the telling anecdote, to contend with those who hold different views.

D. J. DAVIS

WILLIAM N. PARKER and ERIC L. JONES (eds.), *European Peasants and their Markets: Essays in Agrarian Economic History*. Princeton, N.J., Princeton U.P., viii + 366 pp, 1976. £10.40.

This symposium consists of eight essays by various hands, and two discussions of a more general kind contributed by the editors. The first two essays, by Richard C. Hoffmann and Donald N. McCloskey respectively, consider the medieval origins of common fields, and their persistence in England. A

second essay by Professor McCloskey is concerned with enclosure, and is accompanied by a paper on 'Enclosure and Depopulation: A Marxian Analysis', by Jon S. Cohen and Martin K. Weitzman. There follows four case-studies: Franklin F. Mendels writes on agriculture and peasant industry in eighteenth-century Flanders, and Jan de Vries on peasant demand patterns and economic development in Friesland, 1550-1750; the final essays relate to the nineteenth century, that by Robert A. Dickler concerning organization and productivity change in eastern Prussia, while George W. Grantham writes on scale and organization in French farming between 1840 and 1880.

The more general character of the first four essays and their particular relevance to problems of British agrarian history will constitute, no doubt, the main attraction of the volume for readers of this journal. The opening essay on the origins of the common fields is perhaps the most truly "European" of the book, in breadth of both content and sources. The author elaborates on the view, argued by Joan Thirsk in her well-known article in *Past & Present* (vol. xxix, 1964), that the common-field system should be seen as the culmination of a lengthy process of gradual development. Mr Hoffmann cites a great range of continental evidence to indicate that common fields appeared as the logical result of pressures created by population increase in circumstances of limited resources of land and technology, eventually obliging peasants, originally individualistic in character, to co-operate in the formation of a communal system. The paper is particularly valuable for its evidence on the early stages of this process.

The first of Professor McCloskey's articles, on the persistence of common fields, is set mainly in an English framework, and argues his now well-known view that the centuries-long duration of the common-field system can be satisfactorily explained only by reference to the security it provided against the risks inherent in farming. He suggests that these risks were greater in clayland areas than in districts of lighter soils, and that this may explain why in England common fields survived mainly on the midland plain, and disappeared early, if they ever existed, elsewhere. The early part of his paper offers a penetrating assessment of what constituted the real drawbacks of common-field farming, and argues that the serious character of these drawbacks necessitated the existence of some powerful counter-balance inducing farmers to persevere with the system.

It may be considered a weakness of both these essays that they devote very little consideration to the appearance of alternative systems of farming, and to the causes of the early disappearance of common fields in areas where they were established at

one time. Professor McCloskey's "insurance" argument does not cope adequately with the fact that even on the midland plain, where, he thinks, common fields had most justification, enclosures early existed alongside them, nor with the difficulty that for many cultivators of common-field strips the arable was of quite secondary consideration, their livelihood depending very largely on their herds and flocks. Indeed, the variety of geographical and market influences, even within an area so limited as the English Midlands, must make the formulation of generalizations about farmers' motives extremely difficult and hazardous.

Professor McCloskey's second contribution, on the economics of enclosure, is again primarily based on English evidence. He explains the upsurge of enclosure in the period of the classical agriculture revolution as a consequence of "the power of markets to erode inefficient arrangements," and of the possibilities for resorting to improved legal methods for carrying out the change. A masterly survey of the existing literature is directed to analysing in economic terms the costs involved in enclosure and the benefits it conferred, as measured by the expansion of output reflected in rent increases. A weakness here, no doubt attributable to the limitations of space, is that certain kinds of enclosures are largely ignored, particularly those concerned solely or mainly with the cultivation of wastes, exploitation of minerals, and development of towns.

Of the short paper on enclosures and depopulation by Messrs Cohen and Weitzman it seems necessary to remark only that the argument is so divorced from the complexities of reality as to be irrelevant to those of us who are concerned with history.

Each of the case-studies has much of interest. Mr Mendels's paper on Flanders discusses the relationships which pertained between the growth of the linen industry as a rural by-employment, the increase of population, fragmentation of farms, and changes in farm production and techniques. Jan de Vries's study of peasant demand patterns in the Dutch province of Friesland indicates that, in this district at least, peasant acquisitiveness leaned more towards the rebuilding of farmhouses, and possession of dairy equipment, furniture, and articles of silver than the traditional purchase of land. The study by Mr Dickler of the East Elbian region of Prussia elaborates on the consequences of the increased profits to be obtained from grain production, and the subsequent reforms of 1807-21, for the development of improved farming on the enlarged estates of big landowners to the detriment of the peasants. By contrast, Mr Grantham's discussion concerns the extension of peasant farming in the France of 1840-80. His argument emphasizes the growing prosperity of peasant cultivators and

the attraction to them of the security offered by possession of land, while the resultant decline in the availability of peasant labour for large farms was unfavourable to their growth.

Taken in the round, the eight essays well illustrate the range of new approaches which the present generation of American economic historians are bringing to the study of agrarian history. The results may vary greatly in quality and value, but at their best the resources of analysis, argument, and documentation deployed in these studies set standards which challenge the very best of traditional scholarship.

G. E. MINGAY

W. G. HOSKINS. *The Age of Plunder. The England of Henry VIII, 1500-1547*. Longman, 1976. xviii + 262 pp. Maps. Figs. £5.95 hardback, £3.50 paperback.

With this long-awaited book Professor Hoskins makes a major contribution to the economic and social history of the early sixteenth century, which as he says has been strangely neglected in favour of the fashionable "century" 1540-1640. He redresses the balance with a detailed analysis of the records of the time, and particularly of the great series of tax assessments of the 1520's, with which he provides the most detailed picture yet drawn of the economic geography of England in the reign of Henry VIII. He speculates that his choice of title may cause surprise in view of the fact that all periods of English history could be regarded as ages of plunder from some points of view; but defends his choice on the grounds that Henry VIII's attack on the properties of the Church (episcopal as well as monastic) was a particularly thorough and ruthless pillage, only to be compared with the Norman conquest. It represented the largest transference of landownership since 1086; and he cites the telling passage from the 1895 edition of Sir Henry Spelman's *History of Sacrilege* (originally written in 1632), that of the 570 peers existing in 1895, no fewer than 470 were "more or less implicated in Sacrilege"—that is, they retained some parts of former Church lands in their estates. Professor Hoskins believes that the great redistribution of lands between 1530 and c. 1560 laid the basis for the pattern of landownership and sociopolitical power which lasted into the twentieth century.

From the point of view of the farmer, faced with demands for a rent increase, it made little difference whether his "plunderer" was clerical or lay; but Professor Hoskins laments the futility of Henry VIII's wasted opportunity: by seizing the lands of the Church he doubled his revenues, yet hardly any of this vast sum was invested productively. It was all wasted on futile wars and needlessly grandiose palaces—like Nonesuch, so absurdly elaborate that

it was never even finished. To cap this waste Henry VIII, who had inherited a fortune from his father, left his successor an empty treasury and a mountain of debts.

The first half of the book deals with the economy, social structure, and agrarian organization of England, while the latter part covers urban life, the plunder of the Church, industry, and trade. In a telling chapter called "The Shearers and the Shorn" the great inequality in the distribution of wealth is emphasized. Landownership was highly concentrated in rural areas. In Rutland in 1522 4 per cent of the landowners owned 43 per cent of the land. In the cities an urban patriciate also dominated. In Coventry 80 per cent of the population was assessed at under £5, and the top 5 per cent of the population owned about three-quarters of the personal wealth. In London 535 people paid £202,446 (80.9 per cent) out of an estimated total tax for the city of £250,000. By contrast the poor were already very numerous. "The social structure rested upon a vast base of people who owned little or nothing more than what they stood up in, who rented their houses and cottages from others, who had no reserves to fall back on in a bad year, and who therefore formed a potentially explosive foundation of which any Tudor government was continually aware. They stood, as Tawney said, up to their necks in water; the slightest ripple could have drowned them, and often did."

Although any writer aiming at full coverage must devote more space to urban life, trade, industry, public finance, and other non-rural topics than he does to agriculture, Professor Hoskins stresses repeatedly that he is dealing with an overwhelmingly rural economy. Nine out of ten people lived and worked in the countryside, and most of those who lived in the small towns which were typical of the period—London with its population of 60,000 was exceptional—were concerned with country affairs: marketing food, spinning and weaving wool, dressing leather, and providing services for the rural population. Urban life as we know it today hardly existed. Despite the preponderating importance of agriculture in the economy the sources for its history in this period are not abundant. There are hardly any parish registers to help with estimating the population (though from the tax returns the author suggests it may have been as low as 2.36 million in England in the 1520's). Probate inventories, manorial surveys, estate maps, stewards' accounts, etc. are few and far between as compared with later periods. Inevitably prominence is given to those aspects which emerged in legal records (about whose "pathological" nature as evidence the author makes some sensible comments). Conflict between landowner and tenant, enclosure, engrossing, and rural depopulation were the controversial topics of

the age. They are discussed in a balanced way, and while attention is drawn to the vast number of stable and contented villages which never appear in the records, it is also pointed out that Professor Gay's attempt to dismiss the Tudor enclosures as "hysterical exaggeration" is wide of the mark. Gay based his charge on the fact that less than 2 per cent of the whole area of England was enclosed in the Tudor period; but Hoskins points out that generalized acreage is not the real criterion. The problem was highly localized, and in the affected midland counties it was much more serious. For instances in Leicestershire, 140 out of some 370 villages and hamlets were affected wholly or in part between 1485 and 1607. This was over one-third, and makes the contemporary uproar much more understandable.

However, despite such localized changes, the main characteristic of farming was its stability and continuity. Most production was still for subsistence, and a good deal of exchange was still done by barter. Yet there are occasional glimpses of large-scale commercial operations, especially in connection with the victualling of London. That sheep outnumbered men is familiar knowledge, but the extent of specialization in cattle fattening is perhaps less well known. "Hundreds of miles of English coastland, chiefly on the eastern side from south Yorkshire around to Romney Marsh in Kent, were already rich fattening pastures by Henry VIII's time. Cattle were driven scores of miles, even hundreds of miles at times, in order to reach these marshland pastures. Thus the grain shortage of 1528 was attributed locally to the great numbers of Welsh cattle that were fattening on the Romney marshes to the detriment of arable cultivation." Professor Hoskins also makes good use of his earlier study of harvest fluctuations to emphasize the intense importance of the bread grains in an economy where there was hardly any possibility of supplementing a poor harvest by imports.

On other sectors of the economy there are plenty of the author's familiar trenchant comments. On the gentry: "the traditional picture of the English village ruled over by a resident squire is one of the most persistent of historical myths. Suffolk, for example, had about forty-eight resident squires in the 1520's, in some 500 parishes—about one parish in ten." On the overestimation of London's importance in English history he quotes with approval Bishop Creighton's remark that "English history is at the bottom a provincial history," and notes that even including its suburb of Southwark, London's population was not above 80,000—a mere 3 per cent of the whole population. London's role in stimulating commercial farming, industry, and trade has been much exaggerated and "we must continually cut London down to size in the Tudor economy as

a whole." Similar exaggerated influences are the size of the woollen industry, the importance of foreign trade, and the alleged dreadful condition of the roads. Though few people could match Bishop Redman of Exeter's feat of averaging sixty miles a day when riding to London in the 1490's, surviving records (especially those of the Southampton tolls) indicate that the roads "teemed with traffic, more so in some regions than others; though in the depth of winter they subsided into a muddy quiet for weeks on end, a not unwelcome calm when the vast majority of people lived in a rhythm dictated by the seasons."

This is a provocative and stimulating book, packed with new statistical information, but saved from indigestibility by well-chosen and unusual examples drawn from the author's vast knowledge of local history. There is some repetition in places which could be removed from the second edition, but it will be many years before this book is replaced as a standard work on its subject.

MICHAEL HAVINDEN

T. S. WILLAN, *The Inland Trade: Studies in English Internal Trade in the Sixteenth and Seventeenth Centuries*. Manchester U.P., 1976. 154 pp. Map. £5.95.

Professor Willan has enjoyed the distinction throughout his career of being the reluctant monopolist of this field of study. While not himself confined to studies in English trade, few have followed him into this important area, and the present volume forms a useful adjunct to his seminal work on river navigation and coastal shipping. That it does not live up to its title fully can be forgiven, for here is a collection of essays on varied aspects of an unjustly neglected field.

The first of the five essays is the most general and familiar. It surveys road, river, and coasting as modes of transport in the later sixteenth century, showing the real significance of road transport, and examining, more briefly, carriage of goods by river and sea. All will be grateful for this new survey, though it is to be hoped that it provokes new researches, especially into the transport history of the first half of the century.

The other four studies look at Elizabethan retail trade, at provincial shops in the seventeenth century, and at two groups of wholesalers, in London and in Rochdale. Transport and the links of producer and consumer are the heroes of these histories. Willan's essays are useful, and important in proving, albeit on a rather narrow basis, the wide and complex nature of domestic trades in early modern England. In demonstrating the fairly widespread distribution of shops, including food retailers, he has revised current orthodox dramatically. His two studies of wholesaling complete the

book. Both show the basic practices in domestic trade, principally in textiles, and point clearly to the importance of credit, of agencies, and to the subtlety of the network.

Inevitably this is a patchy book. The transport study represents the judicious conclusions of a lifetime's work in the field, and is essential reading for all students of the sixteenth century. The other chapters, largely micro-studies of the domestic trades, are rather signposts for future research, but are valuable interim statements which must revise our views of the period. The results are not conclusive, and no one can regard Willan's comments as the final word, but they demand our attention. Among those who must consider his meaning carefully are agrarian historians, who, on page 52, are summoned out of their "ivory shippens" and into wider economic history.

J. A. CHARTRES

A. J. LITTLE, *Deceleration in the Eighteenth-Century British Economy*. Croom Helm, 1976. 111 pp. £5.95.

Dr Little is an economist of the University of Queensland and was formerly at Nottingham University. Here he advances a three-phase model of British economic history during the period 1660-1780. There were strong forces encouraging economic progress in the late seventeenth and early eighteenth centuries and a renewal of vigorous expansion after about 1750. In practice he is concerned mainly with the intermediate phase, broadly the second quarter of the eighteenth century, which is variously described as a deceleration, a check, a pause, and at best a period of retarded economic advance. This hypothesis is by no means novel, having been advanced with more or less conviction in the works of Chambers (to whose ability to kindle interest and enthusiasm for the subject among his colleagues this book bears witness), Deane and Cole, and Wilson. Whilst Dr Little offers no new evidence, his purpose is to bring together, review, and strengthen that case.

On the side of commerce and industry much of the empirical evidence accords quite well with this view, for example with the manufacture of textiles in general and woollens in particular, pottery, iron, paper, and building construction. It is perhaps less decisive with respect to the case of coal, tin, and copper production, and metal wares, where we find the author inferring a lack of progress from the fact that "Court and Hamilton report no significant changes during the second quarter of the eighteenth century." As a general rule, Little concurs with Mathias that any increases in the output of manufactured goods which merely took the form of larger output produced within a traditional framework, without signs of capital deepening or changing pro-

duction functions, had but slight long-run significance. Doubt is cast on the reliability of the statistics of turnpike and river improvement Acts as a measure of the buoyancy of internal commerce, and the low interest rates to which Ashton attached such importance are here regarded as indicating a reluctance to borrow.

The two most powerful influences identified as inimical to economic progress are those of very direct interest to readers of this journal. As far as can be discerned on the basis of existing population studies (chiefly those of Chambers, Eversley, and Tranter), the period from c. 1720 to the mid-1740's was a time of recurrent demographic reversals with important implications for the growth of the market. Agricultural prices were set on a long-run downward trend from the mid-seventeenth to the mid-eighteenth century, and were particularly low in the 1730's and 1740's. It is concluded that low profitability must have seriously reduced the incentive to undertake enclosure and long-term improvement in the agrarian sector taken as a whole. Moreover, the implications of reductions in the cost of subsistence for increasing the consumption of manufactured goods have been exaggerated; there was probably a high income elasticity of demand for food and drink, and a marked leisure preference, while the tax system of Walpole's day bore heavily on popular consumer goods.

It will be apparent that this interpretation is at variance with the views advanced in recent years by Jones and John, and will appeal to those who, like Little, find it difficult to see why agriculture should have been vigorously progressive under both the stick of low prices (before 1750) and the carrot of increases thereafter. It is not in the nature of a work of this kind to resolve such issues conclusively. As the author very candidly admits, his study is based almost exclusively on reappraisal of secondary sources, and hence "will be viewed as unsuitable by those who believe that history can only be written by those who at least sometimes bury themselves in museums and archives." Nevertheless, it is a very useful survey which should serve to focus further attention on an under-researched theme. Unfortunately it is singularly expensive in relation to its length.

W. A. ARMSTRONG

BÉLA KÖPECZI and ÉVA H. BALÁZS (eds.), *Paysannerie française, paysannerie hongroise, XVI^e-XX^e siècles*. Akadémiai Kiadó, Budapest, 1973. 319 pp. £4.60.

In 1972 French and Hungarian historians held a meeting at Budapest to acquaint each other with research in progress in their respective countries concerning the peasantry and agrarian developments between 1500 and 1950. This volume re-

prints the papers delivered at that meeting. They offer invaluable short summaries on key questions of current interest, together with bibliographies that draw attention to the most recent published work. Their subject-matter ranges widely. For example, Z. P. Pach traces the changing relationship between labour services and wage labour on Hungarian estates in the sixteenth and seventeenth centuries as demesnes were enlarged. He shows how in the fifteenth century labour services commuted for money went to pay wage labourers, whereas gradually after 1570 (when inflation was eroding the value of rents and money payments) landlords returned to the old system of labour services. Imre Wellmann analyses the differing structures of agrarian communities under Turkish domination and under Austro-Hungarian lordship in eighteenth-century Hungary, underlining their tendency to move towards uniformity after the Turks were overthrown. G. Benda estimates cereal production and the proportions devoted to consumption and export in the period 1770-1870; helpful maps elucidate his argument. I. Katona discusses the role of seasonal labour in Hungary, 1848-1945, and P. Gunst, M. Somlyai, and L. Komló describe the twentieth-century transformation of Hungarian agriculture.

The French contributions include one essay by Le Roy Ladurie describing recent French work on demography, agricultural productivity, and inheritance customs in the early modern period. Research on population has revealed the increase that took place between 1450 and c. 1580 in many parts of France (around Paris, in Languedoc, the Loire region, and Normandy, for example), followed by a period of stability until c. 1720. The increase is explained by the low age of marriage (twenty-one years instead of twenty-five or twenty-six) rather than by any change in the interval between births or in mortality rates. Jean Bérenger's essay on the peasantry in the seventeenth century is of special interest, partly because of its telling quotations from contemporary accounts of peasant diet and clothing, but also because of its tabulation of annual grain prices in Toulouse and Paris, and its clear summary of France's farming regions. Among other things, we see the brandy-drinking habits that were developing in northern Europe traced back to an agricultural region which was transformed by this new market. Jean Meyer, writing on the wars of the League and their impact on the peasantry, discusses the seventeenth-century literature of France on new crops as well as the significance of the crops themselves (e.g. rice, oranges, lemons, woad, potatoes, mulberries, cider-apples). Robert Mandrou surveys work recently completed on peasant culture and the role of religion in stabilizing communities. He cites a particularly thorough study

of a village in the Sologne in the nineteenth century which exemplifies this, as well as work on the ecclesiastical records of the diocese of Vence (as yet, apparently, unpublished).

The volume is a rich source of comparisons in European peasant history. The reader cannot but be struck by the unity of eastern and western Europe, in trade, and in the dissemination of agricultural techniques, and by the marked similarities in the evolution of peasant societies, wherever they followed similar systems of farming, and experienced similar pressures from their landlords.

JOAN THIRSK

PETER ROEBUCK (ed.), *Constable of Everingham Estate Correspondence, 1726-43*. Yorks. Arch. Soc. Record Series, vol. CXXXVI (for 1974), 1976. 172 pp. Plate. Map. £5 to non-members.

The estate correspondence in this well-edited volume is that of Sir Marmaduke Constable of Everingham Hall in the East Riding, a leading member of the Catholic landed gentry in Yorkshire, and Dom John Bede Potts, O.S.B., Sir Marmaduke's chaplain and, from 1726, the supervisor of his estate and business affairs. In 1730 Sir Marmaduke left Everingham for a continental tour and returned only after Potts's death in 1743.

Sir Marmaduke had inherited his mismanaged and debt-ridden estates in 1705, but by great care and personal supervision had revitalized them in a decade. He never married, and lived a fairly restricted life among his well-to-do co-religionists, and there is little doubt that at heart he was a Jacobite. Apparently he went to the continent for reasons of health but just why he remained there for thirteen years is by no means clear.

In his absence Potts had full responsibility for estate affairs, a responsibility he repeatedly alleged he was unqualified to carry out, and he constantly sought direction from the absent owner and frequently begged him to return. The letters tell us of the daily concerns and problems in the management of a medium-sized Yorkshire estate, and give us the frequently long-delayed instructions and advice from the owner. The contents are not in themselves unique—leasing, rent collections, arrears, plantations, breeding, rebuilding, and the like—but they illustrate well the values of tenants, Mr Potts, and Sir Marmaduke.

The editor has provided an excellent introduction which explains the history of the estates, their location and extent, and the roles of the individuals who appear in the correspondence. The end notes make clear obscure points in the correspondence, and a glossary is provided which is helpful. The index to the small volume is unusually complete, and those using it will be grateful.

RAY A. KELCH

BLANCHE HENREY, *British Botanical and Horticultural Literature before 1800*. O.U.P., 1975. 3 vols.: 290, 748, and 142 pp. £70.

These are three sumptuous volumes, printed on the highest quality paper, and superbly illustrated with frontispieces and plant illustrations, many in colour, drawn from the books listed in the bibliography. In the cold economic climate of 1977 such a work seems to belong to a past age. Yet it is a cheering act of courage, as well as of piety, for it was the Oxford University Press which in its earliest days published, in 1672, 1680, and 1699, the three great volumes of Robert Morison, Professor of Botany at Oxford, *Plantarum Umbelliferarum Distributio Nova* and *Plantarum Historiae Universalis Oxoniensis, Pars Secunda, et Pars Tertia*. (Part I was never published.)

This work, on which Miss Henrey has spent many years of research, comprises the most complete list yet of botanical and horticultural works published before 1800. But it is much more than a list. It is a veritable treasure house of information, collecting together facts already uncovered by others, but published in many scattered places, supplemented by many original discoveries of Miss Henrey's own. She has located fresh copies of scarce works, and tentatively identified anonymous authors; she has distinguished original woodcut illustrations from those that passed from one printer to another to illustrate different books; she has examined many different editions of the same works and noted their textual revisions. There cannot be a single reader who will not learn something new from this work, while some, like the present reviewer, will be launched on unexpected new paths of inquiry and discovery.

Horticultural literature is generously interpreted to include works on flowers, vegetables, fruit and timber trees, and altogether 1,500 works are listed. The bibliography is divided chronologically into two parts. The first fills volume I, runs to nearly 300 pages, and covers all publications of the sixteenth and seventeenth centuries. Several chapters, divided by subject and date, discuss each book individually, and offer a miscellany of information on their content, on the lives of their authors, on illustrations and their sources. A complete bibliography then lists all works, alphabetically by author, also supplying locations in libraries in Britain and the United States, Paris, and Montreal. Volume II, nearly 750 pages long, deals with all publications in the eighteenth century, amounting to 600 items. Because horticulture was greatly expanding in scope at this period the literature is subdivided into more headings, and separate chapters discuss works on such topics as plant physiology and anatomy, local and national floras, garden design, books by women authors (since it was in the eighteenth

century that women began to show a noticeably bookish interest in botany), botanical drawing books, and publications of seedsmen and nurserymen. The illustrations reach their full splendour in this volume, and it is easy to see why they began to be copied on textiles and porcelain.

The most cursory reader will be struck by the remarkable international fraternity of scholars and kinsmen who launched the study of plants in western Europe. England's pioneers owed everything to the stimulus from correspondents abroad, especially in Germany, Holland, and France. When William Stallenge published in 1609 his treatise on mulberry trees and silkworms, for example, the three woodcut illustrations in his work had been made by a Bruges artist who died in Florence, and had already appeared in Nicholas Geffe's translation of a French work on the same subject by Olivier de Serres. The first published work in this country to contain a section on plants was dated c. 1520, and was the thirteenth-century work of a Franciscan friar in Paris issued by the press of Wynkyn de Worde, Caxton's business successor. Its publication was inspired by several European models, of which the first was German, printed in Mainz in 1485. Many herbals followed quickly thereafter, notably Richard Banckes's *Herball*, first issued in 1525, which passed through twenty new editions before 1562. English interest in the planting and grafting of trees spread rapidly with the publication by Leonard Mascall of an English translation of a French work on the subject in 1569. Seven more editions of this translation appeared before 1600, followed by five more between 1640 and 1656. Such bibliographical evidence is an important clue to the way curiosity, knowledge, and enthusiasm for experiments spread. Many of the books were written in English and they found eager readers, not all of whom bought their copies: many borrowed and copied passages into their own commonplace books.

By the later sixteenth century gardeners practising horticultural skills did not want for patronage: the Crown, the nobility, and the gentry spared no expense on their gardens, and respected their gardeners as craftsmen of high status. Such men were confirmed internationalists. They moved across Europe collecting plants, and serving new masters. The most remarkable French family were the Mollets, of whom father and three sons all worked in royal gardens. André, for example, learned his skills in France, then served in turn Charles I of England, the Prince of Orange, and the Queen of Sweden. He returned to England in the 1650's, and in the 1660's became Charles II's gardener. His handiwork is traced in similar garden designs at Fredensborg in Denmark, Drottningholm Castle in Stockholm, in St James's Park, and at Hampton Court.

A distinctive feature of the English publications was their early use of the English language in place of Latin, and their propagandist enthusiasm to enlist the interest of peasantry and poor in the growing of vegetables and medicinal plants. What local and personal circumstances, one wonders, explain the publication in 1599, two years after a disastrous run of four bad harvests, of a work on kitchen gardens by Richard Gardiner, dyer and burgess of Shrewsbury, in which he reprimanded the English for importing so many carrots and not growing enough "for the help and comfort of poor people"? Fifty years later Ralph Austen writing on fruit trees advocated small cheap handbooks of gardening "for mean husbandmen to buy," and as Miss Henrey points out, many of them *were* handy pocket books that cost little. Nicholas Culpeper wrote his herbals, strongly disapproving of expensive foreign drugs from the East Indies that removed poor men's consumption "out of their bodies into their purses." Instead he advocated cheap and wholesome medicines that could be grown in gardens. His readers plainly saw the sense of this argument, for editions of his *English Physitian* between 1652 and 1800 occupy eleven columns of Miss Henrey's text. By the 1670's the Englishman's love of flower gardens was not confined to wealthy men: Worledge in 1677 wrote of ordinary townsmen's boxes and pots of plants, and of the southern English cottager's delight in his flower garden.

An excellent example of an informed, experienced author, writing with the avowed intention of reaching the common man and preaching the improvement of woodlands, is R.C., author of *An Old Thrift Newly Revived* (1612). He was remarkably sympathetic to the point of view of poor peasants, who feared the worst whenever a surveyor came into view. His work in dialogue form was ingratiating and readily intelligible to all, and his pages of instruction on how to measure standing timber were intended to be perfectly comprehensible to intelligent, literate woodwards. Miss Henrey's tentative identification of the author, R.C., with Rocke Church can be confirmed. *An Old Thrift* reveals first-hand knowledge of the condition of the royal forests and of the financial problems that obliged James I to consider improvement and disafforestation. Not only was Rocke Church a surveyor of royal forests to James I, but, more decisively, the arguments in the book are the same as those advanced in an official report of the same year by Rocke Church, Anthony Dyot, and Thos. Lascelles, at the completion of their survey of the King's forests. The report is in Additional MS. 38444 in the British Museum, and was reprinted in Joan Thirsk and J. P. Cooper, *Seventeenth-Century Economic Documents* (Oxford, 1972), pp. 116-20. Moreover, this report, almost certainly, reveals the identity of the

mysterious A.D. of the Inner Temple, who, in one copy of *An Old Thrift* (now in Harvard University), added an address to the friendly reader. Surely A.D. was Anthony Dyot?

Suggestive geographical patterns also emerge from Miss Henrey's bibliographical evidence to explain the spread of horticultural interest. The first main centres of scholars and nurserymen, working in close collaboration with one another, were London and Oxford, and later Cambridge. But an influential few seem to have congregated in the Banbury area distributed between Oxfordshire and Northamptonshire, and another group in Worcestershire. John Lord Somers of Evesham received the dedication of John Evelyn's work on salads (1699); John Rea, author and owner of the largest collection of tulips in England, lived at Kinlet near Bewdley; while his son-in-law, Samuel Gilbert, also a horticultural writer, dedicated his book to the Bishop of Worcester, "the greatest florist" among pillars of the Church, whose palace garden was a showplace for auriculas. An Irish contingent of fruit-growers and fruiterers appeared surprisingly early, beginning with Richard Harris, Henry VIII's gardener in charge of his cherry orchard at Teynham in Kent. The connection was upheld by Irish apprentices to London fruiterers in the middle sixteenth century (discovered by Dr Ramsay in his recent work on London apprenticeships), and continued into the seventeenth century with the anonymous (but Irish) author of *The Fruiterer's Secrets*, writing a well-informed work on the gathering, packing, carrying, and storing of fruit, published in 1604. An early Irish speciality in fruit production and marketing seems to be uncovered here that calls for further explanation. Not until the 1680's had the horticultural message spread to Scotland, where a physic garden was set up in Edinburgh in 1681, and a book on its plants appeared in 1683.

A few slips have crept into the text which need correction. The author N.F. on page 157 appears as N.(F.) in the footnote. *Sallers* on page 243 should read *Sallets*. John Houghton's remarks on hops (1694-5) did not follow a few years after 1524 and 1574. But the last word on this work should be one of deep gratitude from agricultural historians for this invaluable work of reference, which they may consult in specialist libraries. They will not be able to afford it on their own shelves.

JOAN THIRSK

R. J. COLYER, *The Welsh Cattle Drovers*. Cardiff, Univ. Wales Press, 1976. 155 pp. 11 maps, 9 plates. £5.

The export of Welsh store cattle throughout the nineteenth century—obligatory because of unfavourable climatic and soil conditions—meant that the cattle drovers played a vital role in Welsh econ-

omic and social life until, and even after, the coming of the railways. As well as being the most recent on the subject, Dr Colyer's book is the most comprehensive and thoroughly researched. In particular, the author has assiduously accumulated a wealth of oral evidence which adds colour and variety to his theme, and, furthermore, he has unearthed much valuable material from English record offices concerning the activities of Welsh drovers in the English markets.

The opening account of farming conditions and cattle-production is rightly included as necessary background and is competently handled. However, his graph of store-cattle prices on page 9 shows a surprisingly upward tendency for 1839. Much evidence points to the opposite being the case. Also, his emphasis on the lack of security of tenure in accounting for tenants' failure to improve ignores a number of awkward facts as, for example, the equally pronounced failure of small freeholders to improve—farmers not concerned about tenant right. Dr Colyer's knowledge of animal husbandry is put to excellent use, though it is unfortunate that he neglects to emphasize the well-publicized campaign from the late 'sixties for improving the native Blacks. The central discussion which follows on the mechanics and economics of the droving trade is a substantial contribution. From the author's analysis of the accounts of the Cardiganshire droving family, the Jonathans of Dihewid, we gain a detailed picture of the business activities and profit margins of a large-scale dealer from the 1830's to the 1880's. However, Dr Colyer's work is in many ways an expansion of J. Llefelys Davies's admirable analysis in 1934 of the same accounts in the little-known journal *Aberystwyth Studies*. The discussion on the impact of railways on marketing costs is valuable, but the author should have stressed the vital fact that railways did not effect any basic change in the traditional system of raising stores, as happened in many areas of England and Scotland. The final two chapters dealing with drovers' routes are fascinating even if they cater somewhat for the local and antiquarian interest.

The book is attractively produced with a generous helping of maps and excellent photographs. The University of Wales Press is to be congratulated upon producing this work at such a modest price.

DAVID W. HOWELL

G. E. MINGAY, *The Gentry: The Rise and Fall of a Ruling Class*. Longman, 1976. xii + 216 pp. £6.50.

Professor Mingay's volume is the second in the series *Themes in British Social History*, and provides a long-needed, up-to-date, and comprehensive study of the gentry and its role in the economic and social life of England.

There is no historical doubt that an identifiable class of landowners developed in the late medieval period which is termed the gentry. Professor Mingay begins his excellent survey of the development of the class by attempting to define it. His definition is largely descriptive: common interests in land-ownership, similar education and culture, marriage and kinship ties, and similar life styles. Yet it is very difficult to distinguish it or to set it apart from the larger landed aristocracy in any meaningful way, for he states (p. 188) that in most matters "the greatest of dukes and the most modest of country gentlemen generally thought and spoke in almost identical terms." It is difficult also to think of them as a "ruling class" separate from this same group who made basic decisions and who set the tone in this "Age of Aristocracy".

Yet "the landed gentlemen" of England, planted between the great lords at the top and the yeomen farmer, owner-occupiers below, owned approximately 50 per cent of the land. The central core of this volume is composed of three chapters which cover the rise and decline of the gentry, their estates, and their role in rural society. In 'The Closing Phase' he considers the gentry in the light of the industrialization and democratization of Britain in the nineteenth century and the peaceful passing of landed power.

Within each chapter Professor Mingay treats specific subject areas: 'The Country House', 'The Predominance of Agriculture', 'The Gentry as Farmers', 'The Growth of the Landlord-Tenant System', and so forth, which might have made his presentation disjointed and episodic but it does not, for each section dovetails well and provides a balanced, understandable, and, on the whole, convincing picture of this class. That a prodigious amount of work has gone into the research, organization, and writing of this small volume is evidenced by the use of not only major works in economic and social history but also a wide array of manuscript material, monographs, journal articles, theses, and local and family histories, all of which gives a poignancy and immediacy to the problems, opportunities, and concerns of this class. He helps thereby to make readily available the results of recent work of many investigators into specific areas of local or regional development. On the other hand, the reader would have been better served if the publisher had added, following the notes, a full bibliography, and if larger type had been used in printing the volume. The culprit here is no doubt the economics of publishing, not Professor Mingay.

In chapter 3 Professor Mingay discusses, among other subjects, 'The Great Debate: The Rise of the Gentry', presenting the arguments of Tawney, Trevor-Roper, Stone, and others in a clear and concise manner, and he provides conclusions of his

own. One of the difficulties of this debate is the assumption that it is possible to identify the groups under discussion when in fact they were not fixed units within the gentry. He points out here and in further comments on landownership the grave dangers of oversimplification of these complex changes, and makes a good point that the arguments in this matter overlook the essential stability and conservatism of landed society and the reality of the existence of a "country community", which was essentially local.

Yet this essentially local, rural society was not isolated for it provided wider connections with politics, commerce, trade and industry, education, the law, and the clergy through its younger sons, and, of course, through its daughters. Professor Mingay writes on these complex matters of landed economics, social role, political influence, values in religion, philanthropy, sports, and the like with charm, ease, and at times even humour. He has provided a survey which will be valuable to scholar and student alike.

RAY A. KELCH

A. FENTON, *Scottish Country Life*. Edinburgh, John Donald, 1976. ix + 255 pp. Illus. £6.50.

Mr Fenton is one of the few authorities on the history in Scotland of what one might call "rural technology"—the form and relationship of techniques, tools, utensils, and materials. In this welcome book he turns from detailed examination of individual aspects to provide what can fairly be described as the first systematic history of rural technology in Scotland. The result is not merely a catalogue of artefacts; nor is it the general social history that the title suggests. The author is concerned throughout to examine change in all aspects of material culture, and the relationships—often complex and quite subtle—between developing technology, economy, and society.

Pride of place in the text goes to the processes of food production. An introductory chapter is followed by five more on cultivation techniques, and two on livestock and dairy produce. Thereafter single chapters describe foods, farm buildings, fuel, transport, and the community. Coverage is geographically rather uneven; Orkney and Shetland together receive more attention (in terms of direct index entries) than all the counties of western Scotland south of the Clyde. There is also a predictable emphasis on the last two hundred years, the period best covered by the printed sources on which Mr Fenton draws heavily.

The author seems to have tried to keep both the general and the academic reader in mind, but the general reader will find a certain amount of basic knowledge expected of him, and the academic may feel that Mr Fenton bypasses certain controversial

issues. The text is digestible, and is supported by a large number of diagrams and photographs; some of these are excellent. There are extensive notes as well as a bibliography and index, but the omission of a glossary of technical and dialect terms reduces the book's value for reference.

Some deficiencies must be pointed out. Moving rapidly between the general and the particular, Mr Fenton does not always make it clear which period or part of Scotland is being discussed; sometimes the reader is left uncertain whether a technique was widely used, or was described by contemporaries simply as a curiosity. We learn little of crafts which for long remained integral to country life in some areas—weaving and dyeing, tanning and leatherwork, timber working. There is little on household furnishing and utensils; rather surprisingly, Mr Fenton allocates the topic of pre-improvement building style, surely one of the more important within his purview, a quite inadequate amount of space.

Scottish Country Life is a careful, uncontroversial, rather unexciting book; there are parts—the discussion of runrig being one—where the author paints too clear a picture by disregarding current academic debate. None the less the book goes some way towards filling a significant gap, and there are sections—particularly that on harvesting techniques—where Mr Fenton conveys admirably the intimate association of technology, economy, and society. It is a pity that he makes so little use of the vast amount of germane manuscript evidence in the Scottish Record Office and elsewhere; until these resources are fully utilized we shall remain without a definitive work on Scottish rural technology.

JAMES M. LINDSAY

ERIC J. EVANS, *The Contentious Tithe: The Tithe Problem and English Agriculture, 1750-1850*. Routledge & Kegan Paul, 1976. xiv + 185 pp. £4.75.

This is the first volume to appear in a new series of studies in economic history, edited by Professor F. M. L. Thompson. The book originated as a Ph.D. thesis, written under the supervision of Mr E. P. Thompson, and perhaps one may still detect his influence in this ultimate product, with its emphasis on the friction and hostility which tithe created in the rural community. The book, however, is much broader than a mere catalogue of tedious disputes. The opening chapter discusses the economic and social status of the eighteenth-century clergy, and the final one briefly surveys the period between commutation following the Act of 1836 and exoneration under the Act of 1936. There is an enlightening examination of the nature of the tithe problem, and a useful summary of the evidence relating to commutation of tithe under private en-

closure Acts—a neglected but important aspect of the parliamentary enclosure movement.

The nature and consequences of tithe is one of the little-examined aspects of English farming in the period of the classic agricultural revolution. How far were contemporaries like Young justified in condemning tithe as a tax upon improvement? To what extent did it prevail in its most inconvenient and damaging form, in kind, rather than as a money composition? That it was a fertile source of dispute the author leaves us in no doubt, but on other questions the evidence is less clear. He concludes that where the soils were poor and collection was made in kind, tithe could constitute a serious obstacle in the way of more productive farming. But how far it was collected in kind and how far in cash is uncertain, and the author himself seems a little confused on the question. Nevertheless, Mr Evans has put historians in his debt by his extended and wide-ranging discussion, the only up-to-date study of the subject that we have. His book will be essential reading for all those interested in the interconnected problems of agricultural production and social relations in the countryside. It is a useful volume with which to launch the new series, though one must feel some doubt whether it does not fall more properly within the realms of social, rather than economic, history.

G. E. MINGAY

GEORGE ORDISH, *The Constant Pest: A Short History of Pests and their Control*. Peter Davies, 1976. 240 pp., 13 plates, 9 figs. £6.50.

Teachers of agricultural botany have long been grateful to E. C. Large for supplying compelling bedside reading to their students in *The Advance of the Fungi*. Here to complement the mycology is a rather briefer companion volume, primarily for the entomologist. Into this slim volume are packed facts culled from two thousand years of writings on man's struggle with the smaller organisms, and generously supplemented with diverting personal experiences taken from the author's long and full life in the field of applied entomology. Pliny, we are told "constantly studied and wrote books, even dictating notes to his secretary whilst in his bath"—and such is the enthusiastic flow of documented detail, which exudes like honeydew from every page of this book, that one suspects Mr Ordish keeps a tape recorder in his bathroom.

To the lay reader the book is full of unexpected revelations of which perhaps the most surprising is the account of the action of ecclesiastical courts in the Middle Ages in the trial and excommunication of pests. This was clearly a logical method of dealing with evil things, and, as the author shows, might actually have appeared to be efficacious. The last case, it seems, was recorded in Denmark as recently

as 1830. The Church seems to have been helpful for many centuries, for c. A.D. 800 an ambassador from Spain was sent to Rome seeking protection against a plague of rabbits. In more recent times we are reminded that the failure of the Germans to use DDT was a major cause of their defeat in 1945, for the Royal Army Medical Corps reckoned that "for every infected British Soldier there were 8,000 lousy Germans."

With such a wealth of historical detail it may perhaps seem unkind to quibble at the title, which is not strictly accurate, and at times even seems to confuse the author. On the second page "pest" is taken "to mean all those troubles that attack our crops and domestic animals leading to a reduction of the portion available for man," which the author agrees might sometimes include elephants, and later, "man who is one of the worst pests plants have!" But referring to "blight" in the eighteenth century he writes: "This term was probably used very loosely, meaning any trouble caused to a plant, much as today we usually take the word 'pest' to mean *the whole range of setbacks to which crops are subject*" (my italics). This could be held to include the thousand and one permutations of soil and meteorological factors which can limit plant growth. References to domestic animals are few, and it might therefore have been more informative to the modern scientific reader to change the sub-title to *A Short History of Plant Pathology*—with a note referring the reader to the subject-matter covered by *The Plant Pathologists' Handbook*, compiled by the Commonwealth Mycological Institute in 1968.

The difficulty of choice of word for "pest" must be acknowledged, for in 1846 Alfred Smee was attributing potato blight to an aphid, contrary to the theory of the Rev. M. J. Berkeley, who considered it (correctly) to be due to a fungus, but such organisms, as the author is well aware, are rarely "constant." In biology, change is the sole constant and this is shown to be evident in the use of hydrocyanic gas to treat orange groves in California in 1886 when "... the inevitable happened—a race of insects resistant to the gas had started to arise." Insects, bacteria, fungi, viruses are all characterized by genetic change. However, a chronicler spanning the centuries may perhaps be forgiven for concluding that in spite of *tout ça change*, the pests and diseases remain firmly entrenched as very much *la même chose* to the farmer.

It is indeed surprising to discover how slowly the mind of man develops. Thus recent suggestions of a link between the eating of blighted potatoes and spina bifida were in one sense anticipated by the action of M. Bonjean of Chambéry who, in 1845, to prove the harmless nature of blighted tubers ate 4 kg daily and drank daily 8 oz. of water in which

these were boiled. Boussingault, c. 1834, and Lawes and Gilbert in 1843 are often hailed as the pioneers of field experiments: it is therefore salutary to be reminded that Tillet laid out field trials to study the cause and cure of bunt in wheat in the middle of the eighteenth century. These experiments, conducted under the aegis of Louis XV, showed some remarkable similarities in layout to the factorial design established by Fisher in the 1920's.

A strong case is made for devoting more time and money to research into biological control methods and less on pesticide research. The reasons given for this view are not bedevilled by ideological considerations: the alternatives to using pesticides would be better and cheaper. It is as simple as that! More specifically the author envisages breeding projects designed to facilitate the biological control of pests and diseases. Bees, silkworms, and fighting crickets have already been bred and selected by man for his betterment. These point the way to new fields of endeavour.

The author's dry asides and manifest sense of humour add piquancy to his story. This is to be read by all concerned with crop production.

I. W. SELMAN

JOHN STEVENSON and ROLAND QUINAULT (eds.), *Popular Protest and Public Order*. Allen & Unwin, 1975. 242 pp. £5.25.

This rather unusual little volume includes in addition to the editors' introduction six essays: on food riots 1792–1818, Highland discontent 1790–1860, the General Strike (or Plug Plot) of 1842, riots and public order in the Black Country 1835–60, the Warwickshire county magistracy c. 1830–70, and popular protest on Red Clydeside 1915–19. Whether these disparate topics, periods, and areas add up to a meaningful and valuable whole is a question which must be left to the judgement of those better qualified than this reviewer. Only two of the essays have much relevance for agrarian historians, and it is these which are considered here.

John Stevenson's study of food riots in England between 1792 and 1818 deals with a subject already explored by previous writers, notably George Rudé and Edward Thompson. Mr Stevenson's fresh approach is largely concerned with geography and timing. He finds that before 1800–1 disturbances over food tended to occur at centres of communications, such as coastal ports, canal and river ports, and towns serving as supply centres for major cities; subsequently, however, the location of riots shifted more towards the manufacturing towns of the Midlands and north. On the timing of disturbances he shows that the influential period seems to have been, not that of highest absolute prices, but when the rate of increase in prices was greatest. In general, two factors, communications and the occupational

composition of the local population, were crucial in determining which places saw disturbances. Neither broad economic factors, such as harvest failure, nor social considerations relating to Edward Thompson's "moral economy" of the crowd go far towards explaining why some places were persistently the scene of rioting, and others were not. The particular local reaction was the result of a complex interaction of factors involving the operation of the food market and the presence or absence of large numbers of the vulnerable, such as manufacturing workers.

Eric Richards's 'Patterns of Highland Discontent 1790-1860' constitutes a further extension of his valuable studies of the Sutherland estate. To that extent it covers what is now familiar ground, and perhaps does not take us very much further. The record shows, he argues, that resistance to the evictions, though "fragile and sporadic," led to alarm and excessive reaction on the part of the forces of order; in fact, the early spontaneous defiance melted away before the challenge of the military. The Highlanders lacked leaders, and did not resort to the kind of harassment and guerrilla warfare for which their home terrain would have been ideal. In part this quiescence sprang from the "fatalistic passivity" preached by the ministers of religion, in part from the lack of political focus, the failure to attack effectively the moral and legal basis of landlordism; indeed, the Highlanders' reaction was backward-looking and offered no alternative to landlords' policies. A curious feature of the resistance was the prominent role assumed by women in barring the way to agents and officers, often taking the worst hurts while the menfolk stayed in the background. In the end the Highlanders' sullen hostility to the policy of clearances proved a fatal blow to landlords' ambitious schemes for relocation of population in new occupations. The very act of clearance meant, as James Loch noted, that once uprooted the Highlanders preferred to make new homes thousands of miles away across the Atlantic rather than accept those provided by their persecutors less than thirty miles away.

G. E. MINGAY

KENNETH HUDSON, *The Bath & West*. Bradford-on-Avon, Moonraker Press, 1976. xiii + 251 pp. Illus. £10.50.

This bicentenary history of the Bath & West Society follows Mr Hudson's earlier general survey of agricultural societies published in 1972 as *Patriotism with Profit*. Originally intended for the "Encouragement of Agriculture, Arts, Manufactures and Commerce," it was the agricultural activities which came to be the chief concern of the Society, although its Arts and Manufactures Committee continued in existence until 1901. The influence of the Bath & West extended over much of southern England,

especially by means of the annual shows, which were held on a peripatetic basis from 1852 until the establishment of a permanent showground at Shepton Mallet in 1965.

Mr Hudson traces the progress of the Society and shows how the Bath & West has endured a number of vicissitudes. After the initial enthusiasm, the affairs of the Society were at a low ebb in the early nineteenth century until revived by Thomas Dyke Acland in the 1850's. The Society was at its strongest from then until 1914 when it appealed to a wider public through the medium of the shows, especially those organized by Thomas F. Plowman, secretary from 1882 until 1919. Since then, the Society has experienced fluctuating fortunes, but has taken renewed heart since the establishment of the permanent showground; the most recent period of the Society's history is, however, dealt with extremely briefly.

At the start of each chapter there is a short outline of the main events that affected agriculture during the period to be considered, but Mr Hudson is essentially concerned with the history of the Society as an institution, and there is little attempt to gauge its overall impact in the process of agricultural change. There is extensive quotation from the publications of the Society—the early *Letters and Papers* and the *Journal* which was published between 1853 and 1940—and this, as Mr Hudson suggests in the preface, helps to convey some of the flavour of the Society's affairs, but the repeated lists of regulations, financial details, and similar material become tedious.

In general, this is an attractive and well-produced book which is full of interest. Especially pleasing are some of the photographs, which portray the spirit and character of the Victorian shows. The value of the book to the agricultural historian is limited, however, by the lack of overall analysis and assessment of the work and influence of the Bath & West.

NICHOLAS GODDARD

RAYMOND E. DUMETT and LAWRENCE BRAINARD (eds.), *Problems of Rural Development. Case Studies and Multi-Disciplinary Perspectives*. Leiden, E. J. Brill, 1975. xiii + 148 pp. 68 Guilders. This interesting and useful book focuses on urgent problems of rural development in the world's poorer countries by utilizing the approaches of economists, historians, sociologists, and political scientists. They were brought together by multi-disciplinary seminars held at Purdue University between 1971 and 1974. Although pursuing different aspects of the problem in a varying range of countries in Africa, Asia, and Latin America, the authors' contributions are informed by a similar conviction of the usefulness of a multi-disciplinary approach to the complex problems associated with

the improvement of traditional farming systems. They are also, perhaps naturally, united in a belief that agriculture lies at the heart of the development problem, and that little progress will be made until it is accorded a higher priority. More unusually the book lays great stress on the importance of the small farmer within existing systems, and argues that too much emphasis in the past has been directed to ways of eliminating or bypassing him; whereas the real problem is to find ways of helping him to raise his productivity.

The editors stress that agricultural improvement is a slow, involved process which cannot be achieved by a few quick measures—whether they be land reform, enclosure, state farms or the new seeds and fertilizers of the so-called “green revolution”. This theme is further reinforced by Gordon Mingay’s opening chapter on the significance of the English agricultural revolution, where he stresses that, although the process may have appeared dramatically rapid in contrast with other countries, its roots in fact went back to the sixteenth century. It was the culmination of a long period of gestation—not a sudden spurt.

In mounting the argument for placing more emphasis on the role of the small farmer in development programmes the authors are concerned to stress, in their different ways, certain salient characteristics of small farmers, which they feel have been neglected in the past. Perhaps the most important points which they emphasize are the economic rationality of small farmers, their willingness and ability to respond to market stimuli when allowed to do so; the importance of sustaining the earnings of the small farmer to ensure a reasonably even distribution of income (important in creating markets for new industries), and in preventing migration to towns and resultant unemployment; and the crucial significance of understanding the socio-political conditions necessary for small farmers to be able to adopt new innovations.

The evidence for the economic rationality of small farmers is most clearly shown in Victor Uchendu’s study of farming systems in Ghana, Uganda, Kenya, and Tanzania, where he stressed the way in which farmers spontaneously took up new crops when the economic and social conditions were right (cocoa in the forests of Ghana, and tea and coffee in the Kisii district of eastern Kenya). Sara Berry, in her study of the spread of cocoa farming in south-western Nigeria, also illustrates this point by showing how Yoruba farmers migrated into virgin forest areas to grow cocoa from the 1920’s onwards, in a fashion similar to that revealed by Polly Hill in her celebrated study of Ghanaian cocoa-farming migrants.

The need for a development strategy based on small farmers is also emphasized by Uchendu and

several other authors. Don Kanel, in a study of farmers’ reactions to innovations, based on Denmark in the late nineteenth century, and Pakistan and Central America recently, showed that while new innovations in butter-making had been widely diffused amongst Danish farmers, there was a tendency for the “green revolution” to be adopted mainly by the wealthier farmers in the other two areas, with a resultant increase in poverty and migration amongst the rest of the rural population. Eugene Havens, studying the adoption of new varieties of high-yielding coffee bushes in Colombia in the 1960’s, reports a similar danger. The tendency for innovations to be concentrated in the hands of socially and politically dominant rural groups is also noted by Richard N. Blue and Yashwant N. Junghare in their study of the introduction of high-yielding wheat in an irrigated region of Rajasthan in north-west India. The wheat is dependent on a diammonium phosphate fertilizer for its success, which is in short supply. Despite government attempts to ration it, certain farmers obtained extra supplies, either through the black market or by their ability to manipulate local co-operative societies. As a result many farmer were unable to adopt the improved variety through shortages of the fertilizer. More generally, John W. Mellor stresses the need to adopt strategies which not only support small farmers but also create employment both within agriculture (through more labour-intensive crops like vegetables and fruit) as well as within manufacturing industry (to save imports).

Finally, nearly all the authors lay stress on the importance of socio-political and cultural aspects, as well as economic, especially if small farmers are to be at the centre of the development effort. Havens, Kanel, and Uchendu in particular point to the importance of maintaining a supporting network of service institutions to sustain small farms; such organizations as credit and marketing co-operatives, extension services, adequate roads, and schools,—and not least, the ability to exercise some control over the political process. Where this is lacking technology may be monopolized by élite groups, or farmers may be taxed to support unproductive new industries, as happens in many African countries. Finally, in a perceptive study of the role of a traditional religion (Islam) in Bornu in north-eastern Nigeria, Ronald Cohen shows that religion may not be the blockage to development which is often believed. A religion may be very widely practised as a means of social identification and reinforcement within a community, without necessarily being a strong force in relation to people’s economic or technical decisions.

In conclusion, no summary review can do justice to the wealth of detailed argument and example contained in this stimulating book, which it is to

be hoped will be widely read by those engaged in development planning.

MICHAEL HAVINDEN

VIVIAN WISER (ed.), *Two Centuries of American Agriculture*. Washington, D.C., Agricultural History Society, 1976. 315 pp.

The articles in this volume were presented at a symposium held in April 1975 at the Smithsonian Institution in Washington. There are in all twenty-three articles and comments, together with an introduction by the editor, Vivian Wiser, who usefully summarizes the contents of the contributions.

It is always invidious to pick out individual pieces for detailed consideration when all of the articles contain points of interest and importance, and equally it is impossible to do even rough justice to the collected expertise of so many distinguished scholars within the space of a few hundred words. However, some idea of the scope of the volume may be conveyed by the brief references which follow. In general, it may be said, the particular value of this two-century survey lies not so much in the originality and research which characterize the papers, but in the bringing together in a coherent manner diverse materials which are scattered through many scores of monographs, and basing upon them considered and authoritative judgements.

After a discussion by Thomas R. Wessel of the role of Indians' agricultural production in the course of white settlement, John T. Schlebecker examines in interesting detail the impact of wartime conditions of labour supply and military demands upon markets and farm production in the North between 1774 and 1777. Particularly valuable for its statistics is the consideration by Theodore Saloutos of the contribution made by immigrants to American agriculture. The various national groups showed marked tendencies to concentrate in particular regions, and they made a distinctive contribution to farming techniques and specialization, as well as to life styles. Allan Bogue makes a characteristically valuable contribution, again buttressed by statistics, in surveying the specialist studies made of the development of farm credit in the period from the early nineteenth century to the 1940's. Credit was extended by a variety of local lenders and by institutions such as loan companies and life-insurance companies, and also considered are the effects of federal intervention in this field in the decades after 1916. The paper by William Parker is also characteristic, painted boldly with broad strokes on a canvas of intercontinental dimensions. His theme is the factors influencing the growth of farming productivity in America and the parallels which may be drawn between this development and the main phases of progress which marked the industrial revolution in Europe.

The wide-ranging character of the symposium was enhanced by two papers from our own Andrew Jewell and George Fussell. Andrew Jewell considers such points of contact as the impact in Britain of American farm exports, the American reapers, the enterprise of the American agricultural engineering industry, and the exchange of information on the making of cheeses, to the advantage in this case of both countries. George Fussell's brief account of the role of the English countrywoman is well complemented by three American contributions. Mary Hargreaves discusses the reminiscences of women who came to live on the northern plains, Minnie Miller Brown describes the more arduous and varied part played by the black woman on farms, both before abolition and since, while Gladys L. Baker describes the rise of women in the U.S. Department of Agriculture from humble packers of seeds to positions involving important responsibilities in the scientific, educational, and other branches of the department's activities.

Two sweeping "overviews" of key subjects are provided by Paul Gates and Harry D. Fornari. The first surveys a familiar territory of land policy, bringing out the problems which arose from the conflict of interests between the East and the West. Grain exports is the topic of a second broad survey which ranges from the early years of the nineteenth century to the modern era of surpluses and aid programmes, and includes the growth since the Second World War of exports of rice and soya beans. Yet another familiar topic is the pioneer farmer and his remarkable powers of adaptation to changing conditions of settlement, in forest, prairie, plain, and desert, a story expertly recounted by Gilbert C. Fite. Don F. Hadwiger raises a number of interesting questions in his stimulating discussion of 'Farmers in Politics'. He asks, for example, why farmers, a majority in the nation, resorted to the tactics of a minority, why they ignored inequalities in their own ranks while attacking the lesser inequalities which existed between themselves and other interests, and why poor farmers and farm-workers failed to organize on their own behalf.

The concluding papers are concerned with aspects of the advance of farm technology. Paul E. Waggoner surveys the growth of the agencies which have undertaken the important role of fostering agricultural research and education, while Knowles A. Ryerson deals with the American farmer's debt to the introduction of plants from abroad. Changes in the breeding and feeding of livestock is the story taken up by T. C. Byerley, and Hiram M. Drache examines the revolution in farm size which has occurred, is continuing, and is likely to continue in the future: the farms of the year 2000, he predicts, will be far larger than is conceivable today. Lastly, Don Paarlberg indulges in some gazing in

the crystal ball, and plots the future course over the next two hundred years. Impressive technological advances and a return to country living are among the changes he foresees. On balance, he says, the outlook is optimistic. None of us here, unfortunately, will be able to tell that tale.

G. E. MINGAY

ANTHONY M. FULLER and JULIUS A. MAGE (eds.), *Part-Time Farming: Problem or Resource in Rural Development*. Proceedings of the First Rural Geography Symposium, University of Guelph, 18-20 June 1975. Department of Geography, University of Guelph, 1976. vi + 291 pp. Illus. £6.

Reviewing such conference proceedings is always difficult; with papers from different countries, with papers from enthusiasts, and papers from those needing money for the journey, with critiques and transcripts of discussions and panel talks. The book inevitably lacks coherence, as the papers are printed as presented, with no editorial linkage. Otherwise, the major limitation is the overwhelming concentration on the Canadian view of part-time farming. Over 70 per cent of the papers (in length) are on Canadian—mostly Ontario—issues, and recorded discussion rarely departs from this theme. The rest of the papers are on Europe, and there are brief statements from an international panel (Britain, Italy, Sweden, U.S.A.). There is nothing on Asia, Africa, or Latin America.

The papers were arranged, according to the organizers, to "identify who are the part-time farmers . . . Assess whether part-time farming represents a problem or a resource . . . Identify the relationship between newcomers to agriculture and part-time farming . . . Identify some policy implications." Each of these topics is touched on, but the approach is highly fragmented, and the papers are very variable in quality. J. Mage tries to develop 'A Typology of Part-Time Farming', but his arguments are lost in his almost unreadable English. A. Fuller, on 'The Problems of Part-Time Farming Conceptualized', is little better. Indeed, the greatest problem of part-time farming seems to be the inability of those writing about it to express simple concepts simply, coupled with an obsession with complex statistical manipulations of often rather trivial data.

There are some honourable exceptions. M. Troughton writes clearly and well of hobby farming around London (the Ontario one, of course), as does G. Hutchinson in describing how Guelph's extension programme is 'Educating the Novice Farmer'. One positive achievement of the symposium was the attendance of a large number of government researchers and policy-makers: among them R. Crown of Agriculture Canada, who provocatively

suggests that perhaps "once we cease thinking of part-time farming as an 'issue', what we identify now as problems with it will, in fact, simply go away."

The papers on European topics are mostly short and/or superficial. In one longer and more thoughtful contribution A. Cavazzini takes a socio-political look at part-time farming in central Italy; but the paper seems out of context with the rest of the symposium, which just went on discussing the problems of Ontario. The statements of the international panel are too short to be useful, though the closing nine-page résumé by D. Christodoulou of F.A.O. is perhaps the highlight of the book.

For those who want to keep in touch with part-time agricultural studies in Ontario, and who are prepared to wade through much turgid prose and dizzily rotating factor analyses, this book might be worth while. Those hoping for a general overview of the subject, with an examination of part-time farming in developed and underdeveloped countries, with consideration of the varied roles of social, political, and land-tenure systems, will be disappointed.

ROBERT S. DILLEY

C. DUNCAN RICE, *The Rise and Fall of Black Slavery*.

Macmillan, 1975. xiii + 427 pp., 23 plates. £10. This is a welcome and much-needed book. It seeks to offer an overview of the rise and fall of Negro slavery from the sixteenth to the nineteenth century. The book was born "in a fit of intellectual arrogance," after the author, while attempting to give a course of lectures on 'Slavery and Anti-Slavery Movements', found there existed no introductory book to his broadly conceived subject. His aim, he tells us, is to present "a short introduction to the whole history of black slavery and anti-slavery in the Americas and Europe" (p. xi). His intended audience is the general reader, and his viewpoint appears to be that of an Anglo-Saxon with special reference to his Scottish and American academic affiliations.

Rice's is indeed an exciting subject, to which a host of scholars has significantly contributed in recent years. This host includes Charles Boxer, Philip Curtin, David Brion Davis, Eugene Genovese, Roger Anstey, Aileen Kraditor, and Carl Degler. The specialist may lament that Rice has neglected the work of Johannes Postma on the Dutch slave trade, of W. R. Higgins on the South Carolina trade, of Richard B. Sheridan on the Caribbean trade, as well as others. Moreover, the ongoing debate among historians on the subject of slavery and anti-slavery has produced a number of important books since Rice completed this work.

Recent scholarship has exploded a number of myths about the slave trade, slavery, and anti-

slavery. Professor Rice is familiar with most of this scholarship. Philip Curtin has revised downwards the estimate of the number of slaves transported across the Atlantic from fifteen to just under ten million (though Rice keeps putting the figure at eight). Carl Degler and others have destroyed the interpretation put forward by Frank Tannenbaum that Catholic America, through Church and Crown, protected the slave far better than Protestant America. Developing the new view, Rice suggests that comparing slave societies by function (e.g. sugar cultivation) and demography is more revealing than by religious or national differences. In all instances the power of the master over the slave was "complete and absolute," and in this view, "black slavery in the Americas can be seen as a single institution" (p. 100).

The black scholar Eric Williams, in *Capitalism and Slavery*, has argued that the slave trade and plantation slavery provided the profits for the industrialization of Europe, and that Europeans turned abolitionist when free-trade interests in England and soil exhaustion in some of the older Caribbean islands made abolition of the trade expedient. Reviewing the controversy, Rice declares that the profits of slavery were woefully inadequate to finance the industrial revolution, that there is no demonstrable connection between the parliamentary vote on abolition and the interests cited by Williams. To all this he appends his own research showing "that after emancipation the British abolitionists fought a desperate rearguard action *against* free trade in sugar, since this would give a new impetus to slavery in Cuba and Brazil" (p. 223). Humanitarianism figured importantly in bringing to an end the British slave trade.

A final theme is the significance of abolitionist thought; and borrowing heavily from David Brian Davis, Rice asserts that this thought represented a profound intellectual change, which went along with economic change. The interplay of the two is fundamental to the understanding of abolition. He concludes that what was new in modern history was not slavery, not even black slavery, but the idea of abolition. With this idea, the abolitionists "presided over the greatest turning-point in the history of human society" (p. 400).

In addition to some omissions in research there are some surprising slips in scholarship, but on balance C. Duncan Rice has offered a sound, well-written book which should please the general reader.

JAMES A. RAWLEY

BRIAN DAVEY, *The Economic Development of India: A Marxist Analysis*. Nottingham, Bertrand Russell Peace Foundation for Spokesman Books, 1975. 232 pp. £6.25.

The main argument of this book may be sum-

marized as follows. It is the capitalist mode of production which has accounted for the extraordinary break in the history of mankind. However, despite its success in the advanced capitalist countries of today, capitalism failed to develop the productive forces in "Third World" countries like India. There are historical reasons for this. Pre-British Indian society lacked the dynamic element which might have led to the development of productive forces and of capitalism. Social relations, in which caste played a key role, were based on dependence, and both the ruling class and existing forms of capital extracted the social surplus in a parasitical fashion from the direct producers. Under the British, India was integrated into the world capitalist economy but imperialism took away resources that could have sustained India's development, and the colonial state neglected to provide the necessary overheads for competitive industrialization. Since 1947 the Indian State, which is based on a coalition of social classes, has been too weak to make decisive developmental efforts where these contradict the interests of any members of the coalition. India has therefore remained in a subordinate position in the world capitalist economy, and this cannot in turn be dealt with except by revolutionary changes within Indian society. The overall trend in India is to increasing inequality with a low rate of overall economic growth. This will force the impoverished masses into rebellion, in which the peasants will be led by the proletariat, since the bourgeoisie will obviously not expropriate themselves in order to play the leading role in liberating the peasantry.

The methodology underlying this argument is that of the Marxist method of social analysis, but it is not based to a great extent on Marx's writings, for Davey rightly believes that although Marx had some important insights his sources for analysing Indian society were inadequate and sometimes incorrect. In fact, the author quotes Trotsky as often as Marx and more often than Lenin.

The first half of the book is devoted to historical background and includes a brief discussion of British efforts to develop agriculture and of changes in the pattern of agrarian relations under British rule. This part of the book, which shows how capitalism developed alongside the pre-capitalist mode of production, is clearly argued, but does not say anything new. It is based on a good, but by no means exhaustive, range of secondary works. In the second half, Davey launches a powerful critique of the failure of the post-independence Government of India to carry through a thorough-going reform of Indian society. To blame are the propertied classes within India, who control the government, and "imperialist" countries whose policies are designed to retain India within the ambit of the world capitalist economy. A chapter on 'Agriculture and

Rural Society' summarizes reasons for the lack of real development in the countryside, principally the failure of land-reform legislation and the consequent persistence of gross inequalities in rural society, and the ability of the better-off peasants and the landowners to corner the benefits of the "green revolution" for themselves. Again, none of this is new, but the author's purpose is not to provide new facts, rather to fit the known facts into an ideological framework which leads to, and justifies, an inevitable conclusion—an end to private property in the means of production.

At this point, the author leaves economic analysis for political advocacy and the book ends with a brief sketch of a strategy for South Asian revolution. Since the book was written, events in India seem to

have set back the chances of such a revolution when Mrs Gandhi, backed by the capitalists and bureaucrats, set about repressing the proletariat which, according to Davey, will be in the vanguard of the movement to liberate the peasants. She did this with the support of the Communist Party of India which, as Davey himself points out (p. 165), on the orders of Moscow helped the Congress to contain incipient peasant revolt on the morrow of independence. Perhaps Davey has been misled by his determinist view that history is the product of impersonal forces (e.g. pp. 36, 181) rather than of the actions of men—and women. He has written an interesting book, but one which is a "tract for the times" rather than a conventional economic history.

PETER HARNETTY

Shorter Notices

AXEL STEENBERG, *The Common Fields of Culture*.

Copenhagen, 1976. 110 pp. 54.80 Danish kr.

Published to mark the occasion of Axel Steensberg's seventieth birthday, this volume contains a bibliography of his numerous published works on such wide-ranging subjects as agriculture, archaeology, crafts and domestic industries, harvest, ploughs, rural customs and culture, and other related topics. Also included are English translations of two of his more than 300 printed works: 'The Concept of Culture', and 'Caritas Romana, or the Story of the Imprisoned Cimon and his Self-Sacrificing Daughter'. Copies of the book may be obtained from the Nationalmuseets forlag, Raadvad, DK-2800 Lyngby, Denmark.

TADEUSZ LEWICKI, *West African Food in the Middle Ages*. C.U.P., 1974. xv + 262 pp. Map. £8.

This is a most valuable translation into English of a work first published in Polish in 1963. Professor Lewicki is an Arabist of international fame, who has made a detailed study of the works of Arab travellers and geographers relating to West Africa, from the tenth century to the early sixteenth. The works, in fact, are valuable for even earlier periods because they include material from ancient manuscripts now lost, dating back to the eighth century. Although some of these works have been translated into English or French in the past, they have never previously been examined systematically by an expert Arabic scholar from the point of view of economic and social history. Professor Lewicki deals with the principal cereals, meats, fish, fats, beverages, and spices consumed in West Africa before

the Far Eastern and American trades, begun by the Portuguese in the fifteenth century, revolutionized the food economy of West Africa. Modern staples like maize, cassava, groundnuts, and cocoa are all of American origin. Lewicki's book is the most thorough account yet published of the diet of West Africa in medieval times, and also includes some interesting information about menus, methods of cooking, and ways of storing and preserving food. Our understanding of the agricultural and social life of an important African region in pre-colonial times is greatly enhanced by this book.

MICHAEL HAVINDEN

ELIZABETHAN CRITTALL (ed.), *The Victoria History of Wiltshire, Vol. X*. O.U.P. for University of London Institute of Historical Research, 1975. xix + 347 pp. Illus. £27.

Volume x of the *Wiltshire V.C.H.* (the eleventh volume to be published) deals with Swanborough hundred and the borough of Devizes. Situated in the centre of the county, Swanborough hundred includes the western end of the Vale of Pewsey, and on the north ascends the south-facing escarpment of Marlborough Down, and on the south the north-facing escarpment of Salisbury Plain. The majority of the parishes are of the long and narrow spring-line type, with the settlements situated on the porous greensand or valley gravels of the Avon valley, and their lands stretching over clearly defined belts of meadow and arable to the rough grazing on the chalk down or plain. Devizes is not an integral part of the hundred, which boasts no market town, though Market Lavington, which had a

population in excess of 1,500 in the mid-nineteenth century, was once a place of some importance until its foundry was closed and its malt industry declined.

The main market centres for the hundred were at Devizes and Pewsey. Devizes, which takes up ninety pages of the volume, developed a textile industry in the Middle Ages, but by 1828 all the clothiers had departed. Glove-making and leather declined too, but brewing and malting grew in importance from the mid-sixteenth century. Agricultural engineering added to the town's prosperity in the nineteenth century, together with dairy and bacon companies and brick and tile works. Long important for its livestock fairs, the town developed as a centre of commerce, and had a population in the later nineteenth century of some 6,500.

This volume fully lives up to the standards of scholarship and production traditionally associated with the *V.C.H.* But, as ever, its parochial framework makes it a cumbersome tool for the agricultural historian, and the index is far from helpful to him.

K. J. ALLISON (ed.), *Victoria History of the County of York: East Riding III*, O.U.P. for Institute of Historical Research, 1976. xvi + 220 pp. Illus. Maps. £27.

This volume deals with Ouse and Derwent wapentake (a uniform district bounded by two great rivers), and the western half of the Wilton Beacon division of Harthill wapentake, which appears to have been added so as to make the volume of standard size. Here, agriculture has always been the chief occupation, and there is much that will interest readers who have the patience to piece together the information contained within the usual rigid divisions.

Much of the land lies at about 25 feet above sea-level, and large tracts are lower still. The district was well wooded, with extensive wastes, and a considerable part lay within a royal forest until 1234. Medieval reclamation is one theme worth exploring in detail. Another is the pre-parliamentary enclosure of open fields and common pastures, and the development of convertible husbandry. The limitations of the *V.C.H.* approach are sadly evident here. The detailed replies of the farmers of Ouse and Derwent wapentake to the Georgical committee (printed in R. V. Lennard, 'English Agriculture Under Charles II', *Econ. Hist. Rev.*, iv, 1932, pp. 23-45) are ignored because they are not on a parish basis, and they did not appear in the section dealing with the agriculture of the county as a whole, as that was published twenty years before the returns came to light. One wonders how many other records, less well known, are discarded in this way because they do not fit into the format? The *V.C.H.*

cannot even be regarded as a comprehensive work of reference.

On a brighter note, there is a short account on page 9 of home-grown chicory in the later nineteenth and early twentieth centuries, when Dunnington was known as "the English chicory-growing metropolis." The information contained within the volume has been assembled with great care and scholarship.

DAVID HEY

AVROM SALTMAN (ed.), *The Cartulary of the Wakebridge Chantry at Crich*, Derbys. Arch. Soc. Record Series VI (for 1971), 1976. 202 pp. No price stated.

While agricultural historians will not rush to buy this book, anyone interested in medieval ecclesiastical history will find that the Derbyshire Archaeological Society has done them a considerable service in publishing this cartulary. The editor's introduction provides a useful guide to the intricacies of chantry foundation in the fourteenth century; William of Wakebridge, the founder, emerges as a man of no little persistence and circumspection. Editor, proof-readers, and printers have combined to produce an unflawed and well-indexed volume, but the absence of a map is sorely felt. The confused and confusing topography around Crich needs one here. While it would be a great pity for local record societies to move away from publishing specialist texts, it is a pity that this volume has little to offer Derbyshire people. Perhaps some future publications of the society will seek to meet the needs of specialist and non-specialist alike. This cartulary is very much for the former.

ANDREW JONES

R. H. HILTON (ed.), *Peasants, Knights and Heretics: Studies in Medieval English Social History*. C.U.P. 1976. 330 pp. £5.

This volume collects together fifteen papers which appeared in *Past and Present* between 1958 and 1973. They include a number of the most significant contributions to medieval studies made in the past twenty years: the Thirsk-Titow controversy over common fields, P. D. A. Harvey on the inflation of 1180-1220, Ian Kershaw on the agrarian crisis of 1315-22, and Sally Harvey on the knight and knight's fee; there are, too, Professor Hilton's discussion of freedom and villeinage, Christopher Dyer on the question of income redistribution in the fifteenth century, and Barbara Harris's account of landlords and tenants on the Buckingham estates; there follows a *mélange* of articles on Robin Hood, from Messrs Hilton, Holt, and Keen, and the selection concludes with Margaret Aston's paper on lollardy and sedition 1381-1431. Professor Hilton contributes an introduction which succeeds in

elucidating the links between the various essays. Specialists in medieval studies who need to refer to these important papers, or refer their students to them, will find this a highly useful collection.

RICHARD POTTS (ed.), *A Calendar of Cornish Glebe Terriers, 1673-1735*. Devon and Cornwall Record Society, n.s., XIX, 1974. xxxiv + 210 pp. £3.

Details of the glebe lands and agricultural tithes in Cornwall given in this work are of considerable value to agricultural historians. Only a few parishes of the county are missing, notably a group in the vicinity of Falmouth, but for many there are entries for the years 1679-80 and 1726-7. The editor's comprehensive and thoughtful analytical introduction is supplemented by Veronica M. Cheshier's succinct account of the variety of parsonage houses occupied by Cornish clergy in late Stuart and early Hanoverian times. The terriers' enumeration of stables shows that most incumbents kept a horse for transport, but cart or wain or coach-houses were scarcely known; mention of dairies, however, within or alongside parsonages may not have indicated cow-keeping, for tithe details recorded a complexity of levies upon dairy produce. The parson's pig, the theft of which was the theme of a west-country ballad, was wellnigh ubiquitous, judging from the pig-sties listed in nearly every terrier. The tithe details show a process of monetary commutation getting under way, though much was still paid in kind, and along with cases of much local accommodation between clergy and parishioners, there were instances of bitter friction and disputes as well. Fairly frequent listing of malt- and brew-houses, and occasionally of hop-gardens, reinforces theories of local self-sufficiency and self-help in providing the necessities and comforts of life in these days. These details, of course, are of great interest to local historians, and their accumulation enables a wider regional study to be made. From St Neot emerges a matter of rather more than local or county interest for, in 1680, Thomas Philp recorded that the vicarage had been savagely plundered during the Civil War, but neither he nor his churchwardens felt called upon to mention that the medieval stained-glass windows of the church had escaped scot free from the attention of Cromwellian iconoclasts.

JOHN ROWE

E. M. YATES, *Buriton and its People*. Petersfield Papers no. 2, Petersfield Historical Society, 1975. 48 pp. £1.

C. D. ROGERS, *The Lancashire Population Crisis of 1623*. Manchester University Extra-Mural Department, 1975. 34 pp. 60p.

Although necessarily brief in compass, both booklets are excellent examples of the improving stan-

dard of local history in this country in recent years. Dr Yates offers a concise history of a Hampshire parish, concentrating on the turnover of population by migration and changes in the pattern of settlement. A wide range of sources is used to trace the steps by which a peasant structure gave way to the classic landlord-tenant-labourer system, and in recent years to an influx of professional persons and retired officers who have turned the labourers' cottages and the poor-house into desirable residences. The general issues of rural social change are never lost sight of, and the author's interests are far from being narrowly parochial.

The same is true of the W.E.A. group at Bolton, led by Mr Rogers. Although Lancashire is already known to have experienced signs of a population crisis in 1623, members of the class have worked through over fifty parish registers for the period, and conclude that the primary cause was almost certainly famine which carried mortality to over twice its normal level and sharply reduced marriages and conceptions. This accords with the arguments propounded for Cumberland and Westmorland by Laslett (*The World We Have Lost*, pp. 119-22) and Appleby (*Econ. Hist. Rev.*, xxvi, 3, 1973), and is a matter of some significance for agrarian as well as demographic historians, since in the present state of knowledge this seems to have been the last occasion when mortality rates in this country can be shown to have been unequivocally and systematically raised by direct starvation.

W. A. ARMSTRONG

W. J. KEITH, *The Rural Tradition*. Hassocks, Sussex, Harvester Press, 1975. xi + 310 pp. £7.50. Professor W. J. Keith has already put agricultural historians in his debt with his study of Richard Jefferies. Here he widens his approach by taking a critical look at a long series of non-fiction writers who concerned themselves with the English countryside of their day. His subjects stretch from Izaak Walton and Gilbert White down to Edward Thomas, Henry Williamson, and H. J. Massingham, and include along the way Cobbett, Mary Russell Mitford, George Borrow, Jefferies, George Sturt, and W. H. Hudson.

The author's aim is to "clear the ground" towards the task of tracing the continuities existing between the various writers, examining the critical problems inherent in their writing, and testing the "cogency of thinking in terms of a possible 'rural tradition'." He makes the point that the nineteenth century, which saw the decline of the English countryside, was also the great age of nature writing, and that the countryside came to be cherished only when it was sorely threatened, and cherished most by those who threatened it—townsmen. For it was mainly townsmen who provided the market which

These writers tapped. Rural writers, it is true, showed a tendency to hark back to some mythical golden age, a concept of which historians are justifiably sceptical. But the author argues that the writers were in fact realists: they wrote about the countryside they knew and the pictures which they drew were based on the facts—at least as they saw them.

Professor Keith's chapters on the individual writers will be enlightening and stimulating to those of us who are familiar only with the best-known of the works discussed, and who have still to make a first acquaintance with the many others. The material on the authors' careers and attitudes is valuable in itself, and indeed is essential for relating their writings to the history of the period. And for those for whom the literature is well-trodden ground, the author's insight and viewpoints will be refreshing. And, for additional measure, a concluding chapter considers briefly, but illuminatingly some further contributions to the literature, notably those of Flora Thompson, A. G. Street, George Ewart Evans, and Ronald Blythe. Indeed, all of us interested in the development of the modern countryside will find this a thoughtful and thought-provoking volume.

Agriculture in Essex c. 1840-1900 in Documents, Maps, Prints and Pictures, compiled by R. G. E. Wood, Essex County Council, Chelmsford (Essex Record Office Publ. no. 67), 1975. 40 illus. £1.20.

This useful publication (no. 7 in the Seax series of teaching portfolios) consists of forty illustrated sheets reproducing pages of documents, maps, and pictures of farming life in Essex, mainly in the second half of the nineteenth century. An accompanying leaflet provides an introductory commentary, index, and bibliography, and the whole is contained in a plastic portfolio. Each sheet has some explanatory notes on the reverse.

Most of the items come from originals in the Essex Record Office, and together they form a valuable tool for local history classes interested in the sources of the period. The illustrations are arranged to form a series of topics, which include farming routine and machinery, agricultural improvement, the contemporary concern for the labourer, and the Great Depression. Some of the more interesting reproductions concern a landowner's comments on Corn Law Repeal, the prizes offered in 1847 by a local agricultural society, an illustration of J. J. Mechi's farm at Tiptree Hall, portraits of a farm labourer (1888), a notice confirming the labourer's right to vote as he pleased (1885), newspaper evidence of the effects of the Depression, and a dairy class at the Countess of Warwick's "Secondary and Agricultural School" at Dunmow, 1901.

This is a varied and valuable compendium for school and adult use which will undoubtedly help to bring the subject to life in the classroom.

ERNEST C. PULBROOK, *English Country Life and Work: An Account of some Past Aspects and Present Features*. Wakefield, EP Publ., 1976. ix + 243 pp. Illus. £5.50.

This little-known work was first published in 1922 by Batsford, and is now republished with the many very interesting and unusual photographs of the original. At this point of time the text is the more interesting for its period character, and for the wide-ranging information it provides of the survival of ancient country crafts and customs into the early decades of the present century. The author concentrated on the countryman and his round of work and leisure, and he succeeded in bringing out the great variety of life on field, hill, common, moor, woodland, and waterside, as well as gatherings for sport, worship, and country festivals.

Both the attractively written text and the fascinating illustrations bring alive a countryside which has now, more than fifty years after the book was written, largely disappeared—one still dominated by traditional ways of doing things. The work is a valuable record, impressionistic and unstatistical as it is, of a vanished way of life, and the publishers are to be congratulated on their imagination in making this reprint available.

I. H. ADAMS, *Agrarian Landscape Terms: A Glossary for Historical Geography*. Inst. Brit. Geog. Special Publication no. 9, 1976. xii + 314 oo. £4.60.

The title of this glossary is excessively modest. The body of the work defines and describes a great number of terms which range far beyond the bounds of what is usually thought of as historical geography. As the author states, "the widest interpretation was taken of the range of terms to be included . . . the farming community and its methods of cultivation are as important to the historical geographer as the physical patterns of landscape." The consequence of this breadth of approach is the production of a volume which is as invaluable for the historian as the geographer. The glossary is divided into sections which include such topics as tenures, houses and outbuildings, the open fields, grazing lands, forests, rural industry, boundaries, crops, animals and implements, cultivation, and the farming community. Among the tenures we have explanations of such arcane terms as bookland, byholt, conacre, old barton, cow's grass, cullery, drengage, folkland, gwely, kindly tenant, soiled land, steelbow contract, venville, and waterkyle; and in the section dealing with cultivation we have no fewer than twenty-six terms used to describe various kinds of fallows.

References are given to books and articles in a bibliography extending to over 70 pages, and there is a comprehensive index. One cannot but admire the energy and care which Ian Adams has expended on the accumulation of this storehouse of information. It should find a place on the shelf of every researcher into the agrarian scene: we are much in his debt.

WAYNE D. RASMUSSEN (ed.), *Agriculture in the United States: A Documentary History*. New York, Random House, 1975. Vol. I, xxii + 912 pp.; vol. II, ix + 1,078 pp.; vol. III, viii + 923 pp.; vol. IV, vii + 739 pp.

So well-worn a cliché as "mine of information" seems more than a little inadequate to describe a great work of reference, though this work is truly a mine in which scholars will delve deep, long, and profitably. Wayne Rasmussen, of the U.S. Department of Agriculture's Economic Research Service, and doyen of American agricultural historians, has put scholars enormously in his debt by his labours on this impressive compilation.

The collection is grouped chronologically by periods and themes, and includes legislation and official reports, as well as excerpts from learned discussions, travel accounts, diaries, farm manuals, letters, and newspaper articles and advertisements. The volumes range from the colonial period (with an element of European background contributed by Messrs Tusser and Tull), through the age of rapid technological development and growth of commercial farming in the nineteenth century, down to the New Deal and post-Second World War developments. The first American document is taken from John Smith's 1616 *Description of Virginia*, and the last is from a paper on the structure of agriculture delivered as recently as 1973. On the way we have in addition to the staple subjects such diverse topics as Indian farming, the silk industry in Georgia, food supplies during the Revolutionary War, invention of the cotton gin, soldiers' land bounties, imports of Hereford cattle, Hussey's reaper, agricultural colleges, Abraham Lincoln on agriculture, Brigham Young on manufactures, Texas cattle fever, milk supply of cities, wine-making in California, farm wages in Illinois, the boll-weevil, rural electrification, the reindeer industry in Alaska, management of Indian lands, Negroes and the post-Second World War farm programmes, hybrid corn, the broiler industry, dry-land farming, and the contribution of women to co-operation. There is much, much more, but perhaps this random selection of a few items will succeed in conveying the extraordinary richness of the whole.

Dr Rasmussen's major goal, as he states in his preface, is to illustrate the changes which have taken place in American farming. Not only has he done that admirably, but he has also given scholars an

indispensable tool for teaching and research. It is a collection which should be in every library that concerns itself with American history.

AVROM SALTMAN, ed., *The Kniveton Leiger*.

H.M.S.O. 1977. xxxiv + 316 pp. Map. £25. This volume appears as No. 24 in the Joint Publication Series of the Royal Commission of Historical Manuscripts, and forms No. 7 in the Record Series of the Derbyshire Archaeological Society. The leiger or cartulary of the Kniveton family of Bradley in Derbyshire is a rare early fourteenth-century example of its kind. It documents the rise to local eminence of an obscure Danelaw family in the thirteenth century.

GLANMOR WILLIAMS, *The General and Common Sort of People, 1540-1640*. University of Exeter, 1977. 32 pp. 50p.

The title of this memorial lecture is taken from George Owen, the antiquary of Tudor Pembrokeshire. For the benefit of the amateur historian, Professor Williams considers recent work on this period, with its emphasis on the need to study the whole structure of society, and its concentration upon regional and local history. After considering which social groups made up the general and common sort, what sort of sources provide information about them, and what questions might profitably be asked of these sources, the author stresses the value and interest of this approach, and urges an appreciation of the deep-seated attachment people had to their own community.

DAVID HEY

C. P. HALL and J. R. RAVENSDALE (eds.), *The West Fields of Cambridge*. Cambridge Antiquarian Records Society, III, 1976. xi + 168 pp. 6 maps.

The main part of this volume is an edition, with the contractions that have caused much confusion duly extended, of a terrier of the Cambridge West Fields drawn up originally in the period 1352-65. It is, of course, a famous document. Seeböhm studied it in the 1880's, and found in it "almost every one of the features" of the open-field system; and in the 1890's Maitland thought if "the most elaborate thing of its kind that I have ever seen", from which someone with "time to spare and taste for the Chinese puzzle" might map these fields in detail. The editors have at long last put this document into print; they have mapped the fields, or at least their basic components; and their introduction provides a context making the laconic entries of the terrier meaningful. They deal in particular with its description of the land parcelled into sections and gores, strips and doles, furlongs and closes, fields and seasons, to say nothing of the balks, large and small,

which the Orwins strangely thought were seldom mentioned. They further seek to reconstruct the way in which the West Fields were made, and how they had reached the stage of evolution depicted in the terrier, and to these investigations they add a study of the history of landownership and tithes-ownership in them. They properly warn us that these are town, and not village, fields, and for that fact allowance must be made; but this hardly detracts from the importance of this Cambridge survey for the history of English open fields. We can only be grateful that it is at long last generally available in a scholarly edition.

EDWARD MILLER

SANDRA RABAN, *The Estates of Thorney and Crowland: a study in medieval monastic land tenure*. University of Cambridge, Department of Land Economy, Occasional Paper No. 7, 1977. 106 pp., £1.80.

This small book sets out to discuss mainly the acquisition of the estates of two of the middle-sized Fenland monasteries. The different policies of endowment, the relatively poor level of further gifts, the "disendowment" consequent upon the Conquest (10 per cent at Thorney, 20 per cent at Crowland), and subsequent benefactions and purchases are treated at length; the section on improvements is relatively weaker, and there is nothing on estate management such as Dr Page explored in her earlier volume on *The Estates of Crowland Abbey* (1934). It is a useful book, one which shows that small books can still be produced both pleasantly and cheaply; it is obtainable from the Department at 19 Silver Street, Cambridge.

ALAN ROGERS

GRANT LONGMAN, *A Corner of England's Garden. An Agrarian History of South West Hertfordshire, 1600-1850*. The Author, 48 Duncan Way, Bushey, Herts., 1977. 2 vols., iv + 96 pp., 75 pp., plates, maps. £4.50.

Mr Longman's useful and readable short study is a reworking of his M.Sc.Econ. thesis and is designed "for both the general reader and the specialist." The division between the two kinds of reader is effectively established by confining the actual text to the first volume and by devoting the second to a lengthy collection of documentary appendices and to tables concerned with crop and livestock distribution, acreages, and population and taxation returns. The book is well produced and agreeably illustrated with nostalgic nineteenth-century photographs and prints (including one of O'Connorville, the Chartist land colony at Rickmansworth). Since the attempt is made to survey two and a half centuries of agrarian history the coverage at times is unavoidably sketchy. But Mr Longman succeeds in bringing out

the changing patterns of the farming systems in his region, and is particularly good on the diffusion of agricultural innovations. The book is clearly based on painstaking research and utilizes a vast assortment of inventories, rent rolls, account books, tithe maps, hearth and land tax returns, and enclosure awards. Its strength derives from the author's intimate familiarity with the farms, families, and buildings of his locality. Its weaknesses are simply the reverse side of the coin of parish-pump history. Comparisons with other parts of the country are largely absent, the effects of the growing demands of the metropolitan market are inadequately assessed, and just occasionally the moralist and the romantic in the author take over from the historian.

R. C. RICHARDSON

P. D. A. HARVEY (ed.), *Manorial Records of Cuxham, Oxfordshire, circa 1200-1359*. H.M.S.O. for Oxfordshire Record Society and Historical Manuscripts Commission, Joint Publications Series No. 23, 1976. xviii + 839 pp. 2 plates. £25.

Some ten years ago Mr Harvey published an excellent study of the economy and organization of the Oxfordshire manor of Cuxham, and the volume now under review is the collection of documents on which that study was based and forms a natural sequel to it. After having worked my way through it, my reaction to this new offering was one of envy and admiration; envy because very few scholars can ever hope to have so much of their basic material published so handsomely, and admiration for the tremendous amount of painstaking effort which clearly went into its preparation.

It must be emphasized from the start that this is not just another collection of manorial documents. I know of no other publication which brings together in one volume such a comprehensive and varied range of manorial, and associated, documents illustrative of the workings of the medieval manor. The bulk of the documents naturally consists of account rolls and court rolls but there are also examples of charters, surveys, tax assessments, indentures of stock and utensils, lists of debtors, and many others. A particularly useful feature is the inclusion of examples of manorial accounts at various stages of their preparation. I should not be at all surprised if this book became the basic textual compendium for all students of manorial history, and both the editor and the joint sponsors of the project must be warmly congratulated on their achievement.

The price, £25, is unfortunate but, at least this once, fully justified by the obvious typographical difficulties involved in producing a most meticulous scholarly edition of varied and often complex texts.

It could no doubt be argued that too much editorial care has been lavished on documents which, after all, have little claim to any special linguistic or literary merit, but personally I have never been inclined to regard perfection as a fault. There are also additional bonuses in the form of tabulations of manorial statistics and a very useful glossary of unusual words or spellings.

J. TITOW

EDWARD L. and FREDERICK H. SCHAPSMEIER,
Encyclopaedia of American Agricultural History.
Westport Publications, 1976. xii + 467 pp.
\$25.

The extraordinary industry of the Schapsmeier brothers has produced in this *Encyclopaedia* a tool which will be of immense usefulness for students of American agricultural history. Indeed it will be valuable also for those interested in present-day farm matters for the entries include many subjects relating to the 1970's as well as earlier periods. The treatment is comprehensive and detailed, within the limitations imposed by a single substantial volume. A random selection of entries which may give some idea of the coverage ranges from the *Agricultural Adjustment Acts*, *Andy Adams* (the cowboy writer), *barbed wire* and *claims committees*, all the way to *xerga* (a sheepskin used in the Southwest as a saddle blanket), the *Yazoo land fraud* of 1795, and *zanjero* (a Southwestern term for a digger of irrigation ditches). The novice in the field who is puzzled by such terms as *grits*, *hoosier*, *Natchez trace*, *podunk*, *prairie turnips*, and *rednecks* will do well to consult this new reference work.

Typical entries include not only explanatory details, dates, and other factual information but also lists of authors' works and references to sources of further information. Included among the entries are political figures and organizations, Indian leaders, and western writers and historians, including those practising their craft at the present. Special indexes provide under a variety of headings lists of persons and subjects for which there are entries. There are fifty-five of these special indexes listing entries under such headings as *Agencies and Commissions*, *Agricultural Education*, and *Agricultural Historians* down to *Transportation*, *Utopian Societies*, and *Writers*. Could one really ask for more?

G. E. MINGAY

J. A. PERKINS, *Sheep Farming in Eighteenth and Nineteenth Century Lincolnshire*. Society of Lincolnshire History and Archaeology Occasional Papers for Lincolnshire History and Archaeology 4, ed. R. W. Ambler, Sleaford, 1977. 58 pp. 14 illustrations. £1.40.

After about 1720 a long, slow decline in the fortunes of specialist graziers in Lincolnshire was reversed

only briefly during the French Revolutionary and Napoleonic Wars, and for a short spell in the post-war years. J. A. Perkins traces the process and places it firmly within its agricultural, industrial, and social context in a paper which is surely a model of its kind. The place of the grazier in the rural economy of the early eighteenth century is described, and then the trends of wool and mutton prices, and the producers' responses to them are examined in detail. Encouragement for wool export, restrictions of imports, social pressures like the Stuff Ball, the attempt to create a local woollen manufacturing industry and to alter marketing methods to help the specialist grazier were all in vain. Only when he gave place to the mixed farmer raising Improved Lincolns for their mutton and wool was the place of sheep farming assured on a new, more modest, but competitive scale. Once the painful change had been made, Improved Lincolns were to win for their breeders and their county international repute in the late nineteenth century.

The creation and the diffusion of the Improved Lincolns, and their relationship with the New Leicesters from Bakewell's establishment at Dishley, are shown to be the work of a relatively small group of breeders from the Cliff farms north of Lincoln and from the Wolds. Benjamin Codd of Glentworth, Samuel Slater of North Carlton, John Dudding of Barton, and Philip Skipworth of Aylesby were some of the pioneers. Responding to new economic trends, they and their kind were to integrate sheep farming with arable farming on the uplands of Lincolnshire as an element in a successful mixed farming economy based on turnip feeding. If this meant decline and stagnation for the lowland parishes where the specialist breeders of the Old Lincoln long woolled sheep had once reigned supreme, it meant by the 1850's success and prosperity for the light soils of the uplands, where the new Lincoln breed was believed to have "no equal as a rent paying animal". It was hardy and easy to handle, and its spread to other parts of the British Isles, to Europe, South America, Australia, and New Zealand was the result of its combination of good quality mutton and wool in sufficient quantity to ensure good returns which helped to stabilize farm incomes in periods of short-term price fluctuations.

This paper is a most thorough and detailed addition not only to the history of a famous breed but also to our understanding of the links between sheep rearing and arable farming in a leading agricultural region during a period of fundamental change. Finally, in these days of pinched presentations it is a pleasure to commend the high quality of the finish of this article, at £1.40 excellent value in every way.

T. W. BEASTALL

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John Ellman of Glynde in Sussex

By SUE FARRANT

BETWEEN 1780 and his death in 1832, John Ellman became a farmer of such repute that his presence at important agricultural gatherings was reported in the national agricultural journals along with that of such noble enthusiasts as the Duke of Bedford and the Earl of Egremont, and that he entered into correspondence with other, better-known agricultural improvers, such as Arthur Young, Coke of Norfolk, and Robert Bakewell.¹ Though Ellman's reputation in Sussex was that of the major publicist and improver of the Southdown sheep, there has been little assessment of how he became well known locally and nationally, and of the extent to which he contributed to the improvement of the quality of the sheep, or indeed to other aspects of husbandry.² A related question is the role of Arthur Young as publicist of Ellman's farm, and in particular his sheep, in the *Annals of Agriculture* from the mid-1780's.³

I

John was born in 1753, the son of Richard and Elizabeth Ellman. His father farmed in the Wealden parish of Hartfield until 1761, when he became the tenant of Place Farm in Glynde, also known as Great Farm, which belonged to the Trevors, who owned most of the parish.⁴ Richard Ellman's role in establishing the quality of the farm that John subsequently tenanted has probably been underestimated.

¹ For example, his presence at Holkham was noted in 'Account of Holkham Sheep Shearing', *Farmer's Magazine*, vii, Edinburgh, 1806, p. 348. J. Ellman, 'On Folding Sheep' (extract of a letter from Ellman to Sir John Sinclair), *Annals of Agriculture* (hereafter abbreviated to *Annals*), xxxviii, 1802, pp. 5-8.

² He conducted experiments as, for example, J. Ellman, 'Steeping Wheat Seed', *Annals*, xxxii, 1799, pp. 192-4.

³ Ellman's farm and sheep were first mentioned in the *Annals* in 1789 in A. Young, 'A Tour Through Sussex', *Annals*, xi.

⁴ East Sussex Record Office (hereafter abbreviated to E.S.R.O.): Glynde MS. 1908, lease of Place Farm, 1761.

The former's account book for 1779 to 1780, and his wage book from 1773 to 1780, were continued by John after 1780.⁵ The account book suggests that Richard had already established the grazier business which John was to make very prosperous; and that he understood the importance of management of accounts, a skill which John also had, and put to good use in his own affairs and as the expeditor (or water bailiff) of Lewes and Laughton levels. John claimed that he had only two winters at school, and considered his education to be very inadequate; as an adult he read in the winter evenings with Mr Davies, the Vicar of Glynde, to improve his education.⁶ However, his father was probably correct in assuming that the education available locally was of little value to a farmer, and that practical experience was of more importance as self-improvement was possible once the bases of education were acquired. John's articles and letters, and his success, imply an articulate and able man whose fluency belies his claim that his education was minimal.

In 1780 his father died, and John, aged twenty-seven, became the tenant of Place Farm. The parish of Glynde lies on the north side of Glynde Reach, a left-bank tributary of the river Ouse, and Lewes, the county town of east Sussex, is only three miles to the west. The Wealden farms to which downland farmers sent store sheep for the winter lie in the parishes to the north and north-east of Glynde, such as Newick and Barcombe. Access to London for sales of fatstock was good, this part of the South Downs being one of the most accessible in distance and terrain for stock to go to the capital. An additional advantage for Glynde was that the Ouse was navigable up to Lewes, and was improved during Ellman's life for both

⁵ Sussex Archaeological Society (hereafter abbreviated to S.A.S.): HC324 (account book), HC323 (wage book).

⁶ F. P. Walesby, *Memoir of the Late John Ellman Esq.*, 4th edn, Lewes, 1847, p. vii.

drainage and navigation, especially from the early 1790's. Glynde Reach was also improved—though the quay below the bridge was built before 1780.⁷ Ellman grew wheat, and like other farmers in the valley probably sold it for distant markets, particularly London, the grain going down river and through the port of Newhaven.⁸

The 580-acre farm which Ellman acquired in 1780 included about 150 acres each of down and arable land, and about 200 acres of brookland (meadow on the floodplain), stretching from the north bank of Glynde Reach to the downland crest, a layout increasingly common to farms of over 200 acres in the valley as the result of consolidation and reorganization. Whilst in 1780 Place Farm was one of the larger farms in the valley, between 1780 and 1830 reorganization produced other farms of a comparable size, with the same mix of land types, though with varying proportions. In 1792, on renewal of the tenancy of Place Farm, Ellman leased an additional 120 acres of brookland, making the total acreage 700 acres.⁹

Whilst the success of tenants such as the Ellmans may have had some influence on landowners because well-cultivated large farms produced good rents, and were easier for the landlord to manage, this was not the major inducement to reorganization. Large owners in the valley included the Pelhams of Stanmer, the Marquess of Abergavenny, who resided at Erridge, and the Earl of Sheffield at Sheffield Place. The first two owned very extensive estates in the valley: the Pelham lands included the parishes of Bishopstone and Piddinghoe, and Lord Abergavenny owned Rodmell. They recognized the advantages of creating larger farms in the valley where main products were sheep, wheat, and cattle, at a time when the

prices of all were rising, and the area was well suited to their production at nationally competitive prices.

Ellman's farm was thus advantageous in type and location, and provided the opportunity for someone with initiative and ability to prosper. In particular, it was in an area in which the Southdown sheep thrived. By 1780 the district between Brighton and Eastbourne was said to produce some of the best Southdown wool. The farmers stocked sheep at one and half to the acre, a figure which Arthur Young described as unusually high, so the area may have been stocked more densely than the western downs.

The Southdown sheep was described by Arthur Young in 1788. He said that a well-bred animal had "the following points:—no horns; a long speckled face; clean and thin jaw; a long but not a thin neck; thick in the shoulder; open breasted and deep; both fore and hind legs stand wide; round and straight in the barrel; wide upon the loin and hips; shut well in the twist, which is a projection of flesh in the inner leg of the thigh, that gives a fulness when viewed behind, and makes a Southdown leg of mutton remarkable round and short, more so than in most other breeds; . . . the wool close and hard to the feel, curdled to the eye, and free from spiry projecting, or staring fibres."¹⁰ Thus the animal already had features, such as the development of the rear and the quality of the wool, which Ellman and others were to accentuate by selective breeding. Furthermore, his father had already established the buying and selling of cattle and sheep, and the practice of keeping stock for others.¹¹ Unfortunately, there are no comparable local account books against which the stock prices may be compared to see whether the older Ellman was receiving better than usual prices for his stock, and whether he had begun the improvement of stock to provide a foundation on which John developed his prize flocks and herds.

II

John, as the tenant of a large and prosperous farm, frequented Lewes market, and no doubt

⁷ E.S.R.O.: RA/C1/3.

⁸ J. H. Farrant, 'The Seaborne Trade of Sussex 1720-1845', in *Sussex Archaeological Collections*, CXIV, 1976, pp. 104-6.

⁹ E.S.R.O.: Glynde MS. 1908, 1909. For general statements in this paragraph and elsewhere, see Sue Farrant, 'The Roles of Landowners and Tenants in Changing Agricultural Practice in the Valley of the River Ouse, South of Lewes, 1780-1920', unpub. Ph.D. thesis, Univ. of London, 1977.

¹⁰ Young, *loc. cit.*, pp. 197-9.

¹¹ S.A.S.: HC323.

had considerable interest in agricultural matters in the county. By 1785 he was acquainted with Lord Sheffield, to whom he had sold sheep.¹² Sheffield respected Ellman's farming ability, and introduced him to Arthur Young, who toured Sussex in 1789 with Mr Macro, a gentleman farmer from Essex who shared Young's interest in sheep. They spent several days at Sheffield Place, and in January visited Place Farm where Young was impressed, particularly by the sheep.¹³ Ellman expounded his belief that selective breeding was important to enhance further the best qualities of the Southdown, and offered, as evidence of his results, sheep prices to compare against those of Mr Macro. The former's average prices for 1785 to 1788 for lambs and ewes were 20 per cent higher than for 1783 to 1785, whereas Macro's price increases were only 10 per cent for crones, 2½ for lambs, and 1½ for ewes, and Ellman's stock had cost less than Macro's in 1785.¹⁴ But Ellman's prices were not compared with those achieved by other local farmers, and they may have reflected a general rise in demand for the Southdown sheep, and not only the achievement of his flock.

Young asked Ellman to write an account for the *Annals* of the expenses of keeping his flock of breeding ewes. Compared with those published by the Duke of Grafton and Macro in earlier volumes, the figures are better presented and suggest rather more accurate costing, which implied a competence in management that contributed substantially towards his success.¹⁵

Ellman aimed to improve both the wool and the proportion of hindquarter mutton that his sheep would provide, and managed his flock with these aims in mind. To explain his method of management he described his flock of about 1,440 sheep in considerable detail. The breeding flock remained on the farm all year, where the

rams were also kept, but separately. As the table below shows, he had 560 breeding ewes and about 200 tegs (ewe lambs). Great care was taken of the health of this breeding flock in order that they should be fertile and produce healthy lambs. A hundred wethers were kept only to be fattened and then sold, so he was less concerned about their welfare during the winter when they were sent into the Weald for their keep; they returned in the spring for fattening. The number of sheep kept on the farm reached its peak in the late spring with all the newborn lambs and the wethers returned from the Weald. Then he began to select the breeding ewes, tegs, and ram lambs, which he would retain for the breeding flock for the next season, and wethers for winter keep. In September he made his last sales. Ellman's figures were rounded, and his allowances for the number of refused ewes, sold because they had not bred or failed to reach his criteria on appearance and wool, were surprisingly low: both factors accounted for the discrepancies in the table. However, the essentials of management were still clear, particularly the contrast between the size of the flock in the summer and in the winter. In 1789 he disposed of about 38 per cent of his summer flock, put 7 per cent out to winter keep, and retained just over 54 per cent on the farm. Conversely, his summer flock represented an increase of 84 per cent as compared with his winter flock of 760 sheep.

The breeding flock consisted of two-, three-, and four-year-old ewes, called two-, four-, and six-tooths. On the weaning of their third lamb, when they were nearly four and a half, Ellman drafted them out of the flock as old ewes to be fattened and sold, so the annual turnover was a third, about 185 ewes. Tegs, selected from the previous year's lambs, were then added to the breeding flock, and in turn more lambs were selected to replace them. In 1789 210 tegs were chosen in preparation for the following year, thus allowing for loss due to death or rejection because of poor quality of about twenty animals.

Ewes were chosen carefully, paying particular attention to the quality of wool and the

¹² S.A.S.: HC323. ¹³ Young, *loc. cit.*, p. 192.

¹⁴ *Ibid.*, pp. 203-9.

¹⁵ J. Ellman, 'An Account of the Expense and Produce of a Flock of 560 Southdown Ewes, Stating the Average for the Last Seven Years', *Annals*, XI, 1789, pp. 345-55, on which the following detailed discussion of his stock is based.

<i>Flock in late spring</i>		<i>Sales by the end of September</i>	<i>Flock for the new season</i>	
Breeding ewes	560	Old and refused	Ewes	560
less losses	6	breeding ewes	200	
Tegs	— 554 210			
Lambs: ewes	280	Lambs	240	Tegs 200
wethers	260			Selected ram lambs 20
rams	20			Wethers to Weald 100
	— 560			
Wethers from the Weald	100	Fattened wethers	100	
	1,424*	Total sold	540	880
Rams, kept separately	11			
	1,435			891

* Ellman's total = 1,400.

shape of the carcass, and the same criteria were applied to selection of rams. He wanted animals with "thick, curly wool with depth of staple, and even topped, such wool as will best defend the sheep in bad weather, from being very thick and even topped, will not admit the water to penetrate it, as it does a thin light loose wool." Ellman considered that many Southdown farmers wrongly believed the wool-buyers' claim that the quantity of wool could only be increased at the expense of the quality, and said, with a modesty typical of the period, that by careful breeding, "I believe I grow the heaviest wool between Brighthelmstone and Eastbourne, and sell for the highest price of any wool on the South Downs."

Whilst paying attention to the shape of the sheep and quality of wool he also accepted that he could not inbreed, as this would lower the standards he sought to maintain. To introduce new blood into his stock, Ellman selected fifty of the best ewes from a neighbour's stock which he judged to be of suitable quality, and drafted out thirty to forty of his own ewes because they failed his criteria of shape and wool quality or because they were sterile.

He realized that a large number of rams was unnecessary, and did not conform to the stan-

dard local practice of using twenty or so rams which were either let into the flock at the same time or left with it all year. Eleven rams were carefully chosen, and in order to plan lambing were kept separate from the flock until about 25 October. They were ranked in order of quality and introduced in threes, the three best first, then after three to five days three more, and then the remainder three to five days later.

Ellman was not the only person interested in improving the Southdown. Arthur Young remarked on the high quality of the flocks of Thomas Ellman of Shoreham (a cousin of John), and of Morris of Glynde, who also experimented with breeding from a Merino-Ryeland cross ram and Southdown ewes.¹⁶ Though Ellman wrote several letters and articles on sheep for the *Annals* which gave further information about his work, generally his advice and ideas could have been those of any well-informed sheep farmer of his time. He expounded on a range of topics which included the importance of adequate winter feed, coping with ailments, and good care at

¹⁶ A. Young, 'Gleanings on an Excursion to Lewes Fair', *Annals*, xvii, 1791, pp. 130, 135; A. Young, 'Some Notes at Glynde in Sussex', *ibid.*, xxxiii, 1799, p. 450.

lambling time.¹⁷ Thus his role was that of a disseminator of knowledge about care of sheep, much of it applicable to all breeds. The degree to which he preached to the converted by writing for the *Annals* and other agricultural publications would need to be established before his effectiveness can be assessed.

But Ellman not only disseminated general knowledge about care of sheep but also explained why he bred selectively; and he had other valuable knowledge which it might have paid him not to publicize. For example, by 1799 he had realized that changes were more rapidly achieved by culling his breeding ewes earlier. Before 1795 he culled at four and five years old, but from about 1795 at three and four. He increased the number of ewes from over 500 to over 600, having leased extra land since 1790. The additional 100 or so ewes produced more than an extra 100 lambs, for in 1799 Ellman reported in the *Annals* that his 600 breeding ewes produced 748 lambs.¹⁸ He had to provide fodder for the extra ewes, and so an earlier increase in size of flock was impractical as the smaller farm of before 1790 did not produce sufficient food.

By 1799 the Glynde rams were well known, and were let for breeding. The rams were numbered, and their age and parentage carefully noted. Arthur Young said that they were all from one parent, and remarked on the dangers of inbreeding. Nevertheless, one was let that season for 100 guineas.¹⁹ They appear to have provided a considerable income, as the prices they commanded rose for much of the remainder of Ellman's farming life.²⁰

Many Southdown farmers regarded wool as a major source of income, and were susceptible to the opinions of the dealers who purchased it. Ellman was critical of the accepted practice of agreeing to a price per tod or pound for the en-

tire stock, regardless of variations in quality, and considered that this practice encouraged the farmer to aim for quantity rather than quality, which in the long run was to the detriment of the business as the quality deteriorated and the price dropped. He argued that different types and qualities of wool should receive their due, for example hogget wool should be valued more highly than ewe wool, and that wool from the breech and underside of the animal should also be priced separately.²¹ He was convinced that the Southdown's wool and carcass could be improved, and that the higher prices gained from better wool and more of the expensive joints from the hindquarters would provide higher, more secure profits which justified the investment and effort which he put into breeding.

Ellman received well above average prices for his wool and livestock, even after the slump in prices from 1815. But the extent to which he impressed his opinions on local farmers is unknown, though farmers on the east bank were high in Young's estimation for the quality of their husbandry.²² They accepted the leadership from Glynde to the extent that most of them joined the Sussex Agricultural Society when he formed it in 1789. Arthur Young summarized Ellman's contribution to the knowledge and appreciation of the Southdown sheep, and care of sheep generally, when he wrote in 1793:

Mr. Ellman, by his knowledge of the subject, and his means for improvement has paved the way for the propagation of South Down sheep, and has added no little store to the general mass of knowledge, now afloat, upon this subject.²³

III

Ellman was also interested in improvement of other aspects of husbandry, for example cattle

¹⁷ For example J. Ellman, 'On Wool', *Annals*, xli, 1804, pp. 28-39. He also wrote for other publications, e.g. J. Ellman, 'Sheep', *Baxter's Library of Practical Knowledge*, 2nd edn, Lewes, 1834.

¹⁸ Young, *loc. cit.*, 1799, p. 466. ¹⁹ *Ibid.*, p. 448.

²⁰ *Ibid.*, numbering of rams. Reports in *Annals* of Sussex Agricultural Show indicate a rise in charges for Ellman's stock.

²¹ Ellman, *loc. cit.*, 1804, pp. 232-4.

²² A. Young, 'A Tour Through Sussex', *Annals*, xxii, 1794, p. 225: 'the road from Glynde to Eastbourne introduced me into the very centre of the finest flocks, and most spirited farmers, in this part of Sussex.'

²³ *Ibid.*, p. 326.

breeding. He won prizes for his Sussex cattle at shows and sold them to discerning gentlemen farmers. In 1797 the Earl of Darnley purchased Sussex oxen from Ellman, apparently leaving the choice of stock to the latter. In the same year Mr Clayton, Steward to the Earl of Egremont, was asked by the Earl to purchase a pair of Sussex oxen for the Duke of Bedford, who wished to compare their performance against a pair of Devonshire and a pair of Herefordshire oxen. Egremont remarked to Ellman that he wanted the best oxen available because of the importance of the experiment, and that Clayton considered one of the Glynde oxen was superior to any others he had seen. Young also approved of Ellman's stock, and said in 1799 that he owned an excellent bull and quoted its parentage: "out of Bertha, daughter of Princess Royal, by Mercury," as though knowledgeable readers were well acquainted with the stock. Ellman was convinced that the Sussex breed would eventually provide milk and beef, as required, without cross-breeding, and Young considered the quality of the cattle to have improved even in the six years since his previous visit. He noted that the younger cattle were larger than their parents.²⁴ But Ellman did not seem to devote as much effort to either the improvement of cattle or publicity of their merits, probably because there were other farmers who did so.

Improvements of arable yields, particularly of fodder crops, was important to Ellman as he needed fodders in order to support his breeding flock and cattle during the winter. He considered that his flock should aid improvement of the arable land, but remarked on the damage that sheep did in small fields by churning up the soil because folds were less easily moved round the enclosure. In 1802 he noted that on many farms sheep was an arable animal, kept and fed on the arable land, but he still kept his on the downs during the day and folded on the arable at night. He recommended twenty Southdowns to a rood per night at a value of

35s.-50s. per acre for the manure. It saved the pasture from being so soiled that the sheep could not graze it, though he remarked that Bakewell described this method of folding as robbing Peter to pay Paul.²⁵

The arable land on Place Farm was similar in quality to that on most farms in the chalkland section of the Ouse valley. However, the quality of management may have resulted in superior yields, though other farmers on the east bank were also experimenting with the same aim. Ellman understood the importance of adequate fodder crops for the winter and spring, and attempted to solve the problem of inadequate supplies; the size of downland farms' breeding flocks was determined by the amount of winter keep that the farmer could either produce or afford to buy. Fattening stock still went into the Weald since farmers most profitably used other winter fodders as sustenance for ewes to produce stock for sale. The fattening of wethers could be done cheaply on the spare summer pastures, which were more than sufficient for the breeding flock and lambs but unsuited for hay making as the grass was too short.

Most of Ellman's arable land had a southerly aspect and, by the standards of the valley, fairly gentle slopes. The normal crop rotations in the valley included wheat, barley, oats, peas, tares, and, less frequently, beans. When the normal rotation was adapted to include turnips, coleseed, and clover is not clear, and as Young did not comment on the rotations which were used by Ellman it may be assumed that it was his standards of husbandry, rather than introduction of new crops into the area, that impressed Young. Ellman's rotations included turnips, clover and coleseed, and Young described them as based on the Norfolk system. Ellman apparently experimented with different varieties of seeds, and he recognized that whilst one strain might be unsuitable, because either the animals disliked it or the yield was low, other strains of the same crop could be successful, and he also tried different methods of cultivation. He grew what he identified as three

²⁴ Young, *loc. cit.*, 1799, p. 452; J. P. Boxall, 'The Sussex Breed of Cattle in the Nineteenth Century', *Agric. Hist. Rev.*, XVIII, 1970, pp. 17-29.

²⁵ Ellman, *loc. cit.*, 1802, p. 8.

types of round turnip, distinguished by their colour, red, white, and green, all of which were acceptable to his sheep. The crop provided winter keep, after which tares and coleseed were consumed to fill the weeks until the pasture was usable. By 1793 he had extended his range of fodder crops to include rye, ryegrass, and clover. That he did not cultivate these fodder crops before 1790 suggested that the extra land leased from that date was better suited to them.

He was prepared to try different methods of arable husbandry, and perhaps a testimony to the quality of the seed drills available in 1799 was his decision to revert to broadcast sowing. He did obtain high yields, however, as the rotation experiment reported in 1799 illustrated. In 1798 he sowed peas broadcast on a four-year-old ley, and harvested 42 bushels of peas per acre. Then after broadsharing the field, he sowed rape, had a good high yield, and followed with turnips, then wheat. Such experiments were tried elsewhere in the valley. For example, a contemporary experimented with cabbages as fodder. However, such was Ellman's standing as an acknowledged breeder that his enterprise in husbandry received publicity. He did occasionally report unsuccessful experiments, such as an attempt to aid germination by steeping wheat seed in urine, a process which killed the seed, though a weaker solution proved successful.²⁶

Some crops he tried and judged as unsuited to the farm's requirements. Potatoes he considered to be an exhausting crop, probably because the return was small compared with that from alternative fodder or feed crops.²⁷ He was interested in agricultural equipment, and in 1797, for example, wrote to the Board of Agriculture to describe his attempts to improve flails.

He was concerned with local issues which affected a tenant's management of his farm and the return received on surrendering tenancy. In Sussex two issues remained unsolved throughout the Napoleonic period, and both

were to continue to be detrimental to the progress of agriculture, even in the late nineteenth century. The first were the trees and large hedges which surrounded fields, and though not common in most of the Ouse valley, existed in Glynde. Farmers wished to remove or reduce them as they shaded the fields and inhibited the growth of crops. An additional problem in Glynde was that the high-hedged fields were small, and could not be as efficiently cultivated as larger enclosures on similar soils. To the Trevors, Ellman's landlords, their woodland was an important source of income, and they wished to ensure that it remained such by replanting and by fairly carefully organized cutting; thus the extent to which they would allow removal was limited, though it does appear that some hedges on Ellman's farm were removed between the 1790's and the 1830's.

The second issue with which he was concerned was valuation when tenants left farms. The heavy investment by the previous tenant in cultivation was paid for by an incoming tenant and caused a reduction in the capital of the new man, though conversely the outgoing tenant could profit. Ellman believed that such a practice was ultimately inimical to husbandry particularly as it was very easily subjected to misuse by outgoing tenants who claimed that they had done more ploughings and harrowings, and applied more manure than in fact they had.²⁸ This, like removal of hedgerows, remained unresolved.

IV

Ellman's business affairs do not seem to be well documented, and only the two account books which were started in his father's lifetime remain. They contain useful information about his sales of stock during the 1780's, but little about arable inputs and sales, and nothing about wool. In 1780 and 1781 stock was sold either directly in Smithfield or to London dealers. In 1781 he also sold some stock at Selmeaton Sheep Fair, which was an important stock fair in the late eighteenth century. Sited at the foot of the downs it was a good meeting point for

²⁶ Ellman, *loc. cit.*, 1799, pp. 192-4.

²⁷ *Annals*, xxxiii, 1799, p. 453.

²⁸ *Ibid.*

the downland stock-rearing farmers who resided east of Lewes, the Wealden farmers and graziers, and dealers from London. Ellman also dealt at Cliffe Fair, in a suburb of Lewes, which straddled the bridge over the Ouse on to the east bank, and was easily accessible for Place Farm which lay four miles away. The route to Selmeston was easier, as it was flat, but the farm was equidistant from both markets.

In 1785 he made his first sales to an identifiable agricultural enthusiast when he sold two rams to Lord Sheffield for 10 guineas and four ewes for 18s. apiece. That the account book recorded separate sales such as these implies a more methodical record of sales for better-quality animals than for those sold at the fairs, and possibly the recorded sales were of breeding stock sold at the farm, rather than fat-stock. In 1786 he sold Sheffield 100 ewes for £95, and six ewe lambs for £37. The high price of the ewe lambs suggests that they were for breeding. His pattern of selling appears to have changed quite quickly, for by 1787 the proportion of sales to specific individuals made up over half his accounts, and references of sales to London and at the sheep fairs declined quite rapidly from this date.

Ellman utilized brookland to fatten cattle during the summer; he purchased stock from local farmers, as that in 1791 bought from Taylor of Beddingham, and from dealers. He paid Messrs Price and Jones £75 for twenty Welsh heifers in 1792, and in 1793 he bought four Devon oxen from William Small for £40. He also went to markets in order to purchase cattle, and in 1795 spent £255 on cattle bought from various people at Uckfield Fair. The fat-stock was sold in Lewes.

In addition to dealing in stock, he used his brookland during the summer to keep other people's cattle and horses. His farm was one of the few close to Lewes which included a generous proportion of brookland. Farms on the west bank, for example in Kingston and Iford, though easily accessible did not have much brook. In May 1789 he kept two horses for Sir Ferdinand Poole, a well-known local racehorse owner, and he also kept horses for

other local gentry, such as Colonel Pelham. Horses were charged 2s. 6d. per week, and cattle 1s. 6d. Cattle were sent to him from parishes farther away from Lewes, such as Bishopstone at the southern end of the valley, from where Edmund Catt of the Tidemills sent cattle in 1782.

It was during the 1790's that Ellman's sales of sheep to well-known people were firmly established as the major part of his turnover. In 1794 he sold sheep to the Earl of Egremont, Ferdinand Poole, the Earl of Shaftesbury, and Lord Gage of Firle. He had apparently sold stock also to Coke of Holkham. In 1806 Coke attributed his decision to stock Southdowns instead of Leicesters to the influence of Ellman, who had persuaded him of the superiority of Southdowns about fifteen years earlier.²⁹ Coke purchased 500 Southdowns (and probably, therefore, at least some from Ellman), and in order to persuade his local farmers to stock them, sold them locally. Coke concluded, after thirteen years' experience, that the Southdown breed was more profitable than the Leicester, though he thought highly of the latter. In 1798 the Emperor of Russia ordered two Glynde rams, asking King George III to obtain them for him. Ellman apparently asked the Duke of Bedford to fix a fair price for them, and they agreed on 300 guineas; the Duke purchased two for his own stock at the same price.³⁰

References to sales of wool were infrequent, though Young was complimentary about the Glynde product and said that the area of downland between Eastbourne and Brighton, which included Place Farm, produced the finest quality Southdown wool.³¹ Until Lewes Wool Fair was started in 1786 by Lord Sheffield there was little organization of wool sales, farmers dealing directly from their farms with travelling wool staplers. The major flock masters

²⁹ John Ellman, Glynde, to T. W. Coke, 2 Nov. 1803, uncatalogued, Holkham Muniment Room; letter quoted by R. A. C. Parker, *Coke of Norfolk*, Oxford, 1975, p. 121.

³⁰ F. P. Walesby, 'Memoir of John Ellman', *The Library of Agricultural and Horticultural Knowledge*, Lewes, 1836, p. xxx.

³¹ Rev. A. Young, *General View of the Agriculture of Sussex*, 1813, p. 311.

from the downs then attended the fair, which apparently achieved Sheffield's aim of establishing price agreements. His practice of collecting information on the state of the wool trade, and delivering a speech at the dinner held before selling began, must have provided a useful education on the impact of extraneous factors on the price of wool.³² By this date good Southdown wool had already acquired a reputation for high quality, and so efforts to obtain a price that was commensurate seemed worth while.

V

Ellman acquired considerable influence locally, partly because of his reputation as a successful sheep breeder, but also because he appreciated the value of participation in local affairs related either to his desire to publicize the Southdown sheep or to the improvement of his farm. He also participated in agricultural events of national importance.

Not only was Ellman tenant of the largest farm on the Trevor estate, but from 1792 until 1829 he was steward of their Sussex estates in the parishes of Beddingham, Glynde, Denton, and Tarring Neville on the east bank of this section of the river Ouse, and in the Weald, including land in the parish of Ringmer, just north-east of Glynde.³³ He was a good choice, an able farmer with a strong interest in commercial agriculture, whose farm included most of the types of soil to be found on other Trevor lands. Glynde was also more wooded than the other Ouse land, so Ellman may have had some awareness of the plight of farmers in the Weald. During the years of his stewardship the Trevors reorganized and extended their estates, creating farms on the downland areas as extensive as Ellman's farm.

He had considerable influence in the parish of Glynde and in the Firle Poor Law Union to which Glynde belonged. He exhibited a paternal attitude towards the workforce and tried to alleviate their lot when, as in the 1790's, food prices were high, for example by selling flour

to them at a reduced price.³⁴ Though he tried to ensure that there was full employment, the combination of Trevor dominance of the parish and his watchful eye probably ensured that the village was closed to people surplus to local needs. That in his reports he is able to remark on the small degree of unemployment further supports this.³⁵

The Commission of Sewers for Lewes and Laughton Levels was responsible for drainage of the floodplain of the lower Ouse, which included Ellman's brookland in Glynde Reach. Glynde Reach was frequently presented by the jury of the Watercourt as requiring repair, particularly shoring up of the banks. Ellman may have encouraged presentment to ensure that neighbours, especially in Beddingham and Firle opposite, contributed to the upkeep, for as early as 1780 he was sworn on to the jury, and in July 1783 he became the Expenditor of the Levels.³⁶ Some reorganization was implied by Ellman's appointment, as prior to this the water-bailiff supervised the collection of the waterscot and the expenditure. In addition to being responsible for collection and expenditure, Ellman organized and supervised a considerable amount of work undertaken on the Reach and in the valley, and provided estimates of improvements.³⁷ He retained this post until he retired from farming in 1828, and apparently combined it with his interest in the Lower Ouse Navigation. In the early 1790's, when estimates were being made of the cost of improving the navigation on the river south of Lewes, Ellman submitted a comprehensive estimate, presumably for comparison against tenders submitted by those who wished to undertake the work.³⁸ His role in the improvement of drainage and navigation on the Ouse is underrated, due to fragmentary evidence.

Ellman was interested in the improvement of

³⁴ In a reply to Young, Ellman said that he had had barley ground for the poor to ensure the availability of flour they could afford: *Annals*, xxxiv, 1800, p. 166.

³⁵ E.g. in response to Young's circulars, reported in the *Annals*, and in *Farmer's Magazine* for which he wrote the county report.

³⁶ E.S.R.O.: RA/C1/3.

³⁷ E.S.R.O.: D187.

³⁸ E.S.R.O.: D187.

³² 'Account of Lewes Wool Fair', *Farmer's Magazine*, viii, Edinburgh, 1807, p. 399.

³³ E.S.R.O.: Glynde MS. 2825.

standards of husbandry, but also recognized that his efforts were a way of promoting his own work and generating demand for his livestock. In 1798 he was involved in the foundation of the Sussex Agricultural Society.³⁹ By 1796 Ellman had considered starting a cattle show and agricultural society at Lewes, and the Earl of Egremont wrote to congratulate him on the idea. Egremont had already started a show at Petworth (in west Sussex), but recognized that Lewes was a superior location and accessible to a greater proportion of the downland.⁴⁰ In a letter to the *Annals* Ellman described the aims of the Sussex Agricultural Society: "I hope and flatter myself that this institution has, and will have, a wonderful effect on convincing Southdown farmers of the necessity of attending to the improvement of the Southdown sheep."⁴¹ He also noted the value of holding an annual show because of the importance of comparison: "I believe it the general opinion of most breeders, that their own stock is the best, but by comparing them with others, they discover their mistake."⁴²

He recognized that patrons were of great value, and secured the support of local nobility and gentry such as Lord Pelham, Lord Sheffield, the Trevors, and the Gages and Egremont from Petworth, and this gave the society the status necessary to attract substantial support from the local farmers. The list of members included many of the farmers of the downland between Brighton and Eastbourne and nearly every occupier of a large farm in the Ouse valley. His influence in the valley, particularly on the east bank, as a successful tenant-farmer, and as steward for nearly half the farms on it, was important.⁴³

The sheep classes were restricted to Southdowns only, but the cattle classes were not restricted to the Sussex breed. This distinction

was pointed out in an anonymous letter published in the *Annals* which implied that whilst the local farmers accepted that superiority of the Sussex cattle was indisputable and hence did not close the classes, they were less confident about the pre-eminence of the Southdown sheep.⁴⁴ Tireless in his efforts to promote the Southdown, Ellman organized sweepstakes at the show, with the revenue divided into prizes for various categories of sheep.⁴⁵

The show served John Ellman well: in 1800 he let three rams for the season for 210 guineas, won the sweepstake for the best pair of ewes, and the prize for the best four-year-old Sussex bull.⁴⁶ Such publicity was invaluable. In the final decade of his farming life, however, he entered less stock shows, possibly, as contemporaries explained, in order to give others the opportunity to win. Though this worthy motive was no doubt part of the reason, he no longer required this kind of publicity since his reputation was firmly established.⁴⁷ Indeed, the quality of sheep may have improved to the point at which his pre-eminence was no longer unchallenged.

County administration also claimed his time: he first became involved as a member of the militia in 1803 at a meeting called by the Lieutenant of the county, responsible for the organization of the defence of Sussex against Napoleon. At the meeting the parishes were grouped into seventy-eight districts, and to each an inspector was appointed for the purpose of supervising the superintendants who were appointed to each parish. He apparently fulfilled the criteria of being a "Gentleman of some weight and influence in the neighbourhood" for he was made an inspector.⁴⁸ By 1814 he was appointed a deputy lieutenant of the county, and held the post until at least 1820.⁴⁹

His most important national role was as a founder member of the Smithfield Society in

³⁹ Report on the 'Smithfield Society', *Farmer's Magazine*, xviii, Edinburgh, 1807.

⁴⁰ J. Ellman, letter 'To the Right Honourable Earl of Egremont', *Annals*, xxvii, 1796, pp. 630-1.

⁴¹ Show at Lewes reported in *Annals*, xxvii, 1796, pp. 623-5.

⁴² 'Lewes Agricultural Show', *Annals*, xxi, 1795, p. 392.

⁴³ 'Show of Cattle at Lewes', *Annals*, xxix, 1797, p. 84.

⁴⁴ Anon., 'To the Subscribers for the Improvement of Cattle and Sheep at Lewes', *Annals*, xxix, 1797, pp. 262-5.

⁴⁵ Show at Lewes, reported in *Annals*, xxvii, 1796, p. 627.

⁴⁶ 'Show of Cattle and Sheep at Lewes', *Annals*, xxxv, 1800, p. 552.

⁴⁷ *Ibid.* ⁴⁸ E.S.R.O.: LCG/3/EW. ⁴⁹ *Ibid.*

1798. The aim of this society was to encourage the most cost-effective methods of rearing and fattening fatstock; the annual meeting was held in mid-December, the most important time at Smithfield, when stock was sold for Christmas.⁵⁰ Stock was weighed, live and dead, and the proportions of meat and by-products compared; the fattening history of the animal had to be testified to prevent dishonesty. Animals bred by Ellman won prizes, as in 1807 when three one-shear Southdown wethers purchased from Ellman as lambs in October 1806 by H. King of Essex, and grazed on open marshland without shelter, won the 10 guineas prize.⁵¹

Nationally the breeder attended agricultural meetings of national importance held at centres for the agricultural enthusiast such as Woburn, Holkham, and Petworth; his presence was noted in reports of the events in agricultural journals such as the *Annals* from the early 1790's. He also judged at such events: in 1812 he was invited to attend the show of the Shropshire Agricultural Society as a judge of farms, but apparently he had attended this show and the Hertfordshire Society's show as a judge and guest of the Duke of Bridgewater for some years before.⁵²

In 1821 the Select Committee on the distressed state of agriculture was convened. Ellman's evidence supplies a summary of the economic changes of the period 1780 to 1820, and their impact on the eastern South Downs.⁵³ Between 1780 and about 1815 the entire valley was very prosperous, and he remarked about the year 1811, "agricultural produce was selling higher than at any other period I recollect." In 1820 he leased two farms which totalled 1,400 acres in Glynde, and occupied about four-fifths of the parish; one farm he had tenanted for forty years since 1780, and had extended it in 1790. When his lease expired in 1811 his rent

was increased by 88 per cent from £680 to £1,200, and probably he experienced one of the greatest increases in the valley, though all tenants whose leases expired between 1800 and 1814 had to pay considerably more on renewal. When the slump came, he, in common with others, received his first abatement: his rent was reduced by £200 to £1,000 at which level it continued in the early 1820's.

His habit of keeping accounts provided the Commission with evidence of the impact of falling prices in the area, but his general remarks on causes of problems and possible solutions are not as perceptive as those of his son, John Ellman junior, who also gave evidence to the Commission.⁵⁴ John senior wished to reduce the cost of labour, blamed jobbers for unfavourable prices, and insisted that they were buying imported cereals at lower prices. He requested a higher price for imported and home-grown grain to recompense the farmer for his investment in agriculture; thus Ellman seemed to want protection. He attributed progress in agriculture and increased output to increased capital investment rather than to technical change.

Ellman was secure and still farmed profitably; his own reputation, built up during the thirty years from 1780 to 1810 when the agriculture of the region was well suited to the demands of the time, ensured that his livestock continued to command good prices. In 1829 he retired, having received such accolades as a silver cup presented to him in 1800 by land-owners in Sussex, a silver vase in 1805 as a personal gift from the Duke of Bedford for his advice, the Board of Agriculture's gold medal in 1819 for the best cultivated farm in Sussex, and a silver salver from John Fuller and others in 1829.⁵⁵ He had frequently won prizes, especially for his sheep, at shows in Lewes and London. Ellman sold his stock, retired to a small estate he owned in Uckfield, and died in Lewes in 1832; his son John took over the farm, having previously tenanted a farm nearby.

Ellman senior's main role was that of a dis-

⁵⁰ 'Smithfield Club', *Farmer's Magazine*, viii, Edinburgh, 1807, p. 189.

⁵¹ 'Sussex Agricultural Society', *Annals*, xxix, 1797, pp. 587, 604. John Ellman won prizes for the second-best bull, best Southdown ram, second-best Southdown ewe, and joint first prize for the best Southdown wether.

⁵² 'Woburn Sheep Shearing', *Annals*, xl, p. 486.

⁵³ *B.P.P.*: 1821 (668), ix, pp. 49-61.

⁵⁴ *Ibid.*, pp. 110-24.

⁵⁵ Walesby, *op. cit.*, 4th edn, 1847, pp. lii, lx.

seminator of agricultural knowledge, especially about sheep, though the extent to which he alone improved the breed may be questionable. He was aided by the favourable assessment of both Arthur Young and his son, who reported his progress as a breeder when they visited the

locality, and also published his articles and notes. He publicized the Southdown at a time when it was suited to the needs of sheep-corn farms on light soils in a period of exceptional prosperity for them, and this was undoubtedly a major determinant of his success.

The Third Earl Spencer and Agriculture,

1818-1845

By E. A. WASSON

A CENTURY has passed since the publication of Sir Denis Le Marchant's biography of the third Earl Spencer. It has been eighty-five years since the appearance of Ernest Clarke's article in the *Journal* of the Royal Agricultural Society which contains the only other evaluation of Spencer as an agriculturalist.¹ In the interval not only have historians drastically revised their opinions about agricultural history but also a mass of new documentary evidence has become available. Furthermore, in the last few decades pioneering studies have been made of the role of landed magnates in the nineteenth-century economy, and revisionists have altered our views on the contributions made by men such as Coke of Norfolk to agricultural advancement.

In the case of Lord Spencer, there have been neither new studies nor criticisms of old opinions. Sir James Scott Watson in his centenary history of the Royal Agricultural Society neglected Spencer, and provided inaccurate information about him.² Today the usual conception of Lord Althorp, the name by which he is usually remembered, is that of a bucolic squire placed in political positions above his abilities. His farming career is rarely given more than a mention. Such a reputation is difficult to reconcile with the work of a man who was called by contemporaries "the great patron of English Agriculture";³ who was invariably accorded rapturous ovations by

gatherings of farmers; and who was a promoter and sometimes the principal instigator of almost every important scheme for agricultural improvement put forward in the 1830's and 1840's.

It is the purpose of this article to establish the nature of Spencer's involvement in agricultural affairs. There is always the danger in the study of a single individual that the general picture will be distorted and that larger themes will become lost in the thicket of personal details. However, concrete examples of aristocratic participation in agricultural development and organization are necessary building blocks for creating a broader interpretation of the magnates' role in the management of nineteenth-century English society, and they are still a rare commodity. Spencer, because of his extraordinary position of leadership, deserves special attention.

I

John Charles Spencer, Viscount Althorp (1782-1845), was a member of the innermost core of the "grand Whiggery." He gradually assumed a commanding position in the Whig party during the 1820's and became Chancellor of the Exchequer and Leader of the House of Commons in Lord Grey's ministry (1830-4).⁴ The successful passage of the Great Reform Act was due to a considerable extent to his leadership. Many of his plans for advanced financial reforms, blocked by the prejudices of his own party and the press of other business, anticipated the work accomplished by Sir Robert

¹ E. Clarke and Sir Harry Verney, 'The Third Earl Spencer', *J.R.A.S.E.*, 3rd ser., 1, 1890, pp. 138-56. I would like to acknowledge here the gratitude I feel towards Professor David Spring of the Johns Hopkins University and the late Dr George Kitson Clark of Trinity College, Cambridge, for their supervisory advice and wisdom. I also wish to thank Mr James MacGuire of Downing College, Cambridge, for making some valuable corrections to this paper.

² J. A. Scott Watson, *The History of the Royal Agricultural Society of England, 1839-1939*, 1939, pp. 1-17.

³ *British Farmer's Magazine*, vii, Oct. 1843, p. 298.

⁴ See Le Marchant, *Memoir of John Charles Viscount Althorp*, 1876; Ernest Myers, *Lord Althorp*, 1890; the seventh Earl Spencer, 'John Charles, Viscount Althorp, third Earl Spencer', *Quarterly Rev.*, vol. 283, 1945, pp. 468-80; Lord John Russell, 'Earls Grey and Spencer', *The Edinburgh Rev.*, LXXXIII, 1846, pp. 240-73; Michael Brock, *The Great Reform Act*, 1973.

Peel a decade later. Althorp was closely involved with the drafting and passage of the New Poor Law, the first Factory Act, the Municipal Reform Act, and the final abolition of slavery. In spite of the fact that he stood left of centre in the Whig party (he supported the secret ballot and universal household suffrage), he was the popular choice as Grey's successor to the premiership in 1834—an office which his extreme diffidence and overly refined sense of honour made him decline. In the country he was known by the sobriquet "Honest Jack," and established a reputation for integrity and popularity rivalled by few of his contemporaries. He remained a senior statesman of the Liberal party whose advice was sought by Melbourne, Russell, and others long after his departure from office.

Althorp's career as an agriculturalist began almost by accident. In 1818, after giving birth to a still-born boy and suffering prolonged agony, his wife of but four years died. This double blow changed the course of his life. He stayed shut up and alone for several months in a state of severe depression. He wore mourning dress for the rest of his life and, as a penance, gave up his favourite pastime of fox-hunting.⁵

Althorp had become Master of the Pytchley in 1808 at the age of twenty-six, and had raised it, as one famous sporting writer observed, to "the zenith of its glory."⁶ On taking over the management of the kennels, Althorp had devoted much of his time to the task of breeding smaller boned and swifter hounds.⁷ Thus from an early age he was an avid student of new breeding techniques, and this knowledge and experience became useful when the disaster in his personal life propelled him into the breeding of livestock.

⁵ Northants. R.O., Fitzwilliam MSS.: Althorp to Viscount Milton, 10, 15 June 1818, and Lavinia, Cts. Spencer to Milton, 5 Aug. 1818; B.M. Add. MSS. 51584, G. Tierney to Lord Holland, 23 Sept. 1818.

⁶ The Druid (H. H. Dixon), *Silk and Scarlet*, 1895, p. 73.

⁷ Guy Paget, *The History of the Althorp and Pytchley Hunt, 1634-1920*, 1937, pp. 111, 279-83; Mrs Hugh Wyndham, ed., *Letters from Sarah Spencer, Lady Lyttelton, 1787-1870*, 1912, pp. 62 ff.; Earl Bathurst, *The Earl Spencer's and Mr John Warde's Hounds, 1739-1825*, Cirencester, 1932.

Soon after Lady Althorp's death, the now ex-master of foxhounds told his father that the only interest from which he could take pleasure was in "my cattle and looking at my farm, and I hope by such quiet pursuits as these to bear the affliction I am suffering under with tolerable patience."⁸ Althorp had shown some enthusiasm for husbandry before 1818. At Harrow he loved to read about natural history, and raised silkworms. On journeys he took note of the different soils observed in passing.⁹ In 1814 he had taken over the management of his wife's estate at Wiseton, near Bawtry on the Yorkshire-Nottinghamshire border, which encompassed about 2,000 acres. At the same time he also became a tenant farmer of his father in Northamptonshire, where he managed the large Chapel Brampton farm near Althorp Park.¹⁰ He informed Lord Spencer that he was studying Arthur Young "to make myself a theorist in farming."¹¹

Most of his time had been occupied by politics and the chase. The situation changed, however, when three months after Lady Althorp's death he travelled north to Darlington to attend the sale of shorthorn cattle bred by Robert Colling. There Althorp spent the large amount of £900 on three cows and a bull, with the intention of founding his own herd. "In consequence of this," he wrote to his close friend, Viscount Milton, "I am enabled again to build castles in the air, and if the speculation turns out unprofitable in a pecuniary point of view, I am quite sure it will repay me in happiness."¹²

⁸ Althorp MSS.: Althorp to Ld. Spencer, 29 June 1818: kept at Althorp, Northants., and used by kind permission of the Rt Hon. the Earl Spencer: Le Marchant, *op. cit.*, pp. 169-70.

⁹ Althorp MSS.: Althorp to Georgiana, Cts. Spencer, 9 Sept. 1799.

¹⁰ The two farms each produced about £4,000 p.a. in gross receipts during the 1820's: *Ibid.*, Althorp to Lady Althorp, 23 June 1814.

¹¹ *Ibid.*, Althorp to Ld. Spencer, 9 Oct. 1814. The only recorded meeting between Althorp and Young took place in 1798 when the former was sixteen years old: M. Bentham-Edwards, ed., *The Autobiography of Arthur Young*, 1898.

¹² Fitzwilliam MSS. X1606, Althorp to Milton, 3 Oct. 1818; Althorp MSS.: Althorp to Ld. Spencer, 3 Oct. 1818.

The Colling brothers had chosen the short-horn instead of Bakewell's longhorn to improve upon, and they succeeded in refining their breed into lighter-boned, quicker-fattening cattle which matured earlier and had a higher proportion of carcass to live weight than had been achieved previously.¹³ The Collings' herds were dispersed in two sales, the second of which marked the beginning of Althorp's career as a breeder. Three other herds were of great importance in the refinement and spread of the breed: Christopher Mason's Chiltern Herd, auctioned in 1829 when Althorp purchased eighteen animals, and the herds of John Booth and Thomas Bates.¹⁴ In 1822 the first herdbook was published, and shorthorns were launched on the road to supremacy among the bovine populations of Britain, Ireland, and America.

Althorp probably met Bates at Darlington during the 1818 sale.¹⁵ They soon became friends, and with the expert's advice Althorp began to build what became the largest and one of the most famous of the nineteenth-century strains, the Wiseton Herd.¹⁶ It has been rightly pointed out that in the breeding of shorthorns, Althorp was only a "noble minor star" in comparison with Booth and Bates.¹⁷ The business of politics and office kept the aristocrat away from his farm for long periods, while the farmers were with their animals all the time. Nevertheless, because Althorp was a magnate, he could afford to maintain a larger number of bulls than his fellow breeders, and

he ran Wiseton as if it were an experimental research station rather than for profit.¹⁸ His bulls were always in demand, his frequent sales popular, and after his death the 200 animals remaining at Wiseton were sold for £10,000.¹⁹ Visitors flocked to his farm from home and abroad. Not the least of Wiseton's advantages was its proximity to the Doncaster race-course, and during the St Leger week it was clogged with prospective breeders inspecting Althorp's cattle. In general, he helped to make shorthorns fashionable, and, in particular, the Wiseton bloodline was sought out for the establishment of new herds even many years after his death.²⁰

Agriculture was becoming the consuming passion of Althorp's life. In his article on the work of Coke of Norfolk, written in 1842, Althorp revealed more about himself than about the owner of Holkham. "Nothing would have been . . . more improbable," he wrote,

. . . than an extremely young man, fond of and excelling in field-sports, with a princely fortune, should have applied himself to the detailed management of a farm . . . But having taken it, he found, as every man who will apply himself to agriculture will, the high interest of the pursuit; his taste was formed, the habits of his life accommodated themselves to it, and applying the whole energy of his mind to the collection and dissemination of all the knowledge which he could derive from practical and scientific farmers, he . . . effected the great improvements which, while they have been a source of continued happiness to himself, have produced the most incalculable benefits to the country.²¹

¹³ A. Stewart, 'The Development of the Dairy Shorthorns in Britain', *J.R.A.S.E.*, III, 1950, pp. 61-5; H. H. Dixon, 'Rise and Progress of Shorthorns', *ibid.*, 2nd ser., I, 1865, pp. 317-29.

¹⁴ *Farmer's Magazine*, III, 1829, p. 489; 'An Historical Sketch of the Shorthorn Breed', *Shorthorn Breeders Rev.*, 1935, pp. 5-28.

¹⁵ T. Bell, *The History of Improved Short-Horn or Durham Cattle and of the Kirklevington Herd*, Newcastle-upon-Tyne, 1871, p. 152.

¹⁶ J. Sinclair, *History of Shorthorn Cattle*, 1907, pp. 92-6; Clarke and Verney, *loc. cit.*, pp. 144-5; Althorp had the largest number of entries in the third edition of G. Coates's, *The Herd-Book: Containing the Pedigrees of Improved Short-horned Cattle*, Pontefract, 1836.

¹⁷ R. Trow-Smith, *A History of British Livestock Husbandry, 1700-1900*, 1959, pp. 233-9.

¹⁸ Fitzwilliam MSS. Y, Althorp to Milton, 5 Jan. 1832; Althorp MSS.: Box 18, Memoir of Frederick, fourth Earl Spencer.

¹⁹ Add. MSS. 35155, f. 91.

²⁰ G. T. Burrows, *History of Dairy Shorthorn Cattle*, 1950, p. 42.

²¹ Earl Spencer, 'On the Improvements which Have Taken Place in West Norfolk', *J.R.A.S.E.*, III, 1842, p. 2. For a corrective to Spencer's views on Coke's achievement, see R. A. C. Parker, *Coke of Norfolk*, Oxford, 1975, pp. 79-81.

In the company of farmers such as Bates and John Grey of Dilston Althorp was able to relax.²² He also took up sheep-breeding, and amongst his flocks and herds he was truly happy. Life at 11 Downing Street filled him with disgust for it kept him from his beasts and fields.²³ His friend Henry Brougham, the Lord Chancellor, used to address his letters to Althorp: "Dearest of Graziers" and "Dear Man of Cattle."²⁴ Edwin Chadwick consulted him about manure and drainage.²⁵ Coke took his advice on cattle-breeding.²⁶ He was called an oracle on all subjects agricultural.²⁷

Unlike some breeders, Althorp was not bigoted about the merits of shorthorns over other types of cattle. He considered carefully before deciding to concentrate on them.²⁸ Other breeds were purchased for the Wiseton farm in order to compare the progress of his own with other animals, and he was prepared to admit the advantages of Herefords and Devons.²⁹ Nor was Althorp exclusively interested in live-stock. He had always been fascinated by science and mathematics. In college examinations at Cambridge he had outshone men who later became wranglers.³⁰ He kept up with the new discoveries in biology and geology, and Brougham, in acknowledgement of this interest, dedicated his edition of Paley's *Natural*

Theology to Althorp.³¹ As a youth he had attended lectures in chemistry, and later by private study he attempted to acquire enough familiarity with the subject to apply it to agriculture.³² He erected a laboratory in his rooms in London, and took lessons from a tutor. "I think the good that can be done by the application of chemistry to farming is quite incalculable," he told his father, "and I am pretty sure I am more likely to be of use to my fellow creatures in this way than in politics . . ."³³

Even before his purchases at the Colling sale in 1818,³⁴ Althorp conducted experiments on the increase of weight in young steers. In 1819 he tried out a drainage technique on his boggy acres at Wiseton.³⁵ In the mid-1820's he tested the value as fodder of the mangel-wurzel as compared with Swedish turnips and sugar beets.³⁶ Later, in collaboration with his friend Lyon Playfair, he was to try out various mixtures of nutritive compounds on his cattle.³⁷ He raised rabbits to test new ideas about breeding, doctored his own cattle, and experimented with various kinds of seeds.³⁸

Althorp's work did not rival that of Liebig or Playfair, but his articles published in the *Journal* of the Royal Agricultural Society show that he had a grasp of the scientific method, was conscious of the importance of statistical analysis, and had a humble awareness of his own limitations. They were practical pieces in-

²² The Druid, *Saddle and Sirloin*, 1895, p. 124; J. Butler, *Memoir of John Grey of Dilston*, 1874, pp. 96, 153.

²³ Le Marchant, *op. cit.*, p. 365; Lord Lyttelton, ed., *Letters from Sarah, Lady Lyttelton, 1797-1870*, privately printed, 1873, pp. 239, 246; Althorp MSS.: Brougham to Althorp, spring 1834; Bell, *op. cit.*, p. 155; Druid, *op. cit.*, p. 125; Butler, *op. cit.*, p. 153.

²⁴ Althorp MSS.: Brougham Letters, 1830's.

²⁵ Univ. College, London, Library: Chadwick MSS.: Althorp to Chadwick, 7 Feb. 1842.

²⁶ Holkham MSS.: Althorp to Leicester, 7, 18 Dec. 1837, copy.

²⁷ Staffs. R.O.: Hatherton MSS.: Duke of Rutland to Hatherton, 1 Nov. 1843.

²⁸ N. Riding R.O.: Kirkleatham Hall MSS.: Althorp to H. Vansittart, 29 Jan. 1826; Althorp MSS.: Arbutnot correspondence.

²⁹ Nottingham Univ. Library: Ossington MSS.: Althorp to J. E. Denison, 10 Jan. 1838; Devon R.O.: Fortescue MSS.: Althorp to Ld. Ebrington, 23 Oct. 1838, 7 Feb., 1 March, 6 Sept. 1839; Holkham MSS.: Althorp to Leicester, 18 Dec. 1837, copy.

³⁰ Le Marchant, *op. cit.*, pp. 78-9.

³¹ London, 1838. Althorp MSS.: Althorp to Brougham, 10 Jan., 8 June 1836, and Brougham Recollection No. 4; See Althorp's essays 'Geology' and 'On Instinct', etc. of the 1830's.

³² Althorp MSS.: Althorp to Georgiana, Cts. Spencer, 8 Dec. 1799; Althorp to Spencer, 5, 12 May 1820.

³³ *Ibid.*, same to same, 5 May 1820.

³⁴ Fitzwilliam MSS.: Althorp to Milton, 31 Aug. 1818.

³⁵ *Ibid.*, X1607, same to same, 3 Jan. 1819.

³⁶ He published his results in the *Farmer's Magazine*, 1, 1827, p. 741; See also 1, 1826, p. 121 and IV, p. 475. It was reprinted in the *J.R.A.S.E.*, II, 1841, pp. 296-8; Holkham MSS.: Althorp to Coke, 25 Feb. 1826, 6 Jan. 1828, copies.

³⁷ Imperial College, London, Library: Playfair MSS.: Althorp to Playfair, 16 Jan., 23 July 1843.

³⁸ West Sussex R.O.: Goodwood MSS.: Althorp to the D. of Richmond, 18 Feb. 1840, 28 Dec. 1832—used by the kind permission of the Earl of March. Hatherton MSS.: Althorp to Hatherton, 21 May, 27 June 1837; Bell, *op. cit.*, p. 157.

tended "for the use of farmers."³⁹ He insisted on the need for careful observation and the keeping of accurate pedigrees.⁴⁰ In one article he used his carefully kept records to revise the generally accepted assumption about the length of pregnancy in cattle.⁴¹ In another paper he described his failure to develop a method of ascertaining quickly whether a cow was in calf after it was put to a bull. Neither stethoscopes nor probability tables were of any use, but he was able to establish a means for predicting the number of calves that would be produced by a given number of cows after breeding.⁴² His experiments with turnips and mangel-wurzels were scrupulously conducted, but he used too few animals for his conclusions to be soundly based.⁴³

II

In the article on Coke of Norfolk Althorp eulogized his friend's attempts to diffuse knowledge through the Holkham sheep-shearings, and he wisely concentrated most of his own time and resources on the dissemination, and not the discovery, of scientific improvements. In 1819, a year after Lady Althorp's death, the Northamptonshire Farming and Grazing Society held its first meeting at Althorp's farm at Chapel Brampton.⁴⁴ He refused the presidency of the Society, however, saying that he joined it in the role of a tenant farmer of his father's and not as the heir of Althorp Park.⁴⁴ He wanted local farmers to run it by and for themselves. But he was soon heavily involved in its affairs.

Although Althorp's famous humility was genuine, it often deceives unwary historians into making misjudgements. The habit of

authority was deeply ingrained in his nature. His diffidence was the product of a devout Christian's sense of sin before the Almighty, and of deference to the eloquence and talents of his more able peers. Althorp felt profoundly inadequate in the presence of God and Lord Grey. Otherwise he was a man of strong, even stubborn, opinions, endowed with a compelling talent for leadership made additionally powerful by a rigid adherence to his conception of aristocratic duty. When the Duke of Bedford resigned from the presidency of the Smithfield Club in 1821, therefore, Althorp waited for the place to be filled by some more able nobleman than himself. When no one stepped forward he assumed the post with energetic gusto.

Bedford's letter of resignation confirmed Althorp's suspicions about the fitness of the older generation of magnates to give a lead in agricultural affairs.⁴⁵ Althorp had witnessed the collapse of the old Board of Agriculture (of which he was only briefly a member before it became defunct).⁴⁶ Coke ended his shows at Holkham. Despite his admiration for the old man, Althorp was moved to say on one occasion: "Coke has two or three crack farms . . . where the tenant dare not have a weed; here [at Wiseton] there's uniformity, the land's farmed for farming's sake."⁴⁷ Bedford ended his sheep-shearings at Woburn at the same time as he urged the dissolution of the Smithfield Club, in the belief that the breeding of livestock had reached a level beyond which little more could be expected.⁴⁸

The pioneering days of individual effort were ending. Althorp believed further advancement should be achieved through the work of large

³⁹ Spencer, 'On the Selection of Male Animals in the Breeding of Cattle and Sheep', *J.R.A.S.E.*, I, 1840, p. 24.

⁴⁰ *Ibid.*, p. 28.

⁴¹ 'On the Gestation of Cows', *J.R.A.S.E.*, I, 1840, pp. 165-9.

⁴² 'On the Means of Calculating the Number of Calves which Will Probably Be Produced by a Herd of Cows', *J.R.A.S.E.*, II, 1841, pp. 112-16.

⁴³ 'On the Comparative Feeding Properties of Mangel-wurzel and Swedish Turnips', *J.R.A.S.E.*, II, 1841, pp. 296-8.

⁴⁴ *Northampton Mercury*, 25 Sept. 1819.

⁴⁵ *Farmer's Magazine* I, 1826, p. 97; *Northampton Mercury*, 16 Sept. 1826.

⁴⁶ Museum of English Rural Life, Reading: Board of Agriculture MSS.: Minute Book 1820-2, 23 March 1821. I wish to thank Mr Michael Birch of Christ's College, Cambridge, for drawing my attention to this reference.

⁴⁷ *Druid*, *op. cit.*, p. 125. When as trustee he undertook the administering of Holkham during the 2nd Earl of Leicester's minority, Althorp decided that the famous sheep there needed further improving. Goodwood MSS.: Althorp to Richmond, 8 June 1843. See also Parker, *op. cit.*, p. 161.

⁴⁸ *Northampton Mercury*, 29 Dec. 1821.

popular societies which had greater opportunities and resources for the dissemination of information to the mass of farmers.⁴⁹ In those societies already in existence Althorp found much that he thought needed to be changed. At the Smithfield Club he reformed the requirements and categories for entering exhibits to make it easier for farmers to compete with the aristocratic contestants. He broadened the base of the Club's membership, and insisted on a new standard of fairness in the judging procedure for awards.⁵⁰ At the Northamptonshire Society, and later in alliance with Lord Milton at other agricultural gatherings, he tried to dispense with formal speeches in order to encourage discussions in which farmers could exchange ideas with one another.⁵¹ He was pleased to find an increasing number of farmers coming to the show, and he got to know many of them personally. Althorp often struck observers as a "farmer-looking man" wearing "farmer-like style of dress"⁵² and he took pleasure in announcing to a duke he had invited to the Club's meeting, "we dine at the Crown and Anchor like farmers in boots."⁵³

Althorp was intent, too, on broadening the scope of agricultural shows. Not only were sheep and pigs added to the prize list in Northamptonshire but also he persuaded his mother to establish a contest for poultry, and induced some of the county magnates to put up premiums for both animal and vegetable husbandry.⁵⁴ At the Smithfield show he opened the doors to implement manufacturers and seed sellers, and each year these displays grew in size and number. He was encouraged by the long distances which some visitors travelled to attend the Chapel Brampton show—some

from as far away as Scotland—and, in the last years of Althorp's presidency, up to 60,000 people visited the Smithfield show, including Prince Albert and the Queen.⁵⁵

Even while he was Chancellor of the Exchequer, Althorp each year arrived at the show ground before dawn to superintend the stewards, and to help place the animals in their stalls.⁵⁶ A few months before his death in 1845 he appeared at the Royal Agricultural Society show yard at Shrewsbury in his shirt-sleeves to push livestock into the sheds with his own hands.⁵⁷

In the years when he was not officiating, he sat out among the farmers and not at the high table during the annual dinners of the Royal Agricultural Society. These activities would have seemed ridiculous and repugnant to his predecessors in the presidency of the Smithfield Club. Althorp, however, did not fear to appear undignified, and his unaffected simplicity increased the regard in which farmers held him.

Althorp did not confine his activities to Northampton and Smithfield. He travelled around the country speaking about the merits of the mangel-wurzel, and attending agricultural meetings. In 1827 he was president of the Bedfordshire Agricultural Society, and encouraged the local cattle show near Wiseton. In the same year he became a member of the Society for the Diffusion of Useful Knowledge. This body had been founded by Brougham and others involved in the inception of the University of London and the Mechanics Institutes. Althorp became one of its most active members. By 1840 he was in charge of the Society, and at his death it came to an end.⁵⁸ The Society's aim was the dissemination of technical and educational material for the purpose of self-improvement among working

⁴⁹ Spencer, 'West Norfolk', *J.R.A.S.E.*, III, 1842, p. 9.

⁵⁰ *Northampton Mercury*, 19 Dec. 1829; *Farmer's Magazine*, IV, 1830, p. 78.

⁵¹ *Northampton Mercury*, 25 Sept., 27 Nov. 1824; *Farmer's Magazine*, VII, 1843, pp. 348-57.

⁵² J. A. Froude, ed., *Thomas Carlyle 1795-1835*, 1882, II, p. 173; G. Ticknor, *Life, Letters, and Journals*, 1876, I, p. 442.

⁵³ Goodwood MSS.: Althorp to Richmond, 20 Dec. 1831; *Northampton Mercury*, 22 Dec. 1827.

⁵⁴ *Ibid.*, 20 Dec. 1823; *Farmer's Magazine*, X, 1836, pp. 361-2.

⁵⁵ *Ibid.*, VIII, 1845, p. 543.

⁵⁶ *Northampton Mercury*, 23 Dec. 1826; *Farmer's Magazine*, I, 1826, p. 97.

⁵⁷ *Druid, op. cit.*, p. 126.

⁵⁸ Monica Grobel, 'The Society for the Diffusion of Useful Knowledge 1826-1846', unpub. M.A. thesis, Univ. of London, 1933, p. 48; R. K. Webb, *The British Working Class Reader, 1790-1848*, 1955, pp. 66-73, 85-90, 114-22.

people. Althorp took particular interest in supervising the Farming Series in the Library of Useful Knowledge: suggesting topics, finding authors, and editing manuscripts.⁵⁹ This series, especially William Youatt's book on the horse, was among the Society's most popular publications.⁶⁰

In October 1837 Althorp, now Earl Spencer, presided over a meeting at York at which the Yorkshire Agricultural Society was founded. He hoped that this association would become the English equivalent of the Highland Society of Scotland, which he greatly admired.⁶¹ It had the usual purpose of sponsoring an annual show of livestock and implements, but there were also ambitious plans for promoting research, publishing a journal, and setting up an agricultural school.⁶² In this enterprise, as in many other activities, Spencer was closely associated with Lord Milton, now Earl Fitzwilliam. It was another friend, however, who was to be his partner in a far greater undertaking.

The fifth Duke of Richmond, although a Tory, had joined Lord Grey's ministry through his revulsion at Peel and Wellington's betrayal in passing Catholic emancipation. He was a strong supporter of the Corn Laws, criticized the New Poor Law, approved of spring guns, and was illiberal over Irish policy.⁶³ These were traits hardly likely to find favour in Spencer's eyes. However, the Duke was a breeder of southdowns, and as long as they talked about sheep the ultra-Whig and ultra-Tory got on well together and, indeed, became fast friends. Spencer had taken Richmond as his guest to the Smithfield Club in 1831, and they exchanged agricultural visits.⁶⁴ In 1832 the Duke

was pressed into service as a vice-president of the Club, and on Spencer's death became its fourth president. Spencer found in Richmond not only a fellow enthusiast for agricultural improvement but also a perfect political counterweight who would help to create a neutral atmosphere—especially important as the flames of the Corn Law controversy grew hotter—in the attempt to found a national agricultural association.

The Smithfield Club did not provide the right vehicle for such a project. Its main concern remained livestock. But it was from his platform as president of the Club that Spencer first broached the idea of a new organization encompassing all forms of agriculture and drawing its support from all over England and Wales. This speech, delivered on 11 December 1837, once again emphasized the importance in Spencer's eyes of the diffusion of practical information in a simple form to those who actually tilled the soil. Although he wanted the Society to initiate and subsidize research, Spencer had no patience for untried theories. He spoke of "the application of science to practice," a phrase later adopted as the motto of the Royal Agricultural Society of England—"Science with Practice."⁶⁵

The response to Spencer's proposal was enthusiastic. Many landowners and farmers were eager for the establishment of such an organization, especially in view of the failure of the Central Association founded in 1835. Additional impetus was engendered by a letter addressed to Spencer by Henry Handley, an M.P., who urged the foundation of a society with a central location in London where a library and museum could be accommodated.⁶⁶ The time was ripe for advancement, but it took men of the rank, integrity, and national prestige of Spencer and Richmond to gather a list of subscribers who could provide the capital to launch a substantial and enduring institution. A public meeting was arranged in London on

⁵⁹ Grobel, thesis, pp. 362-70, 380, 382; Univ. College London Library: Society for the Diffusion of Useful Knowledge, MSS.: Althorp to T. Coates, 21 Sept., 13 Nov. 1832, 20 July 1836.

⁶⁰ Grobel, thesis, pp. 374-6; S.D.U.K. MSS.: Althorp to Brougham, 26 Oct. 1829.

⁶¹ Butler, *op. cit.*, pp. 156-7.

⁶² J. Fairfax-Blakeborough, 'Centenary of the Yorkshire Agricultural Society', *Trans. Yorks. Ag. Soc.*, 94, 1936, pp. 1-12; *Farmer's Magazine*, IV, 1840, p. 373; VI, 1842, pp. 368-9.

⁶³ Chester Kirby, *The English Country Gentleman*, 1938, pp. 111-65.

⁶⁴ Goodwood MSS.: Althorp to Richmond, 6 Dec. 1833; Althorp MSS.: Althorp to Spencer, 12 Dec. 1833.

⁶⁵ *Farmer's Magazine*, II, 1838, p. 179; E. Clarke, 'The Foundation of the Royal Agricultural Society', *J.R.A.S.E.*, 3rd ser., I, 1890, pp. 2-3; Scott Watson, *op. cit.*, p. 15.

⁶⁶ *Ibid.*

9 May 1838, where Peel, Stanley, Graham, Wellington, Fitzwilliam, and others announced their support.⁶⁷ Spencer chaired the meeting, and was automatically chosen as the first president. He spoke then in much the same terms as he had written to Richmond a few months before, when he was formulating what he thought should be the main objects of the Society:

... First the improved cultivation of the land and secondly improved management of domestic animals, more especially to their medical treatment. In the first of these, English farmers have a great deal to learn which is known to Scotch farmers, and both a great deal to learn which nobody at present knows. In the second the whole is Terra Incognita. With respect to Cattle Shews we must have them or we can excite no interest and get no subscriptions, but I consider that in this respect the public is at present pretty well supplied and therefore and only on this account consider it a secondary consideration.⁶⁸

He and Richmond kept a tight grasp on the government of the Society. Between them they held the presidency for four out of the first seven years of its existence, and during the other three years they still acted as if in office.

III

Spencer was active in every facet of the Society's affairs. He arranged for correspondence with foreign societies to go through the Foreign Office.⁶⁹ He urged the Society to sponsor experiments, and backed the idea of setting up a research farm.⁷⁰ He was eager for the appointment of Dr Playfair as consulting chemist, and during Spencer's second term as

president the Society sponsored the latter's lectures on agricultural chemistry at the Royal Institution.⁷¹ Josiah Parkes, the drainage expert, was made consulting engineer during the same year. Spencer was also anxious that the Society support the work of the Veterinary College, and he pressed for the establishment of lectures on cattle diseases to be given at the school.⁷²

Earl Fitzwilliam had moved a resolution at the May 1838 meeting in favour of holding annual shows in different parts of England and Wales. The first of these was held at Oxford in 1839, where Spencer presided over a huge, popular gathering. The exhibitions grew in size every year, particularly after sites were chosen with a view to access by rail.⁷³ A library and museum were set up in the Society's permanent headquarters in Hanover Square, and Spencer dealt with the printing of its catalogue.⁷⁴

To encourage research the Society annually announced a series of essay topics for which prizes were awarded. The successful entries were published in the *Journal*, which first appeared in 1840. Besides contributing articles, Spencer helped to edit the *Journal*, and he also urged the association of the Society for the Diffusion of Useful Knowledge with the Royal Agricultural Society in various publications.⁷⁵ Philip Pusey, the official editor of the *Journal*, worked closely with Spencer in placing a premium on short, practical articles. His role in the management of the Society was second only to that of Richmond and Spencer, and the latter took steps to ensure that Pusey soon followed them in the office of president. Spencer took positive delight in nominating a man to the post who was not a peer, and who was to be

⁶⁷ *Ibid.*; Goodwood MSS.: Althorp to Richmond, 14 Feb. 1838.

⁶⁸ Goodwood MSS.: Althorp to Richmond, 10 Jan. 1838; *Farmer's Magazine*, III, 1839, p. 269; Butler, *op. cit.*, pp. 156-7.

⁶⁹ National Rec. Arch.: Broadlands MSS.: Althorp to Palmerston, 8 Aug. 1838; Goodwood MSS.: Althorp to Richmond, 18 Aug. 1838.

⁷⁰ *Ibid.*, Althorp to Richmond, 18 Feb. 1840; *Farmer's Magazine*, III, 1840, p. 470.

⁷¹ *Ibid.*, IX, 1845, p. 11.

⁷² Goodwood MSS.: Althorp to Richmond, 29 Mar. 1839; Trow-Smith, *op. cit.*, p. 318; Scott Watson, *op. cit.*, p. 104.

⁷³ E. Clarke, *The First Two County Meetings of the Royal Agricultural Society of England, Oxford 1839: Cambridge 1840*, 1894, pp. 1-29.

⁷⁴ Goodwood MSS.: Althorp to Richmond, 18 Feb. 1840.

⁷⁵ S.D.U.K. MSS.: Althorp to T. Coates, 18 May 1838.

elevated for his talents and service to farmers, not for his acreage.⁷⁶ But it was Spencer who suggested to John Grey of Dilston the idea of writing a survey of agriculture in Northumberland, which initiated the county series as a regular feature of the *Journal*.⁷⁷

As Spencer and Richmond had recognized at the outset, the life of the Society was threatened by the fierce political atmosphere of the early 1840's. "If politics interfere at all," the former had written to a friend, "an Agricultural Society must fall to the ground."⁷⁸ The Duke, supported by Peel, announced that he wanted the Society to be "neutral ground."⁷⁹ It was the diverse nature of Spencer and Richmond's ideological stances which enabled the Society to collect such a broad spectrum of support.⁸⁰

It was impossible, however, to maintain peace. Richmond became president of the National Society for the Protection of Agriculture, and Spencer publicly declared his support for complete repeal of the Corn Laws in 1841.⁸¹ The latter also strenuously opposed the nomination of the protectionist Duke of Buckingham as president of the Royal Agricultural Society.⁸² Spencer had become a free trader many years before. In the 1820's he had joined with Ricardo and other classical economists in the Political Economy Club, and his closest ally, Fitzwilliam, had been one of the earliest and most severe critics of protection.⁸³ With regard to free trade in corn, however, Spencer

had only expressed his feelings in private to friends.⁸⁴ While Fitzwilliam denounced the Corn Laws at agricultural meetings and was soundly booed, Spencer, at the same gathering, would avoid controversial topics and only go so far as to express sympathy with the farmers' plight.⁸⁵ Some protectionists had noticed what they called "his hostility to the Agricultural interest," and one revengeful Tory farmer went by stealth into his barn at Chapel Brampton and maliciously fed a prize cow the wrong food.⁸⁶ However, it was not until Spencer's forceful speech at Northampton in November 1843 that the farming community realized their leader was a Judas.⁸⁷ By keeping silent Spencer had hoped that he could use his influence gradually to wean the farmers away from their faith in protection.⁸⁸ And once the words were out of his mouth, he instantly regretted that he had spoken.⁸⁹ He was obliged to resign from the Northamptonshire Farming and Grazing Society in order not to cause its dissolution.⁹⁰ He had also to turn down a request to chair the meeting for the establishment of the Royal Agricultural College at Cirencester, a project dear to his heart, because his association with the project would now damage its chances for success. Motions of censure were passed against him at farmers' meetings, and a movement was started to call for his resignation as president of the Royal Agricultural Society.⁹¹

Other political questions also involved

⁷⁶ Goodwood MSS.: Althorp to Richmond, 3, 18 Feb., 7 March 1840; Scott Watson, *op. cit.*, pp. 39, 160-1; Paolo E. Coletta, 'Philip Pusey, English Country Squire', *Ag. Hist.*, xviii, 1944, pp. 83-91.

⁷⁷ Druid, *op. cit.*, p. 124; St Andrews Univ. Library: Miscellaneous MSS.: Althorp to John Grey, 8 Jan. 1841.

⁷⁸ Lord Cockburn, *Letters Chiefly Connected with the Affairs of Scotland . . . to Thomas Francis Kennedy*, 1818-1852, 1874, p. 529, Althorp to Kennedy, 21 Feb. 1841.

⁷⁹ *Farmer's Magazine*, II, 1838, pp. 182-3, 188-90.

⁸⁰ In 1838 Spencer had written to Richmond when they were searching for subscribers: "I hope Handley will get the names of some outrageous Tories and some of the great Corn Law people, to neutralize the effect of my name and yours": Goodwood MSS.: 14 Feb. 1838.

⁸¹ *Parl. Deb.*, 3rd ser., LIX, c. 18-24.

⁸² Althorp MSS.: Althorp to Brougham, 3 May 1842.

⁸³ See David Spring, 'Earl Fitzwilliam and the Corn Laws', *Amer. Hist. Rev.*, LIX, 1954, pp. 287-304.

⁸⁴ Cockburn, *op. cit.*, p. 442, Althorp to Kennedy, 10 Sept. 1832; Butler, *op. cit.*, p. 158, Althorp to Grey, 26 May 1841; Nat. Library Scotland: Ellice MSS.: Althorp to Edward Ellice, 16 March 1843.

⁸⁵ *Farmer's Magazine*, I, 1826, pp. 93-5; *Leeds Mercury*, 19 Aug. 1826.

⁸⁶ A. M. W. Stirling, ed., *The Letter-Bag of Lady Elizabeth Spencer-Stanhope, 1806-1873*, 1923, II, pp. 155-6; House of Lords R.O.: Shaw Lefevre MSS.: Spencer Trust 1 Althorp to C. Shaw Lefevre, 31 Jan. 1835.

⁸⁷ *Northampton Mercury*, 2 Dec. 1843.

⁸⁸ Fitzwilliam MSS.: 212 Althorp to Fitzwilliam, 1 Feb. 1839; Univ. College London Library: Brougham MSS.: 13537 Althorp to Brougham, 26 Sept. 1841.

⁸⁹ Fitzwilliam MSS.: CQ Althorp to Fitzwilliam, 12 Jan. 1844.

⁹⁰ *Ibid.*, EX same to same, 29 Jan. 1844.

⁹¹ Althorp MSS.: Althorp to ?, draft, 7 July 1844; Scott Watson, *op. cit.*, p. 136; *Farmer's Magazine*, VIII, 1844, p. 296; B.M.: Add. MSS. 35155, f. 90.

Spencer in difficulties. In 1834 he had proposed his own plan for tithe reform. This tied the tithe to rental, and made provision for redemption. The Bill failed to pass, and in 1836 he lent his support to Lord John Russell's Bill with its prescription of compulsory commutation. But no measure, he thought, could satisfy all the interests concerned.⁹²

Security of tenure for tenants appeared to him to be another nearly insoluble problem. Although he believed Coke's long leases combined with covenants had contributed greatly to the improvement of the Holkham estate, he felt the system was too easily open to abuse.⁹³ Virtually all the tenantry on the Spencer estates—some of whose families had been in occupation from the reign of Henry VII—were on yearly leases. The able management of the Spencers had led the farmers to believe that good landlords were hereditary in the family.⁹⁴ Spencer had offered twenty-one year leases but his tenants declined them. They had no hesitation in laying out money on their farms, and were receptive to advice from Spencer and his agents. Although he gave much thought to the problem of securing protection for tenants with bad landlords, Spencer was unable to produce a workable scheme which would not undermine the sense of trust that was basic to the English landed system, and again he confessed failure.⁹⁵

Tithes and tenures were not the only problems about which Spencer was pessimistic or felt a personal sense of ineffectiveness. His calls for improving the conditions of agricultural labourers did not appear to arouse much interest.⁹⁶ He was disheartened to see that many farmers continued to breed their animals indiscriminately.⁹⁷ The financial burden that weighed heavily on his own estate made it

impossible for him to implement schemes for improvement that required large capital outlays.⁹⁸ His grandiose plans for a scholarly biographical dictionary, entirely inappropriate for mass readership, precipitated the collapse of the Society for the Diffusion of Useful Knowledge. Even the popular farming series did not accomplish its objective; he reported sadly to the Secretary of the Society: "To say the truth I am afraid our Farmers Series is not very much taken in by the Farmers, at least I do not see it in their houses nor do I hear them talk about it. . ."⁹⁹ Spencer was inclined to over-emphasize the importance of new inventions and massive injections of capital into the land when, in fact, a wider use of relatively simple techniques and discriminating expenditure would have been more efficient and productive.

It would be wrong, however, to concentrate on Spencer's failures. His vision of the future was mature and enlightened, and he had the strength of will and confidence in his own judgement to make others see things as he did. Unlike his friend, Fitzwilliam, whose interests straddled the two worlds of rural life and commercial expansion, Spencer's wealth derived almost solely from the land. Nevertheless, he recognized and accepted the changing balance in the importance of the two worlds in the economy and in society. He criticized his own Reform Act for giving too much influence to the landed interest.¹⁰⁰ The prosperity of industry, upon which Britain's future greatness relied, required efficient agriculture and cheap corn. Spencer and Fitzwilliam rejected Malthus's grim forecasts, and believed population growth increased the power and wealth of the

⁹² P.R.O.: Russell MSS.: 30/22/2A Althorp to Lord John Russell, 26 March 1836.

⁹³ Spencer, 'West Norfolk', p. 8.

⁹⁴ James Caird, *English Agriculture in 1850-51*, 2nd edn, 1968, pp. 431-3.

⁹⁵ Nottingham Univ. Library: Ossington MSS.: C128 Althorp to Denison, 2 Sept. 1844.

⁹⁶ *Farmer's Magazine*, VII, 1843, pp. 317-19.

⁹⁷ Spencer, 'On the Selection of Male Animals', p. 25.

⁹⁸ Spencer inherited a debt from his father that stood at £496,869 in 1836. The gross income of the estate before he began selling property was around £40,000 while interest on the debt and annuities took away nearly three-quarters of this—the payments totalled £31,060—and merely the upkeep of Spencer House, Wiseton, and Althorp Park on skeleton staffs used up most of the rest: Shaw Lefevre MSS.: Spencer Trust papers; Althorp MSS.: box 13 and estate ledgers and papers. See also David Spring, *The English Landed Estate in the Nineteenth Century: Its Administration*, Baltimore, 1963, pp. 36-7.

⁹⁹ S.D.U.K. MSS.: Althorp to Coates, 23 April 1836.

¹⁰⁰ Althorp MSS.: Althorp to Brougham, 30 Aug. 1837; Hatherton MSS.: Althorp to Littleton, 1 Jan. 1831.

country not diminished it.¹⁰¹ It was of crucial importance to the maintenance of aristocratic government and to the unhindered growth of industry not only that the magnates understand economic and social evolution but also that the leaders of agricultural organizations and opinion such as Fitzwilliam and Spencer urge acceptance of change.

They worked to modernize the sacred conception of the superiority of landed society's values over all other forms of life. Land, Fitzwilliam declared harshly in a sentence that must have made some of his fellow peers cringe, "may be described as clumsy and inconvenient pieces of machinery."¹⁰² Spencer was deeply gratified by Sir James Graham's speech at the Oxford meeting of the Royal Agricultural Society in 1839, in which he was praised in semi-mystical terms as an improver of the soil—such a man who in all ages was "regarded as the father of his people..."¹⁰³ No good countryman of Spencer's kind could have remained unmoved by such a compliment. But at the last show of the Society attended by him, at Shrewsbury in 1845, he gave a valedictory speech which dwelt on the interdependence of the economy, and ended in an unusual toast for a farmers' gathering: "to Agriculture, Manufactures, and Commerce."¹⁰⁴

IV

Lord Spencer lived and worked in an era sandwiched between 'the Agricultural Revolution' and the age of 'High Farming.' The widespread adoption of new drainage techniques, the use of new types of fertilizers, and the important advances in veterinary medicine occurred after his death. It was his task to help

consolidate and disseminate what had already been achieved, and to set the stage for what was to come.

Spencer was not the first to organize agricultural associations, and there were many farming leaders who made important contributions to improvement who opposed his political and economic policies. Moreover, it is difficult to discover how deeply the spirit of the Royal Agricultural Society permeated through to the lower echelons of the farming community, and one might fairly have some reservations about calling it, as Lord Ernle did, "the heart and brain of agriculture."¹⁰⁵ Nevertheless, it did play an important role in the development of nineteenth-century farming, and the influence it exerted in its early years was due in large measure to the emphasis laid on widespread propaganda and severely practical advice. Spencer sought to ensure that it did not become a remote, aristocratic coterie. The leaders of the Society kept their boots and gaiters freshly caked with clay and muck, concentrating their efforts on the diffusion of utilitarian information to ordinary farmers.

Spencer's personal reputation was of immeasurable assistance in this work. His plain, unpretentious, honest, and farmer-like character had a great appeal in the countryside. Even his views on the Corn Laws were forgiven him once the initial shock of revelation was over. He remains a foremost example of why the aristocracy continued to retain the leadership of society. Not only was the Whig grandee able to adjust to change, he became too a vigorous advocate of innovation, while remaining an exemplar of all that was most respected in the old tradition. These attributes were combined with good sense and singleness of purpose. Thus Spencer became a powerful instrument for the conversion of farmers to progressive ideas, and for the organization of men and resources to produce future technical advances.

¹⁰¹ Spencer, 'West Norfolk', p. 1; Milton Park, Peterborough: Milton MSS.: Diary, Aug. 1821; Fitzwilliam MSS.: letter book 732, Milton to Thos. Cook, 18 July 1837.

¹⁰² Earl Fitzwilliam, *First, Second, and Third Addresses to the Landowners of England on the Corn Laws*, 2nd edn, 1839, p. 34.

¹⁰³ *Farmer's Magazine*, III, 1839, pp. 270-1.

¹⁰⁴ *Ibid.*, IX, 1845, p. 320.

¹⁰⁵ *English Farming, Past and Present*, 6th edn, 1961, pp. 362-3.

The Dorset Dairy System

By PAMELA HORN

"Wanted, A Man and his Wife, to manage a Dairy of Sixteen Cows; a good Character indispensable. Apply to Mr. Bascombe, Tatton Farm, Upway, Dorchester."

Advertisement in *Dorset County Chronicle*,
6 December 1860.

FOR centuries Dorset has been renowned as a dairying county.¹ Indeed, in the 1850's its butter was said to hold "the highest rank" of any in the "quotations of the London market," and although its cheese (normally made from skimmed milk) was less appreciated, J. C. Morton's *Cyclopedia of Agriculture* described the best quality produced as "pleasant to the taste and preferred by many to the richer qualities of other districts."² At its worst, however, the old Dorset skim cheese was hard and unpalatable. According to one contemporary, it was "more fitted to be used as barrow-wheels than for food."³

Raw milk sales were of limited importance only until the last quarter of the nineteenth century, when through the railway network the widening of outlets in nearby seaside resorts like Bournemouth, Weymouth, and Poole, and also in London, brought an expansion. This trend was reinforced by the growing imports of foreign butter and cheese over the same period, and the consequent general fall in the price of home dairy produce.⁴ Nevertheless as late as the 1920's and 1930's a number of Dorset butter and cheesemakers survived—like Mr Dimond of Holcombe Dairy, Alton St Pancras, who from 1915 to 1925 combined winter sales of milk with the manufacture of Cheddar cheese during the summer months. His succes-

sor on that particular holding specialized in the production of Caerphilly cheese which he sold at Highbridge market, and it was not until 1929 that cheesemaking ceased at this dairy.⁵

However, the fame of Dorset butter and cheese was not the most notable aspect of the county's dairy industry. For here, unlike the practice in other districts, the farmer did not manage his own herd but instead hired the animals out to a specialist dairyman at a fixed price per animal, the exact figure varying in accordance with the quality of the land and the produce of the beast. This system of letting cattle was found all over the county and not merely in the dairying areas of the Blackmoor Vale and west Dorset. It was already well established by the beginning of the eighteenth century, as surviving dairy agreements make clear, and when in 1793 John Claridge wrote his *General View of the Agriculture in the County of Dorset* he described the system at some length. Although it was refined in detail over the course of succeeding years, its essentials survived, and are to be found even in the few dairy agreements which are still being concluded in the 1970's. The only differences are that in the final quarter of the twentieth century the dairyman is concerned with the sale of raw milk rather than with butter or cheese, while responsibility for the provision of animal fodder has largely been shifted from the farmer to him.

Claridge noted that the usual plan was for the farmer to find his dairyman:

a certain number of cows for one year, commencing at Candlemas, at a fixed sum agreed on. He feeds, foddors and supports the specific number throughout the year; he finds a house for the dairy-man and his family to live in, and allows him to keep as many

¹ Thus, William H. Marshall in *The Rural Economy of the West of England*, 1796, II, p. 148, declared of West Dorset: "This has been, time immemorial, a Dairy District."

² J. C. Morton (ed.), *A Cyclopedia of Agriculture*, 1855, I, p. 615.

³ Joseph Darby, 'The Farming of Dorset', *Your. Bath and West of England Soc.*, 3rd ser., IV, 1872, p. 30.

⁴ *Dorset V.C.H.*, II, 1908, p. 281.

⁵ Information supplied to the author by Mr A. F. Waterman of Broadmayne, near Dorchester, July 1975.

pigs and poultry as the thinks proper, and the keep of a mare to carry out his butter, &c. which by producing a foal yearly, is considered a material advantage to the dairyman, who perhaps sells it when weaned in November from eight to ten pounds. If the farmer is inclined to let his dairy to another man, he gives the dairy-man notice before All Saints Day, and by custom the quarter of a year from November to February is deemed sufficient, and the dairy-man quits the house and gives up his bargain the ensuing Candlemas. The dairies in general are managed by making all the cream into butter, and from the skimmed milk, an inferior sort of cheese, which sells from twenty-five to thirty shillings per hundred weight in the county, and the butter, which is worth eight-pence or ten-pence per pound, is in general salted down in tubs, and supplies Portsmouth and the London markets; but there is also made a considerable quantity of the better sort of cheese, which brings a price as high as thirty-seven shillings or two guineas per hundred weight.⁶

As Claridge also indicates, the amount of money paid by the dairyman varied according to the nature of the pasture land available, the likely milk yield of the cows, and the expected price of the end products. Thus a dairy agreement concluded between Humphrey Weld of Lulworth Castle and Joseph Balaam of Winterbourne Kingston in 1714 for the management of thirty milch cows and one bull at Winfrith Newburgh envisages an annual rent of £2 5s. per cow, while in 1754 the Reverend Gregory Syndercombe, rector of Symondsbury, was letting his cows at £3 5s. each a year.⁷ By 1793, when late eighteenth-century inflationary pressures were already building up, Claridge considered that the average rent throughout the county was "about six pounds for a cow of full growth; four pounds for heifers, and four pounds ten shillings, or five pounds, for three

years old." But he pointed out that in "some of the poorest parts of the county [prices were] as low as fifty shillings or three pounds per head, per annum, and in others, as high as six pounds ten shillings, or seven pounds; and in one parish near Beaminster, called Broad Windsor, as high as eight pounds."⁸

In the new century the generally upward trend of prices was maintained. By 1855 J. C. Morton's *Cyclopedia of Agriculture* was suggesting an average rent of £9 10s. per annum, while Joseph Darby, in an article on 'The Farming of Dorset', written in 1872, noted a range of from £10 to £12 per beast.⁹ These estimated levels are confirmed by surviving agreements, such as that concluded in January 1874 between Walter Ross, a farmer of Ibber-ton, Dorset, and John and Henry Watts, dairy-men, by which the two latter undertook the management of a dairy of thirty-two cows and heifers for an average rental of £12 10s. per beast.¹⁰ Similarly, John Butler, a farmer of Tarrant Monkton, was letting his herd of twenty milkers at £12 10s. per animal per annum in 1882. In all of the cases quoted the rent was paid on a quarterly basis, and there were usually provisions for deductions to be made from that sum if the cows calved late—the date fixed for this was normally early in May—or if some other mishap occurred. The dairyman, for his part, had to promise not to milk any cow for more than forty weeks in the year, to date from the calving, and in the later years of the century he was also expected to provide a quantity of cotton cake or other additional fodder out of his own pocket. Thus an agreement concluded by a dairyman in the Frampton area during 1887 for the management of 114 cows included the proviso: "To be calved down in good condition, all the best to have corn and chaff at once with 3 tons of best cotton cake after calving."¹¹ (See also Appendix.)

But as the agricultural depression deepened

⁶ John Claridge, *A General View of the Agriculture in the County of Dorset*, 1793, pp. 14–15.

⁷ Dairy Agreement at Dorset Record Office, D10/T197; Barbara Kerr, *Bound to the Soil*, 1968, p. 57.

⁸ Claridge, *op. cit.*, p. 14.

⁹ Darby, *op. cit.*, p. 29.

¹⁰ Dorset R.O.: MK/29.

¹¹ Information kindly provided by Mrs M. Bond and her father, a retired farmer, of Maiden Newton, near Dorchester, July 1975.

in the last years of the nineteenth century the upward movement in animal rents was halted and even reversed. In some cases farmers took in hand the management of their own herds, but in others the animals were being let for what had been mid-century prices. By 1901 John Butler, for example, was letting his dairy of thirty-four cows for £10 per annum each, and a similar sum was demanded by farmer Harold Waterman for his dairy of fifty-two cows and heifers at Holcombe Dairy, Alton St Pancras, in 1900.¹² Not until just before World War I was the upward trend resumed, with animals letting at around £12 per annum on the eve of the war, and for about £20 at its end.¹³ On the Waterman farm the rent stood at £17 per cow by 1924, while Edward Duke of Martinstown was letting his herd of twenty-seven cows and heifers for £21 per beast per annum in 1930.¹⁴ As a matter of comparison, one of the very few dairy agreements drawn up in 1974 suggests a rental of £72 per animal for a herd of sixty-two attested dairy cows.¹⁵ The farmer provided pasturage and feed on 106 acres of land but all extra fodder was the responsibility of the dairyman. Such agreements meant that at a time of sharply rising feed prices the dairymen were in difficulties. Consequently some of the agreements drawn up in recent years have fallen through thanks to the adverse economic conditions.

But if these are the mechanics of the Dorset dairy system, it must be asked why the system survived for so many years. From the farmer's point of view it had three principal advantages. Firstly, it relieved him of the responsibility of managing his herd, and this fact was reinforced by a sociological one, namely that for long "cow-keeping" was looked down upon by

larger corn and sheep farmers in the country. In the view of one substantial Dorset farmer, this attitude was undermined only during the early 1920's when the return of depression caused "sheep to give way to cows over a wide part of Dorset. Many sheep and corn farmers were saved from complete ruin by becoming 'cowkeepers'."¹⁶

Secondly, the level of income to be obtained from a given herd was assured by the renting system with a minimum risk to the farmer. Some agriculturists, like John Butler, admittedly did experiment from time to time by directly employing a dairyman instead of hiring out the herd. In a letter written to A. H. Bonditch, a dairyman Butler engaged on this basis in 1897, he sketched out his proposals:

Will you accept £1 per week wages & 5 per cent at the end of the year on all clear profit made on Butter, Cheese & Pigs. House & garden rent free, 2 Tons of coal—100 Furze faggots for the Dairy work—Straw for litter to be delivered at Dairy House. Dairyman to look after cows—feed milkers—make Butter & Cheese. Feed Pigs & keep pigsties clean. To look after Poultry & to be paid 1d. per dozen for Eggs—3d. per couple for chickens reared. 3d. per head for geese reared. Dairyman to find part Dairy Utensils.¹⁷

According to Butler's rather crude book-keeping, during this year he secured a turnover on the dairy enterprise of £349 11s. 1d. and a balance of income over expenditure of £224 13s. 5d. (Bonditch's commission, incidentally, amounted to a mere £5 11s. 10d.) However, the scheme proved less profitable than the traditional system of letting which he had adopted in earlier years and to which he reverted in 1898, hiring out his herd of twenty-six cows at £10 10s. per animal a year. In return he provided three ricks of hay, pasture on three

¹² Details of the Butler agreements can be found in the relevant account book at Reading University Library, DOR.5/1/5. See Appendix for the Waterman agreement.

¹³ Information provided by Mr Robert Saunders, a farmer of Broadmayne, near Dorchester, and Mr John Hedditch, a retired farmer, of Broadoak, near Bridport, June 1975.

¹⁴ A copy of the dairy agreement involving Mr Edward Duke has kindly been provided by his son, Mr Henry Duke, in correspondence with the author, June 1975.

¹⁵ Information provided by Mr Henry Duke.

¹⁶ Mr Robert Saunders in correspondence with the author, June 1975. But see also L. E. Tavener, 'Dorset Farming 1900-1950', in *Proc. Dorset Nat. Hist. and Arch. Soc.*, 75, 1953, p. 110.

¹⁷ Dairy agreement of Mr Butler in Reading University Library, DOR.5/3/4.

meadows, the aftermath (for grazing) on five other meadows after mowing had been completed, and one ton of cotton-cake for animal fodder. He added the proviso that any other concentrates used were to be paid for equally by himself and the dairyman. The latter was also to be allowed rough straw for litter for the pigs which he kept for his own profit—feeding them on whey or skimmed milk—and the run of a small paddock for the pigs and a horse. From Butler's point of view, however, the change was beneficial, since he later reckoned that his profit for 1898 had been £276 6s. 6d., or over £50 more than had been secured in the previous year.¹⁸ Thereafter he continued to let the herd out along the same lines until 1906 when he resumed direct management and concentrated on selling liquid milk to a retailer at Boscombe. This was a change which benefited him still more, and his gross profit levels rose from £482 in 1905 to £726 15s. 3d. in 1906, and to £1,026 11s. 5½d. by 1909. In 1905 the herd had consisted of fifty cows but unfortunately the size at the later dates is not available.¹⁹

These figures for the Butler enterprise may be compared with others collected rather earlier by William C. Little, an Assistant Commissioner with the Royal Commission on Agriculture in 1882. He estimated that during 1879 on a large corn-growing farm where there was kept a herd of sixty cows, and a wage-earning dairyman was employed, the annual receipts of the dairy enterprise amounted to:

	£	s.	d.
Butter	419	7	0
Cheese	102	18	0
Calves to butcher	206	4	0
Calves reared and valued to farm	48	0	0
Pigs	594	3	6
	£1,370	12	6

¹⁸ Butler accounts, Reading University Library DOR.5/1/5.

¹⁹ Summary drawn up in 1910 in Butler account book, DOR.5/1/6.

From that sum £365 had to be deducted for purchased food, £112 for the estimated value of home-grown fodder given to the animals, and £113 for labour costs. This left a net profit of £780, or £13 per cow. But Little had to admit that elsewhere in the county the situation was less favourable, and in some cases profits might amount to as little as £9 per cow.²⁰ Although he was unable to provide figures for dairymen hiring cattle on their own account, his calculations do indicate the narrow margins within which such men worked, given that annual rentals of £10 to £12 per animal were being paid at this time.

The third advantage which the dairy system could bestow upon the farmer was the fact that in the days when butter and cheesemaking were all important a dairyman and his wife, working on their own, were more likely to take pains over the quality of their produce than were those who were merely employees. In addition, in areas where dairies were remotely situated or the housing was poor, the opportunity to rent a herd might encourage a man to move in where otherwise he would have been reluctant to do so. Certainly Louis Ruegg, writing in the *Journal of the Royal Agricultural Society of England* in 1853, considered that the "excellence of Dorset butter" was due to the dairy system, "the manufacturer having a direct interest in his commodity, and the strongest of all inducements to make the very best article." Nevertheless, he also sounded a note of caution:

The interests of the farmer and those of the dairyman are evidently antagonistic. It is the farmer's interest to keep his cattle as cheaply as possible, without regard to the quality or quantity of their produce. On the other hand, it is the dairyman's interest to get all the milk he can from a cow without reference to the cost of production.²¹

Fifty years earlier William Marshall had been a good deal more critical of the system, al-

²⁰ *R.C. Agriculture*, P.P. 1882, xv, Report by William C. Little on Dorset, p. 28.

²¹ Louis H. Ruegg, 'On the Production of Butter', *J.R.A.S.E.*, xiv, pt 1, no. xxi, 1853, p. 75.

though on rather different grounds. He had condemned it as "injurious to an estate; as tending to let down the buildings and the fences of farms thus occupied by under tenants; who have not so permanent an interest in keeping them up as a lessee, or his tenant. . ."²² In view of the long survival of the system it is clear that most Dorset agriculturists did not agree with him.

From the point of view of the dairyman, the opportunity to hire cattle also had attractions. First and foremost it enabled a man with limited capital to set up on his own account. All he needed was enough cash to pay his first quarter's rent and to provide the dairy utensils needed. But up to the last decades of the nineteenth century these latter were not a particular problem, for most dairies could be managed without the use of expensive machinery. As Barbara Kerr points out: "Chestnut-wood pails and churns and cheese vats of elm wood were within the reach of men with modest incomes."²³

Usually the management of a dairy was undertaken by the younger son of a farmer or dairyman who was unable to succeed to his father's holding, but in some cases stockmen with initiative and determination could scrape together sufficient money to set themselves up in a small way. The penalty for failure was, of course, the loss of painfully accumulated savings and a reversion to the position of agricultural labourer. Perhaps because of the precariousness of their position, Dorset dairymen and their families were renowned for their "sobriety, honesty and industry."²⁴ Certainly Henry Rew, an Assistant Commissioner for

the Royal Commission on Agriculture, saw in 1895 this chance of social mobility for the ambitious labourer as one of the merits of the system. It provided "a stepping stone for men to rise from the position of stockman to that of dairyman, and from thence to tenant farmer."²⁵ And it is a matter of record that a considerable number of dairymen were able to move up the scale to become farmers in their own right. Indeed, some who have made the change as late as the third quarter of the twentieth century have made a great success of their opportunity.²⁶ Elsewhere, in Thomas Hardy's *Tess of the D'Urbervilles*, we have the example of "Dairyman Dick", who managed nearly a hundred milkers, and who was to be seen at church each Sunday dressed "in shining broad-cloth in his family pew," the image of middle-class respectability.²⁷

An examination of mid-Victorian census returns indicates that men did not usually take a dairy in the village where they were born, while many, especially at the beginning of their careers, moved around from dairy to dairy every three or four years. This was perhaps to enable them to take on a larger herd of cattle as their funds and experience grew. Some even moved into the county from over the Somerset or Devon border, like Edwin Thompson, dairyman at Stourpaine at the time of the 1871 Census, who had been born at Upton Noble in Somerset, or Henry White of Burton Dairy House, Charminster, who had been born at Shute in Devon. But the majority were Dorset men.²⁸ Families tended to be large, and the wife and daughters were expected to be accomplished dairywomen. If they were not, or if the family were small, then a dairymaid and often a young boy servant would also be employed. Thus at Charminster, a parish with at

²² Marshall, *op. cit.*, p. 150.

²³ Kerr, *op. cit.*, p. 56. However, the dairy equipment could be quite extensive. A typical advertisement of utensils for sale from Puncknoll Farm dairy, between Bridport and Dorchester, in January 1860 lists the following items: "12 milk leads and stands, 3 butter churns and stocks, double cheese press, single cheese press, cheese and other tubs, tin milk warmer, 8 milk buckets, 2 cream tins, with pail, 2 strainers, cream bowl, skimmers, &c., large and small beams, scales and weights, butter tubs, 13 cheese vats, curd mill, copper and iron furnaces, pigs' troughs, buckets, &c.": *Dorset County Chronicle*, 26 Jan. 1860.

²⁴ W. Stevenson, *General View of the Agriculture of the County of Dorset*, 1812, p. 453.

²⁵ *R.C. Agriculture*, P.P. 1895, xvii, Report on Dorset, p. 7.

²⁶ Mr Henry Duke and Mr Robert Saunders in correspondence with the author.

²⁷ Thomas Hardy, *Tess of the D'Urbervilles*, paperback edn, 1963, p. 127.

²⁸ Census Return for Stourpaine, P.R.O., R.G.10.1979, and Charminster, R.G.10.2013. According to Kelly's *Directory of Dorset*, 1890, there were at that date over 380 dairymen and cowkeepers in the county as a whole.

least five dairies in 1871, one of the dairymen, John Wake, aged thirty, had five small children only, and so had to employ two young male servants aged eighteen and fifteen respectively, to assist around the holding. Likewise Stephen Oliver of Forston Dairy in the same parish, with two grown-up sons but only one young daughter, employed a nineteen-year-old dairymaid to assist his wife. However, in some households the dairyman's daughter might begin work at a very early age. In 1864 the American, Elihu Burritt, was intrigued to hear of one nine-year-old dairyman's daughter who had "often milked ten cows at one sitting."²⁹ And in the late 1920's another girl can remember that at the age of five she stood "on a box in order to turn the handle of an enormous butter-churn."³⁰

The skill of the dairymaids was of course of great importance to the family income, since if the quality of the produce were consistently high it could command a high price. Barbara Kerr, quotes the case of Alice Hawkins of Frampton, a notable late nineteenth-century dairywoman, who built up a profitable connection with Bournemouth, selling high-quality Blue Vinney cheese, butter, eggs, and the carcasses of dairy-fed pigs. "Blue Vinney from lesser dairies sold at much lower prices."³¹ The anxieties to which the quality of the produce gave rise are also well described by Thomas Hardy. On one occasion when the butter was tainted with garlic, all the dairy workers were mobilized by "Dairyman Dick" to scour the meadows in order to eradicate the offending weed, while on another, consternation arose when the butter would not "come";

There was a great stir in the milk-house just after breakfast. The churn revolved as usual, but the butter would not come. Whenever this happened the dairy was paralyzed. Squish, squash, echoed the milk in the great

cylinder, but never arose the sound they waited for. Dairyman Crick and his wife, the milkmaids . . . stood gazing hopelessly at the churn; and the boy who kept the horse going outside put on moon-like eyes to show his sense of the situation. Even the melancholy horse himself seemed to look in at the window in inquiring despair at each walk round.³²

Great was the relief when the revolving churn at last changed its squishing "for a decided flick-flack", which indicated that the butter was forming.

Butter yields varied according to the quality of the animals and the fodder they received, but according to Elihu Burritt, in the Blackmoor Vale with a herd of fifty cows a dairyman might average four pounds of butter a week from each animal, plus about 150 pounds of skimmed cheese in the season, and sufficient sour milk, whey, etc. to feed between sixty and 100 pigs. On more favourable upland pasture the weekly butter yield might be pushed up to six pounds per animal. In Burritt's view about 250 acres of land in the Vale would support a dairy of 110 cows, "provided the whole production were given to them"—"every acre of pasturage would feed one cow through the season, and another would yield fodder, in grain or grass, sufficient to keep her well through the winter."³³

Once it had been made the butter and cheese might be sold to a local tradesman in a nearby town with whom prior arrangements had been made or perhaps it was disposed of at local auction markets. But even in the late eighteenth century there are accounts of heavy canvas-topped wagons carrying butter and cheese on a four days' journey from Bridport to London. In other instances, butter packed in wooden tubs, and hard cheeses perhaps weighing 100 pounds each, were carried by sea from Brid-

²⁹ Hardy, *op. cit.*, p. 155.

³⁰ Elihu Burritt, *A Walk from London to Land's End and Back*, 1865, p. 171.

³¹ Miss V. E. Long of Broadmayne in correspondence with the author, June 1975.

³² Kerr, *op. cit.*, p. 59.

³³ Burritt, *op. cit.*, p. 171. However, Ruegg, *loc. cit.*, p. 74, suggested a land appropriation of 2½ acres to 3 acres per cow as customary in the mid-1850's. See also G. E. Fussell, 'Four Centuries of Farming Systems in Dorset' in *Proc. Dorset Nat. Hist. and Arch. Soc.*, LXXIII, 1951, p. 128.

port. With the coming of the railways these wider trade networks became more important.³⁴

Most dairymen, however, also owned a horse-drawn spring cart to carry pigs and other produce to their local customers.³⁵ Thus Miss Veronica Long of Broadmayne, a dairyman's daughter, recalls that in the late 1920's and early 1930's her father had a milk round at the army camp at Bovington: "I can just remember going round the camp in a pony cart, delivering milk and selling butter, cream and eggs direct to the housewife. I know the surplus milk was taken down to Wool Station, again by pony and cart, and presumably went to a factory. When a number of cows were dry, and milk yields low, we had to buy milk in order to supply the customers."³⁶

The Dorset dairy system provides one interesting variant on the general theme of pastoral farming. In recent years its importance has sharply declined, thanks in the main to the ability of farmers to rail milk in bulk to London and to their greater willingness to manage their own herds.³⁷ The virtual disappearance from the county of farm-based butter and cheese-making has also reinforced this trend.

³⁴ This applied not merely to milk sales in London but to local outlets as well. Thus in 1894 the *Dorset County Chronicle* contained numerous advertisements from E. J. Shute of the Butter Factory, Gillingham, appealing for butter "in very much larger quantities. Farmers making first-class butter should send it to E.J.S., who always pays tip-top price . . . E.J.S. supplies Baskets and Cloths, and pays carriage from nearest Station. Payments monthly (oftener if desired)."

³⁵ Information from Mr B. R. Cox of Beaminster in correspondence with the author, June 1975.

³⁶ Miss V. E. Long in correspondence with the author, June 1975.

³⁷ According to the *Dorset V.C.H.*, II, p. 281, as early as 1906 "nearly 5 million gallons of milk" were dispatched by the London and South Western Railway to London and elsewhere, in addition to outlets in nearby seaside resorts. Since then milk sales have increased sharply, as have average yields per cow. These have risen from 570 gallons per cow on average in 1940 to 700 gallons per cow in 1949; "and the general trend is towards further increases": Tavenor, *loc. cit.*, p. 110.

APPENDIX

Dorset Dairy Agreements

(a) From Mr A. F. Waterman of Broadmayne.

An Agreement made the thirtieth day of March in the year one thousand nine hundred Between Harold Robert Waterman of the parish of Alton St Pancras in the county of Dorset (hereinafter called the lessor) of the one part and William Cornick, dairyman (hereinafter called the lessee) of the other part. Whereby the said lessor doth covenant and agree to let and the said lessee doth agree to take a dairy of fifty-two cows and/or heifers together with the house and garden known as Holcombe Dairy and situate in the aforesaid parish of Alton St Pancras upon the terms and conditions hereinafter contained.

The Lessee shall pay to the lessor the annual rent of five hundred and twenty pounds in equal quarterly instalments payable in advance on the fourteenth day February the fourteenth day of May the fourteenth day of August and the fourteenth day of November in the year one thousand nine hundred subject to no deduction in respect of interest on each instalment. Provided always and it is hereby agreed that the said lessee shall be entitled to deduct from the third quarterly instalment for every cow and/or heifer that shall not have come into the dairy by the twelfth day of May the sum of five shillings for every week that shall elapse between that date and the day of admission into the dairy. The Lessee shall peaceably give up to the lessor upon the twentieth day of November or at any time after that date that the lessor may demand all barren cows and/or heifers together with such number of cows and/or heifers as shall be half the whole number in the dairy. The remainder shall be given up by the twenty-fourth day of December or not less than eight weeks before time they shall be due to calve. The Lessor shall allow the lessee one half acre of land for growing potatoes together with two hundred wood faggots and such quantity of standing furze as may be reasonably required. The Lessor shall grant unto the lessee for a summer lease the fields known as Higher Waldron, Lower Waldron, Barefield, Rookery and Little Holkham and for aftermath those fields known as Mildron Mead, Higher Conigre, and Lower Conigre. Provided always that the field known as Rookery shall be peaceably given up by the lessee on the first day of September. Also the lessee shall be entitled to make use of the plot of land known as 3 acres for grazing a horse and pigs, such horse and pigs not to be permitted in any other of the dairy grounds. And it is hereby agreed that in case of rent being in arrear for twenty-one days or in case the lessee assign or underlet the dairy or premises or any part thereof

without the consent of the lessor in writing or in case the lessee become bankrupt or insolvent or compound with or make any arrangement with his creditors or the majority of them or suffer his goods stock chattels or effects or any part thereof to be taken in execution by any process of law or given a Bill of Sale thereon or on any part thereof or in any way fail to keep any of the covenants herein contained the lessor shall have power at any time to determine the tenancy without any notice and to recover by distress any loss sustained. Provided always and it is hereby agreed that any dispute that shall arise under this agreement shall be settled by arbitration.

Signed by the aforesaid William Cornick in the presence of Annie Cornick. (Mr Cornick remained at this dairy until 1915.)

(b) From *Butler Papers*, Reading University Library, DOR.5.3.4.

Agreement Between John Butler, Farmer, and Mr Pike, Dairyman.

From January 1st 1904 to December 31st 1904.

50 cows at £10 per cow to be paid Quarterly, viz. January 1st £125, April 1st £125, July 1st £125, October 1st £125 = £500—all cows to be not under 3 yrs. old—in case of 2 yr. Heifer being put 3 Heifers to be allowed as 2 cows.

No cow to be on milk more than 40 weeks except by arrangement. Dairyman to have use of Dairy house Cow Stalls Barn Stable 2 piggeries also small paddock by cow stalls for run of pigs, to be allowed 2 Ricks of Hay at Dairy Yard and one rick in Field for the cows and straw for litter for cows and pigs by his packing same, also run for one Horse in Dairy fields. Cows to feed Home Meadow from March 15th to Nov. 30th Lower Meadow from April 15th to Nov. 30th, Middle Meadow from April 1st to Nov. 30th the right being reserved of roadway through Middle Meadow for Horse, sheep &c. at all times, also the use of sheep wash and run of sheep during washing. The feed of Twenty Acres, Sale Close, Chapel Close, Spring Close and Tugmore Close after mowing about the 1st week in July—to December 31st.

Dairyman to be allowed 2 Tons of Cotton Cake in Spring of the year to be fed by Cows by his supplying at least an equal quantity for the same purpose.

(In a letter written to Mr Pike on 6 November 1903, Mr Butler noted that the dairyman was also to give up "the first good 10 Heifer calves . . . to me for yearlings at 8 days old for the sum of £1 1s. each." Pike remained at the dairy for two years, paying £10 10s. per cow for the 50 cows in his second year.)

Some Problems in the Interpretation of Enclosure Awards

By JOHN CHAPMAN

THE maps and awards associated with the process of parliamentary enclosure are a major source of information about rural England, and have been widely used by both historians and historical geographers. They provide a base for studies both of the communal agricultural system which they abolished and of the more individual one which followed, and their value has been stressed on a number of occasions, notably by Tate.¹

Rather less attention has been paid to the problems encountered in their interpretation. Harley has drawn attention to the inaccuracy of some of the maps, to the occasional discrepancies between map and award, and to the fact that copies of the award do not always agree with the original, but difficulties of a more serious and more subtle nature also occur.² In particular, any attempt at comparison or amalgamation of material from a number of awards is fraught with problems. Although parliamentary enclosure is often seen as a country-wide movement, each award was essentially a local product, with clauses reflecting the peculiarities and ideas unique to the particular township or parish to a far greater extent than in a more nationally controlled source such as the tithe awards. Even the passing of the various general Enclosure Acts, though encouraging a higher degree of uniformity, failed to eliminate local variations completely. Furthermore, the process of parliamentary enclosure extended over 300 years, and both the process itself and the awards which recorded it tended to become more complex with the passing of time.³ It is therefore frequently possible to obtain in-

formation from a mid-nineteenth-century award which is completely lacking in a neighbouring mid-eighteenth-century one.

I

Any attempt to produce a comprehensive picture of, for example, a county involves the initial practical problem of discovering the whereabouts of all the awards, for no unified system exists for their preservation. Whilst copies of all awards under the General Enclosure Act of 1845 passed into the hands of the Board of Agriculture and thence to the Public Record Office, the only certainty with earlier awards is that they were once deposited locally; usually, though not invariably, this was with the parish authorities. Most should also have been enrolled with the Clerk of the Peace to the county but, as Tate has pointed out, this obligation was sometimes avoided.⁴ Both the Clerk's and the parish copies have now normally found their way to the County Record Offices, but this is by no means certain, nor is it certain that they will have survived intact. Thus, in personal searches, two of the thirteen Monmouthshire awards, for Ifton and Cwmyoy, could not be found,⁵ and of the sixty-nine in west Sussex one, Tangmere, appears to exist only in an incomplete draft form, and one, Felpham, solely in map form.⁶ A similar situation obtains in other counties, and it is doubtful whether a 100 per cent cover is possible in many of those which were substantially affected by the movement.

⁴ W. E. Tate, *The English Village Community and the Enclosure Movements*, 1967, p. 118.

⁵ The Ifton Act is in National Library of Wales (NLW), Tredegar Park 34/81. Letters referring to the Cwmyoy award are preserved at Monmouthshire Record Office (MCR), D591.81.331.

⁶ West Sussex Record Office (WSCR): Add. MSS. 5174, 6004, 6005.

¹ E.g. W. E. Tate, 'Enclosure Acts and Awards', *History*, 51, 1966, pp. 179-82.

² J. B. Harley, 'Enclosure and Tithe Maps', *Amateur Historian*, 7, 1967, pp. 265-74.

³ Radipole, Dorset (1603), and Skipwith, Yorkshire (1901-4), are generally accepted as the first and last.

II

Where the documents do exist unmutated, major omissions may still occur. A significant proportion of awards made before 1790 have no associated map, allotments being distinguished by a brief description, such as: "in part of Potto Field," followed by a list of the proprietors of bounding allotments or old enclosures.⁷ Only five out of a sample of fifteen pre-1790 awards in north-east Yorkshire were provided with a map, while in a list for Worcestershire given by West, only ten out of forty-five had one. From 1790 onwards maps of the allotments were usual, and all thirty-one of a Yorkshire sample after this date possess one, though it is worthy of note that West's Worcestershire list shows sixteen out of seventy-two post-1790 awards without maps, the last as late as 1816.⁸ Where the maps are absent, and no near-contemporary alternative source is available, the task of translating the written information into map form is often impossible, greatly diminishing its usefulness.

For an initial period after maps became common, most awards continued to provide a full written description, thus giving the maximum possible information. Unfortunately, this ideal situation did not last, for during the course of the nineteenth century the descriptions tended to become shorter, and after about 1850 they frequently degenerated into a mere list of owners and acreages, with a key number to the accompanying map. In west Sussex, of the awards enclosing more than a single common or field, only two prior to 1850 failed to name the area within which the allotments were located,⁹ whereas after 1850 eight out of eleven failed to do so. Though the names of the former fields frequently appear on the enclosure map, exact boundaries are rarely shown, and cases such as Warningcamp and Byworth, where the map subdivides the allotments and gives

areas for the subdivisions, are exceptional.¹⁰ Pre-enclosure maps providing the required information are occasionally attached to the awards, but this does not seem to have been a very common practice. In general, it is fair to say that if the descriptions in the award lack precision, it is unlikely that an exact reconstruction of the fields will be possible.

Problems such as these are immediately obvious, for the documents fail to offer any information. More serious, in many ways, is the inaccuracy, or scope for misinterpretation, of the material which is provided. This affects even such a basic matter as the total amount of land enclosed, for none of the methods available for obtaining this figure is without its drawbacks, and confusion is often caused by a failure to distinguish between the land newly enclosed by an award and the total land allotted. Although in theory the enclosure process was concerned with land which had previously been open or common, a good deal of land which had formerly been held in severalty was also re-allocated.

Firstly, anything held to be an illegal encroachment was usually simply absorbed into the common for the purposes of redistribution, and is frequently not distinguished either in the award or on the allotment map.¹¹ Such encroachments were normally of recent origin, having been taken from the common within the previous twenty years, and although they might be numerous their total area was often small. Occasionally, however, they might be of more significance, for older encroachments might be incorporated,¹² and sometimes, as at Trelleck in Monmouthshire, the total encroached area might be considerable.¹³ The significance of encroachments is further increased by evidence that they were most numerous where commons were extensive and common fields absent, so that their inclusion

¹⁰ WSCR: Add. MS. 5174.

¹¹ They are sometimes differentially shaded, e.g. Trelleck, MCR: INC AW2.

¹² E.g. up to thirty years in Woolavington and Graffham. WSCR: QDD/6/W12.

¹³ I.e. 959.32 acres, made up of 1,122 encroachments, of which 407 were over twenty years old. MCR: INC AW2.

⁷ Faceby award, P.R.O.: L210/127.

⁸ J. West, *Village Records*, 1962, pp. 140-1.

⁹ Wenham in Rogate (1825), WSCR: PAR 159/20; Bosham (1834), WSCR: PAR 25/20. Both locate some allotments, but are incomplete.

in enclosure totals may have a distorting effect on regional patterns.¹⁴

Secondly, and far more significantly, many awards involved old enclosures of undisputed legality and of any age. It was common for provision to be made for the redistribution of detached portions of a proprietor's land where these were of small size, usually under 3 acres, or where two or more owners held land within a single fence.¹⁵ Additionally, proprietors were often permitted to ask for their old enclosures to be redistributed where such clauses did not exist, or where the enclosures concerned did not fall within the specified categories. Though many awards, particularly the earlier ones, did not involve any old enclosures, lands of this type might form a considerable proportion of the total in some parishes. In west Sussex thirty-five awards re-allocated some old enclosures as against thirty-three which did not, and in two cases over 30 per cent of the total land involved was of this type.¹⁶ In addition, there was the curious case of the second Barnham award, where all the land concerned appears to have been previously enclosed and held in severalty.¹⁷ Thus, for any given parish, the figure for the total land allotted, and also the area of allotments shown on the enclosure map, may be considerably larger than the area initially available for enclosure.

Finally, it may be noted that some old enclosures became involved in the enclosure process, and appear in the enclosure awards, even though they were not technically allotted. Old enclosures which were the subject of an exchange agreement, sanctioned by the enclosure commissioners after the allotment, are listed at the end of the award, along with any allotments which changed hands. The initial purpose of including these exchanges was to allow

proprietors to trade inconveniently situated new allotments for old enclosures elsewhere, and this was frequently done from about 1805 onwards.¹⁸ In some later awards, however, the dealings were much more complex. A few exchanges were purely of old enclosures on both sides,¹⁹ presumably as a convenient means of legally recording a transfer, and some of the lands concerned might be outside the parishes or manors specified in the original Enclosure Acts.²⁰ Normally these exchanged lands represent a very small percentage of the overall total,²¹ but locally the figure might be significant, as at Wisborough Green, Sussex, where it reached 16.75 per cent.²² These exchanged lands create no problems if one's concern is solely with the initial allotments, for not only are they separately listed in the award but they are readily distinguishable on the enclosure maps, either because they appear on a separate sheet or because of a special colour or shading.²³ On the other hand, it could be argued that these lands were as much involved in the enclosure movement as those old enclosures which were formally allotted, for the power to redistribute them derived from the same parliamentary Acts, and they contributed considerably to the new patterns of ownership which emerged. It is therefore necessary to distinguish in addition to lands enclosed and lands allotted, an overall total for all lands redistributed by the enclosure process.

III

The enclosure documents may offer three types of estimate or total of the lands involved, one in the Act, one in the preamble to the award, and one at the end of the allotments. For a handful

¹⁴ J. Chapman, 'Changing Agriculture and the Moorland Edge in the North York Moors, 1750-1960', unpubl. M.A. thesis, London, 1961.

¹⁵ E.g. Tregug, Monmouthshire, MCR: INC AW1, and Broadwater, Sussex, P.R.O.: CP/911 ROT 9, respectively.

¹⁶ In Bury, 38.92 per cent: WSCR: QDD/6/W 18.

¹⁷ WSCR: QDD/6/W 32.

¹⁸ The earliest Sussex examples are Lancing, WSCR: PAR 118/20/1 (1805), and Goring, P.R.O.: KB 122/797/ROT 1188 (1805).

¹⁹ E.g. Boxgrove, WSCR: QDD/6/W 22.

²⁰ E.g. lands in Sutton and Houghton in the Bury award. WSCR: QDD/6/W 18.

²¹ A median of 1.65 per cent for those Sussex awards which had any.

²² WSCR: QDD/6/W 35.

²³ E.g. Wymering and Widley, Hampshire Record Office (HCR): ENC 90 a and b, and Trelleck, MCR: INC AW2, respectively.

of awards all three are available, but more commonly none is given. Each of these sources has its own problems. The first has the advantage of ready availability, and has been widely used for calculations of county and national totals, for example those of Gonner and Slater.²⁴ Unfortunately, Acts which do not contain any figure are sufficiently numerous to cast doubts on the accuracy of such totals, even when estimates are used to fill in the gaps.²⁵ Thus in west Sussex, according to Tate, only fifty-five of the sixty-nine Acts give an acreage for the land to be enclosed.²⁶ Where figures are given this is still no guarantee of accuracy, for they, themselves, are suspect for a variety of reasons.

Firstly, since the Acts normally preceded the enclosure process, there was often no exact survey available, and the figures given were merely rough estimates or perhaps based on local tradition as to the area's size. Such traditions might reflect local, rather than statute, measure, or an assumed relationship between a cattlegate and a specific acreage; but it is difficult to avoid the conclusion that some figures were arrived at largely by guesswork. In west Sussex the estimates in the Acts show a mean difference of only 6.28 per cent from the true amount of land enclosed, but almost a fifth of the awards differed by more than 10 per cent, and extreme values ranged as high as 52.04 per cent.²⁷ In general it seems that the degree of accuracy was much higher for field lands than for commons, but even field estimates were sometimes wildly astray.

Secondly, there is no guarantee that the lands referred to in the Act are identical to those actually enclosed. In upland areas partial enclosure was not uncommon, whereby the Act

referred to the whole of a moorland common, but at the award certain areas were left unenclosed on the grounds of their unsuitability for improvement. Thus six out of a sample of twenty-three moorland enclosures in north-east Yorkshire proved to be of this type, and in the two extreme cases of Allerston and Eskdaleside-cum-Ugglebarnby the areas actually enclosed represented only 37.4 per cent and 42.8 per cent respectively of the estimated areas.²⁸ Conversely, in Moorsholm the Act made provision for partial enclosure and the area involved was estimated at 603 acres, whereas the Commissioners actually allotted 940 acres.²⁹ Nor was this entirely restricted to the moorlands, for Naish records that at Westbourne Tarrant, Hampshire, the total enclosed was only 25.7 per cent of that authorized.³⁰ The existence of permissive enclosure, whereby land was allotted but the decision as to when or whether it was to be fenced was left to the individual proprietor, adds a further complication, for such land, though technically enclosed, might remain in open grazing and never be used in severalty.³¹ It must be accepted therefore that although many of the estimates given in the Acts are in fact reasonable approximations, others are totally untrustworthy, and no convenient method exists for determining which is which.

The figure in the preamble to the award also presents problems. In some cases it is merely a restatement of that given in the original Act, and thus shares its inaccuracy; in others it is clear that it was derived from the survey made for the award, and it may be correct to the nearest acre or even perch. A further difficulty is that it may represent either of two totals. Normally, like the Act, it appears to include only former common land, but occasionally figures derived from the survey may incorpor-

²⁴ E. C. K. Gonner, *Common Land and Enclosure*, 2nd edn, 1966, pp. 268-81. G. Slater, *The English Peasantry and the Enclosure of Common Fields*, reprint New York, 1968, pp. 267-313.

²⁵ Where figures did not exist Gonner attempted an estimate. Slater simply omitted them.

²⁶ W. E. Tate, 'Handlist of Sussex Inclosure Acts and Awards', *Sussex Arch. Collns.*, 1950, pp. 146-51.

²⁷ Produced by totalling all allotments recorded as situated on former common or field land, excluding old enclosures. Tangmere has been excluded.

²⁸ North Riding Registry of Deeds (NRRD) 30, and NRRD: AG 19.

²⁹ P.R.O.: MAF 1/975, 1/505.

³⁰ M. C. Naish, *The Agricultural Landscape of the Hampshire Chalklands, 1700-1940*, unpubl. M.A. thesis, London, 1961, pp. 313-14.

³¹ J. Chapman, 'Parliamentary Enclosure in the Uplands: the Case of the North York Moors', *Ag. Hist. Rev.*, xxiv, 1, 1976, pp. 1-17.

ate all allotted land, including old enclosures.³² In consequence, the high level of accuracy of some of the figures is not particularly helpful, for it is necessary to assume a probable error. Thus, although seven out of the twenty-four west Sussex awards which give this figure are accurate to within 1 per cent, the mean error is 5.33 per cent, and Earham records an extreme value of 26.90 per cent.³³ Two further points deserve mention. Firstly, in some counties many awards give no figure in the preamble, so that no complete picture can be gained.³⁴ Secondly, discrepancies between the estimates and the real totals do not cancel out over a large area, for overestimates are far more common than underestimates. Only five of the Sussex figures underestimate, only two by more than 0.5 per cent, and Yorkshire awards show a broadly similar pattern.

The third total provided, that at the end of the allotments, is normally by far the most accurate, and its meaning is usually perfectly clear. Apart from rare arithmetical errors, it represents correctly the sum of all land allotted, whether common or old enclosure, excluding only land brought in solely at the exchange stage. It cannot, therefore, be used to indicate the amount of land open before enclosure, and it will often differ from either of the other figures even if all are correct. Its greatest disadvantage lies in the comparatively few awards which give such a total, particularly those dating from the eighteenth and early nineteenth centuries.

IV

If the errors and omissions involved in the use of these three totals are not acceptable, the only alternative is addition of all the individual allotment totals. This has the great advantage that, where a full description is given, the researcher

can select the particular category of land required and be sure of the real meaning of his total. The major disadvantage is the time and tedium which this entails. It also depends for its accuracy on the detail of the description, which may leave something to be desired. Thus, where an allotment consists of more than one category of land, it is extremely rare for the proportions of each to be stated, and in the case of illegal encroachments the fact that they are contained within an allotment may not even be mentioned. Even totals derived in this way may not, therefore, be completely accurate.

The question of distinguishing old enclosures from common land is merely a part of the broader problem of determining the type of land enclosed. The awards can provide a useful end-point for the study of field systems, and the possibility of establishing the exact acreages of each common field and common is an attractive one. In practice, the information is again not always easy to abstract. No Act so far examined specifies the areas of the individual fields to be enclosed, and of the few awards to do so most are inaccurate to some degree, that for Houghton and South Stoke underestimating two of the fields and one of the commons by over 50 per cent.³⁵ A handful of early enclosure maps list the allotments by field in the key, and provide totals for each field which are apparently completely accurate, but in the vast majority of cases the only means of reconstruction is the information provided under each individual allotment in the award. In these circumstances the problems of incomplete description, to which attention has been drawn already, loom large. It is, unfortunately, not unusual for allotments to straddle the borders of two or more of the former fields and commons, without any indication of how much of the area is drawn from each. Where the offending allotments are few and small a reasonable level of accuracy can be obtained by arbitrarily assigning an equal proportion of each allotment to the fields mentioned, but inevitably it is the largest allotments which are most likely to suffer in this way, and arbitrary subdivision then involves an un-

³² E.g. Warningcamp, WSCR: Add. MS. 5175, and Woolavington, WSCR: QDD/6/W 12, respectively.

³³ Tate's figures taken from awards appear to include also the totals found at the end of the allotments. Tate, 1950, *loc. cit.*, pp. 146-51. Elsted and Warningcamp both agree exactly.

³⁴ In west Sussex forty-five out of sixty-nine have no figure, though in a Yorkshire sample only thirteen out of thirty-three were lacking.

³⁵ WSCR: Add. MS. 5161.

acceptable level of inaccuracy. Thus in East Ayton, Yorkshire, forty-three out of forty-four allotments are accurately assignable, but the remaining one accounted for 38.73 per cent of the total area, and incorporated unspecified areas of two common fields, six common pastures, and the High Moor.³⁶ In the Hilsea section of the Wymering enclosure, Hampshire, seven of the fifty allotments straggled across from the fields on to the neighbouring common and saltmarsh, probably in a deliberate attempt to provide a fair distribution of the poorest land, and a further three included lands from more than one of the former fields. In consequence, only half of the ten units of land in the village—two of the five fields, two of the four commons, plus the village green—can be reconstructed, and 38.78 per cent of the land cannot be definitely assigned to any particular unit.³⁷

Difficulties also occur where, although all allotments are recorded as part of a named area, the previous status of this area is not clear. Thus in Lancing some allotments are recorded by "lain,"³⁸ some by furlong, and some by names which could refer to either field or common land, or even old enclosures.³⁹ It is thus impossible to be certain either of the total area of former field land or of the area of any individual "lain." Such examples are regrettably frequent.

V

Reconstruction of the patterns of ownership and tenure is comparatively straightforward, for such information is invariably included. Care is necessary in following the sales and exchanges, especially as on rare occasions the commissioners confirmed an exchange of lands without the details being entered in the award.⁴⁰ One award, for Broadwater, even failed to give

the areas of the sale allotments, though fortunately these details can be obtained from the map.⁴¹ The principal problem, however, arises from the large number of owners who died before the awards were completed, and whose allotments are not always recorded in a consistent manner. Thus in some cases the heirs are recorded by name, while in others they are referred to merely as the heirs or devisees of the deceased owner, or the allotment may be recorded under the names of trustees or executors under the will. Since the heirs might have allotments in their own right, or be buying up allotments in their own names in anticipation of their inheritance, the true size and distribution of the new units may be obscured. An example of this occurs in the Fratton and Southsea award, where a chance reference later in the document reveals that the devisees of Charles Lowe were in fact Richard Godman Temple and Daniel Collins, both substantial allottees in their own right. Of the ultimate destination of the allotments of the other two deceased owners there is no indication.⁴² This difficulty is of considerable significance, for the size of an allotment might play a major part in determining the manner and speed of planning and development in the newly enclosed lands.⁴³

A limited number of awards also provide some information on the social status and residence of the participants. In Sussex it became usual to include this information only after about 1855, though the earliest case is the Horsham award of 1813;⁴⁴ in Yorkshire it occurs spasmodically from 1785 onwards,⁴⁵ but many awards omit it. Where it appears, some indication of the importance of absentee landowners, and of the relative size of holding of smallholders, major landowners, and non-agriculturists can be obtained, but the information is frequently incomplete and the personal descriptions somewhat arbitrary. Again, the recording of deceased owners is a principal

³⁶ NRRD: BA 13 119-35. ³⁷ HCR: ENC 90 a and b.

³⁸ The "lain" was a cultivation unit, consisting of a group of "furlongs" or "fields": P. F. Brandon, 'The Common Lands and Wastes of Sussex', unpubl. Ph.D. thesis, London, 1963, p. 258.

³⁹ WSCR: PAR 118/20/1.

⁴⁰ E.g. in Houghton and South Stoke, W3CR: Add. MS. 5161.

⁴¹ P.R.O.: CP 43/911 ROT 9 and MPL 21.

⁴² Portsmouth R.O.: G/MN 240.

⁴³ Chapman, 1976, *loc. cit.*, pp. 14-15.

⁴⁴ WSCR: QDD/6/W8. Nineteen of the awards from 1855 contain one or other, thirteen of them both.

⁴⁵ Pickering and Newton, North Riding R.O.: Enc. 9.

complication, for the information given often relates to the executors rather than either the former or new owners.

It must be stressed that information on ownership, residence, and occupation, though comparatively free from complications, is only of limited value. Very few awards even approach a complete cover of a parish, and to assume that the proportion of land allocated to an individual is closely related to the proportion which he owned in the parish as a whole is highly dangerous. Attempts to combine this information from several enclosures face even greater pitfalls where discrepancies in date occur, for there is ample evidence that newly enclosed land often changed hands within a short time, through sale, exchange, or simply the death of the owner.⁴⁶ Someone allotted land at one enclosure did not, therefore, necessarily still hold land allotted to him elsewhere a few years earlier, while he might well be in possession of lands originally allotted to another individual.

VI

In conclusion, enclosure documents usually present few problems to the parish historian,

⁴⁶ Chapman, 1976, *loc. cit.*, pp. 12-13.

whose local knowledge and familiarity with other local sources will enable him to disentangle any ambiguities. To anyone primarily concerned with the enclosure process over a wide area the difficulties are much greater. All amalgamated totals must be regarded as likely to have a significant margin of error, and it would seem essential to be highly specific as to the real meaning of terms such as "the amount of land enclosed." Parliamentary enclosure covered lands whose previous status had varied greatly, and the real nature of the process is easily obscured by misinterpretation of the evidence presented. Similarly conclusions about the status of landowners must be treated with care, for it is easy to classify a man as a small holder on the basis of the small acreage allotted to him, in ignorance of extensive holdings which were not involved in the award. A substantial landowner disposing of a small detached portion of his estate may all too readily be taken for a small holder abandoning agriculture. All this is not to suggest that valid information cannot be obtained from the enclosure awards. They are undoubtedly an extremely valuable source: nevertheless they must also be recognized as a potentially misleading one.

Work in Progress

Compiled by DAVID HEY

This list has been largely compiled from the particulars given in response to a letter circulated in October 1977. It does not lay claim to completeness.

ADAMS, G. M., *Department of Geography, University of Bristol.*

Changing functions of settlements in the Vale of Berkeley (Glos.), 1800-70.

ADAMS, Dr I. H., *Department of Geography, University of Edinburgh.*

Evolution of British agrarian landscapes with special reference to terminology.

ADAMS, Miss V. M. E., *Department of Geography, The Queen's University, Belfast.*

Historical geography of the upper Bann Valley (Northern Ireland), 1700-1860, with special reference to the linen industry.

ADRIAN, Dr Lucy, *Newnham College, Cambridge.*

Country grain markets during the nineteenth century, particularly in East Anglia.

Retailing in English towns during the nineteenth century.

ALEXANDER, D. A., *Department of Geography, College of Ripon and York St John, York.*

Rural settlement in north Yorkshire.

ALLERSTON, P., *Department of Geography, City of London Polytechnic.*

Medieval rural settlement and agriculture in Essex.

ALLISON, Dr R., *Department of Geography, College of St Mark and St John, Plymouth.*

Evolution of settlement patterns and of land-use in south-west Essex and south-west Devon.

Agricultural change in south-west Essex, 1600-1850.

AMBLER, R. W., *182 Grimsby Road, Humberson, Grimsby, South Humberside.*

The role of religion in rural life, with special reference to nineteenth-century Lincolnshire.

ARTHUR, J. R. B., *Cydweli, Court Wick, Littlehampton, Sussex.*

Crop sequences and their distribution in pre-historic times.

ASTON, M. A., *County Planning Department, County Hall, Taunton, Somerset.*

Medieval features associated with water usage in the Midlands, especially mills, moats, and fishponds.

Aspects of rural landscapes in medieval Somerset, especially settlements, moats, parks, monastic sites, and field systems.

ATKIN, Mrs M. A., *Fiddlers Cotes, Levens, Kendal, Cumbria.*

Field and settlement patterns in Leyland hundred, Lancashire.

ATKINS, Dr P. J., *Department of Geography, University College, Singleton Park, Swansea.*

The urban food supply in the nineteenth century. Urban farming in nineteenth-century London.

BAILEY, Miss M. E., *Holywell Manor, Manor Road, Oxford.*

Population, inheritance customs, and social structure in West Sussex, 1500-1700.

BAKER, Dr A. R. H., *Emmanuel College, Cambridge.*

The development and spread of agricultural syndicalism in Loir-et-Cher (France) during the nineteenth century.

BAKER, Dr D., *Department of Economic and Social History, Polytechnic of Central London.*

Farm and cottage inventories of Harting (Sussex).

The English hop industry.

BANKS, Miss S., *Institute of Agricultural History, University of Reading.*

Open and closed villages in Berkshire in the nineteenth century.

BARNES, F. A., *Department of Geography, University of Nottingham.*

Evolution of agrarian landscapes in north-west Wales, 1290-1790.

Development of rural settlement and land-use in selected parishes in the Trent Valley (Notts.).

BARTON, P., *Department of History, University of Reading.*

The Cecil estates in the eighteenth and nineteenth centuries with special reference to the Hertfordshire estate.

BAUGH, D. A., *Department of History, McGraw Hall, Cornell University, Ithaca, N.Y. 14853, U.S.A.*

The Great Dearth and the Old Poor Law, 1795-1801.

BETTEY, Dr J. H., *Department of Extramural Studies, University of Bristol.*

Agriculture and rural society in Dorset, Somerset, and Wiltshire during the seventeenth century.

BIGMORE, Dr P. G., *Department of Geography, Middlesex Polytechnic at Hendon.*

Development of the landscapes of Bedfordshire and Huntingdonshire.

(with GRANT, E.) Origins and development of settlement form and pattern in two contrasting areas of Hertfordshire.

BLAIR, Dr W. J., *Brasenose College, Oxford.*

Settlement patterns, land tenure and field systems in Surrey before 1300.

- BLOVET, Dr B. W., *University of Nebraska, Lincoln, Nebraska, U.S.A.*
Evolution of the settlement pattern of medieval Lincolnshire.
- BOND, C. J., *Department of Museum Services, Oxfordshire County Council, Oxford.*
Deserted medieval villages in Warwickshire.
Aspects of medieval and post-medieval landscapes in Worcestershire and Oxfordshire.
- BOXALL, J., 25 *Peveler Road, Worthing, West Sussex.*
Sussex farmers in the nineteenth century.
- BRADFIELD, Miss V. J., 150 *Windrush Drive, Oadby, Leicester.*
Economic and social history of Hallaton (Leics.) in the sixteenth century.
- BRANDON, Dr P., *Department of Geography, Polytechnic of North London.*
Farming systems and woodland clearance in England, 900-1400.
Landscape gardening and conservation of the countryside in south-east England.
- BRASSLEY, Dr P., *Seale-Hayne College, Newton Abbot, Devon.*
Preparation of an edition of the agricultural notebooks of the Rev. John Crackenthorpe of Fowlmere, (Cambs.), 1682-1710.
- BREMNER, Miss G., 29 *Chester Close, Strood, Rochester, Kent.*
Analysis of field systems and settlement forms on the Hampshire chalklands.
- BROAD, Dr J., *Department of History and Philosophy, Polytechnic of North London.*
The Verney family and estates, c. 1600-1800.
Agriculture and rural society in the south Midlands, c. 1600-1800.
- BROWN, F. J., *Department of Urban and Regional Studies, Sheffield Polytechnic.*
Settlement patterns and field systems in Derbyshire, with particular reference to the evolution of common field systems.
- BROWN, M. C., *Somerset Rural Life Museum, Abbey Farm, Glastonbury.*
Nineteenth-century farm labourers in Somerset.
Oral history, 1900-30, Somerset.
- BUCHANAN, Dr R. H., *The Queen's University, Belfast.*
Settlement changes in Co. Down between the seventeenth century and the twentieth.
- BULL, Dr G. B. G., *Department of Geography, Goldsmiths' College, London.*
The organization of space in the vicinity of the Vale of Kingsclere (Hants.) since prehistoric times.
Demographic history of the Vale of Kingsclere, with special reference to plague mortality.
- BUNCE, Dr M. F., *Scarborough College, University of Toronto, West Hill, Ontario, Canada.*
Rural economic decay in Victorian England, with special reference to the north Midlands, 1860-1900.
- BURLEIGH, G. R., *Department of Geography, King's College, London.*
Desertion and shrinkage of settlement in medieval west Sussex.
- BUTLIN, R. A., *Department of Geography, Queen Mary College, London.*
Field systems and enclosure in England, especially during the seventeenth and eighteenth centuries.
- BYFORD, D., 58 *Station Road, Hatfield, Doncaster.*
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- PERKINS, J. A., *School of Economics, University of New South Wales, P.O. Box 1, Kensington, N.S.W., Australia, 2033.*
Harvest technology and technique in Britain and Germany, 1750-1914.
Sugar-beet in Britain and Germany, 1835-1935.
- PERKINS, John M., *Western College, Miami University, Oxford, Ohio, 45056, U.S.A.*
History of insect-control technologies, especially 1937 to the present day.
Environment history, especially in the twentieth century, with strong emphasis on food production.
- PERREN, Dr R., *Department of Economic History, University of Aberdeen.*
Transport charges and market integration in the U.K., 1800-70.
- PERRY, Dr P. J., *Department of Geography, University of Canterbury, Christchurch, New Zealand.*
High farming in nineteenth-century Britain.
Archdeacon Anthony Huxtable as an agricultural experimentalist.
- PETERKEN, Dr G. F., *Nature Conservancy Council, Monks Wood Experimental Station, Abbots Ripton, Huntingdon.*
Long-term changes in the distribution, management, and composition of woodlands in Rockingham forest.
Effects of historical factors on the flora of woodlands in central Lincolnshire.
- PHILLIPS, A. D. M., *Department of Geography, University of Keele.*
Underdraining in England in the nineteenth century.
- Nineteenth-century patterns of landownership in Herefordshire.
Investment in farm buildings in nineteenth-century England.
Influence of weather on agricultural productivity: the case of the Sutherland estates (Salop and Staffs.) in the nineteenth century.
- PHILLIPS, D. C., *Institute of Agricultural History, University of Reading.*
History of the Wantage Engineering Company.
- PHYTHIAN-ADAMS, C. V., *Department of English Local History, University of Leicester.*
Origins of Warwickshire and Cumberland.
Popular culture in pre-industrial society.
- PICKERSGILL, Dr B., *Department of Agricultural Botany, University of Reading.*
The origins of agriculture in the New World.
The origins and development of chile peppers.
- PINNOCK, A. C., *10 Peaseland Close, Cleckheaton, West Yorkshire.*
Agricultural origins of industry in north Staffordshire in the seventeenth century.
- PITWOOD, A., *Institute of Agricultural History, University of Reading.*
Rural industries in England since 1920.
- PLATTS, G., *c/o School of History, University of Birmingham.*
Handlyng Synne and south Lincolnshire rural society in the early fourteenth century.
- POSTLES, Mrs S. N. F., *2 Fleeman Grove, West Bridgford, Nottingham.*
Topographic and demographic reconstitution of the parish of Barkby (Leics.), 1539-1780.
- PRATT, D., *The Grange, Welsh Frankton, Oswestry, Salop.*
The dissolution of Valle Crucis abbey.
Fourteenth-century Marford and Hoseley: a Welsh "Maerdref".
The lordship of Bromfield and Yale.
- RAE, K., *c/o School of History, University of Birmingham.*
Popular religion in rural Warwickshire in the fifteenth century.
- READMAN, A. E., *15 Finch Gardens, North Bersted, Bognor Regis, Sussex.*
Agricultural change on the Lincolnshire Wolds, 1750-1870.
- REDMONDS, Dr G., *Oak Cottage, 5 Knotty Lane, Lepton, Huddersfield.*
Yorkshire surnames and family histories.
- REED, Dr M. A., *Department of Library Studies, University of Loughborough.*
Enclosure by agreement in north Buckinghamshire, 1550-1750.
The disafforestation of Bernwood, 1550-1700.
- RICHARDS, P. S., *43 Knaresborough Road, Wallasey, Merseyside.*
The restoration of derelict land from clay pits in

- the Oxford Clay Vales (attached to former brickworks) by filling in the holes with fly-ash from power stations.
- RIDGARD, J. M., *Dennington Place, Dennington, Woodbridge, Suffolk.*
Food production and distribution in East Anglia, c. 1250–c. 1400.
- ROBERTS, Mrs A. R., *12 Ajax Close, Grimsby, South Humberside.*
Effects of nineteenth-century urban and industrial development on agriculture in the West Riding of Yorkshire.
- ROBINSON, G. M., *School of Geography, University of Oxford.*
Agricultural development in the west Midlands from 1750.
- ROBINSON, Dr P., *Ulster Folk and Transport Museum, Cultra Manor, Holywood, Co. Down, Northern Ireland.*
Fences and field boundaries in Ulster, 1700–1900.
- ROEBUCK, Dr P., *Department of History, New University of Ulster, Coleraine.*
Landownership and estate management in Yorkshire, 1640–1760.
The Chichester (Donegall) estates in Ulster, 1599–1760.
Earl Macartney's Irish estate, 1760–1806.
- ROWE, W. J., *4 Roslin Road, Irby, Wirral, Merseyside.*
Emigration of British agriculturists overseas in the nineteenth century, principally to North America and Australia.
- ROWLEY, G., *Department of Agricultural Botany, University of Reading.*
Origins of cultivated tea-roses.
- RUSSELL, N. C., *27 Hatcliffe Close, Blackheath, London, SE3.*
Development of animal breeding in the early-modern period leading up to Bakewell and the late-eighteenth-century improvers.
- RUSSELL, R., *11 Priestgate, Barton on Humber, South Humberside.*
Nineteenth-century rural communities.
- SALT, Dr J., *Department of Geography, University College, London.*
Strip lynchets in the Peak District.
- SCHERR, Miss J., *21 Caledonia Place, Clifton, Bristol.*
Somerset place-names, including field names.
- SCHUMER, Miss B. P., *Flat 1, Manor Gate, 12 St Johns Avenue, London, SW15 2AD.*
The Wychwood region in the early Middle Ages.
- SHEAIL, Dr J., *Institute of Terrestrial Ecology, Monks Wood Experimental Station, Huntingdon.*
Impact of past land-use and management on wildlife.
History of rural planning in Britain.
- SHEPHERD, I. D. H., *Department of Geography, Middlesex Polytechnic at Hendon.*
Spatial patterns of markets and fairs in Wales.
Evolution of patterns of rural settlement in the Black Mountains (Breconshire) since c. 1800.
- SHEPPARD, Dr June A., *Department of Geography, Queen Mary College, London.*
Origins and evolution of village plans in Yorkshire, with special reference to medieval regular plans.
- SHORT, Dr B. M., *School of Cultural and Community Studies, University of Sussex.*
Agrarian history of south-east England, 1640–1900.
Population mobility and agricultural change.
- SIDDLE, Dr D. J., *Department of Geography, University of Liverpool.*
Social structure and land use history in Haute Savoie, 1730 to the present day.
- SLATER, T. R., *Department of Geography, University of Birmingham.*
Agricultural and urban changes in the Cotswolds, 1750–1914.
- SMEE, Dr Dora K., *Haselbech Gate Cottage, Northampton.*
Open fields and ridge and furrow in England since 1500.
- SMITH, D. C., *History Department, University of Maine, Orono, Maine, U.S.A. 04473.*
History of the Maine Agricultural Experiment Station, 1885–1975.
Climate and weather history for New England, particularly since 1770.
- SMITH, K. W., *16 Barnstaple Rd, Thorpe Bay, Essex.*
Essex agriculture, c. 1870–95.
- SMITH, Dr R. M., *Cambridge Group for the History of Population and Social Structure, 27 Trumpington Street, Cambridge.*
Regional population trends in England, 1250–1500, with special reference to family formation strategies as they were influenced by the land-market, non-agricultural employment, and inheritance customs.
- STANES, R., *Culver House, Paymembury, Honiton, Devon.*
Enclosure of the east Devon commons.
Waste edge settlement in east Devon.
- STINSON, Miss M., *School of Economic Studies, University of Leeds.*
Social and economic history of the Honour of Wakefield, 1300–1500.
- STURMAN, C. J., *30 Broadbank, Louth, Lincolnshire.*
Agriculture and population in the north-east Lincolnshire coastal marshlands, c. 1200–1840.
The Lincolnshire coastal salt industry in the sixteenth century.

- TANN, Dr Jennifer, *Management Centre, Maple House, 158 Corporation Street, Birmingham.*
The application of steam power to agriculture in the late eighteenth and early nineteenth centuries.
The productivity of the corn-milling industry in the late eighteenth and early nineteenth centuries.
The transfer to the factory system in the corn-milling industry.
- TATTERSFIELD, B., *Agricultural Extension and Rural Development Centre, University of Reading.*
The history of agricultural education before 1950, with special reference to southern England.
- TAYLOR, A. J. C., *53 Elmgrove Road, Farnborough, Hampshire.*
Locational factors in the emergence of the wool-cloth weaving industry of Suffolk in the thirteenth and fourteenth centuries.
- TAYLOR, G. F., *Kesteven College of Education, Grantham, Lincolnshire.*
Diffusion of the cultivation of sugar beet in the east Midlands, 1910-36.
- TENNANT, A. J., *114B. Coleshill Road, Water Orton, Nr Birmingham.*
Brailes (Warwicks.), and its region, 1500-1851.
- THIRSK, Dr Joan, *Modern History Faculty, Indian Institute, Broad Street, Oxford.*
The agrarian history of England, 1500-1740.
Rural industries.
Comparative agrarian history in England and Europe.
- THOMAS, B. A., *Department of Geography, University College, Swansea.*
Medieval field systems in Surrey.
- THOMAS, Dr C., *Department of Geography, New University of Ulster, Coleraine.*
Aspects of demographic, economic, and landscape change in rural Wales from the thirteenth to the nineteenth century.
- THOMAS, Dr W. S. G., *West Sussex Institute of Higher Education, Upper Bognor Rd, Bognor Regis.*
West Sussex glasshouse-crops industry.
Lost villages in south-west Wales.
- THOMPSON, Prof. F. M. L., *Institute of Historical Research, Senate House, London.*
Ownership of land and the development of rural society, 1750-1850.
The horse since the Industrial Revolution.
British agricultural output in the nineteenth century.
- TIMPERLEY, Mrs L., *Department of Geography, University of Edinburgh.*
Landownership in Scotland, c. 1770.
- TRICKER, M. J., *Department of Architectural Planning and Urban Studies, University of Aston in Birmingham.*
Influence of the London food market on agriculture in the Home Counties during the nineteenth century.
Locational rationalization in the British brewing industry from c. 1800.
- TURNER, Dr M., *101 Cannock Road, Aylesbury, Buckinghamshire.*
The 1801 crop returns considered nationally.
Agricultural change and food supply during the Napoleonic Wars.
Parliamentary enclosure in its historical, geographical, and economic settings.
- UNDERHILL, D., *Climatic Research Unit, School of Environmental Sciences, University of East Anglia.*
Season-by-season descriptions of climatic conditions from the beginning of the historical record to c. 1800.
- UPEX, S. G., *6 Highgate Green, Elton, Peterborough.*
Landscape evidence of open-field agriculture.
- WALTON, J. R., *Department of Geography, University College of Wales, Aberystwyth.*
Agrarian change in Oxfordshire, 1750-1880.
Diffusion of improved livestock breeds in Britain during the eighteenth and nineteenth centuries.
Social and economic constraints on the adoption of agricultural innovations in nineteenth-century Britain.
- WARD, Dr S. B., *Institute of Agricultural History, University of Reading.*
Land reform in Britain and Europe since 1800.
- WAREING, J., *Department of Geography, Polytechnic of North London.*
Land-holdings in Middlesex, 1780-1832.
- WARNER, P., *17 Steeple End, Halesworth, Suffolk.*
Medieval settlement in Suffolk.
- WATKINSON, M. A., *19 Broadlands, Netherfield, Milton Keynes, Buckinghamshire.*
The social and economic development of a group of north Lincolnshire parishes, 1540-1914.
- WHEELER, Dr P. T., *Department of Geography, University of Nottingham.*
Development of agricultural implements in England since c. 1800.
- WHETHAM, Miss E. H., *31 Owlstone Road, Cambridge.*
History of agricultural economics in Britain from 1850.
History of the livestock breed societies, 1850-1910.
- WHITTINGTON, Dr G., *Department of Geography, University of St Andrews.*
Origins and development of agriculture in Fife using palynological, palaeolinnological and palaeomagnetic methods.
- WHYTE, Dr I., *Department of Geography, University College, Swansea.*

- Historical geography of lowland Scotland from the sixteenth to the eighteenth century, with special reference to agriculture, rural settlement, and marketing.
- WILLIAMS, D. J. B., *Department of Geography, University of Keele.*
Agricultural developments in Monmouthshire, 1815-1900.
- WILLIAMS-DAVIS, J., *Welsh Folk Museum, St Fagans, Cardiff.*
Changes in the agricultural life of Wales during the nineteenth century.
- WINCHESTER, A. J. L., *Department of Geography and History, Sunderland Polytechnic.*
Medieval settlement and agriculture in Cumbria, particularly stock husbandry and the organization of pastoral practices on upland wastes.
- WORTHINGTON, R. A., *Faculty of Education, Gwent College of Higher Education, Caerleon.*
Evolution of settlement and field systems in Gwent since Roman times.
Changes in landownership and landscape in Gwent during the nineteenth century.
- WRATHMELL, S., *Department of Archaeology, University College, Cardiff.*
Desertion and shrinkage of settlement in Northumberland since the thirteenth century.
- YELLING, Dr J. A., *Department of Geography, Birbeck College, London.*
Enclosure of common fields in England.

Notes and Comments

ANNUAL CONFERENCE AND AGM, 1978

The twenty-sixth Conference of the Society was held at Traherne Hall, University of Wales Institute of Technology, Cardiff, on 3-5 April 1978. The conference papers were by the President, Miss Edith Whetham, 'The trade in pedigree livestock, 1850-1910'; Dr Joanna Martin, 'Glamorgan estates and industrial development, 1660-1760'; Dr J. Chapman, 'Land use change in late 18th- and early 19th-century Monmouthshire'; Mr R. J. Colyer, 'Landlords, tenants, and limitations to agricultural development in early 19th-century Wales'; Dr D. Howell, 'Welsh landlords and estate management, 1640-1750'; and Mr E. Scourfield, 'The agricultural collection of the Welsh Folk Museum, St Fagans'. Mr Scourfield kindly conducted a tour of the Welsh Folk Museum and the members were given an excellent tea there.

The Society's twenty-sixth AGM was held on 4 April 1978. Miss Edith Whetham was re-elected President and Mr C. A. Jewell was re-elected Treasurer. Mr M. A. Havinden having resigned, Dr J. A. Chartres was elected Secretary. The four vacancies on the Executive Committee were filled by the re-election of Dr E. J. T. Collins, Professor W. E. Minchinton, and Dr Joan Thirsk; and by the election of Mr M. A. Havinden.

In his Chairman's report, Dr W. J. Rowe announced that membership had increased from 820 to 835, but that this included twenty-six members in arrears, so that it was doubtful if there had really been an increase. He hoped this situation

would prove only temporary. There had been some further problems with the publication of the English translation of Professor Abel's book on agrarian crises and fluctuations, but it was hoped that Methuen & Company would undertake the publication. The 1979 Spring Conference would be held in Yorkshire on 9-11 April 1979 and further details would be announced later. Finally, he thanked the retiring Secretary, Mr Michael Havinden, for all the services he had rendered the Society over the past thirteen years.

The Treasurer reported that, despite rising printing costs, the Society's finances were satisfactory at present with a surplus of income over expenditure of £774 (compared with only £31 in the previous year) and reserves of £6,407.

The Editor reported that he had received twenty-four articles and would have twelve in hand when he had brought out the next two issues. He had managed to reduce the backlog of reviews and to cut the publication delay to eighteen months after the receipt of an article.

The meeting ended by passing a vote of thanks to Dr David Howell for organizing such an enjoyable conference.

HOLKHAM MSS IN MICROFILM

Part of the agricultural material in the Holkham Collection has been published in microfilm by EP Microform Ltd, Bradford Road, East Ardsley, Wakefield, West Yorkshire WF3 2JN. The docu-

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List of Books and Pamphlets on Agrarian History

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Compiled by SARAH CARTER

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Book Reviews

J. ALLEN, J. GOLSON, and R. JONES (eds.), *Sunda and Sahul. Prehistoric Studies in South-East Asia, Melanesia and Australia*. Academic Press, 1977. 647 pp. Maps. Illus. £12.50.

J. V. S. MEGAW (ed.), *Hunters, Gatherers and First Farmers beyond Europe*. Leicester, 1977. 256 pp. Maps. Illus. £5.95.

After Gordon Childe conceptualized the term "neolithic revolution," and Robert Braidwood accomplished his large-scale search for archaeological evidence of incipient agriculture in the Near East, new excavations in other parts of the world have added much to our knowledge. Instead of having been of revolutionary character, the transition from paleolithic to neolithic cultures has proved to be a transition period of different length in different continents—an evolution so diversified and complicated that it is no more possible to distinguish sharply between paleolithic and neolithic cultures.

In *Sunda and Sahul* David R. Harris has analysed the subsistence strategies around the Torres Strait, showing an entangled mixture between hunting, fishing, gathering, and planting which throws light upon the problems involved, and it demonstrates that a simple model of development would be futile, as often happens in the humanities in contradistinction to natural sciences.

J. Peter White warns against deducing too much about the character of a culture from changes in form and patterning of stone tools, and he does not accept Leslie White's term "efficiency" because we need other data than the existence of different forms of tools and techniques for our evaluation, for example knowledge of the social energy involved. In fact a shift from retouched to unretouched flake tools in the New Guinea Highlands does not correspond with a marked economic shift over the same period of some thousands of years from a largely gathering and cultivating economy to one involving complex forms of agriculture supporting much higher population densities, a change which is also largely unreflected in the wooden tools. Since the beginning of classification in archaeology in the last century, the concept of increasing technology and formal complexity formed a cornerstone of it. Therefore, it was confusing when 20,000-years-old ground axes were discovered in Arnhem Land, proving explicitly that Eurocentric models are inadequate for this part of the world.

Surprising is also Jack Golson's discovery of some kind of land-reclamation and cultivation of plants, as well as the existence of pigs, in the New Guinea Highlands as much as 9,000 years ago (dated in uncalibrated age), just as early as the incipient agriculture in the Near East. He gives a

preliminary report of his excavations in the swamp at Kuk Tea Research Station near Mt Hagen, where five or six phases of occupation could be traced because of systems of channels and a more and more elaborate network of ditches and gutters up to the last abandonment about a hundred years ago. This investigation sustains Carl O. Sauer's theory of 1952 that the tropical South-East Asia and the Malay Peninsula might prove to be an independent, and perhaps even the oldest, centre of plant domestication.

In *Hunters, Gatherers and First Farmers* Jim Allen, one of the archaeologists active in the same area, has written an interesting chapter on 'The hunting Neolithic: adaptations to the food quest in prehistoric Papua New Guinea'. Quoting the fundamental study on Melanesia by H. Brookfield and D. Harts (1971), he states that in New Guinea there is no simple correlation between agricultural intensity and population pressure or land shortage. Intensive practices are found where there is no population pressure, and extensive practices in areas where land is short. And, in fact, he found an elaborate slate hoe at Kuk which apparently was once used in the cultivation technique, but is now obsolete, or rather has been out of use for years. Hoes made of bamboo were used somewhere for weeding but though they should be useful in the intensive cultivation practised in the highlands, they have now been replaced by small shovels. The stone hoes seem to be related to a well-known East-Asian type of tanged hoes, ones with waisted blades.

Because big game did not exist in New Guinea the majority of the evidence so far fails to demonstrate that the scope for hunting as an economic basis ever existed, and in the cave of Kosipe, 2,000 m. above sea-level, the men who left their refuse there 26,000 years ago exploited indigenous species of pandanus. Along the coast sago has been exploited probably since the very beginning, and as Jim Allen suggests, such localities present themselves as highly likely areas in which man could have launched himself into an agricultural pathway, i.e. where agriculture was an indigenous invention. So it is in the Americas, where Warwick Bray traces the cultivation of maize, common bean, and bottle gourd back to at least 5,000 years B.C., that the initial stages may be nearly as old as the first cultivation in the New Guinea Highlands. Ian Glover writes on the Hoabinhian of South-East Asia, where remnants of a wide range of species were found in different caves, the Spirit Cave in northern Thailand being the most well-known: pigs, cattle, deer, rhinoceros, monkeys and carnivores, rats, squirrels, bats, freshwater fish, turtle, crabs, shellfish, and lizards

suggest a broadly based hunting economy but no clear evidence of domestication of plants has been found there.

However, radical changes in social and economic systems apparently did occur at approximately the same time in Western Asia, and in Central and South America tending to increased human populations dependent for the most part on cultivated plants, as Ian Glover puts it. In Africa, outside the parts influenced by the Near East, and Crete, the domestication of indigenous plants started some 1,000 years later. Thurstan Shaw mentions one kind of millet, indigenous in the Savannah-region of West Africa, and probably exported to India more than 1,000 years B.C., and the African kind of rice probably domesticated in the Middle Niger Delta. He believes that the desiccation of the Sahara after the middle of the third millennium B.C. has favoured these incipient agricultural practices. While plant domestication seems to be endemic in West Africa, the breeding of animals was obviously learned from the Mediterranean area.

In the first chapter of *Hunters, Gatherers and First Farmers*, Don Brotherwell suggests that population pressure was an important impetus for pre-historic man to pass from the hunting and collecting level through to partial agricultural economies. However, Ian Glover is inclined to look for climatic changes as one of the prime movers in South-East Asia. Jim Allen rejects population pressure as a primary cause for New Guinea. John J. Taylor thinks that the Paleo-Indian hunter over-killed his big-game, and ultimately forced himself into a more varied and severe economy that relied heavily upon the plant food resources. This forced people to occupy the kinder woodland areas, developing polished tools better adapted to woodworking, and it was in connection with this change that they first practised elementary agriculture by planting sun-flowers and other easily cultivated food sources. Warwick Bray suggests that the Mexican hunter-gatherers were not *pushed* into agriculture, but *drifted* into it by accident: "What we are examining is, in fact, the evolution of one food-producing system (broad-spectrum foraging) into another (specialized agriculture). . . In practice, most of the small, beneficial changes which are the substance of both biological and cultural evolution consists of marginally improved ways of doing what is already being done."

At least the process has developed more slowly than a single cause like population pressure would explain. And evidently man has always been able to regulate the number of offsprings, either by means causing infertility, by regulation of sexual life, or by killing or exposure of the infants. There may have been situations where this regulation did not operate quickly enough because of sudden events

caused by the natural surroundings. But obviously population pressure will normally be rather a result of events rising from man's environment than a primary cause of change. It appears that simple solutions of the problem of the origins of agriculture will all prove to be wrong because the process was very slow, and the conditions different from place to place. Last but not least: the term "Hunters-Gatherers" comprises such a variety of subsistence practices that a generally acceptable explanation of the transition to agriculture is unlikely to be found.

AXEL STEENBERG

SIR JOSEPH HUTCHINSON, J. G. G. CLARK, E. M. JOPE, and R. RILEY (eds.), *The Early History of Agriculture: A Joint Symposium of the Royal Society and the British Academy*. O.U.P. for British Academy, 1977. 213 pp. Illus. £13.

This volume contains the proceedings of a discussion meeting organized jointly by the British Academy and the Royal Society which took place in April 1975. There are sixteen papers, together with discussion, plus the concluding remarks.

The first paper by Grahame Clark, entitled 'Domestication and social evolution', provided an introduction to the meeting, and in it he emphasizes that no subject demands more of an interdisciplinary approach than does agricultural history.

The next paper by the plant geneticist, J. R. Harlan, discusses the distribution of the wild progenitors of plants and animals in relation to domestication, and points out that evidence gained must be qualified by: (1) possible changes in climate since domestication; (2) the effects of human activities that might change the range of the wild ancestors; (3) the possibility that the progenitors as well as the domesticates have evolved, and (4) the possibility of transdomestication. This is a new concept applied to domesticates that are now grown solely in areas remote from that of the wild ancestor.

In the next paper W. van Zeist reviews the increasing realization of the importance of macroscopic plant remains (mostly seeds or fruit) during the last twenty-five (and particularly the last ten) years in South Western Asia. Prof. A. Steensberg then traces the development of digging tools and explains their use by imitative experiments which elucidate the transition from the traction spade to the ard plough.

B. Pickersgill and C. B. Heiser, Jr, next show, with reference to plants, that no unique processes have operated in the production of greater variability among domesticated forms. Variation is still caused by mutation, but human selection is added to natural selection. Whereas these authors concentrate on the more readily understood morphological and cytogenetic changes, the next author, L. T. Evans, considers the physiological adaptation of

plants. He points out that selection for better crop production has sometimes reduced the rate of photosynthesis, but that this has been counter-balanced by evolution towards a greater leaf area, or a longer duration of photosynthetic activity.

A change is made to animals with a paper by M. R. Jarman entitled 'Early animal husbandry'. This title is misleading, however, since the author discusses what is at its most highly developed only incipient domestication of deer, and perhaps better regarded as the management of a wild animal that is hunted. Even then the author presents inadequate evidence to support his hypothesis that in fact man formed other than a hunting relationship with deer.

Next follows a most important paper by E. M. Jope on the contribution of studies at the molecular level to the evolution of plants and animals under domestication. This approach, as yet little used, involves the determination of the amino-acid sequence of proteins, not only in existing primitive breeds but also in preserved proteins from ancient material (notably in skin). The amino-acid sequence, like the blood type, is so fundamental to an organism that a study of changes is likely to throw light on domestic evolution, and in discussion C. M. A. Baker and C. Manwell give examples of different protein types in sheep and chickens.

B. H. S. Bushnell next summarizes the beginning and growth of agriculture in Mexico, which was based on plants (notably maize) before European contact in the sixteenth century. This is followed by a consideration of the early history of American agriculture by Norman Hammond, which extends the discussion from Mexico to both North and South America. The world-wide coverage continues with an admirable account by Sir Joseph Hutchinson of Indian crops, the multiple sources of which have produced great genetic diversity. This in turn has allowed considerable change under domestication. But variability still exists in India, which may therefore provide a wider genetic base for future breeding than, through its insistence on uniformity, is available in the west.

The domestication and development of rice are detailed in a paper entitled 'The rice cultures' by Te-Tze Chang of the Rice Research Institute, Manila. In two papers on the history of European agriculture E. S. Higgs discusses the uplands, while the lowlands are discussed by Heather N. Jarman and J. L. Bay-Petersen. Eric Higgs, who sadly died before the volume appeared, pointed out that the history of agriculture is best understood by placing it in a broad theoretical framework and in the context of other economies which are classified according to the economic niche they occupy. In the lowlands, zones of high arable potential are characterized by cereal-based economies, while zones of

low arable potential are devoted to animal-based economies.

A fascinating account of the cultivation of the olive is given by J. Boardman, in which emphasis is placed on literary and iconographic evidence. In considering climate, soil, and man, G. W. Dimbleby shows how the practice of agriculture changes the ecosystem, which through lack of stability, might produce effects on the soil that even modern man might not foresee.

In his concluding remarks on the discussion meeting R. Riley makes a plea for even greater co-operation between archaeologists and natural scientists. Whereas scientists working on domestic evolution should be able to reproduce their results, the archaeologist cannot always repeat findings and may require greater skill in his efforts to use archaeology to interpret the human behaviour patterns of the past.

M. L. RYDER

EDWARD HYAMS, *Soil and Civilization*. John Murray, 1976. vii + 312 pp. 5 maps. Paperback £2.50.

This is a reprint of the late Edward Hyams's important book, first published in 1952. There is an additional preface, which must have been written just before the author died, in which he points out that 1952 was a time when "conservationists were called cranks, ecology was a word you would have to look up in a dictionary, and the word 'environmentalism' had yet to be coined." Whilst not strictly true, for this last word can be found in use in America in 1916, and occurred in *Nature* in 1936, it certainly was not in current use.

Mr Hyams's theme was that man and civilization were shaped by the soil on which he lived, particularly on how he treated it. It was a novel idea in those days, and to push the lesson home the author ignored, as he pointed out in the original preface, influences other than the soil in shaping the various communities. The historian in reading this book must try to forgive what appears to be a flaunting of the historian's duty. The author's excuse was that as the soil was the main ultimate factor shaping successive societies "to have written otherwise would have entailed excursions into general social history, greatly lengthened the book, and taken me too far from my theme." Thus we are still allowed to believe (if we wish) that had Cleopatra's nose been a little shorter the history of the world would have been different, but not, I am sure Mr Hyams would have said, unless the Roman Empire had altered its soil, that is to say its agricultural policy. Cleopatra's great advantage, had she lived longer, would have been her "manproof soil." Mr Hyams points out that until comparatively recent times it was impossible for man to ruin the Nile valley soils, owing to the annual silt-bearing floods. Now, with dam

building and other skills it is much easier, and is being actively pursued.

Those who remember this important book should read it again and see how much of what Mr Hyams then wrote, including the iconoclasm, is now accepted. Newcomers to the work will find the relationship between soil treatment and the rise and fall of civilizations particularly well expounded. The author postulates three categories of soil men: (i) the integrated member of a community—hunting and food gathering with and part of the rest of the ecosystem; (ii) the soil creator, looking after what he has and making new soil; and (iii) the soil parasite—the man who exploits the soil fertility, using up its reserves until they are all gone, as, for instance, in ancient Greece and modern Oklahoma (1920's).

The reprint of this clear-sighted and important book emphasizes what a great loss was Edward Hyams's untimely death.

GEORGE ORDISH

BARBARA HARVEY, *Westminster Abbey and its Estates in the Middle Ages*. Clarendon Press: O.U.P., 1977. xii + 499 pp. Illus. £15.

Students of medieval agrarian history will find this book most rewarding. Although very large its perusal is not too daunting, since it follows the economical and empirical traditions of English historiography rather than the lavish and generalizing traditions of some North American writers. Only the first 333 pages form the text, since there are nine appendices, a glossary, a long bibliography of manuscript and printed sources and of secondary works, and a good index. There are eleven tables and three useful maps and the whole is turned out in the Oxford University Press's best manner. The reviewer could find no misprints and cannot remember reading a new book so well printed for some years.

At first sight this would appear a conservative book in its dark blue cover and dust-jacket. What more "establishment" subject could there be than the great abbey in whose church the archbishops have crowned the sovereigns of England over nine centuries? In her preface the author points out that she has not attempted to describe the economic development of the demesnes, and readers of this REVIEW will find nothing systematic on yield ratios, crops grown, stock reared, field systems, and all the other agricultural realities which have so pre-occupied the last generation of agrarian historians. As the author says the book is "an attempt to capture the view of their estates that the monks had from Westminster over some five hundred years and to weigh the consequences for their tenants of the thoughts provoked by it." She starts with the endowment of the monastery and descends to the peasants.

The result is a work which is decidedly not conservative. Two-thirds of the text is about the peasantry and the interaction between the abbey's policies and the lives of the people. There is no attempt to palm off administrative history as economic history: all is about realities and pure social history. The author is not even on the monks' side. She thinks they were extravagant and seems sceptical about their function. Their abbots were nearly all undistinguished and some were disastrous failures. The monks cared little about learning and depended heavily upon the royal connexion. As landowners they and their abbot were not even particularly rich. They enjoyed a middle-class standard of living and held back progress.

The economic and social developments before the Black Death are well known from the work of other historians, the developments of the last two centuries of monastic history are less well known. After a chapter on manorial demesnes comes a most valuable chapter on purchases of property in the thirteenth and fourteenth centuries with a short excursus on the sixteenth century. The chapter contains an excellent discussion on the chronology and scope of the purchases, the element of usury, procedure, the rule of mortmain, purchase through nominees, vendors, and the price. Much of this has only in recent years become familiar to historians, and this chapter is the best discussion we have so far of the subject.

Chapter VII, on the size of customary holdings, is a more familiar topic, most germane to any examination of peasant standards of living. Early in the thirteenth century about 48 per cent of holdings were under 10 acres, early in the fourteenth century about 52 per cent. The monks refused to allow the holdings to become too small, since they regarded the half-virgate as the minimum holding upon which a peasant family could live.

Chapter VIII deals with customary rents and services to 1348 and discusses labour services, renders in kind, and rents of assize; tallage and entry fines, commutation and the sale of works, and the movements away from labour services before 1348 (about 1390 the abbey attempted to behave as if no great change had taken place). Contractual tenancies and leases in villeinage were allowed to come into existence only when the monks failed to find customary tenants on the old terms. The old rents and services were too high and the inheritability of villein tenements not a sufficient lure. On the other hand, labour services were commuted at the new, high wage rates, so that the monks treated their tenants inequitably.

Chapter X deals with the slow transition from villeinage to customary tenure between c.1390 and c.1490, and Chapter XI with the land transactions of the abbey's tenants. The insensitivity of the monks

to economic forces is the subject of these chapters. As landlords they were not benevolent, but ineffectual. Their policies made the growth of a yeoman class upon their estates more difficult and they were able to remain devoted to the old ways because of the great gifts which Margaret Beaufort and Henry VII made to them.

This is a brilliant, sceptical, and enlightening book. May we hope that another volume will deal with other aspects of the estates of Westminster Abbey?

H. E. HALLAM

H. C. DARBY, *Domesday England*. C.U.P., 1977. xiv + 416 pp. Plate. 111 maps. £27.

This book marks the completion of a remarkable scholarly enterprise first begun in 1934, restarted in 1945, and brought to a conclusion in 1977. Moreover, Professor Darby, who began it all, for it was the direct outcome of his early work on the medieval fens, and who led a team of scholars in producing the five regional volumes and the gazetteer, has been able in this final volume to survey and summarize the results of the whole enterprise. For this new book is not a kind of epilogue or afterthought. From the start Professor Darby was convinced that this final volume would be the coping-stone of the whole edifice, and so indeed it is. Without it the rest would be manifestly incomplete. To make it possible the treatment of the Domesday material for every county in each of the five regional volumes, published between 1952 and 1967, was rigidly uniform. Critics have reckoned this a mistake since it limited the freedom of individual contributors and involved a deal of tiresome repetition in the text. However, it is now plain that had this uniformity of treatment not been insisted upon, the magisterial survey of the whole Domesday kingdom, to which this final volume is devoted, would not have been feasible.

The countrywide assessment is made entirely from the local material gathered together in standard categories, and already available in the regional volumes. These categories are familiar to those who know the earlier volumes. They are the nature and distribution of rural settlement, the size and class structure of the population, the extent of arable cultivation, the incidence of grassland and marsh, with an assessment of the livestock these supported, and the identification of the woodland and forest recorded in the Domesday returns. Industry, such as it was, and the boroughs and towns, such as they were, are separately considered, as is the complicated problem of the annual values of the property rights itemized in the survey. Special matters like the extent and distribution of devastated land receive particular consideration. Despite the disadvantages it involved, uniformity in treating

the Domesday material throughout the whole work was also required by the need to ensure that the maps and tables, an essential feature of every volume, were constructed on the same basis. Only then could they be fitted together without gaps or overlap to reveal the larger distribution and density patterns upon which this final and comprehensive analysis of all the Domesday evidence so heavily depends.

This final survey underlines the unique value of the geographer's approach to the study of the Domesday material, which has characterized the whole work. For the first time it is now possible in a systematic way to demonstrate the predominant influence of physical circumstances in fixing the pattern of settlement, and therefore the shape of agrarian life, in Domesday England. This despite the fact that in places the picture is blurred and it has some blank spots. For example, the evidence does not reveal that Kent was then a land of hamlets, nor does it show the very scattered character of habitation in Devon. On the matter of the size of the population and of its distribution we now have in Chapter III and its statistical appendices the most up-to-date and reliable analysis of the Domesday evidence. Yet even this can produce nothing more precise than that there can hardly have been less than 1 million people in England in 1086, and probably the actual number was around 1.5 million.

The uncertainties, the ambiguities, and the omissions in the Domesday record are even more apparent in the discussions in Chapters IV and VII on the distribution and use of arable land, and upon the vexed question of annual values. Here, while setting out what can be known with certainty, Professor Darby delineates with equal care what we do not know and probably will never know on these matters. The putting together in Chapter VIII of the evidence from the regional volumes on the extent and location of devastated land has proved particularly illuminating. Even when the ambiguities of the record and the incidence of local vicissitudes of which we are ignorant have been allowed for, the fact of destruction is plain. This is particularly evident in the south-east, which endured the first campaigns of the Conquest in 1066, in the north Midlands and Yorkshire, where rebellion was ferociously suppressed in 1069-70, and along the Welsh Border where strife was endemic. Recovery was evidently slow and sometimes it never happened at all.

Throughout this book Professor Darby has taken particular care to relate his findings to the work of other scholars. This is an important and valuable part of his achievement. Sometimes he can confirm what others have inferred, but when his own conclusions do not accord with those of others, he is content to state the position and leave it there.

Most commendable of all is the precise, informed, and dispassionate scholarly judgement, which confers particular distinction upon the whole book. Professor Darby is the master of his material because he is also its faithful servant. He will map, survey, and estimate with skill, but he is well aware of the limits of this sort of precision, and he does not hesitate to define them. On points of detail he will have his critics, and the local government reorganization of 1973, by destroying the traditional counties, has weakened the territorial framework upon which the regional volumes were based. As he himself now ruefully admits, it might well have been better to have done the analysis in terms of the Domesday counties from the start. Yet these are trifles which cannot and ought not in any way diminish the debt scholars owe to Professor Darby.

G. M. TEMPLEMAN

T. H. LLOYD, *The English Wool Trade in the Middle Ages*. C.U.P., 1977. xi + 351 pp. 2 maps. £12.50. Anyone who has the temerity to do a second time the work once done by a scholar of genius deserves well of us. He raises issues we had all thankfully believed to be settled. He questions achievements whose quality we had taken for granted, perhaps, on the insubstantial basis of established reputation. He awakes controversial problems we had allowed to slumber.

Dr Lloyd's history of the wool trade comes thirty-six years after the publication of that of Eileen Power. It is high time we had another view of this important matter, and Dr Lloyd is to be congratulated upon making the attempt to provide one. Unfortunately it cannot be said that he has succeeded in doing so.

For one thing Dr Lloyd's long book is in fact much less of a survey of the subject than Eileen Power's short one was. Agricultural historians will note with dismay that what Dr Lloyd calls "the harsh economic realities of present day publishing" have compelled him to exclude from his book any study of sheep farming. They have also, apparently, denied him space for any consideration of shipping. And if he had anything of moment to say about the wool trade in the age of the Celys he has refrained from saying it, because, he tells us, someone else is about to publish a detailed account of it.

These exclusions are disquieting enough. But they do not exhaust the list of topics which Dr Lloyd does not treat. To Dr Lloyd the phrase "wool trade" means wool export trade. Consequently the internal trade in wool gets very short shrift indeed. Where it is discussed at all it is seen merely as a background operation set in motion by the foreign demand for wool. There are some precious paragraphs in the chapter entitled 'The English Triumphant', in which Dr Lloyd offers us summary

glimpses of his work upon the particulars of customs which tell something of the role of inland towns and villages in the mechanism of wool collection and transport. And there is a brief concluding chapter, fewer than thirty pages long, in the course of which Dr Lloyd tantalizes us with further glimpses of the buying and selling of wool before it reached the ports. But Dr Lloyd tells us nothing more. His refusal to do so is not readily comprehensible. What there is to know about the internal trade he must know. His recent work on wool prices shows that he handles the manorial sources with a familiarity that few others share. Why then has he elected to tell us so little of what he knows about those aspects of the wool trade which are most obscure, and therefore most worthwhile illuminating? Why has he nothing to say about the transformation of the wool trade that took place when wool merchants found that their chief markets were internal ones? Why does he entitle his chapter on the period during which cloth supplanted wool as the staple export 'The Decline of the Wool Trade'?

With so much excluded from his survey Dr Lloyd nevertheless has plenty to say. He is an indefatigably conscientious toiler in the archives. He has ransacked Chancery and Exchequer and laid the results before his readers without interposing himself officiously between them and what he has found. If Eileen Power, in Professor Postan's words, "achieved the lucidity of her style and *eo ipso* the clarity of her thought by the relentless reduction of her topics to essentials," Dr Lloyd, in contrast, spells everything out in full. Hence the length to which his book runs. The method has much to commend it. The story he tells is very much the story that Eileen Power told. Beneath the profusion of Dr Lloyd's researches, therefore, we can discern the sinews of Eileen Power's structure of thought. Hitherto we have had to take much of what she told us on trust. The annotated edition of her lectures, promised in 1941, has failed to appear. It is now too late to hope that it ever will. In Dr Lloyd's work, however, we can see, for the first time, something of the nature of the raw material out of which she wrought her magic and can decide for ourselves whether to accept what she and Dr Lloyd have made of it or not.

Naturally Dr Lloyd has been able to improve upon Eileen Power by adding his corrections and suggestions to the immense volume of detailed work on the public finances of the wool trade upon which so much industry has been expended since Eileen Power's time, and to which Dr Lloyd devotes so much of his space. In this respect, as in others, Dr Lloyd's work advances the study of the subject. But in order to refine and embellish a familiar tale he has had to sacrifice the serious discussion of matters which are crucial to our better understanding of the medieval wool trade, and about

which we have every reason to believe he has important things to say. This is not the history of the wool trade that we need. It is not the history that Dr Lloyd is well qualified to write. It is not a successor to Eileen Power's work. It is, if anything, a commentary upon it and a tribute to it; for when we have perceived, by reading Dr Lloyd, how intractable the material was with which Eileen Power had to cope, we must surely turn back to her delusively clear and simple words with greater respect for her genius than ever we had before.

A. R. BRIDBURY

JACK GOODY, JOAN THIRSK, and E. P. THOMPSON (eds.), *Family and Inheritance. Rural Society in Western Europe, 1200-1800*. C.U.P. for Past and Present Society, 1976. vi + 421 pp. £8.80.

Systems of inheritance are of fundamental importance in history because they provide one of the most important means whereby the social system is reproduced from generation to generation, and because of their pervasive influence on inter-personal relationships within families. Such is the essence of Jack Goody's apologia for the volume under review, and it is surely fully justified, even if some of his fellow contributors are markedly less successful than others in breathing life into their analyses of the records they have studied.

All the essays are valuable and interesting in their own way, although they vary widely in readability. Whether, taken together, they quite fulfil the promise of the title is, however, another matter, for despite the dates it displays, only Cicely Howell's offering has anything substantial to say on a period before the late fifteenth century. It is also disappointing although probably inevitable that, in a volume which is devoted to Western Europe as a whole, England is heavily over-represented at the expense of other areas, notably the Low Countries. On the other hand it is a virtue that two of the writers, Goody and Kiernan, were able to take a sufficiently extensive view of the subject to put European practices in respect of property and inheritance into perspective by looking beyond Europe, and thus making clear the underlying similarity between the at first sight widely variant usages practised in different parts of the Continent, and the wide extent of their difference from those prevailing elsewhere in the world.

Seven out of the ten essays in this book are largely or wholly concerned with peasant society. In a piece which is a model of how social and legal history may be combined, Le Roy Ladurie draws on the work of Yver to set forth with admirable clarity the main variants of inheritance custom found in France, simultaneously explaining their relationship to one another and saying something of their evolution over time. Berkner compares the structure

of peasant society in two districts of Lower Saxony in the late seventeenth and eighteenth centuries, and concludes that to a significant degree impartible inheritance was associated with stem family households, partible inheritance with nuclear family ones. Cicely Howell surveys peasant inheritance customs in the Leicestershire village of Kibworth Harcourt over the long period 1280 to 1700, whilst Margaret Spufford returns to a further consideration of two of her Cambridgeshire communities, and puts forward some interesting evidence to support her contention that it was the poorer rather than the richer villages who had the highest propensity to make wills. The subject matter of E. P. Thompson's contribution is also the English peasantry, but he is concerned less with the mechanisms whereby property was passed from one generation to the next than with the nature of what was passed. Before the sixteenth century in many areas it was not simply land but "use-rights over land . . . some of which rights might be held in severalty, [and] much of which was subject to at least some communal and manorial control and regulation" (p. 337). By the eighteenth century, generally well before enclosure completed the process of "prizing property loose from its social context," ownership of use-rights had passed away from those who actually used them into the hands of landlords and others, whilst the gradual rewriting of the law had tended to make some rights over land increasingly well defined and secure whilst others, less substantial but no less valid under the old customs, such as gleaning, lost their legal standing altogether. Finally two other chapters, by Goody on 'Inheritance, Property and Women', and by Sabean on 'Aspects of Kinship Behaviour and Property', deal with the peasantry of Western Europe generally.

An important point to emerge from both, and indeed several of the other chapters, is that the distinction between systems of partible inheritance and systems of unigeniture was very much less clear cut in practice than is sometimes made out. Rather than see inheritance customs as a dichotomy between two opposites we should regard them as a continuum, but one in which the extreme case of one child inheriting everything and his brothers and sisters nothing at all did not in fact occur in normal circumstances. For even when one son did get all the family land he was likely to find (as did the great landowners, albeit at a much higher level of material wealth and social standing) that his inheritance was encumbered with financial obligations imposed on it by his father to provide for his other children; for fathers, it seems, rarely provided for them out of their own savings and generally threw the burden on to the future income from the holding. Since they tended to be unduly optimistic about the level of debt their heirs would be able to support, this

tended to put the survival of the family enterprise at risk. Certainly in the case of England a major factor in the decline of the peasantry in the mixed farming areas seems to have been that the value of cash legacies bequeathed to younger children, which had risen strikingly in the century or so after 1560 when the profits of commercial farming were expanding, continued to do so into the late seventeenth century, well after economic conditions had ceased to justify it, thereby saddling the generations living on either side of 1700 with levels of debt that were insupportable when farm prices and profits were so much lower.

The section of the book which deals with the landowners begins with a short chapter by Joan Thirsk. In this she discusses the literature on primogeniture amongst the propertied classes by both English and continental authors of the sixteenth and seventeenth centuries, thereby providing an appropriate preface for the late J. P. Cooper's essay on 'Patterns of Inheritance and Settlement by Great Landowners from the Fifteenth to the Eighteenth Centurie'. This latter is 135 pages long, equipped with two appendices, and occupying one-third of the entire volume. The scope of its approach is impressive as it ranges with enviable assurance from the English aristocracy and gentry to the grandees of Spain, and thence to the French and Italian nobilities, and it is perhaps inevitable that it is a piece which is likely to cause digestive problems to the non-specialist, and to leave him feeling a little bruised by the recital of numerous family settlement histories and the sound of unfamiliar legal phraseology.

All the great proprietors with whom Mr Cooper is concerned came to entail a high proportion of their land, and to practise primogeniture in a more or less thorough-going fashion, and he echoes Dr Thirsk's point that the traditional defence of these practices was that they served to keep the estates of the great landowning families intact, and thereby contributed to the maintenance of social and political stability. However, he makes it clear that when they were pursued over successive generations the practical consequences were rather different from those their apologists envisaged. Entails alone could not ensure the survival of family estates and indeed almost guaranteed that they would be beset by financial difficulties, since provision had to be made for the support of widows and children other than those of eldest sons, and if this could not be done by alienating land then it was inevitable that a growing burden of debt would develop. The Castilian nobility whose *mayorazgos* involved the most stringent entails to be met with in Europe, were, in large part for that reason, the most debt-ridden class of great landowners on the Continent. Only where entailed estates were supported by suf-

ficiently large quantities of unentailed property or by substantial incomes from non-estates sources which could be used to discharge family financial obligations and debts incurred in other ways, was their long-term survival assured. In the cases of Spain and southern Italy the great landowners were driven into political dependence on the monarchy, upon which they relied both for the additional income to be had from offices and pensions and for protection against their creditors. In both France and England, although for somewhat different reasons, entailed land could be more easily alienated, so that sales of property to discharge debts which had risen to an intolerable or even a merely undesirable level were relatively commonplace.

In the case of England this was because, provided that there was no disagreement within the family, it was always possible to get a private Act of Parliament to modify a strict settlement, so that the latter was much more flexible in practice than in theory. But the main reason why the English landowners found the practice of entailing their estates less ruinous in the long run than did some of their continental contemporaries was probably that the fall in landed incomes (and thus the rise in the real burden of debt) after the middle years of the seventeenth century was less pronounced, whilst the fact that, thanks to a more rapidly advancing economy and a more open social system, a higher proportion of them enjoyed access to such sources of income as mining royalties, and other forms of industrial, commercial, and urban property, was also of some importance. Yet even in England, Mr Cooper points out, many landowners came to rely heavily on income derived from the crown via army commissions, court offices, pensions, etc. for the maintenance of their solvency. Secondly, the combination of entails and primogeniture encouraged eldest sons to delay marriage and to limit the size of their families, and younger sons not only to delay but frequently to avoid marriage altogether, and this, combined with the normal incidence of childlessness and a high rate of infant mortality, had pronounced demographic consequences for the groups in question. The Milanese, Venetian, and French nobilities in particular were tending towards biological extinction in the seventeenth and eighteenth centuries, whilst even amongst the more reproductively minded English peerage the proportion of males who reached marriageable age but did not marry exceeded one-fifth in both the first and the last quarters of the seventeenth centuries.

At all levels of rural society, from the smallholders to the aristocrats, fathers were torn between the desire to pass on to one son the economic resources necessary to maintain an inherited position in that society, and the wish to provide as generously as possible for younger sons and daughters; and

save for those who had risen rapidly in wealth these aims necessarily conflicted. How the conflicts were resolved by different groups, in different places, and different times; and the economic and social effects of the collective decisions thus arrived at, provide two of the underlying themes of this book. A third is that actual practices were not always those that a study of formal law, or even written custom, would seem to indicate. Landowners might override customary law and try to circumvent legislation by their entails and settlements; peasants might ignore law altogether in their attachment to local custom. It is perhaps the chief virtue of the present volume that it contains several studies which do not simply repeat the dicta of historically minded lawyers, but which establish, by means of detailed research, how certain groups did in fact behave in matters of inheritance.

CHRISTOPHER CLAY

JACK GOODY, *Production and Reproduction: A Comparative Study of the Domestic Domain*. C.U.P., 1976. xiii + 157 pp. 6 figs. £6 hardback, £2.20 paperback.

This is a short book for a large topic, even shorter than appears above since there is a substantial overlap between Chapters VI and VII. In it Professor Goody brings together anthropology, history, and sociology to examine the relationships between types of agriculture, forms of transmission of property, and marriage arrangements.

He takes as a starting-point the practice of diverging devolution, under which "the property which an individual disposes is not retained within the unilateral descent group but is distributed to children of both sexes and hence diffused outside the clan or lineage." Information about this characteristic exists for 592 of the 863 societies recorded in the *Ethnographic Atlas*, and Professor Goody provides fifteen contingency tables relating it to marriage, residence, agriculture, and stratification practices. The phi coefficients (analogous to correlation coefficients) are positive but small—most of them are between 0.2 and 0.3. He also provides significance levels, but since the 863 societies are not a random sample of all societies, and the 592 societies with relevant information are not a random sample of the 863 in the Atlas, these probabilities are irrelevant.

Further coefficients obtained from consideration of sex roles in farming (based upon Ester Boserup's analysis associating shifting cultivation with female farming, and plough cultivation with male farming) are added to provide the basis for a path analysis showing advanced agriculture acting indirectly on diverging devolution and then on marriage arrangements: broadly, plough agriculture → property → male and female inheritance → marriage and adop-

tion procedures. Given the size of the phi coefficients, it is not surprising that there are very large residual variances unexplained by the model. Further, we are not presented with a comparison of the other models which were considered, or with estimates of direct and indirect effects (although the data are there and one could do some of this work oneself). In this respect the presentation is less satisfactory than the examples given, for example, by Hadden and De Walt (*Ethnology*, 1974; a source I should perhaps say I owe to Professor Goody's reference to it). Other chapters look at strategies for obtaining heirs—adoption and plurality of partners—and the extent of stratification in "hoe" and "plough" societies. An interesting section deals with the probability of there being an heir according to different levels of mortality and different family sizes.

Summing up the argument, we find many of the major differences between African and Eurasian societies are traced to Africa having "simple systems of farming, since the continent lacks the plough, the wheel and often a good soil." The evidence is persuasive, although I would emphasize even more than Professor Goody that the results of the path analysis do little more than keep the hypothesis in play. As already mentioned there is considerable overlap between two of the chapters, and the book as a whole shows its origin as a clutch of recent or forthcoming articles. I found this disappointing as the Preface led me to expect more of a reflective review. Nevertheless, in the form of either articles or book, the material provides a valuable antidote for Eurocentricity.

D. A. LURY

ALAN MACFARLANE and others, *Reconstructing Historical Communities*. C.U.P., 1977. ix + 222 pp. £3.95.

ALAN ROGERS, ed., *Group Projects in Local History*. Dawson in association with the Nat. Inst. of Adult Education, 1977. 246 pp. Illus. £7.

Macfarlane's manual, which is based upon fourteen years' uncompleted work on the parishes of Earls Colne and Kirkby Lonsdale, explains a method of collecting, breaking down, and then reintegrating all the records which relate to a certain set of individuals in the past. The techniques of family reconstitution are applied on a grand scale to all surviving records in order to bring together all the information it is possible to find about everyone within a selected unit. The authors show that the annals of the poor are far from being short and simple, and that in the seventeenth century, for instance, only a tiny fraction of a community was invisible. The catch is that the devoted researcher, working 30 hours a week and allowing himself only two weeks holiday a year, would still need twenty

years to collect all his information by hand, even before he started to analyse it. Clearly such a task should be set aside until the promised further volume explains how to enlist the aid of a computer. Even then a postgraduate researcher would be well advised to check the regulations governing the number of time-extensions allowed for his thesis.

"Community" is used here in the methodological sense of a unit of observation, a convenient focus for analysis. The authors make no assumption about the actual existence or absence of "communities of sentiment" or any other kind of community, but their comments in the opening chapter show that they clearly do not believe in such a concept. Agrarian historians will not be surprised that sociologists still cannot reach agreement after putting forward ninety-four different definitions of "community", but may well feel that they can nevertheless recognize a historical community when they see one. Instead of the survey of sociological and anthropological studies, what was needed in the introduction was a reasoned criticism of the various historical studies of agrarian communities which have attempted to classify such units according to type. The manual should either have shown that such studies were mistaken or else have offered a framework of understanding: it is silent on such matters.

The succeeding pages are full of sound practical advice which should be followed by anyone working on village records, regardless of whether or not they are attempting such a grand scheme. It is perhaps unfortunate that a manual which recommends such meticulous care should omit the word "Cattells" in the first line of the transcript of the document published on pages 74-5, but there are those who will no doubt be reassured that human error can still occur at any level. The authors convincingly demonstrate that there is much to be found, though it is unnecessarily discouraging to say that many English counties have no communities sufficiently well recorded to be worthy of study, and that less than one in four parishes in all are adequately documented. We have much to learn from parishes where some major sets of records are missing, and it remains to be seen whether the techniques recommended in this manual will greatly improve our understanding of rural society. The preliminary reports form Earls Colne and Kirkby Lonsdale certainly whet the appetite, but the proof of the pudding is in the eating.

The other handbook under review is intended primarily for groups engaged in less ambitious projects under the guidance of a tutor. Thirteen experienced leaders give valuable advice on everything from how to start a group to the writing and editing of the results. The suggested projects include the history of the local landscape, housing and

industrial archaeology, oral history, and studies based on such documentary sources as hearth-tax returns, parish registers, and census returns. Many readers of the REVIEW will already be familiar with the problems involved in such studies, but beginners will benefit from reading this book, whether they are part of a group or working on their own. Denis Stuart's essay on local Nonconformist history shows that even a dull-sounding subject can be rewarding if a tutor has the knowledge and enthusiasm to carry a class with him.

DAVID HEY

BRIAN K. ROBERTS, *Rural Settlement in Britain*. Folkestone, Dawson, 1977. 221 pp. 48 maps. Illus. £6.

Most scholarly publications in the field of rural studies these days are highly specialized and/or highly localized; those books whose titles suggest greater comprehensiveness usually turn out to be compilations of several such detailed studies with little or no editorial linkage. It is therefore a pleasure to welcome an attempt by one author to present a general overview of rural settlement in Britain; the development over time of farms, hamlets, and villages both individually and in terms of the patterns of their distributions; an important topic which has tended to be overshadowed by studies of agrarian structures.

In Roberts's own words, this book is aimed at "undergraduates, sixth-form students, teachers and indeed all those with an interest in the countryside" (p. 11). The most enthusiastic market is likely to be among the first of these. The book has too much theory and too few pictures to attract the layman, and it assumes rather too much basic knowledge to be used as a general school text. Being the work of a single author, it has the advantages that it tells a coherent story, it develops its arguments logically over successive chapters, and it avoids the internal inconsistencies and duplication so common in collections of papers. Inevitably, it lacks the detailed knowledge of the latest ideas on every branch of the topic that is sometimes found when several specialists combine to produce a volume. Thus the research scholar may well feel that his particular field has been dealt with too simplistically, but the undergraduate is likely to welcome this integrating study as a guide to a growing literature in a complex field.

The organization of the book is mixed, the first part being generally chronological, and the second (and larger) part systematic. After a general and brief introduction, setting the scene and putting forward a few basic concepts, come chapters entitled 'Problems of Prehistoric and Roman Settlement', and 'Domesday Book and Beyond'. The former begins with the Neolithic, and works up through the Bronze and Iron Ages, ending with the Romano-British period.

The latter is more retrospective in nature, starting with details of the evidence to be obtained from Domesday Book, turning next to look at contemporary evidence for areas not covered by Domesday, and then going back to look at the periods of Anglo-Saxon and Scandinavian settlement. These two chapters are necessarily largely descriptive and source-oriented: in most cases that is all the evidence available will permit, though Roberts is prepared to make generalizations wherever they are reasonable (and occasionally where they are not, as in the map of hill forts on page 38, where the points plotted north of the Tyne-Solway line are based on very different data from those to the south).

The remainder of the book avoids the chronological framework, and focuses on specific aspects of settlement studies, with chapters on 'Patterns of Village Settlement', 'Village Forms', and 'Farms and Hamlets'. In each chapter the approach is systematic: a certain amount of basic theory is introduced, a number of specific case studies are presented, and the overall British picture is discussed. The most interesting parts are undoubtedly the attempts to categorize and explain settlement types and settlement patterns in terms of basic theory. These attempts are not entirely successful, and Roberts makes no exaggerated claims, remarking, for instance, that his synthesis of village plan types "is only a classification, a working tool, to be used flexibly and to be abandoned when no longer useful" (pp. 123-4). None the less, these efforts are valuable as they represent the direction rural studies must take if they are to become something more than description. The volume is copiously illustrated (in black and white) with thirty-six maps and diagrams and twelve aerial photographs. It is a refreshing change to see many illustrations being taken from the north of England, though one could have wished to see Greysouthen, Cumbria (pp. 126, 127), spelled properly (and included in the index).

Specific criticisms are directed not so much at the content as at the details of the presentation, many of which details are presumably the responsibility of the publisher rather than the author. Anyone using this book will be irritated by the small size of many of the illustrations, some of which have been reduced to the point of incomprehensibility. It is difficult to see the justification for printing village plans less than 20 mm square (p. 127), or for reducing a complex map to the point where some of its labels are legible only through a magnifying glass (p. 170). Other annoyances include frequent references in the text to the wrong figure numbers (suggesting that the figures may have been renumbered before publication, and the text not adequately checked) and the use of exact S.I. equivalents of approximate imperial figures. Statements that early settlers were

generally "avoiding the negative uplands above 244 m" (p. 78) and that tenant holdings in Taunton manor by 1311 "had dwindled to some 2.5 persons per 0.4 ha" (p. 102) are silly. If S.I. is to be used, then the figures given should be regeneralized (250 m, and 6 persons per ha), or the original approximations given first with the S.I. equivalents in parentheses. The lack of a comprehensive bibliography is a nuisance; although there is a list of seventy-six basic references (mostly books) at the end, the specialist literature has to be sought from the chapter notes. These last, as is increasingly common practice, are gathered at the end of the book. The reader is thus obliged to keep turning to this section, as there is no way of knowing if the note is simply a bibliographic reference or a detailed piece of additional information.

It is important to keep these faults in perspective. Certainly they make the book rather more difficult to use and they blunt the pleasure of reading it; but they do not detract from the basic value of the work and, in most cases, could easily be corrected in a second edition (which is the main justification for detailing them here). Overall, this is a well-written, stimulating summary of the state of rural settlement studies today. Great depths cannot reasonably be expected of a study dealing with so wide-ranging a topic in only 200 pages, but it succeeds in pulling together many threads of research, and poses challenges to others to pursue the ideas of settlement theory and to improve on the author's classifications and models. *Rural Settlements in Britain* will be invaluable to the undergraduate, and useful and interesting to anyone who has even a marginal interest in the historical development of rural Britain.

ROBERT S. DILLEY

ALAN MACFARLANE (ed.), *The Diary of Ralph Josselin, 1616-1683*. Records of Social and Economic History, n.s., III. O.U.P. for The British Academy, 1976. xxvi + 727 pp. 3 maps. £20.

The name of Ralph Josselin, the puritan vicar of Earls Colne, Essex, has been familiar to specialists on seventeenth-century England ever since his diary was edited by E. Hockliffe for the Camden Society in 1908. But Hockliffe, we now know, omitted three-quarters of the original, and justified his ruthless editing by claiming that what was left out contained "many entries of no interest whatever—endless thanks to God for his goodness 'to mee and mine', prayers, notes about the weather or his sermons, innumerable references to his constant 'rheums' and 'poses', trivial details of everyday life, records of visits to his friends etc. etc." A modern historian approaching a seventeenth-century text brings with him to the task of editing quite different assumptions, priorities, and questions.

Dr Macfarlane, therefore, offers us the whole diary (all 290,000 words of it), and so enables a rounded picture of Josselin to emerge. Given such a bulky text the editor has had to content himself with a short introduction, but one which can easily be supplemented by his earlier book *The Family Life of Ralph Josselin; a Seventeenth-Century Clergyman* (Cambridge, 1970). There are maps, genealogical appendices, and an index of places and persons (alas not of subjects). It is a mammoth editorial feat, and historians have every cause to be grateful to Alan Macfarlane for his efforts.

The Diary of Ralph Josselin is an important source for historians of the seventeenth century in several respects. Much of its interest, clearly, lies in its religious content. At the personal level the moderate Josselin is seen weathering most of the storms of the Revolutionary and post-Restoration decades. There is much information about the respective roles of clergy, patrons, and congregations, about the fragmentation of dissent, and about the early development of Quakerism. In a more general sense, however, the *Diary* is suffused with Josselin's religious convictions. The printing of the full text brings the writer's millenarianism to the fore. Dreams were seriously analysed to find their meaning. God's will, moreover, was seen by Josselin as a convincing explanation of all events, whether beneficial or disastrous. "Its the mercy of god that maketh anything wee take in hand to prosper" (p. 83). "Nothing can withstand gods purpose, nor hinder that which he intendeth to accomplish" (p. 228). Sin was punished, virtue rewarded, and the recipients of divine justice were to be submissive or thankful as the case demanded.

As well as being vicar and, for a time, schoolmaster, at Earls Colne, Josselin was also a farmer, and it is in this role that he is likely to be of most interest to readers of THE AGRICULTURAL HISTORY REVIEW. The *Diary* abounds with references to crops (including turnips in 1681), to animal husbandry, to harvesting, the hiring of labour, and to the operations of rural credit. There are regular weather reports and annual reckonings of income, expenditure, and capital accumulation. Josselin's economic philosophy was one of caution. "Its one of the best peices of morral wisdom to our estates," he wrote in 1663, "to live within our bounds and so pay our debts because wee contract none; he that once overshoots on hope of a good crop, to repay and cleare, in my mind runs into the dirt to better his shoes by thoughts of wiping them" (p. 497). None the less Josselin prospered. He built up his estates by purchase and inheritance, and provided handsome marriage portions for his children. The *Diary* could almost be subtitled *Religion and the Rise of Agrarian Capitalism!*

Josselin's place in his nuclear and extended

family has already been explored in depth in Dr Macfarlane's earlier book; the published text of the *Diary* underlines this aspect of his life. The Josselins had ten children, a record of fecundity which was clearly viewed in different ways by husband and wife. "My wife not well," wrote Josselin in 1661. "I see shee apprehends a breeding again with fear; the blessing of a fruitfull wombe is by weaknes of nature her feare" (p. 482). In this, as in other respects, the *Diary* presents an intimate record of Josselin's domestic life with its internal tensions, and with the disease and death that loomed large in it.

Josselin indeed combined many roles, and the range of his concerns was broad and complex. As well as being an autobiography, an account-book, and a chronicle of family and parish life, the *Diary* offers a running commentary on national and international affairs. (America and Dunkirk jostle with Ardleigh and Great Dunmow in the place index.) His account of the Civil War, for example, provides fascinating insights into the ways in which the local and national blended together. It is the very diversity of the text which is one of the *Diary's* most striking features, and there are probably many who would agree with the editor's claim that Josselin belongs with Pepys, Woodforde, and Kilvert in the gallery of great and memorable English diarists.

R. C. RICHARDSON

J. S. MORRILL, *The Revolt of the Provinces: Conservatives and Radicals in the English Civil War, 1630-1650*. Allen & Unwin, 1976. 234 pp. £5.75.
BRIAN MANNING, *The English People and the English Revolution, 1640-1649*. Heinemann, 1976. x + 391 pp. £9.50.

Few subjects have been so continuously controversial as the English Revolution of the mid-seventeenth century. The original upheaval divided contemporaries and its subsequent interpretation has never ceased to cause debate and disagreement among historians. That there is still no danger at present of Civil War studies lapsing into lifeless unanimity is witnessed by the two books under review.

Dr Morrill's book belongs to the series "Historical Problems: Studies and Documents," edited by Professor G. R. Elton, and is without doubt one of the most useful books on seventeenth-century England to appear for several years. Its usefulness rests partly on its generous selection of documents (which comprise half the book), but the long three-part introduction could easily stand by itself. Based to some extent on the author's own detailed research on Cheshire, and also on similar studies of other counties, the book provides an excellent and stimulating survey of the current state of research on the provincial history of the Civil War period. It should

be mentioned here that as well as fully utilizing the available printed material in this field, the author industriously incorporates the findings of no fewer than nineteen unpublished Ph.D. and M.A. theses. Dr Morrill's book, therefore, has a news-bulletin flavour about it. He conveys something of the excitement of new research, and specialists as well as students will be interested, for example, in what he says about the *lack* of opposition to ship money, and about the New Model Army. "The New Model," he says, "was no more a 'national' army than Essex's had been. Nor, in the early stages, was it any less mutinous. It can be argued that its success in 1645 was the result less of its own professionalism, discipline or puritan conviction, than of royalist miscalculation and regular pay."

As its title makes clear, *The Revolt of the Provinces* is a study of localism and of the ways in which, at all levels of society, the strength of local feeling actually shaped the events of the revolutionary decades. This is a theme, of course, that was brilliantly explored by Professor Everitt, and here, as in his earlier book on Cheshire, Dr Morrill at times takes issue with him. Above all, Morrill places greater weight than did Everitt on the actual *impact* of the Civil Wars on local communities. He stresses the increased burden of taxation, the plundering, the physical destruction of men and property, the loss of crops, livestock, and horses, and the quartering of troops. "On top of the destructive forces of nature came widespread destruction by man."

For Englishmen of the period 1630-60 the *local consequences* of national events, policies, and alignments counted for more than the events, policies, and alignments themselves. For that reason the "Country" opposition to Charles I and to the centralizing tendencies of the Republic rested essentially on a radical conservatism. John Hampden's stand over ship money had not been genuinely representative of the provinces in the 1630's, and once the war came—and it came above all not because of the build-up of parliamentary/puritan opposition but because of the resurgence of loyalism—the majority preferred neutralism to active commitment. Neutralism is, in fact, one of the major themes both in the author's introduction and in the documents, and Dr Morrill succeeds in demonstrating both its complexity and its positive, determined qualities. Neutralism, the author argues, was neither a soft option nor simply a temporary stopping-point.

Here Morrill takes issue with Manning, whose D.Phil. thesis on neutrals and neutralism in the Civil War was a pioneering work in the field. The latter's "almost total dependence" on printed sources, Morrill argues, led him to confuse different kinds of non-alignment. This criticism of Manning's research—and it is reminiscent of the

charge frequently made against Christopher Hill—is repeated at other points in *The Revolt of the Provinces*, but ultimately it is interpretation and not just methodology which separates these two authors.

Dr Manning's long-awaited book on *The English People and the English Revolution* is principally a work of reinterpretation rather than one of path-finding new research. "The evidence that I have used," he says, "comes from sources long familiar to the historians of this period, and much research remains to be done on other sources, and by different methods, in order to elaborate this interpretation more fully and test its value more exactly." Like Christopher Hill—his tutor at Oxford—Manning concentrates on the "middle sort of people," and argues that their grievances and actions were the main force behind the revolutionary struggles of the decade 1640-9. It was the popular presence above all which brought the two rival political parties into existence, the Royalists emerging as a "party of order," and the Parliamentary gentry, accommodating themselves to pressures from below, presenting themselves as a "popular party," Parliament was indeed saved by the intervention of the London citizenry in 1641, and with puritanism as their ideology the middle ranks were clearly a force to be reckoned with.

But the English Revolution was not enacted only against an urban backcloth, and readers of this journal will take a particular interest in Dr Manning's discussion of the rural crisis. The author does not write as an economic historian, and specialists are unlikely to be completely satisfied with his analysis of agrarian problems. But most will probably agree at any rate that "the central agrarian issue of the 1630's and 1640's and of the English Revolution" was "whether the landlords and big farmers or the mass of the peasantry were to control and develop the wastes and commons." Manning is convincing, too, in his argument that the agitation against tenures and enclosures effectively undermined the Royalist cause. "The unpopularity of landlords and the decline of loyalty to landlords affected the king in the civil war more adversely than parliament, because he depended far more than parliament on the loyalty of peasants to their lords; and the erosion or disappearance of that loyalty in many parts of the countryside restricted the amount of support and resources the king and the royalist nobility and gentry could command."

Dr Manning's sources—many of them of a propagandist nature—do not permit him to offer an exact definition of the "middle sort of people" in town and countryside. Dr Morrill is quick to criticize this limitation which was equally apparent in Manning's earlier work. "He has shown that much propaganda of the civil war years was intended

to prove that Parliament had the support of the middling sort. He has also shown that this propaganda was widely believed. But he has not shown that it was *true*." The emphasis in these two books is very different indeed. Morrill stresses the conservatism of the provinces and of the middling sort in the towns; Manning is at pains to demonstrate their radical activism. Morrill sees neutralism as the natural stance of the middle sort; strangely, Manning's book offers very little on the neutrals. Manning devotes much space to the Levellers and sees them as the most articulate spokesmen of the "middle sort" in the 1640's. In contrast, Morrill places more weight on the risings of the Clubmen. "In the event," he says, "the radical conservatism of the Clubmen was to prove more characteristic of the later 1640's than the iconoclasm of the Levellers."

Differences in approach and in conclusions, therefore, outweigh any similarities between these two books. But they have this at least in common: they both deal with the outer arena of politics in the counties and in local communities and are in no way narrowly preoccupied with the "winners." In this respect, at any rate, both books are likely to spur on further research in this general direction.

R. C. RICHARDSON

J. G. A. Pocock (ed.), *The Political Works of James Harrington*. C.U.P., 1977. xviii + 878 pp. £30. Long out of favour in England politically because of his republicanism, and historiographically out on a limb by virtue of his stress on long-term economic and social trends, Harrington until quite recently was a shadowy figure in the history of the seventeenth century. Professor Pocock's edition of Harrington, in fact, is the first substantial collection of the philosopher's writings to be issued since the early eighteenth century. Its appearance, therefore, is an important landmark in the modern rediscovery of the author of *Oceana*, a process to which S. B. Liljegren, R. H. Tawney, and Christopher Hill have previously contributed. Now, for the first time, historians have a modern, scholarly edition of Harrington's three principal works: *Oceana*, *The Prerogative of Popular Government*, and *The Art of Lawgiving*, together with the author's lesser writings. *The Commonwealth of Oceana* naturally has pride of place in the introduction (which firmly locates it in its ideological setting) and in the text, and it is primarily on this work that historians of social and economic change in the seventeenth century are likely to concentrate.

Oceana, as Professor Pocock reminds us in his excellent introduction, was "a civil history of property aimed at showing when and why it will furnish men with the opportunity of freedom." For Harrington it was landed property that mattered most, politically, militarily, and economically. Discussion

of the mobile wealth bound up in trade and investment occupied an entirely subordinate place in his thinking. Although he could not fail to be aware of the capitalist economies of Holland and Genoa, he referred to them infrequently and with a negative purpose. Harrington's commonwealth was essentially a rural society, regulated—so as to prevent the emergence of excessive concentrations of wealth—by agrarian laws concerning inheritance and the balance of property. Its army comprised a militia of freeholders. With some justification, then, Pocock, unlike Tawney and Hill, is inclined to see Harrington pre-eminently as a historian of feudalism rather than as a historian of the rise of capitalism. "Fortune, in his scheme, remained secondary to nature," and the landed bias of later neo-Harringtonians in eighteenth-century England continued this tendency in the face of rivalry from a growing moneyed interest and of commercial enthusiasts like Defoe. As Pocock reminds us, eighteenth-century America—where *Oceana* was a tremendously influential text—was more immediately successful in harmonizing the interests and ideology of an expanding agrarian commonwealth with commerce and industry.

Pocock's book is dedicated to the pioneers of Harrington scholarship, a select group which includes John Toland, who produced the first collected edition in 1700. Whether the unscrupulous and unscholarly Toland really deserves Pocock's respect is another matter. As a deist he played down the religious dimension of Harrington's writing. Moreover, as Blair Worden has recently asserted (*T.L.S.*, 7 Jan. 1977): "He possessed an astonishing capacity for laying his hands, by fair means or foul, on other people's documents, and a readiness to tamper with them. . . Every manuscript which Toland edited disappeared after publication." Harrington's papers are among those "lost" in this way and their loss does much to explain the present *lacunae* in our knowledge of Harrington's life and the development of his thought.

There are no such doubts about Professor Pocock's scholarship! He has performed a massive and much-needed editorial feat, the value of which will be appreciated by all those interested in seventeenth-century society and seventeenth-century thought.

R. C. RICHARDSON

C. VANDENBROEKE, *L'agriculture et l'alimentation dans le Pays Bas Autrichiens*. Gent-Leuven, Belgisch Centrum voor Landelijke Geschiedenis, Publicatie Nr. 49, 1975. 69 pp. Figs. 850 Belgian Fr.

This is such a grand performance that I am lost in admiration. Vandenbroeke's reading is so megalomaniacal. I have fallen into a habit of supplying a

plethora of references to substantiate any statement of a historical character that I may be called upon to make; but my own industrious reading falls far short of that of Herr Vandenbroeke; although his reading is parallel to, but not coincident with, mine.

His subject is one that I have the most complete sympathy with. Farming means food; without it the people starve. For most of the many years during which I have been doing historical research into the processes of farming, and the lives and sustenance of the people who did the work, I have worked upon the foundation of a basic cereal ration. Vandenbroeke has done much more. He has examined the consumption of flesh and vegetables, the production of industrial crops, fibres for weaving, dyes for the product, and so on, which have always seemed to me, perhaps mistakenly, to have been of more importance in the Netherlands than in England.

When in Chapter II this author, already an authority of some importance, comes to deal with the culture and consumption of cereals, he is more or less on my home ground; but he has pointed very clearly to the limitations of this approach to the problem. Always historians who are, or were, concerned with nutrition (*alimentation*) have based their conclusions, as I have, upon the estimated or supposed consumption *per capita* of bread stuffs. Clearly Vandenbroeke, although he expends many words about this subject, has taken much wider observation. He states that nutrition in the most frugal classes and the most frugal times included other kinds of provisions as well as the grain crops.

But there is a corollary to this. Until the introduction of the potato, bread was the most important constituent of diet, and any failure of the harvest made importation desirable. The potato was a solace, but death was always at the centre of life (from starvation and other causes), just as the cemetery was at the centre of the village: but perhaps this is not the precise point here. The vagaries of the harvest no man can control: all he can do is to rise and fall upon the waves of optimism or pessimism as the seasons force him.

Of course, meat was eaten by those classes who could afford it. Dairy products were to be had on the same foundation of financial ability. Is it not always so?

Once again it is necessary to make some reservations here. There seems to have been a shortage of some of the forage crops, oats and vetches for example, but the range of crops cultivated was as wide as that in any European country, and included wheat, rye, spelt, buckwheat, oats, barley, peas, beans, vetches, and horse beans. There was subsistence here for man and beast.

It is with some surprise that one finds the production of industrial crops included in a study of *alimentation*, a word that Vandenbroeke apparently

gives the widest possible connotation. He includes in his study, as already mentioned, the production of dye crops and fibre crops as well as tobacco and salt. The inclusion of a study of the cultivation of hops, of the vine, and the secondary produce of these crops, beer, wine, and geneva (gin), cannot be considered inappropriate.

A great deal more could be said in this note, amongst other things an admiration of Vandenbroeke's immense scholarship, but there is one point which should be made: this is very much a technical, an economic, as well as a social investigation. It adds a great deal to the knowledge of nutrition and other matters in the chosen period that is now the preoccupation of so many modern scholars in so many countries.

G. E. FUSSELL

J. A. CHARTRES, *Internal Trade in England 1500-1700*. Macmillan, for the Economic History Society, Studies in Economic and Social History, 1977. 79 pp. Paper £1.60.

It is well known that books designed to aid teaching at one level often run the risk of being used as a source of predigested examination paper by students at another level. Wily examiners sometimes seek to counter such techniques by including questions which ask candidates to discuss the major gaps in our knowledge of such and such a topic. Henceforth, any examiners in economic history disposed to try that one in relation to English internal trade in the early modern period will know that candidates have had the opportunity to mug up on areas of ignorance by reading Dr Chartres's little book. It offers an unusually rich mine of statements about defective evidence:

- ... a source of unknown reliability (p. 10)
- ... fragmentary and rather uncertain materials (p. 13)
- ... the statistics are too defective (p. 17)
- ... we have no real guides as to the accuracy (p. 19)
- ... astonishingly little has been written (p. 24)
- ... sadly, we cannot be certain (p. 44)
- ... sadly, relatively little evidence exists (p. 47)
- ... very little is known about individuals (p. 50)
- ... the most interesting questions have yet to be answered (p. 58)
- ... much of the sixteenth century remains a dark age (p. 65).

These are merely a few examples, referring to different aspects of his subject, out of many such remarks. To quote them is not to criticize Dr Chartres. He is indeed right not only in what he says but also in bringing such ignorance and uncertainty to the attention of readers.

Whether so difficult and little-researched a topic is a suitable one for the Studies in Economic and

Social History series is another matter. The editorial preface by Professor Flinn speaks of these booklets serving as guides to fields in which "important advances have recently been made, or in which there has recently been some significant debate." Does this topic qualify on either count? It is no disrespect either to Dr Chartres's own researches, or to contributions such as Professor Everitt's on agricultural marketing, to note how much the book has to rely on the work of Professor Willan or on the older books of Gras and Westerfield. And of debate there is not a sign. Dr Chartres seems almost to be trying to manufacture one by suggesting that historians have unreasonably ignored internal trade and the home market, accusing them of having behaved "like good mercantilists" and of committing the "familiar logical error . . . of imputing a trend to the mere existence of data." All of which seems a trifle unfair to some who have recently written on the English economy in this period, and who have shown themselves not unaware of the simple fact that lack of evidence does not necessarily mean lack of significance (see, for example, L. A. Clarkson, *The Pre-Industrial Economy in England, 1500-1750*, pp. 117-23). Conversely, the high probability that the home market was a bigger source of aggregate demand than the external should not in itself be thought to lessen the need for historians to concern themselves with overseas trade if only because of the contemporary obsession therewith and of its function as a stimulant to state action.

Be that as it may, Dr Chartres's booklet provides a valuable introductory guide to our knowledge and ignorance of internal trade which should stimulate others to join him in his own endeavours to provide more light in the darkness. (Incidentally, the publishers are to be congratulated in finding an appropriate cover illustration, in contrast to the wholly inappropriate one which they used, without the author's approval, for the corresponding booklet on Tudor and Stuart industry.)

D. C. COLEMAN

R. E. F. SMITH, *Peasant Farming in Muscovy*. C. U. P., 1977. xii + 289 pp. 11 plates, 7 figs., 5 maps. £10.50.

This book is as useful and interesting for the general historian as it is for agricultural specialists. Its discerning and critical survey of the diverse and often contradictory literature on such well-worn subjects as the history of the plough and the use of the three-field system, enriched with comparative European data, makes this book a basic tool for the medieval Russian historian. If one adds to that the elucidation he provides for the non-Russian reader of the *flora* and *fauna*, complete with English comparisons that go beyond mere translation, one can readily see its value. What a pleasure finally to settle

the issue of the Russian equivalent of cowberry, bog, whortleberry, and the various whitefishes!

Smith's history is "history from the bottom up"; going beyond what the accounts of princely and monastic estate records tell us, he reconstructs the micro-economies of the peasant farmstead, and fills in gaps in the technological history of the Middle Ages by an inspired attention to close detail.

The book is egregiously sensible. "It has been claimed that even up to the mid-nineteenth century, 90 per cent of peasant implements . . . were of wood. It is difficult to see what common unit could be used to make such an estimation. . . ." His own estimates are very careful. He claims only that to which he is entitled; he is willing to admit insufficiencies of evidence and the ensuing interpretative difficulties. He is refreshingly unabashed at declaring previous hallowed interpretations "nonsense"; not feeling the need for conclusive arguments at every step, he does not have to produce nonsense himself. He emphasizes the importance of the forest as a supplement to the peasant economy; his description of "the creeping colonization of the forest" should put the final death to the absurd popular misconception of "the nomadic Russian peasant." Thus he is able to explain how, when the clichés tell us that life was a total disaster ("90 per cent of the Moscow area was laid waste in the sixteenth century"), the life of the peasant went on in its accustomed way.

I have some quarrels with this book, but they are merely ideological. It would be nice if we were able to separate *homo economicus* from *homo politicus*, but I do not think that is possible. It is hard to draw the line between medieval political arrangements and economic exploitation. There is a brief survey of the development of political administration and the growth of enservment in connection with military service; but the book makes no use of such issues and the material is not integrated with the central data of the study.

But Smith's book is splendid history. There is no need for the final apologia for his "social anthropology or ethnography rather than history." The talented shuffle between what we do not know and what "it is reasonable to expect" is an example of the very best kind of history-writing being done these days. We now know "What it was like down on the farm" in sixteenth-century Russia.

LINDA GERSTEIN

HOWARD S. RUSSELL, *A Long Deep Furrow: Three Centuries of Farming in New England*. Foreword by Wayne D. Rasmussen. Univ. Press of New England, 1976. xvi + 672 pp. 39 illus. \$18.50.

This is a work of what used to be called meticulous scholarship. So far from being the broad outlines of the subject, it is a piece of research into its nooks and crannies. It seems to have occupied a lifetime. It is

in fact rather an economic history than a history of agriculture. Clearly the author is concerned with every aspect of life in a new, progressing country.

Farming, after subsistence is secured, obtained as this may be from natural resources, wild *ferae*, fruits, and honey, supplemented, as apparently the Indians found necessary, by cultivation, becomes a commercial proposition, only in so far as any surplus is concerned. This provides money (the means of exchange, though barter is not excluded) with which to purchase goods made by non-farmers, though, there were none but farmers in the first settlements.

The new settlers in New England seem to have inherited the instincts of their ancestors, who have been so derogated as a nation of shopkeepers. This profound reflection was stimulated by the author's interest in what is called business, something quite different from food production. There is, even in the first few chapters discussing the earliest days of settlement, a great deal about the sale of goods and the purchase of supplies—more commerce than might have been expected at such an early time of settlement in a wilderness is indicated.

When the land had been a trifle settled farmers had to sell their surplus products (it would be an interesting study to compile statistics of their surpluses), minute as these must have been on most New England farms in the seventeenth century, in order to buy iron and steel goods, plough shares and harrow teeth, even guns and cooking utensils. So a man who is writing the history of farming and farmers may be excused for introducing the sordid details of trade upon which, apart from home products, everyone lived. All the same there is so much business history included in the book that it is more than the history of farming in New England. Communications by land and sea are also discussed in some detail.

Naturally there is a good deal of emphasis upon the cultivation of the primary staples, and on the breeding of the pigs that provided the major part of the meat eaten on the farms. Cattle were bred and horses were kept in increasing numbers as time passed. The nineteenth century, too, saw the development of market gardening. Industrial crops like hemp and flax and the dye plants were always part of the rural scene. Tobacco was grown. Orchards supplied fruit and cider, the latter being probably the more important. Enclosures were made with various kinds of fence, drystone walls (probably known in the old country), and new kinds of wooden pales.

As time passed the heavy work of the farm was made easier by the invention and manufacture of novel machines as elsewhere in the world, and the expansion of the towns provided a more certain market. The nineteenth century, too, saw the national organization of agriculture. The Department of Agriculture was established, and the Agricultural

Experiment Stations and schools were set up all over the vastly expanding state.

The book deals with all these subjects and others, such as domestic life and the daily work of overworked women as well as that of overworked farmers, in an almost microscopic way as might be expected of the results of a lifetime of research. This book will not readily be superseded.

G. E. FUSSELL

G. E. MINGAY (ed.), *The Agricultural Revolution: Changes in Agriculture, 1650-1880*. A. & C. Black, 1977. x + 322 pp. 6 figs. £6.95.

This is a most useful selection of forty-six documents, with an explanatory note to each, introduced by Professor Mingay and grouped under a series of headings—farming methods, livestock, fertility and manuring, machinery and drainage, labour and capital. Professor Mingay rightly warns against the older, naïve, and often incorrect accounts of the agricultural revolution of the eighteenth century to be found in the older (and even some of the newer) textbooks, but at the same time gives due credit, through both his introduction and his explanatory notes to the documents, not only to the hackneyed names of Townshend, Tull, Bakewell, Young, and Coke but also to the contributions of many lesser-known figures. It is useful, for example, to have the day-by-day programme at the Duke of Bedford's sheep-shearing festival of 1799 at Woburn Abbey, as a counterpoise to the many accounts of the similar celebrations at Holkham, and to note the astute blending of business and pleasure there. Advantage might be taken of a second edition to increase the number of documents from the period 1650-1750 and to include a few pages of farmers' accounts. Adequate attention is paid to Scotland and Wales and to the growing pressures from continental and North American competition in cereal production from the 1850's.

W. H. CHALONER

ROGER A. E. WELLS, *Dearth and Distress in Yorkshire, 1793-1802* Borthwick Papers No. 52, York, 1977. 49 pp. 80p.

This is one of the excellent series of papers produced under the imprint of the Borthwick Institute of Historical Research. It examines the pattern of events surrounding the food shortages of the 1790's, dearths which were accentuated by the pressures of war and industrial growth. Its real focus is political and social, with the threat and actuality of disorder, the petitioning movement, and crime as the main areas of study. Wells shows the remarkable humanity of some local authorities and employers in coping with the impact of dearth, and the less startling disinclination of juries to convict "rioters."

Perhaps the most interesting and original element

in this book is the evaluation in real terms of a number of working-class wages in the years 1794-6 and 1799-1801, the two periods of "crisis." Four individuals and two groups, rural carpenters and agricultural day labourers, are taken to assess the surplus or deficiency in weekly *earnings* after a "minimum subsistence diet" had been purchased. The results for both wheat- and oat-based diets point clearly to the depth of the subsistence crisis in the middle quarters of 1795, at the end of 1800, and at the beginning of 1801. Unfortunately the reader who wishes to look more closely at these interesting results is referred to a doctoral thesis "shortly to be presented" for the details of calculations of earnings and diets, and for the exact definition of quarters. It is unclear whether calendar or the more conventional harvest years are being employed.

Such flaws detract from the genuine achievement of this pamphlet. They are compounded with other signs of careless writing and the lack of editorial control. Principal of these is grammatical error, examples of which litter the pages. Clichés are plentiful, as with a "burgeoning industrial revolution" (p. 8), and "cereals were the staff of life" (p. 13). More irritating is the author's bizarre but inconsistent use of "new pence" when discussing living standards, as in the following sentence: "The first three-year deficit totalled almost £20; the second climbed to over £33 10s., average monthly deficits of 56 and 93 new pence" (p. 15). Overall this is a flawed production, a study of some general interest but of no great merit.

J. A. CHARTRES

ALAN HARRIS, *The Milk Supply of East Yorkshire, 1850-1950*. East Yorks. Local History Society, 1977. 41 pp. 65p.

The lease of Charterhouse Farm between Hessle and Hull was up for sale in 1890 and attracted numerous inquiries and many bids, but not so much from farmers as from local cowkeepers, pig dealers, or butchers interested in this dairying holding. Who took on this property Alan Harris does not tell us, but from a mass of this kind of detail he has given us a many-sided picture of the milk supply of East Yorkshire. This sale was during the agricultural depression of the late nineteenth century, which affected arable land more than dairying; at the same time the proximity of this farm to the urban milk market of Hull indicates the kind of new "recruits" who were being attracted into some sections of farming. Harris, in this way, takes us—sometimes only by inference, often by a short discussion or detour—through changes in farm types, style, and fortunes between 1850 and 1950, the growth of the milk trade by rail, and especially by road, to the towns, the rise and decline of the urban cowkeepers surviving in this area long after the cattle plague

disaster of the 1860's, and alterations in the consumption of milk.

This is a fascinating story in its own right, presented as no. 33 in the Local History Series of the East Yorkshire Society, but it has linkages with many wide-sweeping and fundamental changes that have taken place in our society in this period. A careful reader can detect these page by page. The enormity of the events conveyed in this way transcends the minutiae of the local story.

In a predominantly corn and sheep region the meadow and pasture closes of village and town supported small herds, sometimes only a few cattle, for the milk supply of the locality. Even smaller pieces of land in the towns were used for stall-fed animals kept in cowsheds all the year round in Hull, or grazed in summer in Beverley. On the outskirts of towns small farms, often of less than 50 acres, in areas like Drypool and Southcoates near Hull, in the Vale of Pickering, and round York, kept dairy herds in a mixed farm system. As a result, over the century since 1850 the towns and larger villages may well have been better supplied with liquid milk on a commercial basis than the people living in the countryside. A marked distinction seems to have developed between town and country, and we need to probe further to uncover the differential effect on diet and health. For instance, legislation to control the conditions in which milk was supplied seemed to have been more difficult to enforce in rural areas where farmers largely dominated the local councils.

There were some sixty cowkeepers in Hull's built-up area in 1851; by 1886 there were at least 260 cowsheds and 1,400 milch cows. At some stage in the next twenty years more than half the town's milk supply came in for the first time from outside Hull itself. The organization of this trade was quite complex. New stock in milk had to be brought in to replace the dry cows; fodder had to be brought, carted, and stored; hayfields negotiated for and insured; the manure disposed of. This milk was eventually replaced by farm milk, a transition involving changes in farming practice in some case, and a growth of road transport. One estimate suggests that by 1925 some 8 million gallons of milk were being sold annually off farms in this region; by the late 1930's this had increased to some 12 million gallons. How easy it is to quote the figures—but Harris's account not only conveys the details but suggests much of what lies behind them. The information has been squeezed out of the minutes of local authorities, hospital boards, and sanitary committees, reports of medical officers of health, local farm and estate documents, parliamentary papers, and other materials. This has been done with care, and the reader can always be aware of the source of the information if he wishes. Those who have worked with this type of material and

topic will appreciate only too well the amount of work required to extract so much of the local story.

But are we left simply with a piece of local history? This perhaps depends on the reader: it may be looked on as part of a much larger canvas, showing changes in farm organization and fortunes, and the development of large-scale commercial milk production and marketing, and its regulation. There is for instance just a reference or two to the way in which dairying groups such as Riley's Dairies, Clover Dairies, and the Hull and East Riding Co-operative Society's dairy developed their trade, and then since the Second World War merged with Northern Dairies. This company in turn forms part of a much larger group with finance, brewing, and other interests, and so milk production and distribution were caught up in the greater business enterprise of the 1950's onwards. The full story of this, of the Milk Marketing Board, and of the price structure of the industry has to be found elsewhere. At one level this is a piece of competent local history on an unusual topic; at another, for the historian, there are invaluable material and insights here for him to draw on.

JANET BLACKMAN

D. A. RATCLIFFE (ed.), *A Nature Conservation Review*. C.U.P., 1977. Vol. 1, xvi + 401 pages, 24 plates, 9 maps. £35; Vol. 2, viii + 320 pages. £25. Much of a review of this mammoth work could be taken up by a description of what it contains. A short and therefore an over-simplified account must be given—almost the terse explanation given by the Secretaries of State for the Environment and for Education and Science in their short foreword. The *Nature Conservation Review* is, they say, "an account of the nation's heritage of wildlife and its habitats. It describes the biological features of more than 700 sites, classified in major habitat groups and sets out criteria by which the importance of each site for nature conservation can be judged."

Though it is a compendium of the knowledge and judgement of many biological scientists, it is right and proper that the name of Dr D. A. Ratcliffe is emphasized as it has been largely his singlemindedness, energy, and work as an author or part author of most chapters, particularly of Volume 1, that has brought this study to fruition over more than ten years.

The basic philosophy behind this *Review* (and behind most of the work in nature conservation in Great Britain in this century) stresses the safeguarding of key areas which represent the major types of natural and semi-natural vegetation, together with their associated floras and faunas, in order that they will always be available for "a range of human uses in posterity" (see Introduction).

The rationale given in Chapter 2 is to my mind

the really crucial part of the argument and of the many detailed site descriptions. The emphasis is on the preservation of key sites against many forces leading to deterioration or destruction—mainly the forces of human impact. It quickly gets involved with subjective judgements as to what is "irreplaceable," "most valuable," "most vulnerable," of "highest quality," the "best" site. Ratcliffe quickly concludes on page 4 that "the series of key sites will thus be a mixture of the scarce and the unusual and the typical or common examples of ecosystems."

The criteria used in selection of key sites are all important. They are, of course, all relative and comparative. The factors used were: the size or extent of the site, diversity of habitat (leading to species "richness" of flora and fauna), naturalness of habitat, i.e. degree of modification by human influences, rarity (of communities, habitats, or groups of species), fragility of habitat, i.e. sensitivity to environmental change, typical or commonplace habitats, the degree to which a site has had its ecological history recorded, and is part of, or linked to, a contiguous geographical area. Finally, assessments have been made of the potential future value of a site, whether or not it is now degraded, and its intrinsic interest to human beings (for example, most birds and butterflies awaken a lively human interest).

No cardinal or ordinal weighting has been given to this list of criteria, and any disagreement or doubt as to the assessment of any site has finally been settled by the editor of the *Review*, acting as scientific assessor to the project. The final assessment made, again qualitatively, is the placing of each site, finally, as Grade 1, 2, 3, or 4 (described on p. 15). The remainder of Volume 1 deals with the field of ecological variation found in Britain, and, in detail, with seven major formations (Coastlands; Woodlands; Lowland Grasslands, Heaths and Scrub; Open Waters; Peatlands; Upland Grasslands and Heaths; and Artificial Ecosystems), and the way in which the key sites fit into these formations. Volume II gives in detail an ecological description of each key site identified.

There is not sufficient space here to discuss all the major implications of this *Review* and the action to follow its publication is under debate at the present time by the Nature Conservancy Council and associated bodies. There is the problem of the *Review's* being a study and assessment over a past period of time, especially the key year of 1965. The degree of change in the quality of different sites over the past twelve years has varied, with the influence of agricultural change being severe on many small lowland sites. The ownership of these key sites is also very variable—some are National Nature Reserves, owned or leased by the Nature Conservancy Council, others are in private hands with no gradings or

listing, some are owned by public authorities, both local and national. There are, therefore, many different ways of moving forward with the application of this *Review* to the real condition of lowland and upland Britain in the late 1970's, some easier or more difficult than others, and certainly some much more expensive than others in the use of public funds for site purchase.

We should welcome this *Nature Conservation Review* with all the questions that can be raised about the nature of its analysis, and the difficulties that will arise in its implementation. This is because it lays a foundation on which real improvements can be developed both in the extension of knowledge and in the possibilities of action.

GERALD WIBBERLEY

Shorter Notices

MARGARET GELLING, *Signposts to the Past: Place-names and the History of England*. Dent, 1978. 256 pp. 21 maps. £6.50.

Margaret Gelling's book is an up-to-date survey of the origins of English place-names, with examples drawn from all over the country. Her discussion includes consideration of the place-names of Roman Britain, the survival of Latin and Celtic words in place-names, Scandinavian and French names, the derivation of names from boundaries and meeting places, and the vexed question of the extent to which place-names incorporated a personal name. Also considered are the chronology of place-names, and their significance to the archaeologist. This volume is essential reading for all those who have given more than a passing thought to the meaning of place-names, and particularly those coming fresh to the study for the first time—if only because it brings out so well the complexity and numerous pitfalls of the subject.

EDWIN GREY, *Cottage Life in a Hertfordshire Village*. Harpenden, Herts., Harpenden & District Local History Soc., 1977. v + 253 pp. Illus. Hardback £3.50; paper £2.50.

Edwin Grey's personal reminiscences of cottage life in Harpenden in the late 1860's and the 1870's was first published in 1934, and has now been made available again through the enterprise of the Harpenden and District Local History Society. The new edition includes the original preface by Sir E. John Russell, Director of Rothamsted, where Grey was Field Superintendent, and a new introduction by F. M. L. Thompson, as well as photographs of scenes described in the book. Grey's account is a highly detailed one, especially interesting for its descriptions of cottage fare, village society and its events, and, particularly, the local straw-plaiting industry. Much of the detail is novel, and Grey succeeded brilliantly in bringing back to life the vanished village of his youth. The book is indeed a valuable social document. Copies may be obtained from the Society, 41 Milton Road, Harpenden,

Herts.; orders should include 41p. to cover postage of the hardback edition, or 31p. for the paper one.

W. BERGESS and C. EARL (eds.), *The Kent Bibliography: A Finding List of Kent Material in the Public Libraries of the County and of the Adjoining London Boroughs*, compiled by the late George Bennett. Library Association London and Home Counties Branch, 1977. ix + 452 pp. £11.

This bibliography lists and locates books, articles, surveys, reports and plans, Acts of Parliament, and manuscripts relating to Kent in the County Library, the Wye College Library, and fifteen town public libraries, together with the local studies centres of the London Boroughs of Bexley, Bromley, Greenwich, and Lewisham. The material listed goes to the end of March 1973, and later acquisitions will be presented in future supplements to the bibliography. Copies may be obtained from the Publications Officer, The Library Association, London and Home Counties Branch, 65 Gentrarnmon Road, Green Street Green, Orpington, Kent, BR6 6DG.

ERIC J. EVANS, *Tithes and the Tithe Commutation Act 1836*. Bedford Square Press for Standing Conference for Local History, 1978. v + 40 pp. Illus. £1.50 (£1.65 post-free).

This pamphlet provides a most useful introduction for researchers beginning work on tithe material, and all those interested in the question of the effects of tithe on agricultural improvement. The study is concerned with four main aspects of the subject: the background to tithe commutation, including the difficulties connected with the collection of tithes; the developments which led to the passing of the Act of 1836; the Act and its administration; and a note on the use of tithe maps, awards, and files, and the question of their accuracy. The pamphlet sets a high standard for the new series of National Statutes and the Local Community, which it launches. Copies may be obtained from Bookpoint Ltd, 90 Blackfriars Road, London SE1 8JT.

Books Received

- JANOS BAK (ed.), *The German Peasant War of 1525*. Frank Cass, 1976. viii + 135 pp. Maps. Illus. £8.50.
- URSULA EWALD, *Estudios sobre la Hacienda Colonial en Mexico*. Franz Steiner Verlag, Wiesbaden, 1976. xix + 190 pp. Maps. Illus. N.P. stated.
- J. GLENNISON and J. DAY, *Textes et Documents D'Histoire du Moyen Age, XIV^e-XV^e siècles, I. Perspectives d'Ensemble Les "Crises" et Leur Cadre. II. Les Structures Agraires et La Vie Rurale*. 341 pp. and 308 pp. S.E.D.E.S. Paris 1970 and 1977.
- HEINZ GOLLWITZER, *Europäische Bauernparteien im 20. Jahrhundert*. C. Gustav Fischer Verlag, Stuttgart, 1977. 702 pp.
- DAVYDD J. GREENWOOD, *Unrewarding Wealth: the Commercialization and Collapse of Agriculture in a Spanish Basque town*. C.U.P., 1976. x + 223 pp. Illus. £8.50.
- PAUL JANSSENS, *Couts et Profits des Structures Nobiliaires Dans Une Société de Type Pre-Industriel: Les Pays Bas méridionaux du XV^e au XVIII^e siècle*. Katholieke Universiteit te Leuven, Belgium. 151 pp. Reprint 27.
- UNIVERSITY OF NOTTINGHAM, Department of Adult Education, *The Onset of Industrialisation*. Nottingham University. 88 pp. Maps. £1.50.
- N. J. G. POUNDS, *An Economic History of Medieval Europe*. Longman Paperback edn, 1976 (first published 1974). xii + 562 pp. £4.75.
- FUNDACION UNIVERSITARIA ESPANOLA SEMINARIO "CISNEROS", *Cuadernos de Investigación Histórica I*. Madrid, 1977. 231 pp. Maps. Illus.

NOTES ON CONTRIBUTORS

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Dr Sue Farrant lectures in Geography at Brighton Polytechnic. Her interests are in historical geography of the eighteenth and nineteenth centuries, and she is currently working on the development of Brighton, 1650-1820.

Dr Pamela Horn lectures in Economic and Social

History at Oxford Polytechnic. She is the author of a number of well-known books, including *Joseph Arch*, *The Victorian Country Child*, *The Rise and Fall of the Victorian Servant*, and *Labouring Life in the Victorian Countryside*. Her latest work is entitled *Education in Rural England 1800-1914*.

Dr Ellis A. Wasson teaches History at the Rivers School, Weston, Massachusetts. His Ph.D. work was done under Dr Kitson-Clark at Cambridge, and he has published a number of articles and reviews.

NOTES AND COMMENTS

(continued from page 126)

ments include estate accounts, Holkham farm accounts 1814-22, and the agricultural letter-books 1825-37 of Francis Blaikie. Full details may be obtained from the firm.

B.A.H.S. SPRING CONFERENCE, 1979

The Society's Spring Conference will be held at Ripon, in the College of Ripon and York St John, 9-11 April 1979; inquiries should be addressed to the Secretary. Programme and booking forms will appear in the February issue of the *Review*.

INTERNATIONAL CONFERENCE ON CLIMATE AND HISTORY

An International Conference on Climate and His-

tory will be held at the University of East Anglia on 8-14 July 1979. Persons interested in attending should write for further details to: Conference Secretary (Climatic and History Conference), Climatic Research Unit, School of Environmental Sciences, University of East Anglia, Norwich NR4 7TJ.

WINTER CONFERENCE, 1978

The Winter Conference will be held on Saturday, 2 December 1978, jointly with the Historical Geography Research Group of the Institute of British Geographers. It will be held at the Polytechnic of Central London, 38 Marylebone Road, London NW1, and the theme will be 'Enclosures reopened: recent developments in the enclosure debate'. All inquiries should be addressed to A. D. M. Phillips, Department of Geography, University of Keele, Keele, Staffordshire ST5 5BG.

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The purpose of this conference is to bring together climatologists, historians and archaeologists from throughout the world to discuss climate and its possible impact on past and present societies.

Some financial assistance may become available to the organizing committee to facilitate travel and/or subsistence of a limited number of participants.

Potential contributors and participants are requested to notify as soon as possible and, in any case, not later than 31 December 1978:

The Conference Secretary (Climate and History Conference),
Climatic Research Unit, School of Environmental Sciences,
University of East Anglia, Norwich, NR4 7TJ, United Kingdom.

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<i>The Agricultural Revolution: Changes in Agriculture, 1650-1880</i> , ed. by G. E. Mingay	W. H. CHALONER	148
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THE BRITISH AGRICULTURAL HISTORY SOCIETY

Articles and correspondence relating to editorial matter for the *Agricultural History Review*, and books for review, should be sent to Professor G. E. Mingay, Editor, *Agricultural History Review*, Rutherford College, University of Kent, Canterbury, Kent.

Correspondence about conferences and meetings of the Society should be sent to Dr J. A. Chartres, School of Economic Studies, The University, Leeds, LS2 9JT.

Correspondence on matters relating to membership, subscriptions, details of change of address, sale of publications, and exchange publications should be addressed to Andrew Jewell, Treasurer, B.A.H.S., Museum of English Rural Life, The University, Whiteknights, Reading, Berkshire.

Correspondence on advertising should be sent to E. J. Collins, Museum of English Rural Life, The University, Whiteknights, Reading, Berkshire.

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EDITOR: G. E. MINGAY

RUTHERFORD COLLEGE, UNIVERSITY OF KENT
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