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Land Use and Management in the Upland Demesne of the De Lacy Estate of Blackburnshire *c* 1300

By M A ATKIN

> Henry, son of Kitte renders his compotus of 42 cows and 1 bull of remainder, and 6 of addition and 1 received from the Instaurator; total 49 cows and 1 bull, also one bull of addition. Of which he counts 3 delivered to S. le Geldhirde, and 2 to the Instaurator: 44 cows, 2 bulls remain. Also 1 ox of addition delivered to G. the parker. Also 10 yearlings of the remainder; 3 steers and 7 heifers remain. Also 13 calves of the remainder: of which 1 in tithe: 12 yearlings remain (5 males). Also 19 calves of the year, and 1 received from the Instaurator: total 20: of which 3 in murrain, hides 1d.; 2 delivered to the Instaurator: 10 [*sic*] calves remain.
>
> Total of the cattle remaining in this vaccary; 44 cows, 2 bulls, 3 steers, 7 heifers, 12 yearlings (5 males) and 15 calves. Afterwards one cow is allowed to him because it was taken away by robbers; it is forgiven him by the Earl (De Lacy *compoti*, 1295–6).[1]

Abstract

This paper attempts to reconstruct the patterns of seasonal land management in the granges, forest vaccaries and central 'pools' of the earl of Lincoln's Ightenhill demesnes in upland Lancashire. Two of the estate's Michaelmas accounts survive, dating to a period now seen as a watershed between the prosperous 'High Farming' period of the thirteenth century and the 'Crisis years' of the first quarter of the next. This relatively remote estate was geared to a cash economy, and the products were such as could well be produced under local conditions of climate, terrain and transport.

It is now generally thought that the population of England reached a peak about 1300 and thereafter declined. The relative significance of factors which have been invoked to explain this population increase is still under discussion. There is, however, agreement that a long period of good harvesting conditions; a sufficient workforce to intensify production on previously under-used areas; and favourable financial and administrative policies are all likely to have played a part, though to a greater or lesser degree in different parts of the country. Even before the end of the century poorer climatic conditions, poorer harvests, malnutrition and increased risk of disease in man and animals may have played a part in starting the decline in living conditions and population growth which becomes very apparent in the 'Crisis' years and especially those of the 1315 and 1316 famines, and the widespread cattle murrain of 1319–20. Lancashire shared in these disasters, but in the same period suffered also from local faction and anarchy which culminated in widespread disruption after the execution of Thomas, Earl of Lancaster in 1322 and, in the following year, a damaging raid by the Scots under Robert Bruce.[2]

[1] P A Lyons, 'Two *compoti* of the Lancashire and Cheshire manors of Henry de Lacy, earl of Lincoln', *Chetham Society*, OS, 112, 1884 [hereafter De L.C.], p 24(131).

[2] J Z Titow, *English Rural Society 1200–1350*, 1969; H H Lamb, *The Changing Climate*, 1966, chapters 1 and 7; M L Parry, *Climatic Change, Agriculture and Settlement*, Folkestone, 1978, pp 113–17 and 122–25; M M Postan, 'Medieval agrarian society in its prime: England', pp 548–632 in M M Postan, ed, *The Cambridge Economic History of Europe*, I, Cambridge, 2nd ed, 1966; B Harvey's introductory survey in B M S Campbell, ed, *Before the Black Death: Studies in the 'Crisis' of the Early Fourteenth Century*, Manchester, 1991; C Dyer, 'Documentary evidence: problems and enquiries' in G G Astill and A Grant, eds, *The Countryside of Medieval England*, Oxford, 1988, pp 12–35; G H Tupling, ed, 'South Lancashire in the reign of Edward II', *Chetham Society*, 3rd Series, I, 1949.

The demesnal estate of Henry de Lacy, Earl of Lincoln, was centred on Ightenhill in upland Blackburnshire in north-east Lancashire (Fig 1). Of the few surviving Michaelmas accounts of this estate those for the years 1295–6 and 1304–5 fall into the period just prior to these disasters, and may portray a northern demesne when some adjustments had already been made to the estate economy, but before the harshest years of the 'Crisis'. Ightenhill lay some forty miles from the earl's principal Yorkshire estate centred on Pontefract, and offers an example of a distant estate which did not supply the household but was largely geared to a cash economy.[3]

Matilda de Percy in 1189 said of Salley (Sawley) Abbey, close neighbour to the Ightenhill estate, that it stood 'in a cloudy and rainy climate so that crops, already white in the harvest, usually rot in the stalk; and the convent, for forty years or more, has been oppressed by want and lack of all necessities through the intemperate weather'.[4] It is an area where grass is the crop with the best potential, and like the upland estates of Fountains and Sawley Abbeys and Bolton Priory in the adjacent district of Craven the emphasis on the Ightenhill estate by the end of the thirteenth century was on the production of stock. The former estates with the advantage of limestone pastures around Malham Moor increasingly concentrated on sheep for wool and food for the household; the latter, on the lower, but poorly drained shales and grits of the Upper Carboniferous, produced mainly oxen for sale to the markets of Bolton-le-Moors and Pontefract.[5]

Blackburnshire was the alternative title for the hundred or wapentake of Blackburn, and as lord of a private hundred, Henry de Lacy, Earl of Lincoln had full jurisdiction in the hundred court at Clitheroe of the sixty vills which comprised the hundred. However, he retained in hand at this time only the four forests (strictly chases) of Trawden, Pendle, Rossendale and Accrington, and eighteen vills, all of them in the upland half of the hundred. R B Smith in his study of the origins of Blackburnshire suggested that the term manor 'is best abandoned altogether'. The hundred was a discrete estate with a villar structure in which the bondmen of the 'demesne vills' owed service (bovate by bovate) at one or more central demesnal establishments (the granges), and the other vills, originally held in thanage, but by now also by knight service and 'homage', owed little more than attendance at the hundred court. Boonworks at the central grange were owed by the bondmen of the demesne vills at times of ploughing, hay-making and harvest, but with some carrying services they amounted to a relatively small number of days in a year.[6]

By 1295–6 the commitment of the Ightenhill estate to a money economy is especially noticeable. In four demesne vills such labour services had been remitted for cash, and in two others the limited areas of demesne within the vills had been let: so too had 'the demesnes under Salthill' in Clitheroe; and eleven mills, the herbs and fruits of the Clitheroe Castle garden and the hall, grange and kitchen at Accrington. These produced about £50 in the year of each *compotus*. In addition the lactage of the twenty-seven vaccaries (twenty-nine in the later year) was let to the vaccary keepers at a rent of £3 per vaccary. This may have been a recent change of policy for at Accrington a small amount of butter

[3] M Mate, 'Medieval agrarian practices: the determining factors?', *Ag Hist Rev*, 33, 1985, pp 22–31; G G Astill and A Grant, 'The medieval countryside: efficiency progress and change' in Astill and Grant, *op cit*, pp 226–32.

[4] Quoted by I Kershaw, *Bolton Priory*, Oxford, 1973, p 21.

[5] W T Lancaster, *Abstracts of the Charters and other Documents contained in the Chartulary of the Cistercian Abbey of Fountains*, 2 vols, Leeds, 1915; D J H Michelmore, 'The Fountains Abbey lease book', *Yorks Arch Soc Record Series*, CXL, 1981; Kershaw, *op cit*; M A Atkin, 'The medieval exploitation and division of Malham Moor', *Nomina*, XIV, 1990–1, pp 61–71.

[6] R B Smith, *Blackburnshire*, Occasional Papers No. 15, Department of Local History, Leicester, 1961, pp 5–16.

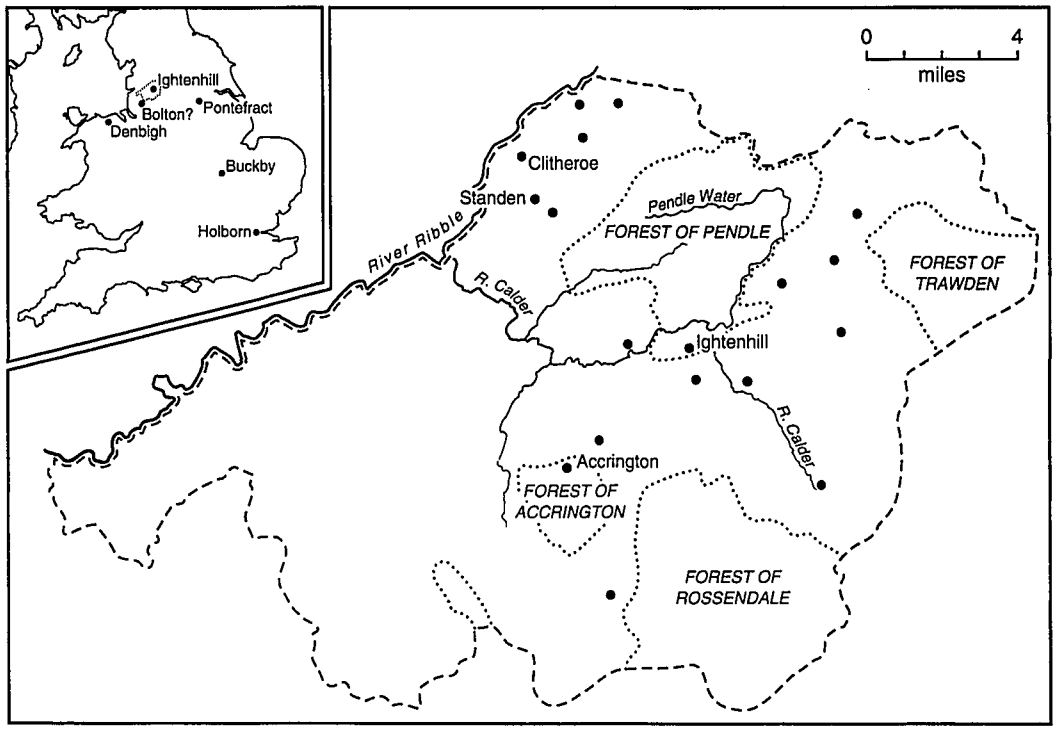


FIGURE 1
Blackburnshire in 1311: demesne vills, granges and forests (after R B Smith). Inset: De Lacy holdings which exchanged goods with Blackburnshire

and cheese was produced in the summer of 1295, but the sale of it produced less money than the lactage rent charged later. These rents plus those of the demesne and other vills and various customary dues were supplemented by the profits from the sale of oxen, horses, corn, hay and herbage in the forests, vaccaries and granges which were the only parts of the demesne held in hand and produced over £500 and £800 for transmission to the constable of Pontefract Castle and other of the earl's officers in the periods covered by the two *compoti*.[7]

The centralized administration of the estate and the detailed accounts with their own built-in checks on income and expenditure make it clear that the earl's chief officers were very well aware of such treatises on estate management as that of Walter of Henley. We can only speculate how far such recommendations trickled down to affect the ways in which freemen and bondmen cultivated their own holdings. It is, however, worth remembering that it was the latter who did the actual work of effecting any new practices on the demesnes, and that as labour services became commuted they too were entering a money economy.[8]

Ightenhill lay in the core of the bend where the river Calder turns sharply to the west from its initial northward course, and the four (largely treeless) forests lay round it in the uplands to the north, east and south (Fig 1). Accrington, the smallest and

[7] De L.C., for 1295–6, pp 1–20 (118–29) and 20–42 (130–42); for 1304–5, pp 68–116 (156–86).

[8] D Oschinsky, ed, *Walter of Henley and other Treatises on Estate Management*, Oxford, 1971; Kershaw, *op cit*, p 36.

lowest of the forests, included important lowland pastures at Antley as well as the grange of Accrington. Trawden Forest lay east of Ightenhill, across the headwaters of the river Colne, itself tributary to the Calder. Pendle Forest, north of Ightenhill, spread across the basin of the Pendle Water which rises on the flanks of Pendle Hill, and flows first east, then south-west, to join the Calder near Ightenhill. The Forest of Rossendale, the largest and the most remote from Ightenhill, incorporated the upper Irwell and its tributaries and reached south-eastward to the Yorkshire boundary. Its plateau surface, which reaches over 1000 ft, is cut by deep and narrow valleys.

The higher parts of the forests receive an average of more than 50 in of rain annually, and the high rainfall and the steep slopes, largely masked by boulder clay, sometimes conspire to produce serious flooding along the tributary streams, damage occasionally reaching well down the main rivers. The area today is dominantly one of pastoral farming and clearly was so in the Middle Ages. Standen was the most favoured of the demesne granges in terrain and climate, and produced some wheat, barley and beans; but the dominant crop here as in the other granges was oats. The herdsmen of the vaccaries probably produced some subsistence crops. Climate, altitude and the thin soils of the Millstone Grit series limit the number of animals carried per acre. In 1869 the highest townships of Pendle Forest (lying above 500 ft) carried only one cow to between three and four acres,[9] and it is unlikely that the medieval stocking ratios would have been any better, despite the more favourable climatic conditions thought to have obtained in the period before 1300.

[9] A Metcalfe, 'Agricultural changes in Pendleside 1869–1969', unpublished dissertation for the Certificate of Education, Chorley College of Education, 1970. This study was based on the annual agricultural returns to the Board of Agriculture made available through the Public Record Office.

I

The dominant activity in the twenty-seven vaccaries of the four forests was the rearing of oxen for sale in the markets of Bolton and Pontefract.[10] Each year at Michaelmas (29 Sept) the men responsible for the management of stock farming in each forest met at Ightenhill to account for their animals since the previous Michaelmas, to list the various classes of stock still remaining on the vaccaries in each forest, and to report additions and losses. The quotation at the head of the text is the report of one such vaccary in the Forest of Pendle taken as an example of the detailed records for the years 1295–6 and 1304–5 of part of the de Lacy estates. These records and those of the stock 'pools' and granges, coupled with knowledge of the terrain and climate and what the Orwins called 'the common sense of farming practice', permit reconstruction not only of the pattern of management of this large and centralized pastoral estate, but also, though more dimly, of the individual vaccaries.[11]

The vaccaries were identified in these two years only by the name of the keeper, but later audits offer place-names, and some of these are identifiable through later field patterns.[12] Each vaccary was in the charge of a vaccary keeper, and there was an associated hamlet or 'booth' where the herdsmen lived. The size of the whole business may be gauged by the large numbers of cattle which were over-wintered on the vaccaries. The audit at Michaelmas 1296 recorded a total of twenty-seven vaccaries, eleven of the vaccaries were in Pendle; Rossendale had eleven vaccaries

[10] De L.C., pp 15 (126) and 87 (167).

[11] C S and C S Orwin, *The Open Fields*, Oxford, 1954, p 14.

[12] The place-names of the vaccaries were recorded in 1323–4; see W Farrer 'Lancashire inquests, extents and feudal aids, 1205–1355', *Record Society of Lancs and Ches* II, 1905–15, pp 198–201; G H Tupling, 'The economic history of Rossendale', *Chetham Society*, NS, 86, 1927, reprinted New York, 1965, p 19. Tupling implies that a 'booth' constituted little more than a wooden hut, but the number of animals recorded in each vaccary implies the need for several herdsmen in addition to the vaccary keeper: M A Atkin, 'Some settlement patterns in Lancashire' in D Hooke, ed, *Medieval Villages*, Oxford, 1985, pp 173–79.

and Trawden had five. Of these, all except two recorded an autumn total of over eighty head of stock, and the other two had over seventy animals, all of them apparently intended to be over-wintered. In Accrington Forest there was a single huge vaccary which carried over 230 animals: thus the total winter stock approached 2500 animals. In the 1305 *compotus* there was one vaccary less in Pendle, but the large Accrington vaccary had been divided, and there were now three there, though one was still very much larger than any other.[13]

The central 'pools', not all of which carried stock through the winter, were in the charge of officers of the estate. Simon the Geldhird was in charge of the 'cattle of croin', the old and/or barren cows, and had pastures for them in Higham on the south-facing slopes of the Calder valley.[14] William of Antley and Geoffrey the Parker each had charge only of oxen, the latter presumably in the park at Ightenhill, and the former probably at Antley pastures near Accrington. Gilbert de la Legh, the chief instaurator or stockman, was responsible for the management of the whole estate, and had charge of the exchange of old animals and redistribution of young stock to the vaccaries, as well as responsibility for marketing the surplus stock, comprising both the old cows and the oxen which were the principal product of the system. Since he had large numbers of animals sent to him at Ightenhill for redistribution or over-wintering he had a deputy (Peter de Bradley in 1295–6, and John de Paldene in 1304–5) to take charge of them. Each forest had a stockman (*instaurator*) who attended the Michaelmas audit with his vaccary keepers to present the accounts for 'his' forest.[15]

The tenancy arrangements of these vaccaries were evidently very similar to some of the tenancy agreements of the 'lodges' of Fountains Abbey. In each estate the animals were part of the demesne, and the chief stockman not only required them to be accounted for in detail annually, but he undertook the replacement of old stock with young animals taken from the vaccaries into the central pools of stock. This system was described in some Fountains leases as 'the ancient custom used time out of mind'.[16]

One vaccary in Pendle, that of Henry, son of Kitte, (head of text) will be used here to discuss the nature of the evidence, and to exemplify and clarify the wider picture (Table 1). In the autumn of 1295 Henry had evidently recorded the following classes of stock 'of remainder' which he was going to over-winter on his vaccary: forty-two cows, one bull, ten yearlings and thirteen 'calves of remainder', that is, calves born in the previous spring, 1294. There were no entries of 'remainder' under heifers and steers, or oxen.

The cows were the core of his breeding herd and to these he added '6 cows of addition', and '1 bull of addition'; and he sent '1 ox of addition' to Geoffrey the Parker. This term 'addition' refers to the heifers and steers, and one young bull of the previous autumn of 1295, now 'added in' under a different heading. These were not entered as 'remainder' under the heading of heifers/steers because they have been re-classified: the heifers, having calved, are now counted as cows, the three-year old

[13] A Watkins notes the very much smaller numbers of stock in Arden: 'Cattle grazing in the Forest of Arden in the later Middle Ages', *Ag Hist Rev*, 37, 1989, pp 12–25.

[14] De L.C., p 40 (140). The Latin text of the *compoti* pp 38–9, 40, 85 reads: *crom', croym; Simon le geldhirde, custos cromii.* In R E Lathom, *Revised Medieval Latin Wordlist*, Oxford, 1965 are *cronardus* — crone, old, worn out sheep; and *cromium* — weeding out of old animals; and *(re)cron(atus)* — old animal weeded out of flock. 'Crone' is still in use today, usually applying to old sheep, though here referring to old or barren or lame cattle.

[15] In 1295–6 the forest stockman of Pendle, Henry del Estock, was also a vaccary keeper in Pendle: De L.C., pp 30 (134) and 38 (139). He was presumably sufficiently numerate and literate to keep accounts of his forest and present them at the audit.

[16] Michelmore, *art cit*, leases for Bouthwaite, Heyshaw and Lofthouse, nos. 205 and 238, 212, and 206. A modified form of this type of tenure is found in those Cumbrian tenancies in which 'heafed' flocks 'go with the land'.

TABLE 1

The returns made by Henry, son of Kitte (Pendle no. 3), Michaelmas to Michaelmas 1295–6

	Cows	*Calves of the year*	*Bulls*	*Calves of remainder*	*Yearlings m*	*Yearlings f*	*Heifers-steers*	*Oxen*
Credit								
Remainder	42		1	13		10		
Additions	6		1					1
Calves of year		19						
From instaurator	1	1						
Sub-total	49	20	2					
Debit				−1 tithe				−1 to parker
Murrain		−3						
To geldherd	−3							
To instaurator	−2	−2						
*Total	44	10 (*sic*) 15 (corrected in final total)	2		5m (7f)		7 3	(0)

Afterwards 1 cow is allowed to him because it was taken away by robbers. It is forgiven him by the Earl.

* This was described in the *compotus* as 'Total of the cattle remaining in this vaccary'.
Figures in brackets are deduced from the actual data in the *compotus*: e.g. '12 yearlings remain (5 males)'.

(gelded) steers as oxen, and the young ungelded (entire) bull is now to take his place in the breeding herd.[17]

This same process of re-classification can be seen in the 'calves and yearlings of remainder'. The former, minus one of their number used to pay tithe, are now yearlings, and the latter are heifers and steers, being now one year older. During the coming year these seven new heifers, now entering their third year, will go to the bull, and should bear their first calves in the spring of 1297.

There must have been some policy, and a decision-maker, guiding the selection of male calves to be reared entire, a decision which would have to be made soon after their birth in February or March since the other young males were probably gelded before they were a month old. The purchase of 'candles bought for the vaccary of Accrington and Baxtanden and for gelding calves' indicates their need to provide good lighting in the calf-house at a dark time of the year. The deputy or the geldherd may have been the decision-maker. Perhaps he and the forest stockman went round the vaccaries in the spring picking out the best male calves for rearing entire, gelding the rest, and agreeing with the vaccary keepers on which old or sterile cows should be culled that year from their herds.[18]

In 1296 there were two more vaccaries in Pendle (nos. 4, 7), as well as Henry's, which kept one bull of remainder as well as the one of addition. There may have been a policy of retaining the old bull while introducing the young one in order to guarantee complete coverage of the herd. Among the Rossendale herds four two-year old bulls were recorded, and in 1304–5 Robert de Merkelesdene had two

[17] P D A Harvey, 'Agricultural treatises and manorial accounting in medieval England', *Ag Hist Rev*, 20, 1972, pp 170–82.

[18] T Tusser, *Five Hundred Points of Good Husbandry*, 1557, reprinted by OUP, 1984 p 77: January — 'Geld bulcalfe and ramlamb as soon as they fall, for therein is lightly no danger at all'. De L.C., p 87 (167): rushlight, probably the more usual form of lighting, would have been much cheaper, but would give only very limited light.

young bulls in his herd, one of which was sent to the chief stockman as a two-year old, but the other was retained on the farm, and perhaps was intended to replace the existing bull. There is no evidence that the vaccary bulls were moved round from one vaccary to another, and any concept of selective breeding is unlikely at that time. There may, however, have been a reluctance to allow the bull to breed with his own progeny which could occur after four years.

Under the heading of 'calves of the year', that is those born during the spring of 1296, Henry recorded nineteen calves. To obtain only nineteen calves from a breeding herd of forty-two cows is a low calving ratio, being less than a half. Even allowing for poor winter feeding, and higher losses in calving through lower levels of knowledge and hygiene than today, this ratio is worse than that recorded in some contemporary herds, though not appreciably worse than those of Bolton Priory.[19] A possible explanation may be that the figure of nineteen calves represents only the estate's share of the calves, and that numbers over that figure, perhaps up to an agreed maximum, were the perquisite of the vaccary keeper and his herdsmen: any calves above that maximum were then to be sent to the 'pool'. This would be similar to the situation on some of the cattle lodges of the Nidderdale estates of Fountains Abbey.[20] Henry also received one cow and one 'calf of the year' from the chief stockman. These, with the bull, were given a 'credit' total of forty-nine cows, twenty calves of the year and two bulls.

The debits offer clues to some of the losses which might be experienced on the medieval vaccaries. No losses in calving, either of cows or of calves, are recorded in any of the vaccaries. Perhaps, as must have been the case at Bouthwaite, calving losses were made up from the keeper's share. Nevertheless, one vaccary keeper was fined 12*d* 'for calves badly kept', and in Rossendale a vaccary keeper, Cecilia, was replaced, and her son paid a fine of 10*s* 'for 4 calves lost by defect of custody of the said Cecilia'.[21] Disease caused the highest losses of stock, murrain accounting in 1295–6 for as many as three or four 'calves of the year' per vaccary. Over the whole estate eighty 'calves of the year' were lost, as well as ten cows. Other categories of stock appear to have been less vulnerable, perhaps having gained some immunity as a result of earlier attacks. The precise nature of 'murrain' is unknown. Foot and mouth, rinderpest, or pneumonia (common in housed stock) are likely to have been endemic in herds in earlier periods, but the term may have been used as a general term for any cattle disease.[22]

Frequent re-siting of cattle-housing for the young stock seems to have been a regular policy of the estate, and suggests some perception of the value of avoiding fouled land. The list of expenses in both 1295–6 and 1304–5 records 'removing and rebuilding' housing for various classes of stock. As these were almost certainly of a prefabricated timber construction it would

[19] Kershaw, *op cit*, p 100 quotes 80–90 calves to 185–219 cows between 1310 and 1316. Contagious abortion (brucellosis) could have caused very heavy losses. Although a cow in subsequent years will gain some immunity, heifers entering the herd will be affected since the calves themselves, the afterbirth, and all discharges are highly infective: Ministry of Agriculture, Bulletin No. 169, 1959.

[20] Michelmore, *art cit*, lease no. 238, Bouthwaite, p 251. In a tenancy agreement of 1537 the abbot and convent granted that '...to go towards the fyndynge and wages of themselves and their servants... the tenants of Bouthwaite lodge should have...all the calves that shall come yearly to the 60 cows and their 27 followers of three ages...' except for '...30 calves that shall come yearly from the cows and their followers'. This appears to mean that thirty calves of the year were to be the property of the monastery, and any calves of the year above that figure were regarded as the property of the lodgekeeper and his men. Although these leases date from the early sixteenth century several of them state that various (and different) aspects of the system had been the custom 'time out of mind' or 'customary from ancient times in the dale' — lease nos. 206, 212, 227, 228, 238.

[21] De L.C., pp 28 (133), 32 (135).

[22] Tupling, *op cit* (1927). Foot and mouth disease, like brucellosis, is one which leaves surviving animals with some immunity against further attack, but endemic in a herd will continue to decimate young animals.

TABLE 2
Losses of stock through murrain and wolf attack in the four forests, 1295–6

Forest	*Cause*	*Cows*	*Calves of the year*	*Calves of remainder*	*Yearlings*	*Totals*
Pendle	Murrain	10	27	8	1	46
(11 vaccaries)	Wolf				1	1
Trawden	Murrain	4	14		2	20
(5 vaccaries)	Wolf	1		1	2	4
Rossendale	Murrain	6	35	10	2	53
(11 vaccaries)	Wolf	4		2	1	7
Accrington	Murrain	2	4		2	8
(1 vaccary)	Wolf			3		3
Total losses	Murrain	22	80	18	7	127
	Wolf	5		6	4	15

In addition, the parker reported 2 oxen lost through wolf attack, and William of Antley lost 2 oxen in murrain. There were also losses of a few animals through robbery, but these appear to relate to theft in a previous accounting year.

TABLE 3
Losses of stock through murrain and wolf attack in the four forests, 1304–5

Forest	*Cause*	*Cows*	*Calves of the year*	*Calves of remainder*	*Yearlings*	*Totals*
Pendle	Murrain	5	12	8	3	28
(10 vaccaries)	Wolf					0
Trawden	Murrain	4	7	1	1 bull	13
(5 vaccaries)	Wolf					0
Rossendale	Murrain	21	37	10	2	70
(11 vaccaries)	Wolf	1		1	6	8
Accrington	Murrain	3	7	1	1	12
(4 vaccaries)	Wolf	2	1			3
Total losses	Murrain	33	63	20	7*	123
	Wolf	3	1	1	6	11

* Including 1 mature bull.

be a relatively easy job to pull off and burn the thatch, and shift the timbers to a new site. In this way clean ground could be provided for the housing at fairly frequent intervals, for no more than the cost of new thatching and labour.[23]

The risk of loss from attack by wolves was minimal compared with the losses caused by murrain (Tables 2 and 3). Over the four forests, in 1295–6, five cows, six calves of remainder, four yearlings and two oxen were recorded as 'strangled by the wolf', Rossendale suffering the greatest losses. The younger cattle are clearly the most vulnerable, but there are considerable losses of grown cows, perhaps because the greatest risk of wolf attack would be in late winter when other prey was in short supply, and at that time the cows were heavy with calf. No calves of the year were lost to wolves, almost certainly because they were housed until they were weaned. The vulnerability of the older calves was recognized, for the stock pool accounts

[23] De L.C., pp 40 (140), 90 (169). In 1295–6 '...a house for yearlings in Sapedene...', '...an ox house at Rughley — Roughlee; both in Pendle. In 1304–5 '...summer lodges made anew (*de nova facta*) for yearlings...' at Riley and Antley, in Accrington. Tupling, *op cit* (1927), p 24: a *compotus* of 1341 lists the timber cut for a new cowhouse at Bacup in Rossendale as 2 crossbeams (*pannae*) 80 ft long, 14 posts and 7 beams, and 4 large sills. This is clearly for a building of six bays, each bay apparently 13 ft long.

include the wages of '1 man guarding the calves from the Wolf'. On the vaccaries the keeper and his herdsmen no doubt carried that responsibility themselves. There are a few records of cows lost through theft, but at least in the case of two of them the vaccary keeper was not regarded as having been negligent, for the loss was recorded as 'forgiven by the Earl'. The estate evidently kept a check on any tendency to thievery on the part of the herdsmen themselves for the seneschal, the constable, and the steward were paid expenses for carrying out 'Views' or 'a Seneschal's inspection', in course of which they did find some animals. Although there were high losses of 'calves of the year', the losses in older stock were generally very small, and suggest that careful tending of the animals was usual.[24]

Henry sent three cows to the geldherd. This official, 'Simon the Geldehirde', was described in another part of the *compotus* as 'keeper of the cattle of croin'. The term 'crone' for old or barren cattle or sheep is still in use today in some areas. On the Fountains Abbey estate the term 'crochy' was used for similar cows, and there was an agreement with each lodge-keeper that at Whitsuntide he would send to the monastery 'nine of his oldest and most "crochy" cows...to be fed in other pastures belonging to the monastery...' '...and for the nine "crochone" cows so delivered...' the monastery would send, at Michaelmas, '... nine heifers to fulfil the stint'. This exchange of heifers for old cows was described as '...customary from ancient times'.[25]

A similar system was clearly operative in the Blackburnshire vaccaries, and evidence from another part of the *compotus* shows that the 'croin' cows were pastured on the south-facing pastures in Higham for twenty-one weeks of the summer before being sold for meat. This suggests that like the Fountains Abbey lodges, the 'croin' cows were dispatched to the geldherd round about Elenmas (3 May), their twenty-one weeks of grazing terminating about Michaelmas. Since the number of young cows (three year-olds) joining the breeding herds each year averaged about five, and the vaccary herds each contained about forty cows (eight generations), so the age of those culled was probably ten years and above.[26]

Table 4 shows the number of animals sent to the geldherd from each of the Blackburnshire vaccaries in 1295–6, the numbers varying between none and seven, but most of the vaccaries sent two or three, the total from all four forests being fifty-nine cows and fourteen 'calves of the year'. Not all the croin cows were barren; a few calves went with their mothers because they would still be suckling, but their small number reflects the generally poor quality of these cows.[27]

Tables 5 and 6 reveal the cows and calves, and a handful of bulls, which moved between the vaccaries and the steward. His function (with the help of his deputy) was to arrange the redistribution of young cows and 'calves of the year' between the vaccaries, so as to maintain the breeding herd on each individual vaccary.[28] To this end it is clear that during the course of the year some stock was sent in from most of the vaccaries to the steward (Table 5), and at another point in the year that same body

[24] De L.C., pp 40 (140), 24 (131) and 30 (134); 34 (137), 75 (160) 78 (162).

[25] Michelmore, *art cit*, lease no. 238, p 252, and lease no. 206, p 200.

[26] De L.C., p 40 (140); Mate, *art cit*, p 24. Sickly stock were put on the best land to fatten, and then sold to the butcher. Michelmore, *art cit*, p lviii: El(l)enmas (3 May) and Michaelmas (29 Sept) were the traditional dates in Craven for moving stock from lowland to upland pastures and back again. These dates appear to be significant in north-east Lancashire too. The herdsmens' terms of employment at the 'pools' ran from Michaelmas to Elenmas and Elenmas to Michaelmas: De L.C., p 87 (167).

[27] De L.C., p 40 (140). The two calves described as issue of the croin cattle were probably born while the latter were in the geldherd's hands; the other twelve were born on the vaccaries.

[28] I have assumed that these were young cows which had successfully produced their first calf as these would be the most satisfactory long-term replacements for old stock.

TABLE 4
Croin stock moving TO the geldherd FROM the vaccaries, 1295–6

Vaccary	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*Total cows*	*Total calves*
Pendle													
Cows	3	3	3	2	1	1	2	2	2	4	2	25	
Calves	0	1	0	1	0	0	0	2	0	0	1		5
Trawden													
Cows	2	3	3	2	7							17	
Calves	1	2	1	1	1								6
Rossendale													
Cows	2	0	0	3	1	0	4	1	2	0	1	14	
Calves	0	0	0	0	1	0	0	1	1	0	0		3
Accrington													
Cows	3											3	
Calves	0												0
Total of all vaccaries												59	14

These figures compare with the 60 cows and 12 calves which the geldherd said he had received from the vaccaries, plus 2 calves, issue of croin cattle in the geldherd's custody.

TABLE 5
Stock moving TO the steward FROM the vaccaries, 1295–6

Vaccary	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*Total cows*	*Total calves*
Pendle													
Cows	8	1	2	1	5	0	0	4	0	2	0	23	
Calves	7		2	2	5	0	0	4	0	2	0		22
Trawden													
Cows	5*	2	3*	4	0							14 (+2 bulls)	
Calves	5	2	3	4	0								14
Rossendale													
Cows	5	2	2	1	3	4	2	0	2	0	2	23	
Calves	4	0	0	0	3	2	0	1	1	0	0		11
Accrington													
Cows	3*											3 (+1 bull)	
Calves	1												1
Total sent from all vaccaries												63	48 (+3 bulls)

* Indicates presence of a bull as well.

of stock was redistributed around the vaccaries (Table 6).

It is surely no accident that, although the number of cows sent from or to the individual vaccaries through the steward, is highly variable, the total number which the steward has through his hands is very similar to the number of 'croin' cows sent to the geldherd. These cows are evidently the replacement stock. They are accompanied by calves of the year both to and from the steward and in numbers very similar to that of the cows. It would seem therefore that those going to the steward, probably in early summer (Elenmas) are likely to be young cows (the best replacement stock) with their still-unweaned calves at foot. At the end of the summer they could be redistributed to the vaccaries with weaned calves (not necessarily their

TABLE 6
Stock moving FROM the steward TO the vaccaries, 1295–6

Vaccary	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*Total cows*	*Total calves*
Pendle													
Cows	0	4	1	0	1	6	3	1	3	2	5	26	
Calves	0	4	1	0	2	6	?3	0	3	2	?2		?23
Trawden													
Cows	1	0	0	0	3							4	
Young bull				1									
Calves	1	0	0	0	4								5
Rossendale													
Cows	2	3	6	5	1	0	4	3	0	6	4	34	
Calves	1	3	5	6	1	0	4	2	0	6	4		34
Accrington													
Cows	0											0	
Calves	2												2
Total sent to all vaccaries												64	64*

Total lost from all vaccaries
Murrain: 80 calves of year, 22 cows, 25 others (mostly calves of remainder)
Wolf: 5 cows, 17 others
Robbers: 2 cows
Grand total losses: 151 animals (*c* 6 per cent of Michaelmas totals)

* Includes 14 from croin cows.

own) just before the audit in September. Such an arrangement would allow the steward to send male or female calves according to the need to balance the numbers on the individual vaccaries, and would also give the young cows in their first lactation the advantage of rich summer grazing on lowland pastures in the Calder valley. Furthermore, by reducing the pressure of stock within the vaccaries at the time of the 'hungry gap' when grass growth is slow it would enable more of their land to be closed up for growing hay for the winter.[29]

Henry, son of Kitte, our example (Table 1), held Pendle vaccary no. 3 in Tables 4–6. In the early summer he sent three croin cows to the geldherd, and two cows and two calves of the year to the steward (Table 5), and he received one cow and one calf as replacements from the steward in September (Table 6). The forty-two cows of remainder which he had in September 1295 now stood, with the six cows of addition and the single replacement, at forty-four in September 1296, so he had two more cows in his breeding herd than he started with. Henry's final total of calves of the year (fifteen) is below the number that were born on the vaccary (nineteen), for he sent more to the steward than he got back, and he lost three calves in murrain.

Table 7 demonstrates the steward's redistribution of calves of the year to maintain a balance of numbers between the vaccaries. Apart from vaccary no. 1, most of the Pendle vaccaries end the audit year with about fifteen calves. It is noticeable that, apart from bulls, these young cows and their calves are the only classes which are redistributed: the one-and two-year olds

[29] N Harvey, 'Walter of Henley and the old farming', *Agriculture*, LIX, 1953, p 488 defines the 'hungry gap' as the period between the ending of stored hay and the growth of new grass. As in the Middle Ages it still presents problems to the North Country farmer: Atkin, *art cit* (1990–1), pp 64–5.

TABLE 7
Calves of the year on the Pendle vaccaries, 1295–6

Vaccary	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Born	24	15	19	23	22	12	15	23	16	19	19
Net Gain/ Loss*	−11	+2	−4	−7	−7	+3	+1	−7	+1	−3	−3
At Michaelmas	13	16	15	18	14	15	16	16	17	16	16

* Including murrain.

do not move. There also appears (Table 8) to be a deliberate attempt (perhaps because the emphasis was on oxen for sale rather than dairy produce) to maintain a balance between the sexes in each vaccary. This can, of course, only be demonstrated in the two classes of stock for which this information is given, and has here been demonstrated for Pendle Forest only.

II

There were big changes between the *compotus* years in the Accrington vaccaries. The vaccary held by Macock of Antley in 1295–6 had a range of stock comparable with the forest vaccaries but was almost three times as big. It recorded a 1296 Michaelmas herd of 238 animals. By 1304–5 it appears to have been replaced by three vaccaries, one still very large with 145 animals and one held by Macock of standard size.[30] The third vaccary was held by Elias de Hayleghes and was evidently just building up. He had only one generation of calves at Michaelmas 1295 so it looks as though the vaccary may have been established only in the previous year. He received a generous allocation of cows and calves, fourteen of each, from the steward, so by the time of the autumn audit his breeding herd was thirty-six cows and a bull, and he had eighteen calves of the year and twenty-one yearlings, nine of them females. His vaccary, therefore, was then comparable in size and stock to the normal forest vaccaries.

III

The management of the stock from the estates seems to turn on the management of the winter grazing available in the 'pools'. In 1295–6 four officers were the recipients of the stock from all four forests, and were in charge of the stock 'pools' sited in, or near, Ightenhill and Antley by Accrington. Geoffrey the Parker was presumably in charge of the deer park at Ightenhill and he also handled the young oxen (of addition) coming from the vaccaries. In 1295–6 he had only over-wintered three oxen, but in spring received the 137 young oxen (three-year olds) from the vaccaries. He evidently kept them through the summer (losing two in murrain) and before Michaelmas sent them to the geldherd. This cleared his park of oxen so he would not record any oxen of remainder in the next year's audit. Since, as parker, he was also responsible for maintaining a herd of deer, his policy appears to be to reduce the cattle in the park in autumn in order to provide grazing and additional fodder for the deer over the winter. In 1304–5 he was not involved with the cattle at all.[31]

Simon the Geldhird, was the keeper of the cows of croin, and probably from

[30] Lyons assumes Macocke and Mokot are the same person: De L.C., pp 37 (138), 84 (165) and (193).

[31] Food for the deer included 'oats for the wild animals': De L.C., p 95 (173); and browsings cut in the park and the forest, e.g. '... cutting down branches' (*ramis*): De L.C., pp 113 (184), 38 (139).

TABLE 8

The balance between the sexes on the Pendle vaccaries

1295–6

Vaccary	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Males												Females											
Yearls.	9	6	5	5	5	7	5	7	4	6	8	Yearls.	3	9	7	6	7	6	8	6	8	6	4
Steers	6	6	3	9	8	3	7	5	8	7	4	Heifers	7	6	7	5	2	5	3	8	4	4	5
Total	15	12	8	14	13	10	12	12	12	13	12	Total	10	15	14	11	9	11	11	14	12	10	9

Total in Pendle Forest 133 — Total in Pendle Forest 126

1304–5

*Vaccary**	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Males												Females											
Yearls.	9	6	9	6	5	7	7	6	5	5		Yearls.	4	9	4	8	8	5	7	7	5	7	
Steers	5	5	7	6	8	7	7	5	5	2		Heifers	6	4	6	5	4	5	5	9	6	7	
Total	14	11	16	12	13	14	14	11	10	7		Total	10	13	10	13	12	10	12	16	11	14	

Total in Pendle Forest 122 — Total in Pendle Forest 121

* There were only 10 vaccaries in Pendle Forest in 1304–5.

Elenmas to Michaelmas fattened a total of sixty croin cows from all the forest vaccaries on his good pastures in Higham before they were sent to the chief stockman for sale at Michaelmas 1296. This cleared his pastures to receive Geoffrey the Parker's herd of 135 young oxen before Michaelmas 1296, and since he recorded them as 'remaining' he evidently kept them on his pastures through the next winter (1296–7). By the next spring these oxen would come of age as draught animals.[32] One of his duties during this winter may have been the breaking of these oxen to the yoke. If he sent them on to the chief stockman in the early spring, he would be able to clear and rest his pastures before he received the next year's croin cows at Elenmas. The geldherd's pastures were, therefore, in use for cattle in both winter and summer, but might be rested in the spring.

Gilbert de la Legh, the chief stockman, was the ultimate recipient of all the stock passing through the stock pools, having over 300 animals through his hands in the course of the year although only about 100 remained after each Michaelmas. He received and redistributed the young cows and calves of the year, and received and sold the four-year old oxen. His pastures were managed by a deputy and used both for the sixty plus young cows with their calves which were summered there before being redistributed to the vaccaries before Michaelmas, and for the animals which were gathered there, presumably for assessing their quality, before they went for sale. Some stock remained over the winter, both in 1295–6 and 1304–5, usually but not exclusively oxen.

The fourth officer, William of Antley, was described as 'keeper of oxen' in 1304–5. He had evidently over-wintered the previous year's (1294–5) 122 young oxen at Antley before sending them to the chief stockman for sale. He had cleared his pastures by Michaelmas 1296. Since the young oxen of 1295–6 were wintered with the geldherd it seems likely that there was a policy of resting their pastures in alternate winters.

The pattern of management in the stock 'pools' described in the 1304–5 *compoti* is very much the same as it had been in 1295–6, but many more oxen (213 compared with 137) were sent for sale apparently including some three-year olds. There is now a fifth officer, William de Bakestonden, who is described as 'keeper of the barren cattle of Accrington': he only handled oxen in 1304–5. Henry Hare is now performing the role held earlier by Geoffrey the Parker and is working as a team with William of Antley. Peter de Bradley has been replaced by John de Paldene as deputy to the chief stockman. Simon the Geldhird has taken on an intermediate role, presumably in assessing and redistributing stock between the officers, but as the figures he records are augmented ones, it is not as easy to trace the passage of a body of animals through the system.

Neither Geoffrey the Parker nor William of Antley handled any cows or calves, and the geldherd took only the cows of croin and the handful of calves which presumably came with (or of) these older beasts. The chief stockman and his deputy, Peter de Bradley, shifted at least five classes of animals through their pastures, probably most of them for relatively short periods prior to redistribution or before sale.

The relatively few oxen retained on the demesnes will be discussed later. In the earlier year most of the oxen were sold 'in

[32] J Bourdillon, 'Countryside and town: the animal resources of Saxon Southampton' in D Hooke, ed, *Anglo-Saxon Settlements*, Oxford, 1988, pp 177–95. While this study refers to a much earlier period, it is clear that animals whose bones were found had served other uses and had reached a (very?) mature age before they were eaten. Even in the later period it seems likely that the young oxen sent to the markets would have been sold as draught animals rather than immediately for beef. J Langdon, 'The economics of horses and oxen in medieval England', *Ag Hist Rev*, 30, 1982, pp 35–6, Table 4 indicates an average working life on a demesne of an ox was 5.1 years before sale (presumably for meat).

the markets of Bolton and St Egidius'. This last was the earl's market of St Giles in Pontefract held presumably on 1 September. Lyons identifies the former as Bolton-le-Moors in Lancashire, some twenty miles away.[33] The numbers despatched to each are not recorded and only the Bolton market was served in 1304–5. The oxen were sold for an average price of 9–10*s* in the latter year, but only for 8*s* 6*d* in 1295–6. Many more were sold in 1304–5 and at a better price than nine years earlier. The average price of an ox in 1295–6 was 8*s* 6*d* and the croin cattle about 6*s* 8*d* each. In 1304–5 oxen made almost 10*s* each and 168 cows (including at least 79 croin cows) 5 bulls and 2 calves made £67 8*s* 4*d*, averaging about 8*s* per mature beast. There is no evidence that any of the stock was allowed to the keepers or officials in either year.[34]

In the earlier year the hides and flesh of stock affected by murrain appear to have been sold directly from the vaccaries for what could be got, and prices (for a total of about twenty-five cows) ranged from 1*s* to as high as 4*s*, though mostly about 1*s* 10*d*. The highest prices were obtained in Rossendale. The flesh of calves of the year had no value, and the hides fetched only fractions of a penny. The flesh and hides of other classes of stock ranged between these extremes. In 1304–5 there seems to have been a change of policy which may reflect an intervention by management, perhaps to counter fraud: only the price for hides is quoted and always the same price, that of cows being 2*s* 2*d*. Possibly the skin had to be produced to an official as proof of authenticity, and was then paid for at a standard price.

IV

Although arable crops were grown at the three granges, the largest acreages (customary) were under meadow at Accrington and Ightenhill, the two most closely linked with the rearing of stock. Ightenhill grange, which included a stud for the rearing of riding horses (*runcini*), produced 27 qrs of oats (unthreshed) on 16 acres in 1296. Over half was set aside for seed and 4 qrs were sold, but the rest was kept as provender for the foals. At Accrington, 53 qrs were produced from $11\frac{1}{2}$ acres, which was threshed, of which 70 per cent was sold, 16 qrs being kept for seed and 1 qr for a working mare and foal and for 12 oxen.[35] These acreages compare with over 60 acres of meadow at Ightenhill, and (1304–5 figures) 80 acres at Accrington and another 120 acres at its subordinate farms of Hoddlesden and Baxenden. (Probably through oversight the Accrington acreage was only recorded in the later year).

With the lowest and most favoured site on level surfaces in the valley of the Ribble and with limestone-derived soils, Standen was the principal grange. Here in 1296 they produced 2 qrs of wheat and 121 qrs of oats. In 1305 they also produced barley and beans, nearly 9 qrs of wheat and nearly 180 qrs of oats. All was sold apart from that set aside for seed and 5 qrs provender for 20 oxen. No acreage is recorded: instead in each year the area is measured in terms of 'food and wages of those reaping, gathering and binding', 'wages of 109 men reaping as if for a day'. This last is probably a reference to boonworks owed by the bovate from nearby demesne vills and performed at Standen. The work was

[33] Bolton, once a major Domesday manor, subsumed in the de Lacy manor of Bradford, Yorks by the thirteenth century, and lying midway between Ightenhill and Pontefract may be an alternative possibility.

[34] Prices quoted by Watkins, *art cit*, p 16 for beef for the duke of Buckingham's demesne (about a century later) are very much cheaper at *c* 2*s* 4*d* per carcase.

[35] De L.C., pp 17–20 (127–8), 93–6 (172–3). The statute acre was measured at 5.5 yards to the pole. Customary acres varied from one part of Lancashire to another, being 7 to 8 yards to the pole (Tupling, *op cit* (1927), p 105). Thus the customary acre of 8 yards to the pole was almost the equivalent of a hectare. De L.C., pp 1–3 (118–9); 88–90 (168–170). There were 8 bushels to a quarter (Assize of Bread and Ale, 51 Hy.III).

now paid but the obligation to do it still rested on the vills.[36]

There are some signs that the weather in 1296 was poor. The harvest at Standen was much lower, and the yield per acre at Ightenhill only half that in 1304. The absence of beans and barley in 1296 from the crop-list may be due to crop failure. That may also explain the lower cost of mowing and making hay at Accrington, Hoddlesden and Standen, and also the low acreages mowed at Standen and Ightenhill. Prices for oats sold in 1296 were higher at *c* 2*s* 3*d*, compared with *c* 1*s* 10*d* per qr in 1305. Wheat sold in 1295 raised 3*s* 1*d* per qr but there is no separate price for wheat in 1305. These are ambiguous records, but there are clearer signs in reports of flood problems at Whitacre where they had had to 'turn the course of Kelder [Calder] water...to save the [park] paling' and it may have been flood damage which required repair to eight mills, 'the paling round the fish pond and the fence at Royle'.[37]

North Lancashire weather is frequently quite different from most of the rest of the country and comparison with historical climatic data in southern England is especially unreliable. For what it is worth, 1296 is a year when the harvest in eastern England is listed by Hallam as 'poor'. It is one of the few years when he offers no report as to the weather, but 1296 falls in a period of droughts there. It is fair to point out, however, that the sort of flood and harvest disaster suggested by the De Lacy records could have resulted from rapid run-off of one very heavy thunderstorm following a drought which had dried and baked the ground and reduced the hay crop. However, a storm could also produce a rapid run-off if it followed a rainy summer which had saturated the ground and ruined the hay crop. Farmers in that part of Blackburnshire have experienced both in recent years.[38]

In 1295–6 the demesnal estate largely conformed with Walter of Henley's views on the economic advantage of oxen over horses for draught, and neither Standen nor Ightenhill recorded a workhorse but Accrington had one working mare. By 1304 the number of workhorses had risen to five, though two were apparently bought in only for part of the year. Langdon suggests that the availability of grass may have been a factor in favouring oxen in north-west England.[39]

It is possible that at Ightenhill they occasionally put their finer quality animals to work. There were between forty-five and fifty breeding mares at the stud in each of the two years recorded, and about thirty foals born each year, though murrain losses in these were high. Most of the male riding horses (*runcini*) were sent, when mature, to the earl's other estates, or were sold (seventeen in 1304–5) fetching £5 apiece. There were also Welsh riding horses, valued at £3 15*s* which probably came from the earl's estate in Denbigh.

V

Apart from numbers of stock and expenses for some repairs, direct information in the *compoti* about the vaccaries is slender, because although the animals were part of the demesne the vaccary keepers were not paid a wage. They evidently held the vaccary, its land and perquisites in return for service. However, accounts of seasonal work in other parts of the demesnes, and consideration of the constraints imposed by the weather and terrain permit some reconstruction of work on the vaccaries.

Behind each vaccary keeper lay his or her family and those of the vaccary herdsmen. The total work force (including chil-

[36] De L.C., pp 41–42 (141–2), 90–94 (170–2).
[37] De L.C., pp 18 (128), 2 (118), 4 (119), 15 (125).
[38] H E Hallam, 'The climate of eastern England 1250–1350', *Ag Hist Rev*, 32, 1984, p 127.
[39] Langdon, *art cit*, p 33.

dren) might be as many as thirty or forty people over three generations. The whole unit formed a small hamlet of three or four lowly dwellings, a slightly superior one for the keeper, and additional barns, shippons, and other housings for stock, small crofts and gardens, and, perhaps shared with an adjacent vaccary, a corn kiln and water-mill.[40] Between the nine years of the two audits there were changes in the holders of the vaccaries, but eight names recur (possibly nine, if Henry 'son of Kitte' of 1296 is the Henry 'son of Christiana' of 1305). In 1295–6 three women are recorded holding vaccaries; these were evidently widows holding the tenancy until their son's majority. Two or three entries appear to be sons who have inherited the tenancy. Thus, at least half the tenancies were stable: there may have been more, but patronymics obscure them.

After Michaelmas preparation for what can be a six-month winter in this area required repairs to housing for humans and stock, and the cutting of bedding, probably bracken and other fern, for housed animals.[41] The problem of housing so many animals may have been met in part by sending some of the yearlings to the pastures at Standen for twelve weeks.[42] Cows still in milk and calves of the year would be housed, at least at night, though older stock may have been turned out on the in-by land during the day to reduce the health risks which were always high in stalled beasts. Since winter grazing does not appear to have been in short supply, heifers and steers probably remained out of doors for all but the most severe winters.[43] They would be folded at night for security, and grazed close to the settlements for ease of carrying fodder. Branches were cut as browsings for the animals through the winter, the evergreen holly being one of the most valued.[44] An annual crop of acorns cannot be relied on in this area, but in good years pigs were turned into the woods, though in poor years this was probably restricted to the demesnal swine.[45] In the autumn of 1296 eighty acorn-fed pigs were killed, but there is no mention of pigs in 1304–5.

A first ploughing of land intended to carry their subsistence oats and barley would allow winter frosts to break up clods, and later ploughings would clean any winter-grown weeds. The high rainfall and the risk of flood demanded thorough clearing of small streams and drainage ditches, and attention to wells or spouts supplying water to the farm, since carrying water to housed stock would be a heavy burden. Collecting fuel, manuring and tilling their own gardens and fields, and hedging and fencing, were made easy or aggravated by the variability of climate to which the area is subject in the winter: snow is no rarity.[46]

The *compoti* tell us nothing of any stock save that of the estate, and the animals of the herdsmen and vaccary keepers have to be inferred, but would certainly exist. In Fountains the 'private' stock of these men was usually restricted to '*x* cows and their young of one (or two) years', since the estate was unwilling to risk over-grazing

[40] Atkin, *op cit* (1985), pp 173–9.

[41] For example, '...removing and rebuilding an ox house at Roughlee...', '...removing and rebuilding 1 house for yearlings': De L.C., p 40 (140); '...a summer lodge made...anew for the yearlings...' at both Riley and Antley: De L.C., p 89 (169). These mostly cost relatively small sums (*1s 8d*; *19s 9d*; *5s 10d*; *11s 3d*) but compare the cost of (semi-skilled?) labour for '...16 men for a day at one penny each...', employed to help the carpenter to rear the (prefabricated) timbers of the 80 foot cow-house at Bacup in 1341–2. The carpenter for his work in cutting the timber in the wood, and preparing it, received 28*s*: Tupling *op cit* (1927), p 25.

[42] De L.C., p 40 (140).

[43] Both winter and summer herbage was let in Pendle in 1295–6 and 1304–5, and hay was sold as well. Cattle were agisted in Trawden and Rossendale, and in Standen in summer and winter: De L.C., pp 4–5 (119–20), and 90 (170). These animals were presumably additional to those belonging to the estate, and perhaps included the personal stock of the vaccary keepers.

[44] De L.C., pp 6 (120), 40 (140), 113 (184).

[45] De L.C., pp 8 (121), 16 (126).

[46] '...repairing vaccaries in Rossendale Forest': De L.C., pp 40 (140), 18 (127), 92 (171), 94 (127); ditching and hedging: p 18 (127); cutting and carrying fuel: p 89 (169); carrying and spreading dung: references to foldage (*faldagio*), De L.C., p 87 (168), on the demesne suggest that the value of manuring was recognized.

the pastures.[47] Thus the keepers' stock over their stint was probably sent for sale in autumn, or killed and salted down for home consumption. The lactage of the demesne cattle was rented out in each audit year, almost certainly to the vaccary keepers themselves. As the rent was substantial, it is clear that the cows could provide sufficient milk to feed calves and yet leave enough for cheese-and butter-making which would be a considerable daily chore until after Michaelmas. The responsibility of milking and dairy work, and usually the marketing too, belongs by tradition in this area to the womenfolk of the farms.[48]

After the festivities to mark the turn the year the harshest part of the winter still faced them, with constant hard work in cleaning out shippons and stalls, foddering the animals, tending sick ones, and further ploughing ready for the spring sowings of oats, barley, peas and beans. Candlemas (4 Feb) was the traditional date for calving.[49] This was the time for a visit by one of the officers to select promising bull calves and geld the rest and to pick out the croin cattle. As days lengthened animals may have been turned out briefly during daytime, but now brought highest risk of attack by wolf, stray dogs or robbers, and care in guarding them was essential. After weaning calves were more likely to stray from their mothers and it was necessary to identify the animals belonging to the estate. An allowance to the chief steward and his clerks 'for marking cattle' suggests that they went round the vaccaries branding and recording the young stock. This may have been carried out as part of the 'View' mentioned earlier.[50]

Herdsmen's terms of employment began or terminated on the feast of St Elena (4 May) or Michaelmas, thus splitting the grazing year into a summer and winter season.[51] Elenmas was also the time when the croin cows were taken down to the geldherd's pastures, and some of the young cows and their calves sent to the steward. Most of the rest of the stock was sent with several herdsmen and some of the older children to tend them. This was the period when the 'summer lodges' were brought into use.[52] They are always described as being 'for yearlings', that is for last year's calves. The places mentioned in the accounts suggest that the grazings for the yearlings were large enclosures on the lower hill-slopes which would provide the clean, but not over-rich pastures, which these young animals needed. Thus the early part of May must have seen an enormous amount of stock movement across and within the forests, as stock were shifted to low or high ground according to their ages and classification. The departure of much of the stock off the vaccary permitted the shutting up of the in-by land to allow the grass to grow for hay. The women would remain at the home farm to tend the cows in milk and their calves for this was the height of the cheese-making season.

Haytime was usually late in these uplands, starting in July, and lasting, if the weather was good, over two or three weeks. Frequent showers at this time could extend the winning of the hay far into

[47] Michelmore, *art cit*, lease no. 205, p 196; lease no. 238, pp 251–2; lease no. 227, pp 227 and lxxvii–lxxviii.

[48] De L.C., pp 14 (125), 111 (183); Albo vacca(ria)rum. The letting of the lactage produced an income for the estate of £81 and £87 in the two years recorded. In 1295–6, De L.C., p 3 (119), the Accrington vaccary produced 260 stones of butter for sale and 156 cheeses (16 of them made after Michaelmas). Apart from 16 which were for tithe, the rest, weighing 82 stones were sold. Thus the average weight of the individual cheeses was 8.2 lbs, which would be derived (according to M Hartley and J Ingleby, *Life and Traditions in the Yorkshire Dales*, 1968, pp 12–13) from between 8 and 12 gallons (*c* 36–54 litres) of milk. On a Dales farm in 1870 two or three cheeses of this size would represent the daily production from 7 or 8 cows. Cheese-making 'houswyffely handled' continued beyond Michaelmas on Fountains Abbey vaccaries: Michelmore, *art cit*, lease no. 205, p 196, lease nos 257 and 194, pp 272 and 181. This is later in date than the Michaelmas termination recommended by contemporary writers: Oschinsky, *Walter of Henley*, pp 282–5.

[49] Tusser *op cit*, p 69: 'Calves likely reare, At rising of yeare'.

[50] De L.C., p 40 (140): 'An iron bought for marking cattle'; 'Allowed to the Instaurator of the forests for marking cattle and the wages of his clerks'.

[51] De L.C., p 87 (167).

[52] De L.C., pp 89 (169), Summer lodges in Antley and Riley, and 40 (140), 'a house for yearlings in Sabden'.

autumn, the situation becoming desperate once the night dews of September had wetted the cut grass faster than the day's sun could dry it. A rapid and timely hay-making released the labour for the corn harvest to begin in late August or early September. It too was vulnerable to the weather, and the grain may have needed to be dried in a corn kiln such as are known to have existed in the Middle Ages.[53] A damp and sunless summer, especially if combined with a late spring, was likely to produce greater hardship and increase animal disease than a hard winter.

VI

The wild beasts of the forests were a recognized resource. When the earl did not come to hunt himself, his men took the stags and does and despatched them, salted, to the castle at Pontefract;[54] the hawks, with their grooms, were sent to London.[55] They mined lead and iron, smelting it with brushwood and small-wood; and the great timber, including oak and ash, was used for building housing and for palings, and alders were cut for making tables and benches.[56] Stone flags were quarried for roofing houses, and limestone burnt for making mortar.[57] Coal and peat provided yet other sources of fuel.[58] Even the great numbers of cattle owned by the estate did not consume all the available grazing in the forests; grazings were let, both winter and summer for 'foreign' stock, and hay was cut within the forest both for the stock of the vaccaries and of the stud, and still left a surplus for sale.[59]

The administration of the earl of Lincoln's estate shows an awareness of current advice on efficient management and book-keeping and also, in the development towards a money economy, an awareness of what the district could produce profitably within the constraints of local conditions. This process may still have been in an evolving state; records of the later year are longer and more detailed, especially the list of expenses, and suggest that administration was being tightened. It is possible also that some activities absent in the account of the earlier year, like manure-spreading and foldage may be an indication of new ideas being tried out.

The two accounts, falling at the end of the 'High Farming' period provide a detailed picture of his estate just prior to the disasters between 1315 and 1323. They could provide comparison with two later surviving accounts for the estate, by then under new management. One was made in 1323 to assess the damage done by the years of crisis, and one made in 1341 portrays a return to fairly stable conditions and an organization functioning much as it had done at the start of the century. In fact, this recovery was short-lived and before the end of the fourteenth century much of the demesne was let to tenants, and records inevitably became fragmented.

[53] Excavation in Stamford castle revealed corn-drying kilns (*Med Arch*, XVI, 1972, pp 188–9) and late twelfth century in Reigate, (*Med Arch*, XXXV, 1991, p 192) and J M Steane, *The Archaeology of Medieval England*, 1984, p 50. Such kilns still exist in Cumbria at Hartsop and at Widewath in Askham. In Norway corn-drying kilns also served as bath-houses of sauna type.

[54] De L.C., pp 18 (128), 114–5 (185). Salt bought, p 115 (185).

[55] De L.C., pp 114–5 (185).

[56] De L.C., pp 5 (120), 7 (121), 'Ashes', viz, potash: pp 94 (172), 96–7 (174–5), 112 (178); 'Ashtrees': pp 102 (178), 98 (175), 99 (176), 107 (181).

[57] De L.C., pp 102 (178), 98 (175): roofing stone; lime kiln.

[58] De L.C., pp 4 (119): Trawden; 100 (176): Colne; 11 (123), 108 (181): coal and peat.

[59] De L.C., pp 4–5 (119–120), 8 (121), 41 (141), 88 (168), 90 (170), 99 (176), 112 (178).

Floated Water-Meadows in Norfolk: A Misplaced Innovation

By SUSANNA WADE MARTINS AND TOM WILLIAMSON[1]

Abstract

While the importance of irrigated meadows in Wessex and the West Country has long been appreciated, their development outside this area has received little attention. This article shows that water-meadows were almost unknown in eastern England before the late eighteenth century. A number of extensive systems were then established, mainly by men associated with improving aristocratic landlords like Thomas William Coke. Most of these systems were, however, abandoned at a relatively early date. The reasons why the technique of floating was adopted in this late and limited way outside its western heartland are discussed, together with some of the implications this has for our understanding of the spread of innovations during the period of the 'Agricultural Revolution'.

THE importance of artificially irrigated or 'floated' meadows in the history of English agriculture was first emphasized in the 1960s by Eric Kerridge, who devoted an entire chapter to them in his book *The Agricultural Revolution*.[2] He went so far as to assert that much of the success of his 'Agricultural Revolution' of the seventeenth century depended on the widespread adoption of the technique. He quoted examples from the West Country, the chalklands of Wessex, and Herefordshire. Later studies by, among others, Bettey and Bowie have thrown further light on the development of floating in these areas.[3]

In Wessex, the irrigation of meadows on a large scale began in the early seventeenth century. Most of the principal river valleys in Wiltshire, Hampshire and Dorset contained extensive areas of water-meadows by the end of the century, and although further additions to these systems were made in the eighteenth century, the main phase of construction was over by 1750.[4] The artificial inundation of riverside meadows during the winter with continually flowing water raised the ground temperature, and stimulated an early growth of grass, so that an 'early bite' could be provided for sheep. After the flock had been moved on to summer pastures, the meadows would again be irrigated and substantial crops of hay taken in June or July. The increase in feed produced by the technique ensured that larger flocks could be kept and, as a result, more manure was available for the arable land. In Wessex and the West Country floated meadows thus fulfilled, in the seventeenth century, the same role as turnips in East Anglia in the early eighteenth century: that is, they increased the number of stock which could be maintained, and thus the quantity of manure produced within an arable farming system.

[1] We would like to thank R G Wilson for reading and commenting on an early draft of this article; Philip Judge for supplying the drawings; Derek Edwards of Norfolk Landscape Archaeology for providing aerial photographs and much advice; Lord Leicester for allowing access to the Holkham estate archives; Mary-Anne Garry for drawing a number of documentary references to our attention; Devas Everington for information about the later history of the Castle Acre meadows; the undergraduate students on the 1990 Landscape Archaeology fieldcourse for surveying them; and Dick Joyce for allowing them to do so.

[2] E Kerridge, *The Agricultural Revolution*, 1967, pp 251–67; *idem*, 'The floating of the Wiltshire water meadows', *Wilts Archaeol Natural Hist Mag*, LV, 1953, pp 105–18; *idem*, 'The sheepfold in Wiltshire and the floating of the water-meadows', *Econ Hist Rev*, Second Series, VI, 1954, pp 282–89.

[3] J H Bettey, 'The development of water meadows in Dorset during the seventeenth century', *Ag Hist Rev*, 25, 1977, pp 37–43; G G S Bowie, 'Watermeadows in Wessex: a re-evaluation for the period 1640–1850', *Ag Hist Rev*, 35, 1987, pp 151–58.

[4] G G S Bowie, 'Northern wolds and Wessex downlands: contrasts in sheep husbandry and farming practices, 1770–1850'. *Ag Hist Rev*, 38, 1990, pp 117–26; *idem*, 'Watermeadows in Wessex', pp 154–55.

There were two basic forms of irrigation. The simpler was 'catchwork' floating, in which channels were cut along the contours of the valley's side, the uppermost being fed from a leat taken off the river at a higher level, or from nearby springs.[5] The water simply flowed down the natural slope of the valley side from one ditch to the next. This system was most suited to steep-sided valleys, and was, therefore, most widely used in Somerset and Devon, although many examples could also be found in the Wessex chalklands. More expensive and more difficult to construct were 'bedwork' systems, which were used where valley floors were wide and flat and where, in consequence, water could not otherwise be induced to flow continuously, as the method required. In this system, a leat fed water into channels ('carriers' or 'carriages') which ran along the top of parallel ridges, superficially resembling the 'ridge and furrow' of former arable fields. It flowed smoothly down the sides of these and into drains (located in the 'furrows') which directly or indirectly returned the water to the river. Movement of the water into different parts of such a system would be controlled by an often very complex system of sluices (or 'hatches') and carriers.

The seventeenth-century meadows were constructed quietly, almost as a matter of course, and generated little in the way of written instructions or other literature, with the exception of Vaughan's treatise of 1610.[6] Indeed, George Boswell was able to claim, with some justification, that his *Treatise on Watering Meadows* published in 1779 was the first book to contain a full description of the technique. He described his chapter on how to plan a meadow as 'perfectly new in print', and noted that 'It may appear strange that none of the writers on husbandry have given proper attention to the...subject'.[7]

In fact, Boswell's treatise was the first of a number of books, pamphlets and articles on the subject of water-meadows published in the late eighteenth and early nineteenth centuries, a period which — not coincidentally — saw the practice of floating spread for the first time into new areas, outside Wessex and the West. This article briefly discusses the development of water-meadows in one of these areas — the county of Norfolk — and the light that this throws on the more general history of floating outside its original western heartlands.

I

Water-meadows unquestionably came late to Norfolk. In 1804, Young was able to assert that floating was 'Of very late standing in Norfolk: the experiments made are few, but they are interesting enough to promise a speedy extension'.[8] Young in fact lists only five places where floating had so far been undertaken. Moreover, whereas in Wessex and the West water-meadows were a basic element of the sheep-corn husbandry system, created by large and small landowners alike (in some instances, by groups of yeomen), in Norfolk their social context was very different. Here, the individuals responsible for the construction of irrigated meadows were, almost without exception, members of a limited 'improving' clique; a group which formed a ready market for a small number of professional floaters and propagandists.

Most of the irrigated meadows in Norfolk described by Young in his *General View of the Agriculture of Norfolk* of 1804 were in the south-west of the county, in Breckland, an area of acid sands and gravels dissected by a number of wide river valleys. At Riddlesworth, in the valley of the river Waveney, Sylvanus Bevan had begun floating in 1792; by 1804, there were 46

[5] Kerridge, 'The sheepfold in Wiltshire'.
[6] R. Vaughan, *Most Approved and Long Experienced Water Works*, 1610.
[7] George Boswell, *A Treatise on Watering Meadows*, 1779.
[8] Arthur Young, *General View of the Agriculture of Norfolk*, 1804, p 395.

acres (*c* 19 ha) of floated meadows here, and a further 14 acres (*c* 6 ha) were under construction.[9] Bevan was no ordinary landowner. He was a noted improver whose activities in the marginal environment of Breckland are referred to on a number of occasions by Young. He spent £7000 on transforming the landscape in Riddlesworth and the adjacent parishes, presiding over large-scale enclosures, land improvement and tree-planting schemes (he planted over a million trees on his estate). The floated meadows represented a relatively minor part of a massive scheme of ostentatious improvement.

According to Young, Bevan had trouble with his meadows as these were originally laid out: 'And having the favour of a visit from the Rev. Mr. WRIGHT, he employed Mr BROOKS to form new works, by altering the direction of the beds, and reducing them from ten and twelve yards to seven'.[10] This 'Rev Wright' was almost certainly Thomas Wright, rector of Ould in Northamptonshire and author of *An Account of the Advantages of Watering Meadows by Art, as Practised in the County of Gloucestershire*, published in 1792.[11] Brooks himself cannot be identified but, as we shall see, was involved in the construction of a number of other meadows in the county.

The second Breckland floater mentioned by Young, Payne Galway, had irrigated 20 acres (*c* 8 ha) of meadow at West Tofts, some ten miles north-west of Riddlesworth. We do not know when he carried out this work, but it must have been after the publication of Wright's treatise, if we accept Young's statement that it was this which had inspired him to the endeavour. He subsequently 'made application to that gentleman, who procured for him a man (Mr BROOKS) well skilled in the Gloucestershire method'.[12] Although not so noted an improver as Bevan, Galway was at this time working with other local landowners — notably the Petre family at nearby Buckenham Tofts, and the Nelthorpes in the adjacent parish of Lynford — to transform the local landscape, establishing plantations and radically altering the local road network. Nathan Lucas, the third in Young's list of floaters, succeeded the Nelthorpes at Lynford Hall in 1804;[13] Young reported in 1804 that he had 'recently' floated 8 acres (*c* 3 ha) here.[14]

The two other irrigators noted in Young's *General View* were based in the north of the county: both were tenants of the Holkham estate who had floated meadows in the valley of the river Stiffkey. At Wighton, John Reeve had created 20 acres (*c* 8 ha) after taking the lease on the farm here in 1802. At nearby Houghton St Giles, Thomas Purdey of Egmere (whose name is incorrectly rendered 'Purdis' by Young) showed the writer 8 acres (*c* 3 ha) 'which he had very lately renewed'.[15] Thomas Purdey was no average farmer. He worked — as a tenant of the Holkham estate — over 1000 acres (400 ha), one of the largest agricultural enterprises in the county. Young frequently refers to him as an exemplar of the best that the tenants of this most progressive of estates could achieve, under the benevolent eye of Thomas William Coke: it is not very surprising to learn that Purdey employed, yet again, 'Mr BROOKS, from Gloucestershire' to water his 8 acres (*c* 3 ha).[16] John Reeve was likewise a noted improver, as well as being Purdey's immediate neighbour.

It is noteworthy that Purdey's meadows are the only ones in the county for which

[9] *Ibid*, p 396.
[10] *Ibid*.
[11] Thomas Wright, *An Account of the Advantages of Watering Meadows by Art, as Practised in the County of Gloucestershire*, 1792.
[12] Young, *Norfolk*, p 396.
[13] Norfolk Record Office [hereafter NRO], MC 110/19, 110/20.
[14] Young, *Norfolk*, p 396.
[15] *Ibid*, pp 24–25, 398–99.
[16] *Ibid*, p 399.

Young suggests an earlier history of irrigation.

> Upon examining the spot where it would be proper to fix the sluice for throwing the water of the river into the main carrier, the foundations of an old sluice were found, in a sound state; and the whole immediately renewed; on further examination, the carriers and drains in the meadow were all traced, opened afresh, and thus an irrigation formed upon very nearly the plan of old works, which had been utterly neglected for at least eighty years; upon further enquiry, it was found that this former irrigation was obscurely known to have existed...[17]

In the *Annals of Agriculture* he provides a more detailed explanation of why these earlier works were abandoned: 'The cause is to be imputed to a quarrel between the occupiers of that and the adjacent meadow...resulting in neither of them being prepared to repair the works'.[18] It is impossible now to assess the validity of Young's archaeological or historical reasoning, but if he was correct then Wighton would appear to be a rather exceptional case. Certainly, only one other possible example of an early floated meadow is known from Norfolk. An undated, untitled and somewhat ambiguous early seventeenth-century map from the Le Strange archives shows what may or may not be an area of catchwork floating in Sedgeford in the west of the county.[19] No other evidence for floating here has been traced and if a meadow was created it must have disappeared at an early date. One or two early attempts at floating may, therefore, have been made in Norfolk during the seventeenth and early eighteenth centuries, but they were rare and apparently short-lived experiments, and even in 1804 there were very few operating meadows in the county.

Young, however, notes in the *General View* two further places where farmers or landowners were actively contemplating floating in 1804, and it is noteworthy that these follow the established pattern, of links either with Coke and Holkham, or with the ubiquitous Brooks. At Billingford 'Mr BLOMEFIELD, on the recommendation of his landlord Mr COKE, has irrigation in contemplation'.[20] And, noting the good potential for irrigation at Heacham in the west of the county, Young records that 'Mr STYLEMAN has engaged Mr BROOKS to make a trial'.[21] There is no firm evidence that the former meadow was ever, in fact, created; but the latter seems to have been established by 1812, when 'ten acres of water meadow grass' were mown here.[22] The earthworks of the system, in the form of bedworks covering an area of around 10 acres (4 ha), still survive.

Yet 'Mr Brooks' was not the only water-meadow engineer working the circuit of improving tenants and landlords in Norfolk. It was not he who laid out John Reeve's meadows at Wighton, but one William Smith. Smith later gained fame as 'Strata Smith', the first geologist to enunciate the principles of stratigraphy. Born at Churchill in Oxfordshire, Smith lived much of his early life at Stow-on-the-Wold (a Gloucestershire connection again) where he was assistant to the surveyor Edward Webb. In 1793 he was entrusted with surveying the course of a canal through the Somerset coalfield, and was engaged on canal work here and elsewhere until 1799, living for much of the time at High Littleton (Gloucestershire) and Bath. By 1800 he was working in north-east Norfolk, now involved in sea-defence work.[23] He was sporadically employed on this until 1809, but had already, in 1803, laid out Reeve's meadows at Wighton. To judge from Young's account, which does not specifically name him, he was probably brought in at a relatively late stage to rectify

[17] *Ibid.*
[18] *Annals of Agriculture*, XLI, 1804, p 559.
[19] NRO, Le Strange OA3.
[20] Young, *Norfolk*, p 398.
[21] *Ibid*, p 401.
[22] NRO, Le Strange Supplementary Box 2.
[23] *Dictionary of National Biography*, Oxford, pp 559–61.

problems in a system created by someone else, perhaps Reeve himself.[24] Smith was not, however, called in by Reeve. The initiative here was apparently taken by Thomas Coke. As Young reported in the *Annals of Agriculture*, he 'Brought out of Somersetshire a person [Mr Smith] at very high wages, for making an experiment on watering and not having land in his own occupation adapted to it, he made the first works on the farm of a tenant, a Mr Reeve at Wighton'.[25]

Coke's enthusiasm for irrigation had, by this time, found another expression. In 1803 he began, through the Norfolk Agricultural Society, to offer an annual prize, 'A piece of plate to the value of 5 guineas to such person as shall convert the greatest area of waste or unimproved meadows into water meadows in the most complete manner'.[26] To qualify, the applicant had to give notice to Coke 'of the intended irrigation in order that the land may be inspected before and after the improvement'. It comes as no surprise to learn that the prizes mostly went to Holkham tenants, starting — needless to say — with John Reeve in 1803. Indeed, the only exception was in the second year, when the prize was awarded to Sylvanus Bevan for his meadows at Riddlesworth.[27]

William Smith's arrival in the county, together with the new prize, are evidence of an increasing enthusiasm for floating, and between 1803 and 1806 one of the largest and most successful of the Norfolk systems was laid out on the farm of John Beck, another Holkham tenant, at West Lexham. This was designed by Smith, and is described in some detail in his treatise on floating, published in Norwich in 1806, *Observations on the Utility, Form and Management of Water Meadows* (a book clearly aimed at a Norfolk audience, and dedicated to Coke himself). Beck did not receive the Norfolk prize for these meadows, presumably because he held his extensive farm (two farms, in fact; some 1100 acres (445 ha)) on a yearly renewable tenancy, and it was the Holkham estate which organized and paid for the work. As a result, no allowances for the cost of this work appear in the Holkham audit books. Instead, an additional £50 per year was added to Beck's rent in 1807 'for improvements by irrigation', a sum increased to £100 in 1808, and maintained at that level (as a separate item in the accounts) until Beck's death in 1822.[28] Thomas William Coke thus instigated and paid for the project himself and, in consequence, received the gold medal from the Board of Agriculture on 12 March 1806 for floating the meadows here.[29] Their construction is commemorated on the monument erected to Coke's memory in Holkham Park after his death in 1842.

The West Lexham meadows seem to have begun something of a vogue for floating down the valley of the Nar, a chalk stream in the centre-west of the county. A large system of meadows at Castle Acre, just downstream from West Lexham, was constructed shortly after 1808 when Thomas Purdey took over the Holkham farm here: this was the same Thomas Purdey who had earlier irrigated land at Houghton St Giles. The precise chronology of the Castle Acre meadows is slightly unclear, for in this case it was the tenant, rather than the estate itself, who was responsible for the works. Reimbursements made for a range of improvements on this farm are recorded in the Holkham audit books, and these include allowances for bricks in some quantities: their use is unspecified, and we can only speculate that some may have been destined for the weirs and sluices which,

[24] Young, *Norfolk*, p 398.
[25] *Annals of Agriculture*, XXXVII, 1802, pp 510–11.
[26] *Annals of Agriculture*, XXXIX, 1803, p 322.
[27] *Annals of Agriculture*, XLII, 1804, p 538.
[28] Holkham Hall archive, audit books, A/Au 71.
[29] William Smith, *Observations on the Utility, Form, and Management of Water Meadows*, Norwich, 1806, p iv.

as we shall see, constituted an important element of the floating system. There is, unfortunately, only one specific reference to the meadows, in 1812, when Purdey was allowed £17 15*s* 'for lime for use of water meadows'.[30] The meadows must, however, have been largely completed by 1810, when Purdey was awarded a silver teapot, basin and cream ewer at the Holkham Sheep Shearing for irrigating 30 acres (12 ha).[31]

R N Bacon, writing in 1844, refers to a further area of water-meadows higher up the river Nar, at Kempstone. These he tells us were created by 'the late General Fitzroy', who was a Holkham tenant here from 1808 until 1838, and a prominent agriculturalist.[32] These are mentioned in the Holkham estate survey of 1851, but nothing more is known of them. Bacon unfortunately fails completely to mention the elaborate bedwork system at East Lexham, also in the Nar valley, traces of which survived until at least 1946. This was not on a Holkham farm, but on a separate estate, sandwiched between West Lexham and Kempstone. There are no surviving estate accounts which can provide a date for the system's construction. All that can be said with certainty is that it was in existence by 1841, when its main carrier was shown on the East Lexham tithe award map.[33] It was probably laid out by F W Keppel, who bought the estate in 1806. As we shall see, the system lay close to his mansion, within his park.

Bacon refers to a fifth set of water-meadows constructed along the Nar, close to its source at Mileham. These he describes as two catchworks, 'reclaimed from a bog' in 1816 by one William Beck (probably the son of William Beck of Lexham).[34] This land, along the southern boundary of Grenstein Farm and adjoining a small common, was the subject of some controversy in 1851, when H Keary described in his survey of the Holkham estate farms how

> It must have been brought into its present productive state at a great cost to Mr Beck who is fairly entitled to considerate compensation should sanitary reasons compel its abandonment on the grounds that the sluice gate which is occasionally used for draining the water was the cause of the cholera epidemic amongst the cottages of Mileham by flooding the common near the village.[35]

The outcome of this dispute is unknown, but there is no archaeological trace of the system in the landscape today, and none can be discerned on the 1946 RAF aerial photographs.

Outside the valleys of the Nar and Stiffkey rivers, and Breckland, there are only a few places in the county where floating seems to have been attempted. William Smith mentions three in his *Observations*. He refers to meadows created by Thomas Branthwayt of Taverham Hall (six miles north-west of Norwich), which were presumably situated in the neighbouring Wensum valley; and he notes that at Beechamwell, near Swaffham in the west of the county, 'Mr Motteux's tenants' were 'busily employed in the same pursuit'.[36] Whether either scheme ever came to anything is unclear: certainly, neither seems to have left any very obvious archaeological traces. Smith also mentions one Money Hill, who 'will soon become a competitor, upon lands belonging to his brother'.[37] Nothing more is known of this, but Hill — who was a prominent Holkham tenant — appears to have created some kind of irrigated meadow on his own farm at Waterden, for which he received the Norfolk prize in 1808.[38] In addition to these, Bacon in the 1840s mentions one 'Mr Foster', of Easton, as one of the

[30] Holkham Hall archives, audit book, A/Au 26.
[31] *Norfolk Chronicle*, 30 June 1810.
[32] R N Bacon, *The Report on the Agriculture of Norfolk*, 1844, p 91.
[33] NRO, East Lexham tithe award map, no. 440.
[34] Bacon, *Norfolk*, pp 290–91.
[35] H Keary, *Survey of Holkham*: Holkham Hall archives, E/G 11.
[36] Smith, *Observations*, p iii.
[37] *Ibid.*
[38] *Annals of Agriculture*, XLV 1808, p 96.

county's limited band of irrigators, although once again there is no obvious trace of his efforts in the modern landscape.[39] No other floated meadows are referred to in nineteenth-century printed sources, and there are only a few other places where the 1946 RAF aerial photographs may possibly indicate relatively small-scale attempts at floating, most notably at South Raynham, in the valley of a tributary of the Wensum. There is, in addition, a slightly garbled reference in a local newspaper article of 1978 to the flooding of grassland at Denver, on the edge of the Fens in the west of the county. Here a network of small dykes, 'grips' or 'grups', was reportedly used to flood a small area of land 'in late autumn to catch the frosts so that the grass would be under ice. When the spring thaw came this early flush of grass would afford an early bite for milking cows kept on the holding'.[40] This is presumably a description of a small-scale floating system, but we have discovered no other references to it, nor to any similar systems using dyke water in this way around the Fen edge.

Other floated meadows may once have existed in the county, of course. Catchwork systems, lacking the distinctive 'ridge-and-furrow' earthworks of bedworks, are difficult to detect archaeologically. Moreover, some bedworks have been obliterated by subsequent changes in land use, by re-seeding, by the dumping of material dredged from adjacent watercourses, or by deliberate levelling. Nevertheless, while further research might add a few more sites to the (somewhat meagre) collection shown on Figure 1, there can be little doubt that the practice of floating never really caught on in the county: by the middle of the nineteenth century, according to Bacon, irrigation had been 'but very partially introduced'.[41]

[39] Bacon, *Norfolk*, p 91.
[40] *Eastern Daily Press*, 5 January 1978.
[41] Bacon, *Norfolk*, p 91.

Floating not only came later to Norfolk than to Wessex, it was also abandoned earlier. In Wessex, many water-meadows were still being floated in the 1920s and '30s: but in Norfolk the practice seems to have come to an end before the 1914–18 War. This was certainly the case at Castle Acre, according to Mr Devas Everington, who (like his grandfather and father before him) once farmed the land here. The Holkham audit books record allowances for repairs to the meadows as late as 1905, but Mr Everington's father seems to have abandoned floating around 1910, although he continued to worry that the estate might penalize him for failing to keep the works in order, which suggests that the reinstatement of the system was still considered a viable proposition. No other meadows in the county appear to have been floated within living memory, and most were probably abandoned before the end of the nineteenth century, and perhaps at the start of the agricultural depression in the 1870s. Some may have disappeared much earlier. None of the three meadows in Breckland mentioned by Young seems to be referred to by any later source, such as Bacon's *Report on the Agriculture of Norfolk* of 1844. The same book fails to mention the meadows at Waterden and Houghton, as — more significantly — does the detailed account of the relevant farms in H Keary's 1851 survey of the Holkham estate. The meadows at Heacham cannot be traced after 1812, and the possible systems mentioned by Smith in 1806 at Taverham and Beechamwell are never referred to again.

While the chronology of the Norfolk water-meadows may have been different from that of those in Wessex, there is no doubt that their management was broadly the same. They were intended both to supply an early 'bite', and to produce an increased summer hay crop. If Young's descriptions of the meadows at Houghton and Riddlesworth, or Smith's at Lexham, can be believed, the latter amounted to

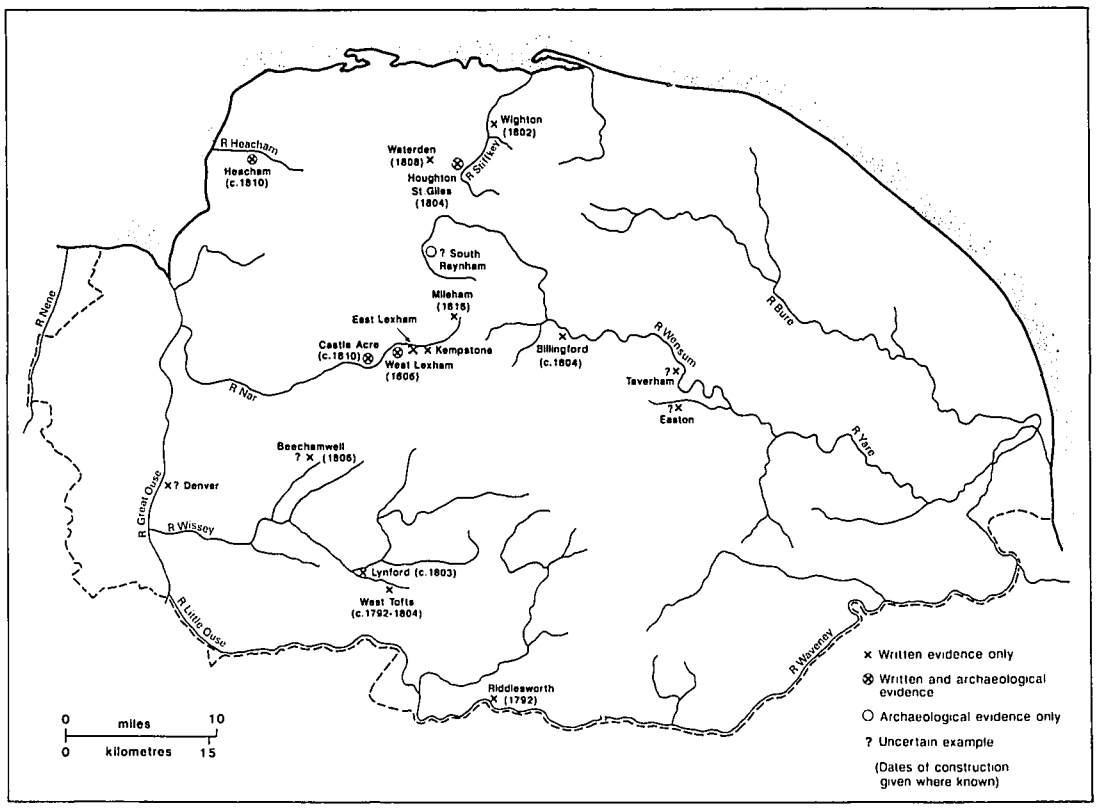


FIGURE 1
The distribution of floated water-meadows in Norfolk

around 2 tons per acre — comparable to the yields reported from meadows in Wessex, Oxfordshire, and Nottinghamshire in the same period, which were generally considered to be around double those produced by non-irrigated meadows.[42] In Norfolk, as in Wessex, floating began in late October and continued until early March. After a short drying-out period, ewes and lambs (or occasionally cattle) were put on to feed until early May. They were then taken off, the grass was watered again and allowed to grow, and a hay crop taken in mid-late June.[43]

Most of the Norfolk water-meadows were thus created between 1795 and 1815, when grain prices were particularly high, and farmers and landowners optimistic about future prospects. Floating was a practice essentially alien to the county, introduced by a small band of improvers, themselves influenced by a yet smaller number of propagandists and professional floaters. It was practised on a comparatively limited scale and for a relatively short period of time.

II

Only in the Nar valley do extensive remains of floated meadows still survive in the county. The largest and best-preserved are those created around 1810 for Thomas Purdey at Castle Acre, and it is worth discussing these in some detail. The meadows here received some attention a

[42] Smith, *Observations*, p 116; Young, *Norfolk*, p 401; J Denison, 'On the Duke of Portland's water meadows at Clipstone Park', *JRASE*, I, 1840, pp 359–70; P Pusey, 'On the theory and practice of water meadows', *JRASE*, X, 1849, pp 462–79.
[43] Smith, *Observations*, pp 112–16; Young, *Norfolk*, pp 395–400.

decade earlier: the Holkham audit books record allowances made in 1799 and 1800 to Abel Ward, a previous tenant, for 'Tiles, Bricks and Lime new Arches for draining meadows'.[44] Such works, if they still survive, cannot be distinguished archaeologically from those associated with Purdey's irrigation scheme.

Purdey's meadows (Fig 2) cover an area of nearly 30 acres (12 ha). They are similar in most respects to the better-known bedwork systems of Wessex, in that their most conspicuous feature are the blocks of ridges ('beds' or 'panes'), each *c* 8 m wide and anything up to 80 m in length. However, unlike the Wessex systems, the hatches here are constructed of brick, rather than wood. The main sluices are particularly massive structures, directing the water along different channels through barrel drain-like tunnels (the use of masonry for the construction of hatches and sluices being strongly advocated by Smith[45]). Most of these structures have been badly damaged but their sites can still usually be located, as concentrations of brick rubble. In contrast to the high visibility of the sluices, however, is the very *low* visibility of the carriers, a feature shared by other Norfolk systems. The principal channels are, for the most part, evident enough, but the lesser carriers serving separate blocks of beds are usually invisible on the ground, and this is invariably the case with the individual feeders running along the top of each ridge. Even on the 1946 RAF aerial photographs, the latter can be picked out, if at all, only with the eye of faith. This is in marked contrast to the Wessex examples, where even the minor carriers or feeders are often apparent on the ground, and on aerial photographs. The reason for this difference is not entirely clear. The carriers may originally have been more diminutive features than in the Wessex meadows. More probably, the difference is due to the nature of the local land, and to patterns of later land use. As noted above, the Norfolk meadows went out of use rather earlier than the Wessex examples. They also, for the most part, occupy ground which is marshy and peaty, and on which, when drainage is poor, tussocky grass rapidly establishes itself, blurring the outlines of minor channels. Moreover, the meadows — at Castle Acre in particular, but also more generally — have mainly been used during the course of this century as grazing for cattle, the treading of which has a notorious effect on the finer details of earthworks. Whatever the explanation, the positions of the minor carriers can often only be inferred from the position of drains and sluices; such inferred carriers are clearly distinguished on Figure 2.

The Castle Acre system was complex and intricate. Water was taken out of the river Nar some 400 m north of the start of the first block of beds; the traces of the sluices here can still be seen in the bed of the river. The water was conducted in an unlined culvert along the side of the flood plain and under the Castle Acre-Newton road to two substantial brick-built sluices (at A on Fig 2). These allowed water to be channelled in three directions: straight ahead (i.e., southwards), along the principal carrier; eastwards, along a ditch close to the field edge, which watered block 1; or westwards, watering blocks 2 and 3. Flowing southwards along the main high-level carrier, the water came next to a complex brick-built sluice (B). From here it could be directed straight on, down a secondary carrier, to provide the water for block number 4; or eastwards across an aqueduct spanning the river to water blocks 5, 6, 7, 8, and — via more aqueducts — blocks 9, 10 and 11. The main high-level carrier, however, ran westwards and then southwards on a prominent raised bank, to hatches which controlled the flow of water

[44] Holkham Hall archives, audit books, A/Au 60.
[45] Smith, *Observations*, p 78.

on to blocks 12, 13 and 14. It then crossed the river on an aqueduct, flanked by substantial sluices which allowed water to be diverted eastwards, down into carriers which also, rather surprisingly, received water from their other ends (Fig 2). Crossing over another aqueduct (bridging a main drain), another hatch (C) allowed water to be directed on to a small block of beds, number 16; and also into a long subsidiary carrier which, via a number of small aqueducts, took water to blocks 17, 18, 19, and 20. After this the main carrier begins, somewhat unexpectedly, to run *uphill*, hugging the valley side, to point (a), beyond which it cannot be traced. It is here *c* 1.75 m higher than at its lowest level, that is, where it crossed the river on the aqueduct. This southern section of the main carrier clearly cannot have been fed from the river and must have utilized water from springs which, due to the substantial changes in the local water table, no longer flow at this high level. It may also have tapped into neighbouring field ditches. Water from these sources was thus used to supplement that coming from the river, and explains why provision was made for certain carriers to receive water from their southern and western, as well as their eastern and northern, ends, via the hatches flanking the main aqueduct. But the water coming from this direction was also apparently used in another way. The area lying immediately downslope from the southern section of the main carrier is occupied by a complex pattern of faint linear indentations (Fig 3). These appear to represent slight, spade-dug channels which run in roughly zig-zag patterns. The slope of the valley side is fairly steep here, so that it was not necessary to construct beds in order to keep the water in motion. Instead, some form of catchwork floating seems to have been practised. Presumably the hatch at D was closed and the water allowed to fill and over-top the edges of the main carrier, so that it flowed down the side of the gentle hill here, being caught and redistributed by the minor channels.

No other system in the Nar valley is as well preserved as that at Castle Acre, although most seem to have shared its principal features. Thus the West Lexham meadows, designed by William Smith, covered an area of over 50 acres (20 ha). Their western section is now buried beneath undergrowth, and all that can be said with confidence is that here, as at Castle Acre, the beds were around 8 m wide, and that there were large numbers of masonry sluices. The central and eastern sections of the West Lexham meadows are, however, more accessible, although much smoothed and obliterated by the dredging of the adjacent lake and river, and perhaps by re-seeding. The beds here are narrower, no more than 5 m wide in many cases, and much of the area seems to have been operated as a catchwork, taking water not only from the river but — as at Castle Acre — from springs, and from the run-off from field ditches. Here, too, masonry hatches were used, and aqueducts. One of these still functions, taking the water of a substantial carrier — the 'New River' — over that of the 'Old River', in order to bring water into an ornamental lake. This is locally referred to as the 'moat', because it runs around the front of the large, early nineteenth-century farmhouse. In spite of its name, this is not an old feature: it does not appear on a map of the area made in 1771,[46] nor on William Faden's map of Norfolk, published in 1797 but surveyed around 1794–5.[47] It was almost certainly created at the same time as the water-meadows: its outfall fed directly into the main carrier serving the central section of the meadows, clearly suggesting that the lake's main purpose was to provide a head of water for the system. In other words, it combined — in Humphry Repton's oft-

[46] Holkham Hall archives, Map Room, 4/5: map of West Lexham, 1771.
[47] William Faden, *A Map of the County of Norfolk*, 1797.

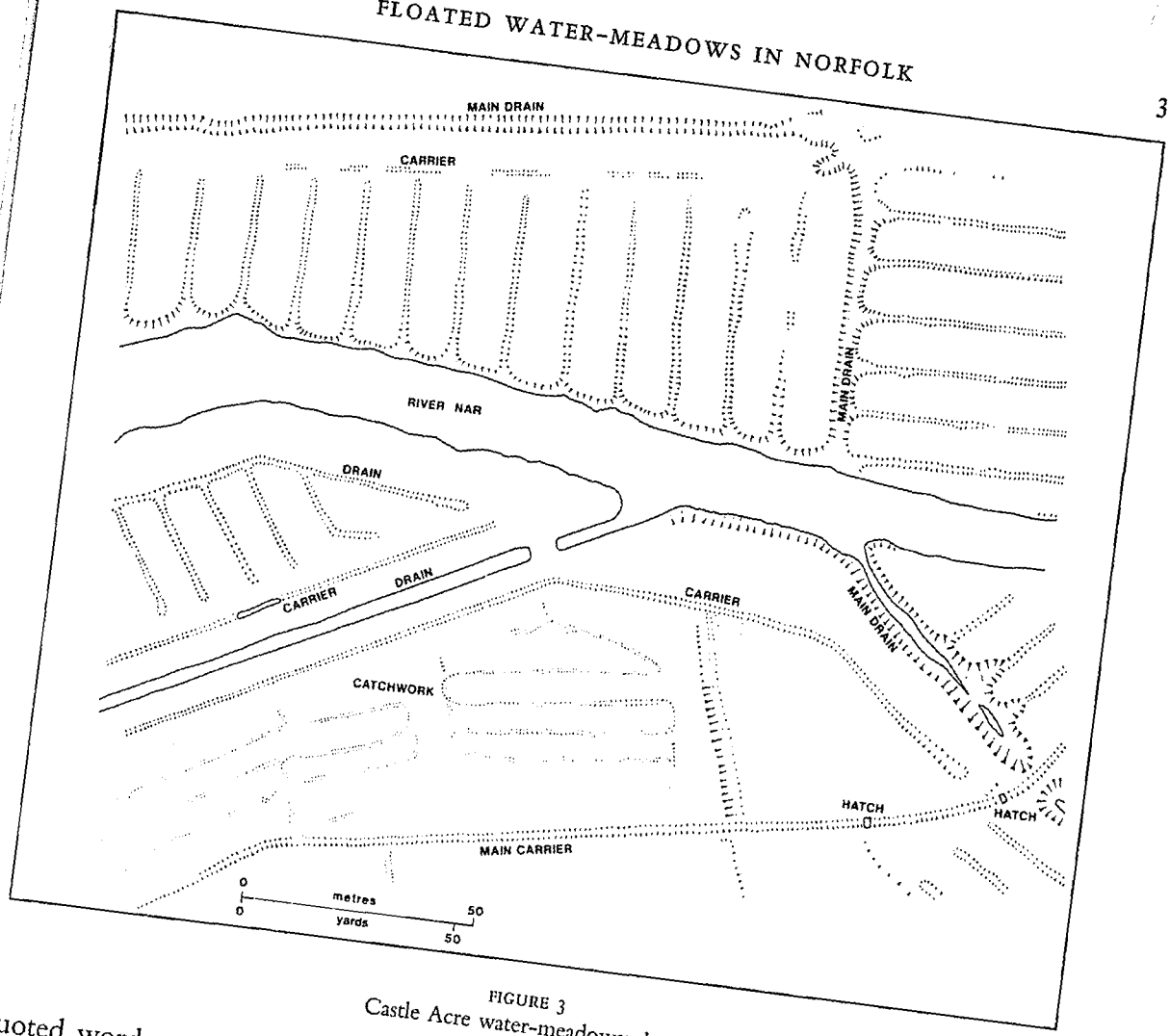


FIGURE 3
Castle Acre water-meadows: detail

quoted words — 'beauty and utility', and in a particularly striking way. The Lexham meadows seem to have been one part of a more general programme of improvements carried out on the farm between 1808 and 1811, which included modernizing the house and rebuilding the farm buildings, at a total cost to the estate of £4000.[48]

Moving eastwards, further up the river Nar, the 1946 aerial photographs show a number of small areas of possible bedwork in East and West Lexham, none of which survives on the ground today. Much more extensive, however, was the system within East Lexham Park. Here, water from a carrier taken off the river some 750 m upstream fed two large blocks of beds and a catchwork. The beds drained directly into a long thin lake in the centre of the park, the Long Water, thus providing another and — given the parkland setting — even more impressive combination of 'beauty and utility'. East Lexham was a separate estate, not part of the Holkham demesne, and there are no documentary references to this striking arrangement.

The elaborate works at Castle Acre and West Lexham cost, according to Bacon, between £10 and £40 an acre.[49] In other words, the total cost of the former must

[48] Holkham Hall archives, audit books, A/Au 71–73.

[49] Bacon, *Norfolk*, p 290.

have been between £300 and £1200: that of the latter between £500 and £2000. These were large sums, rather more than the figures quoted for contemporary meadows in the west of England,[50] and comparable to the sums spent on major farm rebuilding schemes. Not all Norfolk bedworks were as expensive as this, however. According to Arthur Young, those at Riddlesworth cost only £5 10*s* per acre, those at Tofts £4 4*s* per acre, prices more in line with those current in Wessex. Yet it is noteworthy that Young reported problems with these comparatively cheap systems. At Riddlesworth, as we have seen, Bevan had to call in 'Mr Brooks' to alter the layout and the width of the beds; while at Tofts, Young had 'great doubts of the method followed. I think the beds or panes too flat'.[51] This was because the main carrier was insufficiently elevated above the level of the river — i.e., the leat was too short — and the meadows at Lynford suffered from the same problem. At Wighton, too, the carrier was insufficiently elevated when the meadows were first constructed, at a cost of around £5 per acre. The modifications designed by Smith involved more earth-moving, and 'by filling up holes, taking up turf, and laying it down again, &c., some of the latter part cost him, it is said, about £20 per acre'.[52] What is interesting is that it was the expensive and elaborate systems which continued to function well into the nineteenth century. The cheaper examples seem to have had a short life. Thus Bacon, writing in the 1840s, describes the meadows in the Nar valley, and those at Wighton, but completely ignores those in the Breckland with which Young found problems. Not too much should be made of this negative evidence, perhaps, but it is suggestive.

The Nar valley systems, together with the meadows at Wighton, seem to have been at least moderately successful. Bacon describes the Lexham and Acre meadows as presenting a 'healthy and luxuriant appearance' in February 1844, and the Lexham meadows were much praised in an article in the *Journal of the Royal Agricultural Society of England* by P Pusey in 1849.[53] A more detailed account is given by H Keary in 1851. At Castle Acre, he describes 'a useful water meadow which grows a great bulk of grass', while at Lexham

> Those [meadows] on the east are the best and grow the best description of herbage; nearer to the commons its peaty soil is observed in the meadow lands and they are consequently not so sound or productive. The pastures are however invaluable to the Lexham farm, furnishing an immense quantity of early Spring feed.[54]

At Kempstone, the meadow was also variable, but was deemed 'on the whole a very valuable field supplying early feed for sheep in spring and a heavy crop of excellent hay afterwards'; while at Wighton 'The water meadow is sound and healthy, grows grass of very fair quality and is invaluable in early spring affording keep at a time when it is always most scarce and valuable'.

These large and complex systems may have made a useful contribution to their respective farms, but their real financial viability is not entirely clear-cut. At West Lexham, as we have seen, the creation of the water-meadows increased the annual rent of the farm by £100, not a bad return on an investment of, perhaps, £1500. But the latter was, nevertheless, a very substantial sum, and it is hardly surprising that most, if not all, of these meadows were created during the 'boom years' of the Napoleonic Wars: nor that by the middle decades of the nineteenth century Bacon was able to assert that floating had only been introduced in the county 'at so great

[50] Bowie, 'Watermeadows in Wessex', p 155.
[51] Young, *Norfolk*, p 396.
[52] *Ibid*, pp 398–99.
[53] Pusey, 'On the theory and practice of water meadows', pp 462–79.
[54] Keary, *Survey of Holkham*: Holkham Hall archives, E/G 11, pp 218, 243–44.

an expense as to prevent it being carried out to any considerable extent'.[55]

III

The late and limited adoption of water-meadows was not something confined to Norfolk. Rather, it was a characteristic shared with other counties on the eastern side of England. Young, writing in the *Annals of Agriculture* in 1786, thought that Babraham in Cambridgeshire had 'the only watered meadow of any consequence on this side of the kingdom', and Smith in 1806 believed that until very recent times floating had been unknown in the eastern counties.[56] The various *General Views* similarly make it clear that floating had made very little headway in the east. In 1813, the Babraham meadows were still the only example of irrigation to be found in Cambridgeshire; there was only a single floated meadow in Lincolnshire; in Buckinghamshire there was 'but one instance of irrigation worthy of record', at Chenies, in 1813; while in Suffolk in 1813 there was 'not a well-watered meadow in the county'.[57] In Hertfordshire, there were rather more examples, although even here largely restricted to the valley of the river Lea, and that of the Colne around Rickmansworth.[58] In Kent, however, it was reported that 'the practise has yet very few friends', while in Middlesex, 'irrigation makes no part of the practice of a Middlesex farmer'.[59] In Huntingdonshire in 1803 the story was the same; 'Irrigation or artificial watering of meadows or other low lands is in a very backward state'. The writer went on: 'What a pity that some nobleman or gentleman would not cause this improvement to be adopted in a few parishes, and then the example would cause farmers and others to adopt the same plan in similar situations, for their own advantage'.[60]

Where, in the early years of the nineteenth century, floating was adopted on any scale in the east of England, it was indeed — as in Norfolk — usually through the intervention of aristocratic or, at least, fanatical improvers. Thus in Lincolnshire the single example of floating recorded in 1813, at Osbornby, was the work of one Mr Hoyte, 'that very spirited improver'.[61] In Bedfordshire, irrigation 'was introduced into the county by the late Duke of Bedford', and was limited to the parishes around the estate centre at Woburn.[62] In Leicestershire, floating was restricted to the north-east of the county, and was largely associated with Robert Bakewell and his improving circle.[63] As was the case with the more successful Norfolk meadows, these works often involved substantial investment and, perhaps, a touch of flamboyance. Bakewell's meadows were irrigated by an elaborate canal, while the duke of Bedford's were located within his park, and were almost a part of the landscape design, fed from 'the Temple reservoir': a grander version of the kind of thing we have already seen at Lexham.

Aristocratic enthusiasm for encouraging the spread of floating into new areas in this period is clearly reflected in the decision, in 1802, by the Board of Agriculture to offer an irrigation premium to 'The person who shall in a county where irrigation is not generally in practice, water the greatest number of acres in the completest manner'.

[55] Bacon, *Norfolk*, p 91.
[56] *Annals of Agriculture*, XVI, 1796, p 177; Smith, *Observations*, pp 1–12.
[57] Rev A St J Priest, *General View of the Agriculture of Buckinghamshire*, 1813, pp 281–82; A Young, *General View of the Agriculture of Suffolk*, 1813, p 196; A Young, *General View of the Agriculture of Lincolnshire*, 1813, pp 312–14; W Gooch, *General View of the Agriculture of Cambridgeshire*, 1813, pp 258–62.
[58] Arthur Young, *General View of the Agriculture of Hertfordshire*, 1804, p 179.
[59] J Boys, *General View of the Agriculture of Kent*, 1813, p 164; J Middleton, *General View of the Agriculture of Middlesex*, 1813, pp 398–99.
[60] R Parkinson, *General View of the Agriculture of Huntingdon*, 1813.
[61] Young, *Lincolnshire*, p 313.
[62] T Batchelor, *General View of the Agriculture of Bedfordshire*, 1813, pp 484–93.
[63] W Pitt, *General View of the Agriculture of Leicestershire*, 1813, pp 201–12.

To claim the premium the applicant had to provide 'An account of the old and new state of the land, and its value, and of the method, expense and produce, verified by certificate, to be laid before the board by the third Tuesday in January'.[64] Both gold and silver medals were offered for several years: this was the prize which Coke won in 1808 for the Lexham meadows, and which Beck and Purdey were awarded in 1810 for their work at West Lexham and Castle Acre respectively (which Sir John Sinclair, chairman of the Board, described as 'one of the first of improvements').[65] The Board's example was followed by the duke of Bedford and (as we have seen) by Thomas Coke: both awarded prizes for floating at their respective sheep shearings.

We hear no more of the Norfolk prize after 1812, presumably because investment in new meadows in the county was coming to an end as agricultural fortunes declined at the end of the Napoleonic Wars. Nevertheless, in other areas of the country interest in the practice of floating continued strong among certain improvers, and it was maintained in the discourse of agricultural improvement until the 1850s. There was, in particular, a rash of papers in the early volumes of the *Journal of the Royal Agricultural Society*. Philip Pusey, the chairman of the journal committee, was a particularly enthusiastic supporter, who described the water-meadow as

> The triumph of agricultural art: changing as it does the very seasons...A slight film of water trickling over the surface rouses the sleeping grass, tinges it with living green amidst snows and frosts, and brings forth a luxuriant crop in early spring, just when it is most wanted...[66]

Pusey himself succeeded to the family estates in Berkshire (now Oxfordshire) in 1828, where he installed a system of meadows which enabled him to quadruple his stock of sheep: one 20-acre meadow kept, he claimed, 400 sheep in feed for five months.[67] This was close to the traditional heartland of floating: but a number of other systems, in more remote parts of England, are also described in the *Journal*. Thus 300 acres (120 ha) of the duke of Portland's estate between Mansfield and Ollerton in Sherwood Forest were irrigated in the 1820s: 'The contrast between the wild beauties of nature and the finished works of cultivation and art, thus placed side by side, is very striking and remarkable'.[68] Meadows were also established in upland areas: a system 1000 ft up in the Brendon Hills and another on a Scottish sheep farm are both discussed in the pages of the *Journal* in the 1840s.[69]

Individual improvers might continue to establish floated meadows in all kinds of weird and wonderful places well into the nineteenth century, but the spread of the practice into new areas made little real headway after the Napoleonic Wars. For all the enthusiasm of writers like Pusey, Copland's *Agriculture Ancient and Modern* of 1866 estimated that there were not more than 10,000 acres (*c* 4000 ha) of water-meadows in Britain: in Wiltshire, Gloucestershire and Devon they had been used 'time out of mind', but 'want of knowledge' had prevented them being more widely adopted.[70]

This last comment was fairly typical. Agricultural writers in the late eighteenth and early nineteenth centuries expressed continual amazement that the practice of floating was not more widespread, blaming ignorance, laziness, lack of enclosure, or the opposition of mill-owners. Yet even their own accounts make it clear that many of the floated meadows established outside the traditional heartlands were not very successful. It was not only in Norfolk, at

[64] *Annals of Agriculture*, XXXVII, 1802, p 68.
[65] *Norfolk Chronicle*, 30 June 1810.
[66] Pusey, 'On the theory and practice of water meadows', pp 462–79.
[67] J Caird, *English Agriculture 1850–51*, p 112.
[68] Denison, 'Water meadows at Clipstone', pp 359–70.
[69] J Road, 'On the converting of mossy hillside to catch meadows', *JRASE*, VI, 1846, pp 518–22.
[70] S Copland, *Agriculture Ancient and Modern*, 1866, p 762.

Riddlesworth, Wighton, Lynford, and Tofts, that problems are recorded in the *General Views*. In Hertfordshire, for example, 40 or 50 acres at Watton were 'ill-planned and badly executed' and 'in the greatest state of neglect'; while at Bushey, one 'Mr Wayford' had floated a meadow, but 'nothing is done at present'.[71] More significant, however, is the fact that some of the irrigated meadows in this particular county were not used to gain an early bite at all, but simply to produce an increased hay crop in the summer: thus the extensive meadows between Cassiobridge and Watford, and at Uxbridge, were mown twice each year, but only the aftergrass was fed.[72]

The descriptions of the Babraham meadows in Cambridgeshire, provided by Smith and Young, are particularly interesting in this context. These meadows were created much earlier than any of the examples so far discussed: they were laid out between 1652 and 1654 by Thomas Bennet, the lord of the manor.[73] But they do not seem to have been true 'floated' meadows, as that term is normally understood. Indeed, both Smith and Young were perplexed by the system. In Young's view, 'There does not seem to be the least intelligence or knowledge of the husbandry of water. No other art is exerted, but that merely of opening in the bank of the river small cuts for letting the water flow on to the meadows'.[74] And Smith believed that 'The form of the works seem to prove, that they were not designed by any person from Wiltshire, and that the possessors are totally unacquainted with the management and utility of water meadows'.[75] Like some of the Hertfordshire meadows, they were not designed to provide early spring feed, but only a summer hay crop, and in consequence irrigation began on Easter Monday 'and never sooner than two weeks before': all, in Young's words, amounting to 'circumstances...not easy to understand'.[76]

IV

Yet the explanation is, in fact, probably quite simple. Irrigated meadows as constructed and managed in Wessex and the west were here (to use a biological analogy) at the very edge of their range. Two factors militated against their successful development in the eastern counties. Topography was one. The gentle gradient of most valleys — especially in Norfolk, Cambridgeshire, and much of Suffolk — not only precluded the institution of cheap catchwork systems but also made the creation of successful bedworks dependent on the construction of long, elaborate leats. Without these, the fall of water would be insufficient for successful floating, and the kinds of problems recorded by Young at Riddlesworth or Wighton would be encountered. As Bowie has pointed out, the sharp gradient of the Wessex valleys was the 'critical factor' in the widespread adoption of the system there and, by implication, elsewhere in the west.[77] The problem in the east of England was not just the high cost of constructing very long leats. As Smith emphasized, there was also the difficulty of other lands intervening 'between those to be flooded and the place where the water must be taken out of the river': the greater the length of the principal carrier, fairly obviously, the more likely that it would need to cross the land of several proprietors, and also to interfere with the water supply to mills.[78] Topography may have been important in another way. Wide flat valleys with gentle gradients tended to contain soils which were rather more peaty and acid than those

[71] Young, *Hertfordshire*, p 178.
[72] *Ibid*, p 179.
[73] Adrienne Rosen, 'Babraham' in the *Victoria County History of Cambridgeshire*, vol VI, p 25.
[74] *Annals of Agriculture*, XVI, 1797 p 177.
[75] Smith, *Observations*, pp 116–17.
[76] *Annals of Agriculture*, XVI, 1797, p 177.
[77] Bowie, 'Watermeadows in Wessex', p 152.
[78] Smith, *Observations*, p 120.

found in the valleys of the west, and even when irrigated tended to produce a rather coarse herbage: something which presumably explains the frequent complaints that water-meadows in the east were badly infested with rushes.

However, topography cannot have been the only reason why water-meadows remained rare in the east of England, for moderately steep valleys can be found in parts of the region, especially in Hertfordshire and Lincolnshire. An equally significant factor was probably the climate. Irrigated meadows are known from many parts of Europe, including Poland, Yugoslavia, Portugal, Spain, southern France, Sweden and Denmark.[79] The reasons for irrigation varied, however, from region to region. In western Europe, in areas with an Atlantic climate and mild winters, the main purpose was to expand the growing period, by raising the ground temperature and thus encouraging an early growth of spring grass. The increased production of hay in the summer which these systems could also bring was a useful, but secondary, benefit. In areas with a more continental climate, in contrast — Poland, Yugoslavia, and Scandinavia — hay production was the main objective. The severity and lateness of frosts here was such that floating was insufficient to stimulate a significant early growth, at least on a regular basis, and it was rarely carried out for this purpose.[80]

Lowland England may, as far as floating is concerned, be considered as Europe in miniature. In the west of the country, mild winters and early springs made the early forcing of grass feasible on a regular basis. In the more continental east, however, sharp and often late frosts, sometimes continuing for long periods of time, made the early 'bite' less dependable. As Pusey noted in 1849, the practice of floating was less well suited to the drier and colder areas of the country.[81] Even as ardent an advocate as William Smith acknowledged the problems encountered in the second year of floating at Lexham, when 'The water was applied every night, but, from the coldness of the season, produced but little effect'.[82] The improved hay crop which could be gained from floating *was* dependable in such situations; but in England, unlike some other areas of Europe, most landowners clearly considered the benefits to be derived from this insufficient to warrant the expenses of construction and maintenance. A few such hay-production systems were established in England, but as part of grandiose reclamation schemes in *highland* areas, as on Exmoor by the Knights in the 1840s, or on the Brendon Hills in the 1820s (where it was claimed that floating between March and May doubled the hay crop).[83] Such systems were always rare, however, and they were virtually unknown in lowland areas: in part no doubt because here the more muted terrain made their construction particularly difficult and expensive.

This might seem a rather obvious conclusion, but it is nevertheless one with important implications. To begin with, it suggests that, in this matter at least, Young and most other eighteenth- and nineteenth-century writers on agriculture had a less than perfect grasp of the essential practicalities of farming. The failure of the practice of floating to diffuse from western into eastern England was *not* due to the laziness or ignorance of farmers and landowners. Rather, it was the result of sound judgements made on the basis of economic, and ecological, realities. Moreover, the history of floating in Norfolk and elsewhere serves to highlight an important aspect of the

[79] Urban Emanuelsson and Jens Möller, 'Flooding in Scania: a method to overcome the deficiency of nutrients in agriculture in the nineteenth century', *Ag Hist Rev*, 38, 1990, p 136.
[80] *Ibid.*
[81] Pusey, 'On the theory and practice of water meadows', p 477.
[82] Smith, *Observations*, p 115.
[83] Road, 'Converting of mossy hillside', pp 518–22.

'Agricultural Revolution' of the late eighteenth and early nineteenth centuries, one which deserves more emphasis. These later water-meadows were, for the most part, somewhat flamboyant schemes of improvement imposed on environments to which, in reality, they were not very well suited. Their creation was, of course, encouraged by the peculiarly favourable economic conditions of the late eighteenth and early nineteenth centuries. But in the final analysis, the meadows were largely the product of fashion, of the hype and salesmanship of men like 'Mr Brooks' and William Smith. Lastly, and perhaps most importantly, this study raises questions about the way in which quite subtle environmental factors could engender profound regional variations in eighteenth-century farming systems. For it is worth speculating on whether the 'Norfolk four-course system' — providing as it did an alternative source of winter and early spring feed in the form of a root crop — would have developed when it did, and where, if the advantages gained from floating meadows had been as great in the east of the country, as they evidently proved to be in the west.

Notes on Contributors

MARY A ATKIN grew up in the Craven district of Yorkshire, is a geography graduate of Liverpool University in the H C Darby era, and developed interests in place-names and field and settlement patterns on which she has published a number of papers. After teaching in a range of schools she became Senior Lecturer in Chorley College for Mature Students and in Preston Polytechnic, and gained an M Phil under Prof Glanville Jones at the University of Leeds. She has interests especially in past farming in north-west England.

DR ALUN HOWKINS is Senior Lecturer in History in the School of Cultural and Community Studies at the University of Sussex where he has taught since 1976. He left school at 15 and worked on the land going to Ruskin College in 1968 as a mature student. He went from there to Queen's College Oxford and then to Essex, where he did a doctorate. This was published in 1985 as *Poor Labouring Men. Rural Radicalism in Norfolk, 1870–1923*. In 1992 he published a general social history of rural England, *Reshaping Rural England. A Social History, 1850–1925*. He has just finished a section for the forthcoming volume VII of *The Agrarian History of England and Wales, 1850–1914*, and started work on the small peasant farmer in Britain. He is an editor of *History Workshop Journal* and a member of the board of *Rural History*.

DR TOM WILLIAMSON is Lecturer in Landscape History at the Centre for East Anglian Studies, University of East Anglia. He has written widely on the history of the rural landscape: his recent publications include *Parks and Gardens* (with A. Taigel), Batsford, 1993, and *The Origins of Norfolk*, Manchester University Press, 1993. He is co-editor of the journal *Rural History*.

DR SUSANNA WADE MARTINS is a Research Associate at the Centre of East Anglian Studies, University of East Anglia where she is currently engaged with Dr Tom Williamson on a three-year ESRC-funded research project studying *Agriculture and Landscape in East Anglia 1650–1870*. Her publications include *Norfolk, a Changing Countryside*, Phillimore, 1988, and *Historic Farm Buildings*, Batsford, 1991.

PROF CHARLES W J WITHERS has just been appointed as Professor of Geography in the University of Edinburgh. He is the editor of the Historical Geography Research Paper Series of the Institute of British Geographers. In addition to his interests in the connections between agricultural science, natural history, and enlightenment philosophy, he has also published on the historical geography of Gaelic Scotland, on the geography of rural social protest, and on the history of geographical ideas. He is currently undertaking research on the relationships between geography, survey, and nationhood in the seventeenth century in the work of Sir Robert Sibbald.

On Georgics and Geology: James Hutton's 'Elements of Agriculture' and Agricultural Science in Eighteenth-Century Scotland*

By CHARLES W J WITHERS

Abstract

In this article, the unpublished manuscript 'Elements of Agriculture' by the earth scientist James Hutton (1726–1797) is analysed to review both its content and its contextual significance in relation to contemporary knowledge on agricultural science in eighteenth-century Scotland. Examination of Hutton's agricultural manuscript shows him to have linked his geological and individual farming interests with matters of Scotland's husbandry. His work was part also of that improvement culture within eighteenth-century Scotland which sought to understand agricultural practice through science and to transform the agrarian economy through subjecting it, like the science on which it was based, to the test of 'rational principles'. The idea of continuing fertility and repair is seen to be essential to his geological *Theory of the Earth* and his *a priori* reasoning in the 'Elements of Agriculture'.

SEVERAL causal agencies may be identified in understanding the transformation of Scotland's agricultural economy during the eighteenth century. Broadly put, they may be identified as institutional, managerial, and contextual agencies of change.

The development of Scotland's agriculture through formal agricultural institutions is first evident in 1727 with the foundation of the Honourable the Society of Improvers. From that date other bodies were established, chiefly throughout Lowland Scotland, whose purpose was advancing knowledge through the practice and principles of new forms of rural management. It is true many such institutions were short-lived: others provided a means to the sharing of better practice and a forum for information exchange. Such was the concern of enlightening Scotland in the later 1700s that societies whose purpose was 'improvement' more widely included agrarian topics in their business: this is true of the Edinburgh Society for Encouraging Art, Science, Manufactures and Agriculture (established in 1755), the Select Society (1754), the Philosophical Society (1737), and, notably, the Royal Society of Edinburgh, begun in 1783.[1]

To these formally-constituted institutions should be added the impetus generated by the attention paid to Scotland's agriculture in her universities in the later eighteenth century. The Rev Dr John Walker's lecture courses at Edinburgh attracted a wide audience of persons committed to and engaged in Scotland's agrarian economy as well as students of medicine and law. Private courses of lectures in agriculture—by Robert Maxwell

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[1] On these points, see R C Boud, 'Scottish agricultural improvement societies, 1723–1835', *Review of Scottish Culture*, I, 1984, pp 70–90; K Hudson, *Patriotism with Profit: British Agricultural Societies in the Eighteenth and Nineteenth Centuries*, 1972; S Shapin, 'The audience for science in eighteenth-century Edinburgh', *Hist Sci*, XII, 1974, pp 99–104; R I Black, 'The Gaelic Academy: the cultural commitment of the Highland Society of Scotland', *Scott Gaelic Studs*, XIV (II), 1986, pp 1–38; R L Emerson, 'The Philosophical Society of Edinburgh 1748–1768', *Brit Jour Hist Science*, 14, 1981, pp 133–76; J E McClellan, *Science Reorganised: Scientific Studies in the Eighteenth Century*, New York, 1985.

in the 1720s, for example, or more notably by William Cullen in 1748 and 1749 — added to the public attention given to promotion of improved agriculture.[2]

Building upon an earlier 'impetus to improvement' evident in the later seventeenth century,[3] these changes were paralleled by new procedures of rural land management. Surveyors and landowners laid out new 'landscapes of improvement', and undertook new practices of crop rotation, different stocking rates, and the incorporation of breeds and crops into agricultural systems on scales not before considered. Many of these managerial changes were concentrated in the north-east and central southern Lowlands, and were often dependent upon the receptiveness of individual landowners to experiment, adopt, and persevere with new practices.[4] Innovation in the Highlands in these ways was generally later in coming and, apart from the localized influence of the Board for Annexed Forfeited Estates between *c* 1752 and 1784, was not widespread in coverage throughout Scotland's north and west.[5] In part, these new managerial practices were codified in an expanded range of published works on Scottish agriculture evident during the eighteenth century.[6] Texts that documented 'traditional' rural practices with a view to their vilification were complemented by works whose concern was the promotion of the new, either through personal experience, or national summary of best practice as in Wight's surveys of 1778–1784.[7] Claims to national agrarian utility through the combined efforts of forward-thinking individuals were evident in men like James Donaldson whose 1795 book considered that 'The industrious husbandman not only enriches himself, but also advances the general prosperity of the community'.[8]

In part also, however, these texts and the practices they embodied represent what may be considered externally-derived or contextual changes affecting Scottish agriculture. The involvement of institutions with agricultural advance and with the promotion of new ways of working the land was shaped by those wider concerns of eighteenth-century Scotland with civic virtue, improvement and national 'cultivation'. The links between agricultural economic advance, the socio-cultural benefits of improvement, and the scientific bases to national utility were evident in the close links between agriculture and natural history and chemistry in the work of Walker and Cullen. Natural philosophy and medical discourse also informed the debates of the day. Many Scottish agrarian writers were members of those socio-scientific institutions in which these debates were commonplace. In these several ways, there was an evident 'utilitarian impulse' in later eighteenth-century Scotland as more generally in Britain. The earth sciences of geology, chemistry and natural history were central elements in what has

[2] H W Scott, 'John Walker's lectures in agriculture (1790) at the University of Edinburgh', *Ag Hist*, XLIII, 1969, pp 439–45; S Richards, 'Agricultural science in higher education: problems of identity in Britain's first chair of agriculture, Edinburgh 1790–c1831', *Ag Hist Rev*, 33, 1985, pp 59–65; C W J Withers, 'A neglected Scottish agriculturalist: the "Georgical Lectures" and agricultural writings of the Rev Dr John Walker (1731–1803)', *Ag Hist Rev*, 33, 1985, pp 132–56; *idem*, 'William Cullen's agricultural lectures and writings and the development of agricultural science in eighteenth-century Scotland', *Ag Hist Rev*, 37, 1989, pp 144–56.

[3] On this point, see I D Whyte, *Agriculture and Society in Seventeenth Century Scotland*, Edinburgh, 1979; T C Smout and A Fenton, 'Scottish agriculture before the improvers — an exploration', *Ag Hist Rev*, 13, 1965, pp 73–93; R H Campbell, 'The Enlightenment and the economy' in R H Campbell and A Skinner, eds, *The Origins and Nature of the Scottish Enlightenment*, Edinburgh, 1982, pp 8–25.

[4] G Whittington, 'Agriculture and society in Lowland Scotland, 1750–1870', in G Whittington and I D Whyte, eds, *An Historical Geography of Scotland*, 1983, pp 141–64; I Adams, 'The agents of agricultural change', in M L Parry and T R Slater, eds, *The Making of the Scottish Countryside*, 1980, pp 155–76.

[5] A Smith, *Jacobite Estates of the Forty-Five*, Edinburgh, 1982.

[6] J A S Watson and G D Amery, 'Early Scottish agricultural writers (1697–1790)', *Trans Highland Agric Society of Scotland*, XLIII, 1931, pp 60–85.

[7] Andrew Wight, *Present State of Husbandry in Scotland* (6 vols), Edinburgh, 1778–1784.

[8] J Donaldson, *Modern Agriculture; or, the Present State of Husbandry in Great Britain*, Edinburgh, 1795, I, p 4.

been considered for Scotland an 'institutionalized alliance between agricultural improvement...and the rationalizing impulse of scientific intellectuals'.[9]

One person who exemplified this connection in Scotland between the several earth sciences, who shared this concern for individual and national betterment through agriculture, and who was part of this socio-scientific alliance between these rationalizing discourses of improvement was James Hutton. Hutton, who was born in Edinburgh in 1726 and who died there in 1797, is best known for his contributions to the geological sciences. His notions of repair and the cyclical model of erosion-deposition-uplift repeating over and over through time — what McPhee has called Hutton's 'discovery' of 'deep time' — have established Hutton as one of the founding influences of modern geology.[10] But Hutton was significantly involved with agricultural topics throughout his life. This is evident in several ways. He was a farmer in Slighhouses in Berwickshire for thirteen years, a student of agriculture in East Anglia, France and Flanders between 1752 and 1754, and he was elected in 1787 an 'Associé étranger' for his agricultural knowledge by the prestigious Société Royale d'Agriculture de Paris. More notably, he wrote a two-volume treatise entitled 'Elements of Agriculture' in which he sought to connect his experiences as an individual farmer with the earth science traditions and institutionalized utilitarian impulses of which he was part.

Early in these unpublished 'Elements', Hutton wrote how 'agriculture...has been in a manner the study of my life'.[11] As Jones has shown in her excellent summary of Hutton's agricultural research and life as a farmer, Hutton's agricultural and geological interests were intimately connected; in his views on soils, on the chemical utility of certain fertilizing and manuring practices designed to 'repair' the land, and in the empirical and deductive bases to both subjects. For Jones, '...it becomes clear that his geological and agricultural studies cannot be separated but that a change took place as they progressed. At the beginning of his period as a farmer his journeys were designed to collect agricultural information, with geology as something of a hobby. By 1764 geology had displaced agriculture as the principal subject of investigation, and for the rest of his life it remained paramount...'[12]

This paper is an attempt to extend our understanding of Hutton's place, and that of his unpublished 'Elements of Agriculture', in the agricultural scientific knowledge of his day. For reasons of space this paper cannot be the '...thorough study, which examines the whole text [of the MS 'Elements'] and compares Hutton's theories and methods with those of his contemporaries...' that Jones has called for. But what follows has intentions in this direc-

[9] Shapin, *art cit*, p 102; see also K Blaxter, 'Agricultural science and practice', *Proc Royal Soc Edin*, 84B, 1983, pp 6–8; N T Phillipson, 'Culture and society in the eighteenth century province: the case of Edinburgh and the Scottish Enlightenment', in L Stone, ed, *The University in Society*, Princeton, 1974, II, pp 407–20; *idem*, 'The Scottish Enlightenment' in R Porter and M Teich, eds, *The Enlightenment in National Context*, Cambridge, 1981, pp 19–40; R Porter, *The Making of Geology: Earth Science in Britain 1660–1815*, Cambridge, 1977; A C Chitnis, 'Agricultural improvement, political management and civic virtue in enlightened Scotland: an historiographical critique', *Studies on Voltaire and the Eighteenth Century*, CCXLV 1986, pp 475–88; *idem*, 'The eighteenth-century Scottish intellectual enquiry: context and continuities versus civic virtue', in J Carter and M Pittock, eds, *Aberdeen and the Enlightenment*, Aberdeen, 1987, pp 77–92; on these issues for Britain as a whole, see S Wilmot, *'The Business of Improvement': Agriculture and Scientific Culture in Britain, c 1700–1870*, Cheltenham, 1990.

[10] For a more complete background to Hutton, see S I Tomkieff, 'James Hutton and the philosophy of geology', *Trans Edin Geol Soc*, 14, 1948, pp 253–76; D A Bassett, 'James Hutton the "Father of Modern Geology": an anthology', *Geology*, 2, 1970, pp 55–76; D R Dean, 'James Hutton and his public, 1785–1802', *Annals of Science*, XXX, 1973, pp 89–105; *idem*, 'James Hutton's rôle in the history of geomorphology' in K J Tinkler, ed, *History of Geomorphology*, 1989, pp 75–84; *idem*, *James Hutton and the History of Geology*, Harvard, 1992; G L Davies, *The Earth in Decay: a History of British Geomorphology 1578 to 1878*, 1969, pp 154–99; S J Gould, *Time's Arrow Time's Cycle: Myth and Metaphor in the Discovery of Geological Time*, Cambridge, Mass, 1987, pp 61–98.

[11] 'Elements of Agriculture', Royal Society of Edinburgh MS C 5, f 3.

[12] J Jones, 'James Hutton's agricultural research and his life as a farmer', *Annals of Science*, 42, 1985, pp 573–601 (quote from p 573).

tion. More specifically, the paper has three aims. The first is to bring to the attention of a wider audience the range, content, structure, and purpose of Hutton's unpublished manuscript. Amongst historians of Scotland's agriculture, Hutton has received little attention, his 'Elements' none. Handley, for example, notes only how Hutton 'has sometimes been credited' with the introduction of the Norfolk system of drill husbandry into Scotland, and sees him as an innovator in south-east Scotland in the way Adams has noted of leading individuals in the North-East:[13] 'His methods excited curiosity among his neighbours, many of whom, attracted by the profitable outcome of his efforts, were led to imitate him'.[14]

The second and principal aim is to begin consideration of the relationships between Hutton's 'Elements', their geological basis and georgical content, and the views and published works of his contemporaries, chiefly in Scotland. A number of texts are examined, but particular attention is paid here to the scientific and chemical basis to agriculture in Francis Home's 1757 *The Principles of Agriculture and Vegetation.* Hutton's work and his utilitarian views are compared with Kames' *The Gentleman Farmer being an attempt to improve Agriculture, by subjecting it to the Test of Rational Principles* (1776). Kames' improvement philosophy, evident in his claim that 'Agriculture justly claims to be the chief of arts: it enjoys beside the signal pre-eminence, of combining deep philosophy with useful practice',[15] was shared by Hutton. In his 'Elements', Hutton noted that his concern was 'to make philosophers of husbandmen and husbandmen of philosophers'.[16] The third aim is to illustrate through this consideration of Hutton something of the institutional, managerial and contextual complexity of those intellectual and material alliances that underlay advances in agricultural knowledge in late eighteenth-century Scotland.

I

Jones has suggested that Hutton '...began to write his treatise on agriculture as soon as the first two volumes of the *Theory of the Earth* appeared in print in 1795', and that the work was based on earlier unpublished essays on agricultural topics (now lost) by Hutton.[17] Playfair's 'Biographical Account' of Hutton, published in 1805, notes that Hutton first '...resolved to apply himself to agriculture' in the summer of 1750 (after abandoning plans for a career in medicine) and was, from 1752 and his visits to Norfolk, seriously committed to ideas of improvement: 'As he was never disposed to do any thing by halves, he determined to study rural economy in the school which was then reckoned the best'.[18] But as Hutton's geological interests overtook his agricultural ones, so his writings on rural economy took second place and remained incomplete upon his death in March 1797. As Playfair notes

> After the publication of the work just mentioned, [*Theory of the Earth*] he began to prepare another for the press, on a subject which had early occupied his thoughts, and had been at no time of his life entirely neglected. This subject was husbandry, on which he had written a great deal, the fruit both of his reading and experience; and he now proposed to reduce the whole into a systematic form, under the title of *Elements of Agriculture.* This work, which he nearly completed, remains in manuscript. It is written with considerable perspecuity; and though I can judge but very imperfectly of its merits, I can venture to say, that it contains a great deal of solid and practical knowledge, without any of the vague

[13] Adams, *op cit.*
[14] J E Handley, *Scottish Farming in the Eighteenth Century*, Edinburgh, 1953, p 147.
[15] H Home, *The Gentleman Farmer being an attempt to improve Agriculture, by subjecting it to the Test of Rational Principles*, Edinburgh, 1776, p v.
[16] 'Elements', f 2.
[17] Jones, *op cit*, p 574.
[18] J Playfair, 'Biographical account of the late Dr James Hutton F.R.S. Edin.', *Trans Royal Soc Edin*, 5, 3, 1805, pp 39–99. Quote from pp 42–43.

and unphilosophic theory so common in books on the same subject.[19]

Attempts were made in 1806 to publish what was called Hutton's *Principles and Practice of Agriculture* (*sic*) but these were never realized. The manuscript circulated between custodians in the Royal Scottish Geographical Society and the Edinburgh Geological Society before being housed from 1949 in the Royal Society of Edinburgh.[20]

The 'Elements' is a lengthy and, in places, ill-connected work. It is 1070 folio pages long, in two volumes, and is chiefly in the hand of an amanuensis together with some pencil marginalia by Hutton. The work is structured into a series of sections and chapters, not always consecutively numbered. It begins with a 'General view of husbandry and agriculture, what they are and how to be treated of' in two chapters: 'What husbandry properly is, and how it may be rendered scientific' (chapter 1) and a 'General view of the principles of agriculture as they are now to be treated of' (chapter 2). Approximately half of volume I is taken up with discussion of the links between soils, climate, and vegetation. Hutton shows himself concerned with the application of these issues to contemporary contexts in his discussion of the 'Application of the theory of climate, in comparing the most distant countries with regard to the power of vegetation and the means of population' (vol I, ff 271–314). The remainder of the first volume is taken up with discussions of seeds '...or the science of propagating useful plants' (vol I, ff 315–345) and of the 'Botanical and Chymical Philosophy of vegetable reproduction', together with consideration of the efficacy of different agricultural implements. Volume II begins with 'the general Principles by which the reproduction of Animals is conducted, with application to the Husbandry of Britain' before turning to considerations of crops and cropping practices which, whilst scattered, form the great bulk of the second volume. Attention is also paid to the 'Moral and Political View of the labour and skill employed in Agriculture' (vol II, ff 667–717) and to several sections on systems in rural and political economy 'for the improving of a country' (vol II, ff 875–927).

Hutton was in no doubt as to the overall purpose of his 'Elements'. After considering the Board of Agriculture's work essentially comparative, he writes

> The present undertaking has another object in view; this is to examine agriculture in general and to treat of it scientifically, in order to enable husbandmen to judge how far any particular practice is conformed to the general principles. It is this that constitutes the science of the art, or that generalization of our knowledge which is to direct our conduct & practice in particular instances. In order to attain this end I have endeavoured to explain the principles of Agriculture, both philosophical and oeconomical; and I have supported and illustrated those principles by the actual practice of the most successfull husbandmen of this kingdom, that is by the general experience of the art.
>
> The object of this work is, in short to make philosophers of husbandmen and husbandmen of philosophers; to unite as far as may be, or is proper, those two valuable characters, for the general benefit of the country as well as the particular interest of those immediately concerned. What could be more advantageous to this country than that the wealthy farmers, who are to take the lead in what concerns the rural oeconomy to be men of science in their profession, that is, men judging of every thing upon the most just and general principles, consequently, acting most advantageously upon all occasions? — What more for the benefit of our landed interest, than for gentlemen of education to understand their immediate concern in the general practice of agriculture & husbandry, that art by which a nation is to be made both powerful & happy?[21]

There are a number of related issues of interest to us in Hutton's view of his own enterprise and in the structure to his work. Firstly, and perhaps most importantly, the 'Elements' are informed by a concern for

[19] Playfair, *op cit*, p 87.
[20] Jones, *op cit*, p 575.
[21] 'Elements', ff 1–3.

the philosophical and scientific treatment of agriculture. The chosen means are as essentially empirically verifiable practices, with deductive methods principally employed: 'It is this that constitutes the science of the art, or that generalization of our knowledge which is to direct our conduct & practice in particular instances'. Secondly, to complement such knowledge is 'the actual practice' of successful husbandmen. Through the conjunction of rational principles and direct observation, agriculture could develop as scientific practice understandable to all, philosophers and husbandmen both. It is significant in this respect that Hutton did not explicitly distinguish, in his preface at least, between practising farmers and theorizing philosophers. They were in this context one and the same thing and properly so, given thirdly his concerns for utility, and national and individual advance via a rationally managed agriculture. In general terms, these concerns with utility, with philosophical and scientific principles, and with economic betterment place Hutton firmly in his contemporary context, in Scotland and beyond. It would have been surprising had they not. In more detail, however, Hutton's unpublished 'Elements of Agriculture' merits attention in its own right precisely because of this context and because it would appear to substantiate in its connections between georgics and geology the claims of those who have argued for that conjunction of scientific and intellectual discourses and socio-scientific institutional alliances as principal agencies behind the development of agricultural science in this period.

II

Hutton's major geological work *Theory of the Earth* (1795)[22] is precisely what it says: a *theorization*, an exploration of those abstract principles — time, heat, decay, repair, cyclicity — that underlay the nature of the Earth. The emphasis he lays in that work upon rational principles and upon reasoned speculation as to relationships of cause and effect is evident throughout the 'Elements' as Hutton discusses the application of theory to the practical arts of agriculture.

In the opening sections, Hutton writes 'Without theory or general rules no art can be brought to any degree of perfection; for art is not founded immediately upon matters of fact or events but upon the generalization of them & and this generalization is a scientific observation which leads to theory'.[23] He goes on to consider the relationships these theoretical constructions have with utilitarian motives (agriculture as a profoundly *useful* science) and with the practical experiences of those actually engaged in agriculture. In so doing, and despite his intention to make philosophers of husbandmen and vice versa, it is clear Hutton placed much greater weight on contemporary theoretical discourse than upon the knowledge of the husbandmen of the day.

> If for the purpose of the teaching mankind any art every artist were to give an account of his own experience, the first thing to be done with that information would be to employ a man of science to form a theory by generalizing the matters of fact. But so inaccurate in general are practical men in reporting their experience that much misrepresentation of the facts would enter into the mass of information from whence, by generalization, the science was to be collected. The theory thus formed would therefore be extremely imperfect or erroneous however accurate the generalization might be. For in this case the man of science in generalizing the knowledge derived from experience would have no opportunity of verifying the results by comparing the various circumstances or conditions in which the events had taken place.
>
> In the art of agriculture the events to be looked

[22] The work was originally published in 1788 in *Trans Royal Soc Edin*, I, 1788, pp 209–305, but was written in a dense and often misleading prose. The 1795 version, much improved by the attentions of Playfair, appeared under the full title *Theory of the Earth with Proofs and Illustrations*, Edinburgh. I have used the later version here.

[23] 'Elements', f 4.

at are influenced by the most variable circumstances, such as the practitioners are but little qualified to judge of. Therefore to form a science of agriculture, and to give general rules for the practice of that art, would require that men of science, well instructed in natural philosophy, should apply to the art as generally practized in order to see the truth of experience, and to avoid being misled by the vanity of opinion. Nothing is more fallacious than what husbandmen call their experience; for they attempt to generalize without being properly qualified for that scientific operation and they give as matter of fact, or as truth learned from their experience, that which is only their inaccurate, & often false conclusion drawn from the whole of a complicated train of causes and effects.[24]

Hutton's intentions to illustrate '...the great difference between a husbandman founding the practice of his art upon principle and his following blindly that practice which he has taught, without knowing the principle or general truths on which it is founded'[25] in part ally him with contemporaries like Francis Home and Henry Home (Lord Kames). In turn, they distance him from the work of people like Andrew Wight, Adam Dickson, and James Donaldson whose focus was more in the recorded collection of best agricultural practice throughout Scotland. This is not to suggest that contemporary understanding of scientific agriculture in later eighteenth-century Scotland may be reduced to formal 'traditions' or 'paradigms' — the philosophical or theoretical school and the school of practical observation. Such labels impose distinctions on this intellectual context and institutionalized alliance that neither Hutton nor his fellow writers would have understood. But it is to highlight here the scientific (philosophical) emphasis to Hutton's 'Elements', and to suggest that this stemmed from Hutton's own theoretical leanings and belief in the virtues of reasoned speculation upon general principles rather more than it did from the ideas of his contemporaries. In this sense, we may consider Hutton's emphasis to be both influenced by his geological *theory* and to be different from the claims of others.

In 1757, Francis Home had argued that the by then '...slow progress of husbandry may be accounted for from more obvious reasons':

> This art is, in general, carried on by those whose minds have never been improved by science, taught to make observations or draw conclusions, in order to attain the truth...
> ...It [husbandry] had yet a greater [obstacle] to struggle with. It does not, like most arts, lead to an account of itself; or depend on principles which its practice can teach.[26]

For Home, established principles lay in understanding agriculture's 'dependence on chymistry' and upon reducing the art of agriculture to 'a system' through knowledge gained via experimentation. Home's work is essentially a record of experiments on soil types; for him 'Agriculture does not take its rise originally from reason, but from fact and experience. It is a branch of natural philosophy, and can only be improved from the knowledge of facts, as they happen in nature'.[27] Such an inductive and empiricist stance as underlying methodology was in distinction to Hutton but it was a view echoed by Henry Home (Lord Kames) in his 1776 *The Gentleman Farmer*, whose subtitle (*being an attempt to improve Agriculture, by subjecting it to the Test of Rational Principles*) belies the attention given to those rational principles as, essentially, the result of practical observation and experience. Modern scholars have claimed of Kames that he 'contributed more than any other man to the development of a scientifically-based agriculture'.[28] This is true if we consider his understanding of rational principles to be based heavily on inductive empiricism: 'Fortunately,

[24] 'Elements', ff 4–5.
[25] 'Elements', f 18.
[26] F Home, *The Principles of Agriculture and Vegetation*, Edinburgh, 1757, pp 3–5.
[27] F Home, *op cit*, pp 174–75.
[28] W C Lehmann, *Henry Home, Lord Kames, and the Scottish Enlightenment*, The Hague, 1971, p xvii.

agriculture depends not much on theory. If it did, baneful it would be to the human race: skilful practitioners would be rare; and agriculture, upon which we depend for food, would, by frequent disappointments, be prosecuted with little ardour'. Later in the same work, Kames writes 'But admitting experience to be our only sure guide, theory ought not to be rejected, even by a practical farmer'.[29] Kames, Home, and Hutton all share a concern to benefit Scotland's rural economy through combining (in Kames' words) 'philosophy with rural practice'. For the first two, the means lay in understanding through practical experience the varieties of that practice: for Hutton rationality as method lay in deductive natural philosophy, in *a priori* theoretical formulation. In this, he was different, too, from the work of John Walker whose means to promoting agriculture as useful science were more directly pragmatic: via university and public lectures, in correspondence with Scotland's farmers, and via tours of the Highlands and Islands with a view to planning their improvement.[30] William Cullen's attention to agriculture as both an enlightening part of university medical education and as bound up with '...the elements of chemistry applicable to arts in general' was, like Walker's, promoted via lecture courses.[31] Hutton never taught others his views on agriculture, though like Cullen and unlike Walker, he learned much from his own farming interests. The point of significance here is to see these intentions as degrees of emphasis within a shared discourse of agriculture as both natural philosophy and useful social practice, not as differences in fundamental purpose.

[29] H Home, *op cit*, pp 290–91.

[30] C W J Withers, 'Improvement and enlightenment: agriculture and natural history in the work of the Rev. Dr. John Walker (1731–1803)' in P Jones, ed, *Philosophy and Science in the Scottish Enlightenment*, Edinburgh, 1989, pp 102–16.

[31] Withers, *op cit*, (1985); see also A Doig, ed, *William Cullen and the Eighteenth-Century Medical World*, Edinburgh, 1993.

III

Over 150 folio pages of Hutton's 'Elements' are directly taken up with discussions on soils, and attention is also given to this topic elsewhere—in sections on crop rotation, the chemical bases to fertility and vegetable reproduction. Discussion of soil types and their capacity in natural states or after forms of artificial fertilization to improve agricultural productivity is a central concern of eighteenth-century agricultural scientists, particularly men like Cullen with his chemical lectures, Francis Home's 'chymical principles' and experimentation, or others like Fothergill, Cochrane, and Fordyce.[32] Donovan has shown how a concern with philosophical chemistry was an essential component of the rationalizing impulses in the Scottish earth sciences.[33] The chemical and philosophical principles of heat were of central importance, for example, to Hutton's close friend Joseph Black, as well as to William Cullen. All three men were members of the Poker Club and Oyster Club amongst other socio-scientific groups of the time.[34] Cullen's focus was on chemistry as part of the materia medica taught to medical students, but it is also true that his agricultural lectures examined agricultural chemistry in detail; the chemical bases to plant nutrition, the chemical means of improving soil quality, and the question of what Cullen termed the 'chief object of Husbandry', obtaining the proper temperature in soils for optimum plant growth.[35] Black's studies of

[32] A Fothergill, 'On the application of chemistry to agriculture', *Letters and Papers of the Bath Society*, 3rd edn, v, 3, 1791, pp 54–62; A Cochrane, *A Treatise shewing the intimate Connection that subsists between Agriculture and Chemistry*, London, 1795; G Fordyce, *Elements of Agriculture and Vegetation*, Edinburgh, 1765. On the connections between agricultural theory and scientific culture more generally, see Wilmot, *op cit*, pp 31–38.

[33] A L Donovan, *Philosophical Chemistry in the Scottish Enlightenment*, Edinburgh, 1975; Blaxter, *op cit*, pp 2–7; G E Fussell, 'Science and practice in eighteenth-century British agriculture', *Ag Hist*, XLIII, 1969, pp 7–18; Wilmot, *op cit*, pp 31–38; A Clow and N L Clow, *The Chemical Revolution*, 1952, pp 456–514.

[34] R G W Anderson, 'Joseph Black' in D Daiches, P Jones, and J Jones, eds, *A Hotbed of Genius: the Scottish Enlightenment 1730–1790*, Edinburgh, 1986, p 93.

[35] Glasgow University Library, MS Box 7.3.2, Cullen lecture 2, f 3.

heat during his position as lecturer in chemistry and then as professor of medicine at the University of Glasgow were also part of his agricultural and utilitarian views. Lord Kames considered of Black (who never formally produced an agricultural treatise or lecture programme on the topic) that '...the principles of agriculture will in your hands make one of the most interesting articles of a course of chymistry'.[36] Given this social and intellectual context, it is not surprising that Hutton's 'Elements' should contain work on chemistry, in both a practical sense on matters of different manures, for example, and in a more theoretical sense on those notions of 'chymical philosophy', latent heat and heat capacity that so concerned men like Black and Cullen and Francis Home.[37] But the attention he paid to soil is only in part understandable as a reflection of wider contemporary concern amongst agricultural writers.

For Hutton, as a deist and someone concerned with final causes, soil was part both of destructive *and* the regenerative processes informing his theoretical reasoning on earth processes. In the principles of his agricultural thinking and through his observations as a practising farmer, Hutton understood that a soil must be both fertile enough and constantly so to maintain the Earth's final cause as an abode for life. In this georgical view, soil was the means to agricultural production through its fertility. This was widely recognized, although the attention given to soil by Scottish agricultural theorists varied from the classificatory as in Donaldson and Dickson, for example, to its chemical bases as for Home and Cullen, or in what geographically different soil types permitted by way of local agricultural practice as in Wight's survey. For Hutton the soil had profound geological importance as well as georgical significance. The soil was the conceptual clue to that dynamic model of cyclicity and repair which underlay his *Theory of the Earth*. His 'Elements' bring this conceptual rôle into the rôle of means for the rational practices of everyday farming experience, including his own.

Bailey has considered that Hutton in his geological work '...wrote of the Earth as of a well-managed agricultural estate with a rotation designed to maintain continuing fertility'.[38] In his *Theory of the Earth*, Hutton wrote how 'For this great purpose of the world, the solid structure of this earth must be sacrificed; for, the fertility of our soil depends upon the loose and incoherent state of its materials'.[39] Over time, however, such sacrifice would lead, without the restorative notion of uplift and repair, to the destruction of life, of which agriculture was part: 'The washing away of the matter of this earth into the sea would put a period to the existence of that system which forms the admirable constitution of this living world'.[40] In his 'Elements' likewise, Hutton considered 'the constitution of this world has been designed infinitely superior to that of man' and argued, too, that attention to the soil lay at the heart of maintaining (the Earth's) fertility:

> He [humankind] chases what shall grow upon the surface of the earth, appropriated for his use; and not content with what the ground is able to produce, this intelligent ruler in the world improves the quantity and quality of his soil in order to increase the natural fertility of the earth; nothing is so much under his disposal as the soil which is to feed the vegetable and animal creation. But this he cannot do without science; and his science he aquires [*sic*] in studying nature...
> ...Here then in the constitution of this earth, we shall see a final cause for that various and universal production of soil by means of which there is a bounteous provision made for such a diversity of organised living bodies.[41]

[36] Edinburgh University Library, MS Gen. 873/1/83–84.
[37] For Hutton on botanical and chemical philosophy and the vegetating heat of soils, see 'Elements', ff 157–91, 346–50.
[38] E B Bailey, *James Hutton — the Founder of Modern Geology*, 1967, pp 6–7.
[39] Hutton, *Theory*, II, 1795, p 89.
[40] Hutton, *Theory*, I, 1795, p 510.
[41] 'Elements', ff 51, 52–3.

For Hutton as agricultural and geological theorist, the soil had a central importance as part of the cyclical restoration of the Earth, in terms of the growing season and over 'deep time'. For Hutton, the eighteenth-century improvement philosopher, the notion of proper constitution also extended to ideas of political economy: 'Let us never lose sight of this great principle, that the produce of the earth is the means of population, and the bond of union to a people. Let us not forget that while the husbandry of a country is promoting the prosperity of the state, there is a reciprocal duty which the state owes to the husbandry of the country'.[42] For Hutton, '...the art of Agriculture promotes the social state of human society, and sows the seeds of order, empire, government'.[43] Early in his 'Elements' he argued how, through the scientific improvement of agriculture '...the natural and social state of a country, becomes rich and the political state becomes strong. How much then is it the interest of the governing power to encourage that art by which it is to be so well supported!'.[44] Similar sentiments are echoed by his close friend Adam Smith who considered in his *Wealth of Nations* (1776) how '...the complete improvement and cultivation of the country...was the greatest of all public advantages'.[45] In this context, Hutton's 'Elements' were a reflection of that more widespread concern with agricultural advance as an essential element both of a nation's economy — 'the first of all political objects' as Sir John Sinclair termed it[46] — and of individual's betterment. Kames saw in agricultural improvement a moral economy: 'agriculture is of all occupations the most consonant to our nature; and the most productive of contentment, the sweetest sort of happiness'.[47] Yet for Kames, Francis Home, James Donaldson, Adam Dickson and others as for Hutton, the political economy of improvement was usually seen as the end in view, for agricultural philosophers and practising husbandmen both. Similarly, the metaphors of cyclicity and natural fertility, and the dependence of geological *and* georgical theorization upon them were not lost upon contemporaries like Smith, whose own focus was more upon human activity and natural productivity in order to gain useful reward: 'The most important operations of agriculture seem intended not so much to increase...as to direct the fertility of nature towards the production of the plants most profitable to man'.[48]

IV

This paper set out to examine the unpublished agricultural manuscripts of one of the most influential of all earth scientists. Several points may be made in conclusion. The notions of decay and repair were central to James Hutton's *Theory of the Earth* and the Earth's final purpose as the abode of humans and a basis to agriculture. For Hutton, 'This is the view in which we are now to examine the globe; to see if there be, in the constitution of this world, a reproductive operation, by which a ruined constitution may be again repaired, and a duration or stability thus procured to the machine, considered as a world sustaining plants and animals'.[49] In his 'Elements of Agriculture' and in the attention paid to soils and to the deductive establishment of rational principles (theory), it is possible to see in the work of one man a particular expression of that general intellectual alliance between agriculture and the earth sciences that was

[42] 'Elements', ff 697–98.
[43] 'Elements', f 688.
[44] 'Elements', ff 22–23.
[45] A Smith, *The Wealth of Nations*, edited and with an introduction by A Skinner, Harmondsworth, 1986, p 334.
[46] J Sinclair, *An Account of the Systems of Husbandry adopted in the more improved districts of Scotland*, 2 vols, Edinburgh, 1813, I, p vii.
[47] H Home, *op cit*, p xvi.
[48] Smith, *op cit*, p 462.
[49] Hutton, *Theory*, 1788, I, (2), p 216. Quoted in Davies, *op cit*, p 171.

central to discourses upon agrarian improvement in eighteenth-century Scotland. As an agricultural philosopher, Hutton was one of many arguing for the need to adopt rational principles in agrarian management, and the contents of his 'Elements' reflect the subject matter dealt with by a wide range of contemporary agricultural writers. Quite how differently his peers considered improvement and utility to be understood in terms of agricultural knowledge has been reviewed above: Walker was practical, agriculture's didactical promoter; Cullen, like Francis Home, a theorist upon the chemical principles necessary for the better management of Scotland's husbandry. Others shared similar notions on Scotland's improvement and expressed them in texts, institutional membership, and practical management. This would suggest a strong continuity in the ideology of improvement and in the place of agriculture as useful science, but variation in the material forms taken in promoting and sustaining that belief.

Hutton's 'Elements of Agriculture' should be properly considered, however, as a profoundly theoretical survey rather than advance via practical observation, lecture course, or comparative survey. Like his contemporaries, Hutton viewed the utility of agricultural advance as its final purpose, the ultimate cause. The systematic relationships he explored between soil, climate, seed and labour in his 'Elements' were to understand better what he called agriculture's 'end in view' in serving the human race. In his geological thinking, the *a priori* characteristics underlying the cyclical model and theory he advanced were also concerned with the same final cause: the Earth as the abode of humans. Such connections demonstrate, however briefly, the complexity of those agencies underlying the development of a scientific agriculture in eighteenth-century Scotland.

Notes and Comments

FIRST GUIDE TO THE HISTORY OF TECHNOLOGY IN EUROPE

This essential companion to the study of the history of technology has been published by the Science Museum. It lists about 800 individual researchers, 600 institutions, and 130 journals within a relatively new discipline. Researchers are grouped by academic interest: the guide provides the means to survey the field as well as look up names, addresses, telephone, fax and E-mail numbers. Relevant libraries, museums and universities across Europe are included as well as key journals. Individual entries can be located using the indices. Copies are available price £8.00 from Dillons at the Science Museum, Exhibition Road, South Kensington, London SW7 2DD, Tel 071 938 8355. Sterling cheques should be made payable to Dillons Bookstores. Dillons accept Mastercard, Visa and American Express cards.

XIXth INTERNATIONAL CONGRESS OF THE HISTORY OF SCIENCE

The International Union of History and Philosophy of Science, Division of History of Science will be holding its XIXth Congress on 22–29 August 1994 in Spain, at the University of Zaragoza. Further details of this meeting can be obtained from the Congress Office, Facultad de Ciencias (Matemáticas), Ciudad Universitaria, 50009 Zaragoza (Spain), Tel. 34–76–35 7180, Fax 34–76–56 5852, Telex 58198 EDUCI-E, E-Mail ICHSA@cc.UNIZAR.ES

1994 CONGRESS ON THE HISTORY OF VETERINARY MEDICINE

The 1994 Congress on the History of Veterinary Medicine will be held in Copenhagen on 21–25 August. Further details can be obtained from Dr Peter Koolmees, Faculty of Veterinary Medicine, Utrecht University, P.O. Box 80.175, 3508 TD Utrecht, The Netherlands Fax 31–30 532365.

THE 1994 SPRING CONFERENCE

The 1994 Spring Conference will be held at Trevelyan Hall, University of Durham organized

(continued on page 62)

Peasants, Servants and Labourers: The Marginal Workforce in British Agriculture, *c* 1870–1914

By ALUN HOWKINS[1]

Abstract

This essay is essentially a 'polemic' concerned to look critically at who literally worked the land of Britain in the nineteenth century. Looking at England, Scotland, Ireland and Wales it argues that small family producers — that is peasants — make up a far larger part of the agricultural workforce than has previously been argued. This is true both of their work on their own holdings and of their work as migrants. Similarly it is argued that farm servants form a much more important part of the total British agricultural labour force than most work would suggest. Taken together throughout Britain these two groups are actually larger than the supposedly 'normal' landless farm labourer.

THIS essay is work-in-progress, or perhaps more accurately, work beginning. Its purpose is to provoke thought and argument rather than to provide a carefully worked out and completed narrative or analysis. It begins from an unease on my part, after some twenty or more years working on the history of the rural poor, with the all too easily used descriptions of the 'farm labourer', especially the description of him or her as a 'rural proletarian'. This essay's premise is simple — that for most of the nineteenth century there were groups of workers in agriculture who stood outside the conventional tri-partite model which divides rural society into landlords (who owned the land), tenant farmers (who 'managed' the land) and landless labourers (who worked the land). Taking my title, these groups of workers were marginal in the sense that they were at the edges of the three 'classes' of rural society, almost entirely on the line between farmer and labourer. However, they were not marginal in the sense of being unimportant; rather they were a central part of the farm workforce. As Shanin says of them in a different context, 'analytical marginality does not imply numerical insignificance or particular instability'.[2] This was centrally the case if we recognize the regional diversity of English agriculture and even clearer if we think for once of 'British' agriculture and that Britain, for the whole of the nineteenth century, 'included' Wales Scotland and Ireland, as well as various smaller off shore islands.

In a direct sense much of what follows grows out of a colloquium held in Barcelona in 1991: 'Crisis agrària i canvi social a Europa: 1880–1913'. During the papers given there I was struck by work on the response to what we in Britain call the 'Great Depression', especially work on the Spanish experience, which centred around arguments about the peasant labour contract and its modification under economic pressures. These questions have never

[1] I would like to thank Keith Snell and Jeanette Neeson for comments on an earlier version of this paper and for comments at the British Agricultural History Society meeting in December 1991, where it first saw daylight, at the Conference in Rome organized by the Istituto Alcide Cervi in October 1992, and at the Economic History Seminar in Helsinki in September 1993. Prior to publication it was read by an anonymous reader and by Stephen Caunce. My thanks to both of them for sharp and useful comments. Finally, I would like to thank Mick Reed. A pioneer in this field and one of my graduate students he was lost to this work because of education cuts. Although he does not know it he stands behind it all. In the end though, as always, mine is the final responsibility.

[2] Teodor Shanin, ed, *Peasants and Peasant Societies. Selected Readings*, Harmondsworth, 2nd ed, 1988, p 5.

really been addressed in a 'national' British context because such arrangements are not supposed to exist. However, by looking at these forms in detail I was struck by their similarity to many found in Britain. This opened new, and suggestive, ways at looking at what is seen in Britain as a straightforward wage relationship. I want to begin by looking briefly at the ways in which that wage relationship is presented historiographically concentrating on a 'straw man' called the 'nineteenth-century farm labourer'.

He (and it is almost inevitably he) began the nineteenth century as a regionally various creature. In some areas (probably the majority) he relied entirely on cash wages or cash wages supplemented by poor relief. In a few places access to common waste added to these wages. A minority were servants, paid in part in kind, that is in board and lodging, but they were already a residual category restricted to backward areas. There may have been 'peasants', but it is very unlikely, and anyway they weren't really peasants at all compared to the Poles or the French. In the next fifty years these regional patterns gradually vanish, becoming more and more residual so that by the late nineteenth century the British farm worker is male, employed by the week, and for cash wages — what some have called an 'agricultural proletarian'. However, he was an ever docile proletarian (usually) happy in his lot, having more in common with his boss than his fellow workers.[3] In this version, the exceptions are either unimportant or increasingly a feature only of 'upland areas' or 'the Celtic fringe'.

I realize this is a parody. There has been a growing sense and awareness since the 1980s of the regional diversity of employment patterns, and of the complexities in terms of social relations that these create. I have relied on several of these studies in what follows. There has also been a loosely radical tradition which saw the labourer as 'oppressed' but far from docile. In this version his sullen, apparent acquiescence in fact hides a radical underground of social crime and even class politics. I think I am part of that tradition in some ways! Yet getting beyond this straw man in any national sense, at least, seems to be difficult. A major reason for this is in the historiography. Despite a lot of excellent 'local' studies the methods and ideas of economic history still dominate much writing about rural England in the last century. This is certainly not always a bad thing, but it does tend to stress the formal production and functional nature of the farm worker — crudely he is a factor of production, along with capital and land, who functions within a set of paradigms defined by ideas like 'yield', 'productivity', 'labour costs' and 'labour markets'. Even Armstrong's study of the farm worker ultimately sees rural social change and the position of the farm worker 'anchored...in agrarian conditions, the impact of industrialisation and associated demographic change'.[4] If we take this view the actual productive relations of agriculture are only interesting in as far as they relate to these broader economic questions—'is the introduction of machinery really labour cost effective?'; 'what is the role of the worker in increasing grain yields?' and so on. In this it does not necessarily matter if we are talking about a man, a woman, a child, a servant, a peasant or a casual worker.

This is reinforced by economic history's concern with 'growth' and the 'inevitablist' links made between increased grain production and industrialization, which in turn leads to certain sectors being seen as 'typi-

[3] The literature is very large on this subject but two important and different studies which take this kind of view are Howard Newby, *The Deferential Worker*, Harmondsworth, 1979 and Alan Armstrong, *Farmworkers: A Social and Economic History, 1770–1950*, 1989. Both it should be said present a more complex picture than this in total.

[4] Armstrong, *op cit*, pp 251–52

cal' of an 'English model'. Central here, as Robert Allen points out, is the rare unanimity between left and right on an important historical question. Both Marxist and Tory interpretations of agricultural change in the late eighteenth and nineteenth centuries are agreed on the necessity, inevitability and desirability of the English road to 'agricultural modernization'. This involved, as it effects my argument here, the creation of a largely landless labour force initially in the agrarian sector but which (in some versions of the argument at least) then moves into the industrial sector.[5] Further, as historians like Mutch and Reed have argued, this leads to a disproportionate amount of work being done on the great wheat growing areas of the south and east which are seen as best exemplifying these trends.[6]

Also the Anglo-centrism of much rural history has lead to other, or different, productive systems being written out as 'Celtic', or residual, and hence 'untypical' of British growth as a whole. It is therefore possible, as Ian Carter pointed out some years ago, to discuss the progress of 'British' agriculture without mention of Scotland, Ireland or even Wales on many occasions.[7] This is despite the fact that all the great government reports of the late nineteenth century, which looked at agriculture, included material on these areas. Finally, there is still an all but universal discussion of the workforce as male. This automatically reinforces the 'ideal' type, since women workers were, for a whole variety of reasons, increasingly excluded from accounts of the full-time workforce from the 1870s onwards.[8]

To look at the question of the farm workforce I want now to return to my title. I have three, albeit crude, categories: 'peasants, servants, and labourers'. I will look at these in turn, in the perspective of 'four nations', and suggest how they fit into an argument which offers a general modification of our notion as to who actually worked the land of these islands in the nineteenth century. At the most basic level I want to question the notion that the main form of farm labour in nineteenth-century Britain was 'agricultural proletarian'. I must stress again that this work is exploratory rather than in any sense definitive and is offered in that spirit.

I

Let us start with the most problematic category — the peasant. The very notion of an English peasantry is a contested one, although this is clearly not the case of Wales, Scotland and Ireland. It has long been suggested by historians that the notion of a peasantry is inappropriate to England after the seventeenth century, while other writers, for instance Alan Macfarlane, have gone further still and argued that England has never had a peasantry in the sense that the group exists on mainland Europe.[9] However, the work of Reed, Donajgrodski, Hall and in a different way Mills suggests that not only does such a group exist but that it should be seen as a

[5] Robert C Allen, *Enclosure and the Yeoman. The Agricultural Development of the South Midlands 1450–1850*, Oxford, 1992, chapter 1 *passim*.

[6] Alistair Mutch, *Rural Life in Southwest Lancashire, 1840–1914*, Lancaster, 1988; Mick Reed, 'The peasantry of nineteenth century England: a neglected class?', *History Workshop Journal*, 18, 1984 pp 53–77.

[7] Ian Carter 'Agricultural workers in the class structure: a critical note', *Sociological Review*, XXII, 1974, pp 271–9 and *idem*, *Farm Life in Northeast Scotland, 1840–1914. A Poor Man's Country*, Edinburgh, 1979.

[8] See Karen Sayer,' "Girls into Demons": nineteenth century representations of English working class women employed in agriculture', unpublished PhD thesis, University of Sussex, 1992; Judy Gielguid 'Nineteenth century farm women in Northumberland and Cumberland—the neglected work force', unpublished PhD thesis, University of Sussex, 1992; Edward Higgs, 'Women occupations and work in the nineteenth century censuses', *History Workshop Journal*, 23, 1987, pp 59–80.

[9] Alan MacFarlane, *The Origins of English Individualism*, Oxford, 1978. See also J V Beckett, 'The peasant in England: a case of terminological confusion?', *Ag Hist Rev*, 32, 1984, pp 113–23. For a recent and excellent discussion of these arguments which presents a very different view and, I think, fits with mine see J M Neeson, *Commoners: Common Right, Enclosure and Social Change in England 1700–1820*, Cambridge, 1993, chapter 10.

separate economic and social formation.[10] This group is located by Reed as those with holdings of less than 100 acres who on the one hand 'do not hire labour, or who do not appropriate surplus value from hired labour', but on the other 'did not rely on selling their labour power, or at least not entirely nor predominantly'. There are problems here straight away. His figure of 100 acres as the defining basis of a unit held by a 'small family producer' seems far too high. In many areas, especially of England, 100 acres could be a substantial holding employing several workers. On the good wheat lands of Norfolk, in the early years of this century for instance, a holding of 102 acres employed three regular workers as well as the farmer, his brother, and two or three casual workers at harvest and hoeing times.[11] There were also functional variations depending on, for example, what part of family income was derived solely from the holding, or what stage of the life cycle the family was at.[12] Given these problems 50 acres, although large for Ireland and parts of Wales and Scotland, seems to be a more realistic size of 'peasant' holding for our four nations as a whole. This view was shared by many writers from Arthur Young onwards into the nineteenth century who argued that a holding of that size could support a man and family using family labour. It is also broadly in line with the work of Jeanette Neeson writing on the late eighteenth and early nineteenth centuries.[13] Robert Allen writing, like Neeson, on the pre-enclosure economy argues for a slightly larger 'upper limit':

> While precision is impossible, it can be stated that the labour of women and children allowed larger acreages to be tilled. The upper limit of a farm worked mainly with family labour was probably closer to 60 acres than to 50, while the size at which hired labour surpassed family labour was probably near 75 acres.... [However] allowing for fallow, pasture, and meadow on the English pattern implies that a family farm was about 50 acres.[14]

Moving to the early 1900s a similar definition was used by the Smallholdings Act of 1908 where a 'smallholding' was described as an agricultural holding which exceeds 1 acre, and either does not exceed 50 acres, or if exceeding 50 acres, is at the date of sale or letting of an annual value for the purpose of income tax not exceeding £50.[15] It must be stressed however, that this is a guide not a straight jacket — as Shanin puts it we must always remember 'the trivial but often forgotten truth that a sociological generalisation does not imply a claim of homogeneity or an attempt at uniformity'.[16] Even in contiguous areas, for instance the North York Moors and the Vale of York, holdings of similar sizes produced quite different socio-economic structures.[17]

Secondly, and here I follow Reed, I am not concerned with ownership of land as a defining category. This again seems to be a specifically 'English' problem arising from arguments about the precise nature of the accumulation of capital in late medieval and early modern England. In contrast in many 'classic' peasant societies, notably Ireland, but also parts of France and Spain, outright ownership of land was (and is) rare. However, it is easy to push this further. Work on contemporary peasant societies often specifically excludes the precise nature of land ownership or tenure from the *general* definitions of a peasantry. Rather it is, in 'the view of a majority of

[10] Reed, 'The peasantry'; A J Donajgrodski, 'Twentieth century rural England: a case for "Peasant Studies"', *Journal of Peasant Studies*, 16, 1989, pp 425-42; Adrian Hall, 'Fenland worker-peasants. The economy of smallholders at Rippingale, Lincolnshire, 1797–1871', *Ag Hist Rev Supplement Series*, 1, 1992; D R Mills, *Lord and Peasant in Nineteenth Century Britain*, 1980.

[11] Interview: Alun Howkins/Mr Harold Hicks, Trunch, Norfolk, Oct 1974. Tape in author's possession.

[12] I am grateful to Jeanette Neeson for her emphasis on this point. See also Hall, *art cit*, p 56.

[13] Neeson, *op cit*, p 306.

[14] Allen, *op cit*.

[15] The Right Honourable the Earl Carrington, 'Small holdings' in Prof R Patrick Wright, ed, *The Standard Cyclopedia of Modern Agriculture and Rural Economy*, XII vols, 1911, XI, p 24.

[16] Shanin, *op cit*, p 2.

[17] I am grateful to Stephen Caunce for this point and example.

contemporary analysts who accept peasantry as a valid concept,...the family farm which is the most significant characteristic of the peasantry'.[18]

Taking the family farm as briefly described above peasants, in Shanin's sense, are clearly not a group restricted to Scotland, Ireland and Wales but existed in all British counties during the nineteenth century, but the question remains how many and where? We obviously have huge difficulties with national figures, especially before the agricultural returns begin. There are also problems of precise comparability over time, but it still seems likely that we can get some indications from what figures we have even if they are less accurate than we would like. Initially, the 1880 agricultural returns can serve as an indication of the extent of these holdings.[19] In that year 71 per cent of agricultural holdings in England were under 50 acres, which was actually higher than the 'peasant' societies of Wales and Scotland, both of which had 69 per cent of holdings in this category, and remarkably near Ireland, which had 77 per cent of farms under 50 acres. What is equally striking is that there is little real regional variation with small farms 'persisting' even in the most 'advanced' areas of England. In 1880, 66 per cent of all East Anglian holdings (Norfolk, Suffolk, Essex and Cambridgeshire) were under 50 acres, while within that figure Norfolk, the apogee of high farming, had 73 per cent of its holdings under 50 acres. Clearly many of these were not peasant farms in any sense at all. As we noted above 50 acres of good land in north-east Norfolk was a substantial unit. Additionally, some were not strictly agricultural at all but 'small-residential properties which have a few acres attached'. However, equally clearly many of them were small agricultural units worked solely by family labour, and in 1907 the Board of Agriculture estimated that 94 per cent of such holdings were 'farmed for business'.[20] The total land area of England held in this way was small, about 14 per cent, as it was in Scotland although it was larger in Wales, 23 per cent, and especially in Ireland, but that is not my concern here since it is as workers in agriculture that these peasant farmers interest me.[21]

Returning to sub-regional mapping, in Wales, unlike England, a clearer geographical division is apparent. Here the small farms were most obvious in the north, with 81 per cent of farms in Caernarvonshire under 50 acres. However, as in England, even the southern and border counties still had well over 50 per cent of farms in this group. A similar pattern emerges in Scotland with the counties north of the Great Glen and the Islands having substantial numbers of farms under 50 acres, and in some cases (Ross and Cromaty, Sutherland and Shetland) having over 90 per cent. Conversely Scotland, unlike England, Wales or Ireland, has a number of counties where significantly more than half of the farms were above 50 acres. Again in Ireland, a regional pattern emerges which to some extent fits in with expectations although the divisions are not as clear as in Scotland. Connacht was, not surprisingly, the area with the largest number of small farms, with 84 per cent, while Munster was the lowest with 78 per cent of farms under 50 acres.[22]

In what ways can we talk of these farming units being 'peasant farms'? Firstly, few of these small farms, even in Ireland,

[18] Shanin, *op cit*, p 5.

[19] *Agricultural Returns of Great Britain 1880*, 1880, Cd 2727.

[20] Carrington, *art cit*, p 24.

[21] There is a real problem in producing figures here since how this group would be described in the census rather than in the agricultural returns means that it would be virtually impossible, outside close local studies, to work out who they were. One of the many sensible pieces I am putting on one side here is David Grigg, 'Farm size in England and Wales, from early Victorian times to the present', *Ag Hist Rev*, 35, 1987, pp 179–89. Grigg raises many of these problems but, for his own purposes, which are not mine, he ignores holdings of less than 5 acres.

[22] *Agricultural Statistics of Ireland for the Year 1879*, 1880, Cd 2534.

produced solely for subsistence, although many contained a high proportion of production for subsistence or barter either with other family producers or with more market oriented groups. At one extreme horticulture and specialized dairy production was capital intensive and frequently highly 'capitalist' in its profit orientation. At the other extreme even the most 'peasant' of producers saw a proportion of their product sold on the market. All but a few household producers, therefore, existed within capitalist market relations to a greater or lesser extent depending on precise local conditions. E J T Collins' study of the woodland village of Tadely in Hampshire shows what he calls a dual economy of small farming and wage labour in the woodland trades, and a similar situation existed in other woodland areas of southern and central England, for example, the Forest of Wychwood in Oxfordshire and the High Weald of Kent and Surrey.[23] This dual economy was also, as Hall argues, a central part of the economy of 'peasant' Lincolnshire with many families following both labouring and artisan trades as well as holding land.[24] But it must be stressed that these kinds of practices are widespread in many peasant societies. The 'classic' nineteenth-century peasantry of much of southern Europe was deeply implicated in market production.

However, as Reed argues of England, this does not *necessarily* mean that they were always overwhelmingly entrepreneurial in their attitudes. A key element here was 'family'. 'Unlike capitalist producers who sought to maximise the return on capital invested, household producers were preoccupied with the interest of family rather than the individual. They concerned themselves more with family needs and neighbourhood obligations than with profits from trade'.[25] A precisely similar point is made by Hall in relation to Lincolnshire: 'The peasant's concern is not accumulation of capital, or business expansion, but preservation of the household economy'.[26] This was clearly even more the case of the Gaelic Highlands where historians have argued that attachment to the land and its 'ways' overrode all considerations of the market. As T C Smout has written, 'they had their own ideology, which was that possession of land — the tenure (not the ownership) of a croft — was the highest good a man could desire'.[27] It was an identical attitude which puzzled Joseph Cowen MP when he gave evidence to the Richmond Commission about Galway. Here he met a peasant farmer who worked part of the year in an English factory for '25*s* or 30*s* per week'. What reason said the confused Englishman was there that he should leave this regular work and a good house 'to go upon a small piece of property only some ten acres in extent and earn an additional income by labouring occasionally for the squire at 1*s* 2*d* per day?'[28] The point is again generalized by Shanin:

> Peasants are involved in daily exchange of goods and in labour markets. Their economic action is, however, closely interwoven with family relations. Family division of labour and the consumption needs of the family give rise to particular strategies of survival and use of resources. The family farm operates as the major unit of peasant property, production, consumption, welfare, social reproduction, identity, prestige, sociability and welfare.[29]

The relationships between family, neighbourhood and work group are another key aspect of peasant farming

[23] E J T Collins, 'Farming and forestry in central southern England in the nineteenth and early twentieth century', unpublished research paper. For Wychwood and Ashdown, see Alun Howkins, *The Reshaping of Rural England 1850–1925*, 1991.

[24] Hall, *art cit, passim*, but especially pp 46–56.

[25] Mick Reed, '"Gnawing it out"; a new look at economic relations in nineteenth-century rural England', *Rural History*, 1, 1990, p 84. This argument is developed in Mick Reed and Roger Wells, eds, *Class, Conflict and Protest in the English Countryside, 1700–1880*, 1990.

[26] Hall, *art cit*, p 19.

[27] T C Smout, *A Century of the Scottish People, 1830–1950*, Edinburgh, 1986, p 67.

[28] Quoted in Anne O'Dowd, *Spalpeens and Tattie Hokers*, Dublin, 1991, p 252.

[29] Shanin, *op cit*, pp 3–4.

which is present throughout Britain.[30] For example, the non-market relationships between equals, which made up a good deal of work and payment on peasant farms, were enshrined both in 'informal' agreements of the kind Reed calls 'gnawing it out' and in more formal obligations. Many household producers, for example, exchanged the produce of their small farms with one another creating bonds of mutuality. A memoir of farming life in Leicestershire in the 1920s shows how a farmer's wife used eggs to 'settle minor debts with local people'; while other demands on the cash income, for flour from the bakers or even the doctor's bills, were paid for by barter with fodder for their horses. As the author concludes, 'by such "scheming and skimping" we weathered the hard times'.[31] Exchanges of this kind could become formal especially where work was exchanged or shared. Reed's work on the accounts of the small Sussex farmer and tradesman, Philip Rapson, show his 'books' to be full of detailed and complex listings and 'reckonings' of rent, labour debt and credit extended to social equals and inferiors.[32] Similarly, records of a 139-acre farm in Devon show how smaller farmers from the neighbourhood incurred debts of seed, cheese and cider, and 'borrowed' workers and machinery from the larger farm at threshing and harvest. Those of a much larger farm in East Sussex show similar reckoning up to the 1880s. In both these cases in return the smaller farmers worked for the larger farmer at busy times of the year. All these charges are carefully recorded in the farm accounts.[33] George Bourne saw in this the remnants of what he called the 'peasant system' in Surrey as late as the 1900s:

> These old people, fortunate in the possession of their own cottages and a little land, were keepers of pigs and donkeys, and even a few cows. They kept bees too; they made wine; they often paid in kind for any services that neighbours did for them; and with the food they could grow, and the firing they could obtain from the woods and the heath, their living was half provided for.[34]

In Wales and Ireland these relationships of work and labour debt were at the heart of a complex social system. In Wales the corn harvest was taken by *y feudal wenith* (the wheat reaping party), 'a working group of farmers who arranged beforehand not to cut their wheat on the same day so as to be able to help each other'.[35] On the last day of harvest this work group would be joined by the smaller farmers, cottagers and independent labourers, 'who gave so many days help in the harvest in return for the loan of a horse and cart, for a row or two of potatoes in a field, or for a supply of farmyard manure'.[36] Similar work groups were central in Arensberg's classic study of the west of Ireland, while mid-twentieth-century anthropological studies of the Scottish Islands have demonstrated the persistence of these forms into the 1960s.[37]

These kinds of arrangement constantly open up what I called at the beginning of this essay 'European questions': the labour contract between the peasant farmer and the landlord, share cropping, payment in kind, and labour debt, which are not supposed to exist in Britain and which form a key part of a peasant society. But there are closer comparisons still. In Ayrshire in Scotland, the old share-cropping system of steelbrow persisted into the 1850s if not

[30] See for interesting use of this material Anthony P Cohen, *Whalsay. Symbol, Segment and Boundary in a Shetland Island Community*, Manchester, 1987, chapter 3 *passim*.

[31] Henry St George Cramp, *A Yeoman Farmer's Son*, 1985, pp 15, 172–3.

[32] Mick Reed, 'Social and economic relations in a Wealden community: Lodsworth, 1780–1860', unpublished MA thesis, University of Sussex, 1985, pp 58 ff.

[33] Devon Record Office, Exeter, Records of Whitwell Farm; East Sussex Record Office, Records of an unknown (400 acre) farm near Bexhill.

[34] George Bourne, *Change in the Village*, (1912), Harmondsworth, 1984, p 76.

[35] Trefor M Owen, *Welsh Folk Customs*, Cardiff, 1959, p 114.

[36] *Ibid*, p 115.

[37] C Arensberg, *The Irish Countryman*, 1937, p 62 ff; Cohen, *op cit.*

later.[38] Cow keeping, at its most basic a form of share cropping, was a highly regularized system by the 1890s with contracts signed and sealed, and remained an important part of Devon agriculture until the Great War.[39] More clearly in Wales and Ireland the laying out of potato ground was a form of share cropping widely practised again until the inter-war period in some areas.[40]

Working their 'own' farms, or those of their neighbours and work-group members, was one key sense in which peasant agriculturists were part of the workforce — part of those who 'worked the land of Britain' and who are the object of this search. Another way in which they took this role was as wage labourers. For example, the High Weald of Sussex and Kent supported a large number of small farms until the 1880s and 1890*s*. However, it is clear that their survival depended in part, at least, on the ability of those who worked them to go as migrant labourers to the larger farms nearer the coast, and earn cash at harvest to pay the rent and buy seeds, tools and clothing. In Scotland, Sir John McNiell reporting on the failure of the potato crop in the Highlands in 1846 gave an account of a Skye crofter who for twenty successive years had spent six months of the year on one of the great 'horse farms' of the East Lothians. With this he paid his rent on Skye. 'When short of meal or seed corn in the spring' he was given credit by his Lothian employer to buy it.[41] Similarly, the cottar class of west Wales frequently worked in the Glamorgan coalfields, and the small farmers of Allendale worked in the lead mines at Allenheads or in the coal-mines of Consett.[42] These examples barely scrape the surface. To preserve the farm by short-term injections of cash, peasant workers from England, Scotland and Wales went to sea fishing, to build Bayswater Road and Notting Hill in London, to construct the new railways and to work in the docks. The small farmers and commoners of Ashdown Forest interviewed in 1878 show many of these short-term migrations as well as the more normal movements within agriculture: James Wheatley, 'worked on the Brighton Railway about 2 years. Then returned home'; William Young, lived in the forest all his life, 'except about 7 years from about 17 to 24 when I was in Woolwich Arsenal coming home every few months'; while Michael Maynard 'went brick making in the summer and Hoop shaving in the winter for 4 years. During this time I was backward and forward'.[43]

This kind of movement is, of course, most striking in relation to Ireland, where the almost total dependency of the small peasant farmers of the west on migration to England was well known. The reports of the Congested Districts Board in the 1890s and 1900s show that as much as 70 per cent of family income in the worst areas came from migratory labour, while even in the best it still made up 10–15 per cent.[44] In the late 1880s Patrick Gallagher (Paddy the Cope) made the journey year after year from Donegal to Scotland 'after the turf was cut, first to support his family's farm then to build up his own'.[45] Again this remained important well into the twentieth century. The superb oral 'autobiography' of John McGuire of County Fermanagh gives an account of his travels into Scotland and England until the Second World War, in the same way and for the

[38] Smout, *op cit*, p 17.
[39] Devon Record Office has many such contracts. See also *Royal Commission on the Distressed State of the Agricultural Interest*, 1881, Cd 3096, pp 729 ff.
[40] David Jenkins, *The Agricultural Community in South West Wales at the Turn of the Twentieth Century*, Cardiff, 1971; Michael Beames, *Peasants and Power. The Whiteboy Movements and their Control in Pre-Famine Ireland*, Brighton, 1983, chapter 1.
[41] Quoted in Smout, *op cit*, p 66.
[42] Howkins, *op cit*, p 41.
[43] East Sussex Record Office, 'Raper Transcripts.'
[44] O'Dowd, *op cit*, pp 31 ff.
[45] Patrick Gallagher, *'Paddy the Cope'. My Story*, 1939, pp 55 ff.

same reasons as 'Paddy the Cope' fifty years earlier.[46]

These peasant farmers and peasant workers stood in a symbiotic relationship to agrarian capitalism.[47] They were separate from it in many of their work and cultural practices, and formally they neither exploited the labour power of others (outside the family) nor were in turn regularly exploited. Yet they were dependent on both the capitalist market and the capitalist employing structure for both money wages and a range of goods and services during part of their life cycle or during different times of the year. They existed both as 'farmers' and as workers, and as both worked the land and as both were clearly very different from the classic 'rural proletarian'. What though of numbers? In terms of farming units, the vast majority of them throughout the British Isles were worked by small family producers — peasants — who employed no labour at all. There are clearly huge problems with how many people this actually means, but given the number of holdings in all four countries we can give the broadest possible indication. Assuming one full-time worker per holding (which is clearly an underestimate) and reducing by about 15 per cent for dual occupation, we find that there were in 1880 about 254,400 peasant 'workers' in England, 46,400 in Wales, and 47,000 in Scotland. We have a figure for 'proprietors' in Ireland which we can work from and which gives 448,000. We thus have very approximately 795,800 peasants who worked the land plus their families. In total this accounted for a maximum of 20 per cent of cultivated land. However, these peasants also existed as part of a wage labour force providing labour for capitalist farms, so their contribution has to be increased far beyond this 20 per cent.

[46] Robin Morton, ed, *John MacGuire: Come Day, Go Day, God Send Sunday*, 1974.

[47] This point is well made by Hall in relation to Lincolnshire.

II

My second group of marginal workers are farm servants and these are, at one level, much less of a problem. It has been argued by Ann Kussmaul and others that farm service was in decline in England from the 1830s and had become insignificant by the 1870s:

> Service in husbandry did not evolve into a new form of labour. It collapsed. The increase in the size of farms and of the social position of farmers, the decline in the opportunities of the poor to be anything but wage labourers, and population increase all led to the near total substitution of the coeval institution, day-labouring.[48]

If we look a little more carefully things are less clear. First, if we accept Kussmaul's dichotomy between service and day labour it is quickly obvious that in a British context, rather than an English one, 'near total substitution' of the latter for the former is by no means dominant especially if we take female full-time workers into account.

In Scotland, outside the 'peasant areas', Devine notes that 'most permanent farm workers were farm *servants* (rather than labourers) who were hired over a period of one year, if married, and for six months if single'.[49] The situation in Wales and Ireland was similar. In Wales in 1871 52 per cent of all hired workers (male and female) were servants,[50] while in Ireland the figure was 60 per cent.[51] In England, it must be admitted, the figure was much lower. In 1871, the last year for which a distinction is made between servants and labourers, 16 per cent of the hired workforce were servants. Even here though the picture is more complex. Kussmaul's work, like a good deal of the work done as a result of the Cambridge Group for the

[48] Ann Kussmaul, *Servants in Husbandry in Early Modern England*, Cambridge, 1981, pp 133–4.

[49] T M Devine, 'Scottish farm service in the agricultural revolution' in T M Devine, ed, *Farm Servants and Labour in Lowland Scotland, 1770–1914*, Edinburgh, 1984, p 1.

[50] *Census of England and Wales, 1871, Population Abstracts*, III, 1872, Cd 872, p 584.

[51] *Census of Ireland, 1871*, IV, pt 1, 1874, Cd 1106, p 24.

Study of Population data, is biased towards particular areas, and particularly towards the south-east. Of their sample of 404, about 120 parishes come from north and west of the Humber-Exe line. Although this may represent 'real' population spread, it clearly skews the sample against certain cultural patterns of employment.[52]

If we take Devine's notion of farm service based on hiring we see just how central the notion was throughout these islands for all of the nineteenth century. Indeed the figures quoted above certainly underestimate all but the Scottish situation, since they refer to actual living in rather than simply hiring by the 'term'. However, it is important to distinguish the different forms involved. At the most general level, analysis of farm service, seen as hiring by the year or half-year, which is in some ways also the definition adopted by Wilson Fox in his reports of 1900 and 1905, shows that in all areas of Scotland, Ireland and Wales, where farm labour was hired, the majority of those hired were farm servants for most if not all the nineteenth century. In England, the counties of Cumberland, Westmoreland, north Lancashire, Northumberland, Durham, and Yorkshire were dominated by farm service even in 1905. It was also present in some form in all but thirteen English counties.[53]

Within the kind of broad definitions offered by Devine and Wilson Fox there were many varieties of farm service. Let us begin with 'classic' farm service in which one or two sons or daughters of social equals lived for a time with a different family and 'learnt a trade', hoping themselves eventually to take a farm. This is the form which most concerns Kussmaul and which is certainly in decline throughout the nineteenth century. However, it did survive in some areas especially in Lancashire, parts of Durham, Yorkshire, the Welsh borders, parts of Devon and Somerset, and on the High Weald of Kent and Sussex well after 1850 even if as a minority form.[54] Further, when work has been done on the manuscript returns of the census, as it has been by Reed for Wealden Sussex, the survival of farm service is often much higher than the printed census suggests.[55] Moving out of England the 'survival' of this group is much more significant. In the north-east of Scotland a substantial proportion of farm labour was provided in this way, and, as in classic farm service, many a farm lad went on to be a cottar with an ever hopeful eye on the big farm touns in the valley bottoms.[56] Similarly, in Wales 'many' small tenants 'climbed from the position of agricultural labourer' having served their time as servants.[57]

More significant, throughout the British Isles was the practice of hiring young, single men and, to a lesser extent, women into the farmhouse or another house or bothy on the farm but whose status was that of hired labour with little or no hope of ever becoming farmers themselves. The East Riding of Yorkshire, the subject of a recent excellent study by Stephen Caunce,[58] is the prime example here though other areas of the north and east showed a similar pattern, as in Lincolnshire (18 per cent of male workforce living in, and 49 per cent of female) and parts of Nottinghamshire (22 per cent of males living in, and 65 per cent of females). These were largely upland areas where there were few village settlements to provide a labour force, and so young men

[52] E A Wrigley and R S Schofield, *The Population History of England, 1541–1871: A Reconstruction*, Cambridge, 1989, appendix 1. I am grateful to Keith Snell for this point.

[53] See Alun Howkins, 'The English farm labourers in the nineteenth century: farm family and community' in Brian Short, ed, *The English Rural Community: Image and Analysis*, Cambridge, 1992, pp 85–104.

[54] B M Short, 'The decline of living-in servants in the transition to capitalist farming; a critique of the Sussex evidence', *Sussex Archaeological Collections*, 122, 1984, pp 147–64.

[55] Reed, 'Social and economic relations', pp 42 ff.

[56] Carter, *Farm Life*, introduction.

[57] D J Perry, *The Rural Revolt that Failed*, Cardiff, 1989, p 10.

[58] Stephen Caunce, *Amongst Farm Horses*, Gloucester, 1991.

were recruited by the year to live in on the farms, which were high on the Wolds and separated from other farms, villages and market towns. This kind of living in was also widely practised in Lowland Scotland, especially in the Lothians, Berwickshire, and in parts of Ireland.[59]

In Lowland Scotland, as in parts of England, this kind of hiring coexisted, as part of a life cycle movement, with another form of service, family hiring. This was at its most developed in the border counties of England and Scotland, although it was present elsewhere, for example, in parts of Kent and Dorset.[60] Family hiring involved the head of the household, usually a male 'hind' though sometimes a female 'cottar' (Northumberland), being hired for a year with his or her whole family to live and work on a particular farm. They were provided with a house on the farm-steadings, with wages part in kind and part in cash. An identical system worked in the Forth valley and in south-east Lowland Scotland until at least the Great War.[61]

All these groups varied in different degrees from the 'hired day labour', which is usually taken as the norm in British agriculture. Hiring was the main difference but there were many others. A crucial one was payment in kind. Payment in kind and 'perks' in general have been looked upon with a good deal of scepticism by historians who have worked on the arable areas of the south and east, and that scepticism is borne out by Wilson Fox's work on farm wages in 1900 and 1905.[62] However, in the case of farm servants these were central not only as part of payment but as ways of modifying the cash relationship. In 1855 George Morton hired to Middleton Farm in Northumberland for 'a cow grassed throughout Summer, and wintered upon Hay from the banks, House rent free, Coals led and £5 10 Cash'. He was allowed to keep a pig and given quantities of oats, barley, peas or beans, wheat and rye. He in return worked for one year and 'agreed to provide' two other workers, members of his family. Shepherds in this area were often paid entirely in kind, as was George Crowmarsh, shepherd on the same farm in 1853. In return for the work of himself and two family members he got a house, oats, barley, rye, peas and beans and 8 ewes at sale time, 8 two-year old sheep at sale time and 8 stone of wool.[63] Family hiring in Scotland produced a similar range of payments. In the Lothians

> The usual mode of payment for farm servants remained payment in kind. This was known as the 'boll wage'...It generally consisted of oats, barley, peas or beans, as well as keep of a cow, food at harvest time, and a plot of ground for growing potatoes or flax. The boll wage frequently included a cash component, but this was not large.[64]

By the end of the nineteenth century some of these payments were commuted to cash but in East Lothian a quarter of the wage was still in kind in the 1890s, and it was probably much the same in Northumberland and the borders.

More obviously there were those payments in kind made to both the farm servants on the big farms of the east and the classic farm servants of the west and much of Wales and Ireland. Here payment in kind was board and lodging. At its best three good meals a day and its worst, as in much of Ireland where porridge of Indian meal often formed the basis, with what could be taken from the land or the farm to supplement it — potatoes, cabbage and rabbits. A rhyme from County Derry put it nicely:

[59] Alistair Orr, 'Farm servants and farm labour in the Forth valley and south east Lowlands', and Michael Robson, 'The border farm worker' in Devine, *Farm Servants*, pp 29–54 and 71–96. On Ireland, O'Dowd, *op cit*, chapter 3.

[60] On Kent see Michael Winstanley, *Life in Kent at the Turn of the Twentieth Century*, Folkestone, 1978, chapter 1; on Dorset see *Royal Commission on the Employment of Children, Young Persons and Women in Agriculture. Second Report*, 1868–9, Cd 4202, p 19.

[61] Orr, 'Farm servants' pp 33–4.

[62] For example see his remarks, *Earnings of Agricultural Labourers. Report by Mr Wilson Fox on the Wages and Earnings of Agricultural Labourers*, 1900, p 18.

[63] See Howkins, *Reshaping*, pp 20ff.

[64] Orr, 'Farm servants', p 35.

For rabbits hot — for rabbits cold,
For rabbits young — for rabbits old,
For rabbits tender — for rabbits tough,
We thank the lord — we've had enough.[65]

Hiring by the year and payment in kind substantially modified the position of a large number of farm workers in nineteenth-century Britain, and again we come to 'numbers'. Taking the British Isles as whole, a very substantial part was cultivated for the great part of the nineteenth century by farm servants. Taking all four countries about 44 per cent of farm workers were hired into the farmhouse, but this clearly underestimates the number of farm servants since it would not include the family hired groups of Scotland and the north of England, let alone those who hired by the year in the north. As with peasants we can only make a 'guesestimate', but this suggests that added together in all four countries there were about 550,000 farm servants.

III

With all these modifications we are still left with a large group outside our categories, who look much more like the 'classic' proletarians of much writing on British agricultural history. However, as I have argued elsewhere, many of these received some semi-regular payments in kind, both formal and informal, which served to blunt the pure cash nexus of the wage relationship.[66] At its most extreme 'pure' wage did exist, hired and paid by the day. Here, no relationship existed between the labourer and his employer other than a cash nexus, and this form certainly existed in many counties of East Anglia, the midlands and, in a more limited way, the south. It was also present in relation to casual workers. However, many of these were migrants from Scotland and particularly Ireland, plus a number of urban-rural migrants, as well as internal migrants from areas of household production to those of 'pure' capitalist production. These were, as we have already said, the peasant farmers in their other guise. In addition, there was a 'residual army' of women's and children's labour based in the rural areas. These groups were brought into the production process at times of peak demand — hoeing, singling and especially the various harvests. How we categorize these groups, which barely appear in the written record, is unclear. What is certain is that they are not classic proletarians by the conventional description, though by other descriptions they might be the ultimately proletarianized workforce. Taking the census definition, in 1871 there were 1,227, 565 farm labourers in the British Isles. Against that figure there were, in the last quarter of the nineteenth century, 1,345,800 peasants and servants in British agriculture. By a narrow majority, those who worked the land of Britain, the object of our search, were not proletarianized and landless day labourers but peasants or servants.

IV

I stated at the beginning of this piece that it was an essay in argument. It is the beginning of a much more sustained piece of work and any conclusions to be drawn at this stage are even less firm than the argument of the essay, but I would like to make suggestions in two main areas. The first of these concerns socio-political behaviour. To return to our straw man. He was, we are told, usually 'happy' in his lot. Historians point to the fact that he by and large does not form trade unions. Even in the late 1940s, at its high point, agricultural trade unions accounted for only 18.5 per cent of the labour force nationally in England and Wales.[67] When we turn to

[65] Quoted in O'Dowd, *op cit*, p 145.
[66] Alun Howkins, 'La Gran Depressió a l'agricultura anglesa', *Recerques/26*, Barcelona, 1991.
[67] Newby, *op cit*, pp 81 and 228.

politics, despite the work of Roger Wells on the 'politicised labourer' around Tolpuddle or on southern Chartism, we are at best looking at a tiny group who often turn out not to be labourers at all but the inhabitants of small towns or large open villages.[68] Nor does he riot often, and even in 'Swing' there are a disconcertingly high number of tradesmen arrested for a labourers' movement. In short he does not behave like a 'proletarian' at all. But let us look again at this. Very briefly, the 'classic proletarian' farm labourer is probably in a minority, albeit a slight one, of all those who worked the land of Britain in the nineteenth century. Moreover, he is probably regionally restricted to the eastern, and some southern and some midland counties. It is here that 'proletarian' social relationships might be expected to develop in the form of trade unions and political organizations and, of course, they do although still only among part of the labour force. This is overwhelmingly the case of East Anglia and Norfolk in particular. Here, although there was a high number of small farms, there were also the most 'extreme' forms of day labour, while there was a statistically insignificant number of farm servants in 1871. As a result, perhaps of this, Norfolk was probably the most successfully unionized county of the United Kingdom in the periods between 1872 and 1896, and between 1906 and the present. It was also a Liberal stronghold after 1885 and returned a (rural) Labour MP as late as 1970.

In contrast, a substantial area of England and especially Scotland, Wales and Ireland was worked by farm servants. Most contemporaries and many more recent writers noted that hiring by the year frequently lead to close and apparently harmonious relationships between employer and employed. There was a 'clannish' feeling about the farms of north Northumberland according to John Coleman reporting for the Richmond Commission.[69] A recent historian of the Welsh agricultural trade unions has argued that a 'comradely social relationship' existed between the hired workers on the small farms of that country which made workers 'more sympathetic to the...farmer's problems and hardships'.[70]

Yet this is clearly far too simple. The work of Dunbabin on the English north-east, Carter on Aberdeenshire, and most recently Caunce on the East Riding of Yorkshire, among others, all show that work place relationships under farm service were far from harmonious.[71] In all these areas the hiring fair or feeing fair was the site of bargaining and conflict every bit as sustained, and on occasions more bitter, than the more public strikes and lockouts of the English south. In view of this work it seems likely that similar conflicts existed elsewhere in these islands but they have remained hidden to historians (like myself) who tended to look for trade unions and other forms of open and institutional organization.

Finally the peasants of these islands were far from quiescent in the nineteenth century as even a cursory look at the history of Scotland, Ireland and Wales shows. The Crofters Land War and the Welsh Tithe War were both dealt with comparatively and perceptively by Dunbabin many years ago, and there is now excellent work on Scotland. The history of the National Land League in Ireland is extensively studied, although usually as an adjunct to the

[68] Roger Wells, 'Rural rebels in southern England in the 1830s' in Clive Emsley and James Walvin, eds, *Artisans, Peasants and Proletarians 1760–1860*, 1985; *idem*, 'Southern Chartism', *Rural History*, 2, 1991, pp 37–60. For example, from the latter only half the small number of rural supporters of the Land Plan in the Blandford area of Dorset and the Gillingham area of Kent were labourers despite the fact that both were overwhelmingly agricultural areas.

[69] BPP, *Royal Commission on the Depressed State Condition of the Agricultural Interest. Final Report*, XIV, 1881, p 392.

[70] David A Pretty, *The Rural Revolt that Failed. Farm Workers' Trade Unions in Wales 1889–1950*, Cardiff, 1989, p 10.

[71] J P D Dunbabin, *Rural Discontent in Nineteenth Century Britain*, 1974, chapters 6 and 7; Carter, *Farm Life*, chapter 5; Caunce, *op cit*, chapters 5 and 6.

'national question'. Perhaps if some of the questions asked of the 'Celtic fringe' were asked of our English peasantry, we might get some different answers as to its peaceful state. Clearly, there is no forgotten mass peasant movement among small tenant farmers, but the work of Mutch in Lancashire and that done (much more narrowly) on the questions of tenant right and the game laws by Porter do suggest all was not entirely harmonious.[72]

The second area, which I would wish to suggest grows out of the kind of argument I am putting forward, is more fundamental still. The work of Robert Allen and of Jeanette Neeson has gone a long way towards discrediting many aspects of our previously held model of agrarian development in England and much of Britain. If what I am arguing is right then we can go further still. Increased yields in agriculture for much of the nineteenth century rested at least in part on increased labour productivity. It has usually been assumed this was the result of a 'proletarianized' labour force working under essentially modern social relations of production. If this is not the case then the whole validity of the 'English road', not only as an historical account of change, but also as a model for development, has to be challenged. As Allen says

> For all those who contrast a traditional society with a modern one, for all those who argue that the traditional society must be overturned for development to occur, for all those who see inequality as the necessary price of growth — England is the classic case. For that reason, English history is of enduring importance.[73]

As I said at the beginning this essay is work in progress, but I believe that further work on the detail of the 'national' data and, more importantly, on local studies will show that nineteenth-century Britain remained a complex and differentiated society rather than one dominated by the three 'great classes' of agriculture, so clearly identified by Caird in 1851, and which have dominated our thinking ever since.

[72] Mutch, *op cit*, pp 51–56; J H Porter, 'Tenant right: Devonshire and the 1880 Ground Game Act', *Ag Hist Rev*, 34, 1986, pp 188–97.

[73] Allen, *op cit*, p 2.

Notes and Comments

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by Dr Mark Overton from Monday 11 to Wednesday 13 April. There will be a field trip to the farms at Beamish Museum on the morning of Wednesday 13 April.

THE 1994 AUTUMN CONFERENCE

The 1994 Autumn Conference will be held at the Extra-Mural Department, University of Birmingham, and the subject will be midlands agriculture in the eighteenth and early nineteenth centuries. The conference organizer will be Dr Richard Hoyle and further details of speakers and the conference programme will appear with this issue of the *Review*.

REQUESTS FOR HELP

As part of our service to readers NOTES AND COMMENTS now includes a section under this heading. This is designed for all members of the BAHS, but particularly those who are not attached to an academic institution. We hope this will provide assistance for two types of problem. Firstly, those thinking of carrying out research and who have chosen a topic, but are not too sure where to begin, or want to know who else has worked on that particular subject. And secondly, those who are well into a project but need further information to fill in gaps, or require advice on methodology.

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Annual List and Brief Review of Articles on Agrarian History, 1992*

By RAINE MORGAN

THE use of science for reconstructing prehistoric land use and environmental change is again evident in the scholarly literature. Renfrew, for example (175), explores the use of modern biochemical genetics to provide insights into the histories of human population and brings his evidence to bear on the current study of language, the archaeological record and the spread of agriculture. Recent cytogenic investigations of wild and cultivated plants from archaeological sites are described by Blumler (21) who furthers our understanding of domestication, diffusion and the origins of agriculture. The powerful method of quantitative isotope analysis has also brought a new dimension to the examination of archaeological finds, and Stoss-Gale (208) explains how it can be applied to bone remains, where the type of food consumed leaves an unambiguous imprint, allowing calculations to be made of dietary habits. More conventionally Hatton and Caseldine (94) chart the vegetation and land-use history over a millennium at a Devon site, while Green and Lockyear (84) examine charred plant remains from buried soils in Hampshire to reveal the densities and distribution of species as well as past horticultural land use and possible ancient boundaries. The potential of crop weeds as indicators of farming practice is discussed by Jones (112); archaeological weed assemblages from parts of Europe suggest that an intensive garden-like regime rather than field cultivation may have been widespread among early farmers. Wood *et al* (232) explore the problems of interpreting skeletal remains for information on the health implications of the transition to settled agriculture. On the transition to agriculture in northern and western Europe Armit and Finlayson (6) postulate a gradual transformation within a pattern of great regional diversity where selected parts of the farming socio-economy are adopted at varying rates. The modern phenomenom of human-induced climatic change is not new according to Schule (194) who argues that prehistoric man is likely to have sufficiently influenced the carbon, nitrogen and water flux of the biosphere to trigger climatic oscillations. Current research on the fenland prehistoric sites are reported by Hall (88), Pryor (174), Scaife (191) and Taylor (210), and Cunliffe (47) proposes a new model for Iron Age pits in which the storage of seed grain is seen as a religious or ritual activity rather than for food preservation. Rejecting the model that equates calf slaughter with dairying McCormick (129) reassesses early bone assemblages and finds no evidence of the practice either in Britain before the late Iron Age or in Ireland before *c* 500 AD. Patton (162) highlights evidence from the Channel Islands to challenge the view that megaliths reflect local availability of building materials, suggesting instead that cultural factors linked to territorial boundaries outweighed practical considerations of transportation.

Medieval settlement, society and economy are heavily represented in the periodical literature this year, and there is evidence that the computer is being increasingly exploited for research. Hodkinson and Davnall (99) report on the computer simulation devised to test hypotheses about ancient land tenure and inheritance where the sources are incomplete and unstatistical in nature, and Keen *et al* (117) outline some of the computing tools for storage and analysis of antiquarian records. Davnall *et al* (52) describe the *Taxatio* database being set up to record information from the thirteenth-century taxation assessment of ecclesiastical income, and Moffett (146) explains the logistics of making a humanities database of images and associated information available on the world network. Settlement studies continue to attract a disproportionate amount of attention. Taylor (209) looks at changing perceptions of the subject, and Roberts (180) considers theoretical and practical problems of dating villages. The emergence of the village is set in a European context by Pesez (165), and Beresford (16) provides an historical account of the representation of deserted sites on Ordnance Survey plans. Barker and Grant (11) survey current knowledge on the Roman landscape and argue for the multi-disciplinary approach with data placed in an economic, political and cultural context. This approach is adopted by Allen and Fulford (4) who

* Publications are dated 1992 unless otherwise noted. References to articles or offprints should be sent to the Bibliographical Unit, Rural History Centre, University of Reading. The Master Index containing over 50,000 classified references on British agrarian history and rural society can be consulted by appointment.

combine documentary, archaeological and geological evidence of the inner Severn estuary in their study of Romano-British reclamation and land use. It has been widely believed that planned landscapes originated in the later Iron Age or Roman period but Rippon's analysis (178) of a range of data suggests that they are predominantly of later Saxon origin. In the light of new evidence from Mucking, Essex, Hamerow (90) considers the 'middle Saxon shift' model which supposes the widespread displacement of settlements in the seventh or eighth centuries. On the Welsh experience Thomas (213) presents a new model of the hypothetical farm holding based upon the analysis of ecologically significant farm-name elements, in order to chart its development between *c* 1250 and 1600.

Wickham (228) underscores the neglect of early medieval social history and offers proposals for constructing models for comparing rural societies in western Europe. The involvement of the English peasantry in politics during the thirteenth century is explored by Carpenter (31) who questions the absence of destabilizing movements at this time. The causes of Cade's rebellion in the fifteenth century are reassessed by Mate (140), who illustrates the complex nature of grievances and the difficulty of disentangling various strands of political and economic discontent. How the artificial devices of fosterage and godparenthood were used by the upper echelons of medieval Welsh society to bind a child to the world beyond its own natural family are described by Smith (203), and Bennett (15) explores an informal method of welfare support in England. This took the form of ale selling amongst neighbours to raise funds for those in crisis, reaffirming communal solidarity and helping the poor to survive. The impact of the plague-induced increase in female heirs on succession and wealth patterns is investigated by Payling (164), who detects upward mobility into the landed class and an increase in the wealth of established landed families. Roffe (181) identifies the *Descripto Terrarum* as a pre-Domesday survey of Peterborough Abbey's Lincolnshire properties which casts an independent light on the nature of Danelaw society and economy in the eleventh century. Taking the long-term comparative approach in his study of bridge development between late medieval and modern times, Harrison (92) finds support for views which emphasize the advanced state of the medieval economy and the lack of any profound transformation between 1500 and 1750. Dyer's study (62) of the medieval trading network shows that considerable activity was conducted outside the formal system of boroughs and markets, and Farmer's investigation (71) of manorial accounts for information on millstones provides insights into changing patterns of purchase and medieval transport arrangements. The impact of the Black Death on a local economy in Suffolk is explored by Lock (126), who demonstrates that although mortality was as high as 55 per cent the effects were mitigated because death was concentrated amongst those too young or too old to work. The impact of the catastrophe on demesne management is explored by Saaler (190) who demonstrates the quick reaction of administrators to new circumstances. On rural industry Postles (171) examines the change in status and gender of peasant brewers in Devon, and detects a change of emphasis in the later Middle Ages, away from the rural poor to the peasant aristocracy. On farming, the view that deer parks were status symbols is dismissed by Birrell (19) who shows how owners farmed deer with skill and intelligence to obtain a significant return of high status meat for gifts and hospitality. Clark (37) offers an economic interpretation of soil exhaustion and land use. He argues that cultivators chose to reclaim pasture because the nitrogen store boosted yields, but conversion to pasture was less attractive because nitrogen release was a slow process and high interest rates rendered it uneconomic. Cosgel (43) proposes a risk-aversion hypothesis to illustrate how attitudes towards risk affected the allocation of land and labour within a manor, and Power and Campbell (173) develop a methodology for classifying demesne-farming systems using cluster analysis. Taking the long-term view Overton and Campbell (157) marry information on Norfolk from two different documentary sources to examine developments in the neglected livestock sector. Results indicate an approximate doubling of stocking densities between the fourteenth and seventeenth centuries, implying a more dynamic character compared with arable farming.

Among other studies which cross conventional time periods Loschky (127) compares changes in real income between late medieval and modern times in the Phelps-Brown Hopkins index, and finds that they understate the case when set against other evidence. It is argued that the measurement should include a consideration of the household production function and a revised index is offered. Maccurtain and O'Dowd (130) set the agenda for women's history between the sixteenth and nineteenth centuries, calling for more scholarly research into their role in landowning, domestic economy, rural employment and protest. Tsoulouhas (220) provides an econometric analysis of technological changes in England between the early modern period and the mid-nineteenth century, and proposes a model to explain causal links with population growth. On early modern source material, Dyer (61) assesses the accuracy of the Bishops' census of 1563 for the study of population and

household size, and Snell (204) draws the attention of rural historians to the research potential of poor law records. The origins and impact of government policy between 1527 and 1630 to provision markets when harvests failed are investigated by Slack (201), who concludes that the effect was to remedy differences in the social rather than in the geographical distribution of scarce grain. An explanation of the sixteenth-century rebellion in the north of England is provided by Bush (29), who highlights the infringement of traditional rights resulting from taxation and enclosure, and King (120) explores the web of conflicting interests which ultimately led to the 'great gleaning case' of 1788. On food, Moffet (145) describes the contents of latrines used by Civil War troops to illustrate the great variety of fruits, vegetables, herbs and other plants available at the time. The interaction between scientific institutions and agricultural progress is examined by Lerner (124), who concludes that the former failed to accelerate changes in farming. In a study of farming practices in the eighteenth-century Highlands and Islands Dodgshon (55) demonstrates how socio-economic and physical conditions rather than inertia explain the preference for 'primitive' labour intensive techniques. Ward (227) considers the methods used by indebted noble landowners to increase income following the Civil War, including altering the nature of tenancies from copyhold to leasehold, and rack renting, while Hoyle (106) states his reservations, questioning how easily changes in rental policy could be effected.

The growing importance of computer technology in studies of the early modern and modern periods is again evident in the literature. King (121) identifies problems of applying the family reconstitution technique to computerized demographic records in order to interpret the impact of proto-industrialization, and Davies (50) discusses the automated record linkage of enumerators' books and registration data. Anderson (5) considers the ESRC data archive as a resource centre of the future, and Zweig (239) looks at the advantages and drawbacks for historians of the shift from paper records to electronic documents. On sources Farrant (72) provides a critical appraisal of the Board of Agriculture reports compiled by the Arthur Youngs, and Woods (235) describes Irish travel writings. The profusion of traditional lore in the works of John Guy are noted by Dugan (58) while Kain and Wilmot (113) compare the copies of diocesan and Public Record Office tithe maps to find that they differ markedly in both content and style.

On social history Horrell and Humphries (102) analyse over 1300 household budgets for the period 1787–1865 to find that family earnings grew less than male earnings. Optimistic interpretations of living standards may therefore be overstated. Guinnane (86,87) focuses upon the household system in Ireland and uses new sources to explore the dynamics of household inheritance patterns and the factors influencing the age of leaving home. In an economic explanation of Ireland's slowness to industrialize, O'Rourke links the emigration of productive labour to the lack of capital flowing into the country. Kelly (119) investigates the subsistence crisis in Ireland during 1782–4 and maintains that the efficiency of poor relief kept mortality within bounds and contributed to the surge in population growth thereafter. Also on Ireland, Luddy (128) calls for greater attention to be paid to the role of women, in areas including the family, household and domestic industry. McMurray's study of women cheese-makers (134) contrasts the experience of England and America, demonstrating that England was more resistant to capitalist forces due to demographic and cultural factors. On protest Tebrake (211) examines the role of Irish peasant women in the land reform movement, and Bohstedt (22) appeals for greater attention to be paid to food rioters as adaptive responses to economic and political change, and less upon the common moral motivations — *pace* E P Thompson. Barber (10) describes the complex issues which underpinned the bitter tithe disputes in north Wales, and Howell (104) traces developments in Welsh farm workers' trade union organizations from the late 1870s. Although indifference was widespread before 1914, this was replaced by militancy which resulted from the influence of the Labour Party and other trade unions. On elites in society Rubinstein (183) shows that although under one quarter of those worth over £100,000 derived their wealth from land, wealth derived from industry and manufacturing was strikingly less. The assumption of a general crisis this century amongst the greater landowners and landed families of England is challenged by Thompson (216) who ponders their survival strategies. The most significant and effective, it would appear, has been the exploitation of the land itself, and the tapping of the generous flow of public subsidies and tax relief. On food adulteration Atkins (7) documents the pernicious effects of dirty milk and shows that the results were more serious and its amelioration much later than is commonly believed.

On the economy O'Brien and Prados de la Escosura (149) investigate agricultural labour productivity levels at home and abroad, concluding that European economies have been constrained in their industrial development by unfavourable land-labour ratios and an environment unsuited to animal intensive regimes capable of releasing man-power for industry. Turner has constructed an important new UK agricultural output series from the original

unpublished manuscripts of J R Bellerby and presents an index of composite agricultural prices. On the Irish agrarian economy McGregor (133) develops a statistical model to demonstrate how the land and labour markets interacted to generate the size distribution of land holdings, and Walsh (226) identifies the main influences on the mechanization of Irish farms since 1920. There have been national and regional studies of small farm decline, but Sheppard (200) focuses upon a single parish, in the Weald, to identify the mix of factors promoting change in the nineteenth century. For the period since 1939 Allanson (2) provides an analysis of the size distribution of agricultural holding in England and Wales, highlighting the survival of small units. The struggle between Britain and Australia over wheat prices and shipping during the First World War is analysed by Tsokhas (219), who shows how military needs persuaded Britain to grant favourable terms, but when troops from Australia were no longer needed, economic considerations took precedent over political ones. The environmental impact of land use is attracting more attention. Duncan (59) explores the damage caused by agriculture during the nineteenth century, contrasting it with a kinder system in the eighteenth when it was supported by social and legal constraints on farmers. Sheail (196) charts the progress of legislation to protect the rural environment from development this century and in separate articles (197–9) analyses the post-war conflicts over the use of high value farmland for coal extraction and the provision of public water supplies.

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Notes and Comments

(continued from page 62)

From time to time we have published lists of research in progress, but as there are intervals of some time between their appearance it is hoped this spot will fill the gap where someone wants information in the short term. This service is open to all members and if you feel it would be of some help you are urged to send your name and address, along with your request, to the Secretary of the BAHS, Dr Richard Perren, Department of History and Economic History, University of Aberdeen, Taylor Building, King's College, Old Aberdeen, AB9 2UB.

BERKSHIRE RECORD SOCIETY

A new society was launched in Berkshire in October 1993 to publish editions of some of the many important documents in the county record office and elsewhere relating to the county. Texts identified for publication include Tudor and Stuart probate accounts, glebe terriers and eyewitness accounts of the Swing riots, 1830. For further information and application forms, contact Dr. Peter Durrant, Berkshire Record Office, Shire Hall, Sheffield Park, Reading, RG2 9XD.

Work in Progress

Compiled by PETER EDWARDS

This list has been compiled from information given in response to a form which was circulated in the autumn of 1993. It does not lay claim to completeness.

Key: *PhD student; +MPhil/MA student; ~research fellow.

AFTON, BETHANIE,* Rural History Centre, Reading University.
1 Sheep and corn farming in Hampshire 1850–1914
2 Agricultural rent in England 1690–1914

AMBLER, R W, Dept of History, Hull University.
The development of the Yarborough landed estate, Lincs, 1565–1948

ANTHONY, RICHARD,* Dept of Soc & Ec History, Edinburgh University.
The market for farm labour in Scotland, 1900–39

ASHURST, DENIS,* Dept of Continuing Education, Sheffield University.
Surnames as indicators of population mobility and stability

ASSUNCAO, MATTHIAS R, Dept of History, Essex University.
Political culture and regional societies in Brazil, Cuba and Venezuela 1880–1930

ASTILL, DR G, Dept of Archaeology, Reading University.
Granges and the medieval monastic economy

ATKINS, DR P J, Dept of Geography, Durham University.
The geography of food in nineteenth-century Britain

ATTWOOD, DOUGLAS, 22 Kellett Rd, Southampton, Hants.
Nineteenth-century Hullavington, a north Wiltshire farming community

BARRETT, A A,* Dept of History, Keele University.
Rural crime in the nineteenth century

BECKETT, PROF JOHN, Dept of History, Nottingham University.
Agricultural rent in England 1690–1914

BELL, DAVID,* Dept of Geography, Birmingham University.
The pattern of landownership in Staffordshire 1840–1910

BERESFORD, PROF M W, University of Leeds.
Medieval peat extraction

BETTEY, DR JOE, Dept of Extra-Mural Studies, Bristol University.
Manorial stewards and their work in the sixteenth and seventeenth centuries

BIRRELL, JEAN R, Institute for Advanced Research in the Humanities, Birmingham University.
Forest and woodland economies in the later Middle Ages

BOWIE, GAVIN, Eastleigh Museum, Hants.
The viability of Hampshire's wind-powered mills in the eighteenth and nineteenth centuries

BRASSLEY, PAUL, Seale-Hayne Faculty, Plymouth University.
1 Changes in agricultural technology, 1850–1914
2 Biography of Primrose McConnell
3 English agriculture in the Second World War and after

BREHENY, PROF M J, Dept of Geography, Reading University.
1 Sustainable development and urban farms
2 New settlements

BRIGDEN, R D, Rural History Centre, Reading University.
Farmer-innovators of the inter-war period

BRITNELL, R H, Dept of History, Durham University.
The estates of the bishopric of Durham *c* 1380–1530

BROAD, DR JOHN, Dept of History, North London University.
Aspects of rural economic and social change in the south Midlands

BROWN, A, Dept of History, Essex University.
Essex village society, 1700–50

BROWN, DR J, Rural History Centre, Reading University.
1 Rural industries in the nineteenth and twentieth centuries
2 The modern British food industry

BUD-FRIEMAN, LISA, Dept of Economics, Reading University.
Constructed and real: a history of agricultural statistics in nineteenth-century Britain

BURCHARDT, JEREMY,* Rural History Centre, Reading University.
The allotment system, 1800–50

BYFORD, DAN,* Sheffield University.
Agricultural change in the marshlands of south Yorkshire with special reference to the manor of Hatfield

CAIRD, PROF J B, Dept of Geography, Dundee University.
The origins of the crofting system

CAMPBELL, DR B M S, Dept of Economic History, Queen's University, Belfast.
1 Feeding the city: provisioning London 1290–1390
2 Landownership and land use in England 1300–49
3 Farming systems in medieval England

CARTER, MRS JUNE E,* Dept of History, Reading University.
Island settlements in the Parrett valley of the Somerset Levels, 1700–1960

CAUNCE, DR STEPHEN, School of Business and Economic Studies, Leeds University.
1 The textile dual economy of west Yorkshire *c* 1550–1850
2 Mechanization on north-eastern farms *c* 1850–1939
3 The mobility of east Yorkshire farm servants *c* 1870–1939

CHAPMAN, DR JOHN, Dept of Geography, Portsmouth University.
Non-parliamentary enclosure in the eighteenth and nineteenth centuries

CHARTRES, PROF J A, School of Business and Economic Studies, Leeds University.
1 The distilling industries in England 1600–1830
2 Agricultural services and trades 1850–1914
3 Domestic trade and transport in England 1600–1850
4 The taxation of manservants in England and Wales 1780

CHASE, DR MALCOLM, Dept of Adult Continuing Education, Leeds University.
1 The Chartist land plan
2 Ecologism and environmentalism in Britain *c* 1920–1960

CHIVERS, KEITH, 34 Heather Avenue, Frampton Cotterell, Bristol.
History of the shire horse

CLARKE, CHRISTOPHER, Dept of Environmental Sciences, University of East Anglia.
Heathland reconstruction

CLEWLOW, J,* Dept of History, Keele University.
Nineteenth-century veterinary practice in north Staffordshire

CLUTTON-BROCK, DR JULIET, Dept of Zoology, The Natural History Museum, Cromwell Rd, London.
Livestock husbandry at the Neolithic site of Skara Brae, Orkney *c* 2500 BC

COLES, B, Dept of History & Archaeology, Exeter University.
Primary forest clearance and the first farmers of north-west Europe

COLLINS, DR E J T, Rural History Centre, Reading University.
1 Agricultural output in the High Farming period
2 The British food industry since 1920, with special reference to convenience foods

CONWAY, G R, Vice-Chancellor, Sussex University.
An ecological history of world agriculture

COWELL, NORMAN,* Dept of Food Studies, Reading University.
The heat preservation of food, 1650–1860

CRABB, G D,+ Dept of History, Keele University.
Land usage in Gorton and Openshaw in the nineteenth century

CRAWFORD, MARTIN, Dept of American Studies, Keele University.
Social history of Ashe County, North Carolina 1850–1879

CREASEY, J S, Rural History Centre, Reading University.
Draught oxen in England since the seventeenth century

CULLUM, DAVID,* Dept of History & Archaeology, Exeter University.
Household and economy in West Penwith (Corn) *c* 1580–1750

DAVEY, C J, Dept of Modern History, Dundee University.
An eighteenth-century farming club

DEVINE, T M, Dept of History, Strathclyde University.
Transformation of rural Scotland 1680–1815

DEWEY, DR P E, Dept of History, Royal Holloway College, London University.
1 Twentieth-century British farming
2 The agricultural engineering industry in Britain since *c* 1850

DODGSHON, R A, Institute of Earth Studies, University of Wales, Aberystwyth.
Farming change in the Western Highlands and Islands before 1800

DOLBY, MALCOLM,* Dept of Continuing Education, Sheffield University.
The hundred of Bassetlaw (Notts) in the Middle Ages

DYER, PROF CHRISTOPHER, Dept of History, Birmingham University.
Medieval agrarian capitalism, marketing and rural settlement patterns

EDMOND, MRS M, 3 Hillside Market Hill, Maldon, Essex.
Aspects of woad growing in central England 1570–1770

EDWARDS, DR PETER R, Dept of History, Roehampton Institute of Higher Education.
Marketing in the Civil War period

ENGLISH, BARBARA, Dept of History, Hull University.

1 Crown lands 1702–1952
2 The Yorkshire Hundred and Quo Warranto rolls

EVANS, RALPH, 31 William Street, Oxford.
Relations between Merton College and its tenants in the later Middle Ages

EVERITT, PROF ALAN, Kimcote, Leics.
Early common land and pastoral areas: the evidence of place-names and topography

FAITH, ROSAMOND, Wolfson College, Oxford.
Origins of the manor: tenure and settlement topography

FENTON, PROF ALEXANDER, School of Scottish Studies, Edinburgh University.
Various aspects of historical land use, and of agricultural equipment and buildings in Scotland

FLEET, P,* Dept of History, Nottingham University.
The isle of Axholme 1540–1660

FLOWER-SMITH, PRISCILLA,* Dept of History & Archaeology, Exeter University.
Blackdown Hills (Soms) gentry, *c* 1640–1720: landholding and estate management

FORSTER, G C F, Dept of History, Leeds University.
County government in Tudor and Stuart Yorkshire

FOULKES, D V,* Dept of History, Keele University.
The poor law in eighteenth-century Staffordshire

FOX, DR HAROLD S A, Dept of English Local History, Leicester University.
1 Rural settlements and landscapes in Devon 500–1500
2 Peasant farming in Somerset 1200–1347
3 Historical demography of West Country manors 1260–1352

FULFORD, PROF M G, Dept of Archaeology, Reading University.
1 Reclamation, settlement and exploitation of the Severn Levels from Roman times to the medieval period
2 Iron Age and Romano-British settlements and landscapes on Salisbury Plain (Wilts)

GARDINER, MARK, Institute of Archaeology, University College London.
Medieval rural settlements, society and economy in the East Sussex Weald and Romney Marsh

GIBSON, ALEX, Dept of Geography, Exeter University.
1 Stock farming and trading in Stirlingshire 1700–1800
2 The evolution of the early modern Scottish grain market

GILLER, ANNE,* Dept of Continuing Education, Sheffield University.
The surnames of the High Peak

GLASSCOCK, DR R E, Dept of Geography, Cambridge University.
The distribution of lay wealth and population in the early fourteenth century

GLENNIE, DR PAUL, Dept of Geography, Bristol University.
1 English farm labourers from the sixteenth to eighteenth centuries: work, income and consumption
2 Rural artisans

GODFREY, J,* Dept of Geography, Sussex University.
Agriculture on the South Downs in the nineteenth and twentieth centuries

GOOSE, DR N, Dept of History, University of Hertfordshire.
Computerization of 1851 census for Hertfordshire

GOURIEVIDIS, MLLE LAURENCE,* Dept of Scottish History, St. Andrew's University.
The image of the highland clearances in the twentieth century

GRACE, DAVID,* Dept of History, The Beaufort School, Gloucester.
The British agricultural engineering industry 1780–1914

HABAKKUK, PROF J, All Souls College, Oxford.
The price of land 1700–1900

HALLAS, DR CHRISTINE, Dept of History, Trinity & All Saints College, Leeds.
Analysis of the 1891 census for Wensleydale and Swaledale to identify social and economic change

HARE, J N, Dept of History, Peter Symonds' College, Winchester.
Agriculture and rural society in Wiltshire and Hampshire in the later Middle Ages

HARGREAVES, PAUL,* Dept of History, Birmingham University.
Seigneurial reaction on the Worcester Cathedral Priory estate 1350–90

HARRISON, BARRY, Dept of Continuing Education, Leeds University.
1 Field systems on (a) the Wiltshire and (b) the Hampshire estates of St Swithun's Priory, Winchester, 1248–1340
2 The development of regular field systems in Yorkshire 1100–1350
3 Rural housing and society in Swaledale (N Yorks) 1600–1850

HARRISON, DR C J, Dept of History, Keele University.
Tudor manor courts

HAVINDEN, MICHAEL, Dept of Econ & Soc History, Exeter University.
1 The proliferation of the gentry 1500–1700: the case of Somerset
2 The agrarian history of south-west England

HAYFIELD, DR COLIN, School of Geography, Birmingham University.
Wharram Research Project: includes a detailed study of farming and farm buildings on the north-western part of the Yorkshire Wolds

HEPPLE, DR LES, Dept of Geography, Bristol University.
Landscape history of the Chilterns and of Northumberland

HIGHAM, DR MARY, 22 Peel Park Avenue, Clitheroe, Lancs.
1 Thirteenth-century lay subsidies
2 Farming on medieval monastic estates

HILL, STEPHEN A,* Dept of History, Stirling University.
Sir James Maitland and the Hometoun fish farm 1874–97

HOLLOWELL, S,* Dept of History, Nottingham University.
Enclosure in Northamptonshire in the eighteenth and nineteenth centuries

HOWELL, DR DAVID, Dept of History, University College, Swansea
Agriculture and the Welsh farming community in the eighteenth century

HOWKINS, ALUN, School of Cultural & Community Studies, Sussex University.
Social history of the twentieth-century countryside

HOYLE, DR RICHARD, Dept of History, University of Central Lancashire.
1 Social and economic history of rural England 1300–1700
2 Estate management 1500–1650
3 Local economies of pastoral regions, especially in the Yorkshire Dales and Bernwood Forest (Bucks)
4 The equity courts and the regulation of agricultural change (1500–1650)
5 Comparative history of labour

JACKSON, DR PETER, School of Historical & Critical Studies, Brighton University.
Nonconformity and society in rural Devon 1660–89

JENNINGS, PROF B, Dept of Adult Education, Hull University.
1 History of Yorkshire
2 History of Kilham in the Yorkshire Wolds
3 Agrarian history of Yorkshire

JONES, MELVYN, Recreation & Countryside Division, School of Leisure & Food Management, Sheffield Hallam University.
1 Identification and evaluation of historic landscapes in south Yorkshire
2 Inventory of ancient woods in Rotherham Metropolitan Borough
3 Woodland management and associated industries in south Yorkshire 1086–c1914

KAIN, ROGER, Dept of Geography, Exeter University.
1 Index and cartographic analysis of tithe maps in the Public Record Office collection
2 Government sponsored large-scale mapping of English parishes for enclosure, parochial assessment and Boards of Health

KENNEDY, LIAM, Dept of Economic History, Queen's University, Belfast.
Social change in twentieth-century Irish rural society

KITCH, M, Dept of English & American Studies, Sussex University.
Demography of early nineteenth-century market towns

KO, DONG WOOK,* Dept of History, Birmingham University.
Peasant unrest in England 1382–1450

KOTSONIS, YANNI, Dept of History, Essex University.
Agricultural cooperatives and the evolution of the agrarian question in Russia 1861–1930

LAVEN, D S, Dept of History, Keele University.
The north Italian peasantry in the early nineteenth century

LEWIS, CARENZA, ~ Dept of History, Birmingham University.
Medieval settlement and landscape in the east Midlands

LOMAS, R A, Dept of History, Durham University.
Medieval farms in Durham and Northumberland

MARTIN, JOHN, School of Arts & Humanities, De Montford University, Leicester.
1 Government policies and agricultural productivity in England and Wales 1939–45
2 The historical development of rural Leicestershire

MARTIN, J M, 11 Quedgeley Park, Greenhill Drive, Quedgeley, Gloucs.
1 Family reconstitution and demographic project involving four midlands towns 1700–1859
2 Labouring life in Gloucestershire: wages, prices and living standards 1700–1859
3 The Gloucestershire land tax returns

MEAD, W R, Dept of Geography, University College London.
Agricultural geography of Finland, with particular reference to the nineteenth century

MILLER, MRS ANN,* Dept of Scottish History, St. Andrew's University.
Pre-industrial Forfarshire: processes and responses to modernization

MILLS, DR DENNIS R, 17 Rectory Lane, Branston, Lincoln.
1 Rural communities in the Victorian censuses

2 Post-dissolution history of the estates of the Knights Templar
3 Early combine harvesters
All with special reference to Lincolnshire

MILLS, STEPHEN F, Dept of American Studies, Keele University.
Synthetic landscapes: open air museums, theme parks and world fairs

MINGAY, PROF GORDON E, University of Kent, Canterbury.
Eighteenth-century diaries

MITCHELL-FOX, P, ~ Dept of History, Birmingham University.
Medieval settlements and landscape in the east Midlands

MOORE-COLYER, RICHARD, Dept of Agricultural Sciences, University of Wales, Aberystwyth.
1 Agriculture and landed society in Wales in the eighteenth and nineteenth centuries
2 The horse in British prehistory
3 The horse, the government and the army in the eighteenth and nineteenth centuries

MORGAN, DR RAINE, Rural History Centre, Reading University.
Bibliography of British agricultural history

MOSES, GARY W,* Dept of International Studies, Nottingham Trent University.
Social relations in rural England: hiring fairs, farm servants and their critics in east Yorkshire *c* 1840–1930

NEWMAN, CHRISTIN C, Dept of History, Durham University.
An economic and social history of Allertonshire in the North Riding *c* 1470–1540

NUNN, PAUL, Dept of History, Sheffield Hallam University.
1 The 1880s ranching boom-Britain and America
2 The Rockingham-Fitzwilliam Irish estates: economic and social change 1750–1850

O'BRIEN, J,* Dept of History, Sussex University.
Representations of the countryside/agriculture in late nineteenth and twentieth-centuries' painting

O'BRIEN, PROF PATRICK, Director, Institute of Historical Research, Senate House, London University.
Long run agricultural productivity and growth in Britain and France 1348–1914

OVERTON, DR MARK, Dept of Geography, University of Newcastle.
1 Agricultural history of England 1500–1850
2 Prices in early modern England

PATRICK, JOHN, + Rural History Centre, Reading University.
Health, nutrition and convenience foods in the later nineteenth and early twentieth centuries

PERREN, DR RICHARD, Dept of History, Aberdeen University.
1 The agricultural depression 1870–1940
2 The agricultural processing and supply industries in England and Wales, 1850–1914

PHILLIPS, DR A D M, Dept of Geography, Keele University.
1 Farm building provision in England in the nineteenth century
2 Land-use change and cropping in England 1800–1870

PITTS, MRS S E E,* Dept of History, Leeds University.
The Slingsby family and their estates *c* 1600–1688

POSTLES, D A, Dept of English Local History, Leicester University.
Peasant farming patterns and processes in twelfth-century England

PRATT, DEREK, The Grange, Welsh Frankton, Oswestry, Salop.
1 The Augustinian Priory of St Thomas the Martyr, Spon, Clwyd
2 The dissolution of Valle Crucis Abbey

PRINCE, R,* Dept of History, Leeds University.
Social, demographic and agricultural history of the village of Ledston (W R Yorks)

RANDALL, DR A J, Dept of Econ & Soc History, Birmingham University.
Popular protest in the west of England

RIEDEN, BETTY, + Rural History Centre, Reading University.
Agricultural development in east Africa 1890–1950

ROBINSON, DR GUY M, Dept of Geography, Edinburgh University.
The development of the equine industry in the Hunter valley, New South Wales

RODGER, BARBARA, + Dept of Continuing Education, Sheffield University.
The township of Attercliffe cum Darnall (Yorks) *c* 1624–1780

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND, Fortress House, Savile Row, London.
Farmstead survey

RYDER, DR M L, 4 Osprey Close, Southampton, Hants.
1 The use of archaeological remains of cattle and goat hair and wool in textile remains to study livestock history
2 The history of goat hair production — ordinary hair, cashmere and mohair
3 A history of goat herds and goat keeping in Britain
4 A history of the ancient Lord's Wood in Southampton

SARSON, STEVEN, Dept of History, University College, Swansea.
Tenant farming and agricultural labour in the early nineteenth-century tobacco-slave economy of Maryland, USA

SAWTELL, P,* Dept of History, University of Hertfordshire.
The labouring poor in the parish of Hatfield (Herts) 1851–91

SCOTLAND, DR N, Dept of Arts, Cheltenham & Gloucester College.
Agricultural trade unionism in Gloucestershire 1872–96

SEELIGER, MS SYLVIA,* Dept of Geography, Portsmouth University.
1 The survival of ancient woodland in southern England
2 Women landowners in Hampshire

SHARPLES, MS M,+ Dept of History, Leeds University.
The estates of the Fawkes family in Yorkshire 1824–1927

SHEAIL, JOHN, Institute of Terrestrial Ecology, Monk's Wood, Abbots Ripton, Huntingdon, Cambs.
1 Historical ecology of agricultural land in the UK
2 Development of policies for managing the UK environment

SHORT, BRIAN, School of Cultural & Community Studies, Sussex University.
National land surveys in twentieth-century Britain

SMITH, DR R M, All Souls College, Oxford.
Famine, disease and nutritional status in England *c* 1280–1322

SMOUT, PROF T C, Institute for Environmental History, St. Andrew's University.
Scottish forest history in the seventeenth and eighteenth centuries

SNELL, KEITH D M, Dept of English Local History, Leicester University.
1 Regional popular culture *c* 1600–1945
2 The poor law in England and Wales 1601–1931

SPENCER, D, Dept of Geography, Reading University.
Counterurbanization pressures in the countryside

STANES, R G F, Dept of Continuing Education, Exeter University.
1 The whetstone mining industry of Blackborough in east Devon and elsewhere
2 Uffculme inventories 1570–1750
3 Braunton Great Field

STEWART, J, Dept of History, Oxford Brookes University.
Rural education in Britain in the 1860s and 1870s

SWAIN, DR M, Dept of Econ & Soc History, Liverpool University.
Rural employment and rural regeneration in post-socialist central Europe

TADMAN, MICHAEL, Dept of Econ & Soc History, Liverpool University.
Slavery in the USA: the world of masters and slaves

TALBOT, R,+ Dept of History, Keele University.
The development of the village of Penkhull, Staffs, 1700–1900

TANN, DR JENNIFER, Dept of Continuing Studies, Birmingham University.
The introduction and development of steam flour milling

TAYLOR, DR DAVID, Dept of Humanities, Huddersfield University.
Perceptions of the agricultural labourer in the eighteenth and nineteenth centuries

THIRSK, DR JOAN, 1 Hadlow Castle, Tonbridge, Kent.
1 Alternative agriculture, past and present
2 European horticulture

THOMPSON, PROF FM L, Institute of Historical Research, Senate House, London University.
Entrepreneurs and businessmen in trade, industry and agriculture in the late eighteenth to the late twentieth centuries

TIGWELL, ROS, Dept of Humanities, Bolton Institute of Higher Education.
Agricultural change in twentieth-century Cheshire

TOOMEY, JIM,* Dept of History, Birmingham University.
Settlement and society in medieval Hanley Castle (Worcs)

TRANTER, E M, Dept of English Local History, Leicester University.
Origins of boundaries and settlement on the waste 500–1200 in south Derbyshire, north-west Leicestershire and east Staffordshire

TRINDER, DR BARRIE, Ironbridge Institute, Ironbridge, Salop.
The archaeology of the food industry 1660–1960

TURNER, PROF MICHAEL, Dept of Econ & Soc History, Hull University.
1 Agricultural output in the eighteenth century
2 Agricultural rent in England 1690–1914

ULLATHORNE, GRAHAM,* Dept of Continuing Education, Sheffield University.
The surnames of the High Peak

UNWIN, T, Dept of Geography, Royal Holloway College, London University.
1 Historical geography of viticulture
2 Anglo-Saxon and medieval British agriculture

VICTORIA HISTORY OF THE COUNTIES OF ENGLAND, Institute of Historical Research, Senate House, London.
Ongoing research into the agricultural history of places covered by the VCH's topographical volumes. At present, work is in progress in Cambs, Ches, Essex, Glos, Mdx, Oxon, Salop, Som, Staffs, Suss, Wilts, and Yorks, E R.

WADE-MARTIN, S, Centre of East Anglian Studies, University of East Anglia.
Agriculture and landscape in East Anglia 1650–1870

WALTER, J, Dept of History, Essex University.
Popular political culture and agrarian protest

WALTON, DR JOHN, Institute of Earth Studies, University of Wales, Aberystwyth.
1 The ownership and impact of agricultural publications in England 1660–1914
2 The political economists and the subsistence geography of the British Isles, 1750–1900

WARD, DR S B, Rural History Centre, Reading University.
The history of the environmental movement in Britain since 1800

WATSON, D J,* School of Business and Economic Studies, Leeds University.
Impact of the growth of Middlesbrough on the rival economy of its hinterland 1840–1914

WELLS, DR ROGER, School of Historical & Critical Studies, Brighton University.
1 Poverty, protest and police in rural society: the south-east 1700–1890
2 The High Wealden parish of Burwash 1700–1920

WHITTLE, JANE C,* St Hugh's College, Oxford.
The development of agrarian capitalism in England from *c* 1450–1580

WINCHESTER, DR ANGUS J L, Dept of History, Lancaster University.
The diary of Isaac Fletcher of Underwood (Cumb) 1756–1781

WHITE, G J, Dept of History, Chester College of Higher Education.
Open fields in west Cheshire

WHITELEY, MRS PAMELA,* Dept of History, Reading University.
Agriculture and proto-industrial development in Berkshire and the West Riding of Yorkshire, 1700–1850

WILLIAMSON, TOM, Centre of East Anglian Studies, University of East Anglia.
Agriculture and landscape in East Anglia 1650–1870

WINTLE, MICHAEL, Dept of European Studies, Hull University.
The agricultural history of the Netherlands since 1800

WITHERS, PROF CHARLES W J, Dept of Geography & Geology, Cheltenham & Gloucester College.
1 Rural social protest in Britain and Ireland
2 Agricultural science and the earth sciences in eighteenth-century Scotland

WOOD, A J,+ Dept of History, Birmingham University.
The shaping of the English landscape, with special reference to the Sutherland estate at Trentham 1700–1900

WOODWARD, DR DONALD, Dept of Econ & Soc History, Hull University.
An Agricultural Revolution? Agricultural change in England 1650–1870

WORBOYS, MICHAEL, Dept of History, Sheffield Hallam University.
Veterinarians and laboratory medicine in Britain 1865–1910

ZELL, DR MICHAEL, Dept of Humanities, Greenwich University.
History of Kent *c* 1540–1640

Conference Report: 'Agriculture and the Landscape' Winter Conference 1993

By JOHN R WALTON

THE conference, organized with his customary efficiency by Dr Peter Dewey (Royal Holloway, London) was held at the Institute of Historical Research on 4 December, 1993. The large audience reflected both the depth of general concern for agriculture's landscape impacts and the specific appeal of well-known speakers addressing topics central to their known areas of expertise.

Dr Oliver Rackham (University of Cambridge) began proceedings with a 'A History of Agriculture and Trees', a wide-ranging and well-illustrated presentation which explored the diverse contributions of trees to the agrarian economy, and thus showed how trees and agriculture have been integral rather than antithetical features within traditional landscapes. Shredding trees for animal browse was practised in the Neolithic, when lack of the iron tools needed to harvest a hay crop exacerbated fodder shortages, and continues to this day in areas like Norway and the Mediterranean where length of growing season or climatic factors place constraints on fodder availability. The widespread distribution globally of the wood-pasture landscape and its variants testifies to the value of timber and tree browse within contrasting agrarian economies.

Dr Della Hooke (Cheltenham and Gloucester College) spoke on 'Shadows of the Past: Relict Field Patterns in the Present-Day Landscape'. The paper drew upon documentary and field research undertaken in a large number of areas throughout England and Wales, notably the south-west peninsula, the west midlands, and north Wales, to convey the general message that, to those capable of decoding them, present landscapes offer numerous relicts of past agricultural activity, many of great antiquity, and some in quite inhospitable areas. Whilst recent deep-ploughing of the Wiltshire downlands has reduced a once-rich set of relict landscape features to mere crop marks, in most areas the tempo of destruction has been more relaxed. It seems likely that many early medieval field patterns remain to be detected and reconstructed.

The afternoon session began with a paper by Dr Sarah Wilmot (Open University) on 'Agriculture and Pollution in Victorian Britain'. The paper offered three distinct themes. The effects of industrial pollution on agriculture were explored by reference both to existing published work and to new research, with suggestions made as to the distribution and severity of various forms of industrial pollution, especially ammonia and sulphur. The second part of the paper dealt with the effects of pollution from agriculture on water quality, drawing much of its data from the results of the Rothamstead experiments. At the time, the nutrient enrichment of water-courses was thought to have generally positive implications for aquatic life-forms. A third section analysed the Victorian obsession with the possibilities of using sewage as an agricultural input. Unsatisfactory results, at times hazardous to human health, did not prevent continuing advocacy of such practices by agricultural chemists and others.

In the final paper, Dr John Sheail (Institute of Terrestrial Ecology) spoke on 'Sustainable Agriculture: the UK Experience'. Arguing that concern for the environmental consequences of food production long predates the present outbreak of environmentalism, Dr Sheail traced environmental consciousness in the work of many authors published during the period 1870 to 1940, and took issue with Colin Duncan's recent attempts to paint the agriculture of the period as generally indifferent to conservation. Albert Pell's unease at the cost of the artificial fertility implicit in every waving field of wheat was shared by other, later authors. Sir George Stapledon's advocacy of an agricultural policy in which the needs of the land itself would serve as the basis of the land's future prosperity was not at odds with the thinking of the time.

Obituary: Lord Murray of Newhaven, KCB (1903–1993)

By RICHARD PERREN

KEITH Anderson Hope Murray, President of the British Agricultural History Society from 1959 to 1961, was one of the leading figures in British higher education in the three decades following the war. He was chairman of the University Grants Committee from 1952 to 1963. During that time he laid the foundations for the rapid growth that followed the publication of the Robbins report in 1963. On his retirement from the chairmanship he was described by Lord Hailsham as 'the right man in the right place at the same time'.

He was the third son of Lord Murray, a Scottish judge, and Nancy Nicholson. He went to Edinburgh University and took a BSc in agriculture with the intention of becoming a farmer. He entered the Board of Agriculture in 1925, but in 1926 was elected to a Commonwealth Fund Fellowship at Cornell University. During his three years at Cornell he built up a reputation as a young scholar who was taking a leading part in the developments in agricultural economics. After completing his PhD at Cornell he returned to Britain in 1929 and became a graduate student at Oriel College, Oxford. He presented a successful BLitt and entered the Agricultural Economics Research Institute there.

It was during the pre-war years, and before the many other aspects of his career made increasing demands on his time, that Murray produced most of the work that is best known by agricultural historians. In 1931 his *Factors Affecting the Prices of Livestock in Great Britain* was published, based on the work for his PhD. This slim volume of 180 pages was well ahead of its time; its author used statistical techniques well before the age of the computer to isolate the separate effects of various demand and supply factors from the 1870s onwards. In the deep depression of the 1930s he published two books with Lord Astor. These revealed his interest in and command of the general question of agriculture as well as the particular matters of agricultural microeconomics. *Land and Life* (1932) outlined a national policy for agriculture, showing that money would be better spent on supporting livestock, milk, vegetable, and fruit production than subsidising wheat and sugar beet. The other, *The Planning of Agriculture* (1933) searched for a balanced policy and discussed to what extent central planning was desirable, and how far measures that had already been introduced — such as marketing schemes — were likely to succeed. In addition, in these years he published frequent articles in the Research Institute's series *The Farm Economist*, as well as other institute studies on the effects of the agricultural legislation of the later 1930s.

At the start of the war he requested active service and spent two years as a RAFVR radar controller. The rest of the time he was in the Ministry of Food, where it had been planned to send him in 1939. Here he filled a post that matched his abilities, as the director of the Food and Agriculture, Middle East Supply Centre. His job was not merely one of supplying allied troops, for he controlled an area greater than the size of Europe with over 80 million civilians to feed, and where he had to deal with problems ranging from grain hoarding to plagues of locusts. After the war he made one return to writing on British agriculture with his important volume on *Agriculture* (1955) in the History of the Second World War series.

Following his years on the UGC he received honorary degrees from several universities, a KCB and a life peerage, as well as becoming Chancellor of the University of Southampton. He was also associated with the Leverhulme Trust and the Wellcome Trust, and accepted positions on the boards of Metal Box and Bristol Aero companies. A devout Presbyterian who never married, he is survived by his younger brother and several nephews and nieces.

Book Reviews

DAVID CROUCH, *The Image of Aristocracy in Britain 1000–1300*, Routledge, 1992. xiii + 392pp. £45.

This is a book which seeks to establish a 'model of a three-stage formation of modern aristocracy'. What, in short, made an aristocrat in medieval Britain? David Crouch answers this question by exploring the rituals, titles and symbols which characterized the British aristocracy. This is a floating world of outward symbols not a study of lordship; no lords here riding roughshod over their tenants and lands, no big sticks only their symbolic equivalents, not 'real power' but that which has 'no other existence but in the minds of men', the image not the reality of aristocratic lordship. Yet contemporaries may have lived more commonly under the reality of the image.

Crouch's three stages belong to the period between 1000 and 1300. Firstly, signs and marks of aristocracy were universally recognized in the eleventh century, imitated by a widening range of people in the early twelfth century, and increasingly defined and regulated by the crown from the later 1200s. The exposition in the first part is chronological. Employing Duby's model of social diffusion Crouch follows the role of the crown in the dissemination of magnate symbols and, in the thirteenth century, its increasing dominance. The traditional cultural leadership of north-eastern France, always euphemistically called 'international' in English writing, encourages an attempt to situate the model within a British context. The adoption of aristocratic culture in England is throughout balanced by reflections on Wales and Scotland, the latter Anglicized and international by the early twelfth century, the former assimilating titles, knighthood and heraldry only in part. This makes for a somewhat broken narrative and, memorably, the occasional 'international Welshman' (p241), but it is a courageous effort to escape from Anglocentrism.

The writer refines his adopted model in a number of areas. The use of heraldry as a definition of the family is seen as a borrowing, not from the English crown, but from the nobility of northern France. Only those symbols which had little aura of power, it is argued, conform exactly to the model of cultural diffusion from the crown. In other areas Britain's nascent aristocracy borrowed promiscuously from the church and from classical exemplars. More importantly the British aristocracy ceased to be indistinguishable from its European counterparts at the level below the knight before 1300. In this, the third of Crouch's phases, regulation and exclusivity were attempted. The evidence is suggestive rather than conclusive but the author postulates a defensive and uneasy adoption of symbols at lower social levels, a certain timidity. One is tempted to find here, though in fairness the text does not advance such a conclusion, the origins of English deference. Differencing in the Welsh experience is attributed to the durability of native rituals and titles but no similar cause would explain the English experience.

The second part of the study reviews the trappings and insignia of aristocracy, banners, rods and seals, and examines the rise of heraldry. There are brief considerations of architecture, the castle and the hall, and of patronage both within and without the household. The behaviour of aristocrats on the hunt, in their choice of companions and in their patronage of religious institutions are also explored. There are many interesting insights here, not least on the appearance of livery badges in the thirteenth century or the role of chantries in the twelfth century. But there is more than a touch of the unnecessarily encyclopaedic where detail crowds argument.

Despite its length there is no room for consideration of the reception of these images of aristocracy except between near-equals. There is consideration of stone as a building material, of the organization of space in noble halls and of the acquisition of symbolic buildings, towers and walls. But there is hardly a peasant in the whole book whose attitude to these images in his own landscape might tell us so much about the impact of noble culture. This is a minor weakness in what remains an ambitious and rewarding study.

PHILIP MORGAN

TREVOR JOHN, ed, *The Warwickshire Hundred Rolls of 1279–80. Stoneleigh and Kineton Hundreds*, OUP, 1992. x + 374pp. £40.

The 1279 Hundred Rolls have long been a familiar and a valuable source to medieval social and economic historians. Not only do they cover a large area of the countryside in considerable detail, but they describe villages rather than manors, and villages on small estates as well as on large. Not for nothing have they been called 'the only source for English agrarian history in the medieval period which can be compared with Domesday Book'. They lend themselves, as Kosminsky, most notably, demonstrated, to the use of the statistical method, and they would seem an obvious candidate for computer assisted analysis. The 1279–80 Hundred Rolls for the two Warwickshire hundreds of Kineton and

Stoneleigh, though hardly unknown to historians, have hitherto remained unpublished, and their appearance in the British Academy's Records of Social and Economic History Series is very welcome. Trevor John has set out to produce 'the most accurate and complete possible' text, based primarily on an Exchequer version which is contemporary with the survey itself. This has been supplemented by a late fifteenth-century copy and also by a late fourteenth-century copy of part of another, now lost, document which was also more or less contemporary with the survey, perhaps the original return. The editorial process is usefully and lucidly described in the brief introduction. The text is given in Latin and in full; it is clearly laid out and a pleasure to read. There are maps showing the location of the two hundreds and of the parishes within them.

The surviving Warwickshire Hundred Rolls deal first with the town of Warwick, then go on to describe well over a hundred villages, including the odd failed or failing 'borough' such as Bretford. In each case, there is a brief description of demesne resources, though these are not valued, and then a list of all the landholders in the village, with their holdings and their rents and services. Happily for the historian, Kineton and Stoneleigh hundreds included land in both the anciently settled and manorialized Felden, in the southern part of the county, and in the Arden country north of the Avon, where much woodland survived. They therefore reveal contrasts between simple and complex manorial structures, between areas of light services and areas of heavy services, and between areas of predominantly free and of predominantly unfree tenure.

There is much else of interest with regard to subjects as diverse as woods, parks and warrens, on the one hand, churches, hermits and judicial rights on the other. Common rights are occasionally noted; more often we read of resources, not least many fisheries, which used to be common but which have been appropriated by the manorial lord, or are at least held on a dubious basis. We see the clusters of 'independent' and, more frequently, 'seigneurial' water- and windmills which we now know to have been characteristic of this period. The village of Harbury, to quote just one example, not only had six lords and six demesnes but no fewer than five windmills.

As the editor justly observes, as well as lending themselves to systematic analysis, the Hundred Rolls are full of specific detail. At Barford, Hubert the Mariner held his cottage and two acres freely in return for a minimal rent, maintaining a boat and, apparently, ferrying people across the river Avon. At Kenilworth, there was a cottager called Mariota the Tailoress — perhaps a tailor's widow, perhaps not — but in any case, one hopes, now operating independently. Returning to agrarian history more strictly defined, there is a detailed description of the duties and the perquisites of the *famuli* at Long Compton, down to the *interiora* (*sic*) and the 'taylpes' of the pigs which fell due to the swineherd.

The volume comes without any editorial notes or comment on the content of the document it prints, which is arguably a sensible policy. Less justifiably, it has only a cursory index. Though this is nowhere expressly stated, the index is more or less confined to personal names. The hard-pressed reader interested in, say, mills or gallows or fisheries, is given no help. In view of this, it is all the more unfortunate that so many references to person's names are either missing (e.g., most of those on ff 16b–17) or wrongly recorded (e.g., a batch of those on f 3). Both forenames and surnames are, of course, interesting in themselves. They are helpfully given here as they appear in the manuscript, with only the minimal obvious extensions.

JEAN BIRRELL

MAURICE BERESFORD and JOHN HURST, *The English Heritage Book of Wharram Percy Deserted Medieval Village*, Batsford, 1990. 144pp. Illus. £19.95 (hbk); £10.95 (pbk).

The full title and the introduction precisely explain the main aim of this book: 'to give the general reader an account of the progress of research at Wharram Percy up to the end of the July 1989 season of excavations' and to 'help the visitor to interpret the site for himself'. Along the way it does a good deal more than that for the findings at Wharram are always seen in the context of other deserted sites elsewhere in England and of adjacent parishes in the Yorkshire Wolds. As is to be expected the book is delightfully written, in the form of a quest, by two authors who so obviously share with Rose MacAulay the pleasure of ruins. There is a good deal here for agrarian historians. For example, the authors discover, from evidence both within the Wharram tofts and on the surrounding fields, that midden rubbish was regularly and thoroughly cleared out and spread about in the Middle Ages, but not in the Anglo-Saxon period. One wonders: could the change in practice have had something to do with the introduction of the common field system which probably resulted in less intensive manuring of fallow by livestock, and therefore a need to maximize inputs to the land? The very processes of village origins are touched upon. It is suggested that the appearance of a village at Wharram, replacing more scattered settlement, may have taken place in the late Saxon period. The evidence is circumstantial, as seems always to be the case when this knotty problem is addressed: the

abandonment of possible middle Saxon sites which now lie out in the fields (p 24); the fact that major tenurial changes were associated with the coming of the Scandinavians and may have acted as a stimulus for nucleation (p 84). The authors rightly point to the importance of a great but enigmatic boundary bank, 8 ft high in places, which separates the tofts of Wharram's regularly laid out west row from their associated crofts and which is post-Conquest in date. Could it be that we should be thinking of two phases in the origins of Wharram, a late Saxon process of nucleation and a replanning shortly after the Conquest? Could the replanning, if that is what it was, have followed the devastation and depopulation which apparently affected the Wolds after the Harrying of 1069–70? If that was the case, could the massive bank have been some kind of defensive work erected in troubled times? It testifies only to the difficulty and intractability of the problem of English village origins that the most thorough investigation of a single village ever undertaken should have failed to answer the question of when and how it all began.

There is also much for agrarian historians in a final chapter entitled 'The site after desertion'. After the last villagers left, possibly in the early sixteenth century, two houses remained at Wharram, the vicarage and a single farm which went with the pastures. Their seventeenth-century successors have both now been excavated and the structures matched with the documentary evidence of glebe terriers, leases and probate inventories. The history of land use after desertion at Wharram Percy is a model for the Wolds at large. Hedges decayed, covenants in a lease prevented much ploughing up of the good pastures and the selions of the glebe became lost and indistinguishable. Then, as befits a parish in countryside dominated by the monument erected to commemorate the improving zeal of Sir Tatton Sykes, the land was tarted up for arable in the late eighteenth century and new farmhouses built. There was of course no existing resident labour to help with the new farming operations, so men and women were imported back to Wharram, not to live in their own dwellings as in medieval times, but as servants crammed into the top and segregated rooms of the new farmhouses. Even they have now gone, but thanks to these two authors with all of their helpers, and thanks to this book, new life has been bestowed on this most illustrious of deserted villages.

H S A FOX

R W HOYLE, ed, *The Estates of the English Crown, 1558–1640*, CUP, 1992. xviii + 440pp. £50.

The numerous properties belonging to the English crown formed by far the largest landed estate in the country, even after the sales of Elizabeth and the early Stuarts. The income derived from them was an important element in the finances of the government throughout the sixteenth and into the seventeenth century, as also, of course, was the capital derived from their sale. The administrative machine required to manage the lands was a major source of patronage for Tudors and Stuarts alike. And the socio-economic evolution of numerous localities, literally from Cornwall to the Borders, whether single manors or much larger areas such as the various royal forests, was influenced (often decisively) by the fact of crown ownership. Yet despite the undoubted importance of the crown estates in the political, financial and agrarian history of the country, there has been remarkably little written about them — as this reviewer discovered some years ago when he had the task of synthesizing what secondary literature existed. The task was an easy one for there was hardly anything to synthesize: some work on sales of crown land under Elizabeth, a pioneering book on the royal forests of Northamptonshire, a chapter here and a pamphlet there, and a few articles derived from otherwise unpublished theses — there was not much else even in the mid-1980s. This may have been partly a matter of fashion, of postgraduates and their supervisors being attracted to fields where things were 'happening' in an historiographical sense and avoiding one into which few or no others had yet ventured. Another reason, however, is suggested by a reading of the present book with an eye to the sources upon which it is based. These appear to be a tangled thicket indeed: varied, voluminous yet sometimes tantalizingly incomplete, some of them not well organized or indexed, others intractable and only yielding up their secrets after the application of much hard labour. However, now that Dr Hoyle and his collaborators have hacked their way through at least some of the gorse and thistles, it will be easier for others to follow, and the rich harvest with which they have been rewarded should certainly encourage them to do so.

The book under review is not a comprehensive history of its subject: indeed so large and complicated an undertaking would this be that it is doubtful whether one will ever be written (although I would be delighted to be proved wrong in this judgement!). However *The Estates of the English Crown 1558–1640* is the next best thing, a set of fourteen essays by six different authors on different aspects of the estates and their management, all of them substantial and some of them extending to fifty pages or more. A few of them, indeed, may be too long for some tastes but on balance the value of communicating detailed information in subject areas where hitherto so little has been

known at all justifies the multiplication of examples and the detailed narratives which occupy many pages in some of the contributions. Richard Hoyle, the editor, is by far the largest contributor, his one short and four full-length pieces making up some 40 per cent of the entire book. His introduction alone is a valuable addition to the literature, and contains (besides much else) useful discussions on the amount of revenue the crown derived from its lands at different dates, on the sales of crown lands, on crown policy towards rent and rent increases, and on the Auditors of the Exchequer whom he describes as 'the linchpin of the whole administration [of the estates] and...should this book have any, its heroes'. For agricultural historians, however, his later chapters on tenures and attempts to reform the management of the estates will perhaps be more interesting: the latter, despite strenuous efforts, achieved little in the face of practical difficulties, especially tenant resistance. The one of David Thomas's two contributions devoted to leases in the time of Elizabeth nicely compliments Dr Hoyle's discussion of tenures, whilst Joan Thirsk's essay on 'The crown as projector on its own estates' looks further into efforts to increase the yield of the lands through searches for 'concealments' and the like. The story she tells is inevitably a largely unedifying one as the claims made on the crown's behalf by private 'projectors' progressed from the merely ingenious through the devious to the totally outrageous, ultimately provoking opposition in parliament. Peter Large contributes a lively and interesting essay on Feckenham Forest in which, again, the theme emerges of the crown's failure to increase the revenues from its properties in the face of local opposition, whilst most of what financial benefit its policies did yield went to officials and other manorial lords rather than to the crown itself. Graham Haslam reminds us that the Duchy of Cornwall had a distinct entity within the crown estate, even though for much of the period there was no male heir to the throne to hold the title of duke. And finally Madeleine Gray contributes two pieces, one of which is on the mechanics of crown land sales, whilst the other (in the context of Wales) is the only real treatment in the volume of the important issue of the crown lands as a source of patronage.

Even a long review could not begin to pick up all the interesting issues for agricultural historians this book raises. But this much should be stressed: hitherto there has been an element missing from the discussion of many aspects of the agrarian history of the later sixteenth and early seventeenth centuries, most notably in the histories of estate management, of land ownership, and of the landscape — an element whose absence has seldom been noticed. Thanks to the work of the six historians whose work has been collected together in this book we no longer have any excuse for not taking it fully into account in our thinking, our teaching and our research.

CHRISTOPHER CLAY

R C RICHARDSON, ed, *Town and Countryside in the English Revolution*, Manchester UP, Manchester, 1992. ix+278 pp. £40.

Every serious student of the history of England's civil wars will find this collection of essays to be of compelling interest. In the main they are revisionist in tone, although it must be added, in view of the historiography of this subject, 'revisionist' with a small 'r'. Dr Richardson, in his preface and introductory chapter, explains that the purpose of the collection is, 'to overcome the traditional separation of subject matter' in 'the two fields of urban and agrarian history' (p ix). The collection is, 'about the distribution of allegiance and neutralism in the Civil War, about religious tension and disagreement, the seriousness of the impact of the military conquest, about the extent and speed of recovery, the ways in which urban and rural interests were shared or remained separate and divided, and about how far the English Revolution was urban led' (p 14). Nine further papers follow, but it is noticeable that while the first five are very specifically urban studies, each examining closely events in a specific town, the last four deal equally clearly with exclusively rural themes. This point surely lends weight to Dr Richardson's complaint about a 'traditional separation of subject matter', but this problem is addressed in his introductory chapter, and by the production of this collection as a whole.

In chapter two Keith Lindley immediately sets the revisionist tone by building on the work of Valerie Pearl and Ian Archer to suggest that the allegiance of London, or at least of its ruling elite, was more finely balanced in 1642 than is often supposed. The strong conservative elements within the city came progressively to the fore during the Civil War and its aftermath. David Scott next takes a close look at 'Politics and government in York, 1640–1662' and concludes that, 'the Civil War period saw the first steps towards the formation of permanent political parties and the "divided society" of the Augustan era' (p 65). Ann Hughes then presents a study of Coventry, proudly independent before the Civil War, strongly Parliamentarian during it, and staunchly Presbyterian thereafter. Its pride was humbled in 1662 by the destruction of its walls, and it fell under the dominance of a vengeful local gentry. Chapter three is on 'Bristol's "Wars of Religion" ', by David Harris Sacks, perhaps the most interesting chapter in the book. His evidence strongly supports the views of those who

hold that, yes, the Civil War *was* about religion, but it was not *just* about religion. Sacks is able to show that the Puritan merchants and tradesmen of Bristol shared a consensus of belief not only on religious matters, but also in social, political, and economic fields, the latter most clearly demonstrated by their universal abhorrence of 'monopoly' in its widest sense. Ian Roy next gives us a detailed and harrowing account of the sufferings of 'The city of Oxford, 1640–1660' as royalist capital during the Civil War, and under the Protectorate, although its recovery was swift after the Restoration.

Joan Thirsk opens the 'countryside' section of the collection with chapter seven on, 'Agrarian problems and the English Revolution'. Dr Thirsk identifies a number of agrarian problems that came to prominence between 1640 and 1660, and evaluates the success of attempts to deal with them. Barry Coward next provides a chapter on 'The experience of the gentry, 1640–1660'. This experience was, inevitably, too diverse to be effectively summarized in a brief review, but the chapter is a compelling one, making it clear that the experience was not one which most gentry would ever want to repeat. C B Phillips next contributes a chapter on 'Landlord-tenant relationships, 1642–1660', and discusses the extent to which tenants would automatically adopt the views of their landlord, or follow him into battle. Buchanan Sharp concludes the collection with chapter ten on 'Rural discontents and the English Revolution'. This again is certainly one of the more interesting contributions, for Sharp vigorously attacks the views of David Underdown on the differing allegiances of wood pasture and arable fielden areas during the Civil War, and shows that by 1660, in some areas at least, political views were decided more by local interests than by any form of ideology.

As is usual with such collections no generalized bibliography is provided, but the footnotes at the end of each chapter provide a goldmine of references to publications in many of the less well-known journals, and in other sources likely to be overlooked even in these days of computerized retrieval systems. The collection as a whole is a distinguished one, which will prove of great value and interest to all historians of those turbulent times.

J R WORDIE

R J MOORE-COLYER, ed, *A Land of Pure Delight: Selections from the Letters of Thomas Johnes of Hafod, Cardiganshire, 1748–1816*, Gomer Press, Llandysul, 1992. xiii + 314pp. Illus. £15.95.

TREFOR M OWEN, *A Pocket Guide to the Customs and Traditions of Wales*, University of Wales Press, Cardiff, 1991. viii + 136pp. Illus. £4.95.

Thomas Johnes of Hafod was a remarkable gentleman — a welcome contrast from many of his idle, pleasure-seeking fellow Welsh squires — whose passion was to create his estate at Hafod into one resembling a 'fairy scene' conforming to the 'picturesque' ideal. Here a previously neglected, slovenly and hungry peasantry would be transformed, Johnes hoped, into enterprising, prosperous tenants, and all estate dependents be succoured and protected by a benevolent landlord. But he was far more than a good landlord: he was an exceptionally cultured squire, who laid out vast sums in adorning his new mansion, completed in 1788, with paintings, sculptures, books and collections of old manuscripts.

Such a figure has naturally long attracted attention. This latest study by Dr Colyer is superb, a volume to be treasured both on account of its brilliant introduction covering seventy-five pages and of the letters themselves which, judiciously selected, bring Johnes to life, revealing the huge motivation of the man, his achievements, his follies, his tragedies — Hafod was burned down in March 1807 and its 'brightest charm', his only child and daughter Mariamne, died in 1811 — and his warm, generous, humane disposition. Dr Colyer's rich footnoting of the letters displays a wide knowledge of contemporary art, culture and politics, so that the contents, whether relating to his translations of the history of the French chroniclers Froissart, Joinville and Monstrelet, his allusions to contemporary political events at home and in France, militia affairs, new methods in agricultural science and the like, can be fully appreciated. The illustrations, too, embellish the volume.

His many-sided activities which emerge in the correspondence — his work as an agricultural pioneer and planter of trees, his devotion to militia duties, his collection of Dutch, French and Italian paintings, his purchase of manuscripts and books for his library, his true 'pride and joy' — are carefully weighed up by Dr Colyer in the introduction. For the agricultural historian there is an important assessment of Johnes' achievement as a 'spirited improver', in which mission he relied heavily for advice upon his Scottish 'master', James Anderson. We are left in no doubt as to his successes in arable farming, in grassland improvement, in cattle fattening (his feeding house in association with the latter is described by Dr Colyer as a 'remarkable innovatory achievement'), in sheep farming and in planting trees, particularly larch. Dairy farming, however, was a failure. Likewise, his urging upon his tenantry the benefit of growing turnips seemingly met with a poor response. His schemes, too, to import by sea to Cardiganshire burnt lime from Glamorgan coastal areas, and to construct a railway from Glamorgan to Cardiganshire to facilitate the import of coal, culm

and lime turned out to be impractical; yet, as Dr Colyer argues, they bore testimony to his wish to raise the farming standards of his impoverished district. We also glean valuable information from the letters concerning land prices, rent levels, leasing arrangements, unrest among the labouring poor in the 1790s, and poverty-driven emigration of the Cardiganshire poor to north America in 1801.

Trefor M Owen's *The Customs and Traditions of Wales* is a welcome follow-up to his highly acclaimed earlier study on *Welsh Folk Customs* (Llandysul, 1959). As a 'pocket guide' it is a brief but nonetheless masterful survey of the old customs and traditions of the semi-subsistent, face-to-face Welsh peasant communities, customs and traditions which persisted well into the nineteenth century. A variety of photographs and eye-witness accounts add to the attraction of the volume. The author neatly arranges the customs into four basic categories: those centred on the hearth and home, farming, community life, and the parish church. One of the compelling aspects of the discussion is Trefor Owen's emphasizing the fact that many customs were a veritable legitimizing of begging and a communally sanctioned means of raising funds in an impoverished society — customs like the *cwrw bach* and the *pastai*.

Of great value, too, is the author's examination of the ways in which the growth of nonconformity and industrialization undermined or changed these folk traditions during the course of the nineteenth and early twentieth centuries. The overwhelming popularity of nonconformity by the middle of the nineteenth century allowed it to create its own distinctive counter-culture based on the chapel choirs, *eisteddfodau* and literary meetings; urbanization for its part naturally undermined many old practices which had relevance and made sense in the rural world. The author is careful to remind us that of the religious denominations it was not just Methodism that opposed the old customs; in the passage of time Baptists and Congregationalists as, too, certain clergy of the Church of England, set their faces against 'unacceptable' customs.

One additional important agency, however, in weaning the peasantry of the countryside away from the traditional customs and superstitions was the advance of popular learning over the later decades of the nineteenth century, a factor Trefor Owen does not sufficiently consider. Thus Edward Laws remarked of south Pembrokeshire in 1888 how 'fetch candles' and 'fetch funerals' were 'bits of living folklore faithfully believed in by many' but that 'Board Schools go on day by day demolishing such old world fancies'. Part of the same process was the growing sense of embarrassment felt on the part of the newly enlightened generation in the rural areas at participation in such customs as the dance and frolic of the maypole.

DAVID W HOWELL

STEPHEN CAUNCE, *Amongst Farm Horses. The Horselads of East Yorkshire*, Alan Sutton, Stroud, 1991. xii+243pp. 45 plates. £18.95.

Gradually over the last twenty years local studies have produced a complex, and regionally various, picture of the nineteenth-century farm worker. Gone, one hopes for ever, is the characterization of a 'dominant' type of labourer, as male, landless, and employed by the week or even the day which is derived largely from late nineteenth-century and southern accounts of the countryside, but especially the reports of James Wilson Fox on the farm labourer in 1900 and 1905. Beginning with Dunbabin's essays in *Rural Discontent in Nineteenth Century Britain* and Ian Carter's work on Aberdeenshire, these studies, notably the excellent Lowland Scottish work associated with T M Devine and Alistair Mutch's work on the English north-west, have presented the historian of the labourer with material which suggests that farm service or even versions of peasant labour were far from marginal even in the early twentieth century. Even more recently Adrian Hall's excellent account of the 'worker-peasants' of Lincolnshire brings this category dangerously near the heartland of English capitalist agriculture.

Stephen Caunce's book is a very important addition to this literature. The East Riding of Yorkshire and, to a lesser extent, parts of Lincolnshire and north-east Nottinghamshire, were the heartland of the horselads — young men, aged from their early 'teens to their mid-twenties who hired onto the great hill farms of the Wolds to work the farm's horses. They hired usually for twelve, although sometimes six months, and lived 'in' either in the farmhouse or more usually with the foreman. This system was not ancient or residual but a product of agricultural improvement in the eighteenth century. These were not classic 'farm servants', the sons of social equals, learning a trade and waiting on their own farms, rather they were wage labourers at a particular point in the life cycle. When they married they became labourers, still hiring for longer periods than in many areas of the south, but in other respects very similar. However, the farm lads were not simply labourers in the southern sense either. Firstly, they lived in and hired by the year. This created a quite different culture of work and of play. Secondly, and growing from this, they worked horses. In most of England, even other parts of the north like Northumberland, horse work was the prerogative of age and the

mark of skills arduously acquired. In the horselad's land the process was reversed — a source of constant confusion to southern observers.

The work culture of the horselads is the central feature of Caunce's book and it is this approach which gives it its tremendous interest and strength. We are taken carefully through the horselads' working year and working life which gives a central (and right) place to the actual experiences of those who worked the land. The power of much of this material comes from Caunce's exemplary use of oral history. As he says 'the views on which this book are based are those of the farm workers on their own lives'. As is so often the case this means not only that the material is 'richer', although it is that, but that the actual focus of the study is altered. Certainly, the historian's wages and hours, and perhaps even a version of productivity are to be found in these pages, yet it is clear that these were only a small part of what working the land meant to those who actually did it. Here the focus is on the skills of work, the quality of horses, how good or bad the food was, and how fair the foreman.

The 'farm servant system' as Caunce calls it was, he argues, remarkably resilient, adapting to a range of changes though the nineteenth century and proving largely satisfactory to master and to man. Wages and conditions were decided in the ritual conflicts of the annual hiring and, although Caunce finds no evidence of combinations of the kind described by Carter and others for Scotland and Dunbabin for the north of England, it is clear informal organizations and sanctions existed for both sides. Even the depression years seem to have done little to have changed the system. However, the inter-war years, falling prices, reduced wages and pressure to employ fewer workers coupled with gradual mechanization, especially the tractor, undermined the horselads' world. Finally, government regulation of wages made the hiring fair irrelevant, although it survived the wages board by a decade. Perhaps as important as these outside changes though were changes in the lads themselves: they were, as Caunce says, 'feeling that they were out of step with the twentieth century...they were starting to regret the isolation and lack of any independent social life'.

Overall Caunce presents a fine account which adds to our knowledge of 'real' nineteenth-century farm work. Perhaps now we can look forward to other volumes on the labourer and above all on the women who worked the land of the East Riding, which can go some way to a history of the nineteenth-century rural poor which has a northern focus.

ALUN HOWKINS

P L CURRAN, ed, *Towards a History of Agricultural Science in Ireland*, The Agricultural Science Association, The Irish Farm Centre, Dublin, 1992. 286pp. IR £15.

This edited volume has been produced to commemorate the golden jubilee of the Agricultural Science Association (ASA) and has a total of nineteen contributors. The two most substantial sections of the book deal with the 'Emergence of a technological agriculture' from 1592 (the year of the foundation of Trinity College, Dublin) until the accession of Ireland to the EC in 1972 and 'Agriculture in the new state, 1922–1972' respectively written by P L Curran and M Neenan. Later chapters devote specific attention to the origins and development of the ASA. This was founded in 1941 with the objectives of promoting the advancement of agricultural science and technology in Ireland, and also as acting as a professional body for agricultural scientists. The lack of official recognition for Irish agricultural science is a recurrent theme in the book. In 1850 the value of agricultural scholarships was lower than for those in medicine, law or engineering whilst a century later the ASA had to campaign vigorously — and not altogether successfully — for equality of treatment for its members in government service, in comparison with other professions. The book concludes with a plea for better recognition for the professional focus of agricultural science, but the reasons for this apparent lack of status are not very fully explored.

The early historical sections touch upon some important issues and controversies in the development of a scientific and technological agriculture in Ireland which deserve more extensive treatment than they are given in this book. The latter part of the work deals with the activities of the ASA and recent trends in Irish agriculture. This includes a contribution from John McCullen, dealing with the period since 1972, entitled 'From rising sun to dark clouds' and a commentary by Prof S J Sheehy on the 'Future of Irish agriculture after the MacSharry Reforms' (originally published in the *Irish Banking Review*). The variety of contributors makes for some unevenness of treatment of the subject matter, and the reader would also be considerably assisted by the provision of an index.

As is to be expected, one of the themes which runs through the book is the status of the family farm in Ireland. Indeed, in 1991 the president of the ASA initiated the 'Family Farm of the Year Awards' with EC support. Earlier, we are reminded (p 102) that it was part of de Valera's policy in the 1932 election campaign to 'keep as many people on the land as could live thereon in frugal comfort' whilst David Thompson asserts (p 245) that, in 1992, 'An Irish countryside without family farms is

inconceivable'. Yet as P L Curran recognizes in his introduction, for some time 80 per cent of farm output in Ireland has been produced by about 20 per cent of the total farmers and that 'farmers and agricultural scientists are victims of their own joint success'.

This book does not profess to be a definitive history of agricultural science in Ireland. One of the problems in producing a commemorative work of this kind is to achieve a balance between the need to chronicle the internal history of an institution — the ASA — and to have a worthy record of the endeavours and achievements of the individuals associated with it, while placing this record within a wider context. The general reader will, I suspect, conclude that the volume is more successful in the former, than in the latter, objective.

NICHOLAS GODDARD

SIGNE ISAGER and JENS ERIK SKYDSGAARD, *Ancient Greek Agriculture: An Introduction*, Routledge, 1992. x+234pp. 9 figs; 36 plates. £40.

Isager and Skydsgaard's book is divided like Caesar's Gaul into three parts. The first, taking up half the volume, deals with the mechanics of agriculture itself, the second with the state and agriculture, and the third with the gods and agriculture. The authors' subject is 'Greek agriculture'. This term is defined strictly to mean the agriculture practised on the Greek mainland, Aegean Islands, and fringe of Asia Minor during the archaic and classical periods. The approach to the subject is sternly minimalist: Hellenistic and Roman sources are firmly treated as secondary and frequently inapplicable, and a variety of other commentators are taken to task for overgeneralizing from such material. Throughout the book there is a sensitivity as to what may be counted as primary evidence and of the varying value of these primary sources. However, the authors' judgement can be challenged on occasions; is it right to call the Aristophanes of Lysias a 'thrifty person'? The use of poetic sources as evidence also requires further discussion.

While this cautious approach is generally sound, it does lead to some problems. At the end of chapter 4 we are told that no feature of Greek agriculture can be regarded as a norm, and the final conclusion of the book bluntly states that there is no firm conclusion to be drawn from the work.

The first section, after a brief geographical description of Greece, deals in turn with agricultural implements, buildings, arable, and finally livestock farming. Here we see both the hardness of the authors' minimalism — they are unsure that the spade was used as an agricultural implement in their period (there is no word for spade in Greek) — and a surprising lapse from it in their *a priori* (albeit probably correct) assumption that certain buildings in the countryside are farmhouses. This section of the book contains many useful photographs and line-drawings which help illustrate the authors' points, though the reason for the choice of some, such as that of an oinochoe showing copulating donkeys, remains obscure. The section ends with a short chapter on agrarian systems. The criticism of various theoretical models of farming here will be of greater interest to the general agricultural historian than the more detailed discussions of the technicalities which precede it. Unfortunately, the chapter is very short and while the book is intended to be an introductory volume, a longer discussion of these issues would have helped to set the authors' perception of ancient Greek agriculture in a wider perspective.

The remaining two sections of the book are less successful than the first in helping to draw a general picture of Greek agriculture as the methodology adopted by the authors and our extant sources invariably curtail what can be deduced. Despite their statement that they intend to look at agriculture in a wider social context, they disappoint in this by sticking very closely to the agricultural world. There is no discussion of social factors which may have encouraged certain forms of agricultural production nor of how techniques of agricultural production may have helped shape the form of a Greek state. Nevertheless, there are interesting discussions of the legal aspects of the ownership of land and taxation on agricultural produce at Athens, Sparta, and in Crete. The third section on the gods' role in agriculture is perhaps more controversial as Isager and Skydsgaard seek to distinguish land allocated to the gods from other forms of public land. Unsurprisingly, evidence from Delos features highly in this section, but once again there must be a question as to how much we can generalize from this. The brief overall conclusion downplays the role that agriculture played in generating wealth in the Greek world and looks to trade as a neglected factor here. This chapter could have been greatly expanded and the relationship between agricultural production and trade explored.

To sum up: this book provides a useful introduction to the primary sources available for the study of ancient Greek agriculture as defined by Isager and Skydsgaard. However, given the narrowness of its vision, it will need to be read with other books such as Osbourne's *Classical Landscape with Figures* if it is to give the reader an idea of the role of agriculture in the wider Greek world.

A T FEAR

MAURO AMBROSOLI, *Scienziati, Contadini e Proprietari: Botanica e Agricoltura nell'Europa Occidentale, 1350–1850*, Giulio Einaudi Editore, Torino, 1992. xix+468pp. 27 plates. LIt 85,000.

This is a difficult book about a great historical problem: how did the botanical, biological and agronomic knowledge that sustained the English 'agricultural revolution' develop, and how was that knowledge formulated and transmitted? More broadly, how did late medieval and early modern agricultural innovation occur? Ambrosoli's answer is complex, many stranded, and in the end somewhat elusive: new knowledge emerged from a combination of peasant empiricism, enlightened experimentation by wealthy landlords, and the fledgling European science of botany. Innovation was not a linear or even incremental process; it was shaped as much by market structures and *ancien régime* institutions like the tithe (whose rigid enforcement in seventeenth-century France, Ambrosoli argues, delayed the spread of nitrogen-fixing crops outside isolated pockets), as by the botanists' ability to identify plants and so to reproduce and propagate them successfully.

Ambrosoli's cue is the adoption and diffusion of fodder crops, particularly medick or lucerne (gen *Medicago*) and clover (gen *Trifolium*). This choice is not of course arbitrary; it is based on a traditional view of the early modern 'agricultural revolution' as consisting in the widespread adoption of new crops. But a choice of this kind was essential for identifying the postulated links between agricultural theory and practice, and botanical science. The book's narrative and analytical thread is thus the rediscovery and description of gen *Medicago* by the great Italian agronomists of the Renaissance in the texts of Cato, Palladius, and the elder Pliny, and the transmission of this discovery north of the Alps, first to northern France, and then to seventeenth-century England.

The first two chapters set the scene, as we follow the editorial fortunes of the last of the classical agriculturalists, Palladius, author of an *Opus Agriculturae*, and of Pier de' Crescenzi, Bolognese lawyer turned agronomist whose *Liber Cultus Ruris* (which title Ambrosoli prefers to the more common *Opus Ruralium Commodorum*) dominated the Italian and European publishing markets until the mid-sixteenth century. The solution to the fourteenth-century agrarian crisis, we are told, was found in the rediscovery and deployment of Classical agricultural lore within a society that had lost all memory of it. This loss was reflected in the scriptorial and phonetic transformation of the term *medica*, medick (*Medica sativa*) into *melica*, the Tuscan term for sorghum (*Surghum vulgare*). The discovery and correction of this error, which was still exerting botanists far into the seventeenth century, makes for one of the most fascinating themes of the book.

Ambrosoli's broader claim here is that the response to declining marginal returns to land by de' Crescenzi and other Renaissance agronomists marked the 'beginnings of an uninterrupted relation of dependence between Ancient and Modern and between North and South' (p 42). He finds evidence of this dependence in the manuscripts and printed texts themselves, in the penmarks and annotations that readers in Florence and Louvain, Venice, Tours and London make to their copies of Palladius and de' Crescenzi.

I must confess to a sense of disbelief that such humble marginalia are made to bear so great an interpretive weight. Nowhere is it clearly explained what these marks are supposed to mean, and why. Why should we assume that they denote critical *reception* rather than, say, mere *recognition* of what the readers already know, or believe to know? If the latter, these (mostly anonymous) marks are of marginal historical significance; if the former, we have no grounds for believing (as Ambrosoli fearlessly does) that those critical readers actually practised what they learned in their books. Scribbles, like lions, do not speak for themselves.

Chapter 3 dwells on the rediscovery of *erba medica* in sixteenth-century Italy as *erba spagna* and on the agricultural treatises of three Lombards (the heart of Italian agriculture having moved north), Agostino Gallo, Nicolò Tartaglia and Camillo Tarello. Although Gallo took over from de' Crescenzi as Italy's most popular agronomist, he had little impact abroad. By then the rest of Europe had begun to produce its own, 'national' authors, who were kept busy translating classical lore and terminology into a comprehensible regional idiom and developing new, systematic botanical systems. Chapters 4 to 6 trace the regionalization of agricultural lore in early modern France and England, always with an eye to contemporary debates on fertilization, fodder crops and stimulating productivity. The final chapter addresses the English agricultural 'revolution' proper, the innovations brought by Huguenot immigrants from France and Flanders, and Jethro Tull's experimentation. Discussion here of the technical and cultural problems involved in establishing an international seed market in the eighteenth and nineteenth centuries is of particular interest.

The conclusion, lucid and self-revealing, provides the overarching interpretation and should in fact be read as the book's introduction. For Ambrosoli, pre-industrial agrarian 'modernization' combines two fundamental processes: the transmission from southern to northern Europe of agricultural practices and plants first discovered by the ancients, and

a dramatic simplification of the biological and cultural pool under the impact of market competition and 'profit maximization'. The parallels with contemporary debates on north-south exploitation and the control by agro-business of plant genes are both obvious and explicit.

The interpretation seems hard to accept not so much because of the spurious analogy it establishes with present-day agriculture — this sort of parallel can be quite fruitful if it helps raise questions rather than being forced to solve them — but because the two phenomena it subsumes rely on *two*, quite different models of pre-capitalist agriculture and agricultural innovation: on the one hand, we have a bundle of practical and scientific knowledge embodied in something called 'Mediterranean agriculture', whose basic tenets are transferred wholesale to 'Northern Europe' by (exploitative?) intellectuals and landlords; on the other hand, we find an ecologically, technologically and culturally segmented (hence varied and 'pluralistic') 'pre-industrial' world, in which peasants do not 'maximize' and wait for enlightened landlords to hand down new knowledge or best practice from on high.

Neither model stands up to scrutiny. Ambrosoli's valiant attempts to connect individual readers' doodles and the history of botany with world historical processes (e.g., the rise of the French bourgeoisie, fifteenth to seventeenth centuries (p 89)) are little more than leaps of faith. He is unable to demonstrate that what was read and applied by a few literate landlords became widely-applied best practice. He quotes Robert Allen's recent work with approval, yet accepts the 'Fundamentalist' view that large landholding was of essence for innovation. Most serious of all is England's failure to comply with his theory: for in the end, despite considerable intellectual effort and input to promote Mediterranean medick, the English opted for the native clover, which fixes nitrogen less efficiently but does so far more rapidly than medick.

The book's value is thus in the many important questions it stimulates and the different strands of research it draws together, rather than in the answers it provides: about the character of agricultural innovation and the role of scientific knowledge in the agricultural 'transition'; about the many challenges (epistemological, institutional, and natural) to the early modern quest to control nature; and about the vast pool of local, contextual knowledge and biological resources that increasing commercialization destroyed, and which it should be the historian's task to uncover.

S R EPSTEIN

PETER MCPHEE, *The Politics of Rural Life. Political Mobilization in the French Countryside 1846–1852*, OUP, 1992. ix+310pp. £40.

The study of the countryside in the French Revolution of 1848 has attracted a host of talented historians, who have shattered the myth that a reactionary peasantry scuppered the short-lived Second Republic. As McPhee comments in his introduction, 'there can be few examples anywhere in the world of a rural population and political mobilization about which more has been written'. Yet, rather than deploy his personal research on the Roussillon to publish another, detailed, local monograph, he has successfully opted to construct a grand synthesis. His first objective, to provide 'a cohesive history of rural politics', from the crisis of the mid-1840s to the Napoleonic coup that killed the Republic, is brilliantly executed. Drawing upon his own fieldwork, as well as that of Agulhon, Vigier and many others, not to mention reference to the peasantry of Russia and south-east Asia, he offers an unrivalled, magisterial view. Despite his constant reminders of 'the specificities of regional structure and behaviour' his account is clear and comprehensible throughout. Its accessibility is enhanced by a fine set of maps, marred only by an incorrect caption for the physical geography of France; it will surely become the standard text on the subject.

The book is, however, much more than a compilation of all that has been written; it also contains a critical reappraisal of the material. McPhee is a committed historian who relishes a combative encounter. He takes issue with writers like Clout and Price for suggesting that France remained underdeveloped until the arrival of the railways; on the contrary, in an excellent opening chapter entitled 'Rural France in the 1840s', he demonstrates that agricultural progress and specialization were already underway. Modernization theorists' 'implicit assumption that cities were the progressive core conquering a recalcitrant rural periphery' arouses his particular ire and Eugen Weber, whose *Peasants into Frenchmen: The Modernization of Rural France* has dazzled so many scholars, is submitted to an especially withering onslaught. This latter-day Weber thesis suggested that rural politicization could not really begin until the turn of the twentieth century, when changes in transport, the expansion of education and mass conscription had raised horizons and transformed consciousness. McPhee, by contrast, dismisses the notion that peasant activities during the ill-fated Second Republic were 'pre-political', pressing his case with a gripping chapter on the post-revolutionary 'Battle for the countryside'.

In place of his opponents' arguments, McPhee offers fresh insights of his own. He continues to

draw inspiration from the currently unfashionable Marxian tradition yet, while patterns of land-ownership, rural settlement and economic relations with the outside world bulk large, he allows ample place for the role of ideas, political culture and popular custom: 'Political choice in 1849 was thus the manifestation of a complex interplay of social structures and relations of production informed by perceptions moulded by previous experiences and memories'. The autonomous and active role of countryfolk, but not exclusively peasants, thus constitutes the essence of his reinterpretation. Perhaps he overplays his hand in refusing to acknowledge the role of urban intermediaries and the trickling down of ideology. Moreover, while he is undoubtedly right to suggest that there was more to rural political opinion than the disappointing, democratic electoral returns of 1848 — a conservative Constituent Assembly and Louis Napoleon for president — the sophistication of the predominantly peasant electorate can be exaggerated. Still, McPhee concludes superbly with 'The Second Republic in rural perspective', evaluating the longer term significance of the mid-century crisis in France in both economic and political terms. This is indeed an important and stimulating book, which deserves a place on the shelves of all interested scholars, even at the cost of an overdraft.

MALCOLM CROOK

DOMINIC LIEVEN, *The Aristocracy in Europe, 1815–1914*. Macmillan, 1992. xxv + 308pp. £10.99.

In this book a specialist in Russian politics — himself a descendant of one of the princely Russian families whose estates figure in the text — has produced easily the best, the most informative, and the most stimulating comparative history of modern European aristocracies that we have. It is true that breadth is sacrificed for depth. The aristocracies anatomized are those of Russia, Germany, and England (Lieven has familiar England/Britain problems, and much of the time really means England, while some of the time he is unconsciously talking about Britain), chosen on geopolitical grounds as the nineteenth-century superpowers. Other nobilities or aristocracies are excluded, although the Habsburgs have somehow contrived to steal the front cover with a splendid Viennese court ball. This selectivity makes comprehensive comparison possible: of wealth and its sources in agricultural land, forests, minerals, and urban property; of economic roles in agriculture and industry; of education, morals, culture, and careers; and of roles in government, politics, and the armed forces. In a work of this kind the method has to be that of synthesis; while the English material will contain few surprises for most readers, the German, and especially the Russian, data are much less familiar and it is most valuable to have information from these sources made easily available to an English readership. Juxtaposing these three elite groups and their differing experiences of the general industrializing and urbanizing movements of the century puts nationalist theses, whether of cultural discouragement of economic efficiency or of the persistence of 'feudal' power, firmly in their place: that of myths sustained by aristocratic scapegoats. For the agricultural sector on its own, however, the comparison is not specially illuminating. The agricultural histories of the aristocratic estate sectors of the three countries are succinctly summarized, but very understandably the explanation of the differences between them remains conventional. Prussian Junkers, with no more than small to medium-sized estates on an English or Russian scale, buckled to from the 1820s and 1830s to become efficient, modernizing, landlords or capitalist farmers, aided by the presence of a significant minority of middle-class tenants and incoming landowners, and by the extremely favourable emancipation terms which gave them large territorial gains. Russian noble estates remained backward before emancipation, constrained by traditional institutions and techniques, and after emancipation found efforts to modernize and commercialize their domains frustrated by lack of capital, dearth of potential tenants, and, paradoxically, by shortage of wage labour created by the reluctance of former serfs to work except at scratching their own holdings. In the difficult trading conditions after the 1870s the Prussians were kept afloat by high tariff protection, which in defiance of textbook economics encouraged them to become even more efficient and scientific in their agriculture, while tariffs were irrelevant to the Russians, who became and remained major grain exporters. Meanwhile, English agriculture remained the European pacesetter until the 1870s (here some acknowledgement of the Scottish contribution would not be amiss), and then underperformed, partly because it had no protection, but chiefly because it was shackled by the burden of having to support the incubus of an idle and superfluous aristocracy. The story has been told before, but particularly when this English version is told in a German and Russian context one does wonder why the 'unproductive' superstructure of English landowning should have had a specially damaging effect on the performance of agriculture, when there was a roughly similar superstructure in both Germany and Russia. Lieven does not claim to have an answer, but it is characteristic

of the qualities of his book that it stimulates questions on this, and many other, big problems.

F M L THOMPSON

N I VAVILOV, *Origin and Geography of Cultivated Plants*, trans Doris Löve, CUP, 1992. xxxi + 498 pp. £75.

There can be few domains of knowledge that have been so dominated by a single scholar as was the study of the origin of cultivated plants by Nicolai Ivanovich Vavilov. After graduating from the Moscow Academy of Agricultural Sciences, he studied in England, principally with William Bateson at the John Innes Institute, and made many scientific friends, including Darwin's son Francis, C D Darlington and C B S Haldane. He maintained scientific contact with British colleagues after his return to Russia, and it was his unyielding defence of the principles of Darwinian evolutionary biology — when he was publicly attacked by Lysenko and others in the late 1930s — that precipitated his arrest in 1940, his trial (which only lasted a few minutes) and the resulting death sentence, his imprisonment, and his death by starvation in January 1943, at the age of 55. Vavilov was a man of immense creative energy who in his relatively short professional career effectively founded the modern science of plant breeding, *and*, through his worldwide studies of the distribution and evolution of cultivated plants, transformed our thinking about the origins of agriculture.

Despite his close contacts with Western scientists and his extensive travels in Asia, Africa and the Americas during the 1920s and early 1930s, most of Vavilov's numerous publications remained unknown to — or at least unread by — his colleagues in the West. It was only posthumously that his scientific achievements came to exert a profound influence on students of early agriculture outside the Soviet Union.

The publication in the USA in 1951 in *Chronica Botanica* of a selection of Vavilov's writings translated into English made the results of his lifetime's work on the centres of origin of cultivated plants available for the first time to many Western scholars interested in the beginnings of agriculture. His theoretical and practical research on plant breeding, including the world's greatest collection of cultivated plants which he assembled while director of the Institute of Plant Industry in Leningrad, had been widely recognized in the West before his death — indeed, he was elected a Foreign Member of the Royal Society in 1942 — but the wider impact of his ideas on botanists, geographers, anthropologists and archaeologists studying the origins of agriculture was deferred until after 1945.

The first version of Vavilov's world map of centres of origin to be published outside the Soviet Union appeared in 1945 in the first edition of Darlington's and Janaki Ammal's *Chromosome Atlas of Cultivated Plants*. This map — which was to exert such a compelling influence on later interpretations of agricultural origins on a world scale (e.g., C O Sauer, 1952; I H Burkill, 1953; J R Harlan, 1971; J G Hawkes, 1983) — delineated ten main centres of origin of cultivated plants, which Vavilov himself, as well as most of the Western scholars influenced by his grand conceptual scheme, regarded as the homelands of earliest agriculture.

Although the influence of Vavilov's concept of centres of origin has been pervasive and persistent in the West since 1950, it has been based on a partial awareness only of the magnitude and range of his writings. Following his posthumous rehabilitation in post-Stalinist Russia, Vavilov's immense scientific achievements have been recognized, the Institute of Plant Industry now bears his name, and the centenary of his birth in 1987 was marked by the publication in the Soviet Union of several volumes of his collected works. It is from that event that the present collection of his papers on the *Origin and Geography of Cultivated Plants* stems. It makes available for the first time, in a single volume, twenty-four of Vavilov's papers, most of which have not previously been published in English.

The papers are arranged chronologically and span all but the earliest years of Vavilov's professional career. They include all his major contributions to the study of the origin and geography of cultivated plants, from 1926 when his seminal book, *Studies on the Origin of Cultivated Plants*, was published in Leningrad, to 1940 and the last paper that appeared during his lifetime: a retrospective view of the subject from Darwin and De Candolle, in which he refers to the work of many other scholars and presents a final summary of his own conclusions ('The theory of the origin of cultivated plants after Darwin'). The remaining papers include several on the rôle of particular geographical regions, e.g., two on the Americas and two on eastern Asia, and there is even one on the origin of domesticated animals. The translator summarizes Vavilov's career in a brief foreward, and his and his colleagues' scientific work is outlined in an informative preface.

The book is well compiled and edited (although two of the papers lack publication dates), and its publication will at last reveal to Western scholars who do not read Russian the extraordinary breadth and depth of Vavilov's knowledge of cultivated plants. He was a giant of twentieth-century biology with an unmatched world view of his subject,

cruelly cut down in his prime. Among his papers confiscated in 1941 and destroyed by officers of the NKVD was a manuscript entitled *History of World Farming (The World's Agricultural Resources and Their Use)* which he wrote in prison. We can only wonder what more this prodigiously gifted and hard-working man might have given to the world had he lived longer, and be grateful that he did achieve so much.

DAVID R HARRIS

Shorter Notices

SUSANNA GUY, comp, *English Local Studies Handbook*, University of Exeter Press, Exeter, 1992. xiv +343 pp. £11.95.

The compiler of this handbook is a practising local studies librarian, who was moved to compose by the difficulty encountered in trying to find out where to go for information about particular localities. This familiar problem is often best remedied by the expedient of faxing or telephoning the record office, library headquarters or academic library in the area concerned, and the compiler, Susanna Guy, stresses in her introduction that the entries in the handbook are deliberately brief and that enquirers should continue to seek expert help and guidance from local studies librarians and information officers.

That the book fills a lacuna is evident, and its main virtue is that it brings together within a single cover the names and addresses of local studies libraries, societies, journals and record offices. The layout is clear and simple, commencing with a section on national societies and journals covering local history topics, and is followed by an alphabetical listing of counties, each preceded by a pre-1974 and post-1974 boundary map. Together with cross-referencing and the maps, the user is led quite easily from new to old areas. Within each county section there are five subdivisions dealing with, respectively, local studies libraries and collections, local record offices, local history journals, and museums with local studies collections. Occasionally the holdings of a particular institution are described and the size of some of the collections is given; it is a pity that both could not have been more consistently provided. A perhaps more telling criticism is the omission in the section on local studies libraries of many universities. It is true that a number of academic libraries do not contain discrete local collections, but the majority are available to the general public on a reference basis and they do have considerable local history items in stock. Some university libraries have been included, but where are Sussex, Kent or Surrey, all of which hold extensive local collections? Where is Keele which has a substantial separate local collection, an important local archive and a large collection of local photographs?

Such criticisms apart, this guide must overall be counted a worthwhile addition to the subject literature and a second edition should be able to rectify such anomalies. In the meantime it would be as well to remember that fax and that telephone.

MARTIN PHILLIPS

BERNARD JENNINGS, ed, *Pennine Valley: A History of Upper Calderdale*, Smith Settle, Otley, 1992. x +224 pp. Illus. £9.95.

In his preface to this attractive book by the Local History Group of Hebden Bridge WEA, the editor, Professor Bernard Jennings claims the work to be a comprehensive account of the social and economic history of upper Calderdale. The claim is not misplaced as the chapters unfold and reveal the changing tapestry of development in the area from the earliest traces of human activity to the present day. The research for the book is based largely on primary sources, ranges widely and yet still manages to include a wealth of detail. In its breadth and depth, however, lies the book's weakness. It is the work of many contributors with specific interests and the narrative, which generally flows well, occasionally changes pace, style and direction with a resultant unevenness. Further, most of the work, apart from the nineteenth century, concentrates on the locality with little reference to external influences. Jennings, however, is aware of this flaw. He promises that it will be rectified shortly in a forthcoming book on Yorkshire which will place this work in its wider context.

These modest deficiencies apart, the book still represents an excellent achievement. It is a work which will be both of interest to those in the locality and of value to historians researching similar areas elsewhere. The research is well supported with photographs, maps, drawings and tables though there is the occasional error including a totally confusing table where headings are misplaced. Footnoting is adequate though Jennings, as in some of his other publications, follows a frustrating and frequently unhelpful style of putting in a reference but no title and not providing the date for articles. However, these are relatively minor details and Smith Settle, the publishers, have once again produced a high quality book at a competitive

price of £9.95. Given the book's detail, time span and presentation, it is very good value for money.

CHRISTINE HALLAS

SHEILA HARDY, *The Diary of a Suffolk Farmer's Wife, 1854–69. A Woman of Her Time*, Macmillan, 1992. xiii + 205 pp. £12.99.

The present interest in the role of women in agriculture makes the publication of this book a potentially exciting event. Elizabeth Cotton was the wife of a tenant farmer occupying a 400-acre mixed arable-dairy holding several miles outside Ipswich. The two volumes of her diary span the period from 1854, when Elizabeth was thirty-four years old, until the death of her husband and her move from the farm in 1869. The years are of particular interest to the agricultural historian for several reasons. First, the diary covers the period of the so called 'Golden Age' of agriculture, a period of general prosperity and improved social status for the tenant farmer. Secondly, the diary was written at a time when the farmer's wife was believed by many contemporaries to have been decreasingly involved in agricultural matters. The disclosure of a source which deals with both issues is important.

Unfortunately, in spite of the rather misleading title, the book is neither a diary in its entirety nor an abridgement. Instead, Sheila Hardy has used numerous short extracts, taken out of context and with no chronological continuity, from the diary. To augment this, Ms Hardy has used a good variety of sources such as other contemporary diaries — including another unpublished, privately owned diary of George Ranson — local newspapers, and Victorian novels. These are linked with text to illustrate this thematic commentary on the world of Elizabeth Cotton. Subjects explored include family and domestic life, the education of the Cotton children, the social and religious involvement of Elizabeth, outside events which received notice in the diary, and travel — the only matter on which the diary was extensively quoted. Efforts to interpret the thoughts and motives of Elizabeth Cotton are often decidedly personal and, consequently, dubious.

For the agricultural historian the book is of limited use. Ms Hardy appears to be largely unconcerned with agriculture. Consequently, very few of the excerpts relate to farming matters. This makes the book almost useless as a source for exploring the function of this woman within the agricultural establishment. There are only tantalizing glimpses — of the relationship between tenant and owner, of the problems of livestock disease, of Elizabeth's involvement with the farm labourers, of visits by Elizabeth with her husband to agricultural shows around the region — included which illustrate Elizabeth's comments and concerns with the farm. It is possible that more references are not included in the book because they do not exist. If this is so, it would tend to confirm the declining involvement of the farmer's wife. Without the entire diary, however, it is impossible to know. The thematic organization of the book is more useful as an indication of the socio-economic status of the Cotton family during the 'Golden' years. Ms Hardy not only considers the life of the family as revealed in the diary, but she also brings a wide range of other, comparative sources into the study. Because this element of agrarian history is more tangential to agriculture *per se*, it is less limited by the author's omissions. Overall, however, the book will be a disappointment to those expecting the 'diary' of the title.

BETHANIE AFTON

DENIS WOOD, *The Power of Maps*, Routledge, 1992. viii + 248 pp. £12.99.

'Is any myth among cartographers more cherished than that of the map's dispassionate neutrality?' asks Denis Wood. The question is posed rhetorically. The book is a seamless, entertaining, idiosyncratic exposure of cartography's many myths, not least that of dispassionate neutrality. Mapping does not just produce maps but is fundamental to the process of bringing order to the world. Cartography is primarily a form of political discourse concerned with the acquisition and maintenance of power. As an activity, it can no more be neutral than are the purposes it serves, which are not neutral in the slightest.

Such is the book's drift. The argument is illustrated by passing flotsam and jetsam of cartographic venality, and, from time to time, by something more substantial: the stand-off between the northern-hemisphere, developed-world exponents of Mercator and the advocates of Peter's, the projection of the underdog; the hidden agenda of the North Carolina State Highways map; military paranoia and the limitations of Landsat; and, rather perplexingly, the representation of hills in cartographic history and among children of different ages (childhood exposure to *The Little Red Caboose* apparently reinforcing an attachment to pictures rather than contour plans).

This book should be prescribed, as an antidote, to those students who are obliged to follow undergraduate courses which (still) present cartography as a ritual induction into the unfathomable mystery of an unchanging set of craft practices. They ought to enjoy it.

JOHN R WALTON

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EDITORS: A D M PHILLIPS AND D G HEY
DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF KEELE, KEELE
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PART II

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Lost Rents, Vacant Holdings and the Contraction of Peasant Cultivation after the Black Death
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Lost Rents, Vacant Holdings and the Contraction of Peasant Cultivation after the Black Death*

By JAN TITOW

Abstract

In the post-Black Death Winchester account rolls the information on lost rents and vacant holdings is unusually detailed. This enables us to see how the recorded totals were computed; the results are striking. Careful analysis of the information provided makes it clear that the recorded totals are not what they are said to be. In fact, they represent the balance between the lost rents *sensu stricto* and any income which was obtained from the vacant holdings in other ways. Furthermore, this paper argues that the money obtained from vacant holdings came from the peasants who, therefore, must have exploited them in some profitable way and, thus, such holdings cannot be automatically equated with unused land. Apart from telling its own story, the Winchester evidence may have a lesson for other estates as well: it provides a warning that reliance on the recorded totals alone could be greatly misleading, for the ostensible situation with regard to lost rents and vacant holdings on such estates could be as far removed from the actual reality as it is for the Winchester estates.

IN the account rolls of great estates the Black Death has left in its wake a long record of lost rents and vacant holdings. Both are clearly of considerable importance in the narrower context of landlords' economy, but the phenomenon of vacant holdings raises questions of much wider general significance since such holdings are commonly seen by historians as land abandoned by the peasantry, and their presence in manorial accounts is widely regarded as evidence of contracting peasant cultivation. However, the account rolls of the bishopric of Winchester[1] show that there is danger in accepting such evidence at its face value. Because of their habit, at least from the early fourteenth century onwards, of including a great deal of gratuitous explanations the Winchester accounts show, on careful analysis, that the recorded totals of lost rents and vacant holdings are neither a true reflection of the total value of lost rents, nor a valid measure of the true extent of the peasants' withdrawal from agriculture.

It is crucial for the proper understanding of the discussion which follows to have a clear picture of how the relevant information is recorded in the manorial accounts. Whenever a holding fell vacant it was invariably described as being in the lord's hands (*in manu domini*), and its rent was lost to the landlord; this remained so until the holding was let again. The information on vacant holdings and lost rents is recorded in the section headed *Lost Rents* (*Defectus Redditus*) which, in the Winchester accounts, is placed at the beginning of each manor's account as follows:

Rent of Assize (*Redditus Assisus*)	£ s d
Acquietance of Rent	£ s d
Lost Rents (*Defectus Redditus*)	£ s d
Total of Acquietances and Lost Rents	£ s d
Rent Remaining	£ s d

On some estates, acquietances and lost

*I am most grateful to Professor Ian Kershaw for his generous encouragement and helpful comments on an earlier draft of this paper.

[1] Hampshire Record Office, Eccl. II/159270, 271, 272, and so on. Thereafter only the final reference number is quoted.

rents are placed among the expenses, others follow the Winchester practice, which seems to me the more logical. The Winchester accounts always list vacant holdings one by one but elsewhere the loss can be recorded as a total sum only, particularly on those estates which follow the practice of putting it in the expenses. In the Winchester accounts, prior to the Black Death, there is only one section for lost rents, which is quite unambiguous, and the holdings involved usually represent peasant land which had been incorporated into the demesne or the parks. From the Black Death onwards, the holdings which became vacant through the death of the incumbent in the plague, and which were not taken up by another tenant, are grouped on their own under the heading: *Loss of Rent due to Pestilence*, though holdings occasionally vacated for other reasons are also included in this section. After 1361/2, vacancies caused by the plague are usually listed in two separate sections as *Loss of Rent due to the First Pestilence* and *Loss of Rent due to the Second Pestilence*, though this distinction is ignored if the number of holdings lost in the second outbreak was insignificant. This arrangement is adhered to virtually for ever, with each current year being numbered consecutively from the year of the outbreak: for example, in the year 1399/1400 *Loss of Rent due to the First Pestilence* is said to be in its fifty-second year and *Loss of Rent due to the Second Pestilence* is said to be in its thirty-ninth year. In this paper any discussion of *Lost Rents* entries refers exclusively to the Winchester accounts and to the *Loss of Rent due to the Pestilence* sections only.

If the arguments in the rest of this paper are to be followed it is crucial to have a clear understanding of how the individual entries in the *Lost Rents* section are presented. Three variants are possible:

i) The totality of the rent from a named holding is recorded as lost and the sum involved is stated.

ii) Only the stated part of the full value of the rent is recorded as lost because a specified sum of money, equal to the remainder of the rent, has been 'raised' (*levatur de exitu*) from the vacant holding.

iii) An explicit statement is made to the effect that no loss of rent is being recorded from a vacant holding because the full value of the lost rent was recovered from the income raised from it. If the income raised from the holding was greater than the full value of the rent, then the excess income was entered, as income over and above the rent, in a separate section in the account under the heading: *Issue of the Holdings in the Lord's Hands due to Pestilence* (*Exitus Terrarum in manu Domini per Pestilenciam*).[2]

It is imperative to notice that a crucial conceptual change has occurred between variant one on the one hand and variants two and three on the other. All three variants talk of *rents*, but variants two and three while talking of *rents* are actually concerned with *income*. In all these three instances the tenant was dead, the holdings were in the hands of the landlord, and *no rent at all* was coming from them. The fact that the customary rent was lost in its totality is as true of variant one as it is of variants two and three, the difference being that in the last two instances the *value* of

[2] This system of accounting persisted in the accounts of the bishopric of Winchester to the end of the pontificate of William of Wykeham. The first extant account of his successor Henry Beaufort, that for his second year 1405/6 (159409), abandoned it in favour of a more realistic method of recording the full value of lost rents in the *Lost Rents* section and the full value of any income raised from vacant holdings in the *Issue of Vacant Holdings* section. The difference can best be appreciated on a concrete example. At Marwell, the position in respect of one virgate, once of Peter atte Broke, was recorded as follows. Prior to 1405, *no loss* of the four shillings of rent from this holding was recorded in the *Lost Rents* section, because it had been raised from the holding. The *Issue of Vacant Holdings* section recorded an income of four shillings as the issue of the holding over and above the rent. After 1405, the *Lost Rents* section recorded the loss of four shillings of rent from the same holding, and the *Issue of Vacant Holdings* section recorded a 'raised' income of eight shillings. In each case the received income was four shillings but the latter method is free of the ambiguities of the earlier practice.

TABLE 1
Trends in lost rents, 1350–1383

Year	*Recorded value of Defectus Redditus* £ s d	*Full value of lost rents of assize* £ s d	*Income raised from vacant holdings* £ s d	*Net change* +/− £ s d
1350/1	103 18 2	187 6 8¾	96 19 3	−90 7 5¾
1355/6	42 4 0¾	100 6 10½	77 15 8	−22 11 2½
1364/5	40 12 0½	104 19 3½	91 8 10	−13 10 5
1382/3	31 19 4½	104 3 6½	116 2 6½	+11 9 2

the lost rent was recovered, in part or in full, in other ways, and the recorded figure is the *balance* between the value of the lost rent and the income raised from the holding, though even that may not be a full balance since any excess income is recorded elsewhere.

It will be seen from this that we must distinguish clearly – as the documents do not – between two overlapping concepts: rents *sensu stricto*, and income obtained from the same holdings in other ways. When the figures recorded in the Winchester accounts are rearranged to take this distinction into account it becomes clear that the loss of rent from vacant holdings was greater than the recorded totals indicate, while the loss of income to the landlord from the same holdings[3] was much smaller; in fact, on some manors, cash income from vacant holdings was substantially greater than the cash previously obtained from them as rent. As time went on, this trend tended to be more pronounced as Table 1 illustrates.[4]

There is one other pair of overlapping concepts which can easily be confused but which must be clearly distinguished, though this is the fault of historians rather than of the documents themselves: the distinction between vacant holdings and land lying idle. If it can be shown that vacant holdings were producing revenue for the landlord, then, they cannot be regarded as land withdrawn from agriculture (either in its arable or its pastoral aspect). If it can further be shown that the revenue raised from them had *not* been produced by the landlord himself, then it must follow that it had been produced by the peasants, and that the land represented by vacant holdings producing such revenue must have been, in some way, profitably exploited by them, in which case, such land cannot be regarded as land abandoned by the peasantry. It is the purpose of this paper to demonstrate that the latter was, indeed, the case. Re-examining the Winchester data with this problem in mind yields interesting results. However, before I proceed with this argument let us examine the scale of the problem.

The outbreak of plague in 1348/9 produced a large number of vacancies on all Winchester manors but many of them were ephemeral. By about 1355 the position stabilized; however, there is a striking difference in the number of vacant holdings between manor and manor. On some manors, most of the holdings vacated through the death of the incumbent were taken up almost at once creating no permanent, or semi-permanent, residue of vacant holdings; on other manors, a more or less permanent core of such holdings was created. For example, populous manors such as Waltham, Meon or Taunton had very few long-term vacancies, while Downton, Ivinghoe or Witney had a large number of them. Such differences, incidentally, *must not* be regarded as a measure of different

[3] This ignores additional loss of income such as loss of entry fines and the value of labour services.
[4] See Appendices 1–4 for full details.

levels of mortality on different manors. The wording of entry fines and the evidence of heriots show conclusively that manors such as Waltham, Meon or Taunton had very high levels of mortality; if anything, the presence of such vacancies seems to be a measure of the reluctance of the local peasantry to take up customary holdings on traditional basis.

The second outbreak of plague in 1361/2 added only marginally to the vacant holdings already there, though it does seem to have imparted a greater degree of permanency to them and may have caused temporary problems on some manors.[5] Looking ahead into the century confirms the impression of little significant change; individual manors do show some movement up and down but, broadly speaking, the overall position remained largely unchanged. For example, if one looks at the 1381/2 account, manors without vacancies in 1365 remained without them. A few manors reduced their number slightly: Adderbury, for example, lost all its seven vacancies in 1372 (the original four plus three surrenders in 1369) by adopting the practice of farming them out. Only four manors increased their vacancies significantly: Sutton from thirteen in 1365 to twenty-five, Wargrave from forty-six in 1365 to seventy-six, Wycombe from thirty in 1365 to forty-six, and Ivinghoe from twelve in 1365 to thirty-two. Such changes were achieved not through a sudden rush of mortalities in any particular year but through a progressive erosion of rent-of-assize tenancies through a mixture of deaths and surrenders, the latter often accompanied by an explicit explanation that the tenant had given them up because of his *inopia*, or *impotencia*. The overall position with regard to vacant holdings on the Winchester estates in the second half of the fourteenth century has been summarized in Table 2.[6]

As already indicated, for the equation of

TABLE 2
Trends in vacant holdings, 1350–1383

Year	*Number of vacant holdings*			*Estimated acreage*
	standard	*irregular*	*total*	
1350/1	618	335+*	953+	12,742
1355/6	348	133+	481+	7092
1364/5	400	109+	509+	8156
1382/3	452	115+	567+	8609

* An unspecified but substantial number of vacant assarts at Witney must be added to this total. Their cumulative acreage is known.

vacant holdings with the abandonment of peasant cultivation to be valid, it must be shown that the income obtained from such holdings was produced by the landlord himself. Can it be shown to have been so? Income obtained from vacant holdings in the Winchester account rolls is invariably described as income 'raised' from them (*levatur de exitu*). The first, purely instinctive reaction is to take that phrase at its face value and to assume that what is involved here is the produce of these holdings, and that it was produced, and disposed of, by the landlord himself. This impression is strengthened by statements recorded against some vacant holdings to the effect that no offsetting income could be raised because there was nothing from which it could be raised (*nichil potest inde levari*), or that this was so for lack of purchasers (*pro defectu emptorum*). The fact that there is hardly ever any mention of any intermediaries between the landlord and the 'raising' of the income from the vacant holdings[7] also tends to strengthen this impression. Nevertheless, on reflection, the notion that the landlord was directly involved in producing such income must be rejected. In the documents the term *exitus* is a rather nebulous concept. This is why I am reluctant to render it as 'produce', since this could introduce an a priori bias in favour of sale of produce into the discussion. In the account rolls the word *exitus* can be used to indicate any-

[5] For example, 159372, Witney (1362/3), *Exitus Manerii: de exitu 41 virgatarum terre in manu domini ultra certum redditum nichil hoc anno.*

[6] See Appendices 1–4 for full details.

[7] A notable exception to this rule is discussed on p 105 below.

thing saleable and to include not only produce in the strict sense of the word but also sales of rights (for example, permission to graze animals on landlord's land) and the like; some modern studies translate it as 'issue' but in this context such rendering seems to be evasive, though I have retained it for the sectional headings.

There are only three possible ways in which vacant holdings could have produced revenue:

i) Asset-stripping: namely, the sale of trees, hedges, old timber from dilapidated buildings, and the like.
ii) Pastoral activity: namely, using the holdings as rough grazing land.
iii) Sale of produce grown on the land: of crops grown in the fields, or the produce of gardens or orchards of the cottages, or messuages, attached to the standard holdings, or held on their own.

The first possibility applies only to the landlord and not to the peasants, the other two are open to both. In theory it would have been quite possible for the landlord to exploit the vacant holdings directly and record the income, obtained from the produce sold, in the *Lost Rents* section as a sum deducted from the value of the lost rent, or, in the *Issue of Vacant Holdings* section whenever there was an excess of income over rent. In practice, we can say with complete assurance that such was not the case. Goods sold off the vacant holdings seem to be regarded in the documents as a special case and they are invariably (so far as I can see) recorded one by one either in the *Issue of the Manor* section, or in the *Issue of Vacant Holdings* section, as a separate entity from the 'income raised', even when they emanate from the same holdings. In any case such instances of asset-stripping cannot possibly account for the large sums *regularly* raised from vacant holdings though they can be substantial when they occasionally occur.[8] It is also possible for holdings, when they first fell vacant, to have done so with their crops still standing; I have not come across such entries in connection with vacant holdings but only in connection with holdings seized by the landlord; however, when that happens the documents usually refer to such crops as *vestura tenementi X* and record them separately.

As for pastoral activity, there are numerous entries on various manors to the effect that a vacant holding had produced no income to offset the loss of rent because the landlord used it to graze his animals on, or that the income raised was no bigger for the same reason.[9] Perhaps the most striking example of this comes from the account for the manor of Ivinghoe for the year 1364/5 in which all the vacant standard holdings returned a full loss of rent because, on the instruction of the lord steward, a flock of 250 sheep was distributed among them to graze on the land.[10] This situation continued until 1369, the year in which the manorial flock of sheep was greatly reduced by an animal epidemic (*in communi morina*), and the manor then reverted to its usual practice of 'raising' an income from the vacant holdings.[11] Such

[8] For example, 159360, Downton (1350/1), *Exitus Terrarum per Pestilenciam*: contains 21 entries *de veteri meremio 1 domus [2 dom.* twice] *in tenemento X* totalling £5 15*s* 6*d*. This is, of course, an extreme case due to the sudden influx of vacant holdings in the wake of the greatest outbreak of the plague ever. Normally there are only occasional entries, if at all.

[9] For example, 159375, Cheriton (1364/5), *Defectus per Primam Pestilenciam*: *in defectu redditus 1 virgate terre Nicholai Lynche 5s quia nichil levatur de exitu eo quod reservatur pro aquis domini.* 159389, Mardon (1382/3), *Defectus Redditus per Pestilenciam*: *in defectu redditus ferlingate terre native et 3 acrarum terre purpresture que quondam fuerunt Johannis Knight in Northstendene eo quod depasc. cum multonibus domini 3s 5d.* 159375, Twyford (1364/5), *Defectus per Primam Pestilenciam*: *in defectu redditus 54 acrarum terre purpresture que fuerunt Johannis Sterye per annum 27s propter quem decasum Dominus levavit 1 faldam multonum ibidem pasc.* 159389, Culham in Wargrave (1382/3), *Defectus Redditus*: *in defectu redditus 1 placie et dimidie virgate terre native quondam Cecilie Neel vocatur hynelond in manus domini existencium pro defectu emptorum et pastura eiusdem depasc. cum averiis domini et prata falcat, ad opus domini.*

[10] 159375, Ivinghoe, *Defectus Redditus per Pestilenciam*: *in defectu redditus 1 messuagii et dimidie virgate terre native quondam Jacobi Fourhous in manu domini per annum 2s 6d et dominus habet 250 multones de nova ordinacione emptos in pastura tenementi predicti et in aliis tenementis infrascriptis per ordinacionem Seneschalli loco redditu eorundem tenementorum hoc anno primo.*

[11] 159385.

activity by the landlord is thus cited to explain why there had been no income to offset the loss of rent, so it cannot explain the presence of such income. There are only two exceptions to this rule but they clearly represent a change in accounting practices rather than a real change in the actual situation. The account for 1355/6 for the manor of Crawley abandons the normal practice of recording full loss of rent for holdings grazed by the landlord's animals and for a single holding only, that of one messuage, one virgate and twenty-two acres of purpresture previously held by Robert Wodecok, records it as *no loss* of rent because it was raised 'as in pasture sold for the lord's sheep' with a corresponding entry for the purchase of that pasture in the expenditure section of the account to balance the books.[12] This continued until 1378[13] when the manor reverted to the old accounting practice. The second instance comes from the manor of Fareham, again in respect of one holding only. The account for the year 1356/7 records no loss of rent from three crofts of purpresture, containing in all fifteen acres, previously held by John Scot, because it was raised 'as in pasture sold for the lord's beasts'.[14] As at Crawley there was a corresponding entry in the expenditure section of the account but, unlike Crawley, Fareham did not subsequently revert to the previous, and normal, practice in respect of this holding. For the sake of consistency I have re-recorded these entries in the tables and appendices, whenever appropriate, in the usual way, adding the full value of lost rent to the *Lost Rents* total and subtracting it from the calculation of the income recovered from the vacant holdings.

In so far as arable cultivation is concerned we can say with equal assurance that it was not the landlord's effort which raised the income recorded as offsetting the loss of rent. At least three separate lines of argument converge to support this contention: the way itself in which income from vacant holdings was habitually recorded, the striking regularity of such income, and the occasional presence (very rare it must be admitted) of an explicit intermediary between a vacant holding and the *exitus* received from it by the landlord.

To record income from the landlord's own arable exploitation of the vacant holdings as income 'raised' from them would run contrary to well established accounting practices in use on the Winchester estates for recording grain produced by the landlord himself. Prior to 1349, whenever the landlord took into his own cultivation any of the peasant holdings this was accounted for in the *Issue of the Grange* section, incorporated into the demesne acreage and produce, and the grain sold was included with the rest of demesne grain in the *Sales of Grain* section of the account.[15] There is no

[12] 159366, Crawley, *Defectus per Pestilenciam: de 21s redditus 1 messuagii 1 virgate terre et 22 acrarum purpresture que fuerunt Roberti Wodecote nichil quia levantur de exitu ut in pastura vendita pro bidentibus domini hoc anno. Custus Bercarie: in pastura de terra de Wodecote empta pro bidentibus domini 21s hoc anno pro defectu pasture et propter siccitatem in estate.*

[13] 159385.

[14] 159367, Fareham, *Defectus per Pestilenciam: de 12s 7d ob. de redditu 3 croftarum purpresture continentium 15 acras in decenna de Pokesole que fuerunt Johannis [Scot] adhuc remanentium in manus domini per obitum eiusdem in pestilencia nichil hoc anno quia levantur de exitu ut in pastura vendita pro averiis domini. Custus Domorum et Necessarie: in pastura empta in 3 croftis purpresture Johannis Scot existentibus in manus domini hoc anno pro averiis domini 12s 7d ob.*

[15] For example, 159364, Hambledon (1353/4), *Defectus per Pestilenciam: in defectu 1 messuagii et 10 acrarum terre ... que fuerunt Rogeri Coupere 20d quia seminatur cum dominico et pastura in gardino depasc. cum vitulis domini. Ibidem: in defectu 1 messuagii et 10 acrarum terre in Hameledona que fuerunt Matilde le Frund 20d quia melior pars seminatur cum dominico.* [*Exitus Grangie* includes sowing in *terra nativa in manus domini exist.* without specifying the holdings involved]. 159360, Taunton, Holwey (1350/1), *Defectus per Pestilenciam: in defectu redditus 10 acrarum et dimidie terre in la Wynard ... que fuerunt Willelmi Bacon rem. in manus domini ... 15s 9d quia seminantur in dominico nichil inde levatur.* [*Exitus Grangie* under Oats lists *parva Wynard que nuper fuerit Willelmi Bacon et continet 11 acras*]. 159402, Ivinghoe (1395/6) *Defectus Redditus Per Pestilenciam: in defectu redditus 1 messuagii et 1 virgate terre native quondam Willelmi Havecombe in manus domini existenium per annum 5s pro defectu emptorum et quia terra eiusdem seminabatur ad opus domini.* 159379, Waltham in Wargrave (1369/70), *Defectus Redditus de defectu redditus 10d ob. 1 akerlond(i) quondam Agnetis Webbe existentis in manus domini per mortem eiusdem in pestilencia nichil quia levantur de exitu et de eo quod ulterius est respondet inferius in exitu manerii. Exitus Manerii: et de 2s 1d ob. de exitu 1 akerlond(i) quondam Agnetis Webbe existentis in manus domini ultra certum redditum preter 2 acras seminatas cum bladis domini. Exitus Grangie, Frumentum: item in semine 2 acrarum sicut jacent in camp(o) de tenemento quondam Agnetis Webbe.*

reason to believe that such long-established practice would have been altered had the vacant holdings been incorporated into the landlord's production; clearly, they were not, and that is why any income raised from them was accounted for in a different way. The inescapable conclusion is that the income used to offset the lost rents came from the peasants and was raised by their own effort. It was not the product of the landlord's own cultivation but money levied on those who were, in some way, exploiting these holdings, with the landlord merely taking his cut from the profits of their labour.

A strong support for this view comes from the recorded figures themselves, particularly those recorded as income raised over and above the value of the rent. On some manors with vacant holdings the landlord had great difficulty in raising sufficient income to cover the lost rents, yet alone to produce excess income, but on a large number of manors a substantial number of vacant holdings was regularly producing income in excess of the lost rents. For the purpose of this study I have concentrated attention primarily on the period 1350 to 1370[16] though, on most manors with excess income, the latter begins to appear regularly only from about 1354 onwards and continues beyond 1370. Examination of payments from individual holdings in the *Issue of Vacant Holdings* section of the accounts, on manors with a substantial number of vacant holdings producing income in excess of the value of their rents, reveals that such payments often remained constant from year to year. If *exitus* really did represent produce grown and sold by the landlord himself one would expect the recorded payments to fluctuate from holding to holding and year to year. Thus, uniform returns for the same holdings from year to year must indicate a *charge* and not a sale; since the landlord would clearly not have imposed charges upon himself these payments must have come from the peasants. But since, by definition, no charges could be imposed on holdings for which no one was responsible somebody must have in fact been responsible for them, even though this is not immediately apparent from the wording of the relevant entries themselves.

If the above argument is correct, then the most explicit confirmation of the view that the phrase *levatur de exitu* represents a charge levied on whoever took on a vacant holding comes from the manor of Witney. Excess income over and above the customary value of rents is there recorded as one total in the *Issue of the Manor* section of the account in the form: '(so many shillings) as issue of (so many) virgates ... in the hands of the lord, over and above their rent ...', with the number of shillings corresponding exactly to the number of virgates; from 1365 onwards it is often explicitly stated that the rate was 12*d* per virgate.[17] On other manors the regular pattern of payments is disclosed only by scrutinizing payments from individual holdings over a period of time. At Cheriton, for example, between 1356 and 1370,[18] the same sums of money were obtained from each holding with monotonous regularity with only an occasional change in the rate of payment from a few holdings.[19] A similar situation obtained on the two other manors of the same bailiwick with a regular presence of excess income: Alresford and Sutton.

However, if fixed payments must represent a *charge*, the reverse is not necessarily true; fluctuating value of excess income could indicate no more than the landlord's ability to charge different sums in different circumstances from those who took them

[16] Accounts 159359 to 159379.

[17] For example, 159383, Witney (1372/3), *Exitus Manerii: 29s de exitu 29 virgatarum terre ... in manus domini existencium ultra certum redditum et tuthingpeny earundem superius et inferius capt. hoc anno videlicet de qualibet virgata terre 12d ...*

[18] Accounts 159366 to 159379.

[19] See Appendix 5.

on. We must also beware of relying on the annual totals alone since fluctuating annual totals of excess income on individual manors, *on their own*, can be misleading; they often conceal a great deal of regularity in payments from individual holdings. Downton, a manor with the longest and most persistent listings of vacant holdings, illustrates this point rather well. Close scrutiny of individual entries in the *Issue of Vacant Holdings* section, over a period of years, reveals the same rates of excess income being returned year after year. The same general argument applies also to manors where no excess income was recorded but where many holdings regularly 'raised' the exact value of their rents, since this too is tantamount to a fixed charge.

Figures from the manor of Wargrave[20] can also be used to illustrate the same point, and the example is worth quoting because the manor also provides a couple of those rare pieces of additional information relevant to this argument. Appendix 6 reveals the position between 1356 and 1370. Excess income received there from standard holdings shows considerable fluctuations in the total amount for the manor, but examination of individual entries for each year discloses what can only be called 'variable regularity' in individual payments, implying a negotiated 'charge' levied on somebody utilizing the land rather than the sale of produce from it by the landlord himself. This is confirmed by two pieces of incidental information in the account for 1369/70,[21] which explain the low value of the *exitus* recorded against two of the listed holdings by actually mentioning a payer and explaining that he had abandoned the holding in the course of the year and 'no one could be found to take on the land'. The phrase used here is *illam terram conducere voluit*; a deliberate choice of a verb, it would seem, to distinguish the transaction from a lease (*traditur ad firmam*) on the one hand, and the traditional customary renting (*pro eam finivit*) on the other. More significantly, both entries explicitly state that the payer held the holding *ad firmam*, the phrase in this instance implying, I think, exactly what the word literally means: a 'firm' (that is, a fixed) payment.

Such instances of the regularity of the sums recorded as the *exitus* of the vacant holdings are not isolated cases. All the manors with long-term vacancies, and the presence of excess income, display some degree of regularity in excess payments; what varies is their position on the scale of regularity, sometimes near the Witney and Cheriton end of it, sometimes nearer the Wargrave end of it.

Another glimpse of what can hide behind the ubiquitous phrase *levatur de exitu* is offered by one entry each from the manors of Sutton and Alresford, both in the same bailiwick. The account for Sutton for 1354/5 records excess income from vacant holdings as a single total only, as follows: '21 shillings as issue of certain lands in the hands of the lord in recompense for the labour services due from them'.[22] The next account, for 1355/6, has a separate section for excess income and lists eight holdings individually whose total adds up to the same 21 shillings, but without any additional comment.[23] The 1355/6 account for Alresford[24] repeats the same statement which appeared in the account for Sutton in the previous year. Clearly, what we have here is a payment, from whoever took on the land, perceived by the landlord as a compensation for the loss of labour services. That the payment is not recorded as commutation of services

[20] The tabulated figures are those for the village of Wargrave itself and not for the composite manor as a whole.

[21] 159379; see Appendix 6.

[22] 159365, Sutton, *Exitus Manerii: de 21s de exitu quarundem terrarum in manu domini existencium in recompens(ationem) operum de eisdem debitum sic concess. per Ballivum hoc anno.*

[23] 159366, Sutton, *Exitus Manerii.*

[24] 159366, Alresford, *Exitus Manerii.*

tends to emphasize the fact that no proper tenancy was regarded as having been established in respect of the holdings in question.

Finally, the last, and in a way the most explicit, confirmation that the money raised from the vacant holdings apparently by the landlord himself was in fact a payment made by the peasants comes from the manor of Twyford/Marwell.[25] On that manor, income from vacant holdings over and above the rent was at first recorded in the *Issue of the Manor* section of the account and described by the usual phrase as so many shillings and pence 'as issue of the holding previously of X (*de exitu tenementi quondam X*)'. However, from 1372 onwards, income over and above the value of the rent began to be recorded in a separate paragraph of its own, under the usual heading: *Issue of Vacant Holdings*, but with a significantly altered phrasing for the individual entries. Each entry is recorded as a payment from a named payer paid 'as issue of the holding previously of X', with an additional explanation that the holding was handed over (*dimissum*) to the payer until someone came forward to pay a fine for it and to hold it according to ancient custom.[26] We have here, for the first time, a regular and explicit interposition of an intermediary between the landlord receiving revenue from a vacant holding, and the holding producing it. Subsequent accounts show clearly that many of the peasants at Twyford/Marwell who made payments for vacant holdings, recorded as 'issue' of such holdings, did so year in year out and at the same rate. Effectively, this was a tenancy of a sort but the arrangement seems not to have been formally recognized as such.

If the interpretation is correct, that the *exitus* of vacant holdings represents money paid to the landlord rather than income raised from the sale of produce grown by himself, we must ask the question of *how* the peasants came to exploit the holdings which are persistently described as being 'in the hands of the lord', and in what way did they obtain an income from such land. We are in the position to give a firm answer to the first of these questions. But before we proceed with the argument any further, let us recapitulate briefly what we know about vacant holdings and of the payments described as income 'raised' from them. To do so we must turn to the section in which income raised over and above the value of rents was recorded, for it is here that a few available clues as to their nature are to be found. The very fact that these payments are grouped on their own indicates clearly that they are intentionally contrasted to the two traditional, and hitherto the *only*, ways in which occupation of land was formally achieved and recognized: traditional customary tenure (exemplified by the payment of rent of assize and an entry fine) and leasing. These holdings have become vacant because the previous tenant having died (occasionally having relinquished them), and the usual proclamations in the manorial court having been made, nobody came forward to claim them. Since nobody has formally assumed responsibility for them they were technically vacant and they remained 'in the lord's hands' waiting for someone to come forward and formally accept responsibility for them. *As holdings*, they belonged to no one and in that sense they were truly vacant. But does this necessarily mean that the land itself lay idle and unused? Clearly not! If money was being paid for it, the land must have been subjected to some form of exploitation to raise the money in the first instance, and whoever used it must

[25] Up to 1348 Twyford and Marwell are accounted for as a single manor and all items of information are presented as a single joint total for both, from 1348 onwards two separate accounts are drawn up, one for Twyford and one for Marwell.

[26] For example, 159383, Marwell (1372/3), *Exitus Tenementorum in manu Domini per Pestilenciam: Et de 4s de Stephano Smyth de exitu terre quondam Ricardi atte Moore ultra certum redditum sic sibi dimisse quosque aliquis venerit ad finiendum et tenendum secundum antiquam consuetudinem.*

have had the landlord's permission to do so. Since such transactions did not go through the manorial court, paid no entry fines, and were not subject to lease agreements, they must have been, in their very essence, in the nature of *ad hoc* arrangements carrying with them no rights, no permanence and no certainty of any kind; they must have conveyed no more than the permission to use the land in some unspecified way for the time being.

What can we learn about the uses to which such vacant holdings were put by the peasants who took them on? Not much, unfortunately, since there are virtually no explicit comments to that effect. If the landlord could graze his animals on some of the vacant holdings so could have the peasants. It seems quite possible that some of the small payments, particularly those in respects of vacant assarts, represent an extension of animal husbandry on the part of the peasantry; after all, such an extension did occur on the part of the landlords in this period and the peasants could have done likewise. However, I think it highly unlikely that the vast majority of the often quite substantial payments for standard holdings could have been the consequence of a more extensive pastoral activity on the part of the peasantry; the sums involved are far too often quite out of proportion to the usual payments for rough grazing. It is also worth pointing out in this context that it is the standard holdings, above all, which were producing income over and above the rent value. The land constituting these holdings lay in the arable fields of the village and it was almost certainly used primarily, if not exclusively, to grow crops. Payment for such land is not, of course, a guarantee that it was cultivated in its totality, so the presence of a large number of vacant holdings producing revenue could still involve some contraction of peasant cultivation from its pre-1349 level, but it must not necessarily be seen as an indication, least of all as a measure, of the abandonment of peasant cultivation in the wake of the Black Death. Some contraction of peasant cultivation there may have been since some vacant holdings produced no income at all and do not appear to have been used in any way, but I am very much against the assumption that any contraction of peasant cultivation was on anything like the same scale as the phenomenon of vacant holdings. It is, of course, the 'standard' holdings – holdings whose land must be assumed to have been arable land almost by definition – which are particularly relevant to this argument, and the fact that cash income accrued to the landlord in respect of the vast majority of them must indicate a degree of cultivation. What we are witnessing here is primarily a tenurial crisis, not an agrarian crisis. It is tempting to speculate why was it that peasants on so many manors were no longer willing to take up holdings on traditional basis and, conversely, why on some manors they appear to had been quite happy to do so, but that problem is part and parcel of the much wider issue of changing tenurial patterns after the Black Death, and it must be discussed fully in that context – I intend to do so elsewhere.

It is hoped that the foregoing discussion has shown conclusively that for the Winchester estates the recorded totals of lost rents and vacant holdings cannot be taken as stated; that the so-called 'vacant' holdings were often vacant only in the tenurial sense and must not be equated with land which ceased to be profitably exploited in one way or another; and that the recorded value of lost rents represents at best the balance between the value of lost rents *sensu stricto* and income 'raised' from such holdings, the latter often being considerably in excess of the value of the rent itself. Some years ago I copied into a table the totals of lost rents for all the manors of the bishopric for all the years between 1349 and 1472 (the date of the

last manors being farmed out) but I have since destroyed it for such unprocessed figures should be regarded as meaningless.

This paper makes no claims in respect of other estates except one: that whenever the information on lost rents and vacant holdings is presented in its most basic form there can no longer be any certainty that the recorded totals can be accepted at their face value and no certainty that the conclusions drawn from them are necessarily valid, since the reality of the situation on such estates could be as far removed from the impression ostensibly given by the recorded figures as it is on many manors of the bishopric of Winchester.

As for the contrast in the bishopric of Winchester between manors with and manors without vacant holdings, perhaps that too is a false dichotomy. If the view is valid that the problem of vacant holdings is essentially a tenurial one, then the contrast between such manors, *in so far as the exploitation of land is concerned*, could be more apparent than real. For is it too far-fetched to suggest that the manors without vacant holdings might too have had long lists of them but for some feature of their tenurial structure which had made peasants on such manors less reluctant to take up vacated holdings on the old basis?

APPENDICES

NOTES TO APPENDICES 1–4

Holdings

For the purpose of these appendices a holding is defined as the totality of land recorded as a separate entry under a single tenant. In theory, they can range from a fraction of an acre to a large conglomerate, but in practice they are hardly ever bigger than two virgates and some acres of assart.

Regular holdings: virgates, cotlonds, akerlonds, mondaylonds and their regular subdivisions.
Irregular holdings: assarts (regardless of size), crofts, cottages, tofts, curtilages, messuages, bits and pieces.

At Witney a very substantial acreage of lost assarts was recorded in 1349, though it was dwindling progressively as time went on. That total has never been itemized and thus the total number of irregular holdings, and the overall total, entered in the appendices is substantially less than it should have been. On some manors with very long lists of vacant holdings year after year (notably Downton) cross-checking between the *Defectus Redditus* section and the *Exitus Terrarum* section, and between different years, discloses frequent omissions particularly among the 'negative' entries in the *Defectus Redditus* section. Such omissions have been restored whenever spotted.

Mills throughout have been excluded and anything else which is not in the nature of a peasant holding.

Estimated acreage

For most manors the size of standard holdings is known and appears to be constant, but on some manors the size of virgates is variable. This is particularly true of composite manors such as Downton and Wargrave (but not Taunton). The problem manors are: Sutton, where a 32-acre virgate and a 40-acre virgate seem to have been present. The rest of the manors in the Sutton bailiwick appear to have had only a 32-acre virgate so all virgates at Sutton have been converted on the same basis. Crawley seems to have had two virgate sizes: 30 and 32 acres; these have been converted throughout by multiplying by 32. The position at Farnham is uncertain but a 32-acre virgate seems to have been in use. Brightwell seems to have used a 20-acre and a 24-acre virgate but Harwell, its neighbour in the same bailiwick, seems to have used only a 20-acre virgate and so the same multiplier has been adopted for Brightwell also. Wycombe has 20-acre and 24-acre virgates: the latter figure has been adopted for all conversions. At Ivinghoe virgates of 16, 18, 20 and 24 acres are recorded, according to locality and type (those of assart origin appear to have been the largest); a multiplier of 20 has been adopted throughout, rather arbitrarily. At Wargrave a 24-acre virgate seems to have been the most common though a 20-acre virgate can also be found; the former has been adopted throughout. Downton presents the greatest difficulty in this respect; virgates of 16, 18, 20, 24 and 32 acres are recorded there. There are some grounds to think that a 32-acre virgate is more common among the vacant holdings so that measurement has been used throughout, albeit, rather arbitrarily. Irregular holdings, too, can present

a problem, particularly crofts, where usually the only guide to their size is the value of their rent. On manors with standard rate per acre (Witney at 6*d* an acre of assart) there is no problem but elsewhere arbitrary decisions had to be made.

Recorded loss of rent

The sums in this column are the totals given at the end of the *Defectus Redditus* section; recorded figures have been altered only when a clerical error has been spotted in the documents themselves, and at Crawley and Fareham, when appropriate, as explained in the text, otherwise they have been left as they stand.

Full value of lost rents

The full rent value of vacant holdings is recorded on most manors but on some manors 'negative' entries omit to give it. Practically the only serious offender is Downton, but even there the number of holdings whose rent is uncertain is relatively small; the decision in their case is arbitrary but the same values have been used throughout. Any arbitrariness in calculating the full value of lost rents automatically affects the figures in the remaining four columns which are thus, to the same extent, estimates only.

Lost rents as the percentage of pre-1349 rents

The figures entered in this column compare the full value of lost rents with the *actual* rents in 1348; that is, the total *nominal* rent less the pre-1349 *defectus*.

APPENDIX I

Lost rents and vacant holdings, 1350/1 (159360)

Manors	*Numbers of vacant holdings*			*Estimated acreage*	*Income*																*% of lost rent recovered*
	standard	*irregular*	*total*		*recorded defectus* £	*s*	*d*	*full value of lost rent* £	*s*	*d*	*lost rent as % of 1348 total*	*income raised* £	*s*	*d*	*net change +/−* £	*s*	*d*	
Fareham	6	1	7	127		23	2¾		29	11¾	4.9		6	9		−23	2¾		22.5
Bitterne	0	0	0	0			0			0	0			0			0		0
Waltham	0	0	0	0			0			0	0			0			0		0
Twyford/Marwell	33	15	48	620	8	10	10½	10	6	7½	20.4		35	9	−8	10	10½		17.3
Stoke	0	2	2	1		1	6		1	6	0.4			0		−1	6		0
Meon	5	1	6	70		2	0		11	10	0.7		11	2			−8		94.4
Meon Church	4	0	4	70		4	6		16	6	15.9		5	6		−11	0		33.3
Hambledon	18	10	28	242¼		30	0		59	3½	8.4		35	0		−24	3½		59.0
Alresford	15	2	17	505¼	5	5	11	7	2	10½	18.7		36	11½	−5	5	11		25.9
Beauworth	11	6	17	246		24	6		48	8¾	42.6		24	2¾		−24	6		49.7
Cheriton	26	4	30	657		77	11	6	0	3	20.8		42	4	−3	17	11		35.2
Sutton	36	4	40	615		32	0	6	15	6	13.4	5	3	6		−32	0		76.4
Wield	6	1	7	99		12	6		17	6	11.3		5	0		−12	6		28.6
Crawley	3	0	3	72		9	6		30	0	10.7		20	6		−9	6		68.3
Mardon	11	3	14	344	5	1	11	5	11	8	13.9		11	3	−5	0	5		10.1
Bentley	1	8	9	42		40	6½		44	0½	12.7		3	6		−40	6½		7.9
Farnham	16	16	32	443	7	15	9¼	8	4	11¼	6.8		9	2	−7	15	9½		5.6
Esher	0	0	0	0			0			0	0			0			0		0
Burghclere	28	19	47	629½		88	9¾	7	18	8¼	33.0		69	10½	−4	8	9¾		44.0
High Clere	6	17	23	364¼	5	2	0½	5	6	7½	26.1		4	7	−5	2	0½		4.3
Ecchinswell	5	3	8	46		3	8		6	0	2.5		2	4		−3	8		38.9
Ashmansworth	11	3	14	203½		36	11		39	10	25.5		22	11		−16	11		57.5
Woodhay	4	10	14	184¾		51	6		82	10	10.1		31	4		−51	6		37.8
Overton	33	2	35	599	5	12	9¾	9	9	3¾	36.0		76	6	−5	12	9¾		40.4
N. Waltham	30	0	30	525½	5	18	8½	7	19	2½	74.1		40	6	−5	18	8½		25.4
Brightwell	0	1	1	1			7½			7½	0.2			0			−7½		0
Harwell	0	0	0	0			0			0	0			0			0		0
Morton	0	0	0	0			0			0	0			0			0		0
Wycombe	33	6	39	419		49	4	7	4	4¼	17.6		95	0¼		−49	4		65.8
Ivinghoe	22	3	25	334		62	0½	5	4	3½	20.2		48	3		−56	0½		46.3
Wargrave	49	39	88	1009		53	1¼	6	10	5	15.2		93	5¾		−36	11¼		71.7
Adderbury	3	0	3	66		16	0		40	0	7.9		24	0		−16	0		60.0
Witney	47	0+	47+	1639	19	10	3	28	2	3	43.1	8	12	0	−19	10	3		30.6
Downton	50	11	61	926¾		22	3¾	*c*10	18	8¼	16.2	18	9	4½	+*c*7	10	8¼		168.9
Bishopstone	15	0	15	232			4	6	8	1	51.8	6	7	9			−4		99.7
Knoyle	11	8	19	194¾		32	9		67	0	23.5		43	2		−23	10		64.4
Fonthill	11	1	12	150		5	0		25	0	25.3		32	0		+7	0		128.0
Taunton	69	139	208	1065	6	19	3½	22	2	3¼	10.2	16	15	6¾	−5	6	8½		75.9
Rimpton	0	0	0	0			0			0	0			0			0		0
Total	618	335+	953+	12,742½	103	18	2	187	6	8¾	13.9	96	19	3	−90	7	5¾		51.8

APPENDIX 2

Lost rents and vacant holdings, 1355/6 (159366)

Manors	*Numbers of vacant holdings*			*Estimated acreage*	*Income*						
	standard	*irregular*	*total*		*recorded defectus* £ s d	*full value of lost rent* £ s d	*lost rent as % of 1348 total*	*income raised* £ s d	*net change +/−* £ s d	*% of lost rent recovered*
Fareham	0	1	1	15	14 0½	14 0½	2.3	9	−13 3½	5.3
Bitterne	0	0	0	0	0	0	0	0	0 0	0
Waltham	0	0	0	0	0	0	0	0	0 0	0
Twyford/Marwell	28	14	42	551	35 4	8 15 4½	17.4	7 2 8½	−32 8	81.4
Stoke	0	0	0	0	0	0	0	0	0 0	0
Meon	4	2	6	92	6	12 4	0.7	22 4	+10 0	181.1
Meon Church	0	0	0	0	0	0	0	0	0 0	0
Hambledon	12	4	16	192	21 2	39 8	5.6	18 6	−21 2	46.6
Alresford	10	1	11	260	12 7	64 1	8.4	51 6	−12 7	80.4
Beauworth	3	4	7	44½	0	11 0¾	9.7	11 0¾	0 0	100.0
Cheriton	17	0	17	349	6 6	61 0	10.5	81 6	+20 6	133.6
Sutton	10	3	13	140½	4 0	37 6	3.7	54 6	+17 0	145.3
Wield	5	0	5	66	0	18 6	12.0	18 6	0 0	100.0
Crawley	4	0	4	56	21 0	30 4	10.8	9 4	−21 0	30.8
Mardon	12	1	13	350½	49 9	77 7	9.6	34 2	−43 5	44.0
Bentley	0	5	5	9	13 1½	16 1½	4.7	3 0	−13 1½	18.6
Farnham	5	3	8	161	28 3½	43 0	1.8	14 8½	−28 3½	34.2
Esher	0	0	0	0	0	0	0	0	0 0	0
Burghclere	11	11	22	196	18 5	49 4	10.2	37 0	−12 4	75.0
High Clere	1	12	13	113½	35 7	43 8	10.7	8 1	−35 7	18.5
Ecchinswell	1	3	4	11	5	2 6	1.0	2 1	−5	83.3
Ashmansworth	7	2	9	111	5 11	27 6	17.6	22 1	−5 5	80.3
Woodhay	1	2	3	54	7 8	36 10	4.5	33 7	−3 3	91.2
Overton	25	0	25	360	50 8¼	6 4 5¼	23.7	73 9	−50 8¼	59.3
N. Waltham	24	0	24	370½	58 11½	5 19 8½	55.7	60 9	−58 11½	50.7
Brightwell	0	0	0	0	0	0	0	0	0 0	0
Harwell	0	0	0	0	0	0	0	0	0 0	0
Morton	0	0	0	0	0	0	0	0	0 0	0
Wycombe	27	8	35	354¾	69 8¾	6 4 11	15.3	68 4¼	−56 6¾	54.7
Ivinghoe	13	0	13	234	26 8	4 0 2	15.5	56 0	−24 2	69.9
Wargrave	31	23	54	668½	9 9¾	76 2¾	8.9	7 7 9¾	+71 7	194.0
Adderbury	2	0	2	39	0	8 0	1.6	8 0	0 0	100.0
Witney	34	0+	34+	1351¼	15 10 9¾	23 0 3¾	35.3	7 9 6	−15 10 9¾	32.5
Downton	28	5	33	448	0	c4 9 0¾	6.6	12 4 10¾	+67 15 10	275.0
Bishopstone	11	0	11	153	0	41 6	16.8	74 2	+32 8	178.7
Knoyle	13	4	17	170	2 2	31 4	11.0	51 8½	+20 4½	165.0
Fonthill	6	1	7	90	0	15 0	15.2	20 6	+5 6	136.7
Taunton	3	24	27	121	40 11¼	75 9¼	1.8	34 10	−40 11¼	46.0
Rimpton	0	0	0	0	0	0	0	0	0 0	0
Total	348	133+	481+	7092	42 4 0¾	100 6 10½	7.5	77 15 8	−22 11 2½	77.5

APPENDIX 3

Lost rents and vacant holdings, 1364/5 (159375)

Manors	*Numbers of vacant holdings*			*Estimated acreage*	*Income*						
	standard	*irregular*	*total*		*recorded defectus* £ s d	*full value of lost rent* £ s d	*lost rent as % of 1348 total*	*income raised* £ s d	*net change +/−* £ s d		*% of lost rent recovered*
Fareham	0	1	1	15	12 7½	12 7½	2.0	0	−12	7½	0
Bitterne	0	0	0	0	0	0	0	0	0	0	0
Waltham	1	1	2	12	6	4 6	0.3	5 9	+1	3	127.8
Twyford/Marwell	31	17	48	564	70 9	10 2 11	20.1	6 15 6	−67	5	66.8
Stoke	0	0	0	0	0	0	0	0	0	0	0
Meon	4	1	5	80	6	7 6	0.4	7 0		−6	93.3
Meon Church	0	0	0	0	0	0	0	0	0	0	0
Hambledon	16	5	21	269	9 8	45 9	6.5	36 1	−9	8	78.9
Alresford	16	2	18	359	8 0	83 9	11.0	91 9	+8	0	109.6
Beauworth	4	3	7	45½	0	13 4¾	11.7	15 4¾	+2	0	114.9
Cheriton	21	0	21	499	6 6	95 6	16.5	5 8 0	+12	6	113.1
Sutton	12	1	13	148	4 2	38 6	3.8	49 4	+10	10	128.1
Wield	3	1	4	38	1 0	9 0	5.8	16 8	+7	8	185.2
Crawley	4	0	4	86	21 0	29 10	10.6	8 10	−21	0	29.6
Mardon	20	1	21	490	53 1	5 5 2	13.1	56 7	−48	7	53.8
Bentley	0	0	0	0	0	0	0	0	0	0	0
Farnham	3	1	4	130	37 4	45 4	1.9	8 0	−37	4	17.6
Esher	0	0	0	0	0	0	0	0	0	0	0
Burghclere	11	8	19	141½	10 4	41 11	8.7	38 3	−3	8	91.3
High Clere	4	12	16	235	32 7	68 7	16.8	36 0	−32	7	52.3
Ecchinswell	2	1	3	55½	3	15 1½	6.3	14 10½		−3	98.3
Ashmansworth	6	2	8	102	3 2	27 10¾	17.8	24 8¾	−3	2	88.6
Woodhay	1	3	4	28	12 2	20 2	2.5	8 0	−12	2	39.7
Overton	24	2	26	478	36 2¼	7 9 9¼	28.5	5 13 9	−36	0¼	75.9
N. Waltham	28	0	28	562½	54 7	8 2 3½	75.5	5 7 8½	−54	7	66.4
Brightwell	0	0	0	0	0	0	0	0	0	0	0
Harwell	0	0	0	0	0	0	0	0	0	0	0
Morton	0	1	1	½	6	6	0.6	0	−6		0
Wycombe	25	5	30	377	4 3 4½	5 13 0¾	13.8	33 11½	−79	1½	30.0
Ivinghoe	11	1	12	151	43 0½	46 0	8.9	2 11½	−43	0½	6.4
Wargrave	33	13	46	643½	6 8¾	58 5½	6.8	12 14 1¾	+9 15	8¼	434.7
Adderbury	4	0	4	81	0	18 6	3.7	18 6		0	100.0
Witney	46	10+	56+	1417½	12 17 3	22 5 9	34.2	10 13 6	−11 12	3	47.9
Downton	38	14	52	766½	43 4	*c7* 18 1¼	11.7	13 16 8¼	+*c5* 18	7	175.0
Bishopstone	11	0	11	104	0	30 6	12.3	52 6	+22	0	172.1
Knoyle	11	1	12	140	0	23 4¾	8.2	49 10¼	+26	5½	213.1
Fonthill	10	2	12	137	3 5	25 6	25.8	44 7	+19	1	174.8
Taunton	0	0	0	0	0	0	0	0	0	0	0
Rimpton	0	0	0	0	0	0	0	0	0	0	0
Total	400	109+	509+	8156	40 12 0½	104 19 3½	7.8	91 8 10½	−13 10	5	87.1

APPENDIX 4

Lost rents and vacant holdings, 1382/3 (159389)

Manors	*Numbers of vacant holdings*			*Estimated acreage*	*Income*															
	standard	*irregular*	*total*		*recorded defectus* £	*s*	*d*	*full value of lost rent* £	*s*	*d*	*lost rent as % of 1348 total*	*income raised* £	*s*	*d*	*net change +/−* £	*s*	*d*	*% of lost rent recovered*
Fareham	4	1	5	95		12	7½		22	2	3.6		12	10½		−9	3½	58.1
Bitterne	0	0	0	0			0			0	0			0			0	0
Waltham	0	0	0	0			0			0	0			0			0	0
Twyford/Marwell	37	18	55	585½		43	11	10	12	7	21.0	11	5	5		+12	10	106.0
Stoke	0	0	0	0			0			0	0			0			0	0
Meon	1	0	1	10			0		2	5	0.1		2	5			0	100.0
Meon Church	0	0	0	0			0			0	0			0			0	0
Hambledon	12	5	17	172		1	10		34	0	4.8		53	8		+19	8	157.8
Alresford	18	1	19	319			0	4	2	9	10.8	6	4	9		+42	0	150.8
Beauworth	6	2	8	81½			0		18	10¾	16.5		27	0¾		+8	2	143.2
Cheriton	29	0	29	530		9	6	4	9	0	15.4	5	11	10		+22	10	125.7
Sutton	24	1	25	455		2	6	5	0	0	9.9	9	9	4¼	+4	9	4¼	189.4
Wield	0	1	1	2		1	0		1	0	0.6			0		−1	0	0
Crawley	8	0	8	108		21	0		40	4	14.4		27	7		−12	9	68.4
Mardon	17	2	19	c306½		50	8		78	2	9.7		36	11		−41	3	47.2
Bentley	0	0	0	0			0			0	0			0			0	0
Farnham	0	1	1	6		1	10		1	10	0.1			0		−1	10	0
Esher	0	0	0	0			0			0	0			0			0	0
Burghclere	9	7	16	118½		11	1		31	11	6.6		29	2		−2	9	91.4
High Clere	10	7	17	376½		28	3	4	6	3	21.1		58	0		−28	3	67.2
Ecchinswell	0	1	1	0			3			3	0.1		0				−3	0
Ashmansworth	4	1	5	63		2	2		17	2¼	11.0		15	0¼		−2	2	87.4
Woodhay	2	4	6	108½		8	4		48	1	5.9		42	9		−5	4	88.9
Overton	25	0	25	498		24	0	7	6	11	27.9	6	5	11		−21	0	85.7
N. Waltham	28	0	28	493½		4	2	7	3	2	66.6	6	19	0		−4	2	97.1
Brightwell	0	0	0	0			0			0	0			0			0	0
Harwell	0	0	0	0			0			0	0			0			0	0
Morton	0	0	0	0			0			0	0			0			0	0
Wycombe	28	18	46	526	4	6	5½	7	12	10	18.7	5	10	4		−42	6	72.2
Ivinghoe	26	6	32	481		40	2	5	16	10	22.7	5	14	0		−2	10	97.6
Wargrave	58	18	76	1134		11	7¼	5	8	5¾	12.7	12	4	6½	+6	16	0¾	225.4
Adderbury	0	0	0	0			0			0	0			0			0	0
Witney	42	10+	52+	1286¾	10	0	0¼	19	1	1¾	29.2	10	16	7½	−8	4	6¼	56.8
Downton	33	10	43	479½		78	0	c4	10	2	6.7	12	18	1	+c8	7	11	286.2
Bishopstone	8	0	8	88			0		25	6	10.3		55	8		+30	2	218.3
Knoyle	15	1	16	190			0		26	2	9.2	4	0	6¾		+54	4¾	307.9
Fonthill	8	0	8	96			0		25	6	25.8		21	0		−4	6	82.4
Taunton	0	0	0	0			0			0	0			0			0	0
Rimpton	0	0	0	0			0			0	0			0			0	0
Total	452	115+	567+	8609¾	31	19	4½	104	3	6½	7.7	116	2	6½	+11	8	4	111.5

APPENDIX 5

Cheriton: excess income from vacant holidays[a]

Holding of (quondam)	*1355/6 (366)*[b] s d	*1357 (367)* s d	*1358 (368)* s d	*1359 (369)* s d	*1360 (370)* s d	*1361 (371)* s d	*1362 (372)* s d	*1363 (373)* s d	*1364 (374)* s d	*1365 (375)* s d	*1366 (452)* s d	*1367 (377)* s d	*1368 (376)* s d	*1369 (378)* s d	*1370 (379)* s d
Johannis le White	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 0	2 0	2 6	2 6	2 6	2 6	2 6	2 6
Elene Tyte	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0	2 0
Petri atte Mede	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6
Ricardi Taluey	4 6	4 6	—	—	—	—	—	—	—	—	—	—	—	—	5 0
Hugonis le Reue	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6
Henrici atte Thorne	3 0	3 0	3 0	3 0	—	—	—	—	—	—	—	—	—	—	—
Henrici Gangyr	3 0	3 0	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6
Thome le Bonde	3 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0	12	12	12	18	12
Roberti Walys	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6	2 6
Rogeri Kyneman	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Hugonis Emery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 6
	+3 9[c]														
Total	30 9	27 0	22 0	22 0	19 0	19 0	19 0	19 0	19 0	19 0	17 0	17 0	17 0	17 6	24 6

[a] *Exitus per Pestilenciam: exitus quarundem terrarum in manu domini existentium ultra redditum et servicia.*

[b] The last three meaningful digits of the reference number, 159366.

[c] *Oneratio.*

APPENDIX 6

Wargrave: excess income from vacant holidays[a]

Holding of (quondam)	*1355/6 (366)*[b] £ s d	*1357 (367)* £ s d	*1358 (368)* £ s d	*1359 (369)* £ s d	*1360 (370)* £ s d	*1361 (371)* £ s d	*1362 (372)* £ s d	*1363 (373)* £ s d	*1364 (374)* £ s d	*1365 (375)* £ s d	*1366 (452)* £ s d	*1367 (377)* £ s d	*1368 (376)* £ s d	*1369 (378)* £ s d	*1370 (379)* £ s d
Johannis Chamberlain	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—
Johannis West	8 3	8 3	—	—	—	—	—	—	—	—	—	—	—	—	—
Johannis Yonge	22¾	22¾	—	—	—	—	—	—	—	—	—	—	—	—	—
Christine Sule	2	2	11	17	14	6	6	6	6	4 0	9	9	9	9	9
Nicholai Bost	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ade Leverich	3 0	3 0	—	4 0	5 0	5 0	4 0	4 0	4 0	5 8	5 8	3 4	5 8	5 8	5 8
Christine Henrys	10	10	2 10	22	2 4	18	18	18	18	5 8	5 8	3 4	5 8	5 8	—
Willelmi Holeweye	3	3	17	18	12	12	6	6	6	5 8	5 8	3 4	5 8	5 8	2 0[c]
Johannis Bithewode	5 4	5 4	5 4	7 4	7 4	7 4	11 1½	11 1½	11 1½	19 9½[d]	19 9½	12 4	19 9½	19 9½	19 9½
Dionisie Frenche	3 0	3 0	3 0	3 0	3 0	3 0	12	12	12	9 0	2 11¼	2 0	2 11¼	2 11¼	2 11¼
Johannis Kepe	7 0	7 0	8 0	6 9½	6 9½	6 9½	7 10	7 10	7 10	19 10½	19 10½	12 0	19 10½	19 10½	19 10½
Edithe Wynter	2 0	2 0	2 0	3 0	3 0	3 0	2 9	2 9	2 9	9 0	2 11¼	2 0	2 11¼	2 11¼	2 11¼
Willelmi Herberd	11 3½	11 3½	13 3½	14 0	4 0[e]	19 6	12 9	12 9	12 9	15 10½	15 10½	13 4	15 10½	15 10½	5 7[f]
Thome Touy	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	3 4	4 0	4 0	5 5½
Isabelle Sebrond	11	11	2 3	3 8	3 8	3 8	4 0	4 0	4 0	5 8	5 8	3 4	5 8	5 8	5 8
Philipi Gille	—	—	—	20	2 3	2 3	4 0	4 0	4 0	5 8	5 8	3 4	5 8	5 8	5 8
Alicie Colt	18	18	18	18	(18)	6	6	6	6	2 10	2 10	2 10	2 10	2 10	5 5¾
Johannis atte Dene	3 2	3 2	—	—	—	—	—	—	—	—	—	—	—	—	—
Johannis Swon	7 5	7 5	7 5	7 5	7 5	7 5	4 0	4 0	4 0	18	9	9	9	9	5 5¾
Alicie Miles	—	—	—	—	—	8 5½	4 0	4 0	4 0	2 10	2 10	2 0	2 10	2 10	—
Johannis Blake	—	—	—	—	—	11 6	—	—	—	20 8	20 8	[10 6]	20 8	20 8	20 8
Johannis Bythewode	—	—	—	—	—	—	13 4	13 4	13 4	—[g]	—	—	—	—	—
Walteri Fulcry	—	—	—	—	—	—	2 3	2 3	2 3	5 8	5 8	2 6	5 8	5 8	5 8
Johannis Wordle	—	—	—	—	—	—	—	10 0	10 0	20 3½	20 3½	12 0	20 3½	20 3½	20 3½
Agnetis atte Moure	—	—	—	—	—	—	—	—	—	3 0	3 0	2 0	3 0	3 0	3 0
Total	61 5¼	60 3¼	51 11½	61 1½	52 5½	4 5 5	78 0½	4 8 0½	4 8 0½	8 7 8[h]	7 10 6½	4 14 0[i]	7 10 6½	7 10 6½	8 14 6½[j]

[a] *Exitus Manerii: exitus diversorum tenementorum in manu domini existentium ultra certum redditum eorundem.*

[b] The last three meaningful digits of the reference number, 159366.

[c] *Et non plus hoc anno quia pars dicti Willelmi ad opus rem(anet) eo quod illus qui dictam terram ten(uit) ad firman illam reliq(uit) et nullus alius eam conducere voluit.*

[d] *Pro 2 tenuris*, from now onwards.

[e] *Et eo minus quia pastura eiusdem tenementi depasc(ebatur) cum hogastris domini.*

[f] *Et non plus hoc anno quia Willelmus Smyth qui illam terram ten(uit) ad firman amplius tenere noluit set omnino dereliq(uit) et nullus alius eam conducere voluit ideo depasc(ebatur) cum hogastris et multonibus domini.*

[g] From now on included with his other holding above.

[h] Individual items add up to £8 6*s* 8*d*.

[i] *Et non plus hoc anno quia recognitio Domini Regis persolut(ur) tam pro illus terris et tenementis in manu domini existentibus quam pro aliis tenementis de exitu eorundem hoc anno.*

[j] With five additional holdings omitted from this appendix.

Thoroughbred Breeding in the North and East Ridings of Yorkshire in the Nineteenth Century*

By M J HUGGINS

Abstract

The article provides a case study of the operation of the thoroughbred horse breeding industry in the North and East Ridings of Yorkshire during the nineteenth century as a first step towards its analysis at a national level. It analyses the changing theoretical underpinning of thoroughbred breeding practice and shows its relationship to changes in demand from the racing community. During the century the breeding industry changed from the predominantly part-time activity of farmers, racehorse trainers, innkeepers and gentry to an activity increasingly dominated by larger stud farms and stud companies. Breeding could be carried on through the keeping of both stallions and brood mares, and changes and continuities are both identified in terms of the key places where stallions were based, of breeding costs in relation to stallions, mares, yearlings and foals, of general stud organization, of the roles of stud-grooms and stable grooms, and of the selling of stock through private treaty and auction means. Although conclusions are tentative, it would appear that only a minority of studs made a profit; although many others believed they had but failed to take sufficient account of depreciation in their accounting procedures.

DURING the course of the nineteenth century thoroughbred horse-breeding developed as an important rural industry. By 1873 a Select Committee of the House of Lords, examining the general state of horse-breeding, could point to thoroughbred horses having increased significantly both in number and value.[1] In 1876 the *Racing Calendar* estimated the combined value of yearlings, brood mares and stallions as over a million pounds.[2] By 1892 there were nearly five thousand brood mares alone in the British Isles, and nearly 1400 breeders involved in the industry.[3]

Surprisingly historians have given this feature of regional English rural life little attention. Writers on racing history have concentrated more on the key stallions and foundation mares of the eighteenth century, and on major classic winners thereafter.[4] We know little about the industry, despite its obvious economic importance as a source of both direct and indirect employment. The following case study explores the occupation's theoretical underpinning, the groups involved in the organization and ownership of stud farms and stud companies, the keeping of stallions and brood mares, the selling of stock, and the extent to which studs made a profit, in relation to York and the East and North Ridings of Yorkshire. The Yorkshire area was selected because over the nineteenth century it was one of the key 'breeding counties'.[5] The thoroughbred, the breed used for racing, derives from interbreeding between identified native British and Arab stock, and the volumes of the *General Stud Book*, first issued in 1791, reveal that almost all English 'tap-root mares' were based in Yorkshire, generally around Bedale. Many early Arab

*I would like to thank the anonymous referees for their valuable comments on this article.

[1] BPP, 1873, XIV, *House of Lords Select Committee on the Condition of the United Kingdom with Regard to Horses*, p 1.

[2] L H Curzon, 'The horse as an instrument of gambling', *Contemporary Review*, 30 Aug 1877, p 378.

[3] C M Prior, *The History of the Racing Calendar and Stud Book*, 1926, p 33.

[4] See W Vamplew, *The Turf: A Social and Economic History of Horseracing*, 1976, ch 12; P Willett, *The Classic Racehorse*, 1989, chs 1–3.

[5] See Amphion, 'For the season 1876', *Baily's Monthly Magazine*, 28, Jan 1876, pp 64 ff.

stallions were also based in the area, whilst York was the centre of much early racing. Indeed, by the early nineteenth century interest in thoroughbred breeding was an expected attribute of Yorkshire gentle society. A young Quaker, Charles Fothergill, recorded in his diary in 1805 that he 'visited Hambletonian, Shuttle and Bagsman with the brood mares and foals at Middlethorp'.[6] Fothergill's regional pride led him to think the county 'the best kind of country for breeding racers'.[7] Certainly the county's temperate climate, plentiful rainfall, and soil and water constituents sometimes created almost 'ideal conditions for breeding thoroughbreds'.[8]

I

During the nineteenth century breeders had limited knowledge of and were inconsistent in using the range of theoretical principles governing breeding. Initially, most relied on practical experience, emphasizing the stallion's pedigree and racing success. Then the *York Herald* and journals such as *The Sporting Magazine* began disseminating statistical details about a stallion's offspring, including their winnings and numbers of races entered and won. Such data made certain stallions fashionable. Breeders also followed individual theories: Richard Watt of Bishop Burton, for example, successfully used inbreeding from Eclipse. Most focused on key qualities like speed or stamina or a limited combination of qualities. This led to rapid progress in both key aspects of racing performance up to the 1870s.[9]

Alongside this came increasing awareness of the importance of the mare.[10] By 1840, it was claimed that 'it is now a fact universally acknowledged amongst breeding men that the perfection and subsequent value of the offspring depend much more upon the choice of dam'.[11] J H Walsh (Stonehenge) reflected views current in the 1850s by arguing for the importance of conformation, whilst recognizing some excellent exceptions.[12] He accepted the mare's importance, but believed that since the male was 'usually more carefully selected and of purer blood' it exerted more influence on offspring.[13] The earl of Suffolk, writing in 1886, having reviewed 'many theories ... upheld by various authorities', also introduced constitution, arguing that few breeders took sufficient notice of the health of horse and mare at the time of mating.[14]

The mare's role was re-stressed by the Yorkshire sportswriter W Allison, who championed the theories of Bruce Lowe. Lowe identified 'chief winning families' from statistics showing how much had been won in terms of the three key classic races by the descendants of 'tap-root mares'. Further data revealed the extent to which each mare had produced great sires – 'chief sire families'. Allison argued that breeding of 'winning' with 'sire' families would achieve best results.[15] Although based on false statistical premises, it led many to accept that 'the success of every breeding stud depends more on its mares than on anything else'.[16] But views were still mixed. Allison's contemporary J Osborne, in his equally influential *The Horse Breeder's Handbook* (1898), rejected

[6] P Romsey, ed, *Diary of Charles Fothergill (1805)*, 1985, entry for 26 May 1805.
[7] *Ibid*, 2 Oct 1805.
[8] Willett, *The Classic Racehorse*, p 253.
[9] See the comments of modern geneticists quoted in Willett, *The Classic Racehorse*, pp 256–7.
[10] The standard work on the history of the turf mistakenly argues that nineteenth-century breeders 'did not realise that the female line could contribute as much to the development of the breed as could that of the stallion': Vamplew, *The Turf*, p 186.
[11] Anon, 'Thoughts upon breeding and rearing blood stock', *New Sporting Magazine*, May 1840, p 292. Sir C Leicester, *Bloodstock Breeding*, 1983 ed, p 3, makes it clear that at the time of mating each parent contributed an equal number of chromosomes, although dominant genes can vary. Clearly thereafter the mare contributes environmentally to the foal.
[12] Stonehenge [J H Walsh], *The Horse in the Stable and Field*, 1892 ed, pp 82–3.
[13] *Ibid*, ch 10: 'The principles of breeding applicable to the horse', p 139.
[14] Earl of Suffolk, *Racing and Steeplechasing*, 1886, p 117.
[15] W Allison, *The British Thoroughbred Horse*, 1901, *passim*; Vamplew, *The Turf*, pp 186–7.
[16] *Country Life Illustrated*, 2 Feb 1897, pp 216 ff.

Lowe's ideas in favour of a return to inbreeding to the three key early sires, Eclipse, Herod and Matchem.[17]

Breeders also responded to a series of changes within racing itself. In the early nineteenth century the majority of provincial races were run in heats. Runners were three- to six-year olds, racing over longer distances, with weight for age. Breeders then bred more for middle distance and stamina demanding events like the high status classics. By the 1880s a majority of races were either handicaps, where poorer horses could compete, or shorter sprint races by two- or three-year olds, which attracted much of the prize money. In consequence, most commercial breeders bred for the latter. Some breeders developed 'forcing systems' to help achieve this.[18] Stamina was unimportant: more horses broke down, or became roarers. Only a minority, mainly breeder-owners, bred more patiently for the speculative success of classic middle-distance events.

Theoretical underpinning and demand were linked but imperfectly. Changes in the relative demand for stamina or precocious speed over a shorter distance affected numbers of stock bred for such traits; but beliefs concerning the relative importance of sire and dam, pedigree, racing performance, inbreeding, health and conformation were somewhat mixed, and unsystematic.[19] Thus, most breeders had some opportunity of selling their stock, no matter which theory they upheld, although dominant theories made certain mares' or stallions' offspring 'fashionable,' and hence more expensive.

II

In categorizing the groups involved in breeding, size of stud and motive are key categories. Breeders can be placed on a continuum from private owner-breeders, usually aspiring to produce a winner in the great weight for age and classic events, to fully commercial breeders. Somewhere between the two, private owner-breeders might sell their apparently poorer stock, or keep mares of their own, whilst leasing their stallion's services to owners of other mares.

A majority of owner-breeders in Yorkshire were wealthy, landowning, and of gentry background. Most kept a small stud of fewer than six mares. While at the start of the nineteenth century this group, and its attitudes and expectations, were predominant among Yorkshire breeders, by the end nine-tenths of thoroughbreds were bred for sale.[20] A late century example from the earl of Roseberry's York Gimcrack speech summarizes the owner-breeder philosophy. He claimed not to stay in the turf for gain. It was 'a most discouraging amusement'. His love lay 'in the breeding of a horse ... the brood mare and foal; in watching the development of the foal, the growth of the horse, and the exercise of the horse'. His 'secret ambition [was] to become the owner of the horse of the century ... We are all striving to produce that'.[21]

Many others of his class, however, tried to purchase success on the turf from commercial breeders. Such breeders can be categorized as part- or full-time. For the first group, more common in the first half-century, breeding was a sideline: innkeepers, farmers, trainers, and landowners were all involved. Innkeepers more usually kept stallions and sought subscriptions. Coaching or posting inns often had substantial stabling, farmland and paddocks, excess capacity, and large numbers of potential customers passing through. Use fluctuated: the George and Dragon Inn and the Black

[17] J Osborne, *The Horsebreeder's Handbook*, 1898, p lxv.
[18] Suffolk, *Racing and Steeplechasing*, pp 214–5.
[19] For a recognition of such differing views see Anon, 'Breeders and breeding', in A E T Watson, ed, *The Racing World and its Inhabitants*, 1904, p 87.
[20] Osborne, *The Horsebreeder's Handbook*, p lxv.
[21] Quoted in *ibid*, p xciv.

Swan, Catterick are mentioned in 1813, yet by 1840 the Angel Inn was a base; at Dringhouses near York the Cross Keys took over the Turf Tavern's business.[22]

Farmers fell into two categories. The first group kept a mare or two to supplement their income, sometimes very successfully. A Shipton tenant farmer bred Alice Hawthorn, winner of fifty-two races out of seventy-two all over England in the period 1841–5. Things had changed by 1899, when it was noted that 'seldom in snug farmhouses great horses are bred. Formerly, especially in Yorkshire, it was a common thing to find a couple of brood mares'.[23] The chief causes were lack of economies of scale, increased recognition of the value of brood mares, and changes in farm size and structure stemming from the improvements due to 'high farming', particularly in Holderness. Other farmers bred on a larger scale, and established several well-positioned stud farms, some of which displayed large elements of continuity. Thus, the Middlethorpe stud farm near York was run by Mr Hornsey at the beginning of the century. Sometime later the former innkeeper George Smallwood took it over,[24] and the family were still running it in 1880.[25]

A third group of breeders were trainers, particularly those based round the main training areas, which often had spare paddock or stable capacity.[26] The Blink Bonny stud, Malton, was set up with the proceeds of trainer W I Ansons' classic wins, and inherited by his ex-trainer son, Miles.[27]

Full-time horse dealers were also involved in breeding although up to mid-century usually on a relatively small scale, based on the personal ownership or leasing of a successful stallion, and a few mares. The major exception was Thomas Kirby, who had stables in York and at Murton by the 1830s.[28] Kirby was an astute businessman, with a knack of choosing the right stallions. In 1847, Lanercost, leased from a Cumberland owner, cleared £1600 for him, a top income for the period.[29] Kirby also kept a dozen mares, and would change his stallion once subscriptions showed any sign of flagging.

The commercial breeders so far described all largely came from the lower ranks of society. In contrast, the single, largest group of commercial breeders possessed a higher social standing, most being from an untitled gentry background. They expected both their racing and their breeding activities to show a profit, employing a stud-groom for the more practical aspects. Most had moved on from breeding for their own racing pleasure. Lord Fitzwilliam's wealthy steward and land agent, Mr Allen, set up one of the best known mid-century studs at Rockingham House, Malton on that basis.[30] Occasionally they ran larger studs. R M Jacques of Easby Abbey, near Richmond, had thirty brood mares in 1854. He had excess accommodation so he hired stallions to serve his mares, and advertised for subscriptions as well. Birdcatcher, hired from the Curragh in 1853, cleared upwards of £1000 besides serving Jacques' mares.[31] The first Sir Tatton Sykes of Sledmere, a wealthy East Riding landowner, had up to three hundred brood mares in his haphazardly run paddocks.[32]

[22] *York Herald*, Jan–May 1840. The use of inns as coaching and breeding establishments is covered in T Bradley, *The Old Coaching Days in Yorkshire*, Leeds, 1889 p 129 and *passim*.

[23] Anon, 'The romance of breeding', *Yorkshire Chat*, 29 July 1899.

[24] *Sporting Magazine*, May 1838, p 14.

[25] PRO, H107/1356 and 3254, RG 10/4746, Census enumerators' returns for Middlethorpe, York, 1841, 1851 and 1871; *Weatherby's Racing Calendar*, 1880.

[26] The overall lifestyle of Yorkshire trainers is given detailed attention in M J Huggins, *Kings of the Moor: North Yorkshire Racehorse Trainers 1769–1900*, Teesside, 1991.

[27] See *Bell's Life*, 5 Feb 1881.

[28] *York Herald*, 23 July 1831.

[29] The Druid, *The Post and the Paddock*, 1856, pp 201–2. A whole chapter was devoted to Kirby and his horse-trading life.

[30] J Kent, *The Racing Life of Lord George Cavendish Bentinck MP*, 1892, p 136.

[31] *Sporting Review*, Jan 1846, pp 46 ff; *The Easby Abbey Stud*, Richmond, 1860, *passim*.

[32] See J Fairfax-Blakeborough, *Sykes and Sledmere*, 1929, *passim*. A full obituary of Sykes is given in the *Scarborough Gazette* (16 April 1853), as is a description of the sale of his stud (17 Sept 1863).

Breeders saw themselves as a community to a very limited extent. They usually subscribed to the *Stud Book*, but they produced their own publication, the *Bloodstock Breeders' Review*, only in 1912. Generally, they seem to have preferred not to share expertise, and rarely acted together. On one of the few occasions when they did, meeting in 1880 to petition an alteration in the closing of entries for the St Leger, those 'not breeding for sale' were very careful to distinguish themselves.[33]

Stud companies were a logical extension of individual activity, and featured from mid-century onwards. The first was the Rawcliffe Stud Company, based on 1350 acres rented just outside York, an expansion of the existing commercial stud run by Mr H Thompson. In 1850 Thompson set up a company to lease the top four-year old, the Flying Dutchman, from Lord Eglinton after his expected Doncaster Cup win. His defeat, and subsequent narrow win in a York re-match in 1851, forced the company to reduce his fee from fifty sovereigns to thirty. Adroitly, Thompson then created a joint stock company, with its objectives 'the breeding of thoroughbred stock and other horses, and the keeping of horses for the public; and leased the Dutchman to it. The share price of £100 effectively restricted share ownership, whilst the first directors unsurprisingly overlapped with the original company.[34]

The company adopted a business mode. As the Druid remarked 'for a downright business and not mere breeding for the love or honour of the thing Rawcliffe Paddocks quite bear the palm'.[35] The company marketed aggressively, sponsoring the Rawcliffe Stakes at the York Spring meeting, and using direct mailing. Thompson, for example, wrote directly to the owner of Beeswing, the famous Northumberland mare, stressing his gentry associations and patrons.[36] By 1860, £24,600 worth of shares had been called up, held by thirty-two shareholders, almost all of aristocratic or gentry background, including the duke of Devonshire and the earl of Scarbrough, but the Flying Dutchman was still not attracting sufficient subscriptions.[37] By 1862 the stud was in financial trouble and being advertised for sale.[38] It was still trading in 1863–4, but thereafter there were no returns to London. Thompson set up the Moorlands Stud farm nearby with his son. Any loss from the Rawcliffe stud does not appear to have damaged his life style.[39]

From the 1870s commercial breeding came increasingly into the hands of breeding companies and specialist stud farms, both predominantly owned by gentry or near-gentry breeders. Magazines like *The Field* or *Country Life Illustrated* featured their studs. Examples include the Fairfield stud, then owned by R C Vyner, a member of the Jockey Club and major owner, and the Sledmere stud owned by the second Sir Tatton Sykes. Managers carried on the day-to-day business in both cases.[40]

III

The utilization of stallions lay at the heart of most commercial breeding. Stallions were serving an ever rising number of brood mares through the century. There were only 735 brood mares in the *Stud Book* in 1822 but by 1848 there were 1337. By 1872 there were 2593 and by 1900 the figure had reached 5890.[41] Stallion adver-

[33] Doncaster RO, Doncaster Race Committee minutes, 11 June 1880, Details of correspondence.
[34] PRO, BT 31/58/226.
[35] The Druid, *Post and Paddock*, p 227.
[36] Northumberland RO, NRO/1356/D/7, Letter from H Thompson to R Orde, 26 July 1856.
[37] *Sporting Magazine*, Dec 1858, p 371.
[38] *Baily's Magazine*, 4, 1862, p 227.
[39] In 1881 as a 'gentleman farmer' he could maintain a butler, cook, and three other house servants: PRO, RG11/4715, Census enumerators' returns for Moorlands House, Skelton.
[40] See *Country Life Illustrated*, 13 and 27 Feb, and 6 March 1897, pp 159, 216 and 249.
[41] C M Prior, *The Early History of the Thoroughbred Horse*, 1926, pp 21–36.

TABLE 1
Location of major stud farms, 1800–1900

Locality	*1800–10*	*Mid-century*	*1890–1900*
York area	Middlethorpe	Middlethorpe	Myton
	Shipton	Fairfield	Fairfield
	Kirby Bridge	Dringhouses	
	Huntingdon	Murton	
	Tadcaster	Rawcliffe	Tadcaster
North Riding	Catterick	Catterick	Catterick
	Richmond	Richmond	Leyburn
	Middleham	Middleham	Middleham
	Boroughbridge	Boroughbridge	
	Thirsk	Ripon	Northallerton
	Ainderby Steeple	Sheriff Hutton	
	Bedale		Bedale
	Yarm		
East Riding	Malton	Malton	Malton
	Bishop Burton	Beverley	Beverley
	Hull	Howden	
	Bridlington		
	Driffield	Driffield	
	North Barton		

Sources: R Pick, *The Sportsman and Breeder's Vade Mecum*, York, 1800; *York Herald*, 1806, 1852; R Johnson, *Racing Calendar*, 1845; *Ruff's Guide to the Turf*, 1856, 1890, 1899.

tisements help identify changes and continuities in terms of the key places where stallions were based, the prices charged, marketing strategies, and general stud organization.

Stud farms could be found in a number of areas of Yorkshire. As can be seen from Table 1, there were significant continuities, not least because the setting up of a new stud farm required significant investment to provide stabling or loose boxes, accommodation and pasture. In terms of continuity, the area around York was the main location. It was centrally situated, with excellent transport links, and excess stabling capacity. Breeding was also consistently linked to training areas, such as Malton, Richmond or Middleham. The key discontinuity is the evidence of late century decline. Some studs disappeared through urban expansion or railway development, but competition from breeders further south was also a major element. In the first decades of the nineteenth century the region usually had between 25 and 30 per cent of national stallion advertisements. This proportion had dropped to almost 20 per cent by mid-century, but this was from a growing total and numbers of studs in the area showed little change. By the century's end, however, the region had declined in importance as a breeding centre. It now had less than 9 per cent of national stallion advertisements, with the East Riding particularly hit.[42]

The subscription fees charged for Yorkshire stallions are an index of its relative importance through the century. In the first decades fees rarely exceeded 15 gns. Whilst mares had to walk from their owner's stud, most subscribers were from within the region because of the risk.

[42] *Sporting Magazine*, 1800–25; *Ruff's Guide to the Turf*, 1856, 1899. BPP, 1890, XXVII, *Third Report of the Royal Commission on Horse-Breeding: Minutes of Evidence*, p 327, qq 2968–75, show a recognition of the decline of Holderness as a breeding area.

When the Northumbrian owner Orde of Nunnykirk walked his mare back from York in the early 1840s, he was warned by the breeder that 'the fole will be sore travelling all that way on the harde rode'.[43] The highest Yorkshire price was usually 15 gns as late as 1844, when all but three Yorkshire stallions had subscriptions of 10 gns or less.[44]

The expansion of the railway system in the 1840s increased crowds and prizes at race meetings. As a result, demand for thoroughbreds increased, whilst horses could travel further without risk. While northern bred and trained horses could in consequence experience success in the southern classics, the railways also encouraged many northern magnates south to live. They increasingly bred and trained there, coming north to their estates more rarely. After the 1870s there were no further northern classic successes. Training and breeding expertise followed the wealthiest available patrons south. By 1879, 49 per cent of stallion fees quoted in the *Racing Calendar* were over 25 gns, with one stallion at over 100 gns, almost all being based in the south. Yorkshire fees were generally lower, being usually between 15 and 25 gns. There was a limited recovery in the region by the 1880s and 1890s, with fees in Yorkshire approaching the national pattern – 10 per cent of its stallions being priced at 100 gns or more, but around 70 per cent priced at 30 gns or less.

Stallions were marketed in a number of ways. Breeders usually advertised them in the newspapers, although small printed cards or larger sheets were often sent out. Free publicity could be obtained from sports writers' descriptions of stud visits.[45] Advertisement details varied. Some early ones have voluminous and glowing descriptions. After mid-century they became more concise. Wiser and more experienced purchasers, or their representatives, would inspect a stallion's conformation, and his pedigree: racing performance and potency interested all prospective subscription purchasers. It was vital that a stallion proved himself a sure foal getter. Press and magazine league tables could be consulted to see to what extent offspring were winning races.[46] Thoroughbred stallions also became a popular draw at agricultural shows, especially at the Great Yorkshire Show. At York in 1848, Melbourne and Lanercost, both top grade stallions, were entered.[47] From the 1880s, Queen's Premiums were offered at agricultural shows to encourage good quality thoroughbred stallions to contribute to half-bred rearing.[48] Most owners offered stallions to a limited number of subscribers. Stallions usually covered between thirty and fifty mares a season, although more than one visit could be needed for each mare. Take-up of subscriptions was greatest for fashionable stallions. Untried stallions had a difficult time attracting custom, and adverts would often offer coverage of 'dams of winners half price' as sweeteners, in hopes of future winning offspring then making the stallion fashionable. Portraiture in connection with breeding had a long history, and was used more widely with the advent of photography. Some photographers were specializing in this by the century's end.[49]

Most stallions based at commercial breeders' studs were leased, often from gentry

[43] Northumberland RO, NRO/1366/D/5, Orde correspondence, York, 15 April 1844. Other correspondence relating to Northumbrian horses travelling can be found in Northumberland RO, ZCO/VIII/13. There are examples of horses travelling to York from as far south as Epsom: *The Yorkshireman*, 2 Feb 1839.

[44] *Johnson's Racing Calendar*, 1844.

[45] *York Herald*, 13 Feb 1847; *Baily's Magazine*, 28, April 1867, pp 251–6.

[46] For example, 'The sires of the season', *Yorkshire Gazette*, 7 Dec 1861.

[47] C M and F M Prior, *Stud Book Lore*, 1951, p 195. After BPP, 1888, XLVIII, *First Report of the Royal Commission on Horse-Breeding, 1888*, the government ceased its ineffective support for breeding through the offering of Queen's Plates for racing. Instead Queen's Premiums for stallions were offered in key areas, with prizes given by the Royal Agricultural Society.

[48] BPP, 1888, XLVIII, p 1.

[49] Osborne, *The Horsebreeder's Handbook*, p lxv.

owners of top classic winners who lacked the accommodation or interest to manage their stallion at stud but wished to retain ownership. The breeder took the risk that the stallion might not be a success.[50] Breeders could also purchase stallions, usually at a high price, but this was an option more for the wealthy, aiming to breed their own classic winner. John Bowes' Triple Crown winner West Australian was sold to Lord Londesborough for 5000 gns, and was at stud at Tadcaster for 30 gns. Unfortunately, the horse was not a success as a stallion, and such a risk would have been too great for a less wealthy breeder. Commercial breeders who apparently purchased stallions were more likely to be acting as agents for others. There was a flourishing foreign trade, mainly through Hull, especially up to the 1860s, when northern horses were still successful, and northern-bred stock was therefore in high demand. The York breeder Thomas Kirby was a central figure from 1791 until the 1850s in building up this trade.[51] Foreign buyers played a significant part in the national market, and the export trade will be addressed in a future article.

IV

Surviving gentry archives and legal cases arising from disputations over the origins of a horse which could affect the results of a race both reveal much about the way studs were managed and run.[52] Most studs kept between one and three stallions, which would not only serve their own mares but would be walked to local mares, although sometimes another stud's stallion was used to 'nick' better with a particular mare.[53] Less fashionable stallions usually filled up their subscriptions with some half-bred mares, at a much reduced fee. Travelling thoroughbred stallions were at the lowest end of the market. They largely covered half-bred mares to get hunters. Each followed a particular circuit: Napoleon le Grand was shown at Hull, Hendon, Brandesburton, Driffield, Market Weighton, Howden, Cave, and Beverley in 1839.[54]

Costs for a mare's accommodation and feed whilst at a stud were around 7*s* a week in 1800, rising to just over 8*s* by 1813. By mid-century, most stud farms were charging between 9 and 10*s*, and prices climbed steeply thereafter. In 1883 the Fairfield stud was charging 22*s* for foaling mares and 16*s* for barren mares. Such prices might not help stud profits. It was claimed that breeders were increasingly sending their mares just for covering, and then bringing them back by train, because of the 'risk of misadventure during gestation' and 'the dangers of starvation at certain depots more remarkable for their grasping propensities'.[55]

The stud-groom's care and judgement were both important. During the season he assisted at the foaling of mares that arrived 'heavy'. This was a skilled task, often carried out in poor light at night. At the Easby Abbey stud, the stud-groom slept over the foaling shed so as to be always on-hand. The groom assessed when mares showed themselves ready to be covered, sometimes using a 'teaser' stallion, and then prepared mare and stallion. He took care of mares, foals and yearlings, and managed staff.

A stud-groom's earnings varied according to a stallion's success. From the start of the nineteenth century most stud advertisements included mention of a groom's fee for each mare a stallion covered. Between

[50] For a letter from one Middleham trainer wishing to hire a horse 'on the same terms as last year' see Northumberland RO, NRO/1356/D/1, 22 Oct 1841.

[51] The Druid, *Post and Paddock*, pp 71 ff, deals with 'Mr Kirby and the Foreigners'.

[52] For examples, see *Yorkshireman*, 24 Aug 1839, 6 July and 10 Aug 1844.

[53] *Ibid*, 24 Aug 1839.

[54] *York Herald*, 27 Feb 1841.

[55] *Baily's Magazine*, Jan 1876, p 65.

1800 and 1820 fees ranged from 5*s* to 1 gn, depending on the stud fee. There was little change through time. At the end of the century most grooms' fees were still between 10*s* and 1 gn per horse, although a mare's owner might also give an honorarium for extra service. The fact that stud-grooms identified in census enumerators' returns rarely employed servants suggests that they perceived themselves as skilled workmen, not members of the lower middle classes, and that earnings were not high. The Fairfield groom in the 1890s received £100 a year plus unfurnished accommodation, gas, firewood and coal.[56]

Stud-grooms needed basic literacy to write to their masters and to customers. When Beeswing was at Easby Abbey in the late 1840s and early 1850s regular reports on progress were sent by the two stud-grooms concerned.[57] Grooms kept day-books, giving records of coverings, and horses going in and out of the yard.[58] Managers or grooms had to attend to a farm's day-to-day management, and deal with a vast amount of correspondence. Record keeping carried out by stud-grooms could be erratic. The nominations for races, giving sire and dam, and entries in the *Stud Book* both relied heavily on a groom's honesty and careful record keeping. These could be problematic, as stable evidence at court cases showed.[59]

Stable-grooms were also employed. Census data show ages well distributed from fifteen to late forties. Job mobility was high, since the job was specialized, and mares and stallions were regularly moved, facilitating job contacts. Most grooms living-in were Yorkshire-born, like other 'horse-lads' in the region.[60] An exception was the Fairfield stud in 1891, six of whose eleven grooms came from outside the county. The success of the stud may explain why they were also slightly better paid, the head man earning £1 10*s* a week, two men earning 18*s*, and one boy 12*s* a week, plus bed and board.[61]

V

The way in which stock was commonly sold changed through the century. Up to the 1840s most gentlemen sold by private contract. The few surviving letter files of stud owners contain correspondence from a range of interested parties wanting to buy well-bred stock, sometimes as yet unborn. Owners took the best offer they could get, negotiating at length by letter. Information about prices was confidential. One would-be aristocratic purchaser, appraised of costs of young stock hitherto, wrote 'I am much obliged for your frankness...and I need hardly appraise you that the information shall go no further'.[62]

Commercial breeders found auctions more attractive. Studs and yearlings were best sold during race weeks, when there were large numbers of prospective purchasers. Auctions were also held, but less often, at the beginning or end of the racing season, or at gentry houses when a stud was being broken up. Doncaster, during St Leger week, had become a major Yorkshire venue for auctions by the 1820s. Tattersalls auctioned there from mid-decade, and by 1831 the Doncaster auctioneer R Tilburn was auctioning bloodstock at York August races as well.[63]

The auction became more important to thoroughbred sales than private treaty after mid-century. Purpose-built auction facilities were erected at York and Doncaster in the 1860s, despite the opposition of publi-

[56] Leeds RO, Vyner Records, NH 141, Box 2.
[57] Northumberland RO, NRO/1356/D/7, Correspondence concerning the foals of Beeswing.
[58] Leeds RO, NH additional papers 75, Day-books, letters of application for stud-groom jobs.
[59] For example, see *Yorkshireman*, 24 Aug 1839. There is some doubt, however, of the veracity of some of the evidence.
[60] S Caunce, *Amongst Farm Horses: the Horselads of East Yorkshire*, Stroud, 1991.
[61] Leeds RO, NH additional papers 141, Box 1.
[62] Northumberland RO, NRO/1356/D/9, Letter from Lord Eglinton, 11 July 1852.
[63] *York Herald*, 23 July 1831.

cans.[64] *Ruff's Guide to the Turf* introduced a return of the sales of bloodstock in 1868, based on auction sales. Tattersalls were by then dominating bloodstock sales, although they were experiencing an increased level of debt default, and imposed the condition that the yearlings were expected to be paid for before removal in the same year. This may have been because auction purchasers had fewer opportunities to spot the weaknesses of yearlings fattened up and 'molly-coddled' for the sales. The Yorkshire trade was more limited than the turnover at London and Newmarket, or at the Hampton Court, Cobham or Middle Park studs in the south, but grew sufficiently for Tattersalls to introduce a Doncaster December sale later in the century.[65]

Prices paid for foals and yearlings rose alongside the growth of auctions. This was in large part a consequence of the increased numbers involved in racing. Prices in the first half-century are difficult to calculate, because few horses were auctioned and the Yorkshire press tended to concentrate on particularly high prices. As the number of reported auctioned foals and yearlings grew patterns became clearer. In 1861 the average price of thoroughbred foals and yearlings at the Doncaster September sales was £164, with prices ranging from £5 to £850.[66] By 1883 the average price of foals and yearlings had reached £237, with Doncaster prices ranging from £25 to £2550.[67] Oversupply at the bottom end of the market by 1898 saw average foal prices drop to £95 and yearling prices to £187, but accompanied by an increasingly wide range of prices.[68] Nationally, highest prices were mainly in the south, where St Simon's eight yearlings averaged 1569 gns. In Yorkshire, only the Sledmere stud could compete. Its six yearlings, from a range of top stallions, averaged £1311.[69] These values can be contrasted with the struggling Blink Bonny stud, its yearlings only averaging 63 gns.

The profitability of studs is a moot point and needs a wider data base than the limited Yorkshire sources provide, with their general omission of marginal costings.[70] Conclusions must therefore be tentative. Breeding was a risky business; 'a lottery'.[71] Successful racing stallions were not always successful at stud. Mares might not produce racing stock.[72] Although overall yearling and foal long-term price trends are clear, they were subject to significant cyclical variation.[73] Nevertheless, a minority of breeders, like Kirby or the Smallwood family, managed a good standard of living over the longer term. Others, most commonly the joint stock stud companies, generally struggled.[74] Failures were due to a combination of land rental and building costs, poor financial management, and the practice of breeding from inferior mares. Some owner-breeders recognized and accepted their losses as the price of potential success.[75] A third group, possibly the largest, wrongly assumed they were achieving profits. Few accepted that mares, accommodation and stallions were all depreciating assets, arguing that there was 'no standard value by which any of the animals can be assessed'.[76] Stallions' value, for example, rose or fell rapidly depending on stud success. Recognition of depreciation made profitability questionable. The apparently successful yearling sales of Sir Tatton Sykes'

[64] *Sporting Magazine*, Sept 1868, p 163.
[65] Osborne, *The Horsebreeder's Handbook*, p lxxxix.
[66] *Yorkshire Gazette*, 21 Sept 1861.
[67] *Ruff's Guide to the Turf*, 1883, sales of bloodstock.
[68] *Ibid*, 1899, sales of bloodstock.
[69] For a breakdown of Sledmere prices from 1888–1900, see Fairfax-Blakeborough, *Sykes* p 235.
[70] See Humberside RO, DDCC(2)/20A, Stable account book, 1828, and DDCC/140/101, Stable account book, 1837–40.
[71] *Manchester Courier*, 4 June 1867, Letter from Admiral Rous.
[72] The Druid, *Post and Paddock*, p 223, provides details for 1853–6.
[73] For Doncaster sales data illustrating this, see R Orchard, *Tattersalls; 200 Years of Sporting History*, 1953, pp 239–40.
[74] PRO, BT 31 files have a large number of examples: amongst the most famous were BT31/2581/13530 the Cobham stud, and BT31/2357/11588 the Enfield stud.
[75] Lord Glasgow spent a fortune on his Glasgow Paddocks at Doncaster and never won a classic: Thormanby [W Willmott Dixon], *Kings of the Turf*, 1898, pp 177–87.
[76] W Allison, *My Kingdom for a Horse*, 1919, p 248.

Sledmere stud produced just over £10,500 income per annum in the mid-1890s. His inclusion of depreciation and income tax converted an apparent profit into a loss.[77] Alternative ways of investing money would have been more effective, if profit alone were sought.[78]

Few breeders bred purely for profit. Love of horses, the opportunity of mixing with the gentry, and the honour of seeing their horses' success all played a part. Thoroughbred breeding was part of Yorkshire's rural culture. At Hovingham the country people attending the interment of the brood mare Atlanta were given plenty of 'good bread and ale' by the steward.[79] Words like 'pilgrimage' or 'levee' were often associated with a stud visit.[80] The death of 'the breeder and owner of Alice Hawthorn' was a major local event to a diarist and reading room secretary ten miles distant.[81]

VI

By the end of the nineteenth century the amount of money circulating in racing, and the numbers involved directly and indirectly in racing and in betting on races rendered horse-racing amongst the largest of Victorian industries.[82] The breeding of thoroughbreds was a crucial part of this, as the price rises through the century indicate. Breeders were a source of rural employment, whilst success conferred status both on the breeder, and on the rural society of which he was a part.

Its structure was complex, supporting a range of views about the relative importance of the various factors determining the quality of offspring. Although there were significant continuities in terms of location and organization, the industry changed significantly over the century; from breeding for distance and stamina to breeding for shorter sprints; from the predominantly part-time activity of gentry breeders, innkeepers, farmers, and trainers to the dominance of the specialized stud company and stud farm; from private contract selling to selling by auction.

There are, however, some dangers in attempting to generalize from this case study. Despite the clear increase in bloodstock numbers bred and prices charged, the Yorkshire industry was in relative decline from the 1870s, due to the growth of the railways and the move of Yorkshire magnates south. Much more work is therefore needed, especially on breeding in the south, before firm conclusions can be drawn. Data from the Newmarket, London and South Downs areas would be particularly useful. The paper, nevertheless, indicates some directions for future research. A wider range of data might make clearer what proportion of studs actually made a profit, and provide the opportunity to assess the extent of regional variation in the occupational wage structure and in stallion fees. The role of the thoroughbred export trade has only been touched on here, but the exportation of bloodstock was important, not least in its central contribution to thoroughbred breeding in Europe, North America and the British Empire, an area yet to be fully explored.

[77] Humberside RO, DDSY 98/51, Sykes account book p 44.

[78] BPP, 1898, XXXIII, *Reports and Minutes of Evidence of the Royal Commission to inquire into the Horse-Breeding Industry in Ireland*, pp 261, 295 (in particular, the report of the earl of Enniskillen), seem to indicate that a very small proportion of general breeders were profitably engaged in the trade. Nevertheless, it was suggested that the thoroughbred horse was 'the most profitable kind of horse to breed' (q 7512).

[79] *Sporting Magazine*, June 1828, p 190.

[80] *Baily's Magazine*, Jan and June 1876, pp 67, 251–6. A young Marton farmer walked ten miles to see the 'object of pilgrimage' Barbelle, the dam of the famous Flying Dutchman, in the 1850s: W Scarth Dixon, *Men, Horses and Hunting*, 1931, p 248.

[81] H Hibbs, ed, *Victorian Ouseburn; George Woodhead's Journal*, York, 1990, p 551.

[82] L H Curzon, *A Mirror of the Turf*, 1892, pp 60 ff.

The Political Economy of Agrarian Education: England in the Late Nineteenth Century*

By JOHN STEWART

Abstract

Debates over the provision of education to the children of the agricultural labouring class in the late nineteenth century display concerns not only about education itself, but also about such matters as labour supply, and cultural and political change. Farmers in the eastern countries in particular were, for example, determined to resist any educational or labour measures which might interrupt the supply of child labour at times of peak demand, such as harvest. Education was also seen by such farmers as an example of 'outside' interference in agricultural affairs. A measure such as the 1873 Agricultural Children Act therefore provides a useful focus for debates and concerns over agrarian change.

THIS article examines the debates over the education of agricultural labourers' children in England in the late nineteenth century. The focus will be mainly, although not exclusively, on the Agricultural Children Act of 1873, and the discussion will centre on the following three issues.

First, it will be suggested that educational change was both symptom and cause of broader rural change. This was recognized at the time. Aspects of the educational debate can clearly be seen as challenging the traditional rural leadership. This was most obvious in respect of school boards which it was thought would, if introduced, provide a platform for emergent labour unions. Education itself was seen as a mechanism whereby the younger and more able of the labouring class might leave the countryside altogether. Both of these were socially disruptive in themselves, the latter also posing questions about existing and future labour supply. So a uniquely serious problem confronted the leaders of rural society as the 'established' way of life came under threat.

Secondly, since educational change was about more than simply education, the act of 1873 should be seen as an attempt to shore up and defend the existing order through limited compromise by the more politically sensitive leaders of agrarian society. To such individuals this order was, ideally, hierarchical, deferential and Anglican. Additionally, the act would ensure the ongoing provision of labour at crucial times in the farming year. Of course, some realized that increased educational provision and restrictions on child labour might lead to a more stable workforce. This would come about through an increase in adult male wages and by equipping future generations to deal with modern farming techniques. But such 'enlightened' views were not typical, at least in eastern England, of the most 'backward' component of the farming community, tenant farmers. This group was to the forefront in resisting educational change. So the limited compromise was designed in part to appease farmers, notoriously hostile as they were to 'outside' interference. Tensions over education, therefore, existed between farmers and other groups in rural society. Consequently proponents of educational legislation, even

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of the most limited sort, had to walk a very narrow path.

Thirdly, it was especially significant that much of the educational debate of the last part of the nineteenth century was conducted by groups and individuals from the eastern counties. The article will focus on this regional experience, where agrarian and educational problems were seen in a particularly acute form. This emphasis on eastern England is justified both because it deals with an important constituent of the national agricultural economy and because of the prominence of its spokesmen– farmer, labour and parliamentary– in national debates. Furthermore, the eastern counties felt themselves faced by a unique combination of problems, once again emphasizing the role and significance of the regional dimension in the educational debate. It is therefore necessary to make a number of introductory points about the area.

The eastern counties of England, centred on Norfolk and Suffolk but containing all or part of neighbouring counties such as Lincolnshire and Cambridgeshire, formed an area whose main agricultural produce was grain. There was, consequently, a much higher demand for labour at certain times, such as harvest, than at others. Until the middle of the nineteenth century there was a labour surplus. This was reflected in the low wages recorded by Caird in his survey of 1850–51, this situation in turn being reinforced by the operations of the Poor Law in the area. And as Caird further noted, one important constituent of excess labour in the eastern counties was child labour. Children's wages were important to the eastern counties agricultural labouring class because of the low level of adult wages, a point forcibly made by an education inspector of Norfolk in 1842. Children were also important because of the seasonal fluctuations in the demand for labour, and in the type of labour required. Caird commented, disapprovingly, on the gangs of Norfolk children contracted to undertake tasks such as hoeing. All this led, according to another education inspector in 1845, to Norfolk child agricultural labour occupying 'a larger proportion of the year than I have had occasion to remark in other counties', and to the county's rural schools being closed from early August to late November.[1] By contrast, areas where the dominant form of agriculture was pastoral tended to have a more uniform demand for labour throughout the year. In such areas, therefore, a supply of child labour which could be tapped at times of high demand was much less of a concern.

From mid-century, however, the circumstances of the eastern counties began to change, not least through the impact of rural depopulation. The population of, for example, East Anglia fell from 4.71 per cent of total United Kingdom population in 1851 to 2.83 per cent in 1911. Similarly, from 1861 employment in agriculture in Norfolk went into permanent decline. Furthermore, it was arable areas such as the eastern counties which were to suffer most during the 'great depression', and its associated fall in prices. Consequently, anything which threatened the labour supply, especially at times of high demand such as harvest, was going to be sceptically received by eastern counties' farmers, and this explains their vociferousness over educational matters. Potential curtailments of child labour must be viewed in this context. This article thus develops that of Horn on the 1873 act by placing that legislation in a broader context and indicating its wider relevance to an understanding

[1] James Caird, *English Agriculture in 1850–51*, 1852, pp 480, 175; Anne Digby, 'The labour market and the continuity of social policy after 1834: the case of the eastern counties', *Econ Hist Rev*, 2nd series, XXVIII, 1975, pp 69–83; BPP, 1842, XXXIII, *Minutes of the Committee of Council on Education*, p 206; BPP, 1845, XXXV, *Minutes of the Committee of Council on Education*, pp 76–7.

of change in late nineteenth-century rural society.[2]

I

Concern about children was expressed throughout the 1860s, focusing, for example, on 'public gangs'. These were large groups of, predominantly, women and children. Such gangs, particularly prevalent in East Anglia, were under the charge of a gangmaster and hired out to farmers as seasonal demand dictated. Ganging had been criticized in official reports, culminating in those of the Children's Employment Commission. These made a series of recommendations, derived in part from the precedents of the Factory Acts, which in modified form were incorporated in the 1867 Agricultural Gangs Act. This placed restrictions on gang labour, including the prohibition of employment under the age of eight. The commissioners also commented on broader child-related issues. First, the desire of 'persons of all classes' for increased educational provision was noted. This was to include gang workers, while ensuring that a high demand for such labour could be met where necessary. The Print Works Act was cited as an example of legislation attempting to regulate employment by imposing educational requirements. Secondly, it was suggested that other forms of child agricultural labour also needed legislative protection. Thirdly, and most crucially, it was felt that restricting child labour would reduce the undercutting of adult male wages in certain types of work, one cause of low wages and underemployment. While acknowledging that a supply of cheap labour could be a source of considerable profit, the commissioners had little doubt that an end to ganging would be in 'the best interests of the labouring agricultural population'.[3]

II

In this context of concern for more working class education and less child agricultural labour, an 1867 meeting of the Norfolk Chamber of Agriculture is a significant indicator of the farming community's fears. The chamber, which had found the commissioners' account of ganging exaggerated, passed a resolution deprecating any further legislation of a restrictive or educational kind, and expressed clear views on the role of education for the labouring class. As one farmer put it, everyone agreed that boys under thirteen ought to receive some sort of education, but only enough to work subsequently as agricultural labourers. Another questioned the right of urban 'theorists' to tell farmers what to do when it was well known that cities were characterized by 'vice, filth and immorality'. A third claimed that boys welcomed the opportunity for labour, and 'would rather be employed in agriculture than at school'.[4] As will be seen, these and similar views were consistently expressed by eastern counties farmers and their political representatives in the last decades of the nineteenth century. Claims were repeatedly made for the 'healthy' nature of agricultural employment; the limited need for education; the ignorance of those outside agriculture of its problems; and the requirement for child labour especially at harvest time. Underlying such concerns were broader fears over the disruption to an established way of life.

[2] David Coleman and John Salt, *The British Population*, Oxford, 1992, pp 91, 81; Alun Howkins, *Poor Labouring Men*, 1985, p 10; T W Fletcher, 'The great depression of English agriculture', *Econ Hist Rev*, 2nd series, XIII, 1960–1, pp 423ff; Pamela Horn, 'The Agricultural Children Act of 1873', *History of Education Journal*, 3, 1974, pp 27–39.

[3] BPP, 1867, XVI, *Sixth Report of the Children's Employment Commission (1862)*, p xviii, para 63ff; p xxiv, paras 100–1; p xx, para 84; p xxi, para 90.

[4] L Marion Springall, *Labouring Life in Norfolk Villages*, 1936, p 44; 'The employment of women and children in agriculture', *Journal of Agriculture*, June 1867, pp 41ff.

III

The Norfolk farmers' wish to be rid of external interference was not granted. Almost simultaneously with their meeting, in May 1867, H S Tremenheere and E C Tufnell, authors of the Children's Employment Commission reports and experienced public servants, were appointed to enquire into the employment of children, young persons and women in agriculture. They produced four reports. Of these, the most important was the second, submitted in October 1869 and dealing with England.[5] Effectively this was two reports, Tremenheere and Tufnell being unable to agree on what conclusions to draw from the evidence gathered. The crucial difference concerned the starting age for child employment. Tremenheere, while acknowledging the 'widespread' feeling that no child under ten should be employed, argued against any minimum. He did so for two reasons. First, he acknowledged the 'vital importance' of children's earnings to many labouring families, who might be doubly deprived of income should they have to pay for education. Secondly, he recognized the 'imperious demand' for young child labour 'in many of the most important agricultural counties'. An awareness of the eastern counties labour market is evident here. Furthermore, since agricultural labour was essentially healthy no minimum was required, and the precedents of factory legislation inapplicable. Instead, Tremenheere proposed a system, based on the Print Works Act, whereby every child would be required to attain a specific number of attendances from the start of employment until the age of twelve. This could be reduced should certain levels of achievement be reached at certain ages.[6]

Tufnell, however, rejected the model of the Print Works Act, pointing out that it neither worked nor was applicable to agriculture. A minimum employment age was required, this being in the first instance nine, and subsequently eleven or twelve. Tufnell made his suggestions provisional on the introduction of a universal system of education, thereby anticipating the developments of 1870 and after. He approached the issue of family income through education, which should be insisted upon by the state. This would result in better-educated boys leaving agriculture for work elsewhere, with those remaining being of higher quality than previously. Tufnell felt it self-evident that educated labour was more valuable, and attributed the already-declining female labour force to existing educational provision. Only by removing excess population and raising wage levels could labour's condition improve, and educational change should be carried out despite farmers' opposition.[7] This was clearly a more long-term, and 'enlightened', approach to a labour market such as that of the eastern counties. Differences notwithstanding, the reports had three underlying areas of agreement. First, both saw a need for educational provision supported by restrictions on child labour. Secondly, both identified the question of child employment as central to the related issues of labour supply, family income and the condition of the labouring population. Thirdly, both acknowledged, in different ways, the desire of farmers to retain a supply of child labour. Their conclusions, and the precedent of the 1867 act, constituted an important aspect of the background to the debates of the 1870s.

IV

The Agricultural Children Bill was introduced early in 1873. Similar measures had

[5] David Roberts, *Victorian Origins of the Welfare State*, New Haven, 1969; BPP, 1868–9, XIII, *Second Report of the Commissioners on the Employment of Children, Young Persons and Women in Agriculture.*

[6] BPP, 1868–9, XII, Mr Tremenheere's Report, p xxi, paras 27, 94.

[7] BPP, 1868–9, XII, Mr Tufnell's Report, pp liii–liv, paras 41–50; pp lx–lxi, paras 81–6; pp lxvii–lxx paras 130–146.

been proposed in 1867 and 1872, and the original Gangs Bill had envisaged some form of educational provision. The relevant clauses had been rejected by the House of Lords. The reintroduction of the issue in 1873 suggests the urgency with which it was viewed. The bill's principal sponsor was C S Read, Conservative member for south Norfolk, aided by Albert Pell, Conservative member for south Leicestershire. Both were prominent in agricultural circles. Read was president of the Norfolk Chamber of Agriculture and has been described by Howkins as 'probably the most prominent spokesman of the Norfolk tenant farmers'. Both he and Pell were also close to the Central Chamber of Agriculture. Such relationships were highly significant. The scepticism of the Norfolk Chamber in educational matters has already been noted. Similarly, the Central Chamber was concerned to forestall the introduction of school boards, fearing the direct compulsion of child attendance and the increase in rates that this would involve. Much to be preferred, in their view, was the indirect compulsion of the 1873 bill.[8]

Read frequently expressed his educational opinions. In 1871, for example, he suggested to the Central Farmers' Club that although in favour of improvements, it should be possible under certain circumstances to employ children in that 'healthy' pursuit, agricultural labour. Indeed just after the passing of the 1873 act, he told the same body that 'he feared that labourers would now be over-educated'. Nonetheless, Read paid considerable attention to the complexities of educating the children of the agricultural labouring class. He was concerned to enhance educational provision while maintaining an adequate supply of child labour and ensuring that established hierarchies came under as little strain as possible.[9]

The 1873 act amended that of 1867 by prohibiting the employment of children under ten in gangs, and forbidding the employment of children under eight. Over this age, certain educational attainments were required before a child could enter employment. Local magistrates could, however, suspend these provisions if asked to do so by farmers or landowners. Any suspension was to operate for no more than eight weeks in each year. Significantly, a Lords' amendment provided that no penalty was to be enforced against any farmer employing 'unqualified' children at particular times of year, that is at hay harvest, corn harvest or hop gathering. The act's provisions therefore fell between the earlier proposals of Tremenheere and Tufnell. Importantly, there were to be no school boards, and hence no elected supervisory bodies. Neither compulsory rating nor compulsory education were being forced upon the countryside. Applying only to England and Wales, the act was to come into effect on 1 January 1875.[10]

This legislation was not simply an attempt to upgrade, however slightly, labouring class education at minimum cost. That the magistracy could suspend education was crucial, an acknowledgement of the ongoing demand for child labour. The power of the existing order was also consolidated and recognized, in that the magistracy was drawn from those social groups likely to be sympathetic to farmers' demands, or to view favourably the claim that children's earnings were crucial to the labouring class. The employment of child labour was a common agricultural practice, particularly in those arable areas, such as the eastern counties, where the type of agriculture lent itself to intensive and seasonal work. Official data,

[8] Adam Henry Robson, *The Education of Children Engaged in Industry in England 1833–1876*, 1931, pp 175–80; *Dod's Parliamentary Companion; Dictionary of National Biography*; Thomas Mackay, ed, *The Reminiscences of Albert Pell*, 1908; Howkins, *Labouring Men*, p 83; Paul Smith, *Disraelian Conservatism and Social Reform*, 1967, p 177.

[9] *Jackson's Oxford Journal*, 11 Nov 1871, p 7, and 13 Dec 1873, p 7.

[10] Robson, *Education of Children*, p 180.

for example that of the census, seriously underestimated the amount of child labour, particularly that of younger children. This was largely due to the seasonal and transient nature of such work. George Edwards, born in Marsham in Norfolk and later a union organizer and Liberal MP, recalled being set to work crow scaring at the age of six, something acknowledged as happening on a large scale by the Royal Commission on Labour. Even after 1870 the reports of HMI frequently lamented the poor attendance at village schools in eastern England. Once again, this in part explains the high level of concern in the region over proposed curtailments of child labour.[11]

Moreover, demand for child labour may have increased in this period. By the 1870s rural depopulation was beginning to pose problems for eastern counties farmers. The East Anglian landowner Sir E C Kerrison claimed in 1882 that over the preceding dozen or so years the population of a neighbouring parish had dropped by around 25 per cent. Emigration was not new to eastern England. But by the early 1870s the situation was being looked on by farmers and their spokesmen as uniquely problematical, not least because of the cost implications of diminishing labour supply. The 1873 act, while seeking to curb child employment such as Edwards had experienced, nonetheless sought to retain a supply of child labour at particular times of the year. Unsurprisingly, therefore, this issue was raised throughout the bill's passage. Read stressed the need to suspend the act's provisions 'in certain seasons', while arguing that although some principles of the Factory Acts were being introduced, this was an analogy which could not be taken too far. So legislation was to be introduced not 'for the purpose of restricting ... employment', but rather to enhance educational provision.[12]

A strongly related issue was raised by the Marquess of Salisbury. While generally welcoming the bill, he had doubts about its 'time and manner', principally because it might deprive farmers of a valuable source of labour at a time of difficulty. The difficulty was the wave of labourers' strikes. Strike action had hit the eastern counties hard, and indeed Read experienced strike action on his own lands. The initial successes of the labourers' unions were putting pressure on farmers already experiencing economic difficulty as the era of 'high farming' drew to a close. Moreover, strikes were not the unions' only weapon. Active campaigns were undertaken to encourage the quitting of the countryside, with the National Union spending, in 1874–5, around £6000 on migration and emigration. When combined with the broader social forces restructuring rural population, this policy had profound implications for labour supply. The need of farmers for child labour in certain areas and at certain points in the year was thereby heightened, most obviously in arable areas at harvest time. In such areas migration could result in labour shortages at one of the most crucial times of year. This was clearly perceived as a problem in eastern England where farmers had, in addition, to contend

[11] BPP, 1873, LXXI, *Census England and Wales 1871*, pt 1, tables XVIII, XIX; George Edwards, *From Crow-Scaring to Westminster*, 1957, p 23; BPP, 1893–4, XXXVII, *RC on Labour: the Agricultural Labourer*, pt 2, para 137; R C Russell, *A History of Schools and Education in Lindsey, Lincolnshire*, pt 1, Lindsey, 1965, p 18; Springall, *Labouring Life*, p 64.

[12] C óGrada, 'Agricultural decline', in R Floud and D McCloskey, eds, *The Economic History of Britain since 1700*, vol 2, Cambridge, 1981, p 189; J D Chambers and G E Mingay, *The Agricultural Revolution*, 1966, p 187; E L Jones, 'The agricultural labour market in England, 1793–1872', *Econ Hist Rev*, 2nd series, XVII, 1964–5, pp 322–38; E H Hunt, 'Labour productivity in English agriculture', *Econ Hist Rev*, 2nd series, XX, 1967, pp 280–92; E J T Collins, 'Labour supply and demand in European agriculture 1800–1880', in E L Jones and S J Woolf, eds, *Agrarian Change and Economic Development*, 1969, *passim* but especially p 71; BPP, 1882, XIV, *RC on Agriculture: Minutes of Evidence*, q 61,814. For the impact of emigration earlier in the century see, for example, Collins, 'Labour supply and demand', p 69; Anne Digby, *Pauper Palaces*, 1978, pp 92–4; and W A Armstrong, 'The countryside', in F M L Thompson, ed, *The Cambridge Social History of Britain 1750–1950*, vol 1, Cambridge, 1990 p 116. *Parliamentary Debates 3rd Series*, CCXIV, cols 694, 690 and see also Lord Heniker, CCCXVI, cols 714–5.

with the increasingly strong migratory pull of London.[13]

But it was also recognized that the modest curtailment of child labour which the bill entailed might work to the farmers' advantage. It would do so not only by letting child labour remain available at critical periods but also by allowing for an increase in adult wages. Ultimately, a more contented and efficient workforce would emerge. This attitude was clearly articulated by Earl Nelson, who suggested that parents would be effectively compensated for the loss of their children's earnings by the increased value of adult labour. Even if this did not happen immediately, the children themselves would benefit in the future, for the best means of permanently increasing wages and position was education. Others joined in the chorus of qualified approval. The *Louth and North Lincolnshire Advertiser* in 1872 argued that there was increasing agreement on the need for an improvement in agricultural labour while the Warwickshire Chamber of Agriculture was prepared to endorse increased educational provision.[14] It is worth stressing that these were among the more enlightened views of the time. Many farmers continued to be opposed to almost any form of education, and for them the attitudes of landowners such as Earl Nelson were clearly anathema.

The labourer himself did seek to influence educational provision and this constituted a further component of the unions' threat. From the outset their demands were social and political as well as industrial. Joseph Arch later stressed the desire for a 'higher state of education' in the early days of unionism. This was not least because of the labourers' 'dreadful ignorance', a point borne out by many contemporary observers. The demand for education was taken up by local agitators and propagated by 'leaflets, pamphlets and newspapers'.[15] This concern for education was also associated with religious nonconformity, which had grown rapidly in the 1860s. Many union agitators were Methodists or Primitive Methodists, a point not lost on the primarily Anglican leaders of rural society, who in turn were currently responsible for the vast majority of rural schools. With religious differences causing immense bitterness; with, as Digby suggests, the Anglican Church in difficulty and nonconformity among labourers as much an expression of class difference as of religious belief; with the high correlation between union activism and nonconformism; and more generally, as Armstrong argues, with the emergence of 'class consciousness' in the countryside, it is unsurprising that leaders of the established order could find evidence of subversive conspiracies. For example, the Norfolk farmer and commentator, L M Cresswell, found 'evil' in the union movement, fanaticism in Methodism and ignorance of rural affairs in urban radicals, whilst herself celebrating a traditional order of squires, farmers and Anglican clergymen. This was further evidence of a profound fear of change in the countryside. In this atmosphere, demands for education from nonconformist union

[13] *Parliamentary Debates 3rd Series*, CCXVI, col 719; Horn, 'Agricultural Children Act', p 30; Frederick Clifford, *The Agricultural Lockout 1874*, 1875, pp 350–1; W Hasbach, *A History of the English Agricultural Labourer*, English edition, 1908, ch V; F E Green, *A History of the English Agricultural Labourer, 1870–1920*, 1920, pts 1–3, J P D Dunbabin, 'The "Revolt of the Fields"', *Past and Pres*, 26, 1963, pp 68–97; *idem*, 'The incidence and organisation of agricultural trades unionism in the 1870s', *Ag Hist Rev*, XVI, 1968, pp 114–41; *idem*, *Rural Discontent in Nineteenth Century Britain*, 1974; virtually any edition of *The Labourers' Union Chronicle* in the period 1872–5; Springall, *Labouring Life*, pp 88–9. On other factors encouraging migration see, for example, the evidence of the unionist Joseph Arch, BPP, 1882, XIV, *RC on Agriculture: Minutes of Evidence*, q 60,057; similarly, Clifford, *Agricultural Lockout*, pp 350–1, and K D M Snell, *Annals of the Labouring Poor*, Cambridge, 1985, p 380.

[14] *Parliamentary Debates 3rd Series*, CCXVI, cols 720–1; quoted in R C Russell, *The 'Revolt of the Field' in Lincs*, Lindsey, 1956, p 17; *Jackson's Oxford Journal*, 11 May 1872, p 7.

[15] Countess of Warwick, ed, *Joseph Arch: The Story of His Life as Told by Himself*, 1898, pp 245–9; Green, *English Agricultural Labourer*, p 70; R E Prothero, *English Farming, Past and Present*, 1912, p 410; Russell, *Revolt ... in Lincs*, pp 35, 42; BPP, 1882, XIV, qq 59,912–3.

leaders, abetted by urban radicals, appeared highly threatening, and in part explain the hostility of bodies such as the Anglican Church to agricultural unionism.[16]

The union leaders' demands for improved educational facilities can be attributed to a genuine concern for the future welfare of their class, particularly were the franchise to be gained. Within a context of greater social and geographical mobility, and a decreasing supply of labour, a curtailment of child labour would also further increase the movement towards better wages and conditions. For the ordinary labourer, often held to be apathetic or antipathetic towards educational or labour legislation, these issues were more problematical. Tufnell in 1869 found parental indifference to education 'the great obstacle to be surmounted', while Read justified his bill partly on the grounds of bringing to 'indifferent and selfish parents' a 'proper consideration' of their children's educational needs. Many labourers took a view of the household economy not dissimilar to Tremenheere's. This was understandable in contemporary circumstances, particularly in the eastern counties given the operations of its labour market. On the other hand, there could be sacrifice for education: for, as one Norfolk woman put it, 'If I could only get him to be a scholar he should never be a farm labourer'. And the contemporary observer F E Green noted that, despite worries about family income, labourers were generally in favour of education, and certainly more so than their employers.[17] Agricultural unionism's success in the early 1870s meant that it became an important influence on the 1873 act and was one of the pressures which its proponents had to take into account.

A further aspect of the 1873 act concerned the possible introduction of school boards, particularly in view of the 1872 Education (Scotland) Act. This had made boards and rating compulsory, and was seen as setting a possible precedent for England. Among English farmers it was thought that compulsion in terms of rating, boards and attendance would directly increase costs as well as posing a serious threat to labour supply and costs. The emphasis, therefore, was to be on 'indirect' compulsion. This was to operate primarily by encouraging parents' interest in education, without unduly penalizing them. As Lord Heniker put it, direct compulsion had to get over the 'greatest difficulty of all', that is the effect on children's earnings. But the system proposed would avoid this problem, thereby creating 'an incentive to comply with the Act'. Stress was laid on the 'inappropriateness' of a compulsory system to the countryside. Read suggested it was to be resisted 'to the utmost', since it implied centralized control from London. Moreover, the 1873 act would encourage community leaders to provide educational facilities. Pell argued that any attempt to force boards on the countryside would be educationally counterproductive. Furthermore, while 'many hard things' had been said about squire and clergyman, they had been in the past 'the most practical and useful promoters of education'. The bill, he concluded, had received the assent of the chambers of agriculture and 'provided compulsion in the least offensive

[16] Dunbabin, 'The "Revolt of the Fields"', pp 69, 71; Edwards, *From Crow-Scaring*, pp 31ff; M K Ashby, *Joseph Ashby of Tysoe*, 1974, p 60; Hasbach, *English Agricultural Labourer*, p 282; Clifford, *Agricultural Lockout*, pp 9, 170–1; Springall, *Labouring Life*, pp 90, 83; Anne Digby, 'The local state' and 'Social institutions' in E J T Collins, ed, *Cambridge Agrarian History of England and Wales – vol VII 1850–1914*, forthcoming: I am grateful to Professor Digby for allowing me to consult these essays in advance of publication; Armstrong, 'The countryside', pp 150–3; Green, *English Agricultural Labourer*, p 37; Snell, *Annals*, p 339; A Lady Farmer [L M Cresswell], *Norfolk, and the Squires, Clergy, Farmers, and Labourers, etc*, 1875, pp 29–30, 36 and *passim*.

[17] J S Hurt, *Elementary Schooling and the Working Classes*, 1979, p 201; Dunbabin, *Rural Discontent*, p 201; Horn, 'Agricultural Children Act', p 30; Digby, 'Social institutions'; BPP, 1868–9, XII, Mr Tufnell's Report, p lxiii, para 101; *Parliamentary Debates 3rd Series*, CCXIV, col 693; Springall, *Labouring Life*, p 67; Green, *English Agricultural Labourer*, p 71.

form' possible.[18] The cultural meaning of all this is clear. Urban outsiders could not understand the dynamics of agriculture, not least the demand in arable and labour-intensive areas for child labour. The 'natural' leaders of rural society would, as they had in the past and given further opportunity, provide and administer what was educationally required. That Pell even acknowledges criticisms of squire and clergy suggests a new sensitivity by the rural élite to external criticism, and apprehension over the perceived consequences of enforced change.

School boards also had a more overtly political dimension. Dunbabin points out that the late Victorian English countryside was a relatively easy place to govern, and so the disturbances of 1872–4 came as a particular shock. All this posed a clear threat to the established order. As one farmer put it, the labour upheaval was not simply about a 'paltry' rise in wages. The issue was, 'Are these [union] delegates to rule over us?'.[19] Hence the concern over elected boards. This was heightened by the anti-Anglican profile of the unions; by the association of some of their leaders with Liberalism; and by the support given to the labourers by prominent radical MPs and urban trade unions. This in itself further fuelled farmers' suspicions of outside interference. A challenge to Conservative (and conservative) rural hegemony was therefore perceived. Enforced educational provision was part of such an attack, prompted as it was by radical 'outsiders' in alliance with unionists and nonconformists. Thus the 1873 act was about more than simply education, seeking as it did to maintain the existing order through limited compromise. Read, for example, saw the bill's purpose as providing every child with a 'thoroughly religious education', while the prayers of the Salisbury Synod in support of the bill were arguably as much concerned with temporal as with spiritual matters. Such fears were not without foundation, since union activists in some areas succeeded in having school boards created in the face of clergy and gentry opposition.[20] It was therefore important that the 1873 act specifically did not have any elective or compulsory rating features. Read's balancing act is once again evident here.

Given this, it is perhaps surprising that the unions appeared so impressed by such a limited measure. Early in 1875, just after its coming into force, the *Labourers' Union Chronicle* gave the act extensive coverage, detailing its requirements and stressing the emphasis which the union leadership had always placed on education. Legislation had been passed in the labourers' interests. Now that wages were better parents must look to their duties, 'and one of the first of these is education'. The act was, therefore, a privilege not a burden. Ironically, this came shortly after a vitriolic attack on Read, describing him as, among other things, a purveyor of the 'old Tory twaddle about the "poor"'.[21] The union enthusiasm is partly explicable in terms of the possibilities the act opened, and perhaps to claim credit for this limited advance. Equally importantly, however, by 1875 the unions were on the retreat, and may have felt obliged to accept anything they could get.

The bill had had its critics. An attempt, led by the future Conservative Home Secretary R A Cross, to raise the upper age limit of education from twelve to thirteen was rejected by the Lords, at the

[18] Smith, *Disraelian Conservatism*, p 179; *Parliamentary Debates 3rd Series*, CCXVI, col 714, CCXIV, col 693, CCXIV, col 698; Horn, 'Agricultural Children Act', p 30, and see also there, at p 31, the comments of Edward Stanhope MP.

[19] Dunbabin, *Rural Discontent*, pp 12–13; Clifford, *Agricultural Lockout*, p 43.

[20] Dunbabin, 'The "Revolt of the Fields"', p 79; Armstrong, 'The countryside', p 126; *Parliamentary Debates 3rd Series*, CCXIV, col 696 and Earl Nelson's speech at CCXVI, col 720. On the unions and school boards see, for example, the case of Cropthorne in Worcestershire: *Labourers' Union Chronicle*, 6 June 1874, p 3.

[21] *Labourers' Union Chronicle*, 13 Dec 1873, pp 4–5, 9 Jan 1875, p 4, and 24 Oct 1874, p 1; Horn, 'Agricultural Children Act', p 31.

urging of the Central Chamber of Agriculture. Some Liberals felt that it did not go nearly far enough. A J Mundella predicted, correctly, that without a system of inspection the act would become 'utterly valueless'. Such dissent should be placed in the broader context of radical Liberal agitation for agrarian reform, an important contributory factor to farmers' resentment of outside interference. Indeed not all farmers were prepared to accept even such a modest measure. Pell claimed he had supported it 'at the risk of my seat'. This was perhaps an exaggeration, but can equally be seen as indicating the balance the more 'enlightened', or just politically aware, had to attempt between their own views and those of their more obscurantist constituents, especially tenant farmers. In the Lords, the Marquess of Bath felt it more important that children were fed than educated, and that when rates were high and labour expensive 'it was undesirable to increase the difficulties of farmers'.[22] Despite such criticisms the bill passed relatively easily, an acknowledgement, perhaps, of its undoubted modesty.

But if the act was explicitly concerned with economic and political matters, the debates surrounding it also manifest a deep concern over the future of rural society. As Springall perceptively pointed out of Norfolk: farmers 'preferred boys young and men ignorant, for an educated man was discontented, independent, and more fond of reading newspapers than of work'. To put it another way, not only might the labourer, now better mentally equipped, demand higher wages or move away, he might also, through participation in unionism or nonconformity, directly challenge his betters. Hence Cresswell's argument that if education there had to be, it should be in schools stressing 'sound, useful training' rather than 'book-learning'. A change was taking place in attitudes and circumstances, and in consequence a threat perceived to the established order. Symptomatic of this change, as well as being a contributory factor to it, was education. For exponents of such a view, especially concentrated and vociferous in the eastern counties, educational change had gone far enough, and was now to be resisted.[23]

The Agricultural Children Act, therefore, sought to deal with a series of problems faced by agricultural England, and particularly the eastern counties, in the early 1870s. Because of conflicting pressures, the act's sponsors proposed a series of compromises; for example, in arguing for a long term improvement in labour quality they were following in a modified form the strategy suggested by Commissioners Tufnell and, with reservations, Tremenheere. On the other hand, Tremenheere's 1869 approach, stressing the importance of child labour to the farmer and of child earnings to the family, was also influential. The act therefore sought to reconcile such strategies, attempting to ensure economic, social and political stability in a situation of potentially disruptive change.

V

Even before it came into force in 1875 it was clear that the act had problems. In 1873 the Conservative national agent, John Gorst, confided to Disraeli that 'county gentlemen and farmers in agricultural counties really dislike education and school boards'. He contrasted this hostility with the support given to such matters by urban

[22] *Parliamentary Debates 3rd Series*, CCXV, cols 1458, 1708 and CCXVI, cols 720, 1151–2; *Jackson's Oxford Journal*, 21 June 1873, p 7; Horn, 'Agricultural Children Act', p 30; Mackay, *Albert Pell*, p 142.

[23] Springall, *Labouring Life*, pp 67–8; A Lady Farmer, *Norfolk and the Squires*, p 35. On attitudinal change see F M L Thompson, *English Landed Society in the Nineteenth Century*, 1963, *passim*; Armstrong, 'The countryside'; Snell, *Annals*; Digby, 'Social institutions'; Hasbach, *English Agricultural Labourer*, pp 360–1; Special Commissioner of the 'Norfolk News', *The Agricultural Crisis*, 1879, *passim*.

Conservatism, a significant comment in itself on farmers' attitudes. In June 1874 Read and Pell were prominent in requesting a meeting with the new Conservative Home Secretary to express the wish that the act did 'not become a dead letter'. The official attitude had, however, already been struck by the outgoing Liberal administration. Its Home Secretary had, in August 1873, told the factory inspectors not to be at pains to enforce the act. The problem was one of enforcement. Read and Pell had argued that public opinion, especially that of the 'natural' leaders of agricultural society, would be the regulatory force, thereby obviating the need for an inspectorate. If sincere, this hope was to be sadly dashed. In March 1875 the Home Office instituted an official enquiry into the act's operation. Among the limited number who responded, the general view was that the act was failing because of lack of official enforcement. The reply from Lincolnshire, for example, noted that few cases had been brought despite 'frequent' violations. This was attributed to the unwillingness of individuals to take action against offenders. Pell was so disenchanted with the problems of enforcement that in 1875 he called for an inspectorate to police the act, a notable reversal of his earlier position.[24]

The problem of enforcement had two aspects. First, no central government department was prepared to be responsible for the act. The Education Department wrote to the Home Office in January 1875 denying any departmental, or governmental, responsibility. The next month the Home Office reluctantly took control, suggesting a circular be sent to Quarter Sessions and mayors directing them to instruct the police to enforce the law. Regret was expressed that the police had become involved in educational control. In a Commons debate on rural education in March 1875 the Home Secretary, R A Cross, was at pains to argue that the act had not yet had a chance to operate; that the countryside viewed it as a 'very strong measure'; that critical Liberals were guilty of being 'abstract' and 'politico-economical'; and that should children be suddenly withdrawn from agricultural labour and sent to school, there was the 'danger' of women taking their places. Cross also repudiated Pell's demand for an inspectorate. The whole debate echoed with themes analysed in this article, especially that of rural resentment of urban 'interference'. These episodes demonstrated the lack of any pre-existing network of inspection and the limitations of central government action in this period, and indeed a marked disinclination on the part of the state to expand control into the countryside. As Armstrong has pointed out, the attitude towards rural society in this period was one of *laissez-faire*, and so he finds the Gangs Act and the 1873 act the 'only important legislation passed with specifically rural problems in mind'.[25] This lack of central interference puts the farming community's obsession with malign urban influences into perspective.

Secondly, as the Lincolnshire reply suggests, few individuals were prepared to bring prosecutions. The act's provisions were often blatantly flouted. As a correspondent to the *Eastern Daily Press* testified, boys discharged by law-abiding farmers were immediately employed by others 'less honest and more wide awake to the absence of any authority to punish them for a breach of the law'. This was no doubt due in part to the Conservative election

[24] Quoted in Smith, *Disraelian Conservatism*, p 180; PRO, HO 45 9373/38913, Correspondence on the Agricultural Children Act, items 1, 24; *Parliamentary Debates 3rd Series*, CCXIV, col 695, and CCXXII, col 1067; BPP, 1875, LXI, *Correspondence between the Home Office and the Justices of Quarter Sessions relative to the operation of the Agricultural Children Act*, p 9; see Horn, 'Agricultural Children Act', p 31, for other examples derived from similar sources.

[25] PRO, HO 45 9373/38913, Correspondence on the Agricultural Children Act, items 12, 12a; BPP, 1875, LXI, p 15; *Parliamentary Debates 3rd Series*, CCXXII, cols 1072ff; Armstrong, 'The countryside', p 114.

victory of February 1874. Disraeli himself was one of the Buckinghamshire justices who voted against instructing the police to enforce the act. Moreover, although the labourers' national union strongly supported the act, agricultural unionism was facing severe problems following the 1874 lockout in East Anglia and Lincolnshire. Opinion was clearly hardening against the act, with the magazine *Field* suggesting that to ignore it was no crime, and country schoolmasters being pressurized not to enforce it. A further problem was the perennial one noted by Digby in respect of the Sandon Act, that the responsibility for enforcement was in the hands of individuals who might themselves be farmers, landowners, or those sympathetic to them.[26]

VI

The early optimism of Pell was, therefore, unjustified. A more accurate measure of farming opinion might be his later claim that he promoted the bill in the face of local hostility. Hostility, especially from the tenant farmers of the eastern counties, there certainly was, based on the belief that education would interfere with labour supply and costs; would tend to encourage rural emigration; and would give labourers ideas above their station, already a problem given the emergence of 'class conflict' in the countryside. The act therefore died virtually at birth, something recognized by Lord Sandon in a memorandum to the Cabinet in November 1875. Acknowledging that to allow school boards in the countryside would challenge Conservative power, he suggested that a measure of compulsion would aid voluntary schools by increasing grant revenue. The act's failure was, furthermore, a political embarrassment, since the Conservative Party was taking credit for factory legislation while leaving agricultural children largely untouched by educational provision. Consequently the 1873 act was repealed by the 1876 Elementary Education Act. During the latter's Commons passage Read, claiming to represent the 'residuum of the stupid Party', that is tenant farmers, tried unsuccessfully to modify the bill with respect to agriculture. He objected to agriculture being treated like any other industry, not least because it was, as always, 'healthy'. Similarly, the bill, in attempting to restrict juvenile labour, was doing so in excess of its strictly educational requirements. Read took particular offence that children under ten were to be prohibited from agricultural labour. Certain types of farm work were done cheaper and better by children, and should they not do it, nobody else would. He also suggested, correctly, that the act would cause resentment among the farming community, specifically because of its restrictions on child labour and hence on labour supply.[27]

The farming community, predictably, remained highly sceptical of education, at least in eastern England. In the early 1880s a Suffolk farmer stressed the high cost of school board rates and the loss of labour. Asked whether boys should be released from school to work at an earlier age, he replied that they might be. This would be to the advantage of the boys' families, and of little detriment to their education. The savings to himself he subsequently made clear in his analysis of the relative costs of employing boys rather than men in tasks such as beet-thinning. The important point here is, once again, the perceived relationship between labour supply and cost, education and, implicitly, the future of the agricultural sector. Farmers now felt they had to pay for education which would

[26] Cutting in PRO, HO 45 9373/38913, Correspondence on the Agricultural Children Act; Hurt, *Elementary Schooling*, pp 199, 200; Dunbabin, 'The "Revolt of the Fields"', p 69; Digby, 'Social institutions'.

[27] Smith, *Disraelian Conservatism*, pp 247–8; *Parliamentary Debates 3rd Series*, CCXXIX, cols 956–7, and CCXXXI, col 585.

only encourage yet more young men to leave the countryside. As Clifford put it, this was the 'drop of bitterness in the farmers' cup'. In similar vein, Hasbach saw farmers now having only the 'dregs' of the young available, while obliged to support an educational system which 'carries off the young people to the industrial employer'. A bitter price indeed, given the views of the farming community on urban life and urban meddling with agriculture and their concern to preserve what they saw as an stable and structured way of life.[28]

The education of the children of the agricultural labouring class in the decades from the 1860s was a fraught issue, influenced by a number of interlocking factors. In general, there was a desire to give some form of education, however minimal, to working class children. In the countryside this became entangled with concerns by farmers to forestall the encroachment of potentially disruptive forces. Labour supply had to be protected, and children were crucial in this; school boards were to be kept at bay because of the implications of union participation, nonconformism and compulsory rating; and, more generally, anything which encouraged the labouring class to look beyond life in the fields was to be discouraged at all costs. Educational change, therefore, had more than simply institutional meaning. It was seen as having a range of, mostly unwelcome, economic, political and social consequences. At worst, it represented the intrusion of a hostile and uncomprehending outside world into agricultural affairs. Although not all would have gone as far as the Wiltshire farmer who blamed the depression on the 1873 act, feelings clearly ran high.[29] When combined with continued emigration, this made the nature and duration of education all the more important. Hence the preceding emphasis on the strained circumstances of eastern England, where the potential for disruption to the labour supply and to rural society generally appeared especially acute.

VII

From the 1880s the tenant farmers and their spokesmen were, at least in public, on the retreat. The Royal Commission on Labour noted that educational provision had diminished the supply of boy labour, and that farmers in some areas were still complaining of this. Equally, the commission found the 'more active and intelligent' labourers now being drawn away from agriculture, and those remaining exhibiting a 'general feeling of restlessness'. All this was, the commission felt, self-evident and inevitable. By 1894 Read was claiming that little juvenile labour was now employed as boys were kept so long at school 'that they do not care for farm work very much'. In Cambridgeshire, suggested Pell, male school-leavers were happy to quit the countryside for Pickfords in east London, or the police. All this indicated to Read that labourers had done well through increased wages, which obviated the need for child earnings, and through greater geographical and social mobility. And by 1902 he was further claiming that education had 'done much to depopulate the rural districts', and that school learning had little application to rural life. Consequently, the 'tenant farmer is poor, the landlord is ... poorer still, and the labourer is well employed and well paid'. While clearly a caricature of relative class positions, this is nonetheless further evidence that certain sections of the community felt the old order had come under severe, perhaps fatal, attack in the last few decades of the nineteenth century. But in eastern England schools in rural areas continued to see absences due to agricultural

[28] BPP, 1881, XVII, *RC on Agriculture: Minutes of Evidence*, qq 52,329–41; Clifford, *Agricultural Lockout*, p 351; Hasbach, *English Agricultural Labourer*, pp 268–73; see also Digby, 'Social institutions' and Thompson, *English Landed Society*, pp 196ff.

[29] F G Heath, *British Rural Life and Labour*, 1911, pp 256–7. In fairness this farmer's companion, also a farmer, thought education a good thing as it would raise the quality of the workforce.

employment through the 1880s and beyond. The Royal Commission on Labour noted the presence of boys in agricultural gangs in Cambridgeshire and Norfolk in the 1890s, and even in the 1900s children continued to be viewed as an important source of casual labour. Equally, for many eastern counties farmers and even some landowners education remained something to which they were, to a greater or lesser extent, opposed. Fifty years after Caird, Rider Haggard carried out his survey of rural England. On the question of education, he found many farmers, although by no means all, outside the eastern counties grumbling about education. But what they tended to complain of was less the fact of education and more its content, this being seen as unsuited to agricultural life. In counties such as Norfolk and Suffolk, however, the fact of education, and its explicit linking with labour shortage, continued to be a source of grievance. A number of the themes of this article were neatly summed up by a Mr Poll of Norfolk, who felt the 'principle cause' of the current labour shortage to be the 'system of education in force in the country, where we educated the children for the towns and paid the bill of their rearing, all for the benefit of the cities which used them up'. The continuing fragility of the rural élite's commitment to the education of the rural working class might be seen in the successful campaigning by Norfolk landowners for the release of boys from school to fill vacancies left by volunteers during the early part of the First World War.[30]

[30] BPP, 1893–4, XXXVII, pt 2, paras 89, 137, 107, 139; H Rider Haggard, *Rural England*, vol 2, 1902, pp 529, 384, 492–3, and 513; Russell, *History of Schools*, pp 18–19; Hurt, *Elementary Schooling*, pp 200–203; Howkins, *Labouring Men, passim* and p 13; Digby, 'Social institutions'.

Notes and Comments

DR JOAN THIRSK, CBE

Members of the society were delighted to hear that Joan Thirsk had been awarded a CBE in the Queen's Birthday Honours List for 'services to agrarian and local history'. We offer our warmest congratulations. Joan is a founder member of the society. She compiled the annual lists of publications for the *Review* from 1955 to 1965 and the lists of work in progress, 1958–61, and edited the *Review* from 1964 to 1972. A long-serving member of the committee of the society, which she chaired from 1974 to 1976, Joan was president of the society from 1983 to 1986. She was elected a Fellow of the British Academy in 1974 and has received three honorary doctorates. Her numerous publications are listed in John Chartres and David Hey, eds, *English Rural Society, 1500–1800: Essays in Honour of Joan Thirsk* (CUP, 1990). The latest honour recognizes not only her writings but the unstinted support she has given fellow researchers, professional and amateur alike.

MARIE HARTLEY AND JOAN INGILBY

For over forty years Marie Hartley and Joan Ingilby have written about and pioneered the study of farming and rural life, chiefly in north Yorkshire. Marie Hartley's first books on Swaledale, Wensleydale and Wharfedale (in association with Ella Pontefract) appeared in the 1930s. In the 1950s Marie Hartley and Joan Ingilby began to work together, and their first book on *The Old Hand-Knitters of The Dales* was published by the Dalesman in 1951. Since then their joint works have included *Yorkshire Village* (J M Dent, 1953), *Life and Tradition of the Yorkshire Dales* (J M Dent, 1968), *Life and Tradition in the Moorland of North East Yorkshire* (J M Dent, 1972) and *Life and Tradition in West Yorkshire* (J M Dent, 1976). For these and their other local history work they were honoured by the Yorkshire Archaeological Society on 1 December 1993. They were presented with the society's silver medal in public recognition of their contribution to the understanding of the county's past. This medal has only been presented on three other occasions. Earlier historians who have been recipients known to the British Agricultural History Society are Professor Maurice Beresford and Dr Arthur Raistrick. The BAHS also sends its congratulations to Marie Hartley and Jean Ingilby on their achievement of this honour.

(continued on page 155)

Rural Revival in Marne, 1914–1930

By H D CLOUT

Abstract

In 1918 Reims stood in ruins and was surrounded by devastated countryside. The impact of destruction in Marne *département* may be classified into four zones, of which the 'red zone' was the most seriously damaged. In wartime military forces and voluntary organizations, such as the Quakers, worked to restore farmland, repair buildings, and provide temporary shelters. Their example was emulated by the state's special *Services* in the early years of peace. By 1921–22 this emergency phase was overtaken by the recovery phase in which attention was devoted to providing permanent accommodation for returnees. Cooperative reconstruction societies played an important role in this activity. Villages and farmsteads were repaired or completely rebuilt in more modern and hygienic fashion, but the opportunity for radical remodelling of the countryside was not seized. Damaged vineyards on the Montagne de Reims were restored. Rural landownership patterns were recreated in the pre-war fashion; very little plot consolidation occurred. Sections of the 'red zone' were too seriously devastated to be brought back into cultivation, despite protests from local farmers. Such areas were allocated for military training. In many respects, rural revival in Marne involved re-inventing the structures of the past rather than fashioning a new future in the countryside.

ALBERT Demangeon likened the impact of World War I on the tranquil landscapes of northern France to the passage of a cyclone which damaged properties in over 4000 *communes* and devastated 3,337,000 ha in ten *départements*.[1] Of course, the 'cyclone' struck with varying intensity so that the *Ministère des Régions Libérées* could declare that 1,719,087 ha needed only simple clearance of shells and debris, 1,501,273 ha would require sustained effort over several years, but 116,640 ha were so seriously devastated that this 'red zone' seemed beyond hope of restoration[2] (Fig 1). The French state had declared its commitment to compensating all who suffered loss (the *sinistrés*) very soon after the war had started (Circular of 27 October 1914), and reaffirmed this position in the great *dommages de guerre* legislation of 17 April 1919, which entered the statute book after prolonged debate in the Chamber of Deputies and the Senate. Claims for compensation needed to be formulated in a legally acceptable way by each *sinistré*. This task could be facilitated by lawyers, architects and accountants, and such help was duly obtained by industrialists and rich landowners. By contrast, humble family farmers, often with few or no resources at their command, were unable to operate in this way, and a new cooperative formula had to be devised to mediate between the apparently benevolent state and the distressed *sinistrés*.

Compensation and reconstruction were intensely personal matters, and the state did not commit itself to the physical task of rebuilding ruined towns, villages and farmsteads. It did, however, organize a number of short-term emergency services to clear explosives, fill trenches, remove barbed wire, restore farmland, supply seeds, equipment and livestock, and provide temporary shelters for returned *sinistrés*. Some emergency services operated while hostilities raged, others were created after the armistice was signed. They were directed from Paris and had local administrations that were distinct from the *préfectures* of the *régions dévastées*. They operated in the harshest of conditions and relied on prisoner-of-war labour and civilian workforces assembled in haste. By virtue of their dubi-

[1] A Demangeon, *Le déclin de l'Europe*, Paris, 1920, p 34.
[2] E Michel, *Les dommages de guerre et leur réparation*, Paris, 1932, p 90.

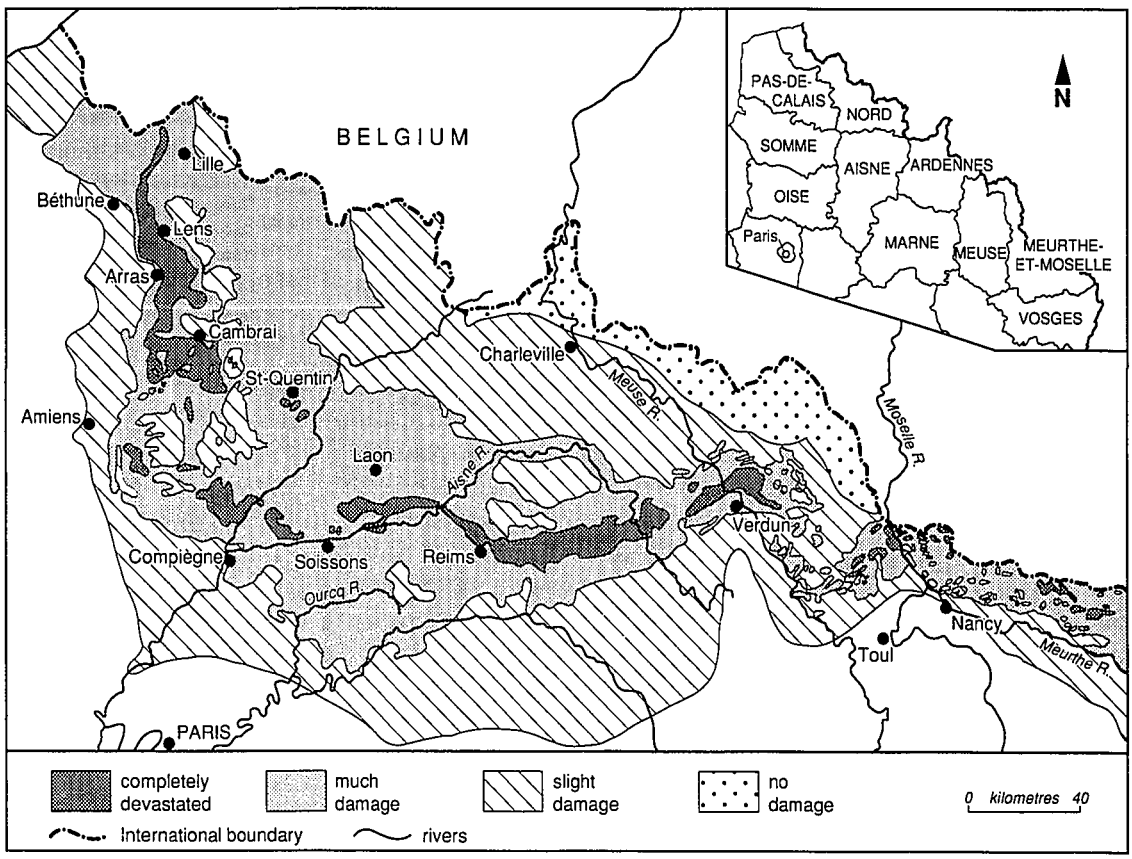


FIGURE 1
Les régions dévastées (compiled from J Guicherd and C Matriot 'La terre des régions dévastées', *Journal d'Agriculture Pratique*, 34, 1921, p 155 and E Michel *Les dommages de guerre et leur réparation*, Paris, 1932, fold-out map)

ous efficiency and the fact that they were run by outsiders, they were to become targets of profound criticism from *sinistrés*, prefects and mayors alike. Military labour and foreign volunteer organizations had already played their role in assisting rural revival during the war.

Just as the destruction of war varied from place to place, so did the challenge of recovery and reconstruction, and the composition and efficiency of the varied agencies. Hostility to the state's special *services* was universal however the practice of restoration varied within the *régions dévastées*. The present discussion focuses on the *département* of Marne which lacked the opulent farmlands of Flanders, Artois or Picardy, but was blessed with vineyards, and certainly had not experienced the degree of land abandonment that characterized parts of Meuse before the war. Nonetheless, rural areas in Marne (especially around Saint-Menehould and Vitry-le-François) had undergone sustained depopulation in the quarter century before 1914, while the city of Reims grew substantially to house 115,170 in 1911.[3] Indeed, the story of post-war recovery in Marne has been largely expressed in terms of the rebuilding of Reims and the influence of the American architect-planner George B Ford.[4]

[3] E Chantriot, *La Champagne: étude de géographie régionale*, Paris, 1906, p 84.
[4] O Rigaud and M Bédarida, *Reims: reconstruction 1920–30*, Reims, 1988; H Clout, 'The reconstruction of Reims 1919–30', *Planning Outlook*, 32, 1989, pp 23–34.

There is, of course, a rural side to that story and it is with the countryside that the present essay is concerned. It does not attempt to explore the enormous and ever-expanding literature on the Great War, but simply seeks to add to knowledge of the surprisingly little-researched recovery period in a single *département* which has a distinctive archival collection highlighting particular aspects of rural reconstitution. In the following pages emphasis is placed on official, public sources rather than on the testimony of the *sinistrés* themselves which stresses the prolonged misery of having to endure temporary accommodation during the first part of the 1920s. However, the author is preparing a monograph which will trace the complex reconstitution of the countryside of northern France from the Channel to the Vosges after the ruins had been cleared, and will include material from local newspapers which reveals the plight and frustration of many of the returned *sinistrés*.

I

German forces entered Marne on 2 September 1914 and reached Reims the following day.[5] By 7 September the whole *département* had been invaded, with the exception of the southernmost fringe (Fig 2). After the victory of the Marne the Germans retreated, enabling the French army to re-enter Epernay and Vitry-le-François on 11 September, and Reims on the following day. The front line was established across the *département*, running along the Aisne canal, skirting north of Reims and the Châlons army camp, and then extending across the *Champagne pouilleuse* to the woodland of the Argonne where it entered Meuse *département*. For the greater part of the war that line changed very little but at the end of May 1918 the Germans advanced through the north-western part of the *département* to cross the river Marne between Château-Thierry and Epernay. Despite these movements, the ruined city of Reims was not evacuated. During July German forces were pushed back to the river Aisne and two months later French and American forces started to move north, with the Germans being expelled from Marne one month before the armistice was signed.

At that time the population of the *département* had fallen from 436,000 (1911) to 200,000, largely as a result of refugee movements to neighbouring areas in the French interior and to Paris.[6] Reims *arrondissement* contained only 5000 inhabitants, compared with 205,000 eight years previously. Sustained shelling had reduced the city to ruins but a few hundred people remained in November 1918. Some 538 *communes* of the 662 in the *département* had experienced material damage. Seven villages had been blasted off the face of the earth; 117 *communes* had over half their buildings devastated, and in a further 414 the proportion ranged from 10 to 50 per cent.[7] In all, about 94,000 buildings had been destroyed, including 34,000 dwellings. Some 285,000 ha had been abandoned or experienced disruption. On the eve of the war there had been 15,792 wells in what was to become the invaded area; of these 7669 were destroyed, and 7403 needed repair or cleaning since many had been polluted by manure.[8] Despite efforts to assemble corpses in official cemeteries, many war dead lay in very shallow graves where they had fallen, and hence collection and reburial represented urgent tasks.

Farmland in the battle zone and the

[5] M Huber, *La population de la France pendant la guerre*, Paris, 1931, p 363.

[6] *Ibid*, p 366.

[7] L Paudrat, 'La Marne dévastée et sa reconstitution', in L Lebrun and L Guille, eds, *L'agriculture dans la Marne*, Troyes, 1926, pp 107–13.

[8] Archives Départementales de la Marne, Châlons-sur-Marne [hereafter ADM], 1N 282, Conseil Général de la Marne, *Session d'avril 1922, Rapport du préfet sur le fonctionnement des services de la reconstitution*, p 820.

occupied areas was largely uncultivated throughout the war. The Germans worked small patches in 1914 and 1915, but they soon abandoned the attempt. Of a total agricultural area of 185,220 ha, some 165,260 ha were judged to have been devastated and a mere 19,960 ha survived intact.[9] The number of working farms plummetted from 6000 in 1913 to 1272 at the armistice. Voles and other pests multiplied in abandoned tunnels and trenches, and duly invaded weed-covered farmland.[10] No less than 50,000 ha of woodland experienced some kind of devastation, 30,000 ha being in the zone of military operations and the remainder in areas occupied by German or Allied troops.[11] However, the aspects of rural change in Marne which distinguished it from the other northern *départements* was the devastation of its prized vineyards.

On the eve of the war the *département* had contained 11,750 ha of vines, 6000 ha of which suffered from phylloxera but continued to produce.[12] The Germans occupied the vineyards for just a few days in September 1914; indeed, they initially respected the vines since they wished to appropriate 'this jewel in the viticultural crown of France'.[13] But circumstances changed, and shelling, aerial bombardment and drifting gas devastated the Montagne de Reims. Trenches were cut, gun emplacements were installed across sections of vineyard, and vine-growing villages were destroyed during 1918. In addition, mobilization deprived the vineyards of necessary labour; women, children and old men were unable to tend the vines and work the soil in the habitual way. Fertilizers were unobtainable, and insects and plant diseases flourished unchecked; phylloxera made more progress than in the preceding three decades. Special permits had to be obtained by all who wished to work in the vineyards where, of course, they became easy targets for enemy fire. For this reason the military authorities evacuated most of the vine-growing *communes* during 1918. By the armistice, the vineyards of Marne had declined to 10,600 ha, including 4284 ha where vines had been ripped out or abandoned and 3009 ha which had succumbed to phylloxera but were still producing.[14] In six *communes* vineyards had virtually disappeared, and Verzenay, which had been much visited and admired by tourists, was reduced to an immense stretch of scrub with only 75 ha of its former 500 ha of vines remaining in cultivation.

II

Within Marne the Germans fixed their front line across the woodlands of the Argonne and the chalky plateaux of Champagne, from Vauquois westwards to Reims and thence to the plateau of Craonne, south-east of Laon.[15] This was flanked by trenches and the infrastructure of war which occupied a zone 10–15 km across. Each natural hollow housed military installations. Whole villages were destroyed, as were the meagre plantations of pines which had broken the monotony of some stretches of heath. The very topsoil was blasted away across parts of this swathe of 'red zone', which occupied more than 23,300 ha in northern Marne.[16] Nine months after the armistice, the north-eastern corner of the *département* remained 'a tabula rasa, a silent desert with fields ripped open by shells'.[17] In addition to the land being mutilated, the watercourses of

[9] *Ibid*, p 858.
[10] ADM, 1N 280, CG 1921, *Rapport*, p 867.
[11] ADM, 1N 278, CG 1920, *Rapport*, p 665.
[12] C Moreau-Bérillon, *Au pays de la Champagne; le vignoble, le vin*, Reims, 1924, p 292.
[13] M De Polignac, 'Renaissance de la Champagne', *Le Monde Illustré*, 25 septembre 1920, p 16.
[14] Moreau-Bérillon, *Au pays de la Champagne*, p 293.
[15] J Guicherd and C Matriot, 'La terre des régions dévastées', *Journal d'Agriculture Pratique*, 34, 1921, pp 154–6.
[16] ADM, 1N 280, CG 1921, *Rapport*, p 846.
[17] Anon, 'La Marne', *Journal des Régions Dévastées*, 1, 1919, p 198.

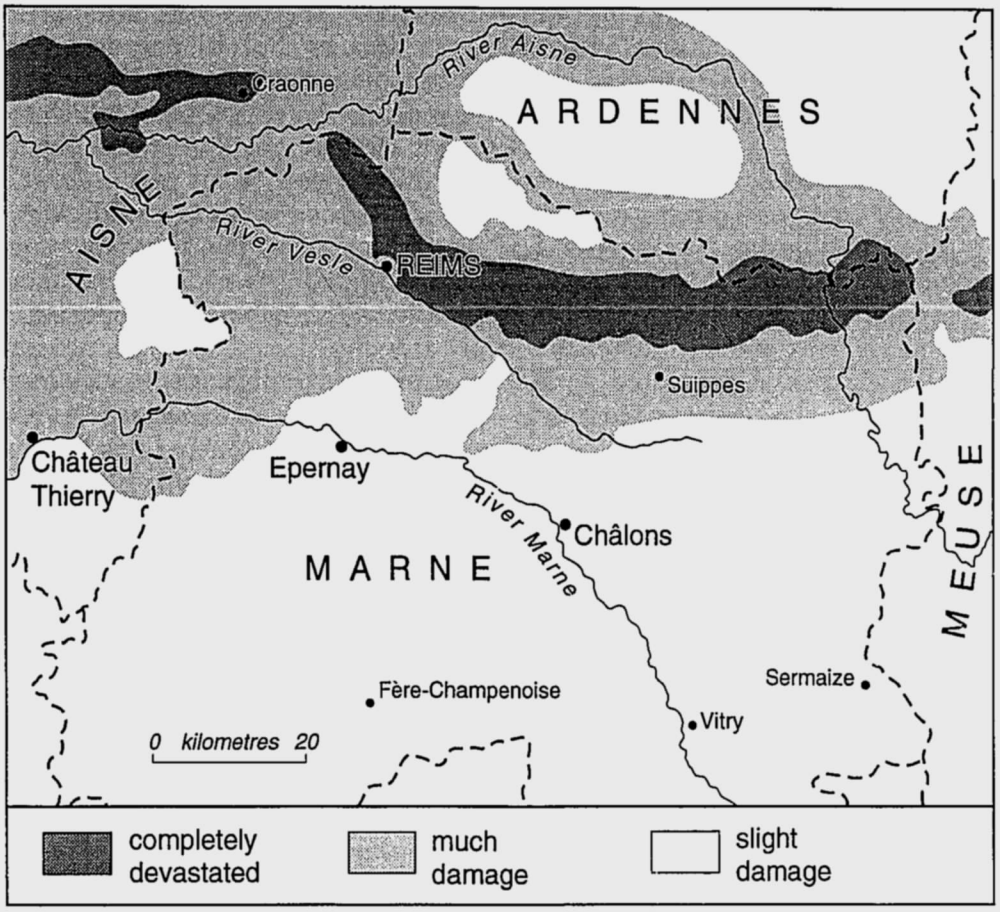


FIGURE 2
Devastation in the *département* of Marne (sources as for Fig 1)

Marne received a deadly quantity of unexploded shells. By April 1921, 600 tonnes were to be recovered from the bed of the Vesle but many stretches still demanded attention.[18]

Four zones of destruction could be recognized within the *département*[19] (Fig 2):

i) The northernmost section had been invaded throughout the war and over 80 per cent of its buildings had been destroyed or damaged. Seven villages had been erased, and farmland was scored with trenches and littered with war debris. It was completely uncultivated in November 1918. In the words of the Bishop of Châlons, who had visited the environs of Somme-Py in October, the area was 'an absolute desert, without water, people or vegetation ... the land is colourless and is just like the corpse of a *pays*'.[20]

ii) Further west, four *cantons* (Fismes, Ville-en-Tardenois, Dormans, Châtillon-sur-Marne) had been invaded during 1914 but were reoccupied by farming families when the Germans retreated. A second invasion in 1918 proved more destructive than the first, hence 50–80 per cent of all buildings suffered damage.

iii) A band of territory 10–20 km in bre-

[18] ADM, 1N 280, CG 1921, *Rapport*, p 801.
[19] Paudrat, 'La Marne dévastée', pp 107–8.
[20] M Tissier, *Au front de Champagne*, Châlons, 1918, p 19.

adth fringed the two previous zones. Enemy artillery fire led to 30–50 per cent of buildings being damaged.

iv) The southern half of the *département* experienced only brief enemy occupation in 1914 when farmers were evacuated and cultivation was suspended in this 'back zone'. In 1915 many cultivators returned and, with the help of military labour, stretches of land that had not been too churned up and from which explosives could be removed were returned to use. Between 10 and 30 per cent of buildings in the 'back zone' suffered damage.

III

In Marne, as elsewhere in the *régions dévastées*, rural recovery began long before hostilities ceased. Whenever events allowed, French and Allied forces were employed to cultivate farmland that lay beyond the line of fire and was not dangerously strewn with war debris. For example, during 1915 troops loaned their horses to farmers, worked in the fields and helped repair farm buildings in the southern half of Marne. During the following two years special 'agricultural officers' were charged with exploring all possible ways of using military resources to bring the land in the shadow of battle back into cultivation. *Comités d'action agricole* were established for the whole *département* and for individual *communes* to advise farmers how and where they might obtain animals, seeds and fertilizers.[21] They served as clearing houses for complaints and requests from farmers for transmission to military or civilian administrations; and they organized labour and equipment for recultivating abandoned land. Committees from neighbouring *communes* were urged to assume responsibility for reworking uncultivated areas in evacuated *communes*.

The army participated as best it could in farming activities but its work was conditioned by the official status and material condition of land at varying distances from the active front line. The supply zone (*zone des étapes*) in Marne comprised considerable areas that had been withdrawn from agricultural use when artillery depots, training camps, aviation fields and firing ranges were installed.[22] It did, however, retain some of its civilian population and was divided into sectors, each of which was entrusted to a 'farming officer' who had been a farmer or a professor of agriculture in civilian life. He would liaise with local farmers to determine the type and quantity of work they wished to be done, and with the military command to ascertain how many men, horses and machines might be released for particular periods and at specified places. As well as drafting groups of soldiers to undertake haymaking, harvesting, threshing and woodcutting, some military units placed individual soldiers on farms for longer periods where labour shortages were acute because of mobilization or where widows were struggling to work the land alone. Such efforts were generally appreciated, but available military labour was insufficient to meet all demands and was subject to immediate recall because of changing circumstances. This could, of course, prejudice sowing, harvesting and other work which had to be performed according to the agricultural calendar rather than as the events of war would allow. Harsh weather produced further complications, as in the winter of 1917, when very poor conditions prevented soldiers from undertaking any farm work.

Closer to the front line the 'reserved zone' was divided into 'forward' and 'back' areas. Civilian authorities continued to operate in the back areas where military labour was used to support civilian farm-

[21] ADM, 140 M 17, *Comités départemental et communaux d'action agricole pour la remise en culture des terres abandonnées, 12 février 1916.*

[22] ADM, 203 M 199, *Rapport sur les résultats obtenus au cours de l'année 1917 avec l'aide agricole des troupes, 25 décembre 1917.*

workers whose numbers had declined greatly because of mobilization and voluntary migration. Farming officers instructed mayors to encourage local farmers to work the land as best they could and to requisition abandoned areas for cultivation by neighbouring farmers or by the army.[23] Extreme care had to be exercised, and farmers were advised to summon the military to remove shells or other suspect material.[24] By contrast, all civilians had been evacuated from the forward areas and hence the army was required to supply labour, animals, implements and machines. Wherever possible abandoned farm equipment was numbered and labelled, prior to being put into store or pressed into service by soldiers.[25] Blacksmiths from the cavalry corps proved particularly useful for repairing field equipment.

Relations between the military and what remained of the civilian farming population in Marne were not always comfortable. Local people complained that some teams of soldiers allocated to farming duties failed to live up to expectations, preferring to rest or to ride horses rather than work in the fields.[26] The army acknowledged that sometimes it failed to supply workers with the right skills, at the right moment and for the appropriate duration. However, it argued that some farmers refused the offer of military aid or, having accepted it, turned it away on the pretext that the land or the crop was not ready. Others expected unreasonably large amounts of work to be done by soldiers in very short periods. More seriously, some farming officers alleged that many civilians in the back areas of Marne had simply become camp followers, preferring to devote their time to trade and to leave agricultural tasks to soldiers.

Prisoners of war were used to help with farming work in areas more than 30 km from the front line. As the war approached its final stages, the *Ministère de l'Agriculture* repeated its requests for military manpower to be allocated to harvesting and threshing.[27] At the same time, military authorities urged prefects to treat with caution any requests from civilians to return to their devastated farmland, since so much dangerous material remained on the ground. In September 1918 the *Ministère des Régions Libérées* informed mayors to draw up emergency plans for using military labour should it suddenly become available in their area. Once the armistice had been signed Foch instructed that occupied land be returned to cultivation. Armed forces were encouraged to quit buildings that might be of use to farmers and other residents; and civilian authorities were authorized to remove barbed wire and to fill trenches. Peace opened the way for the state's emergency services to play a significant but not uncontroversial role in tackling these and many other urgent tasks.

IV

Throughout the hostilities and in the immediate post-war months many French and foreign voluntary associations busied themselves with welfare activities and rural reconstruction in the shadow of the war zone. Of particular interest in Marne is the work of the British Society of Friends (Quakers) who sent a group of thirty-two doctors, nurses and helpers to the *département* in November 1914.[28] In the following month a start was made on medical relief, installing new wells and temporary housing, and building anew.[29] A medical welfare centre was opened at Châlons, and 150 Quakers were at work in Marne by the summer of 1915. An initial idea had

[23] ADM, 140 M 17, *Service de la culture des terres, 18 septembre 1917.*
[24] ADM, 140 M 16, *Mise en culture des terres abandonnées, 11 octobre 1918.*
[25] ADM, 140 M 17, *Mise en culture des terres abandonnées, 18 novembre 1917.*
[26] ADM, 203 M 199, *Rapport sur les résultats obtenus ... 1917.*
[27] ADM, 140 M 16, *Mise en culture des terres abandonnées, 27 juillet 1918.*
[28] T E Harvey, *Behind the Battle Lines in France*, 1915, p 3.
[29] J M Guillon, 'Mission anglaise de la Société des Amis', *Journal d'Agriculture Pratique*, 29, 1916, pp 92–4.

been to repair housing but soon the initiative was taken to produce temporary wooden houses.[30] These were for erection in villages around Vitry-le-François and Fère-Champenoise which had been devastated in the Battle of the Marne.[31] At Vitry the Quakers took on civilian labour to help construct prefabricated wooden shelters. The first was ready for occupation at Christmas 1914, and applications for this kind of temporary accommodation flooded in from local mayors. The Quakers paid particular attention to Sermaize-les-Bains, which had lost 900 of its thousand houses but was just one of a line of ruined settlements between Vitry and Revigny. Work continued during 1915 and over a thousand wooden houses formed a 'little garden city' at Sermaize.[32] During 1917 the town came under fire again, but this time it survived.

Some 65 km to the west and across the main battlefield of the Marne, Fère-Champenoise formed a second focus of activity by the Friends. The town itself had not suffered grave damage but many surrounding villages were half destroyed. Relief began in January 1915 with Quakers going out to organize rebuilding, offer material help and supply seeds so that some kind of harvest might be obtained. The little wooden houses varied in size from one to four rooms, were supplied with double walls and plank floors, and were covered with tarred roofing felt. Later on, tiles were used since these were far more effective. Quakers continued their emergency work in Marne but were repeatedly frustrated by lack of timber, despite support from the prefect and his staff. In the summer of 1916 the French authorities opened workshops for prefabricating wooden houses at Dôle (Jura) and Ornans (Doubs), and both supplied prefabricated parts to the Quakers in Marne. Important though the work of voluntary organizations was in particular locations, the complex task of rural recovery demanded much better organization, more labour, and greater financial support.

[30] A R Fry, *A Quaker Adventure*, 1943, p 23.
[31] E M Pye, *Relief Work in the Devastated Department of the Marne*, 1915, p 9.
[32] J O Greenwood, *Quaker Encounters*, York, 1975, p 203; G Bluzet, *Reconstitution des moyens d'habitation dans les villages détruits*, Châlons, 1916, p 7.

V

The early months and years of peace are best characterized by the direct involvement of the state which organized labour to perform a range of emergency tasks. Special *services* were set up, some originating before the war had ended and others immediately after. Three of these were of particular significance for rural recovery in the *régions dévastées*.

The *Service des Travaux de Première Urgence* (STPU) emerged from earlier military organizations, being formally designated on 13 December 1918. It was centralized in Paris and was directed along quasi-military lines. It could be called upon to undertake various forms of emergency work, such as removing shells and dangerous equipment, providing makeshift repairs to damaged housing, installing temporary accommodation, clearing rubble, levelling farmland, filling trenches, and performing a host of other tasks that were usually identified by the local staff of the *Génie Rural*. The STPU was trying to operate at the most difficult of times and was to be subjected to profound criticism. By virtue of its centralization it was beyond the jurisdiction of the prefect who was, of course, responsible for organizing other closely related work. In short, the STPU was managed by outsiders, whose ideas were rarely in harmony with those of the *sinistrés*, and it called upon a diverse labour force which, its critics alleged, was not committed to the tasks in hand.

By March 1919 Colonel Abinal, director of the STPU in Marne, had assembled an initial labour force of civilians and 600 prisoners of war but he declared it to be

quite insufficient to cope with the work ahead.[33] Nonetheless its activities were to complement those of private contractors and made an important contribution to local achievements. Thus, by 1 April 1919, 30,000 ha had been purged of shells; barbed wire had been cleared and trenches cursorily filled over 18,000 ha; about 8000 ha of farmland had been ploughed; almost 4000 houses had been given summary repairs; and an extremely small number of temporary shelters had been erected. Just forty-three were listed for the Châlons sector, and a small but unspecified number that were necessary for canteens, dormitories and prisoner-of-war camps had been installed around Reims. One year later 194,799 ha had been cleared of shells and barbed wire, and trenches had been filled across 167,782 ha.[34] These operations involved shifting 15,405,930 m^3 of earth and 31,815,903 m^2 of barbed wire. Despite such achievements, opposition to the STPU was so strong in the northern *départements* that after a visit to Somme in the summer of 1919 Clemenceau announced that the STPU would be replaced by the *Service des Travaux de l'Etat* (STE).

This proved to be little more than a change in name since many staff remained. However, the days of the STE were numbered and the repatriation of prisoners of war in the second half of 1919 removed much of its *raison d'être*. It was disbanded in spring 1920 and the kinds of work that it had undertaken were entrusted to private contractors and to *sinistrés* operating individually or in groups. Replacement supplies of labour were certainly needed, and by this time a transit camp had been opened at Suippes to receive foreign workers destined for Aisne and Ardennes as well as Marne. In April 1920 the first convoy of Poles had just arrived.[35] The presence of many outsiders from other parts of France and from abroad caused the *département* administration 'legitimate concern', and Prefect Brisac took steps to reinforce his mobile police, increase the number of gendarmes, and create a special force to protect *sinistrés* and their belongings. These officers were provided with bicycles or motorcycles, and patrolled the devastated countryside night and day, checking the identity of strangers, informing mayors and gendarmes, and keeping an eye on local people and their property.

The *Service de la Motoculture* also derived from military origins, in conformity with the law of 7 April 1917 which encouraged cultivation of abandoned farmland. It was composed of teams of tractors and other agricultural machines which were used to level war-torn land and provide initial ploughing. In many respects this *service* had to depend on the STPU, since shells and other debris had to be removed, and trenches and shellholes filled before the tractors could be brought in. Priority was given to rich soils in broad open stretches of relatively flat countryside. Such conditions were well satisfied in Aisne but were less prevalent in Marne with its extensive area of poor soils in the *Champagne crayeuse*.[36]

Six teams of tractors were operating in the *département* during the spring of 1919, and a very small number of other machines were being used by groups of farmers or by individuals.[37] Twelve months later 107 *Motoculture* machines were operating in eight teams.[38] As a result of the activities of the *Service de la Motoculture*, individual farmers and agricultural cooperatives, the uncultivated surface of Marne was reduced from 120,359 ha to 81,500 ha during the first four months of 1920 but a vast amount of abandoned land still awaited attention. During 1920 the *Service* used 192 machines which contributed to the ploughing of

[33] ADM, 1N 276, CG 1919, *Rapport*, p 154.
[34] ADM, 1N 278, CG 1920, *Rapport*, p 611.
[35] *Ibid*, p 613.
[36] Chantriot, *La Champagne*, 1906, p 122.
[37] ADM, 1N 276, CG 1919, *Rapport*, p 168.
[38] ADM, 1N 278, CG 1920, *Rapport*, p 641.

7745 ha, working of a further 2255 ha, and harvesting from 2179 ha.[39] As elsewhere in the *régions dévastées*, its achievements were poor, partly as a result of the state of the land but also because machinery wore out and spares were not available. Because of bitter opposition from farming organizations, the *Service* was dissolved at the end of August 1921 and its tractors were sold to local farmers with large enough holdings to use them.[40] Its total activity in Marne amounted to ploughing 23,467 ha, surface working a further 6246 ha, harvesting over 3682 ha, and threshing for a total of 335 days.

The *Office de Reconstitution Agricole* (ORA) was the third rural emergency service. It was created on 6 August 1917 and functioned as a centralized body to encourage agricultural recovery. Through its local agency, the *Union agricole, horticole et viticole de la Marne* which started operations in April 1919, it attempted to co-ordinate collection, repair and distribution of abandoned farm machinery, and ordered new equipment from French and overseas suppliers, especially the USA.[41] A centre for repairing farm machinery had been opened at Châlons in spring 1919 and was duly brought under ORA control. The centre developed slowly and counted a workforce of thirty-five a year later, including civilians and military staff. The ORA advised on the creation of farming cooperatives (eight of which were established in Marne), and functioned as a clearing house for seeds and fertilizers and for livestock that were returned from Belgium and the French interior, were obtained from Germany in conformity with international agreements, or were purchased from other sources. During 1920 the ORA handled the return of 945 horses, 3255 cattle, 5698 sheep and 452 goats from Germany.[42] Unfortunately disease was rife and only about half of these animals survived to the end of the year. The *Union agricole* delivered 14,000 pieces of farm equipment to farmers in Marne, including 3000 ploughs and 425 tractors.[43] Like other emergency organizations, the ORA was criticized for inefficiency and the *Union agricole* was shown to have been poorly managed, with financial matters being particularly defective. Like the other *services*, the ORA and its various agencies were closed ignominiously and in Marne the *Union agricole* ceased trading in July 1923.

In addition to these agricultural *services*, the state established a forestry organization to help restore 50,000 ha of woodland in Marne. It opened camps in the Montagne de Reims, in the Forêt des Hauts Batis and at Florent, and by April 1920 work had begun on removing barbed wire from the woodlands of the Argonne and was about to commence near Reims. Nurseries were opened in the *département* to supply the necessary plants.[44]

VI

It is not possible to quantify the achievements of the state services during the emergency phase. Statistics from the *Ministère des Régions Libérées* are both rare and unreliable, and do not distinguish between work accomplished by the state and that achieved by *sinistrés* acting individually or in groups. However, five indicators may be identified for a variety of dates in the early 1920s which roughly mark the end of the emergency phase. Firstly, by the start of January 1921, 57 per cent of all the land that would be purged of shells, trenches, barbed wire and other war debris in Marne over the subsequent ten years had been cleared.[45] Three-

[39] ADM, 1N 280, CG 1921, *Rapport*, p 870.
[40] ADM, 1N 282, CG 1922, *Rapport*, p 862.
[41] ADM, 1N 276, CG 1919, *Rapport*, p 168.
[42] ADM, 1N 280, CG 1921, *Rapport*, p 860.
[43] Paudrat, 'La Marne dévastée', p 112.
[44] ADM, 1N 278, CG 1920, *Rapport*, p 665.
[45] Ministère des Travaux Publics: Service des Régions Libérées, *La reconstitution de la France dévastée: statistique générale*, Paris, 1929; Michel, *Les dommages de guerre*, p 612.

quarters of this work had been completed across the ten *départements* as a whole, and was almost entirely finished in Oise, Pas-de-Calais, Somme and Ardennes. Secondly, at the same date, 54 per cent of all war-damaged farmland in Marne had been levelled and had received its first ploughing. Since the *Service de la Motoculture* continued to operate into 1921 it may be more appropriate to cite figures for January 1922. At that time 65 per cent had been completed in Marne, which was behind the 75 per cent average for the ten *départements* and the very high completion rates for the rich farmlands of Nord (99 per cent) and Pas-de-Calais (86 per cent). Thirdly, the volume of temporary housing installed and the quantity of damaged housing repaired was not summarized until October 1922, four whole years after the armistice. At that time 14,146 temporary houses and farm buildings made of timber and makeshift materials had been installed, and 18,050 damaged houses and farm buildings had been made usable.[46] These results appear particularly unsatisfactory when set against the 82,560 houses and farm buildings that Michel quoted as having been destroyed or damaged in Marne and the fact that many *sinistrés* had returned to their home districts but were required to live in temporary shelters.[47] (It must, of course, be acknowledged that 11,617 houses and 3509 farm buildings had received permanent repairs in Marne by October 1922, and a modest total of 2789 houses and farm buildings had been reconstructed; but these achievements were in no way the responsibility of the emergency services). Fourthly, the census of March 1921 recorded a civilian population of 366,734 in Marne, some 16 per cent below the 1911 figure.[48] The *cantons* of Châlons and Epernay recorded fractionally more residents than in 1911 but population decline characterized the rest of the *département*, with particularly severe losses around Reims, Saint-Menehould and Vitry-le-François. Many owners and tenant farmers had come back but the same could not be said for landless agricultural labourers who had no incentive to return when more lucrative work might be found elsewhere.[49] The situation regarding farm labour was grave, especially with regard to essential springtime activities. Lastly, in the hot, dry season of 1921, the wheat harvest in the *département* exceeded the pre-war average but fell back to about three-quarters in the following year.[50] In 1922 the number of farm horses in Marne was only 14 per cent short of the pre-war total, but numbers of cattle (−23 per cent) and sheep (−54 per cent) were substantially down.

Despite much inefficiency and local variation, the special *services*, private contractors and *sinistrés* did manage to accomplish a great deal. By the end of 1921 shells had been removed from 244,555 ha and barbed wire cleared and trenches filled over 212,830 ha.[51] Land in agricultural use rose from 19,260 ha in 1919 to 81,868 ha in 1921, and was to reach 98,000 ha in the summer of 1922, when the number of working farms would exceed 5000. By the spring of that year ruins had been cleared from seventy-eight *communes* and work was in progress in a further hundred. Some 6019 wells had been restored, 6251 cleaned (4555 of which had been disinfected), and 316 reconstructed completely. At that time 7943 units of temporary housing had been installed, including 4185 wooden shelters and 3758 'provisional' houses, which together provided some kind of shelter for about 30,000 people.

Like property owners elsewhere in the

[46] Ministère des Régions Libérées, *L'oeuvre de la reconstitution*, Paris, 1923.
[47] Michel, *Les dommages de guerre*, p 269.
[48] Ministère de l'Intérieur, *Denombrement de la Population, 1921*, Paris, 1922.
[49] ADM, 1N 280, CG 1921, *Rapport*, p 866.
[50] Ministère de l'Agriculture, *Statistiques agricoles annuelles, 1910–1928*, Paris, 1911–29.
[51] ADM, 1N 282, CG 1922, *Rapport*, p 830.

régions dévastées, the vinegrowers of Marne returned as soon as possible to the devastated plots, seeking shelter amidst ruins or in temporary accommodation.[52] Initially a sum of 3000 francs was advanced to help compensate for each hectare of vines that had been destroyed or damaged. This sum was soon increased to 5000 francs and then 8000 francs for vineyards that had to be replanted completely.[53] During 1919 land was cleared and dug over, trenches and shellholes filled, dead vines removed, living ones pruned, and necessary chemicals applied. Indeed, 10,000 vinegrowers in Marne belonged to over a hundred syndicates for tackling phylloxera.[54] Encouraged by the *Syndicat Général des Vignerons de la Champagne Délimitée* and assisted financially by the *Association Viticole Champenoise*, vinegrowers prepared the soils and made 6 million grafts in 1919 and 14 million in 1920. During that year Marne contained 10,325 ha of vines, including 3184 ha which supported grafted stock. But vinegrowers suffered severe difficulties, including an acute shortage of labour which had been attracted to other forms of recovery work. Implements, chemicals and other materials were much more expensive than before the war. To restore a hectare of vineyard now cost 25–30,000 francs, compared with 7–8000 francs seven years previously. Not surprisingly, the grape harvest of 1921 was insignificant but that of 1922 was very abundant. Ironically prohibition had been introduced in the USA, but during 1923 the Champagne trade revived and consumption both at home and abroad was picking up.[55] By spring 1923 only 590 ha of war-ravaged vineyards in Marne awaited replanting and a further 468 ha needed to be restored after wartime devastation.

[52] Moreau-Bérillon, *Au pays de la Champagne*, p 293.
[53] ADM, 1N 282, CG 1922, *Rapport*, p 864.
[54] De Polignac, 'Renaissance de la Champagne', p 16.
[55] G Chappaz, *Le vignoble et le vin de Champagne*, Paris, 1951, p 111; ADM, 1N 284, CG 1923, *Rapport*, p 737.

VII

Land continued to be cleared and recultivated up to the mid-1920s. However, state *services* had long been dissolved and arguably during 1921–22 the 'emergency phase' had been succeeded by the 'recovery phase'. Attention turned to the desperate plight of many returnees and the need to build permanent dwellings that would ensure that northern settlements were not condemned to be rural slums or ghost towns. Throughout the war, architects had devised plans for reconstructing urban and rural settlements and for improving living conditions for their inhabitants. Community facilities, such as village halls, libraries and dispensaries, were advocated for settlements which needed complete reconstruction. New villages should be less densely packed than their predecessors and be provided with more open space. Cemeteries should be relocated on settlement margins and every effort be made to provide public water supply, mains drainage and electricity. Most authors argued that traditional 'regional' styles should be respected, although modern materials, especially concrete, might be included in rebuilt houses and farmsteads.[56]

On 14 March 1919, a settlement planning law was introduced to apply to all towns with over 10,000 inhabitants, to towns greater than 5000 that were growing rapidly, and to all settlements that had been damaged or destroyed during the war. In each case a *plan d'aménagement* was required and this opened the way for the villages of northern France to be reconstructed in more logical and hygienic ways. Whilst defining the intensely individualistic dimension of declaring war losses and claiming compensation, the *dommages de guerre* legislation (17 April 1919) did not preclude *sinistrés* working together to achieve these ends. Clearly, groups of *sin-*

[56] J Brissac, *Conseils sur les principales dispositions relatives à l'hygiène dans les projets de reconstruction*, Châlons, 1922.

istrés might agree to pool the advances on their compensation grants, employ architects and building contractors, and thereby reconstruct whole settlements at a time. Several models already existed which might be adapted to create *sociétés coopératives de reconstruction*. A handful of such groupings had been founded in 1917 to rebuild flood-damaged settlements in the Marne valley and during 1918 the *Ministère des Régions Libérées* extolled the advantages of cooperation. In the following years *sociétés coopératives de reconstruction* developed in various ways, with the lead being taken by socially-committed priests in Meurthe-et-Moselle, by mayors and landowners in Aisne, and by farmers' associations in Nord. Passage of the *dommages de guerre* legislation made establishing cooperatives all the more desirable since architects and building contractors from Paris and elsewhere started to descend on the devastated settlements, anxious to draw up contracts and secure work. Many were honest but some were not; naïve *sinistrés* proved easy prey for exploitation.

In Marne, 25 cooperative reconstruction societies involving 65 *communes* had been set up by 1 August 1919, and at the start of April 1920 the figure had risen to 129 involving 210 *communes*.[57] Unfortunately, many did not function efficiently since they lacked a consistent legal basis and could be joined or abandoned by their members at will. Prefect Brisac estimated that only about fifty were truly 'alive', representing the interests of *sinistrés* in a hundred *communes*.[58] Legislation of 15 August 1920 introduced the notion of the 'approved cooperative' whereby associations agreed to follow government guidelines and were allocated financial advances to assist their activities. By 1 March 1922, 141 cooperatives were in existence in Marne, of which 137 had approved status. These belonged to two *unions* (covering rural areas of Reims *arrondissement* and the valley of the Marne) and to the *fédération départementale*.[59] The total continued to grow, reaching 148 in 1924 with a membership of 12,557 in 262 *communes*.[60] Some 167 *communes* had engaged their local cooperatives to repair communal buildings, especially churches and *mairies*, and 75 *communes* belonged to a diocesan cooperative for church restoration. Staff of the *Génie Rural* visited the cooperatives on a regular basis to check their accounting and the progress of building being undertaken on their behalf. Despite these precautions, the reconstruction cooperatives suffered from serious financial difficulties, partly as a result of local mismanagement but also because central authorities were unable to ensure adequate cash flow.[61] Thus, in 1925 finances proved insufficient and many building sites in renascent villages had to stop work, albeit temporarily.

The activities of the reconstruction cooperatives are not known in detail, but by 1931 some had completed their work since the total in the *département* stood at 120, with a membership of 12,083.[62] Approximately three-fifths of all reconstruction in Marne was due to their activities and they played a particularly vital role in rebuilding many of the villages of northern Marne. These were endowed with wider streets, new or restored churches, schools and *mairies*, but rather fewer dwelling houses, partly because compensation was used to rationalize the housing pattern and also because some *sinistrés* opted not to return to their home villages. Rural electrification was a major innovation which was introduced with the assistance of the *Génie Rural*. Work started toward the end of 1921 and by the spring of 1923 electricity supplies reached 82 *communes*.

[57] ADM, 1N 278, CG 1920, *Rapport*, p 633.
[58] *Ibid.*
[59] ADM, 1N 282, CG 1922, *Rapport*, p 854.
[60] ADM, 1N 286, CG 1924, *Rapport*, p 695.
[61] ADM, 1N 290, CG 1926, *Rapport*, p 223.
[62] Michel, *Les dommages de guerre*, p 612.

Three years later the total stood at 238, with work in progress in a further hundred *communes*.[63]

The old cadastral pattern of farm property was restored over the greater part of the northern *départements*, with relatively few landowners opting for plot consolidation (*remembrement*) under the generous legislation of 4 March 1919 which related specifically to war-damaged areas. Only a very small number of *communes* in Marne requested their landholdings be remodelled, and often these involved villages which had established farm cooperatives to bring devastated farmland back into use.[64] Prefect Brisac noted that few landowners appreciated the advantages that *remembrement* offered, but he observed that the objections they raised were not important and could be refuted easily. By April 1923 *remembrement* had been completed in just a dozen *communes* in Marne, covering 7396 ha.[65] By the start of 1926, 15,564 ha had been consolidated involving 3126 landowners and reducing the number of their plots from 57,021 to 12,952 (−77 per cent). This modest result stood in sharp contrast with the sustained effort at *remembrement* in eastern Somme. Ironically, some landowners in devastated parts of Marne only began to appreciate the advantages of *remembrement* once neighbouring *communes* had been reorganized. As late as 1931 some were still requesting that *remembrement* be implemented under the 1919 legislation; unfortunately, such requests had to be lodged before the end of 1922.[66]

In the disruption and despair of November 1918 it had seemed that broad areas of ravaged land were beyond hope of restoration. The idea of taking this land into state ownership to establish a kind of national shrine gained favour in Paris once the *dommages de guerre* legislation had been passed in the following spring.[67] This enabled the state to purchase land that was deemed unworthy of reclamation and to offer compensation to those who would be dispossessed. During the summer and autumn of 1919 the staff of the topographic bureau of the *Service de la Reconstitution Foncière*, assisted by the *Génie Rural*, undertook preliminary surveys. Local landowners reacted with horror, and in August 1919 disconsolate farmers in north-eastern Marne complained that the emergency services had done nothing to help them and that lack of temporary accommodation prevented them from starting to reclaim their ravaged fields.[68] This reaction was echoed in ruined villages throughout the liberated regions as farmers refused to believe that their long-cherished soil could be condemned to irrevocable sterility. Following President Millerand's visit to the 'red zone' in August 1920 and his attentive response to evidence from the mouths of the *sinistrés* of their willingness to restore their homes and their land, prefects were instructed to reappraise the extent of the 'red zone'.

Its initial extent in Marne involved over 23,000 ha and remained unchanged in the mid-1920s, reflecting both the severity of devastation and the poverty of the soil. The *département* did not experience the kind of reclamation programme that operated elsewhere in northern France, with the painful exception of Meuse. The 'red zone' of Marne embraced three dozen *communes* which had been occupied by the enemy for the duration of the war. Some villages had been destroyed without trace and in places the topsoil was 'pure chalk, completely without vegetation'.[69] Following a ministerial decision of January 1922, the state proceeded to purchase compulsorily three large blocks of land

[63] L Lebrun and L Guille, eds, *L'agriculture dans la Marne*, Troyes, 1926, p 104.
[64] ADM, 1N 282, CG 1922, *Rapport*, p 856.
[65] ADM, 1N 284, CG 1923, *Rapport*, p 753.
[66] ADM, 153 M 18, *Remembrement, commune d'Ormes*, 23 mars 1931.
[67] Michel, *Les dommages de guerre*, p 207.
[68] Anon, 'La Marne', *Journal des Régions Dévastées*, 1, 1919, p 98.
[69] Paudrat, 'La Marne dévastée', p 108.

(Moronviller, Tahure and La Gruerie) which totalled 24,541 ha.[70] As elsewhere in the northern *départements*, this action provoked severe opposition from local farmers who sought to re-acquire their property.[71] The *département* administration reiterated its belief that about 10,000 ha were too damaged and inherently poor to be brought back into agricultural use. Local landowners continued to argue their case and by early 1926 they had managed to repurchase over 2300 ha which they returned to agricultural use.[72] In contrast, 8000 ha of devastated chalky soils were confirmed as beyond hope of restoration and were allocated to the military camp at Suippes.[73]

VIII

The census of 1931 recorded 412,156 inhabitants in Marne, rather more than in 1926 (397,773) but fewer than on the eve of the war (436,310). Only the *cantons* of Châlons, Reims, Vitry-le-François and Suippes (with its military base) housed more people than twenty years previously.[74] Depopulation affected not only the former battlefield but also many rural parts of the *département*. In 1931, twenty-one of the thirty-three *cantons* contained fewer residents than five years previously. The most extreme case was the *canton* of Ville-sur-Tourbe (near Saint-Menehould) which housed only half of its pre-war population. Not surprisingly, the agricultural population of the *département* shrank, from 85,640 in 1911 to 69,205 in 1931, as commercial, industrial and public-service work increased. Foreigners were more than twice as numerous in 1931 (22,213) as on the eve of war (9769), and their share of the population of Marne grew from 2.2 per cent to 5.4 per cent. Even so, these percentages were far below the average for the ten northern *départements* (5.3 and 10.3 per cent respectively).

Agricultural recovery had continued throughout the 1920s, and the overall composition of agricultural activity in Marne also changed. After peaking in 1922 the amount of land under the plough declined to stand at 86 per cent of the pre-war average in 1930.[75] As restocking occurred the number of farm horses continued to rise but in 1930 was still 10 per cent short of the pre-war figure. Mechanization and rising yields meant that wheat output in the late 1920s equalled and in some years exceeded the pre-war figure. Traditional forms of sheep rearing recovered only in part, with the total for 1930 being but 60 per cent of that twenty years earlier. By contrast, cattle numbers continued to rise throughout the 1920s and equalled the pre-war average at the end of the decade.

In 1930 the countryside of Marne contained fewer people and fewer houses than on the eve of the war. Cooperative reconstruction societies continued their work but by far the greater part of rural Marne bore the imprint of restoration. Complete reconstruction was widespread in many northern *communes*. However, with the exception of *remembrement*, electrification, reorganized village plans and a few other features, the opportunity for drastically reshaping the countryside had not been taken, even though some agricultural experts had urged its desirability in the light of France's rapidly declining supply of farm labour. As elsewhere in the *régions dévastées*, the recovery process in rural Marne involved a reinvention of the past. But, of course, this proved impossible in its seven lost villages and over the desolate stretches of what remained of the 'red

[70] ADM, 1N 282, CG 1922, *Rapport*, p 858.
[71] ADM, 1N 284, CG 1923, *Rapport*, p 753.
[72] ADM, 1N 290, CG 1926, *Rapport*, p 250.
[73] G Clause, 'La lutte contre le déclin 1870–1950', in M Crubellier, ed, *Histoire de la Champagne*, Toulouse, 1975, p 405.
[74] Ministère de l'Intérieur, *Dénombrement de la Population 1931*, Paris, 1932.
[75] M Hau, *La croissance économique de la Champagne de 1810 à 1969*, Paris, 1976, p 57.

zone'. Across the greater part of the *département* it seemed as if the 'cyclone' had left no lasting trace; however, the stunning testimony of the *monuments aux morts* and the broken lives they commemorated serve to correct that myth.

Notes and Comments

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FORTHCOMING CONFERENCES

The BAHS holds three conferences a year. The first is its annual residential spring conference held at a different location each year in early April. The second is a one-day conference on a local history theme on a Saturday in September, again at a different location each year. The final conference is also a one-day conference which is held at the Institute of Historical Research, Senate House, University of London on the first Saturday in December.

The Society's next conference will be in the Institute of Historical Research, University of London on Saturday 3 December 1994. The theme will be 'Social Relationships in the Countryside'. A booking form is included with this issue of the *Review* and should be returned together with the conference fee to the organizer, Dr Peter Dewey, Department of History, Royal Holloway, University of London, Egham, Surrey TW20 0EX. The 1995 Spring Conference will be at the University of Sheffield from Monday 10 to Wednesday 12 April. The local organizer is Professor David Hey, Division of Adult Continuing Education, 196–198 West Street, University of Sheffield, Sheffield S1 4ET. The 1995 Autumn Conference will be held in the south of England and will be organized by Dr Richard Hoyle of the University of Central Lancashire. Looking ahead to 1996, the Spring Conference will probably be held at Roehampton (Surrey). The local organizer is Dr Peter Edwards, Department of History, Roehampton Institute of Higher Education, Digby Stuart College, Roehampton Hill, London SW15 5PH. The dates that you should keep free in your 1996 diary are Monday 1 April to Wednesday 3 April, and further details can be obtained either from Dr Edwards or the BAHS Secretary.

CALL FOR CONFERENCE PAPERS

The society is always glad to hear from those willing to offer papers at conferences. If you have a paper to offer you can contact either one of the conference organizers, or the BAHS Secretary who acts as an overall conference coordinator. You should supply a title for your paper and some details, preferably in the form of a short synopsis, together with an indication of which conference(s) you will be available to deliver it. The addresses of the organizers of the forthcoming conference are given above, with the exception of Dr Hoyle who should be contacted at his home address, 37 Lower Bank Road, Fulwood, Preston PR2 4NS. The BAHS Secretary is Dr Richard Perren who can be contacted at the Department of History and Economic History, Taylor Building, University of Aberdeen, Old Aberdeen AB9 2UB, Fax 0224 272300.

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Sir Hugh Plat and the Chemistry of Marling

By MALCOLM THICK

In his interesting article, 'Marling in British agriculture: a case of partial identity',[1] Dr Mathew floated the idea that historians concentrated on the physical benefits of marling because of reliance on contemporary writers who were ignorant of the chemical action of marl on soils. Whilst not disagreeing with his general conclusion, the lack of appreciation of the chemistry of marling before the eighteenth century was not as total as he implies.

Sir Hugh Plat produced *Diverse New Sorts of Soyle* in 1594, a sixty-paged essay of which ten are devoted to marling. Not once does Plat mention the physical role of marl in improving the soil; he is solely concerned with chemical matters. Plat derived much of his knowledge 'out of twoe larger Treatises, the same being even wrung out of the bowels of the earth, by that learned husbandman, maister Bernard Palissy, whereof the one is entitled, Des sels diverses, and the other De la marne'. Palissy, a French potter, first published his work in 1580. Plat produced almost a complete translation of the essay on salts, which argued that fertility is an essential salt and it is the action of this salt which makes seeds grow. Manure raises fertility by imparting the salt to the soil. He was more selective in his translation of the treatise on marls, concentrating mainly on practical matters: where and how to find marl, how to extract it from the ground, the various colours of marl, how long an application of marl will last, and the amounts to use.[2]

Plat did, however, provide some theory of the chemistry of marling. Marling improves fertility, he wrote, because it contains a fifth element which he called 'a generative water, cleer, subtile, mingled inseparably with other waters'. This generative water was carried into 'a certaine earth' by the ordinary water, congealed there, and was left behind when the ordinary water evaporated. The earth 'waxed hard, and became white by the vertue thereof', turning to marl. When the marl is spread on arable ground, seeds take up the generative water. Eventually this element is exhausted, and 'the marle becommeth unprofitable, as a sign of some decoction finished, the like is to be thought of all other dung and lime'. Ordinary water must be present in the soil to allow the seed to take up the generative water.[3]

Sir Hugh recognized that chalk and lime were closely related to marl. 'All Marle was earth before it became marle, it is a kinde of clay ground, and chalke it selfe was marle before it became chalke. And that which is more, that which is yet chalke within the Matrix of the earth, wil in time harden into a white stone, And last of all, wheresoever there bee any stones that be subiect to calcination, they were first marle before they were stones, for otherwise by their calcination they could not possibly amend any barren grounds ... Also chalke and lime, after the frostes have taken them, whereby they crumble into powder, do become good marle, and serve in stead thereof'. Drawing on his own experience he suggested that lime and marl might be interchangeable, 'in the groundes bordering uppon the woods of Arden, which are verie colde, they use lime instead of dung, and thereby they make ye earth most fruitful which was barren before, Now if lime (which is nothing else but a baked or burnt stone within those fierie furnaces, and whose moisture is altogether exhaled, so as there remaineth therin nothing else, but the terrestriall parts replenished with a fierie vertue) be found so rich a soile, I know not why the heat of marle may not much better be endured'.[4]

An understanding of the chemical action of marl is implicit in Plat's recognition that marling does not last for ever, keeping ground 'some 10 or 12 yeares in hart, and in some countries for 30 years' and also in his warning that the amount to be applied must be discovered by experiment, 'for too little of the best Marle can doe but little good, and too much therof hath beene alreadie founde to bee verie hurtfull to the Corne'.[5]

Plat's essay was reprinted in 1653, probably edited by Arnold de Boate, a correspondent of the agricultural reformer Samuel Hartlib. Hartlib was impressed with Plat's work on soil chemistry, and an anonymous writer in the Philosophical Transactions of the Royal Society in 1675 thought that Plat 'advanced the Agriculture of England by Marle, Saline materials,... and by other Soyles'. Dr

[1] *Ag Hist Rev*, 41, 1993, pp 97–110.

[2] Sir Hugh Plat, *Diverse New Sorts of Soyle not brought into any Publique Use*, 1594, p 9; A. G. Debus, 'Palissy, Plat, and English agricultural chemistry in the sixteenth and seventeenth centuries', *Archives Internationales d'Histoire des Sciences*, 21, 1968, pp 67–88.

[3] Plat, *Diverse New Sorts of Soyle*, pp 23–4.

[4] *Ibid*, pp 21–2.

[5] *Ibid*, p 30.

A G Debus in 1968 concluded that 'Plat's work was reprinted, read widely and commented on by mid-seventeenth century scholars', and I possess an annotated copy of Plat's work which supports this view. My copy of the 1594 edition of *Diverse New Sorts of Soyle* has margin notes in a neat seventeenth-century hand. The notes make cross references to Gervaise Markham's *A Way to get Wealth* (probably, from the page numbers referred to, the 1660 edition), and Hartlib's *Legacy* of 1651. The annotator was particularly interested in Plat's views on the nature of marl and its affinity with chalk and lime, underlining these passages. In view of the work of Plat on marl, and the renewed interest in this work in the second half of the seventeenth century it is the more puzzling that most British historians have not discussed the chemical aspects of marling.[6]

[6] Debus, 'Palissy, Plat', pp 82–7.

Notes and Comments

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REQUESTS FOR HELP

As part of our service to readers, *Notes and Comments* now includes a section under this heading. This is designed for all members of the BAHS, but particularly those who are not attached to an academic institution. We hope this will provide assistance for two types of problem. Firstly, those thinking of carrying out research and who have chosen a topic, but are not too sure where to begin, or want to know who else has worked on that particular subject. And secondly, those who are well into a project but need further information to fill in gaps, or require advice on methodology. From time to time we have published lists of research in progress, but as there are intervals of some time between their appearance it is hoped this spot will fill the gap where someone wants information in the short term. This service is open to all members and, if you feel it might be of some help to yourself, you are urged to send your name and address, along with your request, to the Secretary of the BAHS, Dr Richard Perren, Department of History and Economic History, Taylor Building, University of Aberdeen, Old Aberdeen, AB9 2UB.

£105,000 FOR RURAL HISTORY CENTRE

The Duke of Westminster, through his charitable trust, the Westminster Foundation, has generously donated £105,000 to the Rural History Centre appeal Fund at the University of Reading. The appeal aims to raise £4.4 million to provide new buildings on the university campus. This will rehouse the centre's outstanding research collection of books, archives, photographs and objects relating to the history of farming, food, the rural economy, land and environment. These resources are already of national importance, but the redevelopment will allow the full international potential of the centre to be realized, especially in terms of providing global information.

The Duke, who is a member of the centre's advisory board for fund-raising, visited the Rural History Centre in October 1993 and was shown something of its resources and activities. As a landowner deeply committed to the sound management of agricultural estates, he was clearly impressed by the wealth of historical material on this subject, as well as on farming tools and techniques. Some of these he was familiar with from his experience of his father's land in Ireland. The Rural History Centre project is one in which the Duke has a keen interest. He considers it to be immensely worthwhile because the centre's resources and scholarship are relevant not only to historical but also to contemporary countryside issues. With this in mind the award from the Westminster Foundation will be used in support of a lecture room within the new complex, to be called The Westminster Room. At present the appeal has raised almost £1 million, and once this sum has been attained the university intends to proceed with the first phase of development towards the end of 1994.

Common Property and Property in Common

By MICHAEL TURNER*

It does not fall to many reviewers to comment on the two hottest properties in a subject within two years of one another, but that considerable pleasure has befallen me. If 1992–3 was the year when Bob Allen focused the microscope on the economic background and consequences of enclosure in the English Midlands, and has made us all think again about agricultural productivity, amongst other issues, then 1993–4 will be remembered for Jean Neeson's dissection of the consequences which befell the apparently passive majority of those who shared in the economic gifts of ownership in common, and then had to bear the losses when property in common was privatized. If Allen applied the rigour of economic analysis and quantitative control on the claimants of the English countryside, then Neeson has given back to those claimants a certain individuality. Here, therefore, we have two complementary tales to tell. The first has been told, here we review the second.[1]

Neeson's *Commoners* is the other face of the property rights debate which so fascinated the economists when they gazed over their shoulders at the laboratory of the past, the laboratory of human experience.[2] If their tale was essentially, though not always exclusively, concerned with the tangible property of acres, roods and perches, of the economic models which helped to explain the scattering of that property in a common-field system and then presided over the realignment of that property into well-defined, discreet bundles, then they necessarily mainly neglected the intangible property of the English village community – the commons in all their many manifestations, and the commoners who resided over them in a system of economic and social management in which all participants had a say. It was not always fun, but at many levels it actually worked for the majority of country people. The commoners' rights may not always have been recognized as written property rights, but they represented a way of life which was as tangible to the participants as any document proving ownership. The long-held view that enclosure recognized the legal rights of even the humblest of men is a legal semantic in a situation where the legal instrument of custom and practice was not properly accommodated.[3] These, and other questions are confronted in this book, as indeed they have been by others at various levels by a return to an altogether more human approach to the economics of the village community than has otherwise prevailed for many years. Jane Humphries has argued for a substantial re-assessment of the value of common rights in the eighteenth century, in particular as regards the essential contribution of women and children to the family economy, a subject which Keith Snell had previously emphasized, and Peter King has opened our eyes to the value of gleaning as a vital addition to the annual earnings of labouring families. Most recent of all, in the pages of the *Agricultural History Review*, Graham Rogers has explored custom, common right, the value of the waste, and the damage done to them by enclosures in west Lancashire, by looking minutely at the impact of enclosure on the social structure of the village of Croston.[4] There have also been re-statements of the essentials of communal village life through ritual and custom,

*A review article of J M Neeson, *Commoners: Common Right, Enclosure and Social Change in England, 1700–1820*, CUP, 1993. xiv + 382 pp. £35.

[1] R C Allen, *Enclosure and the Yeoman: The Agricultural Development of the South Midlands 1450–1850*, Oxford, 1992, reviewed in *Ag Hist Rev*, 41, 1993, pp 86–8.

[2] See the useful summary in G D Libcap, 'Property rights in economic history: implications for research', *Explorations in Economic History*, 23, 1986, pp 227–52. And on why land represented special problems in eighteenth-century discussions regarding private property and exclusive ownership, see U Vogel, 'When the earth belonged to all: the land question in eighteenth-century justifications of private property', *Political Studies*, XXXVI, 1988, pp 102–22.

[3] Paraphrasing J D Chambers, 'Enclosure and labour supply in the Industrial Revolution', reprinted in E L Jones, ed, *Agriculture and Economic Growth in England 1650–1815*, 1967, pp 104–5, which is more or less the optimistic orthodoxy of the 1950s and 1960s, a contradiction of the line of argument put particularly elegantly by J L and B Hammond on behalf of an earlier generation.

[4] Jane Humphries, 'Enclosures, common rights, and women: the proletarianization of families in the late eighteenth and early nineteenth centuries', *Jnl Econ Hist*, L, 1990, pp 17–42; K D M Snell, *Annals of the Labouring Poor: Social Change and Agrarian England, 1660–1900*, Cambridge, 1985; Peter King, 'Gleaners, farmers and the failure of legal sanctions in England 1750–1850', *Past and Pres*, 125, 1989, pp 116–50; *idem*, 'Customary rights and women's earnings: the importance of gleaning to the rural labouring poor, 1750–1850', *Econ Hist Rev*, 2nd ser, XLIV, 1991, pp 461–76; Graham Rogers, 'Custom and common right: waste land enclosure and social change in west Lancashire', *Ag Hist Rev*, 41, 1993, pp 137–54.

especially by Bob Bushaway, and most recently by the late Edward Thompson.[5] Neeson's book brings all these issues together in one powerful study, which in its own way quantifies custom and the ownership of property in common and thereby brings out its tangible importance.

The stall is set out on page 1: 'The soil itself, the land, was not the commoner's, but the use of it was. That use, what the law called a *profit à prendre*, was common right'. The essential heart of the system was what Neeson called possession without ownership, what I have described as the tangible within the intangible. She lifts a veil on common rights and their essential role in communal social relations. It is a world we have lost, but was it a large or small world when the great enclosing of the eighteenth century took place? Was it an anachronism, worst still a vestigial remnant of an anachronism, or was it a large, and certainly living organism? Neeson's investigation of contemporary eighteenth-century objective observation as well as subjective opinion answers emphatically yes to this last question, especially in her concluding chapter which restates much of her case and attempts to put the notion of a widespread peasant economy existence back into the life and soul of eighteenth-century village life. Inevitably, a system which was transformed over just a few decades, and on a large scale, can hardly be regarded as evolutionary. It therefore imposed a radical change on the nature of social relations in England. Some readers will blanch at the supposed scale – England is her language not mine – but although the earthquake which both she and Allen have begun has its epicentre in the English Midlands the ripples should still be evident to varying degrees at the outermost parts of the kingdom. They will take on a variety of hues. Common rights differed because of land use: the dominantly arable was different from the dominantly pastoral countryside, the clays are not the chalks, and the moors are not fens. To the various participants there was no such thing as a national economy, but rather a myriad of local and exclusive economies some of which had features in common. And while these local economies were not all transformed at the same time, their aggregate metamorphoses by sometime in the nineteenth century added up to a way of life that had certainly been drastically eroded, though not always completely lost.[6]

While recognizing that for some of these communities the eighteenth century was the fag end of the process, and for others the beginning, and yet for others the lull before the storm, Neeson attempts to dispell what she regards as an incorrect orthodoxy that a peasant way of life had already disappeared by the eighteenth century.[7] As in so much economic and social history, the eighteenth is the vital century of change, of introspection, and indeed of circumspection. Neeson's century is the eighteenth. And a clear enough outcome of that century, and its final acts and scenes in the nineteenth, was a contribution 'in turning the last of the English peasantry into a rural working class' (p 12). It has long since ceased to be my involvement with economic history but I do recognize that it is the type of tale which needs to be told and retold, and in many guises, to put back into much reductionist economic history the facts about the human condition and the cultural experience.[8]

Chapter 1 poses the essential question – what was the value of the commons? The answer is developed in an essay on contemporary thought – a wide-ranging survey of the pros and cons associated with the survival or destruction of the commons and the act of commoning. It ranges over the individualized arguments regarding the value of the commons to the commoner, and also over the value in wider senses related to the national interest, a debate which was particularly lively during the last quarter of the eighteenth century and the first quarter of the nineteenth with the crises of food supply and the waging of war. This was a period rich in regular doses of national introspection. But if contemporaries told the story as it was, and not through half-remembered facts, then the historian

[5] B Bushaway, *By Rite: Custom, Ceremony and Community in England, 1700–1880*, 1982; E P Thompson, *Customs in Common*, 1991, especially chapter III, pp 97–184. See also R W Malcolmson, *Life and Labour in England, 1700–1780*, 1981, for aspects both of custom and the value of common rights.

[6] On the survival of customary practices of one sort or another, sometimes well into the nineteenth century, see King, 'Gleaners, farmers', especially pp 145–50; M Reed, 'The peasantry of nineteenth-century England: a neglected class', *History Workshop Journal*, 18, 1984, pp 57–8; and for Cumbria in the legal context of manorial customs of tenancy where broad rights of common were seen as an add-on extra problem in the lords' attempts at securing the total alienation of their property, see C E Searle, 'Custom, class conflict and agrarian capitalism: the Cumbrian customary economy in the eighteenth century', *Past and Pres*, 110, 1986, pp 106–33, especially pp 120–1, 125–31. And on the multitude of local studies, and the most recent debates on the ideas of a surviving peasant economy and peasant class well into the nineteenth century, see the collection of essays in M Reed and R Wells, eds, *Class, Conflict and Protest in the English Countryside 1700–1880*, 1990.

[7] A view also confronted by Humphries, 'Enclosures, common rights, and women'.

[8] A point of view which is becoming popular in the unmasking of the peasant face in the mixing of the proto-industrial, petty trading, and agricultural settings, an aspect which Neeson touches upon many times. See also Reed, 'The peasantry'; J M Martin, 'Village traders and the emergence of a proletariat in south Warwickshire, 1750–1851', *Ag Hist Rev*, 32, 1984, pp 179–88; R W Malcolmson, 'Ways of getting a living in eighteenth-century England', in R Pahl, ed, *On Work: Historical, Comparative and Theoretical Approaches*, Oxford, 1988, chapter 2, pp 48–60; M Reed, '"Gnawing it out": a new look at economic relations in nineteenth-century rural England', *Rural History*, 1, 1990, pp 83–94.

who resorts to the distorting lens of empirics does so perhaps because the lens of contemporary polemic seems no less distorting. There was though a common current of social engineering. The tricky question has always been related to motive – to what extent was enclosure a class conspiracy, not simply an accident which robbed the poor along the way, or accidentally removed the independence of even lowly property owners, but more importantly was it a conspiracy to rob them of their senses of, or their actual state of, independence, that is to make them wage dependent, to fashion an available labour force to meet the demands of a newly-emerging commerical world? To this extent the contemporary opponents and proponents of the commons – parties on the one hand who saw in the commons the preservation of an indigent and idle poor and on the other who saw an essential synergy between the commons and agriculture in general – nevertheless prophesied together that enclosure would yield a 'more biddable, available labouring class' (p 30).[9]

After the introductory shadow boxing, Part I of this study is about 'Survival', the sharp end of the use of common rights, the value of those rights to the users, whether as a means of fodder for keeping animals within the common-field system, or as forage of an altogether different sort across the wastes for fuel, foods, and materials. All these resources were community resources in which common usage 'was not a charity for the weakest in the village' (p 174), but a tangible shared resource which even without the full panoply of the legal document was nonetheless vested in tangible ownership. And shared ownership brought with it a shared responsibility to keep that resource in good order. It was also something to be enjoyed in non-pecuniary ways – the wastes were a place of sport and, common customs associated with communal living, they were festivals of fun and celebrations of collective association.

Common rights of grazing sounds like a precise ownership in a precise good. Most of the time it was, but it was not always vested as an appendix to the deeds of ownership of real property or to cottages or other dwellings. It could also have a more general application. It could include precise instructions as to depasturing animals at certain times of the year on certain well-regulated parts of the village, whether on the common arable, the waste, the common pasture, the roadways or the routeways and baulks across the open fields, but it could also include the more general access to furze, peat, fen sedge-straw, and gleaning in the open fields immediately after harvest, as well as other valuable ways to improve the very existence of a commoning class.[10] Thus historians who only recognize the legality of commons' practices through the legal instrument, which can and did contain many and sometimes most of these features, should not turn a blind eye to custom and local habit with or without the legal trappings. The legally intangible was certainly tangible to the recipients of custom, and their losses must be valued in the debit and credit analyses of history.[11] They counted for a lot and if their value was at times considered a hindrance to so-called progress, this was often a smokescreen aided and abetted by often harsh and impossibly restricting 'paragraphs' regarding proof of ownership inserted in the enclosure process.

One aspect of the tale which may be subject to diametrically opposite interpretations regards the stinting of commons or commonable places. Were the stints so badly regulated that the commons were inevitably overstocked? If so, this acted as an anti-social barrier to agricultural progress which all could enjoy. In addition, is this view supported by the evidence of revising the rules and regulations governing stinting in the face of complaints about overstocking? Neeson's view is that in the main the revision of field rules and regulations and other rewriting of commoning practices recognized the pressure on those practices, yes, but also pointed to their personal and community value, and the care with which they were maintained and supervised. My own early thoughts on stints suggested two problems: a land hunger in general; but particularly a land hunger to extend the pasture during times when the terms of trade had moved away from arable production. While it may have been true that there was a 'well-regulated, time-tested system' in operation (p 153), Neeson does not satisfactorily confront the issue of the ultimate pressure on the communal resources, that possibly within its own successes it bred its own destruction. The end result, the enclosure, became the only relevant truth against which no amount of local policing of communal laws and customs, no level of fines, or articles of agreement could hold at bay for ever. Indeed, the pressure on these resources in Cumbria, an area with otherwise strong customary practices, might be just such an example of success breeding its own destruction, especially by the peasantry

[9] A point also made by Humphries by implication when she itemizes the contemporary view which bemoaned those common rights which diverted labour away from wage-earning opportunities: 'Enclosures, common rights, and women', pp 28–9.

[10] Where it was prevalent gleaning could count for 10 per cent or more of the annual income of labouring families, King, 'Gleaners, farmers', p 116; *idem*, 'Customary rights and women's earnings', pp 462–6.

[11] A point emphasized by Humphries who embraces gleaning, but also other activities enjoyed as of right and essential to the family economy: 'Enclosures, common rights, and women', pp 21–35.

themselves in their bid to salvage a share of disappearing use-rights.[12]

Neeson has plundered the archives of Northamptonshire particularly, the county of her original thesis, but also more extensively of those in the Midlands in general, to demonstrate the value of 'commoning', and to dissect the threats which hung over it. This is exposed empirically in Part II with firstly a case study of the two villages of West Haddon and Burton Latimer for which there survives unusually good records regarding opposition; secondly a detailed statistical appraisal of landownership and occupancy changes in Northamptonshire both in its own right and in relation to similar analyses in neighbouring Midland counties; and thirdly a chapter on the resistance to enclosure.

The two case studies are interesting but they divert by their particular detail from the main flow of arguments of the book, especially since there is that later chapter on the wider aspects of opposition to enclosure. This chapter details the many forms of opposition to enclosure, whether by negotiation locally, and at Parliament, or by local violent action. Inevitably, as in other studies of opposition it is difficult to quantify the weight of opposition of the silent majority of commoners. My conclusion, which Neeson quotes (p 292) was that 'peasant opposition has been badly underestimated'. The latest research still cannot put the peasant case by weight of example, but it does add further to the general feel for greater opposition than has been readily appreciated.[13] If apparent passivity of the silent majority was once proof of concurrence it is now surely a better proof, ultimately, of helplessness, but certainly not without a struggle.[14] This is another area where we must guard against the reductionist overviews, lest they be too readily taken as objective truths, especially from neighbouring disciplines. Thus, recently, while recognizing the loss to the commoners through the extinction of common rights, a law professor then remarked that 'most villages appear to have regarded the last waves of enclosures as welcome reprieves from archaic land tenure arrangements, and rarely protested the change'.[15]

In her statistical study Neeson takes a now familiar technique of using the land tax returns in association with the incidence of enclosure to unmask the changes in landownership and land occupancy. Along with the work of J M Martin, John Walton and Turner, on Warwickshire, Oxfordshire and Buckinghamshire, all of whose studies she cites, she shares the importance of pioneering so-called turnover studies, that is the turnover of landowners and occupiers as a result of enclosure. But in the process she takes the importance of such studies various stages forward compared with her fellow pioneers, for she is also interested in what happened to the English [*sic*] peasantry as a class. More than others she looks closely at the loss of independence as a landlord/tenant relationship developed, but she links it to the idea of the destruction of the wider peasant economy in which the loss of commoning was also crucial to that once independent peasant class of small owners and occupiers. If an agricultural social and economic ladder ever existed for the peasants, now it was destined for one-way traffic. She takes the methodology a stage further by differentiating size groups, in what look like fairly precise terms. One conclusion is that both the small owners and the small landlords were more vulnerable than their larger neighbours because of enclosure. Thus, after enclosure 62 per cent of the original owners of under 5 acres in the parishes studied disappeared from ownership, compared with 28 per cent of owners of over 100 acres. The equivalent figures for landlords were 64 and 26 per cent (with total changes for all owners of 49 per cent and 52 per cent for landlords). These figures are high compared with the control group of parishes which remained in open fields over the same period, but they are certainly comparable with other studies of Midland counties. The one exception which alas is not cited is the study of the East Riding by Dr Jan Crowther whose measured rates of turnover are nowhere near as high as those found in the Midlands.[16] An appreciation of this, one hopes, will encourage

[12] C E Searle, 'Customary tenants and the enclosure of the Cumbrian commons', *Northern History*, XXIX, 1993, pp 126–53. See also N Gregson, 'Tawney revisited: custom and the emergence of capitalist class relations in north-east Cumbria, 1600–1830', *Econ Hist Rev*, 2nd ser., XLII, 1989, pp 18–42, especially pp 29–33.

[13] Of 5494 English enclosure bills presented to Parliament from 1730 to 1839, 1453 were dropped for one reason or another, including 568 where a counter-petition was presented. Thus, 26 per cent of original bills were dropped and 10 per cent accompanied by counter-petitions. The figures for Northamptonshire were 21 and 11 per cent, seemingly not a special county, but along with Buckinghamshire which has a similar record (22 and 13 per cent) there is enough other evidence in the local record to attest to the importance of peasant opposition. M Turner and T Wray, 'A survey of sources for parliamentary enclosure: the *House of Commons Journal* and commissioners' working papers', *Archives*, XIX, 1991, pp 257–88, especially p 261. See also M Turner, 'Economic protest in rural society: opposition to parliamentary enclosure in Buckinghamshire', *Southern History*, 10, 1988, pp 94–128.

[14] E P Thompson was as important as anyone in encouraging interest in the so-called 'seeming passivity of the victims' of enclosure. He also referred to the fatalism of the cottager. His view was that 'this passivity may be overstated'. He was right. E P Thompson, *The Making of the English Working Class*, 1968 ed, p 240.

[15] R C Ellickson, 'Property in land', *The Yale Law Journal*, 102, no 6, 1993, pp 1315–1400, especially p 1392.

[16] J E Crowther, 'Parliamentary enclosure in eastern Yorkshire, 1725–1860', unpublished PhD thesis, University of Hull, 1984, pp 464–76, especially p 474, where we learn that from a study of 33 parishes the rate of property turnover on and around enclosure was 28 per cent.

similar studies of heavily enclosed areas but away from the Midland heartland. Therefore, before we allow Jean Neeson the use of language which embraces the whole of England and its peasantry, we should ease back on her reins and remind her that while the country is not large, it is and was a complex place.[17]

As one of the pioneers of using the land tax she knows well the limitations to their use, but like fellow pioneers she makes sensible allowances. Yet breathing fire down all our necks is the substantial work of Donald Ginter.[18] Ginter's criticisms of the uses made of the land tax by Martin, Turner, and others is substantial, though Neeson's earlier work curiously escapes completely unscathed from his strictures. Nevertheless, she is aware of his work though she only takes up the challenge of reply in a superficial way in an appendix on how she uses the land tax.[19] This is particularly important given her policy, which was always open to criticism, of transposing a tax paid in money into an indication of the size of land in acres, or in this case of broad acreage groups (less than 5 acres, 5 to 25 acres, and so on). Ginter may yet have a field day in review over the continued use of this practice. I think it is still justifiable, if used relatively imprecisely and not in the quest for objective truth about the precise status of landowning and occupying individuals.[20] The proximity of publication of Ginter's book might help to explain why Neeson's fuller response will be delayed, but given that she may be the only pioneer of the land tax remaining in the field, her response must be swift to limit the damage which may have been inflicted already by Professor Ginter's heavy boots.

If Bob Allen has made us rethink the role of enclosure in the progress of English agriculture, and if he is correct that before enclosure the so-called yeoman's revolution was more effective than the post-enclosure landlords' revolution, then Jean Neeson's new study is an important complement. The combination of damage done to real property rights and to the rights of property in common single out the eighteenth century and the early decades of the nineteenth as a watershed in the social and economic working of many English villages. If in so many ways the gains from enclosure are in doubt, but the damage is plain to see, then we must ask ourselves – if it wasn't broken, why did we fix it?

[17] Welcome moves to studies of places peripheral to the Midland heartland include Rogers' excellent study of the village of Croston in west Lancashire, but whose place is emphasized in a regional setting: Rogers, 'Custom and common right'. See also Searle, 'Customary tenants'.

[18] D E Ginter, *A Measure of Wealth: The English Land Tax in Historical Analysis*, 1992.

[19] Neeson, *Commoners*, Appendices pp 331–45; see also p 228n.

[20] See my review of Ginter in *Jnl Hist Geog*, 19, 1993, pp 79–80. See also the essays in M Turner and D Mills, eds, *Land and Property: The English Land Tax 1692–1832*, Gloucester, 1986.

Notes and Contributors

HUGH CLOUT is a graduate of University College London where he is now professor of human geography. His research interests embrace the historical geography of the French countryside, and aspects of regional development in western Europe. The present article forms part of a larger study of rural recovery in northern France in the 1920s. His books include: *Themes in the Historical Geography of France* (edited, 1977), *Rural France on the Eve of the Railway Age* (1980), and *The Land of France* (1983).

MIKE HUGGINS is head of the Department of Post-Graduate Teacher Education, Lancaster University. In his spare time he has published a number of journal articles on aspects of Victorian leisure and sport. Building on his recent study, *Kings of the Moor: North Yorkshire Racehorse Trainers 1769–1900* (Teesside, 1991), he is currently working on a social and economic study of horse racing in English society 1800–1902.

JOHN STEWART is senior lecturer in British political history, Oxford Brookes University. His main research interests are in the field of welfare, especially child welfare, in late nineteenth- and twentieth-century Britain. He is currently working on the attitude of the Labour Party to child welfare in the inter-war period.

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Notes and Contributors

(continued from page 162)

MALCOLM THICK is a graduate of Queen's University, Belfast. After postgraduate research at Oxford he qualified as a teacher in 1974, and is now a tax inspector. He has written on various aspects of market gardening before 1750 and the history of food in the early modern period. A study of the Neat House gardeners in Westminster is nearing completion and work has commenced on the life and work of the late sixteenth-century polyhistor Sir Hugh Plat.

JAN TITOW graduated in history from the University of Cambridge in 1956, where he also undertook research for his PhD. He joined the Department of Economic and Social History (later merged with the Department of History) of the University of Nottingham in 1962, being subsequently appointed reader in medieval economic and social history. He took early retirement from the Department of History in 1990.

MICHAEL TURNER is professor of economic and social history at Hull University. He is currently completing a book in collaboration with Professor John Beckett and Dr Bethanie Afton on *Agricultural Rent in England, 1700–1914* (CUP 1996), and has piloted another project with the same collaborators on Farmers, farming, and farm output and production, 1700–1870.

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Conference Report: Spring Conference 1994

By JOHN BROAD

SOME fifty-five members gathered at Trevelyan College, Durham from 11 to 13 April for this year's Spring Conference. The society was particularly pleased to welcome a good number of newcomers, including agronomists and geographers, colleagues from the Netherlands, and two working farmers. They heard papers which ranged from the medieval period to the late nineteenth century, covered local case studies and major themes such as the existence and timing of the agricultural revolution, and dealt with Scotland as well as England.

Dr Christine Hallas opened the proceedings with a regionally appropriate paper analysing trends in farm sizes, rents and land prices in the northern Yorkshire dales. Her paper skilfully differentiated trends in Swaledale, where agricultural fortunes mirrored the rise and fall of lead mining in the nineteenth century, upper Wensleydale, largely agricultural with sheep and dairying providing the main sources of income, and lower Wensleydale, where farming was more often combined with by-employments. A full discussion followed that highlighted the wide range of factors which influenced these trends: the isolation of the dales, their relatively self-contained land market, and the way in which land was seen as a safe hedge against economic fluctuations rather than a competitive investment were explored. Small land holdings persisted throughout the nineteenth century, particularly where there were dual occupations, while specialist farmers were shielded from the worst effects of the later nineteenth-century agricultural depression by the rise of a liquid milk market facilitated by the coming of the railway to Wensleydale in 1878.

After dinner Dr Mark Overton brought his audience face to face with the perennial problem of the definition and timing of the agricultural revolution. Some members of the audience were comforted to find the agricultural revolution firmly re-established in the period between 1750 and 1850. Mark Overton's findings made changes in output, linked to productivity improvements, central to his definition. On these criteria all sectors of agriculture were making substantially greater strides, particularly after 1800, than before, when technical and organizational changes may have increased farm sizes and labour productivity, but without the substantial later increases in output on a national scale.

A new feature of the second day of the conference was its concentration on academic discussion, leaving the refreshing breezes of the Durham spring excursion to the Wednesday morning. Dr Bethanie Afton set us off with an optimistic view of the late nineteenth-century agricultural depression on the Hampshire Downs. She found that farmers were not nearly as cramped by detailed lease clauses as E L Jones had postulated, and that they adapted to new circumstances by changing to more sophisticated rotations including more grass and less roots, separate sainfoin leys and a capacity to incorporate catch crops that permitted 11 crops in 8 years. The underlying purpose was to increase the all-the-year round availability of several animal feeds for a system which was centred on the Hampshire Down sheep, whose large hardy, all weather and early lambing qualities made them ideal for the early lamb market, especially for the Christmas and Easter markets.

Paul Brassley followed with a re-appraisal of the role of agricultural science in England from 1850–1914. An entertaining dissection of the scale of efforts in this country compared the 100 agricultural students in late nineteenth-century England with the 3000 students and 400 university teachers in the USA. Low numbers of experimental stations, tiny numbers of scientists, and a government which believed British agriculture was dead and only needed a decent burial by 1902 and spent but £405 on research in 1905, matched the practical farmer's perception that science could not deal with their pest problems or overcome the production ceilings they reached in the 1860s. However, there were changes in the last part of the period with the expansion of some dozen or so experimental stations employing sixty-seven scientists, and the development of university departments of agriculture. The major success of British agricultural science in the period was its ability to publicize its efforts widely and successfully for posterity.

The afternoon session was devoted to a symposium on a medieval theme in which Dr Richard

Smith addressed the theme of the origins of the English manorial system and Dr Richard Britnell provided a counterpointing series of discussion points and comparisons. The mid-thirteenth century was pinpointed as the moment when manorial court rolls began to be made in large numbers, with rapid acceleration in the second half of the century. Much was made of the dynamic competition between the innovations in royal justice available nation-wide for the settlement of disputes, the emergence of lords' courts with written records, increasingly standardized procedures, and the use of juries and written evidence. This led to a fascinating discussion of the importance of these changes in developing rural literacy, in the establishment of a written basis to customary law, and its effects on social structure, security of land holding and the basis for agricultural innovation. There was general agreement on the success of the afternoon and the format of the symposium.

The final paper on a busy Tuesday came from Dr Alex Gibson who used Scottish annual price settings in the early modern period based on the county fiars to plot market integration and trading links. A clear exposition with excellent maps and graphs showed the earlier integration of the east coast markets by 1700 disturbed by the expansion of Glasgow in the eighteenth century affecting not just the west coast trades but the synchronicity of east coast trades. The basic integration of the market was well illustrated, but the discussion highlighted the strengths and weaknesses of the data, especially its wide temporal and geographical range, and the limitations of one annual fixed price as a basis for analysing fluctuations.

After an excellent conference dinner, and a wide range of late-evening discussions, a surprisingly large group of conference goers made their way next morning to the Beamish Museum where John Gall treated us to a preview of the new farm exhibit, based on a recreation of Durham farming in the 1820s as well as the existing home farm. These exciting developments, together with the training of teams of heavy horses, and a view of several old breeds of pigs, provided a worthwhile end to an enjoyable conference, admirably organized by Dr Mark Overton and his colleagues and helpers from the Universities of Durham and Newcastle.

Book Reviews

ROBIN A BUTLIN, *Historical Geography: Through the Gates of Space and Time*, Edward Arnold, 1993. xiii + 306 pp. £14.99.

In recent years notions of history and the possibilities for historical modes of explanation of all sorts have received increasing critical attention. The 'historical' has, we might say, become problematic. Professor Butlin's book, the 'first ever history of the subdiscipline' of historical geography (p x), provides the opportunity for some of those issues to be discussed and rediscussed among geographers and others interested in studying the 'landscapes' of the past.

Professor Butlin's book offers us three things. First, he traces the changing nature of historical geography through from *c* 1700 to the present, charting its changing interests and methods (chapters 1 to 3). This history is made to pivot on the making of 'modern' historical geography in the early twentieth century, what Professor Butlin calls the 'Classical' phase (dominated by the work of H C Darby). It must be stressed that what we are offered is not a contextualized account such as the one that David Livingstone has recently provided for the discipline of geography as a whole (*The Geographical Tradition: Episodes in the History of a Contested Enterprise*, Oxford, 1993), although there are places where the events described are contextualized (see pp 13 and 16–17 for two early examples). Nor is this an engagement with the coils of theory and politics like that of Derek Gregory (*Geographical Imaginations*, Oxford, 1994), although, again, there are sections where the politics of theory are debated (see, for example, pp 44–5). Instead, this is very much a careful subdisciplinary history. It traces national traditions, key figures and key works, and shows us the connections and differentiations between them. Second, Professor Butlin examines the sources of evidence used by historical geographers (chapter 4). Third, he sets out much of the work done under the banner of historical geography in a number of different areas of study (Landscape, Power and Control, the Urban, the Rural, Industrialisation, Transport and Communication). This is done not so much as a series of historiographical reviews but as a set of synthetic historical geographies of these arenas. By doing this (chapters 5 to 11) he provides us with a sense of the subject matter of historical geography and an overview of work done within the subdiscipline up until the late 1980s or early 1990s.

The publication of this book raises a number of interesting questions about the nature of historical geography. The first relates to the basis on which historical geography can be made to stand apart from history and geography so as to have its portrait painted as a separate and distinctive subdiscipline. I would certainly agree with Professor Butlin that 'historical geography' has operated as a label or identity under which people have worked, but that still begs the question of the changing relations between geography, history and historical geography. Indeed, there is a strong sense throughout the book that 'historical geography' is a category which means something over and above the theoretical positions which have animated its practitioners. While we might include an enormous number of people within the category of those who study 'the geographies of past times' (p ix), we also need to raise questions about what divides them. For example, does it make a difference that David Harvey's geographies of the past have more in common with those of Karl Marx than those of H C Darby? I would argue that it is important to stress that the nature, and even the existence, of historical geography is as much a matter of theoretical positions (of ontologies and epistemologies) as it is of academic identities and institutional locations.

Taking this point seriously raises a set of questions about what knowledges we take to be historical geographies. Professor Butlin is not explicit about the basis on which work is selected for inclusion in the substantive chapters but it is apparent that they are, for the most part, organized around the work of those who might identify themselves as historical geographers. He does not, however, completely close his account off around such people because there are also references to the work of historians and others. It might, however, be worth taking a much broader view of the matter. If historical geographies are geographies of the past then they can be written by anyone. Who is more sensitive to the spaces of the prison than Michel Foucault or John Bender? Who is more aware of the geographies of gender and race than Catherine Hall or Vron Ware? This might mean that a book as wide-ranging as *Historical Geography* would be impossible to produce, but it is crucial to acknowledge that historical geographers rarely work solely within something called 'historical geography'. What they read, who they talk to, what they research is influenced by interactions with other 'geographers' of all kinds. These interactions form a wide and complex interdisciplinary space which encompasses biologists, historians, sociologists, anthropologists and many others. Historical geography has benefited enormously from throwing its borders open; it should not now close them off.

Indeed, it is apparent that not fully recognizing the nature of this interdisciplinary space causes some problems for Professor Butlin's book. The substantive chapters do not trace strong lines of argument because the wider debates within which the arguments of 'historical geographers' are being made are not to be found within the subdiscipline alone. Grouping together the works of 'historical geographers' is not guaranteed to group the like-minded.

Another question is over the sort of historical geography that this book prioritizes. It must, first of all, be noted that Professor Butlin is clear in pointing out the multiplicity of approaches that are possible within historical geography, and he is explicit in his avowal that there are no clear grounds for prioritizing one over any of the others. Yet his reviews of work done within historical geography do give emphasis to certain visions of the past, a fact that is as much to do with the concerns of the historical geographers whose works are discussed as it is to do with Professor Butlin's interpretations of them. Let me give two examples of what seems to be missing. First, historical geographies of what we might call the imaginary. These are discussed in terms of 'landscape' but they also need to be discussed in relation to power, transportation, industrialization, urbanization and the rest, each of which has a vibrant 'non-material' historical geography. What is presented here is very much a discussion of the 'real' – field boundaries, factories, suburbs and railway tracks – people and things in space, and little attention is paid to the ideas, discourses, imaginings and utopias which are increasingly becoming the stuff of historical geographies. Second, historical geographies of gender. Professor Butlin is right to call for more attention to be paid to gender in the future, yet there is no explicit attention paid to these issues in the accounts that he presents of the past. Surely there is enough work done within historical geography to at least mention that urbanization, industrialization and the rest were gendered processes. Even if there is not it raises again the question of the worth of constructing accounts of the past based on the work of historical geographers if that provides only a limited field of vision.

Despite these criticisms, as much of 'historical geography' as of *Historical Geography*, it is a virtue of this work that it sets out what has been done so far within the subdiscipline and provides us with the opportunity of discussing what should be done in the future.

MILES OGBORN

BARRY CUNLIFFE, *Wessex to AD 1000*, Longman, 1993. xvii + 388 pp. 97 figs; 30 plates. £15.99.

Professor Cunliffe's well-illustrated book on early Wessex is a notable addition to this generally excellent series, having as its basis the archaeological record of the counties of Avon, Somerset, Wiltshire, Dorset, Hampshire and Berkshire. It is, as one would expect, a work of synthesis, heavily dependent upon other scholars for the chapters on early pre-history, but using Cunliffe's own extensive and important work to enhance the story of Iron Age and Roman Wessex.

Of particular interest, no doubt, to readers of this journal will be the discussion of the landscape and its utilization by man in the region, and the archaeological evidence for this forms an important part of the early chapters. We move from the naturally-changing flora and fauna of the glacials and interglacials of the Pleistocene, to the first signs of environmental modification by man in the Mesolithic (*c* 9500–4500), a process which accelerates in the ensuing Early Neolithic of the fifth and fourth millenia with the change from hunter/gatherer to settled, food-producing farmer who was clearing forest and domesticating crops and animals. Evidence from Wessex indicates small plots of wheat and some barley, sheep and cattle pasture, forest maintenance for pigs, and coppicing. This was also the period which sees the first man-made monuments, which were to become so prolific in the Wessex landscape, notably causewayed enclosures, as at Windmill Hill, Wilts, and long barrows and chambered tombs accommodating multiple burials, found for example on Salisbury Plain and the Avebury area.

During the early part of the Later Neolithic/Early Bronze Age (*c* 3000–1500 BC) there seems to have been something of a standstill in land colonization in Wessex, and the pig becomes the predominant domesticated animal, but by 2000 BC large new tracts of pasture were being created, giving higher percentages of sheep and cattle. Further landscape features appear during this period, including round barrows containing single as opposed to multiple burials, and the imposing ceremonial monuments of, especially, Dorset, Wiltshire and Somerset, such as henge monuments and stone circles, all indicating a highly organized society.

The Later Bronze Age (*c* 1500–600 BC) was one of dramatic change in farming practice in Wessex, from one that merely produced sufficient for the needs of the people to one intended to maximize food production, with a grain surplus being indicated by the storage pits commonly found on settlement sites. It was also a time when sheep became prodominant over cattle.

Few settlement sites are known in Wessex prior to the Later Bronze Age, and it is during this period that such sites stamp themselves with a degree of permanency on the landscape, usually on the chalk,

such as those excavated at Chalton, Hants and Shearplace Hill, Dorset.

During the Early/Middle Iron Age (*c* 600–100 BC) arable farming increased considerably, evidenced, again, partly by storage pits and the post-holes of wooden granaries. The quite dramatic predominance of sheep over cattle continued, probably because the former could manage without a permanent water supply and so could occupy, and manure, the rather thin-soiled higher downlands that had been opened up. The most visually striking features of this period in Wessex are the hill-forts, the early ones being relatively simple, whilst the later examples have elaborate defensive systems and show evidence of dense interior occupation. Not surprisingly, much of what Cunliffe has to say about hill-forts and their development comes from his own extensive excavation at Danebury, Hants. The overall picture in Wessex is one of many of the earlier hill-forts being abandoned by the late fourth century BC, whilst those remaining became greatly-strengthened, evenly-spaced centres of territories.

The next phase in the narrative, from 100 BC to 80 AD, shows the beginnings of Roman-inspired trade in Britain, and Cunliffe's excavations at Hengistbury Head, Dorset, produced evidence of both imports and material awaiting export. It is also during this period that, thanks to numerous coin finds, three major Iron Age tribes can be recognized in Wessex: the Durotriges, the Atrebates and the Dobunni.

Following the Roman invasion of 43 AD, industry becomes important in parts of the region, with quarrying for Purbeck marble and the extraction of lead and silver from the Mendips, and by the second century demand had increased, with the construction of major buildings and public bath-houses; indeed, urban development is a striking feature of the Roman period, with important towns at Silchester, Winchester and Dorchester. Cunliffe rightly stresses the fact that our knowledge of rural settlement during this period has been distorted by the concentration on villas to the detriment of other types of settlement. Where these other types have been examined, as at Berwick Down, Wilts, and Chalton, Hants, continuity from the Late Iron Age is apparent, whilst a number of pre-Roman native settlements developed into villas, such as Grateley South, Hants, and Tarrant Hinton, Dorset, a major determining factor in such a development seeming to be proximity to a market centre.

Cunliffe deals as well as the evidence will allow with the last years of Roman rule and the early Saxon settlement in Wessex, where, in the east and north the Saxons were colonizing, evidenced for example at Chalton, Hants, and Cowdery's Down, Hants, whilst in western Wiltshire, Dorset and Somerset a sub-Roman culture existed; even some hill-forts in Somerset were refurbished and reoccupied. The most striking feature, however, of the immediate post-Roman period was the rapid collapse of urban life.

When we turn to the last chapter, on the ascendancy of Wessex (685–1000), the emphasis is political, as we now enter a documented, historical period. Caedwalla and Ine, in the late seventh and early eighth century, really created Wessex and made it the major force south of the Thames, culminating, after fluctuations, in its brief authority over much of England in the early ninth century. Later in this century repeated Danish attempts to conquer Wessex ended in 878 when the Scandinavians were defeated by Alfred and his forces, and Wessex was left in peace.

This review has, of necessity, had to omit discussion of important matters with which Professor Cunliffe deals, such as the development of pottery and metalwork, increasing prehistoric contacts with the continent, and rituals and religion. But one hopes that sufficient has been said to indicate the author's illuminating broad sweep of an area which assumes so much importance during the later prehistoric period, remains important and highly-populated during the Roman period, and emerges as a major Anglo-Saxon kingdom in the centuries leading up to the Norman Conquest. The only errors noted by the reviewer were 'teaming' for 'teeming' on pp 21 and 23, and an incorrect reference to Fig 2.10 on p 59.

DAVID WILSON

CHRISTINE A HASTORF, *Agriculture and the Onset of Political Inequality before the Inka*, CUP, 1993. xv+298 pp. 31 figs; 31 tables. £45.

This book is an interdisciplinary study of the emergence of political differentiation among the Sausa of the Upper Mantaro Basin in Central Peru between 200 AD and Inka conquest in the fifteenth century. Its approach is unusual in that political developments are not studied directly but are viewed through the window of agricultural change. Essential to this perspective is the notion that agriculture is not only an economic system, but a social one, in which access to land and water, labour and exchange are mediated through social interaction and political organization. The book aims to understand social change in its specific context rather than seek monocausal explanations. From these few comments it will be clear that, although the book appears as a volume in the *New Studies in Archaeology Series*, it is far from a narrow archaeological monograph. It is not only well embedded in social theory, but the sources and

methods its employs are wide-ranging and innovative.

Hastorf shows how during the late pre-Hispanic period agricultural production extended from the valley bottoms to the low hillsides where the population aggregated in defensive positions. She argues that this movement was triggered not by population pressure, but by defensive needs. These emerged, she suggests, due to conflicts between community leaders who sought to expand their power by gaining control of valley bottom lands which produced prestige crops, such as maize, that could be used to 'buy' the allegiance of other groups.

Her arguments are based on detailed analyses of settlement patterns and agricultural practices drawn from the archeological record, ethnohistorical sources and modern subsistence methods. The empirical work is presented in two main sections. The first considers socio-political change in the Upper Montaro Valley as reflected in its settlement patterns. Archaeological evidence for site location, settlement size and form is examined along with artifactual, architectural and ethnohistorical evidence for social and political differentiation within and between settlements. The evidence indicates a growing concern with defence and reveals increasing wealth differentiation though it did not extend to differential control over resources or production.

The second empirical section focuses on agricultural production in the Mantaro region. Evidence from present-day agricultural practices is used to establish production cycles and cropping combinations from which yields are estimated for different zones that are then compared with evidence from the pre-Hispanic period. First, Hastorf describes the characteristics of the Andean staples, in terms of their varieties, ecological requirements, productivity and calorific values. Many will find this section a useful source of reference. Subsequently she identifies the land-use zones of the region, estimates the crop yields for each zone, as well as the cropping rotations employed. The author not only recognizes the difficulty of inferring past practices from those of the present day, but tries to tackle the issue directly, for example by substituting indigenous crops for introduced species such as wheat and barley and appreciating the impact of fertiliser use. The author then examines pre-Hispanic evidence for intensive agricultural practices such as irrigation, raised fields, terracing, and presents the results of detailed analyses of crop remains. By comparing the yields predicted from 'spatial energetics' with the actual production for each zone obtained from the archeological record, she reveals discrepancies which she attributes to political developments which changed production strategies.

Hastorf's methods are wide-ranging and innovative, and her arguments persuasive. Field work associated with this volume began in the late 1970s and the book clearly reveals mature reflection and radiates a depth of knowledge of the region and Andean culture. Theoretically, methodologically and in substance, therefore, the volume makes an important contribution to our knowledge of social change in prehistory.

LINDA A NEWSON

ROGER B MANNING, *Hunters and Poachers. A Social and Cultural History of Unlawful Hunting in England, 1485–1640*, Clarendon Press, Oxford, 1993. xii+255 pp. 9 plates; 2 maps. £30.

This is a fascinating and highly readable book on an important subject. Despite the title, it deals primarily with the deer-stealing that was rife throughout the period covered, and Professor Manning presents it as a companion volume to his *Village Riots*, published in 1988. There are, as he says, 'many dimensions to the phenomenon of poaching' and these are amply demonstrated for sixteenth- and early seventeenth-century England. The book is packed with examples, drawn mainly from original sources, especially legal records, and all firmly set in their historical context. We see poaching for commercial gain, at its worst, not surprisingly, in the vicinity of London, and probably increasing in volume at the end of the sixteenth century; we see poaching by purlieu men, at least in part motivated by the desire to thwart attempts to extend the jurisdiction of forest as opposed to common law; we see poaching by dispossessed commoners or simply those driven to violent action by the damage done to their crops by straying deer; we see poaching in the form of 'skimmingtons', or general huntings, often with gentry participation or encouragement, directed against particularly unpopular or arrogant owners of deer parks or other hunting preserves. But most of all we see poaching by the gentry and the aristocracy, men deeply imbued with, in Professor Manning's nice phrase, a 'deer-hunting culture'. This, Manning suggests, trickled down to the servants and others of lower status with whom they customarily hunted, and perhaps even narrowed the gap between 'gentry and commonalty'. On the other hand, he only very briefly discusses the traps and snares employed by lower class poachers operating in a quite different tradition.

For the gentry and the aristocracy, but in particular the former, as in the Middle Ages, the sheer extent of game preserves, and increasingly strict property qualifications, meant that hunting was often poaching. And poach they did, both in the royal forest and in each other's game preserves.

Indeed, reading this book one begins to wonder how significant in comparison was lawful hunting, not to speak of how any deer managed to survive. Poaching gangs 'havocked' as much as they hunted, and were sometimes so thick on the ground that they bumped into each other: one group, about to set fire to a hayrick, fled in terror when another group, hiding inside, emerged for fear of being burned alive (the fate apparently intended for the wife and infant son of the absent owner of the game preserve). It is hard, reading about such exploits, to get a clear idea of scale. Professor Manning makes no real attempt to quantify, which would no doubt be difficult, though a footnote promises a more detailed local case study with figures at a future date.

Here, he is content to emphasize the prevalence of poaching and the seriousness and persistence of the lawlessness and violence it entailed. It was a 'symbolic substitute for war' at a time when the opportunities for real combat were diminishing, and when, in any case, the nature of warfare was changing. Raiding game preserves was an obvious and exciting way of pursuing gentry and aristocratic feuding; they manipulated others and poached themselves, sometimes engaging in veritable 'poaching wars'. 'Corrupt' magistrates were not above unlawful hunting and were often reluctant to convict. Forest and game office was exploited to shelter selected poachers and cover hunting far in excess of the accepted perquisites of office.

Professor Manning thinks that poaching was increasing at the end of the sixteenth and early seventeenth centuries. On a general level, the problem was exacerbated by greater competition for resources, including in woodland areas to which the deer were increasingly confined. Poaching was sometimes a form of social protest. But Manning stresses in particular the poaching that was often large-scale and organized, and that was more often than in the past directed against the game preserves of an aristocracy less able to protect its interests. He also traces a change in the attitude of government. Whereas the Tudors had been relatively tolerant of (or perhaps unable to suppress) an activity which to a degree kept turbulent subjects relatively harmlessly occupied, James I moved quickly to assert royal prerogative and aristocratic privilege, and further restrict those qualified to hunt. Professor Manning puts the first attempts to revive forest law firmly back into the reign of James I, and argues that there was a shift in emphasis in the Jacobean Game Laws away from the concern with public order which had first inspired them. Legal changes, which made many common lawyers uneasy, made it easier to convict; in any case, victims unable to get satisfaction in the ordinary courts turned increasingly to the Court of Star Chamber, thus contributing to its low reputation.

Such a summary fails to do justice to the range of subjects aired in this book. There is much more of interest about hunting and/or poaching, not only (inevitably today?) as theatre, but as a rite of passage, as a means of upwards social promotion, and as a brutalizing influence, to mention only a few of the aspects discussed. And given the importance of hunting, such discussion throws much light on early modern society. The discussion of hunting methods is rather cursory. The book is sometimes rather repetitive; not only certain incidents but whole sentences recur. However, Professor Manning comes up with some nice phrases: to a keeper, he says, a panting greyhound was like a smoking gun.

JEAN BIRRELL

L J ARNOLD, *The Restoration Land Settlement in County Dublin, 1660–1688*, Irish Academic Press, Blackrock, Dublin, 1993. 211 pp. IR£35.

Arnold's short book is a pioneering study of a moment in Irish history which has been ill-understood within Ireland and little considered in Britain. The return of the Stuarts in 1660 required a settlement of land titles in Ireland akin to that in England. But the Irish settlement, after two decades of confused civil war and conquest, was necessarily more complex. Two broad bodies of people needed to be satisfied: dispossessed catholics, both Old Irish and Old English, together with the odd dispossessed protestant (the earl of Ormond), all of whose lands had been forfeited for 'royalism'; and the New English and Cromwellian adventurers who had been granted their lands during the 1650s. Charles's own inclination to favour the dispossessed catholic Irish had to be tempered by a need to assuage the beneficiaries of the Cromwellian conquest. The Act of Settlement (1662) failed to satisfy either interest, being both rigid in its treatment of catholics but also allowing too many of them to recover land from the Cromwellian grantees. It was therefore followed by the Act of Explanation (1665). Both acts were implemented by Courts of Claims which sat in 1663 and 1666–9. It is the politics which lay behind the passage of the statutes and the work of the courts which forms the meat of this book. Later chapters continue the story forward to the repeal of the Acts by the Jacobite parliament of 1689.

This is therefore largely a political study whose range is rather wider than the title suggests. Indeed, the commitment to County Dublin rests rather uneasily with the political narrative (although it is the fate of Dublin landowners before the Courts of Claims that Arnold describes). What the book lacks is a comparative study of the outcome of the Courts

of Claims elsewhere in Ireland especially in Connacht and Clare (to which the delinquents had been transplanted after 1652): a brief excursus on County Wicklow does not suffice. Some larger judgements about the quality of justice administered by the Courts of Claims would have been welcome (although it is clear that their impartiality was always under challenge from petitioners securing letters of commendation from the King). A note on the manuscript sources would also have been helpful. For a study of a passionate subject, dispossession, it is calm and measured, perhaps even bloodless: as a further study of the manipulation of the law in Ireland for political ends, it is very welcome indeed.

R W HOYLE

J F JAMES and J H BETTEY, eds, *Farming in Dorset: Diary of James Warne, 1758; Letters of George Boswell, 1787–1805*, Dorset County Museum, Dorchester, 1993. 180 pp. £10.75.

The two farmers, near-contemporaries, who feature in this latest volume of the Dorset Record Society's publications, were of course untypical – any farmer who, like James Warne, had a taste for genealogy and poetry, or like George Boswell, published a well-known book on water-meadows, must have been quite uncommon, as indeed he would be today.

James Warne (1726–1800) occupied in the course of a long career a number of farms in the Bere Regis–Wool area of east Dorset, beginning to farm on his own at Woodstreet Farm, Wool, at the age of 29. His diary, unfortunately covering only one year, was written soon after, when he was 32. It is a remarkable document, especially for its revealing detail, and shows Warne to have been a very active farmer, not only supervising his men but working alongside them as occasion required, even at such heavy and dirty tasks as carting mud from the river and building a bank. He drew building plans and played no small part in overseeing the men who made alterations to the farmhouse and outbuildings at Turner's Puddle Farm, to which he moved in the course of 1758. Much of his time was spent, however, in travelling, attending the local markets, calling on other farmers, on pleasure jaunts and visiting relations in the district. Even his regular church-going involved journeys to a variety of local places of worship.

The diary has details of the daily farming operations, which throw particular light on the use of water-meadows and the Dorset system of leasing milking herds to a dairyman. In addition, there are revealing references to his relations with his farm servants – which might be stormy when a man would not obey orders or took leave without permission. The precipitate sacking of men may be explained in part by the casual way in which they were hired – for example, by their calling at the farmhouse or through a chance encounter on the road. Like many farmers of substance he had sums of money lent out at interest, and he borrowed other sums when necessary. In December 1758, for instance, he rode to Wool and there gave his 'Own Note of hand' to Mrs Knapton of East Lulworth for £60, agreeing to pay her 4 per cent for the money. Evidently, as we know, farming communities could obtain credit easily and cheaply in the absence of a developed or reliable banking system. There was cooperation of other kinds also as farmers bought and sold with one another, helped with advice and valued stock, and loaned horses and implements, even a cider mill.

George Boswell (1735–1815) belonged to a slightly later generation of Dorset farmers. He farmed at Puddletown, a little to the west of Warne's farm at Toner's Puddle, but he had numerous other interests, including a grocer's and mercer's shop, business as a maltster, and possibly as a tanner too, and acted as an agent for a number of local landowners in matters concerning enclosures, forestry and land reclamation. He was, however, preeminently an improving farmer and an authority on water-meadows, his book on the subject appearing in 1779 and again in a second edition in 1790. He was approached to undertake the revision of the first *General View of Dorset* of 1793 but, disliking the Board of Agriculture's methods, declined.

That he was a leading figure in the county's farming is borne out by his correspondence with George Culley, the eminent Northumberland farmer and writer. Seventeen of Boswell's lengthy letters to Culley, written between 1787 and 1805, are reproduced here. There is much of interest on the state of crops and livestock, harvests, prices, implements and methods of husbandry, especially, of course, the management of water-meadows. But other issues are occasionally touched upon. In July 1793, for instance, Boswell refers to a frightening rash of 'Bankruptcys and stopping of principal Houses' that 'so affected our concerns that we hardly know which way to turn'.

The rise in food prices made him express in 1792 'fears that the lower class will not sit still easy', though he believed the Dorset population to be too small for serious unrest. Three years later he told Culley that wheat and barley were so scarce that the 'poor are for a day together in many Villages without a morcel once or twice a week', and they had to be supported by private and county subscriptions, even though in his own grocer's and mercer's shop there was 'scarcely any money to be taken'. Boswell had a jaundiced view of the general run of farmers who thought the best farmer was

one who had the least outgoings and so made the most money, while he would have no truck with the great figures who initiated the Board of Agriculture, men who expected farmers of his kind to travel two hundred miles at their own expense merely to gratify idle curiosity. 'I very much doubt of the utility of those things in the hands of Lords and Dukes ... nothing give me greater pleasure than to exchange mutual knowledge; but to dance attendance upon great Folks, and to answer such Questions as they may deign to ask you and then with an ungracious Nod be told you are done with – will not suit the Stomach of your sincere Friend ...'

To conclude, both the James Warne Diary and the Boswell Letters are meticulously edited and provided with much interesting and useful background information. The editors and the Dorset Record Society are to be congratulated on producing a volume which will prove an invaluable quarry for agricultural historians of the period.

G E MINGAY

AUSTIN BOURKE, (edited by Jacqueline Hill and Cormac ÓGráda), *'The Visitation of God'? The Potato and the Great Irish Famine*, The Lilliput Press, Dublin, 1993. x+230 pp. £20.

Economic and agricultural historians new to Irish history of the 1840s were told first to go to Austin Bourke. His distinctive initials, PMA(ustin Bourke) became all too familiar on inter-library loan applications. This is still the case. The old lags know automatically that they need constant infusions of his insights, and also some of his basic recycled data. In other words Austin Bourke stands as a colossus astride the 1840s. But where is the magnum opus which goes with such an epithet? His thesis appeared in 1967 but there never was a published version. This volume is not that PhD, but it is a volume of many of the main themes which are necessary to understand the agricultural history of that troubled decade. They include unpublished chapters from his thesis, some of his famous papers, and contributions to *The Irish Times*.

Not everyone will realize that Austin Bourke was a trained scientist, initially through mathematics and physics but then through a lifetime career in meteorology, begun in 1939. He came relatively late to the study of Irish history. His first published accounts of potato blight, linked to the weather, appeared in 1953, but perhaps it was not until two years later that he realized he had a role to play in understanding and explaining the Irish Famine of the 1840s. In 1955–6 he was seconded by the Irish Meteorological Service to the Chilean government through a UN agency, where his brief was to make links between environmental factors – in his case meteorological ones – and the recent potato blight in that country, the very same *phytophthora infestans* which ravaged Ireland over one hundred years earlier. From that Chilean experience, it seems, he never looked back.

Thus, this collection of his works includes a lot on the Irish potato blight, a lot on the potato and its position in pre-Famine Irish history, and some detail on the environmental influences. Two chapters from his thesis, contributions to volumes, articles and other works are divided into two sections, 'Agriculture and the potato before the Famine', and 'The Famine'. Included in the latter is some small detail of the potato blight in a wider European context. It is not possible to review the whole of his contribution since almost every essay, both in this collection and also in others which have been excluded, stand alone as important to the understanding of Ireland in the 1840s. But I would single out one major essay which impinges on Irish agricultural history in the widest of ways. Agricultural historians of Ireland are blessed with a database of annual statistics which, if not better are certainly more useful than their British counterparts because they stretch back to 1847, before the June Returns were a gleam in the eye. But what of the pre-Famine base? The unwary will discover some marvellous statistics associated with the 1841 population census of Ireland. Be warned – do not attempt to use them before reading Austin Bourke's *Economic History Review* article of 1965, here reprinted in this collection. He leads the reader through the pitfalls of using the data and the statistical inconsistencies in general which pervaded Irish life. What did an acre mean, was it a Statute, Cunningham or Irish acre, and with what relative distribution were these different units of measurement used in Ireland? Such questions impinge widely on agricultural data, for example on an interpretation of the landholding distributions which are contained in the census. There are also warnings about the interpretation of the animal numbers registered in the census. But more than this. Austin Bourke does not simply say 'be wary', or worse still 'hands off, don't use', he is far more positive than this, and he suggests ways to accommodate the inconsistencies and make the data useful.

It is a pleasure to have this collection of essays, some of which from my location would certainly require inter-library loan applications, and Jacqueline Hill and Cormac ÓGráda must be thanked for their role in bringing them together. But the biggest thanks go to Austin Bourke. He is still the first point of departure for new scholars of Irish agricultural history in the 1840s, and the first refresher for those returning to that troubled decade.

MICHAEL TURNER

C W CHALKLIN and J R. WORDIE, eds, *Town and Countryside: The English Landowner in the National Economy, 1660–1860*, Unwin Hyman, 1989. xiii + 224 pp. £30.

In recent years we have had a steady stream of publications on the landed classes of seventeenth- and eighteenth-century England. The lifestyle of the aristocracy, the political role of the landed men, their involvement in charity and cultural pursuits, their mental world – all these have come in for their share of attention. Specialist studies of the landed contribution to the economic development of the country have been less numerous and have, by and large, been confined to volumes on individual landed families. Eric Richards' celebrated volume on the Leveson-Gowers is an example here.

This volume of essays sets out to redress the balance. It consists of eight detailed case studies plus a ranging introduction. The latter, written by Ross Wordie, considers not just the direct economic impact of the landowners but also their influence on the economy via their contribution to legislation and to the creation of an environment conducive to growth. As for the case studies, some – Brian Trueman's investigation into the development of the Guy's Hospital estates, for instance, and Ellis Wasson's portrait of the third Earl Spencer as a progressive landlord – are clearly developments of previously published work. Other contributions, like Jane Cottis' analysis of the estates of the eighteenth-century Berkshire gentleman Sir Mark Stuart Pleydell, have a fresher feel.

But, new or more familiar, all the pieces are well written, authoritative and splendidly researched. Given that there are only eight studies to play with the range of the volume is impressive. The towns examined include nineteenth-century Reading (Steven Blake) and late seventeenth- and early eighteenth-century Bristol, Birmingham and Liverpool (Christopher Chalklin). For good measure, there is also an illuminating analysis of dock building in Liverpool between 1709 and 1835 by Jane Longmore. This last piece is particularly well illustrated with contemporary maps and drawings.

At first glance, the country landowners selected for scrutiny may seem to offer less varied fare than the towns. All, for example, hail from the midlands and the south. But, once one settles into these country pieces, the hint of narrowness is quickly dispelled. Particularly pleasing is the attention given to the small, gentry estate. As well as the essay by Dr Cottis, already mentioned, Patrick Keeling provides us with a revealing glimpse of the activities of the Northcotes of Upton Pyne in Devon between 1660 and 1851. The country landowner in industry is also considered in a notable essay by Dr Wordie entitled 'Aristocrats and entrepreneurs in the Shropshire mining industry, 1748–1803'.

All in all, this is an admirable and most welcome volume. The book does not, perhaps, contribute anything very new by way of theory or interpretation, but it undoubtedly adds to the density and richness of our knowledge of the role of the landowner in the English economy between 1660 and 1860. The editors point out that five of the eight contributors are either teachers at or doctoral graduates of Reading University. The university can be justly proud of such an array of talent and of so much research so well done.

ANGUS MCINNES

PAM BARNES, *Norfolk Landowners since 1880*, Centre of East Anglian Studies, University of East Anglia, 1993. 93 pp. £6.

Landownership has been a continuing interest for historians since the Second World War. For a time 1880 marked the terminal date of most studies: John Bateman's figures, published in *The Great Landowners of Great Britain*, provided a solid statistical basis of acreage and rentals, not readily available for later years. Many estate owners placed restrictions on access to the most recent records deposited in county record offices, and there was no national survey available to calculate what had happened to the beleaguered estate owners, hemmed in by falling rent-rolls, depressed agricultural prices and punitive death duties which rose as high as 75 per cent. David Spring, in his Tawney lecture of 1981, explored the subject of landownership after 1880, and since that time there have been general and national studies by David Cannadine, W D Rubinstein, F M L Thompson and others. More records have in the last decade become available; the 'New Domesday' of 1910–11, the death duty registers, records of estate sales and in addition later estate archives are becoming less restricted.

Pam Barnes has taken the set of 106 Norfolk landowners who, *c* 1880, possessed 2000 acres or more, and from this base she has investigated how the owners and their estates coped with the decline of their fortunes. Her goal was to follow the progress of two generations (p 12), but in practice she covers a longer period, in some cases continuing into the 1980s.

It was a good basis for a study, and Pam Barnes has completed it excellently. The book is a pleasure to handle and to read; it is well illustrated throughout, and although it contains much detailed information, the text can always be read with pleasure. Only the index is surprisingly unsophisticated – could it be computer generated? Strange index entries include 'Incursion of Scotsmen' under 'I' and 'The Golden Years' under 'T'. The index is

based not on family names but on estate names: Blickling, for instance, is mentioned in the index under 'letting the shooting rights', 'rents' and 'sale of valuables' but not under the family name Lothian.

Norfolk Landowners since 1880 contains no great surprises. Here is a picture of great estates in deep financial trouble, surviving by the selling of antiques, the letting of sporting rights, the felling of timber. Servants disappeared; parts of the house closed; sometimes the owners lived abroad. Property and the land itself was neglected. The last act was to split up the estate and demolish the house. In only three years between 1917 and 1920, a quarter of the acreage of the great estates of Norfolk was sold (p 69), a phenomenon repeated in many parts of England. Nevertheless, many great estates continued: Pam Barnes found that those estate owners who were not heavily indebted could manage to cope with falling rent rolls, and those who kept their nerve, could and did survive, taking farms in hand and cutting expenses. On the whole the larger estates endured (8 out of 11 in Norfolk), while the smaller went to the wall. Those that made it through the 1950s still retaining substantial amounts of land moved into better times, with more favourable treatment by successive governments since the late 1950s. This is a most useful county study of Norfolk; it would be good if, as the author suggests, there could be comparative studies of, for instance, a south-western county and a northern manufacturing county, to see if the recent history of the Norfolk landowners is replicated elsewhere.

BARBARA ENGLISH

JAN BIELEMAN, *Geschiedenis van de landbouw in Nederland, 1500–1950: veranderingen en verscheidenheid*, Boom, Meppel/Amsterdam, 1992. 423 pp. Illustrated. Dfl 57.

P C M HOPPENBROUWERS, *Een middeleeuwse samenleving. Het Land van Heusden (ca 1360–ca 1515)*, 2 vols, AAG Bijdragen 32, Wageningen NL, Landbouwuniversiteit, 1992. xviii + 997 pp. 51 tables; 30 figures; 5 maps; 4 illustrations. nps. [Also published as a doctoral dissertation for the Agricultural University of Wageningen, and as vol xxv of *Historia Agriculturae*, Nederlands Agronomisch-Historisch Instituut, Groningen.]

PETER R PRIESTER, *De economische ontwikkeling van de landbouw in Groningen 1800–1910. Een kwalitatieve en kwantitatieve analyse*, AAG Bijdragen 31, Wageningen NL, Landbouwuniversiteit, 1991. xvi + 639 pp. 64 tables; 31 figures; 32 maps. nps. [Also published as a doctoral dissertation for the Agricultural University of Wageningen, and as vol xxiv of *Historia Agriculturae*, Nederlands Agronomisch-Historisch Instituut, Groningen.]

FRANS VAN POPPEL, *Trouwen in Nederland. Een historisch-demografische studie van de 19e en vroeg–20e eeuw*, AAG Bijdragen 33, Wageningen NL, Landbouwuniversiteit, 1992. 654 pp. nps. [Also published as a doctoral dissertation for the Agricultural University of Wageningen, and as Report no 31 of the Netherlands Interdisciplinary Demographic Institute in The Hague.]

The AAG, or Department of Agricultural History at Wageningen University in the Netherlands, has been busy again. Here are four major works in the space of two years, three of them appearing in the respected series *AAG Bijdragen*, which is an in-house publication vehicle for those connected with the department, although the volumes are almost always published simultaneously by a commercial house. The fourth book under review here, which is not published in the series, is from the hand of Jan Bieleman, who is on the permanent staff of that department, so we have here a Wageningen quartet.

And it shows. The scholarly tradition established in Wageningen by Slicher van Bath, and carried on now by Ad van der Woude and many of his colleagues, is an *Annales*-derived determination to leave no stone unturned in collecting and processing all the quantitative data available, especially the demographic material. This has been done by all the Wageningen group in the most rigorous manner and to the highest standards. But there is more: this quantitative material, and a great deal else, is marshalled to reconstruct the detail of everyday life in the past on often quite a small scale, but over long periods of time. All the works here under review fit squarely into this tradition of awesomely researched quantitative studies over long periods, usually regionally focused, dealing with agricultural or at least agrarian history.

The study by Bieleman, *Geschiedenis van de landbouw*, is a general history of Dutch agriculture from the sixteenth century to the Second World War. Bieleman is prolific, and has shown his ability to conduct detailed studies aplenty in the past; this sweeping narrative is, therefore, all the more welcome in coming from the Netherlands, where only the theologians have traditionally been able to produce great syntheses. Methodologically this overview of nearly four centuries does not offer us very much new, although it certainly maintains the rigorous Wageningen standards. It relies on secondary literature for the most part (a certain amount of it written by Bieleman himself), and concentrates on farm production, spending less time on agricul-

ture's place in the economy, or on matters of rural sociology. Bieleman knows a great deal about the practical business of farming, and his chapters and sections on mechanization and technology are particularly good. The illustrations are well chosen and almost always informative, and all the figures and graphs are handled with easy competence. The division of the vast material is into three main chronological sections covering the periods 1500–1650, 1650–1850 and 1850–1950; within these the treatment is regional, so we get quite detailed local information in each main period. The disadvantages are that the national overview is elusive – perhaps necessarily so – and that because it is largely a narrative, there is little in the way of 'thesis', except for an insistence that farming was never stagnant but always dynamic, and that regional divisions should not be over-simplified. There is, for example, no conclusion, but simply a very short Epilogue sketching the developments (and problems) in Dutch agriculture from 1950 to the present. But this is a very useful book of reference, containing an enormous wealth of knowledge, and is by far the most comprehensive general agricultural history of the Netherlands which has been produced to date. It is only a pity that there is no English-language summary, as there usually is in Dutch academic books.

The other three books are doctoral theses, all at the University of Wageningen. Hoppenbrouwers' *Een middeleeuwse samenleving* is a detailed study of life in a region of the Netherlands called 'Het Land van Heusden' in the late Middle Ages. Heusden was (and is) a small market town north-west of 's-Hertogenbosch (Bois-le-Duc, Den Bosch) in the river area of the central Netherlands, surrounded (then) by sixteen villages forming 'Het Land'. It is a very small area, and Hoppenbrouwers' researches have been exhaustive. The list of consulted archive material is very large, and most of the notes refer directly to it.

His interest is in the area for its own sake, but the study is fully integrated into academic debates, such as the one on the transition from feudalism to capitalism, focusing on the concept of a crisis of feudalism in the late Middle Ages. Hoppenbrouwers analyses this mainly in terms of social class and status, and of social relationships; he also pays attention to the changing nature of the local agricultural economy. The main tool employed is a database (printed in the appendix volume) of 2500 personal dossiers or reconstructed genealogies, on the basis of which it is possible to be quite accurate about family relationships, land ownership, migration, and income (indicated by taxation). The general conclusion is that, rather than there being evidence of some enormous haemorrhage in feudalism which forced the agricultural economy into some form of early capitalism, things changed relatively little in Het Land van Heusden in these two hundred years. There is no evidence of the balance between 'lord and peasant' skewing heavily in favour of either party, and while the lords found it difficult to accumulate capital at an increased rate, the farming population was not able to produce yeomen substantial enough to challenge the political elite. This then is partly a story of peasant resilience: their properties were not broken up on succession, the farming economy was always flexible and responsive to prevailing conditions, and the village community retained quite important legal jurisdictions; part of the reason was also the weakness of the absentee landowning class, caused by its great diversity (myriad levels of nobles, and the urban patriciate) and rapid turnover, and by its weakening at the hands of endless Burgundian wars. The main sections of the work show the approach most clearly: there is an introductory theoretical section (emphasizing the 'bottom-up' approach and the concept of feudal collapse), followed by two very substantial sections on 'Families' (the genealogical reconstructions), 'Ownership and Taxation', and 'Institutions' (legal confrontations). This is an intimate portrait on a colossal scale of research, well integrated into current and past academic debates. There are 300 pages of graphs, figures, and appendices, and there is a useful and extended English summary.

The last two studies take us into the modern period. Priester's doctoral thesis is a study of the agricultural economy of the northern Dutch province of Groningen in the nineteenth century. In many ways it is exemplary, perhaps because it closely follows parts of the model laid down by J L Van Zanden in his pioneering study of the national agricultural economy in the same period (*De economische ontwikkeling van de Nederlandse landbouw*, Wageningen, 1985). It is a reconstruction of the economic totality of agriculture in the province as it changed over time. Exhaustive research into quantitative sources produces cogent (though always arguable) estimates of the factors of production, and of land usage; these are employed to arrive at estimates of production in the various sectors of the agricultural economy. This is all done (in Van Zanden's footsteps) for four fixed points in the century (1815, 1862, 1890, and 1910), which allows the analysis of change over time.

Added interest is provided by an ever-present thematic enquiry: the founder of rural sociology in the Netherlands, E W Hofstee, had a special interest in the province of Groningen, and observed a generation ago that the shift there in the nineteenth century away from pasture to arable fields did not

follow the rest of the country, and did not follow the dictates of market forces, which were very much in favour of dairying in the nineteenth century. The reason for this 'irrational' behaviour on the part of Groningen's farmers, said Hofstee, was that for social reasons they aped the ways of the prestigious gentlemen farmers who had always produced grain. Priester takes exception to this, and restores the rationality of the Groningen farmers by explaining that the shift from arable to dairy is illusory, for permanent grass and arable were in fact both making way for a rapid extension of convertible husbandry, which brought with it a large increase in the cultivation of fodder crops. So less land was classified as pasture, but this did not imply (as Hofstee had thought) a shift to more arable.

This is a classic macro-economic study, even though it is at regional rather than national level; we see little of the world of the farming communities, in contrast to the 'bottom-up' approach of Hoppenbrouwers, and the intimate knowledge which Bieleman demonstrates of the practical processes of farm production. The study is none the worse for that: we have here a presentation of nearly all the economic data on agricultural production, which will form the economic background to more comprehensive studies of communities in the past, and is simultaneously an indispensable contribution to a really thorough understanding of the working and changes of the national economy in the nineteenth century. This is a very useful book, which will remain a standard for a long time; the English summary is short, but provides some access.

The final work under scrutiny, Van Poppel's *Trouwen in Nederland* (which I have reviewed in more detail for *Population Studies*, July 1993), is the most comprehensive survey of Dutch marriage in the modern period. It does not deal with agriculture specifically, but is very much concerned with the demographic and cultural aspects of Dutch life since about 1815, and dwells on the countryside as much as the towns; it is therefore of interest to agrarian historians, if not to strictly agricultural ones.

This dissertation comes from the hand of one of the Netherlands' top historical demographers, with a long history of seminal publications behind him. His quarry here is not only marriage, but also the dissolution of marriage (by death or divorce), and remarriage. Van Poppel is a master of statistical techniques, and displays his expertise widely, but significantly he makes equally extensive use of qualitative sources like contemporary writings, folklore, proverbs, and individual case histories.

The subject is laid out and gone over in meticulous detail. Dutch marriage was not particularly unusual within Europe: the marriage age dropped a little around 1860, and fell decisively in the twentieth century; peaks in the marriage rate followed the economic cycle as expected, with booms in the 1820s (end of war), the 1850s and 1860s, and after 1900. The book is full of insights, new proofs of established concepts, and fundamental revisions. The two most interesting aspects of Dutch demography in the modern period are the surprising regional variation in so small a country, and the more rapid increase in the population there than in other European countries; Van Poppel steers his study of marriage to contribute to these debates. Alongside falling mortality, Dutch marital fertility was probably the most important reason for the very rapidly rising population; the regional variations he explains in the main by religion, but also by close attention to the varying supply of marriage partners across the country (one example of a new insight), caused by migratory movements. This is an exhaustive study of the subject, and has already assumed the position of standard work, which it will retain for some considerable time. The summary in English is a help to those who do not read Dutch.

These four books are formidable works of scholarship, with only Bieleman's general history of agriculture weighing in at under 600 pages, or having any pretensions to a non-academic market. They are the building-blocks of more general historiography: these immensely detailed studies underpin and make affordable the generalizations of writers on the national experience and indeed the international one. It is not the least of the achievements of the 'Wageningen School', as it is sometimes referred to, that it has diffused a methodology and particularly a statistical thoroughness through its members which allows their works on very diverse subjects to inter-relate, and makes the conclusions comparable.

MICHAEL WINTLE

MARTINE GOOSSENS, *The Economic Development of Belgian Agriculture 1812–1846, A Regional Perspective*, Leuven UP, Leuven, 1993. 443 pp. Be Fr 2200.

JAN BLOMME, *The Economic Development of Belgian Agriculture: 1880–1980. A Quantitative and Qualitative Analysis*, Leuven UP, Leuven, 1993. 510 pp. Be Fr 2500.

At first glance, these elegant volumes appear to be 'identical twins', with standardized mid-green covers bearing abstract designs. Certainly they belong to the same family of research and began life as doctoral theses written at the Workshop on Quantitative Economic History at the University

of Leuven under the supervision of Professor Herman van der Wee. Both fit into a large research programme based at Leuven and Liège for compiling statistical information on the evolution of the national economy between 1795 and 1953, in order to enable Belgian experience to be quantified and compared with processes of change in other countries of western Europe during the broad and controversial period of the 'industrial revolution'. Both studies pay great attention to questions of method, definition and economic rigour, being well supplied with statistical tables and numerical appendices. Both, of course, deal with farming and provide essential sets of highly detailed information for the national database project. However, differences between the two books are not simply to do with chronology, and hence they will be examined individually.

In a volume of 510 pages, with 65 tables and 76 appendices (mostly in tabular form) which cover 170 pages, Jan Blomme reconstructs the annual national indices of output, input and generated income between the onset of 'agricultural crisis' in 1880 and 1980. To be precise, the years spanning the two world wars are excluded because of statistical deficiencies. Within an overall structure, dealing in turn with context, methodology for producing a reliable database, and analysis with interpretation, Dr Blomme charts the changing fortunes of the many elements of the agricultural economy, stressing their rising productivity but their declining contribution to the Belgian economy as a whole. After an extremely useful résumé of the development of Belgian farming before 1880, he focuses on the retreat of arable production in the face of cereal imports and the rise of specialized animal husbandry and horticulture during the period of industrialization and urbanization between 1880 and 1913. Then he turns to the relatively calm inter-war years, when farm labour was being shed and productivity was rising per worker and unit area, before analysing the application of scientific methods since 1950 which enabled agricultural productivity to increase by an average of 3 per cent per annum. The presentation is entirely at the national scale and provides essential information that is being integrated by the Leuven research team into the global national accounts for 1880–1953.

Dr Martine Goossens tackles a shorter period but has two distinctively positive features to enhance the appeal of her work. First, she is using material that relates to three different political regimes, each with its own set of agricultural policies. Second, she is exploring detailed archival evidence to produce a set of regional indicators as well as statistics for (the territory that was to become) Belgium as a whole. During the French period (1795–1814) there was formal unification of territory, abolition of feudalism (where it still survived in Wallonia), introduction of freedom of cultivation, and a series of policies to encourage food production and to improve agricultural productivity. Napoleonic enquiries, very similar to those undertaken in France, recorded characteristics of the economy in great detail and speculated on potential for future development. They provide Dr Goossens' first datum plane of information. No such investigations were made during the Dutch period (1814–30) when William wished to industrialize the enlarged Kingdom of the Netherlands, enabling cheap grain imports to be brought in from the Baltic lands (as they had long supplied the Northern Provinces) and allowing surplus purchasing power to be directed to acquisition of manufactured goods. Subsequent dissatisfaction among farmers in the southern provinces contributed to the protest movement against the Dutch regime that was to culminate in Belgian independence in 1830. Dr Goossens' second suite of data emerges from annual statistical surveys and the great Belgian census of population, industry and farming that was conducted in 1846, just a few years after the national *Statistique* was assembled in France (1838–40). The economic policy of the new state sought to protect both arable and livestock production, and to construct new roads in the Ardenne and in other parts of Wallonia, thereby linking them with the more advanced economic environments of Flanders which had been well provided with roads for many decades.

The pattern of change during the four decades of study is one of rapid advance in output in the backward south, where levels of production and productivity had been very low. Encouraged by the abolition of feudalism, erosion of the triennial rotation plus reduction of fallow, and the gradual emergence of a national market for foodstuffs, large areas of scrub and heath were put under the plough. A comparable programme of *défrichement* was launched across the lowlands of the Kempenland in the north-east. Central provinces (Antwerp, Brabant, West Flanders) increased their already respectable output levels, but relatively little advance occurred in East Flanders, Liège and Hainault where productivity had been high for centuries. The presentation concludes with some interesting speculations on the relationship between agriculture and Belgian industrial advance, which cannot be tested until manufacturing is subjected to longitudinal quantitative analysis.

The detail of the story is supported by 19 graphs, 68 tables and 9 appendices (embracing 62 pages of statistical tables), and a bibliography of 500 items.

Unfortunately there are only two maps, one being an over-reduced attempt at showing the territorial framework under the French regime and the other depicting very basic 'soil regions'. Dr Goossens is clearly no cartographer and this gives rise to my only real criticism of her book. The opportunity to depict spatial variations in an immediately comprehensible fashion seems to have escaped her. In my opinion, at least, two dozen carefully constructed maps would have conveyed a much clearer message than scores of detailed tables. Indeed, I feel that there is scope for Dr Goossens to write another version of her analysis of this fascinating period of Belgian rural history with an international audience specifically in mind. It would be shorter (no more than 200 pages), be shorn of countless tables and extensive bibliographies, be well endowed with contemporary illustrations and thoughtfully constructed maps, and would emphasize people, places, politics and policies rather than numbers.

These two volumes in the 'Studies in Belgian History' series from Leuven are to be warmly welcomed for the detailed information they convey about a country whose agrarian history is all too often overshadowed by those of its larger neighbours or is associated only with the remarkable progress accomplished in Flanders, and especially around Antwerp, from the Middle Ages onwards. Their appearance in English is appreciated and opens up a wide range of scholarship that has been confined in Dutch-language publications.

HUGH CLOUT

RICHARD HERR, ed, *Themes in Rural History of the Western World*, Iowa State UP, Ames, Iowa, 1993. xiv + 277 pp. 17 figs; 33 tables. $39.95.

This unusual volume contains essays by five historians, two anthropologists, a geographer, and a classicist. Readers may be certain, therefore, of a varied and wide-ranging offering. They may not have much direct interest in, for example, the management of a Roman estate, a case study of agricultural development in southern Italy, land tenure in eighteenth-century Hesse, nor yet the early establishment of the hacienda in colonial Mexico, but they will find it profitable to follow up the guidelines provided by Richard Herr as a key to the underlying common themes which emerge. Indeed, the book is well worth reading if only for Professor Herr's extremely well-informed, carefully balanced, penetrating, and thoughtful analysis.

This introduction offers first a wide-ranging survey of past and present themes in rural history, providing many insights, not least in its discussion of the French rural historians. He proceeds to the finding of common ground among the various contributors, despite differences in period, country, approach, and topic. He suggests that the relationships between seven *protagonists* (he prefers this term to *factors*) lie at the heart of rural history, regardless of time, place and subject. These are: the owners of land and those who worked it, the state, the market, demographic forces, customs (or culture), and environment.

He goes on to show how one or more of these protagonists feature and interact in the essays which follow. Thus, in Dennis Kehoe's study the relations between owners and tenants in Roman times are central to the discussion and show strong similarities to those in later periods elsewhere in Europe. Anthony Galt's examination of parts of southern Italy again turns on the landowner and the part played by contemporary culture in shaping attitudes and policies. Thomas Fox's investigation of eighteenth-century Hesse, by contrast, places emphasis on the key part played by the state in the transition from manorial tenure to direct ownership.

With Ronald Janke's account of Indian reservations in the USA the scene moves to the New World. He considers the mistakes made by the state in attempting to make independent yeoman farmers of Indians whose culture was quite alien to this objective. Kathleen Abbas examines the problems faced by settlers who in the Spanish colonies lacked the domestic animals common in Europe, and in particular the length of time required to establish herds of cattle and horses. Robert Claxton turns to the history of climate, and considers the connections between the experience of drought in Spanish America and political and social unrest. John Resch offers in microcosm a study of the adaptation of European settlers in the early history of Peterborough, New Hampshire, the importance there of the growth of population, and the subsequent changes in the community's cultural and political values. Finally, John Schwaller studies the influence of the market, and that of the backing of the colonial government in the establishment of haciendas in the neighbourhood of Mexico City.

Both European and American scholars will gain insights from these studies, even when the topics seem too remote or specialized; and Richard Herr is to be congratulated on bringing the collection together and clarifying the relationships which give logic to the whole.

G E MINGAY

FREDERICK V CARSTENSEN, MORTON ROTHSTEIN and JOSEPH A SWANSON, eds, *Outstanding in His Field: Perspectives on American Agriculture in Honor of Wayne D Rasmussen*, Iowa State UP, Ames, Iowa, 1993. xvii + 158 pp. $34.95.

Unlike our own more recent Department of Agriculture, that of the USA has long concerned

itself with agricultural history. For the lengthy period between 1940 and 1986, when he retired, Wayne D Rasmussen was the Department of Agriculture's historian and chief of its Agricultural History Branch. In addition, he has been president and founder of the Association for Living Historical Farms and Agricultural Museums, and president of the (USA) Agricultural History Society. Among the many tributes paid on his retirement the *New York Times* was moved to describe him as 'keeper of the agricultural keys'.

Quite apart from the responsibilities of his official post, Wayne Rasmussen has made a major contribution to writing on agricultural history. The select bibliography which concludes this volume extends to more than a hundred items, and includes papers on Latin America, the USA Department of Agriculture, government legislation and programmes, technology, and a variety of other topics. One article in particular will be well known to British readers: 'The Civil War: a catalyst of agricultural revolution', which first appeared as long ago as 1965.

This volume, produced in honour of this remarkably prolific and influential historian, falls into two main sections. The first deals with the past and future directions of American agricultural history, and includes contributions from James H Shideler (for long editor of *Agricultural History*), Gavin Wright, and Hal S Barron, together with, in the American style, considered comments by Robert E Gallman and Allan and Margaret Bogue. Four thoughtful essays on agrarian democracy in the Middle West, the dispossession of southern farmers, the persistence of family farming despite the rise of modern farming methods, and the impact of technological change on the rural community round off the book. With their varied themes and broad over-views, they are stimulating and highly suitable pieces for a *Festschrift*.

It is impossible in a brief review to do justice to the wealth of ideas and insights gathered together in what is nevertheless quite a short book. And certainly the distinguished contributors show no complacency over the state of their subject. Jim Shideler, for example, reflects that much of the agricultural history written in the past 'is an embarrassment ... We all know a good many opaque works that have *earned* contempt ...' On the other hand, as Allan Bogue argues, experience has shown that the available historical resources are richer than ever imagined, while opportunity awaits those prepared to investigate such issues as productivity change, institutions, and markets and communities, especially if quantitative methods are employed. But he, too, sounds a depressing note: 'Whether history students are literate today is a subject of some argument. There can be no question but that few of them are functionally numerate, and we need more of that kind working in the field of agricultural history'.

This volume is more than a fine tribute to a major American scholar. It should be read by British historians, more particularly younger ones, who may well find here invaluable ideas capable of translation to the British scene.

G E MINGAY

DONALD H AKENSON, ed, *Canadian Papers in Rural History IX*, Langdale Press, Gananoake, Ontario, 1994. 418 pp. nps.

This ninth volume of *Canadian Papers* brings together contributions concerning a wide variety of countries and sources, having pieces on Ireland, India and South Africa, as well as, of course, on Canada. Indeed, the first piece, one of monograph length (stretching to almost 170 pages) is a very detailed, intensively researched and interestingly illustrated study of the Irish Palatines. These were Germans and others who came from the Continent to settle in Ireland, mainly in Limerick, early in the eighteenth century. They constituted islands of Protestantism in a sea of Irish Catholics, and such was their isolation that they were still speaking German at the time of Arthur Young's visit to Ireland in 1776, and continued to do so for some decades after. However, because of the hostility of the native Irish, economic depression, and other factors, they emigrated to Canada in the 1820s and 1840s, settling in various parts of Ontario. In Canada, while first describing themselves as 'Irish' they eventually forsook their European origins and began to call themselves 'Canadians'.

There follow two studies of Mennonite communities. The first, by Royden Loewen, compares the Mennonites of Waterloo county, Ontario with those of Hanover, Manitoba during the 1890s. He shows that the objectives of maintaining a self-sufficient, family-oriented farm household set in a closely-knit rural community prevailed over the influence of differing regional conditions, particularly as Waterloo county became more industrialized, with consequences for market and social relations. As a result the Waterloo Mennonites had greater difficulty in finding land in order to continue the agricultural nature of the community, so that different strategies were needed to secure the same ends in the two widely separated communities.

The second Mennonite study, by Harvey Neufeldt, examines the community established at Yarrow in the Fraser Valley of British Columbia. Here a scheme for draining former floodlands provided, from 1928, a favourable farming environment for Mennonites coming from the harsh cli-

mate of the prairies. The migrants set about building a new community on the unified village pattern they had known in their homeland (there is a brief section on Mennonite colonies in Russia), and for a period they succeeded. But a change in their economic situation and a variety of external influences, together with the movement away of young people led to a breakdown in the old traditions. By 1960, the author concludes, 'it was difficult to speak of Yarrow as a political, economic and religious brotherhood or community'.

The next study takes us to the eastern edge of Canada, to Nova Scotia. A R MacNeil examines geographical and economic mobility in Annapolis township in the hundred years after 1760. He finds a remarkable turnover of population even before the out-migrations of the late nineteenth and early twentieth centuries, as new settlers continued to appear (although most of the good land was already occupied) giving rise to continued flexibility in social structure.

Ronald Rudin's illuminating discussion focuses on two studies made some fifty years ago by American scholars of rural Quebec and Ireland. He considers how the first was soon made obsolete by the rapidly changing society of Quebec, while the second remained influential with Ireland's much slower pace of urbanization. This is followed by Lorne F Hammond's study of labour in the lumber camps on the Lièvre river, a tributary of the Ottawa river. The logging season corresponded roughly with the winter inactivity on the farms so that, by logging, farmers could supplement their incomes and gather funds for next season's farming. The round of work in the logging shanties of the later 1870s and 1880s is revealed in some detail, and the author raises the question of to what degree farming was complementary to the forest economy, in opposition to the usual reverse hypothesis.

Stefanie Cepuch deals with the employment of German prisoners of war on Canadian farms in the Second World War. This began in 1943 and formed a valuable means of relieving the wartime labour shortage, the prisoners receiving the same food rations and medical care as their guards. The swindling of farmers is the theme of Kerry Badgley's study of late nineteenth-century Ontario. Too gullible some farmers may have been, but it was their haste to make a quick dollar and the ingenious nature of the frauds imposed on them that were mainly responsible for their losses, William L Marr finds in an examination of fertility variations that ratios were higher in frontier settlements than in older areas, the differences being due to variations in the age of the wife, the birthplace of the head of the household, farm size, and proportion of cultivated to owned acres.

Kenneth Kelly looks at the cropping changes occurring in two districts of north Bengal in the nineteenth century. The growing influence of the Calcutta market resulted in increased division between rich and poor, and between landlord and under-capitalized, indebted and poverty-stricken tenants. Lastly, Tim Clynick explores racial and class relations in the Vaal river diamond camps near Kimberley, Cape Province, in the years before the First World War. The control of applications for a licence to dig was the means by which white predominance in the industry was maintained, while also serving to limit operations by poor whites.

So, a very varied fare is offered in this substantial volume, in terms of subject and location as well as depth of treatment. Some readers of the *Review* may find the sociological bias of a number of the topics little to their taste, and the jargon is sometimes bemusing, but there is nevertheless much of interest in all the papers. As ever, Donald H Akenson has made a first-class job of the editing.

G E MINGAY

TERRY PEACH, *Interpreting Ricardo*, CUP, 1993. xiv + 318 pp. £35.

Interpretation of the work of David Ricardo is today a matter of controversy: currently there are at least three distinct and partisan versions (neo-classical, Marxist, and Sraffian), to which we could add Terry Peach's as a fourth. Disagreement prevails, of course, over the work of Malthus, or of Smith; but in discussion of the work of these writers the tone of controversy, disputatiousness and sheer ill-humour is lacking. It is hardly an exaggeration to suggest that little can be said about Ricardo that will not draw vehement criticism from one direction or another. Terry Peach belongs firmly in this tradition, having over the years conducted a tenacious feud in a variety of leading journals against Samuel Hollander's neo-classical appropriation of the work of Ricardo. This book is the culmination of his efforts, presenting at length his commentary upon Ricardo and upon those put forward by his adversaries.

It must be said at once that Peach's contribution to the genre is exceptionally detailed and well-argued. Although considerably shorter than Hollander's *Economics of David Ricardo* (1979), Peach presents a close reading, month by month, of Ricardo's career as a theoretical economist, from his first work on the Bullion Report in 1809 to his final attempts at clarification of his labour theory of value in 1823. This essentially chronological frame is important, first, to establish the progressive reformulation of Ricardo's ideas in the face of criticism, and second, to establish the sometimes

chaotic and contradictory course that this process took. Peach is able to demonstrate the tenaciousness with which Ricardo held to flawed ideas in the face of criticism from Malthus – here the discussion of revisions to the second and third editions of *Principles* is especially telling. The apparent theoretical lucidity of Ricardo's primary ideas has attracted as well as repelled; Peach demonstrates convincingly for the first time that this lucidity is not a little to do with Ricardo's own intellectual and literary style, combined with the models which have imposed the intellectual orderliness for which he has been either praised or damned. He likewise clearly reveals the manner in which this image of Ricardo as a lucid and coherent theorist is quite at odds with the sometimes disordered course of his thought. As Peach demonstrates, it is in fact this contradictory feature of some of his thinking that provides the material for those diverging interpretations which draw upon different elements of his work for support. Quite properly, the argument is put forward that we should seek to make sense of Ricardo's own thought, however flawed, not tidy it up for him.

Peach's primary target, exposed in the initial survey that he makes of existing Ricardo commentary, is the Corn Model interpretation of Ricardian economics constructed by the editor of Ricardo's collected works, Piero Sraffa. This is to be found in the editorial introduction to vol IV which contains Ricardo's *Essay on Profits*, composed in 1815 in response, it is usually assumed, to the contemporary parliamentary debate on the revision of the Corn Laws. Since the *Essay* appears to derive conclusions concerning the general rate of profit from an analysis of distribution, and imply a theoretically-grounded defence of free trade, this *Essay* has come to symbolize the link between abstract theory and parliamentary practice later realized in 1819 when Ricardo became MP for Portarlington and took part in parliamentary debates on agricultural distress. Peach shows that this is altogether too neat. The *Essay* was in fact written in response to Malthus's own *Observations on the Effects of the Corn Laws* (1814) and formed part of an ongoing debate with Malthus concerning the rate of profit, prices, wages and rents. Central to Peach's exposition of Ricardo is the correspondence with Malthus; he shows for the first time that Malthus was Ricardo's sharpest critic, continually finding the gaps in Ricardo's reasoning and forcing him to revision or, at times, to simple reassertion. Ricardo's intellectual allies, Mill and McCulloch, were, by comparison, of little help and lacked the insight and rigour of Malthus.

This is then as much a revision of Malthus as it is of Ricardo; for no previous commentator has devoted such effort to understanding the nature of the points disputed in the Ricardo-Malthus correspondence. The result is, paradoxically, to invert the usual understanding of the two theorists: Ricardo the deductive and logical theoretician, and Malthus the prevaricating, indecisive and inductively-inclined teacher. This is something of a bonus in what will certainly become the standard assessment of Ricardo's economics for the future.

KEITH TRIBE

THEODORE PANAYOTOU, *Green Markets: The Economics of Sustainable Development*, ICS Press, San Francisco, 1993. xvii + 169 pp. $29.95.

The study of environmental issues has, until recently, concentrated on 'market failure' which requires government intervention. For example, there is no market for fresh air, so to ensure an adequate supply of this requires the regulation of air pollution. Several books have appeared recently, of which this is one, stressing that many environmental problems derive not from market failure, but from 'policy failure' by governments. For example, in seeking to encourage the use of pesticides and fertilizers, to allow increases in agricultural output, many Third World governments have subsidized these goods, leading to massive increases in their uses. The outcome has been environmentally damaging overuse, with more not fewer insect pests, soil degradation, and falling yields.

One should begin by outlining what this book is not. It is not a textbook on the theory of environmental economics. (One can tell this immediately, as it contains not a single equation or figure.) It is certainly not a work of historical analysis. It is also not a policy study concerning a particular region, or environmental issue. Rather, it is a little of each of these three. There is ample economic theory and analysis, but expressed verbally and informally. However, unlike many less formal books, the reasoning is rigorous and reveals the author's good technical understanding of the area. There are also many case studies, including fifteen boxed sections, which give illuminating detail of particular issues in various regions, without disturbing the flow of the argument. Finally, there is discussion of how present policies, particularly in the Third World, could be adjusted to make economic developments more environmentally sustainable.

The book is short, with only 145 pages of substantive text, and is divided into six chapters. However, as an introduction to the problems of environmental degradation, particularly in the poorer regions of the world, it is remarkably good. The author's wide experience as a long-time consultant to many governments shines through each

page, and his considerable presentational skills have clearly been honed on civil servants and ministers.

To whom is this book addressed? It would make first-rate bedtime reading for those in government with environmental responsibilities, and would also be a stimulating supplementary text on many undergraduate courses dealing with environment and development. For specialists it will be a pleasant and lively read; for academics wishing to enter the rapidly growing arena of environmental research, it will offer an easily digestible overview.

What of the faults of this book? In view of its objective, of putting the case against many types of government intervention, there are very few. The most important is its brevity, which means that many issues are only briefly mentioned, while others (such as policy failure in the developed world) are entirely omitted, giving the unfortunate impression that environmental problems are specific to the poor.

On balance, this is an admirable book; it is clearly expressed, by an expert in the area, achieves its expositional aims, and deserves a wide readership.

JOHN PROOPS

SUGATA BOSE, *The New Cambridge History of India, III.2 – Peasant Labour and Colonial Capital: Rural Bengal since 1770*, CUP, 1993. xvi+203 pp. 5 figs; 8 tables. £24.95.

Sugata Bose's account of peasant labour and colonial capital in rural Bengal comprises one volume in the projected thirty-volume *New Cambridge History of India* (NCHI). Almost half of the NCHI has now been published and the high initial standards set by Chris Bayly and (more controversially) Paul Brass have been maintained by most of the later authors. Bose's volume is a welcome addition to the NCHI, but it fails to display the extensive geographical vision that is a characteristic of the best books in the series. Bose's reputation as a keen observer of rural Bengal will be enhanced by the publication of this book. Given that he has already published a revised version of his PhD dissertation on much the same subject matter, however, and given the remit of the NCHI, it is a pity that Bose did not feel able to cast his eyes beyond Bengal. When Bose writes of Bengal he writes of present-day West Bengal in India and Bangladesh; at the very least he might have considered developments in neighbouring Bihar, Orissa, Chota Nagpur and Assam, all of which were for most of this period part of the greater Bengal Presidency.

It is perhaps unfair to criticize an author for what he did not set out to do. In its own terms, *Peasant Labour and Colonial Capital* (PLCC) is a well-organized and challenging text. Bose has little time for the conceptual either/ors which so often command Indian historiography: either economic or demographic factors to explain trends in agricultural productivity; either class or caste to explain the dynamics of peasant politics and dissent. Bose raises his pen against these and other dualisms and against the sundry 'teleological assumptions' which he believes are writ large in most Indian rural histories. Chapter 3, on property and production, begins with a convincing critique of 'capitalist development' models which either herald or demand the demise of (so-called) semi-feudal or peasant modes of production in the Indian countryside. On this, and on other occasions, Bose is able to link his methodological reflections to wider debates on peasant and agricultural histories which often have their origins in western and eastern Europe: the Brenner debate, the work of the *Annales* historians, and the work of western demographic historians are each mentioned here. But if Bose is sceptical of rigid 'high-theories', he is certainly not averse to what might be called a theoretically-guided history and particularly that version which retains some connexions to Marxism. (If Bose writes of Bengal, he is also shaped by Bengali intellectual and political culture.) Bose rightly insists on marrying theoretical and empirical insights in such a way that the apparently timeless landscapes of rural Bengal – and its seemingly constant patterns of poverty, exploitation and inequality – are seen to be the products of shifting social and geographical forces.

This argument is first made with respect to ecology. Bose points out that the distinctive regional agricultures of lower Bengal (rice in the west, jute in the east) cannot be understood except with reference to the shifting courses of the region's major river systems. It is the fine alluvial soils of east Bengal (in particular) which have long made possible an intensive double-cropping of the land and consequent high rates of population growth and high population densities. Bose then builds on his discussions of ecology and demography to show that peasant households have been reproduced in rural Bengal in a continuing state of poverty but by means of changing patterns of surplus extraction on the part of local landlords, moneylenders, merchant capitalists and the state. Bose ably demonstrates how, when the state's demand for land revenues began to dissipate in real terms, poorer raiyats began to feel the squeeze of indebtedness as pre- and post-harvest loans were extended to them at high rates of interest. These loans were often extended to ensure that the peasantry expanded its production of jute (and indigo in the nineteenth century) for the world market; from the 1820s onwards the rhythms of life and labour in rural Bengal were intimately related to the rhythms of the wider world economy. The upshot was that,

whilst most peasants managed to cling on 'to the basic means of production – land – ... [they] became increasingly dependent on merchant and usury capital' (p 183). Although elements amongst the peasantry in Bengal did contest this dependence, by and large they were not successful (though the fight against indigo production offers a counterpoint to this judgement). The blunt fact is that peasant households were efficiently disciplined by the 'dull compulsions' of the market and capital (and not least in the depression years of the 1930s), and most survived only by increasing what Chayanov would call their rate of self-exploitation (especially of women and children). Despite the partial success of the Green Revolution since 1970, Bose argues that not much has changed since independence in 1947. At best, it seems, the pressures of population, and the political reforms of the Left Front governments, have ensured that West Bengal's poverty is a shared poverty; in Bangladesh it is not even effectively shared.

To make these points and more in a book of just 185 substantive pages is testament to Bose's powers as a scholar and a writer. The writing is taut and most of Bose's critical commentaries are pithy and yet amply sustained. It is almost a shame, then, to have to remark that the book (like any book!) could be better still. I have already mentioned the limited geographical scope of PLCC, and this remains for me its major failing. In addition, I thought that Bose's survey of neo-Malthusianism (and modern demography more generally) was less than sure-footed. Notwithstanding a reference to the work of Mead Cain, Bose seems to be less than fully aware of recent debates in the social sciences about the dynamics of household formation in the face of the risky environments of South Asia. The same might also be said, albeit in different terms, about Bose's treatment of post-independence developments in rural Bengal. In this case, it is not so much that Bose is inaccurate in his judgements – quite the contrary – but that he fails to develop an account of such developments in sufficient detail. Although Bose does engage with the work of James Boyce, he has next to nothing to say about Atul Kohli's influential (but surely deeply flawed) account of the state and poverty in post-1970 West Bengal. The important recent work of G H K Lieten (*Continuity and Change in Rural West Bengal*, 1992) was presumably published too late for Bose to engage with it.

To sum up: PLCC is an excellent survey of the state of rural Bengal in the period from 1770 to 1970. Bose provides a sensible and sensitive guide to the existing literature on this topic and he manages, besides, to provide his own, convincing, account of the events and outcomes he describes. If the book is not quite as satisfying as it might be, it is because it refuses to expand its spatial horizons and because more recent developments are not always given the coverage they deserve.

STUART CORBRIDGE

HUGH CHEAPE ed, *Tools and Traditions. Studies in European Ethnology presented to Alexander Fenton*, National Museums of Scotland, 1993. 272 pp. Illus. £35.

This collection of essays has been put together at the instigation of the Trustees of the National Museums of Scotland to celebrate the career and achievements of Sandy Fenton. His work for the museum, spanning almost thirty years from the creation of the Country Life Section in 1959, is in itself worthy of this honour. Subsequent roles as Director of the School of Scottish Studies and Professor of Scottish Ethnology at Edinburgh University have underlined the point. Moreover, the European Ethnological Research Centre which is now an element within the National Museums of Scotland was another Fenton brainchild.

His bibliography for the period 1955 to 1990 occupies the final section of the book and runs to eight pages. It is a formidable list indicating the depth and diversity of research, fieldwork and thought that were packed into those thirty-five years: articles on linguistic subjects mingle with books and papers on detailed aspects of Scottish material culture and country life; thoughts on museum developments and proposals lie alongside discourses on the nature and future course of ethnology. With such a body of work emanating from a single pen, one can only regret once more the failure early on of most British universities to follow the lead of their continental counterparts and take the budding subject of ethnology to their hearts and nurture it into a fully-fledged and established academic discipline. We can only imagine what fruit might have been borne through the accumulated expertise and combined output of generations of staff, students and researchers pursuing their studies throughout these islands. Those few, like Sandy Fenton, who in the British context have beaten the subject into shape provide an inspiration for the way forward while at the same time pointing spectacularly to what we have missed.

In addition to Hugh Cheape's introduction, thirty-six papers have been assembled here from amongst the many in Britain and Europe who, whether as contempories or followers, can acknowledge a debt to Fenton's work. Scotland, over which he has, of course, exerted a particularly powerful influence, is well represented but there are contributions too from the, albeit small, corps of leading British ethnologists. Trefor Owen's essay on Welsh

aspects of the social organization of harvesting, focusing on the 'Cross Wages' system practised in the Vale of Clwyd, is a nugget of research drawn from a lifetime of experience in ethnological study and typical of the best writing in the *Festschrift* genre.

The contributors from mainland Europe are led by Professor Axel Steensberg of Denmark who, in a piece entitled 'Wörter und Sachen/Terms and Realities', puts Fenton up alongside six other 'grand masters' of European ethnology – Kustaa Vilkuna (Finland), Sigurd Erixon (Sweden), Branimir Bratanić (Yugoslavia), Jorge Dias (Portugal), Paul Leser (Germany), and Paul Scheuermeier (Switzerland). It was in 1966 at a conference on ploughing implements in Sweden organized by Erixon that Steensberg and Fenton planned a new journal, *Tools and Tillage*, under the auspices of the International Secretariat for Research on the History of Agricultural Implements. With Grith Lerche of the secretariat, and another contributor to this volume, as the third member of the editorial team, *Tools and Tillage* first appeared in 1968 and has in the intervening years gone far beyond its eurocentric origins to become a worldwide research periodical.

As its title suggests, *Tools and Traditions* explores within the European dimension the diverse specialties, from material culture to traditional culture and language, that can be accommodated beneath the umbrella heading of ethnology. Following the opening essays that are concerned with theory and methodology, there is a grouping of eleven on agricultural topics where object-based studies predominate. They include the typology of Bulgarian ploughs (Marinov), Hungarian hay wagons (Paládi-Kovács) and cattle restraining devices used in Schleswig-Holstein (Lühning). From these, smaller groupings of contributions on food and drink, and architecture provide good examples of regional-based studies. The final section before the bibliography turns to linguistics, the subject that set Fenton off in the beginning and has always been part of his work. Overall, it is inevitably a miscellaneous selection but one that will prove of value and remind us that Britain can be part of mainstream European ethnology.

ROY BRIGDEN

JACK GOODY, *The Culture of Flowers*, CUP, 1993. xvii + 462 pp. 61 plates; 3 tables. £40 (hbk); £13.95 (pbk).

The title is precise. The book examines the culture of flowers, and not their cultivation except in an incidental manner. Like T S Eliot, Jack Goody equates culture with religion, though without Eliot's sleight of hand which transforms culture as an *aspect* of religion into culture as *identical* with religion (*Notes towards the Definition of Culture*, Faber and Faber, 1948, p 28 'incarnation' and p 30 'same thing'). Goody writes as a social anthropologist. Flowers are a part of culture, 'because they have been brought under cultivation by mankind, and ... because they are used throughout social life ... above all in establishing, maintaining and even ending relationships, with the dead as with the living, with divinities as well as humans' (p 2). The author wishes to 'draw attention to the interrelation between ecology, economy and usages of a symbolic as well as a practical kind' (p 25). A key word here is 'symbolic', where flowers are signs and symbols: this is an exercise as much in semiotics as social anthropology.

The introductory chapter is followed by one chronicling the growth in the culture of flowers in Western Asia and the Mediterranean. The gardens of the ancient world were not only a creation of the centres of socio-economic power, but were also the foci of artistic endeavour. Flowers were grown for garlands and perfume; gardens were designed as representations and homages. Chapter 3 reviews the Fall of Rome and the decline of flower culture in Europe. Botanical learning actually decreased, and through their association with pagan worship flowers and Christianity became inimical. The texts of classical botany, largely medicinal in purpose, were merely copied, but Goody is quite wrong to argue that there was a failure to improve the illustrations of such books over 1500 years, and while the advent of printing encouraged new writing it is ironic that many of the associated woodcuts compare poorly with manuscript herbal illustrations. Chapter 4 discusses how the Far and Near East provided major resources in the later culture of flowers in the West. The contents of chapter 5 are summarized in its title, the return of the rose in medieval Western Europe, but not just 'rose as flower' but also 'flowers as icons'. Goody traces the cultural history of flowers in Renaissance Europe 'as a paradigm for the interplay of religious reform, an expanding market and a measure of secularisation over the whole domain of culture' (p 163). A further interplay, that between icons and iconoclasm, is explored in the following chapter. The Tudor period saw a gardening revolution: the plants involved and the contexts into which they were placed are described, though insufficient emphasis is perhaps given to the 'curious' plant – recently-introduced species whose virtues were as yet unknown. The general development of the economy in Europe was accompanied by a growth in the urban market, including the market for flowers and exotic plants, a theme developed in chapter 7. Goody stresses the importance of cut flowers, but underestimates the economic and cultural significance of growing plants in park and garden, the

rise of the nursery, and the development by these nurseries and by horticultural patrons of trade links. Chapters 8 and 9 look at symbolic language using flowers in France and North America, respectively, while chapter 10 returns to the popular culture of flowers in Europe in modern times. The last three substantive chapters paint a series of pictures from the author's own experiences in India and China.

The book is well referenced. Monochrome illustrations occasionally pepper the text with varying effectiveness. Eight pages of colour photographs waste cost and opportunity. Goody achieves his aims in a synthesis that is certainly a *tour de force*, though at times often rather self-indulgent in style. The fresh approach to an old topic is very welcome, but will be of marginal interest to the majority of readers of this journal.

P J JARVIS

DAVID GARY SHAW, *The Creation of a Community. The City of Wells in the Middle Ages*, Clarendon Press, Oxford, 1993. xiv + 334 pp. 2 figs; 6 maps; 11 tables. £40.

This scholarly account of the medieval history of one of our more attractive small cathedral cities is a welcome addition to the relatively small stock of recent urban biographies. Wells was a new town, created within a large rural manor by its owner, the bishop of Bath, in the twelfth century. It flourished, not least because its proprietors added during the thirteenth century a cathedral and palace to the more humdrum institutions of a medieval planned foundation. This means that the history of Wells must concern itself chiefly with the later medieval centuries, and the nature of the archival sources emphasizes this fact. The city was never particularly large, reaching a population peak of rather more than two thousand in the fourteenth century; but in a region characterized by small towns Wells established and maintained a very respectable niche towards the top of the local heirarchy. Its status as a centre of ecclesiastical administration was one source of wealth, but it was also a market centre and, more importantly, the focus of a sturdy textile industry. The book has very little to say about the agrarian economy of the community. These days one always wants to know how a town fits into the thesis of late medieval urban decline. There is clear evidence of shrinking population after about 1380 (Wells bounced back from the initial shocks of plague), and by the 1520s it had lost about a third of its people, with peripheral building sites reverting to garden plots – but on the other hand the survivors seem prosperous and there is an air of vitality about the place which suggests that population shrinkage need not by synonymous with general stagnation.

Wells was controlled by its bishops, who owned the manorial rights and the market and prevented the acquisition of a royal charter conferring self-governing privileges. As the author rightly points out, such communities are under-represented in the literature, perhaps because the absence of a sophisticated governing structure discourages the creation of that extensive municipal archive which must underpin the specialist historian's work. However, one of the most interesting features of Wells is that the citizens did manage to develop an independent system of communal administration while never successfully challenging the rights of the bishops beyond a period of a few months in the mid-fourteenth century. A surprisingly large property estate was acquired whose revenues supported communal activity. The citizens' partial independence was expressed in the Borough Community, a guild which controlled the admittance of burgesses as a vital part of its role and whose records made the writing of this study possible. In the fourteenth century about half the adult males in the city became burgesses, so this was a highly representative system – surely one of the sources of its strength. While the external trappings of episcopal control apparently survived until the reign of Elizabeth, this shadowy rival developed as an increasingly significant complement to it, acquiring by the fifteenth century a formal head in its master and the beginnings of an oligarchic tendency. Dr Shaw analyses this Borough Community in its social and cultural dimensions at some length.

As one would expect from a rewritten PhD thesis, this book works thoroughly and competently through the surviving documentation, adopts an admirably elaborated structure and draws cautiously judicious conclusions. There are few surprises: here is a workmanlike exercise in filling in the gaps in our knowledge, but we shall not need to adjust our general ideas very much to accommodate its findings. It is well aware of the wider historiographical picture and asks all those questions which thesis examiners expect to be addressed. But one gets the feeling that everything that could possibly be said is set down here; this does mean that the measured pace of the writing is eminently digestible, but the press could have usefully insisted on condensing the text, thus saving their readers some time.

ALAN DYER

KENNETH MORGAN, *Bristol and the Atlantic Trade in the Eighteenth Century*, CUP, 1993. xxii + 281 pp. £35.

The eighteenth century was the 'golden age' of Bristol, when the city was at the height of its prosperity, the leading port outside London and

the 'metropolis of the west' dominating the economic life of the west country. This prosperity is still evident in the public buildings and in the merchants' houses on the heights of Clifton and throughout the surrounding countryside. With its favourable geographic position and tradition of Atlantic trading ventures, Bristol became the 'gateway of Empire' and trade with the American colonies and the West Indies developed rapidly. But this growing wealth concealed the relative decline of Bristol which by the end of the century was outstripped as a port by Liverpool and Glasgow, and as a manufacturing centre by the towns of the Midlands and the North.

This important book provides a detailed examination of the success of Bristol merchants in the Atlantic trade and of the reasons why this surge of fortune could not be sustained. In his thorough analysis of the surviving evidence the author has cast his net wide, and has pursued his research among archive collections in Britain, the West Indies, many places in the USA and even in Australia where he has made good use of the papers of a Bristol merchant family which are now deposited at the University of Melbourne. He also cites extensively the work of other scholars, and includes references to a formidable number of published works and unpublished theses from both sides of the Atlantic.

As well as examining the trade of the port, its commercial organization, the characteristics of the merchant community, the industries and complex trading links, the book also provides an admirably detailed analysis of the three principal cargoes – slaves, tobacco and sugar – of which the West-Indian sugar trade was the most important and profitable, 'the greatest success story in Bristol's eighteenth-century Atlantic trade'. These commodities provided the basis of numerous trades and industries within and around the city, from shipbuilding to glass-making, and from sugar, cocoa and tobacco processing to brassware and gunpowder manufacture. The commerce of the port and the fortunes of the merchants engaged in trade across the Atlantic are described with clarity. Much previous work has been done by other scholars, but this over-view and analysis of the whole subject is extremely useful.

Kenneth Morgan also discusses the reasons for Bristol's relative decline as a port. Inevitably, the fact that ships had to travel seven miles up the winding river Avon and through the Avon Gorge was a great disadvantage, especially as ships increased in size, notwithstanding the help of the second largest tidal range in the world. Moreover, the slow progress made by the Society of Merchant Venturers in improving port facilities, the high harbour dues, a largely agricultural hinterland, and the failure of Bristol merchants to diversify or adapt to changing conditions, all played their part in the relative decline of trade. Also important was the alacrity with which Bristol merchants bought estates and established their sons as landed gentry, and we are reminded of John Wesley's verdict that the chief sins of Bristolians were love of money and love of ease.

This well-written book provides a good account of the complex transatlantic trade of this period, and is a valuable addition to the historical studies of Bristol.

J H BETTEY

JOHN LANDERS, *Death and the Metropolis: Studies in the Demographic History of London, 1670–1830*, CUP, 1993. xxiii + 408 pp. 108 figs; 7 maps; 69 tables. £40.

The London Bills of Mortality provide a unique source for the study of mortality and mortality change in the capital, but despite the wealth of publications describing England's historical demography the bills themselves have received scant attention; that is until now. John Landers' *Death and the Metropolis* provides a major statistical analysis of the bills which complements his earlier family reconstitution study. Parts of the book have appeared elsewhere as articles in *Social History of Medicine* and *Population Studies*, but much is new. The first two chapters discuss mortality theory and London's economic and social history; the rest is concerned with confirming the thesis, originally propounded by W H McNeill, that London was subjected to a 'high potential' mortality regime during the 'long eighteenth' century. McNeill predicted that in densely populated metropolitan centres outbreaks of epidemic disease were rare since most diseases had become endemic. Exposure was therefore high, and consequently each section of the population experienced a different mortality regime. Nursing infants inherited immunity from their mothers but as nursing ceased they were subjected to diseases spread by contaminated food. Children initially lacked immunity and endured high mortality although those who survived experienced relatively low mortality as adults. On moving to London many rural migrants suffered high rates of mortality since often they had not already been exposed to the pool of endemic diseases.

By examining the spatial and temporal variability of the bills and by establishing relationships between mortality, prices, temperature, and seasonality, Landers is able to confirm McNeill's thesis. Early-childhood mortality was especially severe but infant mortality was also high (over 300 per 1000 live births during the early eighteenth century), and

Landers is forced to conclude that a significant proportion of mothers must not have breastfed their infants. Typhus and bronchitis were important causes of death for adults but much of London's excess mortality was concentrated amongst infants, children, and migrants. Mortality was far from constant. It increased to reach extremely high levels during the early-eighteenth century; then from the late-eighteenth century it steadily decreased so that by the 1850s mortality in London was lower than in many large industrial cities. A healthier district emerged in the west and 'the decline of mortality was associated particularly with neonatal mortality and mortality among older children, adolescents and young children with fever and smallpox being prominent among causes of death that decline' (p 354). However, Landers is reticent about drawing any conclusions as to exactly what caused such a profound change in London's mortality regime. Instead the evidence is largely left to speak for itself.

Much of the book is concerned with establishing statistical associations between variables, and consequently those without a statistical background will have difficulty following some of the argument. For example, the technique of principal components analysis (which occupies 33 of 108 figures) is introduced without additional explanation as follows:

> The overall configuration of these relationships can conveniently be described by means of a principal components analysis carried out on the matrix of pairwise correlation coefficients. The results in figure 3.13 reveal a first component, accounting for half the total variance, which splits the age-groups into two clusters, children and adults, with the teenage score falling between them but rather closer to the former than the latter (p 114).

By adopting an overtly statistical approach Landers substantiates McNeill's hypothesis although a wider discussion of some of the assumptions inherent in these statistics would have been useful. This is especially the case when some of the associations, such as those between mortality and seasonality, are at best weak and only hold over long periods of time. Likewise, problems concerning the bills' accuracy are dealt with in two pages even though 'some observers dismiss the information they contain as worthless' (p 91). Although the book contains many figures some are not up to the usual high standard of the rest of the books in this series. Here are some examples: fig P.1 has no key (p xx); fig 2.2 an unlabelled moving mean (p 54); fig 8.2 an error on the scale (p 318); fig 8.3 no scale (p 319). More importantly when one is invited to make comparisons between a series of crisis mortality ratios (figs 7.1–7.12) virtually each figure is drawn with a different scale which makes comparison very difficult indeed.

Death and the Metropolis is to be welcomed since it provides a thorough analysis of mortality patterns in London during the 'long eighteenth' century, but by adopting an almost exclusively statistical approach Landers has laid himself open to two serious criticisms: first, the foundations of the whole book rest on the accuracy of the bills, and Landers does not convince the reader that they are sufficiently reliable to warrant statistical manipulation, even though this is probably the case; second, in order for us to understand the reasons why mortality changed a greater effort is needed to relate the statistical associations to the capital's history. Unfortunately, much of London's social and economic history remains uncharted and the demographic history of Europe's largest city is therefore still fertile ground for research as indeed it was in 1662 when John Graunt published his pioneering *Natural and Political Observations made upon the Bills of Mortality*.

CHRIS GALLEY

Shorter Notices

E DAWSON and S R ROYAL, eds, *An Oxfordshire Market Gardener, The Diary of Joseph Turrill of Garsington 1863–67*, Alan Sutton, Stroud, 1993. xv + 174 pp. £14.99.

This is a well-produced book with an attractive dust wrapper, which has been prepared for publication by members of Garsington Local History Group. Maps show Garsington and the surrounding area in 1867 and topographical features named in the diary. The text is interspersed with contemporary photographs of the area, some taken by Turrill himself. The footnotes are well-researched and both the glossary and histories of local families mentioned in the diary add to the enjoyment of the text. A short introduction by Raymond Dawson describes Garsington in Turrill's time.

I must admit to a liking for diaries. This one is full of the personality of its author: a taste for newspaper reports of sensational crime and major political events, delight in the changing seasons,

guilt at staying-out courting until the small hours, an appreciation of choral singing. Turrill also reveals much about rural life. He notes the introduction of new machinery on larger farms and the gangs of men forced to roam southern England to find work. Garsington was a poor village, visited by outbreaks of cholera and smallpox. But community spirit is discernible in the efforts to cope with these outbreaks and in cricket matches, club suppers, church attendance, and Whitsun festivities.

Turrill lived with his mother in the Red Lion pub and lived by renting gardens and small pieces of land for market gardening. The diary covers the early years of his career. It is not possible to judge what profit he made but we can admire his industry, frequently digging by moonlight late into the night and working in all weathers. He records the work carried out in his gardens and the struggle against pests, diseases and weather. Others started market gardening at Garsington, supplying Oxford markets, and the industry survived on some favourable soils into the present century. The publication of this diary is a welcome addition to the firsthand accounts of life in the countryside a century ago.

MALCOLM THICK

NEIL PHILIP, *Victorian Village Life*, Albion Press, Idbury, Oxon, 1993. 160 pp. Illus. £9.99.

Despite its title, this short book is primarily concerned with the lives of labouring people in Victorian village society rather than with any broader examination of the rural scene. There are chapters on the doings of the children, on the employment opportunities and living standards of men and women, and on their sexual encounters and marriage. Other topics covered include leisure and entertainment, religious observance, charity, rural crime, political radicalism, and the effects of outward migration and increased mechanization on the fabric of rural society at the end of the nineteenth century. The inclusion of some of Myles Birket Foster's wood-engravings as illustrations at the beginning of each chapter adds a touch of nostalgic charm.

Unfortunately, the book has several significant weaknesses. First, it neglects the important regional differences which affected both farming and the character of village life, including the activities and earnings of the working population. Second, it has little to say on the great changes which were taking place in agriculture during the final quarter of the nineteenth century as a result of food imports and the consequent depressed state of certain farming sectors. Although migration from the villages is touched upon, it is nowhere analysed. Nor is there any discussion of the effects of the inward movement of 'townees' into rural areas surrounding the major conurbations.

However, the book's most serious weakness is its copious use of lengthy extracts, mainly from the works of such popular writers on rural affairs as Richard Jefferies, Flora Thompson, George Sturt, Augustus Jessopp, and Edwin Grey. The extracts are not subjected to any critical examination and their inclusion in such profusion makes the book fragmented in its approach. The difficulty of this method is compounded by the failure to include any footnotes, which would permit the interested reader to follow up the quotations on his or her own account.

Overall, this is a disappointing book. It would have benefited from a stronger editorial hand, pruning the number of direct quotations and encouraging a more analytical approach. While quotations from contemporary writings can evoke a vivid sense of the past when used with discrimination, in such large numbers they serve to disrupt the flow of the text and fragment its arguments.

PAMELA HORN

ROBIN HILL and PAUL STAMPER, *The Working Countryside 1862–1945*, Swan Hill Press, Shrewsbury, 1993. 159 pp. £14.95.

This is an well-produced book and one which transcends the limitations of the particular format on which it is based. Consisting of a collection of 144 photographs of scenes of agricultural life in Shropshire between the years 1862 and 1945, it is more than a 'farming as it was' volume. This is largely due to the expertise of the two authors and their awareness of the wider agricultural world. The pictures, themselves, have been arranged into thematic chapters and illustrate many of the key changes which took place in the period under review. Clearly, the book will have the greatest appeal in the county of Shropshire but it can be used with profit by agricultural historians elsewhere in the country. Because of the diversity of Shropshire's agricultural regions, many others will find the photographs a valuable source of information.

What distinguishes this book from most others of this genre is the quality of the accompanying text. Each section begins with a general introduction, putting the individual themes into context and highlighting the most important developments. These points are then followed up in the detailed captions, providing the reader with a brief but informative account of events. The text succeeds on a personal level too. Because the authors visited the homes of the people who provided so many of the photographs, their comments have a remarkable freshness and immediacy.

Although the book deals with the traditional concerns of the countryside – agricultural practices, the production and marketing of foodstuffs, farm equipment and the workforce – the underlying theme is one of change and development. Some issues, like the growth of mechanization, readily lend themselves to a visual approach and the transition from muscle to steam (and petrol) power is well illustrated. Among other important issues covered are woodland and estate management, the decline of rural industries, the role of women and children in agriculture and the impact of two world wars.

This is a very interesting and readable book, full of evocative photographs. The overall quality of the pictures is good, as is the range of subject matter they cover. The best ones are those in which the camera unobtrusively depicts people getting on with their work, though inevitably there are the posed shots and the portraits of individuals dressed in their Sunday best. Shropshire south of the Severn is better served than the district to the north, but at least the major farming specializations (and some minor ones) are all represented. It is evident that the collection has been put together with care and the authors are to be congratulated for unearthing such an important source of information and for making the material available to the public.

PETER EDWARDS

G STURT, *The Wheelwright's Shop*, CUP, 1993. xxi + 236 pp. £6.95.

This reprint of George Sturt's original edition of 1923 appears in the 'Canto' series of paperback reprints of classical texts produced by CUP, and includes a brief seven page foreword by E P Thompson. In this he reminds us that George Sturt (1863–1927) was first 'discovered' not by historians but by students of English literature, among them F R Leavis who, in the 1930s, commended Sturt for his 'lucid and economical English'. The present reviewer first 'discovered' George Sturt as 'George Bourne', a pen name which he took from the small village near Farnham where he spent most of his life. My discovery was made during the late 1960s, in dusty original editions shelved under 'B' in the basement vaults of Reading University Library. I too was delighted by the finely observed detail in Sturt's text, and the easy grace of his style. From this latter in particular, I deduced that 'Bourne' must have been the younger scion of a gentry family, almost certainly Oxbridge educated, for those first editions contained no forewords, nor background information of any kind on their author. I began my reading with *The Bettesworth Book* (1901), *Change in the Village* (1912), *Lucy Bettesworth* (1913), and *Memoirs of a Surrey Labourer* (1907). Gradually, the whole canon emerged and it was only with *A Small Boy in the Sixties* (1910) and *The Wheelwright's Shop*, the last book that Sturt wrote before his death, that I discovered to my great surprise that Sturt had in fact received only enough education to qualify him as an elementary school teacher, a profession which he took up at the age of fifteen, in 1878. In 1884, however, the illness and later death of his father obliged him to leave teaching to take over the running of the family's wheelwright shop, where he spent the rest of his working life. Sturt's great ambition, however, was to become a writer, an ambition which he achieved in his later years, despite a prolonged battle against recurrent illness. His trenchant observation and warm sympathy for the poorer countryfolk of his day set his texts among the classic sources for social historians of the late nineteenth and early twentieth centuries: they rank with Flora Thompson's *Lark Rise to Candleford* and Lilias Rider Haggard's edition of *I Walked by Night: by the King of the Norfolk Poachers*. The appearance of Sturt's books in affordable paperback editions is very much to be welcomed.

J R WORDIE

F G EMMISON, ed, *Essex Wills: Vol 8. The Commissary Court, 1558–1569*, Essex Record Office Publications 124, 1993. xxv + 274 pp. £14.95.

B W QUINTRELL, ed, *The Maynard Lieutenancy Book, 1608–1639*, 2 vols, Essex Record Office Publications 123, 1993. xcviii + 450 pp. £18.

Although neither are of immediate use to agricultural historians, there is room to notice these two new Essex Record Office publications. The first prints in abstract over 1000 Essex wills. This volume, and the series more so, is a massive labour but one which will save much work in the records. Searchers out of curiosities will enjoy the rhyming will of Roger Coker, rector of Hazeleigh (1563), written in eight quatrains each with a Latin refrain. The second offers the text of a letter book composed in 1639 and mainly containing letters dealing with the militia and trained bands in Essex. This has been exploited by a number of authors from the Rev Andrew Clark onwards but now we can see what it contains in total. There are a few letters on taxation, purveyance and famine relief. Most of the material dates from the 1620s and 1630s. If there is a complaint to be made about both volumes, it is the omissions. In the *Essex Wills* preambles are usually excised without comment unless they are unusual, in which case the editor has marked them '[Religious preamble]'. In the *Maynard Lieutenancy Book* (which runs to 548 pages of introduction, text and indices), Quintrell, quite reasonably, only

abstracts letters printed in the *Acts of the Privy Council*: but this does mean that to find, say, the letter of Charles I of 7 July 1626 demanding a free gift, one has to follow the cross references to a well stocked library. But these are minor matters in two welcome additions to the Essex texts in print.

R W HOYLE

MARIE HARTLEY and JOAN INGILBY, *A Farm Account Book from Wensleydale*, North Yorkshire County Record Office, Northallerton, 1992. 31 pp. Illus. £3.00.

This booklet is a useful addition to a valuable series of publications by North Yorkshire County Record Office. The detailed study of a farm account book and its context is undertaken by two leading dales' historians. The account book which covers the periods 1846–55 and 1889–1900, belonged to a minor gentry family who tenanted three farms in Wensleydale. The accounts of the mixed farm of West Bolton in the lower dale were recorded by Henry King from 1846 to 1855 with a valuation on leaving in 1878. In 1889 two remote upper-dale sheep farms were rented by Henry's son William and the accounts, which treat the farms as one holding, are recorded until 1900 when the tenancy was given up. The study provides tantalizing insights into farming practices and local industry in the periods of high farming and late nineteenth-century depression. The West Bolton accounts reveal a period of dynamism and expansion followed by departure in 1878 when 'prospects was diminishing'. Conversely, the records for 1880–1900 demonstrate the losing battle of farming in a marginal area against a backdrop of falling prices. It is a story of rent rebates, loans being raised and, particularly from 1895, a significant decline in returns.

The authors have included a wealth of background information which, with useful maps and photographs and the detailed analysis of accounts, makes interesting reading and provides an excellent basis for further study of the topic.

CHRISTINE HALLAS

EURWYN WILIAM, *Welsh Long-Houses. Four Centuries of Farming at Cilewent*, University of Wales Press, National Museum of Wales, Cardiff, 1992. iv +44 pp. £3.95.

This publication, written by the curator of the Welsh Folk Museum, is intended to serve both as a guide to Cilewent — a farmhouse transported from its original location in the old county of Radnorshire and re-erected at St Fagans — and to explain to visitors something of the origin and development of the long-house in the context of the former rural economy of Wales. The term long-house is often the cause of misunderstanding; it is derived from the Welsh *tŷ hir* (lit long house), used locally to describe those farmhouses of south-west Wales in which man and beast were accommodated, at opposite ends, under the same longitudinal roof, with entrance by a common lateral doorway. It was adopted as a scientific term, in its English translation, by the late Dr Iorwerth Peate. Its definition has been the subject of some debate and, although the term is now widely used, it must be emphasized that many long-houses are in fact quite short; some fieldworkers, particularly in Ireland, prefer the term house-and-byre.

The author, in the space of forty-four pages, succeeds in providing a remarkable amount of information. The greater part of the text is devoted to the origins of the long-house (including its distribution in England, but without reference to the European mainland), early long-houses in Wales, regional farmhouse types, the long-house tradition in south-west Wales, and the evolution of the Welsh farmhouse; it is only at p 27 that we finally read of Cilewent itself, built about 1470. Drawing on documentary, oral and iconographical evidence — as well as on detailed studies of the structure of the building — the history of the farmhouse is brought vividly to life. Comparison is made with other buildings and parallels are cited where appropriate. The story continues with details of the eighteenth-century rebuilding of Cilewent and life within the house; an account of nineteenth-century husbandry completes the account.

Less satisfactory is the attempt to date the cruck trusses by dendrochronology. Whilst the difficulties of dating by this technique in Wales, where so little work has so far been done, must not be underestimated, it simply will not do to offer — in a publication such as this — two alternative dates, not even when an explanation is provided. Dendrochronological science is absolute dating and until a unique date emerges for a timber, based on a satisfactory minimum number of rings (eighty is the internationally-accepted norm) and with a sufficiently strong correlation coefficient, provisional results are best confined to the laboratory. Where the statistical process fails to produce a unique date the layman can only be misled and the specialist tempted to speculate.

This is an attractively-produced publication, printed to a high standard and about 50 per cent illustrated; many well-chosen historic photographs, drawn from the Museum's collections, are of considerable ethnological interest. *Welsh Long-Houses* is a publication of considerable value to the specialist as well as an attractive and intelligent guide for the museum visitor.

GWYN MEIRION-JONES

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Correspondence about conferences and meetings of the Society, and about more general matters, should be sent to Dr R Peren, Secretary BAHS, Department of History, The University, Aberdeen AB9 2UB.

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The Agricultural History Review

EDITORS: A D M PHILLIPS AND D G HEY
DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF KEELE, KEELE
STAFFORDSHIRE ST5 5BG.

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Contributions and letters on any aspects of the history of agriculture and rural society and economy should be sent to the Editors. Articles are normally expected to be about 8000 words in length, but manuscripts of up to 15,000 words are also welcomed. Proposals for Supplements, of length intermediate between the long article and the book, normally not exceeding 30,000 words, should also be sent to the Editors. Intending contributors are advised first to obtain a copy of the *Review's* 'Notes for Authors and Reviewers' from the Editors. The Society does not accept responsibility for the opinions expressed by contributors, or for the accidental loss of manuscripts, or for their return if they are not accompanied by a stamped addressed envelope.

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