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PART I

Written Leases and their Impact on Scottish Agriculture in the Seventeenth Century

IAN D. WHYTE

Land Measurement in England, 1150-1350

ANDREW JONES

The Changing Distribution of Breeds of Sheep in Scotland, 1795-1965

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Annual List and Brief Review of Articles on Agrarian History, 1977

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Written Leases and their Impact on Scottish Agriculture in the Seventeenth Century*

By IAN D. WHYTE

FROM the sixteenth-century historian John Major¹ onwards, most people who have written about Scottish rural society before the classic period of improvement in the later eighteenth century have stressed the detrimental effects of insecurity of tenure on the condition of the tenantry and standards of husbandry. This topic is particularly important in a Scottish context because of the polarization of rural society into two contrasting classes: the landlords, and the tenants. Scotland was notably deficient in small owner-occupiers compared with England.² There was no direct equivalent of the English copyholder, and the only group of tenants who had managed to acquire any rights of hereditary occupation, the kindly tenants, were becoming increasingly rare during the sixteenth century.³ The ways in which the ordinary tenants held their land thus assume considerable importance for the study of pre-improvement agriculture in Scotland.

In the past, two assumptions have been made regarding tenure in the pre-improvement period. The first is that husbandmen were almost all tenants-at-will, holding their land without written leases, and liable to eviction with little warning at the whim of the proprietor.⁴ The second is that where written leases were granted, they were invariably for very short periods: some writers have postu-

* The author wishes to express his thanks to his wife for reading the draft of this paper, and for many valuable suggestions.

¹ John Major, 'Description of Scotland, 1521' in P. H. Brown, *Scotland Before 1700*, Edinburgh, 1893, p. 45.

² T. C. Smout, *A History of the Scottish People, 1560-1830*, 1969, p. 128.

³ I. F. Grant, *The Social and Economic Development of Scotland Before 1603*, Edinburgh, 1930, p. 248; Smout, *op. cit.*, pp. 137-8.

⁴ E.g. W. Ferguson, *Scotland, 1689 to the Present*, Edinburgh, 1968, p. 73; Smout, *op. cit.*, p. 137; R. Mitchison, *A History of Scotland*, 1970, p. 296.

lated a system of annual leasing,⁵ while others have extended the normal duration of a written lease to three or five years.⁶

It has been claimed that the principal effect of this situation was to prevent agricultural improvement on the part of the tenant by denying him a long-term stake in the land which he farmed. Thus, Thomas Morer, visiting Scotland in 1689, attributed the lack of enclosures to the supposed prevalence of short leases.⁷ Late seventeenth-century Scottish writers, such as Lord Belhaven and Andrew Fletcher of Saltoun, favoured the granting of longer leases as an incentive to improvement.⁸ Under such conditions of insecurity it has been assumed that a tenant would have had no incentive to invest labour or capital in his holding. Conversely, the introduction of written leases, particularly for substantial periods of time, has been viewed as a major step in agricultural improvement, and has been regarded as an innovation of early eighteenth-century improvers such as Cockburn of Ormiston and Grant of Monymusk.⁹

Most writers have considered that the introduction of written leases into Scottish agriculture in significant numbers was an eighteenth-

⁵ E.g. H. Fairhurst, 'The Study of Deserted Medieval Settlements in Scotland', in M. W. Beresford and J. G. Hunt (eds.) *Deserted Medieval Villages*, 1971, p. 232.

⁶ E.g. Grant, *op. cit.*, p. 254; J. A. Symon, *Scottish Farming, Past and Present*, 1959, p. 67; H. Hamilton, *An Economic History of Scotland in the Eighteenth Century*, Edinburgh, 1963, p. 51; J. E. Handley, *Scottish Farming in the Eighteenth Century*, Edinburgh, 1953, p. 85; Smout, *op. cit.*, p. 137.

⁷ T. Morer, 'A Short Account of Scotland, 1689', in P. H. Brown, *Early Travellers in Scotland*, Edinburgh, 1891, p. 267.

⁸ John Hamilton, Lord Belhaven, *The Country-Man's Rudiments or an Advice to the Farmers of East Lothian How to Labour and Improve their Ground*, Edinburgh, 1699, p. 36; Andrew Fletcher of Saltoun, *Two Discourses Concerning the Affairs of Scotland*, 1698, Second Discourse, p. 38.

⁹ E.g. Symon, *op. cit.*, p. 107; Smout, *op. cit.*, p. 274.

century phenomenon.¹⁰ Only Donaldson has suggested that their development might extend back into the seventeenth century.¹¹ However, as with other aspects of pre-improvement agriculture, modern writers may have been unduly influenced by the unfavourable and sometimes uninformed comments of the Improvers themselves on the practices of their predecessors.¹² The seventeenth century has often been dismissed as a period of stagnation or even decline in Scottish agriculture.¹³ However, the study of contemporary estate papers and other sources, rather than later, potentially biased material, has demonstrated that significant developments did occur in Scottish agriculture at this time.¹⁴ This in itself suggests the need for a re-examination of the question of tenure. If agriculture was changing to the extent which the evidence seems to indicate, then it is possible that such changes were accompanied, and perhaps partly initiated, by improvements in the tenurial position of the husbandmen. However, in addition, when considering the traditional theories of pre-improvement tenure in Scotland it is necessary to account for the bundles of written leases, or tacks as they were known, which bulk large in many collections of estate papers in the Scottish Record Office and in the National Register of Archives handlists. These leases, together with other seventeenth-century estate papers, have so far received little attention.

This paper assesses the question of tenure in seventeenth-century Scotland based on a survey of contemporary manuscript evidence, particularly written leases, contained in collections of private estate papers in the Scottish

Record Office and National Library of Scotland. Some 3,000 leases from over 100 estates have been used. Other leases are concealed by the generalized catalogue entries of some S.R.O. handlists, and it is probable that considerably greater numbers survive in private hands. Nevertheless, it is hoped that the sample is sufficiently large to allow some firm conclusions to be drawn.

OCCURRENCE AND CHARACTER OF THE LEASES

An examination of surviving leases supports Donaldson's theory that their introduction in significant numbers first occurred in the early seventeenth rather than the early eighteenth century. Scattered leases of holdings on lay estates have survived from the sixteenth century, and there are even a few from the fifteenth century. These are rare, however. Records such as the rental book of the abbey of Coupar Angus show that written leases were granted on some Scottish monastic estates in the early sixteenth century.¹⁵ These estates were noted for their progressive approach to agriculture and estate management, and appear to have been ahead of lay estates in this practice,¹⁶ but such organization did not survive the Reformation. Written leases seem to have been the exception on lay estates in the second half of the sixteenth century. It seems reasonable therefore to conclude that while written leases were known before the end of the sixteenth century, there was no continuing tradition of granting them in significant numbers. However, the dates of surviving tacks suggest that a substantial increase in the numbers granted occurred in the early seventeenth century.

The missing data problem arises here. What proportion of the tacks that once existed is represented by those now extant? How typical are they either of individual estates or in aggregate? To what extent does the graph in Fig. 1 show the differential destruction of tacks, with fewer

¹⁰ E.g. R. A. Dodgshon, 'Agricultural Change in Roxburghshire and Berwickshire, 1700-1815', unpub. Ph.D. thesis, Univ. of Liverpool, 1969, p. 43.

¹¹ G. Donaldson, *Scotland, James V-James VII*, Edinburgh, 1965, p. 239.

¹² This tendency has been considered in I. D. Whyte, 'Agrarian Change in Lowland Scotland in the Seventeenth Century', unpub. Ph.D. thesis, Univ. of Edinburgh, 1974, pp. 4-13.

¹³ E.g. Handley, *op. cit.*, p. 11.

¹⁴ T. C. Smout and A. Fenton, 'Scottish Agriculture Before the Improvers—An Exploration', *Ag. Hist. Rev.* XIII, 1965, pp. 73-93; Whyte, thesis.

¹⁵ C. Rogers (ed.), *The Rental Book of the Cistercian Abbey of Coupar Angus*, Grampian Club, 1880.

¹⁶ T. B. Franklin, *A History of Scottish Farming*, 1952, chs 3-4.

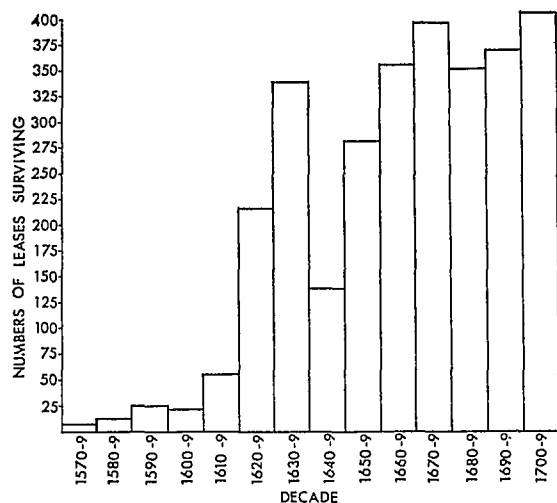


FIG. 1. Numbers of leases surviving per decade.

surviving from the earlier part of the seventeenth century, or how far does it reflect a real increase in the number of written leases which were being granted? In order to answer these questions it is necessary to reach some conclusions regarding the survival rate of tacks. If it is to be maintained that written tacks were granted in significant numbers in Scotland during the seventeenth century, then it must be shown that the surviving ones form only a small proportion of those which once existed. Otherwise it might be justifiable to conclude that nearly all tenants for whom written leases have not survived held their land by verbal agreements.

These problems can be partially solved. Although leases were formal legal documents, they did not have the same survival value as charters or sasines. Such documents might have had to be consulted in disputes a century or more after they were written; as a result they were carefully preserved. Tacks, on the other hand, were of little value once they had expired. Their survival was thus more a matter of chance. It is significant that they tended to survive in direct proportion to other categories of estate documents, such as accounts and rentals, whose usefulness was equally short-lived.

The suggestion that large numbers of tacks have been destroyed is confirmed by evidence from certain estates. It was the practice in some

rentals, as will be considered below, to record whether the tenants held their land by written or verbal agreements. In all cases where such rentals occur, very few, and in several cases none, of the corresponding written leases have survived. This indicates that a high proportion of the tacks which once existed have failed to survive, and that the prevalence of the granting of written leases cannot be judged solely from the numbers which are extant today.

The problem of whether the surviving leases are representative cannot be entirely resolved. The sample which has been studied is drawn from a large number of collections covering Lowland Scotland from the Solway to the Moray Firth, and a broad band of the southern Highlands from Argyll to Aberdeenshire. It is hoped that with such a wide spectrum of data any bias from individual estates will be minimized and that the sample will be a representative one.

It has been generally accepted by writers on Scottish agriculture from the seventeenth century onwards that the development of written leases encouraged other agricultural improvements. Therefore, if it can be shown that written leases were becoming increasingly common before the eighteenth century, one would expect this to have had a beneficial effect on other aspects of agriculture. However, it is unlikely that the relationship between tenure and improvement was a simple cause-and-effect one. As will be discussed in more detail below, it is also probable that the incentive to improve, generated by economic forces such as a growing demand for agricultural produce from either internal or external markets, would lead to a modification of tenurial arrangements as part of a general attempt to increase the efficiency of agriculture. One would expect therefore a fairly close correlation between the numbers of written leases being granted and other indications of prosperity or depression in the agrarian economy.

Fig. 1 shows the number of surviving leases in the sample for each decade from the late sixteenth to the early eighteenth century. It can be seen that tacks are infrequent for the late

sixteenth and early seventeenth centuries but that they increase significantly in the 1620's and 1630's. This period has been identified as one of modest prosperity in Scottish agriculture, as indicated by trends such as an expansion of the coastal grain trade, and an improvement in crop yields, as well as a considerable extension of the area under cultivation, in the Lothians and possibly elsewhere by means of liming.¹⁷

The drop in the number of tacks in the 1640's and the only partial recovery in the 1650's was undoubtedly related to the general instability of society during the Civil War period. At this time it was probably not in the interest of either landlord or tenant to be bound by a written tack for a specific period. On the Castlemilk estates in north Lanarkshire, for instance, the tenants were harassed by Montrose in 1645. In 1648 they were recorded as having fled when troops were quartered on them, and in 1650 they are mentioned as packing up in readiness to remove from the path of Cromwell's army.¹⁸ Clearly such conditions did not favour the stability of rural society which would have encouraged the granting of written leases. It is perhaps significant that the increase in the number of tacks in the 1650's occurred mostly

in the latter half of the decade, when Scotland, under the Protectorate, was peaceful if not exactly prosperous.

There was a considerable rise in the number of leases in the 1660's, following the Restoration, and then a fairly steady level was maintained into the early eighteenth century. The decades between the Restoration and the onset of the famines of the late 1690's were ones of relative prosperity for Scottish agriculture. This is shown by many trends, including the growth of the droving trade with England, the rise in grain exports, the proliferation of periodic market centres throughout the country, and the spread of planting and enclosure round many country houses.¹⁹ The relationship between the granting of written leases and periods of prosperity and improvement in Scottish agriculture at this time is thus confirmed.

Fig. 1 indicates an overall growth in the number of written leases which were being granted during the course of the seventeenth century. Detailed information is also available to show the relative importance of written and verbal agreements on some estates. Occasional rentals specify the character of tenure, thus

¹⁷ Whyte, thesis, pp. 394-98; Smout and Fenton, *op. cit.* pp. 82-4.

¹⁸ National Library of Scotland: MS. 8218.

¹⁹ Whyte, thesis, pp. 171-85; T. C. Smout, *Scottish Trade on the Eve of the Union 1660-1707*, Edinburgh, 1963, p. 213; Hamilton, *op. cit.*, pp. 88-90.

TABLE I
PERCENTAGES OF TENANTS WITH WRITTEN AND VERBAL TACKS OF CERTAIN ESTATES

<i>Estate</i>	<i>County</i>	<i>Date</i>	<i>%written tacks</i>	<i>%verbal tacks</i>	<i>%not known</i>	<i>Total no. of tenants</i>
Cassillis*	Wigtown	1622	23	70	7	72
Crawford†	Lanark	1638	80	20	0	58
Cassillis*	Wigtown	1655	51	38	11	55
Breadalbane (L. Tay)‡	Perth	1674	39	61	0	119
Penicuik§	Midlothian	1680	80	20	0	35
Hailes	E. Lothian	1682	55	45	0	30
Strathbran¶	Perth	1701	33	67	0	89
Balquholly**	Aberdeen	1705	70	17	13	25
Fyvie††	Aberdeen	1705	62	36	2	43

Sources: * S.R.O.: GD 25 9 47 bundle 7.
§ S.R.O.: GD 18 708.
** S.R.O.: GD 248 216.

† S.R.O.: GD 237 201.
|| S.R.O.: GD 16 1607.
†† S.R.O.: GD 28 2273.

‡ S.R.O.: GD 112 9 25.
¶ S.R.O.: GD 24 673.

allowing the proportion of tenants possessing written leases on certain estates in particular years to be calculated. Unfortunately, such rentals are rare, and only nine of the known ones give a sufficiently large sample of tenants for the exercise to be valid. They are shown in Table 1.

On six of the nine estates over 50 per cent of the tenants had written tacks, and on four of these six the majority was a substantial one. There is a tendency for the post-1660 rentals to have higher percentages of tenants with written leases than the earlier ones. In this context the two Cassillis rentals are interesting as they show an increase in the proportion of tenants with written tacks between the 1620's and the 1650's. The two exceptions to the pattern are the Breadalbane and Strathbran rentals. These estates, in the Perthshire Highlands, were relatively remote. Such areas were slow to innovate in agriculture. They perpetuated traditional farm structures, with many multiple-tenant farms leased to four, six, or even more tenants. This contrasted markedly with many Lowland estates where large, consolidated single-tenant farms were becoming common.²⁰

Any conclusions based on such a limited number of rentals must be tentative, but it seems likely that by the end of the seventeenth century tenants with written tacks outnumbered those with verbal agreements on many estates in Lowland Scotland. This conclusion is reinforced by supplementary evidence from two estates. At Penicuik 71 per cent of the holdings set by verbal agreement in 1680 were held with written tacks by the end of the century.²¹ At Fyvie a similar process was operating. There, 62 per cent of the tenants who held by verbal agreements in 1705 were recorded as being obliged to accept written tacks in the near future.²²

Nevertheless, while developments of this

kind may have been widespread, they were not universal. Some estates had not adopted written leases at all by the end of the seventeenth century. Notable among these were the Buccleuch estates, covering a large area of the Borders. On these estates tenants held their land from year to year, the holdings being reallocated at an annual meeting or "land setting."²³ This system survived into the nineteenth century: although continuity of tenure was assured in practice for most tenants by the paternalistic attitude of the proprietors, it was described as a considerable barrier to improvement.²⁴

What advantage was conferred by the possession of a written tack as opposed to a verbal agreement? The main benefit was probably that the respective positions and mutual obligations of proprietor and tenant were clearly stated in a form which was legally binding. The tenant possessed complete security of tenure for the duration of the lease provided that he complied with its provisions. Verbal tacks appear in some cases to have been granted for a specific number of years rather than continuing from year to year.²⁵ Presumably such agreements were made in the presence of witnesses who could be called in the event of a dispute. However, even a verbal lease of this kind was clearly unsatisfactory compared with a written one, and could not have conferred the same degree of security. A tenant farming on a year-to-year basis would have been in an even worse position.

A tenant possessing a written lease could be removed before its expiry only by a complex and protracted legal procedure.²⁶ He also had his rent fixed for the duration of the tack. He might, however, have to engage in shrewd bargaining at the outset to obtain the lease at a suitable rent. In many cases proprietors attempted to charge a higher rent for a holding in return for granting a written, and especially

²⁰ Smout and Fenton, *loc. cit.*, pp. 76, 79; W. M. Mackenzie, *The Scottish Burghs*, Edinburgh, 1949, p. 92; S. G. E. Lyth and J. Butt, *An Economic History of Scotland 1100-1939*, 1975, p. 25; Whyte, thesis, pp. 293-304.

²¹ Scottish Record Office (S.R.O.): Clerk of Penicuik muniments, GD 18 708.

²² S.R.O.: Hay of Yester muniments, GD 28 2273.

²³ S.R.O.: Buccleuch muniments, GD 224 953/3.

²⁴ J. Russel, *Reminiscences of Yarrow*, 2nd edn, Edinburgh, 1894, p. 66.

²⁵ S.R.O.: Hay of Yester muniments, GD 28 2273; Penicuik muniments, GD 18 708.

²⁶ E.g. S.R.O.: Biel muniments, GD6 1472 772.

a long, lease. Early seventeenth-century tenants on the Cassillis estates paid a substantial lump sum, or grassum, often equal to three years' rent, for the security of a nineteen-year tack.²⁷ The practice of "rouping" holdings, or granting them to the tenant who offered the highest rent, was common, and may frequently have led to tenants overestimating their ability to make a holding pay.²⁸

One of the most significant features of surviving leases is the penalty clause which bound both proprietor and tenant to pay a fine if either should fail to meet the provisions of the tack.²⁹ This emphasized the mutual obligations inherent in the contract. The written lease had assumed a standard format by the early seventeenth century which continued, with little modification, into the eighteenth and nineteenth centuries. Some seventeenth-century tacks, particularly of smallholdings, were slipshod documents, hastily written on scraps of paper, but most of them were carefully drafted and laid out. The detailed content of leases varied, particularly the clauses relating to farm management. Certain types of clause were characteristic of particular estates. Tacks on arable estates often emphasized the need for maintaining soil fertility through the specification of certain crop rotations and the provision of fertilizers, such as lime.³⁰ Tacks of Highland farms often contained clauses relating to the use of shielings.³¹ The main change which can be detected during the course of the century is for tacks to become longer and more explicit, leaving fewer loopholes for accidental or deliberate misunderstanding on the part of the tenant. This was especially true of clauses relating to the labour services which were required from the tenant.³²

²⁷ S.R.O.: Ailsa muniments, GD 25 9 73—the series of tacks for 1634.

²⁸ Fletcher of Saltoun, *op. cit.*, p. 35.

²⁹ E.g. S.R.O.: Airlie muniments, GD 16 28 254; Leven muniments, GD 26 5 42.

³⁰ E.g. S.R.O.: Haddo muniments, GD 33 58/61; Gordon muniments, GD 44 20 18.

³¹ E.g. S.R.O.: Murthly Castle muniments, GD 121, 121.

³² E.g. S.R.O.: Broughton muniments, GD 10 990; Boyd muniments, GD 8 927.

LENGTH OF LEASE

Previous writers have stated, almost without exception, that before the mid-eighteenth century leases, whether written or verbal, were issued only for short periods of half a dozen years or less. Only Third believed that at the start of the eighteenth century a few fortunate tenants possessed nineteen-year tacks.³³

When the lengths of surviving seventeenth-century tacks are examined, it appears that leases for more than five or six years were far from uncommon. For the purpose of this study leases have been divided into three classes: short leases of nine years' duration or less, medium-length tacks of ten to eighteen years, and long tacks of nineteen years or more. The nineteen-year lease became standard in many parts of Scotland during the Agricultural Revolution, and was considered to be the most desirable length of tack by the Improvers, representing a fair compromise between the interests of landlord and tenant.³⁴ The distinction between short- and medium-length leases seems most meaningful at about ten years. Some leases indeed were granted for nine or eleven years; the distinction between these is slight. However, most short leases tended to be for seven years or less, and many medium-length tacks were for fifteen years, producing a significant division.

Medium-length and long tacks together make up 36 per cent of the total surviving leases. When the percentage of longer leases is calculated for each decade some interesting variations emerge (Fig. 2). The very high percentage for the first decade of the century is probably a chance figure caused by the small size of the sample, but the increasingly high percentages from the 1610's to the 1630's require another explanation. This trend is probably due to the fact that some estates, when they first began to issue written leases in substantial

³³ B. M. W. Third, 'The Changing Rural Geography of the Scottish Lowlands, 1700-1820', unpub. Ph.D. thesis, Univ. of Edinburgh, 1953, 2.11.

³⁴ Sir John Sinclair, *General Report on the Agricultural State and Political Circumstances of Scotland*, 1814, I, p. 191.

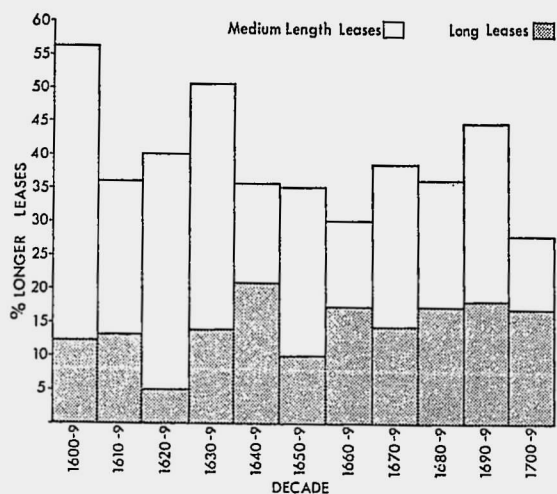


FIG. 2. Percentage of medium-length and long leases surviving per decade.

numbers early in the seventeenth century, experimented with granting longer leases. Many estates subsequently reverted to shorter written leases. Presumably the experiment was not everywhere successful: the economy was probably not yet ripe for such innovations. From the 1660's, however, there was a steady increase in the proportion of longer tacks until the 1690's. The low figures for the first decade of the eighteenth century may reflect the disorganization of rural society following the harvest failures and consequent famines of the later 1690's.

These long and medium-length leases were not being granted uniformly throughout Scotland however. It is clear that it was mainly the Lowland estates, and especially those on the east coast where arable farming was particularly important, that were issuing them. Estates with a predominantly pastoral economy, especially those in the Upland areas of Galloway, the Borders, and the eastern Highlands, were less concerned to grant longer tacks, or even to grant written leases at all. This dichotomy between Lowland and Upland, between arable and pastoral areas, which was hinted at by Fletcher of Saltoun in 1698, continued into the eighteenth century and was still apparent when the Board of Agriculture county reports were written.³⁵ Eighteenth- and nineteenth-

³⁵ Fletcher of Saltoun, *op. cit.*, p. 36; G. Robertson, *General View of the Agriculture of Midlothian*, 1793, p. 18.

century writers believed that it was caused by both positive and negative influences.³⁶ On an arable farm, the tenant benefited from a longer lease by obtaining two or more cycles of whatever crop rotation he practised, and by getting the results of any improvements, such as liming, that he might have undertaken. On a pastoral farm, however, there was not this need, and the proprietor could more successfully pursue his interests by having shorter leases which allowed more frequent adjustments of rent to take account of inflation. During the seventeenth century, though, there is evidence to suggest that other influences were at work in producing this pattern.

The pace of agrarian change in seventeenth-century Scotland appears to have been faster in arable areas. For a predominantly arable estate to increase its marketable surplus of grain, as many east-coast estates were doing, particularly after 1660,³⁷ the co-operation of the tenantry was essential. One influence behind the increased granting of longer leases in arable areas may have been attempts by proprietors to attract and retain the more capable tenants by offering them more favourable conditions of tenure. By the beginning of the eighteenth century this relationship had given rise to the first nineteen-year improving leases in which the tenant was required to enclose land, plant trees, and carry out other work, under the security of a long lease.³⁸

A different system obtained in pastoral areas. The rise of the droving trade, the pastoral counterpart of changes in arable production, was concentrated in the hands of the landowners.³⁹ All the innovations which were associated with it, such as selective breeding and large-scale enclosure, were introduced solely by the proprietors.⁴⁰ As a result, tenants in these areas had little direct stake in droving. They merely raised their animals in the traditional way and sold them at low prices to their landlords, who fattened and cross-bred them,

³⁶ Sinclair, *op. cit.*, III, p. 379.

³⁷ Smout (1969), *op. cit.*, p. 213; Whyte, thesis, pp. 394-8.

³⁸ *The Caldwell Papers*, Maitland Club, 1853, p. 300.

³⁹ Whyte, thesis, pp. 322-30. ⁴⁰ *Ibid.*

undertook the capital cost of enclosing pasture for them, and finally arranged for their sale to English buyers. Consequently, the landowners retained most of the profits. There was less need for proprietors in such areas to encourage their tenants by granting longer written leases.

The trend towards increasing commercialization in arable farming in the later seventeenth century required the selection by proprietors or estate officers of the most competent and progressive tenants. The desire of landowners to increase the grain output of their estates may well have transferred some of the initiative and bargaining power with respect to leases to the tenants. On the Belhelvie estate, north of Aberdeen, which in the later seventeenth century was selling considerable quantities of grain to merchants in Aberdeen and Edinburgh, the estate accounts indicate the lengths to which the factor was prepared to go to secure able tenants, even to the extent of poaching them from neighbouring landowners.⁴¹ It is also clear that some of these tenants successfully held out for lower rents.⁴² Two advertisements for vacant holdings on the Kinross estates in 1703 indicate that the farms concerned were to be set in "long or short tack or yearly tenendrie" depending upon the agreement reached between the tenant and the chamberlain.⁴³ On the Craighends estate in Renfrewshire the proprietor actually recorded his efforts to induce particular tenants to take holdings on his estate by offering them nineteen-year leases. If they took a longer lease they were given some remission of rent for the first two or three years.⁴⁴ The position of proprietor and tenant in relation to tenure had thus changed markedly from the early part of the century when many tenants had paid large grassums to obtain a long tack.

As arable farming became more commercially oriented, more complex rotations were adopted, and new fertilizers were tried. By the end of the century the traditional infield rota-

tion of bere (barley)/oats/oats had given place in parts of the Lothians, Fife, Berwickshire, and north Lanarkshire to four- and five-course rotations, including wheat, legumes, and even fallow courses, frequently associated with liming.⁴⁵ There would have been a greater incentive to grant longer leases on farms where these practices were being introduced to allow the tenants to make the most of the new systems of husbandry. On several estates the granting of longer leases clearly coincides with other forms of improvement. On the Clerk of Penicuik estates, for instance, the longer tacks for the barony of Lasswade were granted for farms where the houses were of superior quality, built with stone and lime, with two, and in one instance three, stories.⁴⁶ Whether the improved building construction was a cause or an effect of increased security of tenure is hard to say. This estate, which had good access to Edinburgh, the largest single market for grain in Scotland, had been the first in the district to commute grain rents into money payments, and had also adopted the new arable practices.⁴⁷

On pastoral estates such as those of the Buccleuch family, a more paternalistic approach towards the appointment of tenants continued to operate. The criteria by which tenants were selected were not necessarily related to their skill or suitability. The chamberlain's accounts of the annual land-settings at Hawick show that when a tenant died, it was the usual practice to offer the holding to his son, regardless of his abilities. Only if no successor to the deceased tenant was prepared to take on the holding were outsiders considered.⁴⁸ The survival of this approach appears to have been linked to the slower pace and different character of agrarian change in these areas, as discussed above. There was less incentive on the part of the proprietor to grant longer leases, or for the tenants to demand them.

⁴¹ S.R.O.: Dalhousie muniments, GD 45 20 12, 14-17.

⁴² *Ibid.*, 12.

⁴³ S.R.O.: Kinross muniments, GD 29 211.

⁴⁴ J. Dodds (ed.), *Diary and General Expenditure Book of William Cunningham of Craighends*, Scot. Hist. Soc., 1886, p. 13.

⁴⁵ Whyte, thesis, ch. 3.

⁴⁶ I. D. Whyte, 'Rural Housing in Lowland Scotland in the Seventeenth Century: The Evidence of Estate Papers', *Scot. Stud.*, 19, 1975, pp. 66-7.

⁴⁷ S.R.O.: Clerk of Penicuik muniments, GD 18 704; Whyte, *loc. cit.*, p. 67.

⁴⁸ S.R.O.: Buccleuch muniments, GD 224 907, 953/3.

CONCLUSION

The foregoing survey has demonstrated that the development of the written lease in Scottish agriculture was essentially a seventeenth-century phenomenon, and that leases became especially common in the period after 1660. Written leases were not an eighteenth-century innovation, although they undoubtedly became more widespread in this period. At a general level the granting of written leases during the seventeenth century appears to have been related to the degree of prosperity of the agricultural economy. By the end of the century longer leases had also become fairly common. There was, however, a distinct contrast in the occurrence of longer leases between arable and pastoral areas. This contrast may be attributed in part to differences in the organiza-

tion of commercially oriented agriculture between the two types of area.

In such a wide-ranging review it has not been possible to present all the available evidence relating to individual estates. The generalizations which have been made are a composite picture derived from a wide range of sources. It must be emphasized that the policy of individual estates relating to tenure may well have varied greatly from the general model which has been proposed here. At a smaller scale, the pattern dissolves into a series of decisions based on the circumstances of particular estates and the character of their proprietors. A good deal of further work is necessary to clarify the picture by examining the various relationships which have been suggested through specific case studies.

Land Measurement in England, 1150-1350¹

By ANDREW JONES

I

WHILE land measurement in England in the Middle Ages has attracted much attention, it has not altogether escaped some of the more fantastic speculations which have dogged the study of historical metrology.² In recent years, work on the demesne economy and on village plans and planning has begun to establish a sound basis for a review of land measurement, but the subject still remains one surrounded by difficulties.³ Most of these arise quite simply from the great amount of information scattered throughout monastic cartularies, manorial archives, and other sources, much of which appears both confused and confusing. The problem of handling this evidence is exacerbated by the different purposes for which our main sources—account rolls, surveys and extents, and charters—were used, and the different ways in which they described land. Manorial account rolls, for example, sometimes describe the sort of acre, conventional or otherwise, over which corn was sown and reaped on the demesne.⁴ In addition, they can also yield incidental detail about land measurement under conditions of practical farming. Surveys and extents, on the other hand, usually describe the demesne as a whole, sometimes very briefly,

¹ I should like to thank Miss J. A. Sheppard, Miss B. F. Harvey, and Dr P. D. A. Harvey for reading and commenting on an earlier draft of this article, without in any way committing them to the views expressed.

² P. Grierson, *English Linear Measures*, Reading, 1972, pp. 5-6.

³ J. A. Sheppard, 'Metrological Analysis of Regular Village Plans in Yorkshire', *Ag. Hist. Rev.*, xxii, 2, 1974, pp. 118-35.

⁴ In this article I refer to four different acres: the conventional acre, the fiscal acre, the standard acre, and the local acre. The differences are discussed in the text. Here it is enough to say that I use "conventional acre" to translate the Latin phrases *acre ut iacent*, *acre campestris* (acres "as they lie," "field acres"). While it may be objected that the "conventional" acre is what others have called the "customary" acre, it has been pointed out to me that later sources use the term "customary acre" to describe acres measured with a customary rod. Throughout this article, "conventional" equals "unmeasured."

sometimes in considerable detail, and they often emphasize the close link between land measurement and taxation.⁵ This can be seen most clearly in some of the earliest surviving surveys, and particularly so in Domesday Book, in which demesnes are described in terms of hides and virgates.⁶ While some surveys and extents describe the sort of acre used on the demesne, others do not, leaving us the problem of disentangling fiscal acres from conventional acres and measured acres. Having described the demesne, surveys and extents then proceed to list the holdings of the manorial tenants, again in terms which often produce the same difficulties as their treatment of the demesne. The evidence of charters is usually very different from that of account rolls and surveys and extents. Much of it relates to small parcels of land and to measurement by the perch, in particular the measurement of the width of a parcel of land. However, it is only when an attempt is made to piece together this varied material that the individual problems can be seen in a clearer light. This article seeks to establish a point of departure from which to approach the sources, and in doing so will first discuss the ways in which land was described and measured without the use of the perch, and then examine the ways in which land was measured with a perch, and the implications this had for demesne agriculture.

II

The conventional description of land which was not measured by the perch was that it lay in "field acres" (*acre campestris*) or in "acres as they lie" (*acre ut iacent*). These phrases meant that, for purposes of land measurement and land use,

⁵ A link noted by F. W. Maitland, *Domesday Book and Beyond*, Cambridge, 1897, p. 429.

⁶ In this context it is illuminating to note that ancient demesne manors had never been taxed to the geld or *distributed into hides*: R. S. Hoyt, *The Royal Demesne in English Constitutional History*, Ithaca, New York, 1950, p. 19, my italics.

one or more selions, the natural units of ploughing, were held to constitute an acre, regardless of how much they really measured. In fact in the Midlands and the south it seems that the conventional acre was often between two-thirds and three-quarters the size of the standard acre, and that there was a rough-and-ready identification of an average selion with a half-acre.⁷ For example, at Wootton (Hants.), a manor of St Swithun's Priory, Winchester, throughout the fourteenth century, seed was sown on the demesne on selions "as they lie," and for purposes of sowing, two selions were estimated as an acre.⁸ Selions, of course, came in many shapes and sizes, often with considerable variation within the one village, so small selions would have been reckoned as a quarter-acre (or rood) or even less, and large selions as three-quarters of an acre or more.⁹ On some manors we can see the difficulties which the reeve encountered in deciding which selions to reckon as half-acres, and so on.¹⁰ Where selions differed in

size, so the situation arose where one conventional acre was larger than another. At Stoke Talmage (Oxon.), for example, c. 1195 the monks of Thame exchanged one parcel of $2\frac{1}{2}$ acres for another of $3\frac{1}{2}$ acres, though it was noted that the second parcel was actually no larger than the first.¹¹ Contemporaries were clearly aware of the difficulties and anomalies which arose where selions varied in size. In 1253 a note was added to the account roll of Adderbury (Oxon.) that the manorial ploughmen, who were allowed to use the lord's plough at certain times to till their own land, were not to plough a larger acre on their holdings than they would on the demesne; and at Wistow (Hunts.), the custumal of 1252 noted that a virgater ploughed "sometimes one selion and sometimes one selion and a half, because they vary in size." In these circumstances, land measurement, both on peasant tenements and on demesne arable, probably meant little more than a careful counting of selions, and little search is needed to uncover estate surveys and terriers which suggest this.¹²

Alongside the conventional assessment of the size of parcels of land there existed the fiscal assessment of size. Fiscal assessment is immedi-

(Bucks.), in 1346, the reeve did not try to distinguish between the acres, for dredge was sown at 4 bu. an acre "*secundum maius et minus*": Bodl. Lib. MS. Christ Church, c. 26, Oseney roll 35.

¹¹ "*Et he tres acre et dimidia non excedunt quantitatem predictarum duarum acrarum et dimidie in mensura*": H. E. Salter, ed., *The Thame Cartulary*, 1, Oxford. Rec. Soc., 25, 1947, pp. 100-1.

¹² "*Non arabunt in terris suis maiorem acram quem acram in terra domini*": P. Hyde, 'The Winchester Manors at Witney and Adderbury. . . in the Later Middle Ages', unpublished B.Litt. thesis, Oxford Univ., 1954, p. 110; "*arabit aliquando unam sellionem aliquando unam sellionem et dimidiam vel plus secundum majoritatem et minoritatem tere*": W. H. Hart and P. A. Lyons, eds., *Cartularium monasterii de Rameseia*, Rolls ser., 1884-93, 1, p. 357. Examples of demesne surveys which list lands or selions with their acreage can be found in W. D. Peckham, ed., *Thirteen Custumals of the Sussex Manors of the Bishop of Chichester*, Sussex Rec. Soc., xxxi, 1925, pp. 127-8; and B. C. Redwood and A. E. Wilson, eds., *Custumals of the Sussex Manors of the Archbishop of Canterbury*, Sussex Rec. Soc., lvii, 1958, pp. 11, 16. In the Lincolnshire fenland a comparison of the Fleet Acre Book of 1747 with the terrier of 1315 suggests that the surveyors at both dates reached their figures by counting the rigs: H. E. Hallam, *Settlement and Society*, Cambridge, 1965, pp. 143-4.

⁷ "Field acre" is a term usually applied to customary (i.e. villein-) land, and, as such, is found throughout the Midlands: R. H. Hilton, *A Medieval Society*, 1966, p. 20; *Cat. Anc. Deeds*, vi, p. 329, no. C 6331; G. H. Fowler, ed., *The Cartulary of the Cistercian Abbey of Old Warden*, Beds. Hist. Rec. Soc., xii, 1930, pp. 252, 257; H. E. Salter, ed., *The Cartulary of the Abbey of Eynsham*, 11, Oxford Hist. Soc., LI, 1908, pp. 2-9, 61-3. *Acre ut iacent* is a term usually applied to demesne arable, and first studied in detail at Crawley (Hants.) by N. S. B. and E. C. Gras, *The Economic and Social History of an English Village*, Harvard Economic Studies, xxxiv, Cambridge, Mass., 1930, p. 30. I have found relatively little evidence identifying one acre with one selion. From among many possible examples, there are some clear correlations between half-acres and selions in R. H. Hilton, ed., *The Stoneleigh Leger Book*, Dugdale Soc., xxiv, 1960, pp. 118-21, 153-4.

⁸ G. W. Kitchin, ed., *The manor of Manydown, Hampshire*, Hants. Rec. Soc., 1895, pp. 150-3, 150; Winchester Cathedral Library, Box 55, rolls 13, 14 ("*unde ij estimantur facere j acram*"). I have to thank Canon F. Busby, hon. archivist, for permission to use these rolls.

⁹ H. M. Clark, 'Selion Size and Soil Type', *Ag. Hist. Rev.*, viii, 2, 1960, pp. 91-8. At Harlestone (Northants.), c. 1300, Henry de Bray exchanged *una butta* for *una parva dimidia acra*, presumably a small selion: D. Willis, ed., *The Estate Book of Henry de Bray*, Camden, 3rd ser., xxvii, 1916, p. 100.

¹⁰ P. D. A. Harvey, *A Medieval Oxfordshire Village*, Oxford, 1965, pp. 41-2. An identical situation arose at Gussage (Dorest) in 1311; here, the reeve accounted for the extra oats sown "on account of the largeness of the acres this year" ("*pro magnitudine acrarum hoc anno*"): Bodl. Lib. MS. Queen's College, box 38, roll 13. At Stone

ately noticeable in the "artificial uniformity" of many manorial surveys. Vinogradoff thought "we must come to the conclusion that the hide, the virgate, the bovate, in short every holding mentioned in the surveys, appears primarily as an artificial, administrative, and fiscal unit which corresponds only in a very rough way to the agrarian reality."¹³ Any neat progression in the size of tenements or a predominance of any one size of holding suggests a fiscal assessment. Thus, the "air of regularity about the acreages under dispute" in the Norfolk feet-of-fines at the turn of the twelfth century points to a fiscal rather than a conventional acreage.¹⁴ Evidence of the discrepancy between fiscal and conventional or actual acreage is best sought in individual charters rather than in manorial surveys, for the former sometimes make it clear that a fiscal assessment was used. Thus sources refer to land "to be defended" as 11 acres regardless of its real acreage, a grant of 11 acres "defended as 5 acres," and a parcel of 30 acres reckoned as 36 acres "by the plough."¹⁵ This is not to say that surveys and extents never illustrate the discrepancy, but rather that their evidence is usually harder to interpret. At Barton (Beds.), for example, the mid-thirteenth-century custumal noted that one croft was held "for 8 acres" whereas it contained "by measurement" 18 acres 1½ roods.¹⁶ At first sight this looks like a change from conventional to standard measurement, but it was probably a note of the fiscal acreage together with the conventional acreage. The extent of Kirby Moorside (Yorks.), however, leaves no doubt about the assessment of land in villeinage. Here in 1281-2 ninety tenants (*nativi*) were not holding "by the bovate but by more or less"

land.¹⁷ An interesting reassessment of what appears to be the fiscal acreage of the demesne at Runwell (Essex) occurred in 1222. The ancient inquisition claimed the hide contained 80 acres, whereas the jury now affirmed it contained 120 acres "because the land was searched and measured."¹⁸ From about 1250 onwards it becomes increasingly common to find surveys and extents recording "measured" acres on the demesne or on other parcels of land, in much the same way as the croft at Barton mentioned above. For example, the surveys of the manors of Glastonbury Abbey carried out between 1252 and 1261 recorded "measured" demesnes, yet the measurements were given in acres and half-acres, and not, as might be expected, in acres, roods, and perches. Similarly, on the estate of the Bishop of Hereford, c. 1250-70, the demesne at Ross was "measured," but only in round acres.¹⁹ Other examples, where demesne surveys listed the size of the parcels in a general way or gave the acreage in round figures, may represent conventional acres in contrast to fiscal acres. Where the terms *mensurantur*, *mensuracio*, *per mensuracionem*, or *acre mensurate* occur in such surveys, this hypothesis would give them a precise significance they otherwise seem to lack. The very form of a survey which listed the size of all the parcels would perhaps make it self-evident that it was based on an assessment other than a fiscal one, but terms such as *mensurantur* would help emphasize the contrast, especially where the survey in question replaced an earlier one.²⁰

¹⁷ "Per bouatam terre non tenentes set secundum majus et minus": W. Brown, ed., *Yorkshire Inquisitions* . . . , 1, Yorks. Arch. Soc., records ser., XII, 1892, p. 249.

¹⁸ W. H. Hale, ed., *The Domesday of St Pauls of the year MCCXXII*, Camden Soc., LXIX, 1857, p. 69.

¹⁹ C. J. Elton, ed., *Rentalia et custumaria. . . monasterii beate Marie Glastonie*, Somerset Rec. Soc., v, 1891, pp. 180-1, 195, 219, 235; A. T. Bannister, ed., 'A Transcript of the Red Book of the Bishopric of Hereford', *Camden Misc.*, xv, 1929, p. 10.

²⁰ Occasionally a demesne survey will list almost all the constituent parcels in acres, half-acres, and roods, with just one or two parcels measured in acres, roods, and perches. Perhaps the greater accuracy was used only where there was an obvious discrepancy between the groupings of selions and the "concept" of an acre. An example is the survey of Sutton (Middx.) in 1299 in which all the parcels save two in the *mensuracio* were listed in round acreages or

¹³ P. Vinogradoff, *Villainage in England*, Oxford, 1892, p. 241.

¹⁴ B. Dodwell, ed., *Feet of Fines for the County of Norfolk for . . . 1198-99 and for . . . 1199-1202*, Pipe Roll Soc., n.s., xxvii, 1952, pp. xxiii-xxiv.

¹⁵ W. H. Stevenson, ed., *Calendar of the Records of the Corporation of Gloucester*, Gloucester, 1893, p. 100, n. 4; S. A. Moore, ed., *Cartularium monasterii sancti Johannis Baptiste de Colecestria*, Roxburghe Club, 1897, 1, p. 189; *Curia Regis Rolls*, v, p. 119 (not a charter).

¹⁶ Hart and Lyons, *op. cit.*, p. 480.

III

Perch-lengths first appear in charters about the middle of the twelfth century, and they begin to be included in manorial surveys in the earlier decades of the thirteenth century.²¹ With their appearance another aspect of land measurement is brought to light: the measurement of land by a standard length. This had doubtless existed long before.²² The text of the Burghal Hidage takes the acre's breadth as a set measure equal to 4 *gyrdan*. While it does not necessarily follow that the acre was 40 *gyrdan* long, it does seem probable. If the correlations between the assessments of the Burghal Hidage and the lengths of surviving fortifications are correct, it can be deduced that a statute (? 16½-foot) perch existed in the ninth century.²³ We shall probably never establish satisfactorily the derivation of the 16½-foot perch (the statute perch), or that of other common lengths.²⁴ It has been suggested that the statute perch originated in a mnemonic devised by the ploughman as he paced his furrow, which seems rather unlikely, or that it derived from the length of the goad with which the ploughman controlled his oxen.²⁵ This may have been the

in acres and roods: St Paul's Cathedral Library, WD 16, *Liber* 1, fo. 37v. I am grateful to Mr A. R. B. Fuller, hon. librarian, for access to the library.

²¹ As in the surveys of the manors of the Bishop of Ely in 1222: B.M. Cotton Tiberius B. II.

²² It should be pointed out at once that measurement by a standard length did not necessarily mean measurement by a perch of 16½ feet. This is discussed further below.

²³ D. Hill, 'The Burghal Hidage: the Establishment of a Text', *Medieval Archaeology*, xiii, 1969, pp. 90-1. This deduction was kindly pointed out to me by Dr P. D. A. Harvey.

²⁴ The statute acre and its perch were enshrined in the so-called "statute of admeasurement": *Statutes of the Realm*, I, pp. 206-7. Its date is earlier than the 33 Edward I given in the *Statutes*; the Singer "handlist of scientific mss", box 43, "weights and measures" (B.M. dept. of MSS.) mentions thirteenth-century copies. I have to thank Dr Harvey for this information. The current state of knowledge concerning perch-lengths is summarized by Grierson, *op. cit.*, pp. 21-4. Wholesome perch-lengths may have been based on natural feet, it is difficult to see how fractions of feet arose if we postulate such a derivation for all perches.

²⁵ A. H. Dupree, 'The English System for Measuring Fields', *Ag. Hist.*, XLV, 2, 1971, pp. 124-5; E. Nicholson, *Men and Measures*, 1912, p. 71; L. F. Newman, 'Weights and Measures', *Folk-Lore*, LXV, 3, 1954, p. 137; G. C.

same rod (*virga*) which tenants, both free and servile, were sometimes bidden to bring to the autumn *precarie* to supervise their workers.²⁶ Where it has been suggested that a perch was derived from the dimensions of a building, often a church, it seems likely that the building itself was based on one particular perch, and thereafter acted as a kind of repository of the local standard.²⁷

By the end of the thirteenth century it was understood in some quarters that the normal perch was the "king's" perch of 16½ feet.²⁸ However, it is clear that there was no one normal perch in medieval land measurement, and certainly not before 1300. Thus there existed "royal" acres based on a perch of 24½ feet, a "king's" perch of 21 feet, and a "king's" perch of 20 feet in contrast to another perch of 20 feet "but not of the king's feet."²⁹ The "royal" acre and the "king's" perch appear to have taken their importance from the principle of measurement in general rather than from any one perch in particular. The "royal" acre was almost certainly what may be called a "standard" acre, that is one using a 4 × 40 measurement, regardless of the length of the perch.³⁰ It stands in contrast to the "local" acre, which was still measured, but not on a 4 × 40 basis.³¹ It is certainly dangerous to assume that an otherwise

Homans, *English Villagers of the Thirteenth Century*, Cambridge, Mass., 1941, p. 70. Homans (p. 69) quotes an example of a man fined for measuring work on the demesne "with his own rod".

²⁶ E.g. Elton, *op. cit.*, pp. 76, 115, 210.

²⁷ S. O. Addy, *Church and Manor*, 1913, pp. 345, 348-50; 'Little Johns' Grave and the Lawful Village Perch', *Jnl Derbys. Arch. & Nat. Hist. Soc.*, XLVII, 1925, pp. 206-21. But at Harlestone (Northants.) the local perch was apparently sculpted on the outside chancel wall: Willis, *op. cit.*, p. xiv.

²⁸ D. Oschinsky, *Walter of Henley*, Oxford, 1971, p. 315.

²⁹ H. E. Savage, ed., *The Great Register of Lichfield Cathedral*. . . , Staffs. Hist. Coll., 1924, p. 359; *Cal. Inq. Misc.*, I, p. 90, no. 254; *ibid.*, p. 68, no. 201.

³⁰ Other references to "royal" acres may be found in H. E. Salter, ed., *The Cartulary of the Abbey of Eynsham*, I, Oxford Hist. Soc., XLIX, 1907, p. 283; H. E. Salter, ed., *The Cartulary of Oseney Abbey*, v, *ibid.*, xcvi, 1934, p. 100; Bodl. Lib. MS. Barlow 49, fo. 99v (Shilton, Berks., later thirteenth century: a register of Beaulieu Abbey).

³¹ See below, p. 17.

unspecified reference to a "king's" perch always implies a perch of 16½ feet.

It has long been known that woodland, assarts, and other non-arable land of little value were often measured by perches longer than the 16½ feet which eventually became statutory. But measurement of land by perches of up to 25½ feet was not confined solely to non-arable. In Cheshire, Lancashire, and the north of England in general it is common to find arable measured by perches between 20 and 24 feet long.³² Possibly these longer arable perches also reflected the poorer quality of much of the soil in the northern counties. Although the longer perch-lengths were mostly used in the north, perch-lengths varied quite considerably over relatively small areas. On the Cambridgeshire manors of the Bishop of Ely, surveyed in 1251, six different perches were listed, ranging from 15½ feet at Shelford to 18 feet at Tydd.³³ In the city and county of Gloucester, the customary measure until the end of the seventeenth century was to add an inch to each yard, making a yard of 37 inches.³⁴ This was the "tailor's" or "cloth" yard, and a perch based on it can be found in places as far apart as Thaxted (Essex) and Tottington (Lancs.).³⁵ Elsewhere perches occur which appear, at first sight, to have been purely local in origin, such as that of 15 feet 1 inch at Yeovil (Som.) in the seventeenth cen-

tury, 15 feet 4 inches at Cossington (Leics.) in the sixteenth century, 15 feet 5 inches at North Leigh (Hants.) in the fourteenth century, and the double standard, 16 feet and 16 feet 2 inches, used at Brotherton (Yorks.) in the eighteenth century.³⁶ The odd lengths may represent nothing more than 15-, 15½-, and 16-foot perches subjected to strict measurement;³⁷ as precision was never a marked characteristic of land measurement in the Middle Ages we may imagine that most of the 16½-foot, 18-foot, and 20-foot perches were not *exactly* the length normally ascribed to them. Many early grants of land were far less specific, stating only that the land was measured by the perch of the monks to whom the land was given, by the perch of the village or of a neighbouring village, or by the perch of the district.³⁸ There are a few instances where measurement by one perch superseded measurement by another. At Tarring (Sussex), for example, the custumal of c. 1284 recorded that a perch of 17 feet had replaced one of 16 feet on the demesne; at Alvingham (Lincs.), at about the same time, the demesne meadow was measured by a perch of 15 feet, replacing an earlier measurement by one of 18 feet; while at Tottington (Lancs.) in 1544 there was a dispute over the length of the perch, one jury claiming a length of 7 cloth yards, another one of 8 cloth yards.³⁹ As for the people involved, little is known other than that measurement was usually entrusted to "honest men," to quote a stock phrase. Professional

³² The forest foot contained 18 inches according to H. E. Boulton, ed., *The Sherwood Forest Book*, Thoroton Soc., records ser., xxiii, 1965, p. 108; H. Robinson, 'The Cheshire Acre', *The Cheshire Historian*, v, 1955, pp. 1-6; B. Howells, 'The Distribution of Customary Acres in South Wales', *Nat. Lib. Wales Jnl*, xv, 2, 1967, p. 229; E. Smith, 'Lancashire Long Measure', *Trans. Historic Soc. Lancs. & Ches.*, cx, 1959, pp. 1-14. References to the "Derbyshire acre" occur as late as the twentieth century: Derbys. R.O.: Tideswell parish records, D1494A/PI 405. Grierson, *op. cit.*, p. 23, suggests that the 20-foot perch may represent a traditional measure in fact equal to 16½ statute feet.

³³ *V.C.H., Cambs.*, II, pp. 59-60 (but not 1277 as stated in the *V.C.H.*).

³⁴ Stevenson, *op. cit.*, p. vi. Examples using this measure may be found in W. H. Hart, ed., *Historia et cartularium monasterii sancti Petri Gloucestris*, Rolls ser., 1863-7, I, pp. 179-81.

³⁵ K. C. Newton, *Thaxted in the Fourteenth Century*, Chelmsford, 1960, p. 33; W. Farrer, ed., *The Court Rolls of the Honor of Clitheroe*, Manchester and Edinburgh, 1897-1913, III, p. 339 (in 1544).

³⁶ R. de Z. Hall, 'Customary Land Measures, Yeovil', *N. & Q., Som. & Dorset*, xxvii, 1959, pp. 241-2, and *ibid.*, xxviii, 1964, pp. 164-5; Leics. R.O.: DE40/1/3; P.R.O.: SC 11/586; W. E. Tate, *The Parish Chest*, 3rd edn, Cambridge, 1969, p. 257.

³⁷ To counter this suggestion, it would, of course, be very interesting to discover why Brotherton had a double standard.

³⁸ C. T. Clay, ed., 'The Percy Fee', *Early Yorkshire Charters*, XI, Yorks. Arch. Soc., records ser., extra ser., ix, 1963, p. 185, no. 160; W. T. Lancaster, ed., *Abstracts of the Charters... in the Chartulary of the Cistercian Abbey of Fountains*, Leeds, 1915, I, p. 182; J. Brownbill, ed., *The Coucher Book of Furness Abbey*, II, pt 2, Chetham Soc., n.s., LXXVI, 1916, pp. 392-3; C. T. Clay, ed., 'The Honor of Richmond', *Early Yorkshire Charters*, v, Yorks. Arch. Soc., records ser., extra ser., II, 1936, p. 346, no. 394.

³⁹ Redwood and Wilson, *op. cit.*, p. 21; Bodl. Lib. MS. Laud Misc. 642, fo. 40r; see above, n. 35.

land-meters must have been few and far between, though the rudiments of measurement together with the help afforded by the "statute of admeasurement," would have been known by estate stewards.⁴⁰ The routine measurement of such things as tithe acres or demesne meadow was probably the responsibility of the reeve, perhaps assisted by the customary tenants.⁴¹

IV

It was relatively easy, of course, to measure one side of a parcel of land, to measure the dimensions of buildings, or to measure out work such as hedging and ditching. The problem came in converting linear measures to areal measures, and it is this conversion which men often found so difficult. However, the measure which was of most concern was the width of a piece of land. In a furlong in the open fields or in an enclosure, the length of a parcel was the length of the furlong or close, that is a standard length. For purposes of land measurement and ownership it was the width of the parcel which mattered; once this was known, the area could be estimated. This may explain why so many grants which recorded perch-lengths were, in fact, expressed in round acreages. In addition, it may help us understand more clearly the "truly astonishing" accuracy with which the *offoldfal* of the Fens was measured.⁴² The skill with which men used the measuring rod was primarily one in linear measure. It can probably be assumed that many cases of parcels of land which were measured in acres, roods, and perches rested on a measured width. This was then the basis of the area, the length being "the length of half an acre," or

whatever it was customarily held to be.⁴³ Perhaps the main exception lay in the measurement of meadow, which as a relatively scarce commodity may have been accorded extra care. And as it was not divided into selions, meadow would have been that much easier to measure. This is apparent in the measurement of the arable, meadow, and pasture at Biddensham (Beds.), c. 1347, where the area of arable was estimated by the selion (*j selio iacens pro una roda*, etc.), but the area of the parcels of meadow and pasture was derived from measuring length and breadth in perches and feet.⁴⁴ At Great Barford (Beds.), c. 1234, a grant to Bushmead Priory included 1½ acres of meadow lying in two parcels, 5 roods and 1 rood, but the latter was "*de tribus percatis et quinque pedibus latitudinis quia longitudo eius defecit*": 3 perches 5 feet in width because its length is deficient; with meadow it was relatively simple to vary the width to compensate for the reduced length.⁴⁵ It is interesting to note that meadow was often the only part of a peasant's holding to be measured accurately.⁴⁶

V

A shift from estimation towards more accurate measurement can be traced in many manorial surveys in the second half of the thirteenth century and at the beginning of the fourteenth century. The impetus towards a stricter measurement may have arisen from the introduction and increasing adoption of the *Extenta Manerii* as a standard form for a survey in the later thirteenth century, and in the circulation of the "statute of admeasurement" at about the same time.⁴⁷ While it became com-

⁴⁰ Without the help of its table of measurements *ad hoc* measuring with any hope of accuracy must have been very difficult: E. G. R. Taylor, 'The Surveyor', *Econ. Hist. Rev.*, xvii, 1947, pp. 125-6. The author of the *Seneschaucauy* laid the responsibility for the measurement of the demesne on the steward: Oschinsky, *op. cit.*, p. 265.

⁴¹ Hart and Lyons, *op. cit.*, p. 282 (tithe acres, St Ives, Hunts., 1251); A. E. Wilson, ed., *Customals of the Manors of Laughton, Willingdon, and Goring*, Sussex Rec. Soc., lx, 1961, p. 24 (meadow, Willingdon, 1292); the demesne at North Leigh (Hants.) was measured with the help of the customary tenants: P.R.O.: SC 11/586.

⁴² Hallam, *op. cit.*, p. 160.

⁴³ This appears to have been noticed first by R. Holmes, ed., *The Chartulary of St John of Pontefract*, 1, Yorks. Arch. Soc., records ser., xxv, 1899, p. 235, n. 1. It was reiterated by Homans, *op. cit.*, p. 70. There are very many examples of this sort of measurement in charters from many different parts of the country.

⁴⁴ Beds. R.O.: TW 780.

⁴⁵ G. H. Fowler and J. Godber, eds., *The Cartulary of Bushmead Priory*, Beds. Hist. Rec. Soc., xxii, 1945, p. 162.

⁴⁶ A. C. Jones, 'The Customary Land Market in Bedfordshire in the Fifteenth Century', unpublished Ph.D. thesis, Southampton Univ., 1975, pp. 216-18.

⁴⁷ Maitland (*op. cit.*, p. 431) was sceptical of the practical

mon for surveys and extents to include a note of the size of perch used to measure the demesne, this information alone cannot be held to constitute evidence of an accurate survey. This must be sought in the description of the parcels of the demesne. Where these are recorded in acres, roods, and perches, it is clear that some form of measured survey had taken place. However, there was probably some margin of error in any survey despite the impression of accuracy which so many give. This is amply demonstrated in the survey of Thaxted (Essex) taken in 1393, replacing an earlier one of 1347. One area, previously held to measure just over 249 acres, was found when remeasured to contain an extra 8 acres. Indeed, it rather looks as if the surveyors of Thaxted expected to uncover such inaccuracies: "there is no increase because it is strictly measured and nevertheless twice is measured."⁴⁸ This comment suggests that the discrepancies were not the result of a different size of perch. When the pastures of Old Warden (Beds.) were surveyed in 1577 they were meted out in acres, roods, and perches, and the surveyor made a systematic record of how much each pasture had "lost" or "gained" against the previous survey.⁴⁹ Few medieval surveys record measurements so explicitly as those of Thaxted and Old Warden, and it is dangerous to rely on surveys alone for evidence of measurement. Account rolls remain the main means of checking whether a measured survey was put into everyday use.

The change from one system of measurement to another can be traced very clearly in the account rolls of Cuxham (Oxon.), for they reflect the difficulties the reeve faced in allocating strips to acres under a system of conventional measurement, and then in converting the measurements once the survey had been introduced.⁵⁰ Occasionally, the process of measurement can be pin-pointed by a payment recorded on an account roll, as at Farleigh (Surrey) in 1291-2, and at Sevenhampton advantages of the "statute", a scepticism shared by Professor Taylor (*loc. cit.*, pp. 125-6).

⁴⁸ Newton, *op. cit.*, pp. 35, 39.

⁴⁹ B.M.: Add. MS. 40632A, fos. 437-477.

⁵⁰ Harvey, *op. cit.*, pp. 14-6.

(Wilts.) in 1276-7.⁵¹ Elsewhere, the change from one method to another can be traced in apparent alterations in the area of arable under crop. At Witney (Oxon.), for example, 734 acres of demesne arable were cultivated in 1232, while in 1235 the area had dropped below 500 acres. However, the contraction was illusory, reflecting a shift from "conventional estimates of acreage to measurement."⁵² Such a change was often recorded in account rolls by a change in the description of the acre from conventional (*acre ut iacent*) to standard (*acre per perticam*). Attempts at accurate measurement had to be superimposed on the pattern created by ploughing. Herein lay the great difficulty. A measured survey made no difference to the layout of the fields; men had still to wrestle with the new survey in terms of selions and strips. Thus, once a survey had been introduced it did not always follow that the standard acre replaced the conventional acre for every task. Reaping, for example, was a job which, like ploughing and sowing, could easily be based on the selion. At Cuxham, where sowing was done over the acre *per perticam*, reaping continued to be based on the conventional acre, and this happened elsewhere too.⁵³ The existence side by side of the two types of measurement probably explains the situation at Hyde (Hants.) which puzzled Lord Beveridge. Here in 1371 the men who contracted to reap 146 acres actually harvested 174 $\frac{3}{4}$ acres.⁵⁴ When the problems involved are considered, it is perhaps not

⁵¹ *Ibid.*, p. 42, n. 2. However, the Farleigh account rolls (Merton College Muniments, 4807-34) recorded no change like that at Cuxham. I am very grateful to the Warden and fellows for their permission to use their records. M. W. Farr, ed., *Accounts and Surveys of the Wiltshire Lands of Adam de Stratton*, Wilts. Arch. & Nat. Hist. Soc., records branch, XIV, 1959, p. 84 ("In expensis... j. nuncio misso domino apud Rodeston' pro mensuracione dominicorum de Sevenhampton").

⁵² E. Stone, ed., *Oxfordshire Hundred Rolls of 1279*, Oxford. Rec. Soc., 46, 1968, p. 11; changes in measurement on the manors of the Bishop of Winchester, of which Witney was one, are set out in J. Z. Titow, *Winchester Yields*, Cambridge, 1972, pp. 150-1.

⁵³ Harvey, *op. cit.*, 43-4; Kitchin, *op. cit.*, p. 148; J. S. Drew, 'The Manor of Chilbolton', 1945 (typescript, Institute of Historical Research, London), II, pp. 368-466.

⁵⁴ Lord Beveridge, 'Westminster Wages in the Manorial Era', *Econ. Hist. Rev.*, 2nd ser., VIII, 1, 1955, p. 24.

surprising that the only consistent evidence for the use of the measured survey concerns sowing, a job which, unlike ploughing, could be handled with some dexterity, and which, unlike reaping, could be handled by just one man. However, although the connection between land measurement and sowing was clearly an intimate one, it is not always easy to establish whether land was measured first and then sown,⁵⁵ or whether it was sown, and that area covered by a certain amount of seed reckoned as an acre.⁵⁶ Perhaps the use of measured acres for sowing was just one more facet of the growing concern to monitor yields which can be found on large estates at the beginning of the fourteenth century.⁵⁷

So far we have discussed the measured acre in use on the demesne in terms of the standard acre, that is one measured on a 4 × 40 basis, whether the perch used was a statute 16½-foot perch, or a local one. However, on some manors in southern England a "local" acre was also used on the demesne, that is one measured on a basis other than 4 × 40 perches. At Chilbolton (Hants.), for example, the local acre was three-quarters the size of the standard acre: the seed ratios on both types of acre show a consistent variation. That this local acre was measured and not conventional is shown by its description in the account rolls as *acra per iij perticas* or *acra per perticam iij virgarum*.⁵⁸ The same descriptions

can be found at Houghton (Hants.), and Alton Priors, Overton, and Patney (Wilts.), which, with Chilbolton, were all manors of St Swithun's Priory, Winchester.⁵⁹ These formulas imply a measured acre based on a norm of 3 perches instead of the usual 4 perches. They do not occur frequently in the account rolls of the priory, dying out towards the end of the thirteenth century, and there does not appear to be any immediately obvious reason why this local acre was used in preference to the conventional or standard acre.⁶⁰ It is quite clear from the account rolls that the local acre was used on the demesne land proper and not just on land temporarily incorporated into the demesne.

VI

Where land held by the peasantry was, for one reason or another, temporarily included in the demesne, it may be supposed that it was usually measured in the same way as the rest of the demesne when it came to ploughing, sowing, and reaping. But, as far as can be told, land which remained with the peasantry was measured either in fiscal or in conventional acres, and, as has been seen, quite startling discrepancies could occur between the conventional and the real acreage of a holding under these conditions.⁶¹ However, there were occasions when attempts were made to impose a systematic check on the size of customary holdings. Such an investigation had obviously taken place at Michelmersh (Hants.) around the year 1300 when a custumal of the manor was compiled. The nominal size of the virgate was 38 acres of arable, yet several were found to con-

⁵⁵ Sowing on the Sussex manors of Battle Abbey appears to have been over the measured acre: P. F. Brandon, 'Cereal Yields on the Sussex Estates of Battle Abbey during the Later Middle Ages', *Econ. Hist. Rev.*, 2nd ser., xxv, 3, 1972, p. 415, n. 4.

⁵⁶ Broadcast sowing could be used as a means of measuring land: Oschinsky, *op. cit.*, p. 443; Taylor, *loc. cit.*, p. 127; A. Harris, 'A Note on Common Fields in North Lancashire', *Trans. Hist. Soc., Lancs. & Ches.*, cxix, 1968, pp. 225-6. W. D. Peckham ('Customary acres in south-west Sussex', *Sussex Arch. Coll.*, lxvi, 1925, pp. 150-1) tried to show that broadcast sowing was used to estimate acreage, but the discrepancies which account rolls sometimes record between seed actually sown and the amount calculated in advance may be little more than inaccuracies in mathematics. However, this is a subject which deserves further investigation.

⁵⁷ J. S. Drew, 'Manorial Accounts of St Swithun's Priory, Winchester', *Eng. Hist. Rev.*, lxii, 1947, pp. 20-41.

⁵⁸ Drew, 'The Manor of Chilbolton', 1, p. 7.

⁵⁹ J. S. Drew, 'The Manor of Houghton Drayton', 1943 (typescript, Institute of Historical Research, London), p. 37.

⁶⁰ In the account rolls of the priory it is the *acra ut iacet* which usually replaces the *acra per iij perticas* from about 1300, where the acres are described at all. Was the *acra per iij perticas* an attempt to "measure" the conventional acre?

⁶¹ There is ample evidence in early charters that donors rather expected their land to contain perhaps more, perhaps less, than the stated acreage, and we find "compensation clauses" inserted to protect the recipient. Among many examples are those in W. Farrer, ed., *Early Yorkshire Charters*, III, Edinburgh, 1916, pp. 423, 427-8, nos. 1809, 1812-13.

tain more, in one case 12 acres, in another 20 acres, while a third virgate contained just 22 acres. A half-hide was found to contain only 53 acres of arable, 23 acres less than it should have. Then there were several other holdings where the discrepancy was much less. It is possible that the excesses represented no more than additions made by purchase or marriage, but the custom expressly stated against a number of holdings that the surplus had been found by measurement (*per mensuracionem*), which suggests that this was a check on the size of the ancient fiscal divisions.⁶² A similar vigilance on the part of the manorial authorities can be found in the extents of the manors of Bury St Edmunds made in 1357. The nominal acreage of each holding was noted together with its acreage *per parcelas*, or, in some cases, in acres, roods, perches, and even feet.⁶³

VII

Land measurement in England in the Middle Ages is a subject beset with pitfalls, and one in which we can rarely feel that the sources have been mastered entirely satisfactorily, for it provides striking illustrations of the dangers in taking information in individual records at face value. In this article enough examples have been marshalled to show that there were various ways of assessing the size of a parcel of land, and various sorts of acre: conventional, fiscal,

standard, and local. Further research may well uncover more examples of local acre to set beside those from the manors of St Swithun's Priory, as well as different sizes of conventional and standard acres. And the examples have shown how some of the differing evidence for land measurement may be approached and interpreted, and where some of the problems occur. Even so, this article has barely scratched the surface of the subject. The problem of Domesday measures has been left aside, as has that of the measurement of buildings and town defences, and that of *solskifte* and related topics.⁶⁴ For many estates account rolls remain a largely unexplored source, and there is a need for further detailed research to establish local practice and to outline a chronology of changes in measurement. There is scope, too, for much more work on charters. One problem concerns the selion. Although the description of land in selions can be traced in charters in many different parts of the country, it is particularly noticeable in eastern England, especially in Lincolnshire. Another problem concerns a change in terminology from selion to rood. At Wigston (Leics.), for example, the earlier records describe land in selions, while those after about 1300 describe land in roods. As Professor Hoskins noted, "We cannot equate selions and roods, and the marked change in the terminology of the charters in this respect . . . is very curious."⁶⁵ It would be interesting to discover why these variations and changes occurred. Scope for further work will also involve field work, trying to solve some of the problems posed by the patterns of selions preserved in the landscape. Certainly, much more work will be required before we can be sure how men laid out their land or on what basis their work was apportioned.

⁶² K. A. Hanna, 'An Edition with Introduction of the Winchester Cathedral Customal', unpublished M.A. thesis London Univ., 1954, I, pp. 191, 193-4. I am very grateful to Mrs Hanna for permission to use her thesis. The extents of Langley Abbey (Norfolk, c. 1289) included detailed terriers of the holdings of the customary tenants in which their land was distinguished as *de uillenagio, quam adquisiuit, habuit in maritagio, quam perquisiuit*, but the extents do not suggest in themselves that this was part of any general check on the notional holding (Bodl. Lib. MS. Bodley 242, fos. 22v-29v). An examination rather similar to that at Michelmersh appears to have occurred at Belchamp St Pauls (Essex) in 1222. Gilbert son of Thomas had paid 6d for 1½ acres of *forland*, but "*terra sua fuit mensurata augmentus est census ad xd*": Hale, *op. cit.*, p. 28.

⁶³ B.M.: Add. MS. 14849, fos. 6r-83r.

⁶⁴ On *solskifte*, see S. Goransson, 'Regular Open-Field Pattern in England and Scandanavian Solskifte', *Geografiska Annaler*, XLIII, 1961, pp. 80-104, and the references in Sheppard, *loc. cit.*, p. 118.

⁶⁵ W. G. Hoskins, *The Midland Peasant*, 1957, p. 66.

The Changing Distribution of Breeds of Sheep in Scotland, 1795-1965

By W. J. CARLYLE

NUMEROUS publications have appeared since the late eighteenth century which deal in whole or part with breeds of sheep in Scotland. Most of these studies, however, have been limited to a short time period or particular breeds or parts of Scotland, and none include maps of the distribution of breeds. The main purpose of this paper is to synthesize information gathered from these already published accounts together with data gathered by field study to provide a comprehensive picture of the changing areal distributions of the main breeds and crosses in Scotland from 1795 to 1965. Maps are presented which show the distributions at or about 1795, 1840, 1870, and 1965, and the main factors causing changes between these dates are examined. It is hoped that this overview will be a useful summary in itself, and that it will stimulate further research into the factors responsible for the distributions of breeds at particular times and places.

The *First*¹ and *Second*² *Statistical Accounts* provided the basis for maps of the distributions about 1795 and 1840 respectively (Figs. 1 and 2).³ A series of county reports in the *Transactions of the Highland and Agricultural Society* provided sufficient information to show the distribution of breeds about 1870 (Fig. 3). Perhaps unexpectedly, little published information concerning distribution of breeds has appeared since the late nineteenth century. The most recent map, that for 1965, is based therefore on material gathered by personal interview with livestock auctioneers, farmers, agricultural

¹ Sir John Sinclair, *The Statistical Account of Scotland*, Edinburgh, 1791-9.

² *The New Statistical Account of Scotland*, Edinburgh, 1845.

³ The breeds of sheep are not stated for some parishes in the *Statistical Accounts*, but usually they could be inferred from ancillary information such as the type and price of wool, the value of sheep, systems of management, and data concerning nearby areas.

advisers, and breed societies throughout Scotland (Fig. 5). The Department of Agriculture and Fisheries for Scotland kindly provided unpublished statistics on the distribution of hill breeds (Figs. 4 and 5A). These and other sources were used to explain the changes between the four dates. Throughout the study only the distribution of breeds of permanent stocks is considered. As used here, permanent stocks are sheep kept on a farm for one or more years, and comprise mainly breeding stocks of ewes and rams, young replacements for them, and wethers. This definition excludes lambs bred on farms for disposal at less than one year of age, most sheep purchased for fattening, and sheep on farms for wintering.

DISTRIBUTION OF BREEDS CIRCA 1795

Breeds

There were two main breeds of sheep in Scotland in 1795, the Blackface and the Cheviot (Fig. 1).⁴ The Blackface, also known as the Linton, Tweeddale, Lammermoor, Galloway, Annandale, and Forest breed, and sometimes referred to as the short sheep, was characterized by a black or black-and-white (brooked or bruiket) face and legs, a short, compact body, a coarse, loose and middle-length fleece, curled horns, and a lively nature. The Cheviot, more commonly known at the time as the white-faced breed or the long hill sheep of the eastern Border, was first described in 1792 as follows:

Their legs are of a length to fit them for travelling, and to enable them to pass over

⁴ The Blackface and Cheviot breeds of today differ from those of the past, but the modern types are easy to identify from illustrations of them as they were in 1795. See, for example, T. Johnston, *General View of the Agriculture of the County of Selkirk*, 1794, Plates 1 and 2. There were also variations amongst each breed, but these were minor compared with the differences between Blackface and Cheviot.

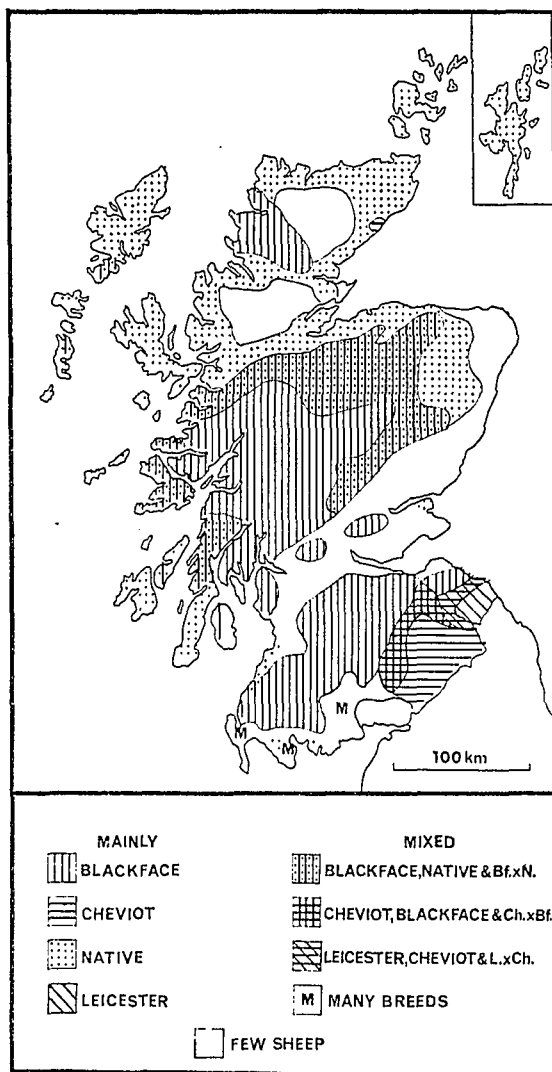


FIG. 1. Distribution of breeds, 1795.

bogs and snows, . . . They are polled, white faced, and have rarely any black spots on any part of their body.⁵

Also in sharp contrast to the Blackface, the Cheviot had a short, close fleece of fine wool.

The origin and early development of these two breeds are not known with any degree of certainty, but it appears likely that the Blackface was introduced to the central Southern Uplands from the Pennines, and the Cheviot

⁵ Sir John Sinclair, *Observations on the Different Breeds of Sheep in Some of the Principal Counties of England*, Edinburgh, 1792, p. 66.

was developed on hills of the same name from the Dunface, and was further improved in the middle of the eighteenth century by crossing with Leicester and Lincoln rams.⁶

The native breeds were so termed because from time immemorial they had existed in the localities where they were found in 1795, whereas both the Blackface and Cheviot were considered of relatively recent and English origin. Considerable variation existed amongst the native breeds, especially regarding colouring, but all varieties were small, and generally the wool was fine.⁷

Of least importance in terms of numbers, but of great significance to the future development of sheep breeding in Scotland, was the new Leicester, a large, white-faced and long-wooled breed, which had only recently been introduced to the eastern Borders from England.

Distribution of Sheep

The greatest concentrations of sheep in Scotland in 1795 were on the Southern Uplands and central to western parts of the Highlands, which supported the Blackface and Cheviot breeds (Fig. 1). In the northern and eastern Highlands and on the Islands native breeds prevailed, but stocking densities were generally low. The native breeds were not hardy enough to survive on rough grazings in winter, and, indeed, were usually housed at night even during the summer, so the hills and moorlands were almost devoid of sheep. The main exceptions were Orkney and Shetland, where numerous native sheep were left to wander at will on the moors and coasts throughout the year.

Even fewer sheep were kept on the Lowlands extending from central Ayr north-eastwards to Banff (Fig. 1). This area was undergoing improvements, and sheep were not popular because they were destructive to young hedges, trees, and sown grass, problems made

⁶ M. L. Ryder, 'The Evolution of Scottish Breeds of Sheep', *Scottish Studies*, 12, 11, 1968, p. 159.

⁷ J. A. S. Watson, 'The Rise and Development of the Sheep Industry in the Highlands and North of Scotland', *Trans. High. Agric. Soc.*, 5th ser., 44, 1932, p. 5.

more acute by the fact that sheep were allowed to wander at large after harvest.

Distribution by Breed

The spread of Blackface sheep from the Southern Uplands to the central and west Highlands during the second half of the eighteenth century has been examined by Watson.⁸ It is sufficient to note here that apparently no close study was made at the time as to whether the Blackface was the best breed for these areas. The native breeds it replaced might have been equally suitable if properly managed and bred, but no sustained efforts were made to improve them. The farmers who introduced hill sheep farming to the Highlands before 1790 were mostly from south-west Scotland, and they naturally favoured their proven hill breed, the Blackface. Moreover, the Cheviot breed was virtually unknown outside the east Borders when the Highlands were first stocked, and therefore it was never considered as an alternative.⁹ Establishment of the Blackface on the hills of the central and west Highlands occurred very rapidly because previously the emphasis had been on black cattle, and, except for partial use as summer grazings, the hills were not pastured. Penetration of the eastern Grampians and Upland districts to the north-east was slower, however, because the Blackface had to displace considerable numbers of native sheep. This was done either by gradually crossing-in with the Blackface or by completely replacing the native breed. Both these processes were taking place in 1795 (Fig. 1).

Elsewhere in the Highlands and Islands native breeds still prevailed, except on the border of Sutherland and Ross, where first Sir John Lockhart Ross, and then several sheep farmers from Ayr, Dumfries, and Perth, had introduced the Blackface breed.¹⁰ A mixture of Blackface and native sheep and crosses between them were found on Mull and Ardnamurchan, but even in

Galloway, Ayr, and Fife a few distinct flocks of native sheep still existed (Fig. 1).

The Cheviot breed was concentrated mainly in its place of origin, but even before 1795 it had been gaining at the expense of the Blackface in Dumfries, Selkirk, Peebles, and Berwick, particularly at lower elevations and on grassy hills. When changing stocks, most farmers crossed and recrossed Blackface ewes with Cheviot rams purchased from the Cheviot Hills until a "pure" Cheviot resulted, and in 1795 many stocks were still in the transition stage. This early expansion of the Cheviot was mainly due to the fact that prices for Cheviot wool were two to three times those generally given for Blackface wool. Some Yorkshire dealers, however, were still offering equal or greater amounts for the coarse wool of the Blackface, and they were even advising farmers not to change from Blackface to Cheviot stocks.¹¹ There were few sizeable flocks of Cheviots outside south Scotland, although the flock Sir John Sinclair introduced to his estate at Langwell in Caithness is noteworthy because his main intent was to dispel the generally held belief that the Cheviot breed could not survive in the Highlands.¹²

Various breeds and crosses of sheep were being experimented with in the lower parts of Galloway and Dumfries, including the native, Merino, Shetland, Mug, Blackface, Cheviot, and Leicester breeds, but there were relatively few sheep in total, and no one breed predominated (Fig. 1). The new Leicester had been found to answer well in the Merse, and on the surrounding Uplands there was a mixture of Leicesters, Cheviots, crosses between them, and Blackfaces.

CHANGING DISTRIBUTIONS, 1795 TO 1840

During the period 1795 to 1840, hill sheep farming based on the Blackface and Cheviot breeds was introduced to the north mainland and western islands of Scotland where native breeds had prevailed in 1795 (Figs. 1 and 2). By 1840 the native breeds were still predominant only on Orkney, Shetland, the Uists, Barra,

⁸ *Ibid.*, pp. 5-9.

⁹ *Plan submitted to the Public by the Society for the Improvement of British Wool*, Edinburgh, 1791, p. 5.

¹⁰ Sir George S. Mackenzie, *General View of the Counties of Ross and Cromarty*, 1810, pp. 126-30.

¹¹ Sinclair, 1792, *op. cit.*, p. 18. ¹² *Ibid.*, pp. 57-8.

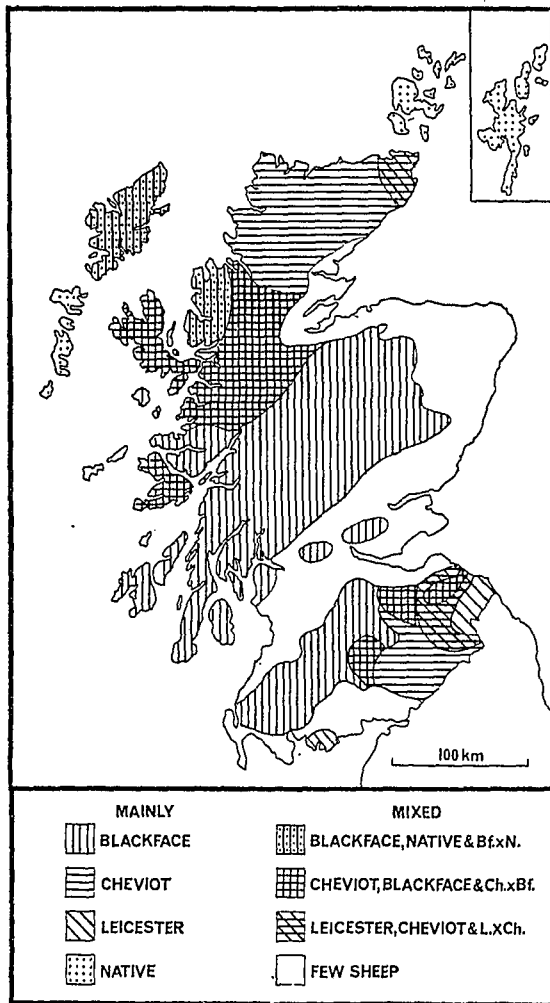


FIG. 2. Distribution of breeds, 1840.

and Benbecula. The Blackface was introduced first to all parts of the Highlands and Islands except Caithness, and by 1840 it was the main, and in many cases the only, breed in the western Highlands and Islands as far north as the Great Glen. In addition, it shared Lewis and Harris and Wester Ross in pure or crossed form with native breeds.

The Cheviot, however, gained most ground during this period. It was grazed almost to the exclusion of other breeds in the higher parts of Roxburgh, in Dumfries except Nithsdale and parts of Annandale, in Selkirk except the higher parts of Ettrick Forest, and in central Peebles (Fig. 2). Both Cheviot and Blackface stocks were kept on the Moorfoot and Lam-

mermoor hills and in the upper parts of Lanark, but the Cheviot was rapidly gaining. The Cheviot had also been spread throughout Caithness, and it predominated in Sutherland and the northern parts of Ross and Cromarty. Central Ross and north-western Inverness, including Skye, supported approximately equal numbers of Cheviot and Blackface sheep, but as in the Southern Uplands Cheviot were replacing Blackface stocks.

There were several reasons for this rapid advance of the Cheviot breed. First, as with the Blackface elsewhere, it was the first hill breed to be introduced to Caithness, and therefore met little opposition, especially after most of the native sheep, the Kerries (or Keeries) were killed by scab and rot in 1806-7.¹³ More important, however, were high prices for Cheviot wool, especially during the Napoleonic Wars when imports of fine wool were excluded from Britain. This gave the Cheviot a great advantage over the Blackface, which itself had benefited earlier when an emphasis on size and weight of carcase had helped it displace the finer woolled native breeds. Close observers pointed out, however, that the Cheviot was best suited for lower, drier, and grassier hills, and the Blackface was still better for higher and harsher environments.¹⁴

It is probable that even fewer sheep were bred on the Lowlands of Scotland in 1840 than 1795 because of the incompatibility of sheep and improvements, which by 1840 had spread into or become intensified in south-west Scotland, Aberdeen, and along the Moray Firth. A preference for cattle, especially in north-east Scotland, also contributed to the lack of low-ground sheep. There were, however, two main exceptions; pure-bred Leicester flocks were more common in the Merse than in 1795, and on adjacent Uplands pure and crossbred Cheviot and Leicester flocks were numerous. The same system existed on a more limited scale in parts of Caithness (Fig. 2).

¹³ Capt. John Henderson, *General View of the County of Caithness*, 1812, p. 211.

¹⁴ Henry Stephens, *The Book of the Farm*, Edinburgh, 1852, pt I, pp. 228, 601; pt II, p. 721.

Both ewe and wether stocks were maintained in most hill areas, but ewes far outnumbered wethers on the Southern Uplands and Argyll, while wethers predominated in the Highlands.¹⁵ On farms where mainly wethers were kept, wether lambs and hoggs were purchased annually from southern markets, especially West Linton.

CHANGING DISTRIBUTIONS, 1840 TO 1870

Cheviot replaced Blackface sheep on hills and moorlands throughout most of the period 1840-70, and by 1860 they accounted for about 40 to 50 per cent of the hill sheep in Scotland.¹⁶ It must have seemed as if predictions that the Cheviot would eventually cover most of the Scottish hills¹⁷ would soon become reality. In the event, however, the decade 1860-70 marked the high point in the fortunes of the Cheviot breed (Fig. 3).

The maximum extent of Cheviots in the Southern Uplands was probably reached during the late 1850's. At that time they almost completely occupied the hills of Roxburgh, Dumfries, Selkirk, and Peebles, and they were the main breed on the Lammermoor and Moorfoots, as well as in Upper Lanark and eastern Kirkcudbright.¹⁸ But several severe winters, particularly that of 1859-60 showed that the Cheviot had been extended beyond its practical limits. These winters took a heavy toll throughout the Southern Uplands, but the Cheviot suffered far more than the Blackface.¹⁹ Contributing to this difference was the fact that the Cheviot had lost some of its earlier hardiness. Hill farmers took quick action, and many who had only recently converted to Cheviots returned to Blackfaces. By 1870, the Blackface had been restored to Lanark, eastern Kirkcudbright, and Nithsdale in Dumfries, and

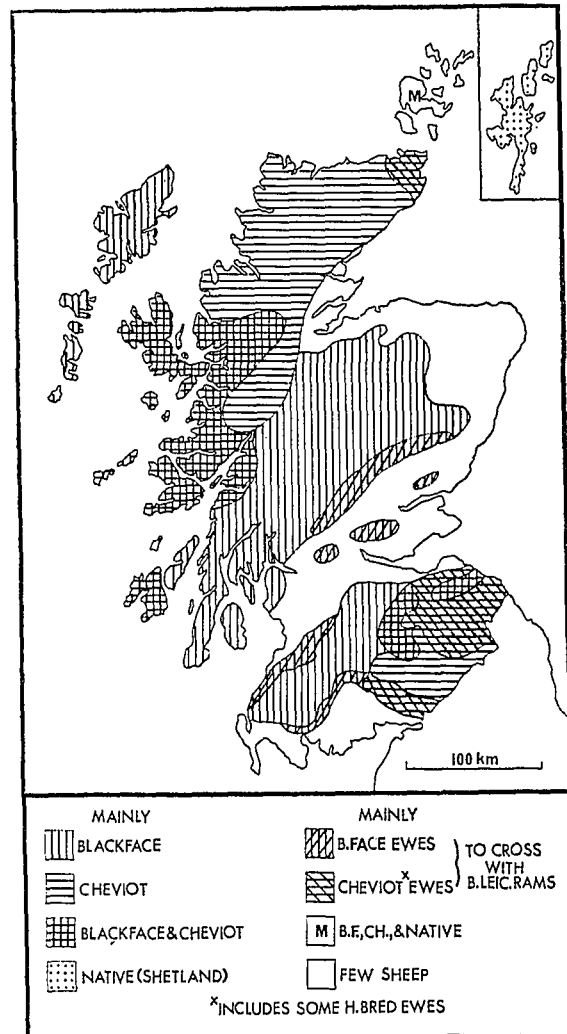


FIG. 3. Distribution of breeds, 1870.

they were gaining back lost ground in Peebles, Ettrick Forest, and on the Moorfoot and Lammermoor hills (Fig. 3).

Cheviots probably reached their greatest numbers and extent in the Highlands and Islands about 1870 (Fig. 3). By then they had gained almost complete control of the hills of Caithness, Sutherland, northern Ross, and parts of Inverness. They were almost equal in number to Blackface sheep on the west mainland from Oban to Loch Torridon, and on Islay, Mull, Tiree, Skye, Orkney, and Shetland. Considerable numbers were also present on the Uists and Lewis and Harris, but there the

¹⁵ W. Youatt, *Sheep*, 1837, p. 293.

¹⁶ Watson, *loc. cit.*, pp. 11-12.

¹⁷ For example, see Youatt, *op. cit.*, p. 288.

¹⁸ D. Archibald, 'On the Cheviot Breed of Sheep', *Trans. High. Agric. Soc.*, 4th ser. 12, 1880, pp. 110-29.

¹⁹ Lawrence Anderson, 'On the Topography and Agriculture of Peebleshire', *Trans. High. Agric. Soc.*, 4th ser., 4, 1872, pp. 226-40; Peter Johnstone, 'On the Loss of Sheep in 1860', *ibid.*, 3rd ser., 9, 1861, pp. 550-3.

Blackface²⁰ still remained predominant (Fig 3).

Blackface, Cheviot, and native sheep, and crosses between them were found on Orkney and Shetland, but only on Shetland was the native breed, the Shetland, predominant (Fig. 3).

The other main development during this period was the beginning of what is now known as the vertically or altitudinally stratified and integrated system of sheep breeding in Scotland, whereby hill ewes and crosses derived from them are mated with arable rams on Upland and Lowland farms. The crossbreeding of Blackface and Cheviot ewes was practised even before 1840, but the conversion between 1840 and 1870 of much rough grazing to improved pasture and tillage on the Uplands permitted these systems to be more fully developed. Better feeding and crossbreeding with arable rams allowed the hill ewes to bear and rear more and larger lambs. Hybrid vigour in the lambs also contributed to the popularity of crossbreeding. By 1870, the breeding of Border Leicester rams, which were developed from the new Leicester, with Blackface ewes to produce Greyface lambs, was common on the margins of the western Southern Uplands, the eastern Grampians, and on the Campsie, Ochil, and Sidlaw hills. Similarly, Cheviot ewes were mated to Border Leicester rams to produce Half-bred lambs on the Uplands of the south-east, throughout Caithness, except on the highest land, and in eastern coastal districts of Ross and Inverness (Fig. 3). On better arable farms in the Merse, crossbreeding was taken a step further by mating half-bred ewes with Border Leicester rams to produce three-parts-bred lambs. The development of these systems caused the virtual disappearance of the new Leicester from Scotland, and it also resulted in very few Border Leicester flocks being kept because their only purpose was to produce rams for crossbreeding.

Outside the south-east, breeding flocks were not numerous on the Lowlands because of the

²⁰ The Blackface of Lewis and Harris then, as now, showed evidence that its ancestry included the indigenous breed of the island, the "caora beag".

relatively high prices for alternative enterprises, especially cattle and grain, and because many Lowland farmers lacked the experience or inclination to try sheep breeding. The most common type of flock on the Lowlands was one comprising draft Blackface or Cheviot ewes to cross with Border Leicester rams.

CHANGING DISTRIBUTIONS, 1870 TO 1965

Hill Breeds

Cheviots were replaced by Blackfaces on many hill farms between 1870 and 1965. Indeed, the ratio of Cheviot to Blackface sheep declined rapidly from about 1:1 in 1860-70 to 1:4 in 1915,²¹ and then more slowly to almost 1:5 in 1965.²² Many factors have contributed to this change.

Hill farmers in the Highlands did not know the limits of the breed, and when Cheviots became fashionable they were introduced into unsuitable environments. As had occurred earlier in south Scotland, several bad winters in the Highlands during the 1870's, notably that of 1878-9, convinced many farmers that the Blackface was superior to the Cheviot on high, exposed hills where little winter feed and shelter were available.

Cheviots throughout Scotland were adversely affected by imports of cheap wool. The main advantage of the Cheviot over the Blackface had always been the higher prices for Cheviot wool, and when the differential dropped because of imports of fine Merino wool from Australia, many Cheviot stocks were replaced by Blackfaces on harsher hill grazings which only favoured the Cheviot when the differential was high.

²¹ R. M'Millan, 'Blackface Sheep', *Trans. High. Agric. Soc.*, 5th ser. 27, 1915, p. 45.

²² There were some 3·91 m. ewes for breeding in Scotland in 1965, of which 2·44 m. or about 62 per cent received the Hill Sheep Subsidy. Of these hill sheep, 78 per cent were Blackface, 16 per cent Cheviot, 4 per cent Shetland, and 2 per cent other breeds. Approximately equal numbers of the remaining 1·47 m. ewes were on Upland and Lowland farms, but the number by breed could not be determined. Most of the Upland ewes, however, would be Blackface and North Country Cheviot, and these breeds, together with Half-bred and Greyface ewes, comprise the bulk of Lowland flocks.

The decline of the wether system was another contributing factor. Wool and mutton from Australia and New Zealand entered Britain in increasing amounts after 1870, and this affected wethers most because, to a greater extent than ewes and lambs, they were kept mainly for these products. The result was the conversion of millions of acres of hill sheep pasture to deer forests and grouse moors, and the removal of some 500,000 sheep, mostly Cheviot and Blackface wethers, from Highland hills between 1893 and 1937.²³ Elsewhere, however, ewes replaced wethers, and many grazings which had supported Cheviot wethers were too harsh for Cheviot ewes, so Blackface ewes were introduced.²⁴ Cheviot stocks in Ross, Inverness, and Argyll suffered most from this change.

The Blackface breeds also proved more adaptable to a change in consumer tastes from large to small joints, and from mutton to lean lamb. This development, which was already evident in the London market by the 1870's, and became widespread by the early 1900's, favoured Blackface over Cheviot stocks because, although both proved capable of producing light and lean lambs, Blackface lambs could be brought to maturity much more quickly than Cheviot lambs, and therefore provided a greater turnover.²⁵

Another factor has been the deterioration of hill grazings since extensive sheep farming was introduced. This caused or contributed to a change from Cheviot to Blackface sheep in parts of the Highlands²⁶ and eastern Borders²⁷ because the Blackface is the more hardy breed.

Finally, during and for ten years after World War II, the Government controlled fatstock marketing, and would not accept South Country Cheviot lambs for grading directly off

the hill. Some farmers in the eastern Borders therefore began breeding Blackface lambs which could be graded, and have continued with them since.²⁸

The other main event concerning hill breeds since 1870 has been the development of the North Country Cheviot as a separate breed, and its spread into south-east Scotland. The larger size and heavier fleece of the North Country compared with the South Country Cheviot,²⁹ as the smaller variety came to be called, is not fully understood. It is probably the result, however, of an emphasis in parts of north Scotland upon size, above all other characteristics, which has been promoted by breeding and management practices not used with Cheviots in south Scotland.³⁰ Other factors contributing to the development of the two types are differences in ancestry and grazings.³¹

The North Country Cheviot was confined to Caithness, Sutherland, and parts of Ross until the 1920's, when a severe outbreak of the disease scrapie amongst Cheviots on the eastern Borders led many farmers to replace or cross their flocks with the northern breed.³² Preference for the North Country Cheviot was reinforced by the fact that the Half-bred ewe it produced became more popular in south Scotland than that out of the South Country Cheviot. By the late 1940's the South Country Cheviot was threatened with extinction,³³ but

²³ W. B. Duthie, *Economics of Hill Farming: Blackface or Cheviot*, Edinburgh and East of Scotland College of Agriculture, 1955, p. 8.

²⁴ The South Country Cheviot flock book was started in 1891, so it can be assumed that even before this date differences between the types were considerable. See R. J. Robertson, 'The Breeding and Selection of North Country Cheviot Sheep', *Sheep Husbandry in the Scottish Borders (Low-Ground)*, Edinburgh and East of Scotland College of Agriculture, Bulletin 26, 1951, pp. 20-1.

²⁵ J. Robson, 'Cheviot Sheep: South and North country', *Trans. High. Agric. Soc.*, 5th ser., 42, 1930, p. 71; J. A. Symon, *Scottish Farming: Past and Present*, Edinburgh, 1959, p. 332.

²⁶ A. H. H. Fraser, 'Cheviot Sheep', *Agriculture*, 55, 1948, pp. 277-83.

²⁷ R. J. Robertson, 'Border Sheep', *Scot. Jour. Agric.*, 32, 1952-3, p. 13; Robson, *loc. cit.*, p. 71.

²⁸ G. S. Easton, 'Cheviot Hill Sheep', *Hill Sheep Husbandry in the Scottish Borders*, Edinburgh and East of Scotland College of Agriculture, Bulletin 36, 1952, p. 7.

²³ 'The Stock Carrying Capacity of Hill Grazings in Scotland', *Scot. Jour. Agric.*, 21, 1938, pp. 221-2.

²⁴ Watson, *op. cit.*, p. 12.

²⁵ A. MacNeillage, 'The Production of Early Mutton', *Trans. High. Agric. Soc.*, 5th ser., 25, 1913, pp. 209-11.

²⁶ F. Fraser Darling (ed.), *West Highland Survey*, Oxford, 1955, p. 230.

²⁷ A. R. Wannop, 'Sheep Farming in the Scottish Border Counties', in J. F. Thomas (ed.), *Sheep*, 1945, p. 132.

experience showed that the North Country breed was not well suited to the higher hills of the Borders, and therefore the South Country was reinstated on hill farms. North Country flocks, pure-bred or crossed with the Border Leicester, did, however, become common on Upland farms in south-east Scotland, Dumfries, and the Borgue area of Kirkcudbright.

Outside south Scotland the South Country Cheviot type is found mainly on small farms and crofts in western coastal districts of Ross and Inverness, and on Skye. Many of these flocks probably originated at the time of the clearances from shotts (rejects) from nearby hill farms.³⁴ The farmers and crofters had neither the land nor the capital to adopt breeding and management practices subsequently used on hill farms by breeders of North Country Cheviots, and therefore the smaller type of Cheviot was perpetuated.

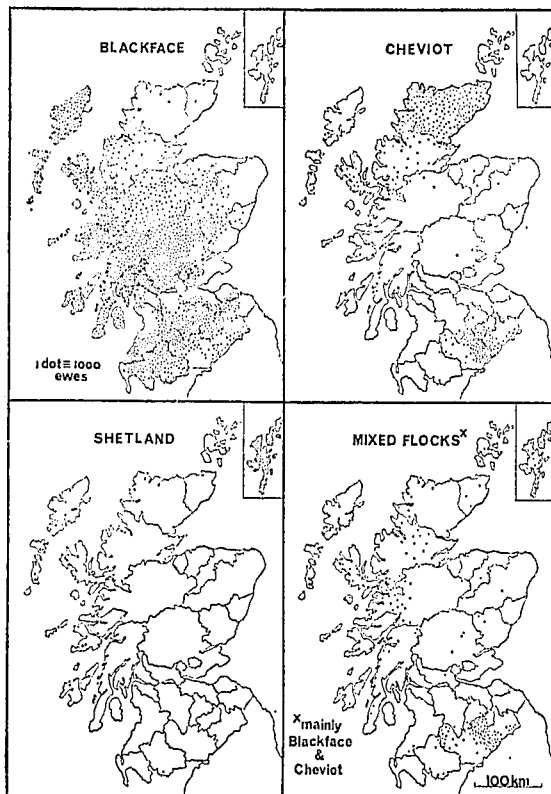


FIG. 4. Distribution of ewes in receipt of the Hill Sheep Subsidy, 1965.

³⁴ Darling, *op. cit.*, pp. 237-8.

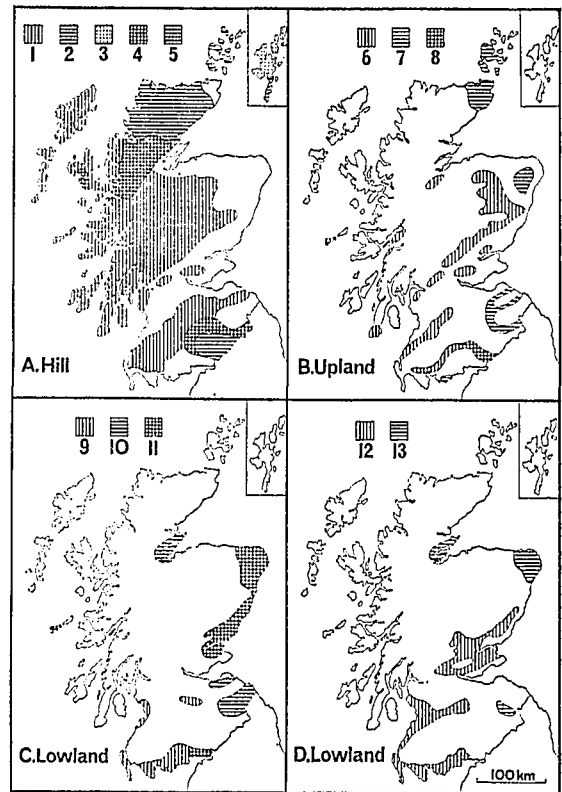


FIG. 5. Distribution of sheep breeding systems in Scotland, 1965

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|--|--|
| <p>A. Pure-bred Hill and Moorland Flocks</p> <p>Mainly (over 65%)</p> <ol style="list-style-type: none"> 1. Blackface 2. Cheviot 3. Shetland <p>Mixed (35% to 65%)</p> <ol style="list-style-type: none"> 4. Blackface and Cheviot 5. Cheviot and Shetland <p>B. Cross-bred Upland Flocks</p> <ol style="list-style-type: none"> 6. Blackface ewes 7. Cheviot ewes 8. Blackface and Cheviot ewes <p>All crossed with Border Leicester rams</p> | <p>C. Cross-bred Lowland Regular Flocks</p> <ol style="list-style-type: none"> 9. Greyface ewes 10. Half-Bred ewes 11. Greyface and Half-Bred ewes <p>All crossed with Down rams</p> <p>D. Cross-bred Lowland Flying Flocks</p> <ol style="list-style-type: none"> 12. Blackface ewes crossed with Border Leicester rams 13. Cheviot ewes crossed with Border Leicester and Down rams |
|--|--|

In summary, forces at work over the past hundred years have produced a pattern of distribution of the Blackface and Cheviot breeds similar to that for 1840 (Figs. 2, 4, and 5A). The Blackface dominates, and in many areas is the only hill breed, throughout most of the Southern Uplands, and the central and

western Highlands and Islands (Figs. 4 and 5A). In contrast, the Cheviot has complete control only of the hills and moorlands of Caithness and Sutherland. Elsewhere it is the main breed only in parts of Wester Ross and Orkney, and the central to eastern Borders (Figs. 4 and 5A).

These patterns of distribution are difficult to explain fully. It has long been recognized that the Blackface can survive and return a profit where the Cheviot cannot, and it is true today that the harsher and higher hills, dominated by heather, peat, and acid moor, and acid grassland, support mainly Blackface sheep.³⁵ Cheviots, on the other hand, tend to be concentrated on grassy hills in south Scotland,³⁶ and on hills and moorlands dominated by cotton grass, deer grass, and sphagnum in north Scotland. Many exceptions and qualifications could be made concerning these statements, and to explain fully the distribution of each breed would require a detailed farm-to-farm survey. It would appear, however, that the patterns of distribution now and in the past are mainly the result of the relative profitability of the two breeds. The following words written in the early 1800's concerning Tweeddale (Peebles), the traditional place of origin of Blackface sheep in Scotland, is illustrative:

It remains, then, as yet, to be determined by fair experience, whether, in point of profit, the acknowledged superiority of the black-faced breed, in regard to feeding and carcase, and the less risk of death of lambs, shall surpass or equal, or come short of, the acknowledged superiority of the Cheviot breed, in regard to wool. The experiment will be completely tried; and, if successful, the change will be as completely affected: For the Tweeddale farmers are certainly as much set upon their own interest as any other class

³⁵ The distribution of vegetation was obtained from Sheet 1: *Vegetation, Ordnance Survey*, 1942, prepared by Arthur Geddes and L. Dudley Stamp.

³⁶ Some Cheviot flocks in the south-east are on heathery hills, and in recent years the Blackface has replaced the Cheviot on many grassy hills, but it is still a valid generalization to say that most Cheviot hill sheep in south Scotland are on mainly grassy hills.

of men, when, only, it is clearly ascertained to them where their interest lies.³⁷

As has been shown, many Tweeddale farms eventually were stocked with Cheviots. In recent years, many farmers on the grassy Cheviot Hills, the very home of the Cheviot breed, have reacted in a similar manner by replacing their traditional breed by Blackfaces because the latter is now more profitable (Figs. 4 and 5A). In short, farmers generally do not allow sentiment and tradition to dictate their choice of breeds or types of livestock; rather, they base their selection upon current market conditions in much the same way as other businessmen. Because of the nature of sheep breeding, however, changing from one type of stock to another takes somewhat longer, and must be done more cautiously than many other enterprises.

Upland and Lowland Breeds and Crosses

Between 1870 and 1939, except during and immediately after World War I, Britain was subject to imports of cheap grain, and as a direct result millions of acres of tillage were converted to grassland. Sheep bred especially for arable conditions declined rapidly because of this change. Longwool breeds suffered most, but pure-bred Down flocks also were given up, except for the production of rams. On the other hand, various systems of crossbreeding arable rams with grassland ewes became popular on Lowland farms in different parts of Britain. In southern England and the Midlands, for example, Welsh Mountain ewes to cross with the Border Leicester, and Clun Forest and Kerry Hill ewes to cross with Down rams became common. In parts of north-eastern England, Swaledale ewes to cross with Wensleydale or Border Leicester rams were also popular.³⁸

In Scotland the modern day vertically stratified and integrated system of sheep breeding,

³⁷ Charles Findlater, *General View of the Agriculture of the County of Peebles*, Edinburgh, 1802, p. 187.

³⁸ T. L. Bywater, 'Crossbreeding of Sheep', *J.R.A.S.E.* 106, 1945, pp. 168-71.

which had been incipient and localized before 1870, became fully developed and general. In this system, Cheviot and Blackface flocks are bred pure on the hills, and they provide surplus ewe lambs and draft ewes for crossbreeding with Border Leicester longwool rams on Upland marginal farms. This produces crossbred ewes (Half-bred and Greyface) that inherit "thrif" and milking ability from their hill mother, and increased growth rate and fertility from their longwool father. Half-bred and Greyface ewes are in turn sold to Lowland farmers who cross them with Down rams to produce early-maturing lambs with a good meat carcass. The development of this system led to an increased demand in Scotland for Cheviot, Blackface, and to a lesser extent Greyface ewes, but most popular of all, not only in Scotland but also in England, was the "Scottish" Half-bred ewe.³⁹

Cheviot and Half-bred

The crossing of Cheviot and Half-bred ewes with Border Leicester rams to produce Half-bred and three-parts-bred lambs was quite common in Upland and Lowland farms in south-east Scotland and in Caithness before 1870.

Between 1870 and 1900, the number of these flocks was increased, and flocks of "pure" Half-breds, i.e. Half-bred ewes mated with Half-bred rams, also became popular in south-east Scotland.⁴⁰ During the period 1900-15, however, pure Half-bred flocks and those producing three-parts-bred lambs went out of favour because the lambs were too heavy and slow maturing, and susceptible to scrapie. These flocks were replaced by ones in which Half-bred ewes out of a Cheviot ewe and Border Leicester ram were put to Oxford, and to a lesser extent, Suffolk Down rams.⁴¹ This system was adopted throughout the eastern arable areas of Scotland and England,

and it resulted in an increase in the number of crossbred Cheviot and Border Leicester flocks to produce Half-bred breeding replacements. The greatest increases occurred in Caithness and Aberdeen, aided by the introduction of wild white clover and basic slag, which allowed sheep numbers to rise dramatically with no decrease in cattle.⁴² Production was also intensified on the Uplands of the south-east and Dumfries. The Half-bred ewe out of the North Country Cheviot proved to be better than that out of the South Country Cheviot for producing Down-cross lambs of the type desired, and after the introduction of North Country Cheviots to south Scotland in the 1920's, the North Country Cheviot became the basis for breeding the Half-bred ewe throughout Scotland.

These developments in the Cheviot and Half-bred system had taken place by about 1940, and since then the patterns of distribution have remained much the same (Fig. 5B). The only significant changes have been a decline in the number of flocks on Lowland farms because of more profitable alternative enterprises, the increasing popularity of Suffolk at the expense of Oxford rams, and a recent trend towards crossing the Suffolk directly with Cheviot ewes, both South and North Country (Fig. 5D).

Blackface and Greyface

The breeding of Greyface lambs was extended into the uplands of Aberdeen and Banff about 1910, and soon became general there.⁴³ An increase in the carrying capacity of Upland grasslands facilitated the adoption of this system in much the same way as it did the breeding of Half-bred and Down-cross lambs on lowland farms (Fig. 5B, C). More and better grassland, and a greater acreage of forage crops, such as rape, also led to increased Greyface lamb production from flying flocks of Blackface ewes

³⁹ R. P. Askew, 'Recent Changes in Sheep Breeding in Arable Areas', *Agriculture*, 44, 1947-8, pp. 453-4; H. G. Clarke, *Commercial Sheep Management*, 1963, p. 41.

⁴⁰ Alexander Guild, 'Half Bred Sheep', *Trans. High. Agric. Soc.*, 5th ser., 9, 1897, p. 221.

⁴¹ MacNeillage, *loc. cit.*, pp. 212-14.

⁴² Sir Robert Greig, 'The Extension of Temporary Pasture in Arable Farming', *Scot. Jour. Agric.*, 14, 1931, pp. 1-3.

⁴³ M. Mackie, 'Forty Years' Farming in Aberdeenshire', *ibid.*, 26, 1946-7, p. 225.

on Upland and Lowland farms throughout southern and central Scotland (Fig. 5D).

Down-cross lambs out of Half-bred ewes far outnumbered those out of Grey-face ewes until about the mid-1950's. The Half-bred ewe owed its advantage mainly to the more uniform and heavier fat lambs it produced (50 to 60 pounds deadweight compared with 35 to 45 pounds), which were especially popular during the period of government fatstock control because payment for fat lambs was based on weight only.

Notwithstanding the appearance of the Down-cross lambs it produces, the Greyface ewe has been rising in popularity in recent years and the Half-bred ewe has been losing ground. Free-market conditions for fatstock since the mid-1950's, and a trend to lighter-weight fat lambs have favoured the Greyface. In addition, it has proved to be more hardy, and is cheaper to buy and easier to maintain than the Half-bred. For these reasons some farmers have replaced Half-bred by Greyface flocks, while others have begun crossing Cheviots directly with Down rams. The Greyface now is widely distributed in Lowland and semi-Upland areas of Scotland, and is particularly popular on farms somewhat harsher and less arable than those supporting Half-bred ewes. Similarly, Blackface ewes in flocks producing Greyface lambs (except flying flocks) tend to be on higher and less arable farms than flocks of Cheviot ewes producing Half-bred lambs (Fig. 5B, C). These patterns can be attributed to differences in hardiness and adaptability between Blackface and Cheviot hill ewes, from which Upland and Lowland flocks are ultimately derived. As with the hill breeds, however, profitability is the main determinant of what type of crossbred flock is kept, and if one system becomes more profitable than another

it soon will be adopted on any type of land.

SUMMARY

Most of Scotland is hilly moorland, and it is therefore to be expected that hill breeds of sheep are, and have long been, predominant. It is surprising, however, especially in view of the large number of local breeds elsewhere in Britain, that only two breeds, the Blackface and the Cheviot, have dominated the breed structure of Scotland for almost two hundred years. Indeed, hill sheep breeding during the period 1795-1965 can be viewed mainly as a struggle between proponents of these two breeds, which interestingly were developed into distinct types within close proximity in the Scottish-English Borderlands. The contest was begun in earnest in the late eighteenth century, and was in favour of the Cheviot until the 1860's. Thereafter, and continuing to the present, the hardier and earlier maturing Blackface has dominated. The development after 1850 of an integrated system of crossbreeding based on the Blackface and Cheviot has extended their influence to the Uplands and Lowlands, at least on the numerically more important female side. Thus, most permanent stocks of sheep throughout Scotland today comprise Blackface or Cheviot ewes, or their first crosses, the Greyface and Half-bred. Even on the ram side, the two hill breeds are most numerous, although the Border Leicester and, to a lesser extent, Down breeds are of importance. The main exception to this general pattern is that the Shetland breed and crosses from it are the main types on Shetland. These sheep are the only sizeable group of survivors of the indigeneous breeds which once were predominant in Scotland, and which were replaced without any concerted efforts having been made to improve them.

The Diffusion of Knowledge among Northumberland Farmers, 1780–1815

By STUART MACDONALD

HOW was it that the late eighteenth- and early nineteenth-century farmer came to hear of new agricultural techniques that might have made his life easier or his farming more remunerative? How was it that, in an occupation in which experience taught the wisdom of tradition and the folly of change, the farmer became sufficiently convinced of the utility of a new technique to want to try it? These are not the same things. It is a far cry from knowing about something to being sufficiently impressed to want to use it.

I

Farmers did not generally farm for the glorification and improvement of agriculture, but for profit. Any change in the system by which they earned their living involved a potential threat to their standard of living. Farmers did not buy better breeds of stock or new implements because they felt their agriculture would benefit from the change, but because they thought they would. It is likely that one of the greatest obstacles to agricultural improvement during this period was the sheer inability of many farmers to calculate just what their profits were and where they had come from. A comment of 1852 was that "the leathern purse or canvass bag being full or otherwise [was] . . . the only indication of money gaining or losing with many."¹ The diffusion of knowledge had very basic, fundamental obstacles to overcome.

It has become almost traditional to regard the landlord as a source of agricultural information which farmers tapped to their benefit. Certainly the landlord was generally better educated and more travelled than his tenants, and had both a social responsibility and an economic incentive to enlighten them. It is easy

¹ William Dickinson, 'On the Farming of Cumberland', *J.R.A.S.E.*, XIII, 1852, p. 224.

to overestimate the degree to which he did this because so much of our information is, of necessity, derived from estate records rather than farm records. It is very likely that landlords knew things their tenants did not, and that they made this information available, but what they could not so easily do was convince the tenant that change was to his own advantage. While the landlord certainly could help create those conditions conducive to agricultural improvement, he was poorly equipped to instigate that change in any other way, even by personal example. As an account of 1820 stated, "The example of one who is a good farmer, must have a much more beneficial effect in his neighbourhood, than that of a great landholder, however successful his practice may be . . . To such a man occasional failures are of little importance, though they might be serious to ordinary farmers, who, on this account, are seldom very forward in venturing out of their usual routine."² The example of one whose profit produced his agricultural techniques was hardly guaranteed to inspire those whose agricultural techniques were expected to produce their profit.

The ordinary farmer could hardly be blamed for lack of confidence in the agricultural enthusiasm of his landlord. Progressive experiments on the home farm were all very well, but the home farm was not usually expected to show a profit and when it did, as Professor F. M. L. Thompson has commented, it was worth writing a book about it.³ An important communications gap often matched the social divide between tenant and landlord. Evidence from working farmers is scant, but the follow-

² *Farmer's Magazine*, XXI, 1820, p. 480.

³ F. M. L. Thompson, 'English Great Estates in the Nineteenth Century', in *Communications of the First International Conference of Economic History*, Stockholm, 1960, p. 392.

ing letter from George Boswell, a Dorset farmer and expert on the art of irrigating meadows, to another working farmer in Northumberland, is perhaps typical of the attitude of the practical man to his social superiors:

I've just had a letter from Sir John Sinclair acquainting me with the establishment of a Board of Agriculture, and with Desiring me to attend it in London as they wished to try an experiment of watering Hyde Park & Saint James Park. I have not yet answered it—He is quite ignorant of my situation in Life—it will not suit my inclinations nor pocket to go two hundred miles as my expense to gratify the idle curiosity of every person that chuse to ask it—I have had one or two of these excursions already—*pro bono publico*, won't always do. I very much doubt of the utility of these things in the hands of Lords and Dukes. Plain Country Farmers are not *at home* when they are with such sort of Folks. My hand, heart & Table such as it is are allways at the command of my Friends and nothing give me greater pleasure than to exchange mutual knowledge; but to dance attendance upon great Folk, & to answer such Questions as they may deign to ask you & then with an ungracious Nod be told you are done with—will not suit the stomach of your sincere Friend.⁴

It is suspected that many plain country farmers were equally resentful of schemes to encourage agricultural improvement by means of prizes. A farmer would consider changing his methods if he were reasonably certain the new would bring in more money than the old had done, but he would hardly change to win a medal. Advice from self-professed experts offered in books and periodicals—assuming these were read—was unlikely to encounter a sympathetic audience. In desperation, the Editor of the *Farmer's Magazine* wrote to a leading Northumberland farmer in 1803:

It is precisely such correspondents as you that I want; men who have learned wisdom in the school of experience and who do not attempt to pass base coin for sterling Money. I am under the Necessity sometimes of inserting Communications that are not altogether to my Mind, merely because that better cannot be got and also from a desire to keep well with people, who though imperfectly qualified to write are yet good friends to the Magazine.⁵

It is from Northumberland that this paper draws evidence concerning the means by which farmers found out about new ideas and became interested in making use of them. As very little innovation in agriculture could have occurred without the active interest and support of farmers, an examination of how this happened seems worthwhile. Obviously, such a study is best conducted at the local level, and Northumberland, a county which experienced marked and rapid agricultural change during the late eighteenth and early nineteenth centuries, provides a suitable basis. No attempt is made to examine the overall influence on farmers of landlords, or of agricultural publications. Presumably the impact of both varied greatly, and can be satisfactorily studied only at the national level.

II

Local newspapers may have been an effective source of information for the average Northumberland farmer. Such a paper, containing information about market prices and farm letting, as well as local news, was the sort of material he would have wanted to read. The *Newcastle Courant* was the major newspaper in the north-east throughout this period with a weekly circulation of about 4,000 copies in 1840.⁶ Map 1 traces the distribution of the paper's sales agents at this time, and gives an idea of the spatial extent of such a local newspaper's influence. An interesting piece of market analysis in 1841 revealed that farmers

⁴ Northumberland County Record Office (N.C.R.O.): ZCU/18. George Boswell to George Culley, 1793.

⁵ N.C.R.O./ZCU/25: editor of *Farmer's Magazine* to George Culley, 17 March 1803.

⁶ *Newcastle Courant* (N.C.), 1 Jan. 1841.



MAP 1. Distribution of *Newcastle Courant* sales agents

Source: *Newcastle Courant*, 1 Jan. 1841

accounted for a quarter of the circulation, and that each farmer's newspaper was read by an average of six people. Hence, 36,950 people in the agricultural community of the north-east were being contacted weekly by the *Newcastle Courant* in 1841.⁷ In fact, little use was made of this medium for the diffusion of agricultural information. A few snippets were taken from London papers, but the only agricultural topics dealt with at any length were those that appealed to the imagination. Caterpillars could be eradicated from turnip fields if ducks were sent in to devour them,⁸ mice from haystacks with the aid of a few sprigs of mint,⁹ and great things were expected of a plough designed to work by wind power.¹⁰ Once a £200 subscription had been filled, it was revealed that the problem of turnip fly could be overcome by planting radishes with the turnips, the fly apparently preferring the taste of radish to that of turnip.¹¹ Another subscription, this time of 2,000 guineas, was raised by one Henry Vagg, who promised a better remedy for the same problem. The subscription filled, Mr Vagg revealed that the real enemy was not the fly at all

⁷ *N.C.*, 1 Jan. 1841.

⁸ *N.C.*, 5 Aug. 1780, 26 July 1783, 30 July 1836.

⁹ *N.C.*, 26 Oct. 1793. ¹⁰ *N.C.*, 13 April 1811.

¹¹ *N.C.*, 3 July 1802.

but slugs, and these could best be destroyed by flattening them with a roller at night.¹²

While nearly all the agricultural advice offered by the *Newcastle Courant* was absolutely worthless, the newspaper must have encouraged farmers to keep abreast of the latest practices by means of the large number of advertisements it carried for new implements, draining tiles, seeds, manures, and all manner of agricultural services. A copy letter survives from one Northumberland steward to William Winlaw, requesting "a good wheel plough Such as are used in and about Norwich or yarmouth."¹³ Winlaw, the earliest London implement maker to advertise in the *Courant*, had offered "all kinds of Ploughs made use of in the different counties." Winlaw's first advertisement appeared on 30 August 1783, and the steward's order is dated 9 September, just ten days later.

The period was one in which many local agricultural societies were formed. These held meetings at which the members heard papers delivered, and discussed new ideas. Some societies had a library and some even a museum. All of them held agricultural shows, and existed, at least ostensibly, to encourage the diffusion of agricultural knowledge. If they did this, they may have been most effective through the very full accounts of their meetings published in local newspapers, although, to be fair, though there were some thirty agricultural societies founded in the north-east before 1850,¹⁴ none received anything like the press coverage given to the more aristocratic Society for the Improvement of the English Marigold. Not that the early agricultural societies were not socially respectable. Of the 101 members of the Tweedside Agricultural Society in 1812, only twenty-two were no more than farmers.¹⁵ Membership of the Durham Agricultural

¹² *N.C.*, 26 April, 14 June, 5 July 1788, 8 Aug. 1789.

¹³ *N.C.R.O./2DE/4/15/48*: Joseph Oxley to William Winlaw, 9 Sept. 1783.

¹⁴ Stuart Macdonald, "The Development of Agriculture and the Diffusion of Agricultural Innovation in Northumberland, 1750-1850", unpub. Ph.D. thesis, Newcastle, 1974, p. 488.

¹⁵ *N.C.*, 25 April 1812.

Society in 1803 was restricted to twenty-one, and no other local persons were to be admitted, even to visit.¹⁶ Even the agricultural shows arranged by these societies were really hardly likely to encourage that spirit of healthy competition it was said was their function. Prizes were generally won by the same few individuals year after year, and Table I suggests that only in the turnip section did a newcomer stand much chance of winning a prize from the Tyneside Agricultural Society. The Tweedside Agricultural Society was the only one to sponsor competition in agricultural implements before 1830, but with predictable results. How eager these winners were to improve the agriculture of the district may be gauged by the general refusal to accept prize money for champion male animals. That would have involved a commitment to make the animals available to serve in the district at rates set by the society.¹⁷ It is necessary, however, to distinguish between these agricultural societies and the more local and less formal farmers' clubs which began to displace them from the 1830's.¹⁸ The latter

abandoned prizes for the servant who had been with his master longest or who had raised most children without resorting to the parish; their meetings debated strictly practical subjects, and their membership was one of social and occupational equals. The farmers' clubs may well have had an important part to play in the diffusion of agricultural knowledge.

There were other forces at work much more effective in diffusing agricultural information, and more certain to convince farmers of the merits of a good idea. Personal contact among farmers and among farm labourers was of paramount importance in the diffusion of new techniques. Of course, the great obstacle to this thesis is the argument that neither travelled far, that they would be most conversant with the practices of their own area, and able to diffuse only what was already well diffused. Sir Robert Peel determined the greatest obstacle to the diffusion of agricultural information to be the "general unwillingness on the part of ordinary farmers to travel beyond the bounds of their own parish,"¹⁹ but some farmers certainly did travel. It was quite common for estate agents in backward areas to entice farmers from more advanced regions in the hope that their skills would rub off on the local farming population. More cosmopolitan farmers sometimes acted as agents for the supply of skilled tenants, and advertisements in northern papers for farmers able to introduce the Scotch or Northumberland mode of agriculture were not uncommon. Similar procedures were used to find men from progressive districts to act as stewards of estates in less advanced areas. But these were hardly average farmers. The average farmer was a much more static animal.

George Hughes was rather wealthier than the average farmer: he was a tenant of about 2,000 acres at Middleton Hall in Glendale in north-west Northumberland, and between July 1789 and October 1800 he kept a diary, which has survived, listing every journey he made during these years. As Map 2 shows, journeys beyond the nearest markets, particu-

¹⁹ In James Caird, *English Agriculture in 1850-51*, 1852, p. viii.

TABLE I
DISTRIBUTION OF AGRICULTURAL SOCIETY
PRIZES

Tyneside Agricultural Society

	<i>Section</i>	<i>Prizes</i>	<i>Winners</i>
1805-19	Turnips	23	15
1805-21	Sheep	47*	21
1805-21	Cattle	109†	29

Tweedside Agricultural Society

	<i>Section</i>	<i>Prizes</i>	<i>Winners</i>
1812-19	Implements	16‡	—

* 1 Winner took 12 prizes (26%); 4 winners took 25 prizes (53%); 5 winners called Bates.

† 7 winners took 65 prizes (60%).

‡ 2 winners took 8 prizes (50%).

Source: *Newcastle Courant*, 1805-21

¹⁶ *Farmer's Magazine*, IV, 1803, pp. 283-6.

¹⁷ E.g. *N.C.*, 30 April 1808.

¹⁸ See Nicholas Goddard, 'Kentish Farmers' Clubs in the Mid Nineteenth Century', *Cantium*, VI, 4, 1974, pp. 80-3.



MAP 2. Journeys of George Hughes of Middleton Hall, 1789-1800
Source: N.C.R.O./ZSI/46

larly the one at Wooler, were rare, and Hughes's main field of experience was obviously his native Glendale. Presumably less substantial men were even more circumscribed in their experience. But even George Hughes had made one long journey out of the area in those eleven years. He went to Scotland for some weeks on tour. As the nobility saw Europe on the Grand Tour, so the wealthier farmers of Britain toured in this country.²⁰ Oblivious of cathedrals, stately homes, and scenic wonders, they journeyed from farm to farm and scrutinized everything agricultural. The farmers travelled in groups of three or four, and had generally made contact with a few farmers along the proposed route before setting out. Further recommendations came along the way as the farmers found practices which particu-

²⁰ John Bailey, *General View of the Agriculture of Durham*, 1810, p. 67.

larly interested them. George Culley, probably the best known of Glendale farmers, listed those areas of the United Kingdom he had not toured as "Shropshire, Sussex, Devonshire, Cornwall, and a great part of Wales,"²¹ but many of his farming neighbours also journeyed widely and frequently. Culley's letters are full of references to these neighbours being away from home on tour.²² George Boswell's farm in Dorset became an important staging point for northern farmers. "Pray Sir," Boswell wrote to Culley in 1793,

What kind of Folks are left behind in the North? Are we to judge by the samples you've sent us? Upon my word and credit we make a very ridiculous appearance, accepting one or two of my acquaintance, . . . they all stand and look like stuck piggs, with their mouths open. I have only to request, you will continue me on your list of acquaintances and let me often hear from You, and let me see as many of your Country men as you can spare to travel this way. What I have seen charm me, Tho' they are not Bakewell's [*sic*] and crusty, They are *Ready enough* and friendly, which I much more value.²³

Another means of affording farmers practical experience of unfamiliar techniques was the system of agricultural apprenticeship. Farmers' sons in their late 'teens or early twenties would be sent from home to spend a year in a more progressive area.²⁴ Fees in the late eighteenth century could be as much as £60 for the year, during which time the young

²¹ George Culley, *Observations on Livestock*, 3rd edn, 1801, pp. vii-viii. There are now several articles on Culley, including D. J. Rowe's Introduction to John Bailey and George Culley, *General View of the Agriculture of Northumberland, Cumberland and Westmorland*, 1805 (reprinted 1972, Newcastle), pp. i-xxiv; D. J. Rowe, 'The Culleys, Northumberland Farmers, 1767-1813', *Agric. Hist. Rev.*, xix, 2, 1971, pp. 156-74; Stuart Macdonald, 'The Role of George Culley of Fenton in the Development of Northumberland Agriculture', *Archaeologia Aeliana*, 5th ser., III, 1975, pp. 131-41.

²² E.g. N.C.R.O./ZCU/31: George Culley to Robert Bakewell, 1 Nov. 1791.

²³ N.C.R.O./ZCU/30: George Boswell to George Culley, 25 July 1793.

²⁴ *Farmer's Magazine*, vii, 1806, pp. 153-6.

man actually worked on his hosts' farm.²⁵ That farmers in some areas were willing to pay such considerable sums for the privilege of allowing their sons to work for another farmer speaks volumes for their faith in the effectiveness of this learning process. Culley frequently housed half a dozen students at a time, and his neighbours were most certainly engaged in exactly the same business.²⁶ By the end of the nineteenth century, Glendale had an established reputation as a centre of agricultural pilgrimage.²⁷

There was another way of establishing contact with areas using different agricultural techniques and that was by post. Four large boxes of Culley's papers survive, the bulk of them letters to and from other farmers throughout the country. The letters are crammed with detailed agricultural advice, all of it based on personal experience and addressed to the particular circumstances of an individual. Although there are several letters to and from editors and acknowledged agricultural experts, such as Arthur Young and Sir John Sinclair, in all the many hundreds of letters to and from farmers, there is scarcely a reference to a printed work. Little correspondence between farmers has survived, but it is likely that leading farmers made extensive use of the postal service. When in 1800 Culley abetted in the hiding of a Lincolnshire farmer from his creditors, he felt it necessary to send the poor man even further north, to Scotland, because his Glendale neighbours were such regular correspondents with Lincolnshire farmers that there was no hope of keeping his presence a secret from them.²⁸

Culley wrote weekly to the manager of his family farm in south Durham. The correspon-

dence in both directions cost Culley about £5 a year, and was a bargain in his estimation if only for the news it brought him from Darlington market.²⁹ A letter posted at Darlington late on Monday afternoon travelled well over 100 miles via Berwick to Wooler, and was generally in Culley's hands by the Tuesday afternoon or the Wednesday morning at the very latest.³⁰ The contents of farmers' letters were rigorously agricultural. Pleasantries were cut to a minimum; there was little mention of family affairs or social matters, no religion, and no politics. Agricultural improvement was obviously a very serious business. Though it is unrealistic to assume that information contained in a letter was, in itself, full and accurate enough to initiate innovation, it is reasonable to see the letter as an important means of convincing a farmer, already aware of a new technique, that it was worth trying.

Much agricultural innovation seems to have foundered because the men closest to the innovation—the agricultural labourers—were not its keenest supporters. In 1783 Sir John Delaval was seized with a desire to improve the agriculture on his Northumberland estate, and sent several consignments of implements from London. The reception these received never varied:

The two ploughs was received some time ago and has been tried. Matthew [the ploughman] says they will nether [*sic*] of them answer well for this strong Land—they can't get the smaller one to answer at all, he imagines the Beam has been made of Greenwood, or otherwise has been twisted since it was made and stands quite from the Land. The larger one goes much better and I do not hear of any fault only its not effectually turning the furrows.³¹

A double plough sent later that month similarly did "not meet with Matthew's appro-

²⁵ See Stuart Macdonald, 'An Agricultural Apprentice in Northumberland, 1842', *Local Historian*, XII, 1976, pp. 139-45.

²⁶ N.C.R.O./2DE/4/14/42: Joseph Oxley to Sir John Delaval, 14 Dec. 1782; N.C.R.O./ZCU/9: George Culley to Matthew Culley, Oct. 1784; N.C.R.O./ZCU/21: George Culley to Thomas Wakefield, 17 Aug. 1796; N.C.R.O./ZCU/32: George Culley to ?, 13 July 1806.

²⁷ Richard Welford, *Men of Mark 'Twiixt Tyne and Tweed*, I, Newcastle, 1895, p. 673.

²⁸ N.C.R.O./ZCU/31: George Culley to Mr Foreman, 22 March 1800.

²⁹ N.C.R.O./ZCU/6: George Culley to John Welch, 13 May 1800.

³⁰ N.C.R.O./ZCU/6: George Culley to John Welch, 23 April 1802.

³¹ N.C.R.O./2DE/4/20/35: John Bryers to Sir John Delaval, 14 Feb. 1783.

bation."³² In April of that same year, something called a drill rake, an implement which Lady Delaval had ordered constructed from the directions in Harte's *Essays on Husbandry*, was given a fair trial. It was a ribbing implement, supposed to score friable soil so that broadcast seed—in this case peas—would fall into the troughs and so grow in rows. The trial took place on heavy clods of clay formed into huge curving ridges, the machine preceded by a specially selected untrained horse, and followed by no less than a dozen plodding women and children sowing peas. It was not a success.³³ In September the gardener's man was sent into the fields with his scythe to try the experiment of mowing the stubble. Smarting under the insult, he reported that stones and clods of earth made the whole business impossible.³⁴

Unless labourers were willing to show enthusiasm for new methods, that was likely to be the end of innovation.³⁵ A man whose position rests on skill acquired over years does not readily accept a change which renders his experience worthless. Faced with this difficulty, the farmer could make concessions to placate his men. Boswell persuaded his labourers to drill oats by letting them sow the enormous quantities they were convinced would be necessary.³⁶ Alternatively, the farmer himself could show how the work should be done. Tales of passing farmers leaping over hedges to demonstrate to ploughmen how ploughing could be managed with just one man and one horse are so common that the majority must be apocryphal.

³² N.C.R.O./2DE/4/15/3: Joseph Oxley to Sir John Delaval, 22 Feb. 1783.

³³ N.C.R.O./2DE/4/20/39, 42: John Bryers to Sir John Delaval, 14 March, 4 April 1783.

³⁴ N.C.R.O./2DE/4/20/66. John Bryers to Sir John Delaval, 28 Sept. 1783.

³⁵ Contemporary support for this point was widespread: e.g. William Marshall, *The Rural Economy of Norfolk*, 1, 1787, p. 270; Andrew Grey, *The Plough-Wright's Assistant*, 1808, p. xi; William Lester, *A History of British Implements and Machinery Applicable to Agriculture*, 1811, pp. 205–6; R. M. Weeks, 'On Grubbers, Cultivators and Autumn Cleaning', paper read to Newcastle Farmers' Club, 1 July 1854, Newcastle Literary and Philosophical Society Library/Bolbec/N630.6/3.

³⁶ N.C.R.O./ZCU/14: George Boswell to George Culley, 6 April 1789.

Of more importance was the transfer from one area to another of labour skilled in new techniques. Not only did this overcome the problem of giving the innovation fair trial, but it was also probably the best means of instructing native agricultural labourers in the use of new techniques. Reapers in Berwickshire in 1790 would not accept the scythe hook as a replacement for their customary sickle when given them by farmers, but eagerly made the change when outpaced by imported labourers wielding scythe hooks.³⁷ When Culley was arranging for the transfer of one of many Glendale labourers to his Durham farm, he wrote to the manager there, "... you will want someone who understands, *drilling* or *ridging* for Turnips. Now I don't know that this Hills can ridge, but I think it is very probable he can as he belonged this Country. . . It will save us sending a young fellow. . ."³⁸

The newspapers frequently carried advertisements from distant farmers seeking northern labourers. Often they sought men simply familiar with northern agriculture, but there were also many more specific requests; for example, for a man acquainted with the drill management to go into the south, or for a man accustomed to mowing with the Aberdeen Corn Scythe.³⁹ Culley was constantly pestered by correspondents asking to borrow labourers for a year or so until their techniques had become familiar to local workers. Culley himself had used a variation of this method in 1787, when curious about the artificial watering of meadows. Various friends had suggested—by letter⁴⁰—that George Boswell in Dorset was an expert in the matter, and so Culley wrote, asking to borrow one of his men for a few years. Boswell was critical of this suggestion, and replied that such a man "by his self consequence, and *acquired* importance . . . might withhold much useful instruction. The method I shall submit to you is; to fix upon an healthy,

³⁷ *Farmer's Magazine*, xxiii, 1822, pp. 235–6.

³⁸ N.C.R.O./ZCU/6: George Culley to John Welch, Nov. 1789.

³⁹ *N.C.*, 5 March 1808, 5 Sept. 1845.

⁴⁰ Newcastle University Library/Basement/Misc. MSS./7: Robert Bakewell to George Culley, 8 Feb. 1787.

robust Man, who has been *used to labour* . . . it is absolutely necessary for him *to be a Labourer* and to be both willing and able to go through the manual part of the work in all weather, as the Watermen do here."⁴¹ The man went to Dorset, learned the art, and returned to build Culley the first water meadows in Northumberland.

In the north, mobility in agricultural labourers was common. They were generally hired by the year, and frequently moved considerable distances to work on farms where wages might be better, and conditions, if not improved, at least different. The extent of this annual *fitting* of agricultural labourers can be measured from contemporary figures for 1841. In the parish of Norham in Northumberland there were then 174 families of agricultural labourers, of which fifty-one had *flitted* the previous year, eighty-three during the preceding two years, and 156 or 90 per cent within ten years.⁴² Such a highly mobile agricultural population meant that, in the north at least, agricultural information was always readily available at the level at which it had to be applied, and from a source by which adoption was likely to proceed.

III

There were then several ways in which at least a few farmers in an area were likely to find out about and effect new methods. The mass of farmers did not import labourers from any distance, probably did not write much, and read even less, did not go on tours or place their sons in agricultural apprenticeships. Rather they learned from their neighbours, and particularly from those of their neighbours whose prosperity could be reasonably linked with the introduction of a new process. In Scotland it was said that such men stood out like colonists in a wilderness.⁴³ Culley, for example, was well aware of his position not only as an innovator

but also as an agricultural leader in the neighbourhood.

There is evidence that Culley was concerned with the introduction to Glendale of new varieties of oats, of one-horse carts, of turnip drilling, of spring-sown wheat, of water meadows, of ploughing by oxen, of the New Leicester sheep, of the drilling of barley, peas, and beans.⁴⁴ Some of these innovations became general and important to the region's farming: others did not. In 1794 Culley wrote that "the working of oxen is becoming more general every day, as many of our neighbours are following this example."⁴⁵ Of water meadows he commented, "so slow is knowledge in making its way, that it was near 20 years before any other person ventured to pursue the practice, and profit by the example. It is now beginning to spread in the neighbourhood."⁴⁶ In fact, neither made any real impression on the neighbourhood at all. Farmers were not wont to follow blindly the example of even the most successful of their neighbours, but the point is that Culley thought of diffusion from the few to the many in neighbourhood terms. The neighbourhood was the core of agricultural life and popular agricultural experience. Map 3 is compiled from information, given in question 11 of the Tithe Files,⁴⁷ about which markets were visited most regularly by farmers in the early 1840's. The importance of the market town in the life of George Hughes has already been illustrated, and, though market towns are few in Northumberland, it is not unreasonable to see the market-town hinterland as being typical of the extent of a neighbourhood. The size of such areas varied and they overlapped, but even as late as the 1840's a market such as Morpeth, one of the largest stock markets in the country, was visited regularly only by those in close proximity.

It is possible, though a weary task, to show the influence of a few innovation leaders in the rapid diffusion of the New Leicester sheep in

⁴¹ N.C.R.O./ZCU/12: George Boswell to George Culley, 25 March 1787.

⁴² N.C., 8 Oct. 1841: Rev. W. S. Gilly's Address to Highland and Agricultural Show at Berwick.

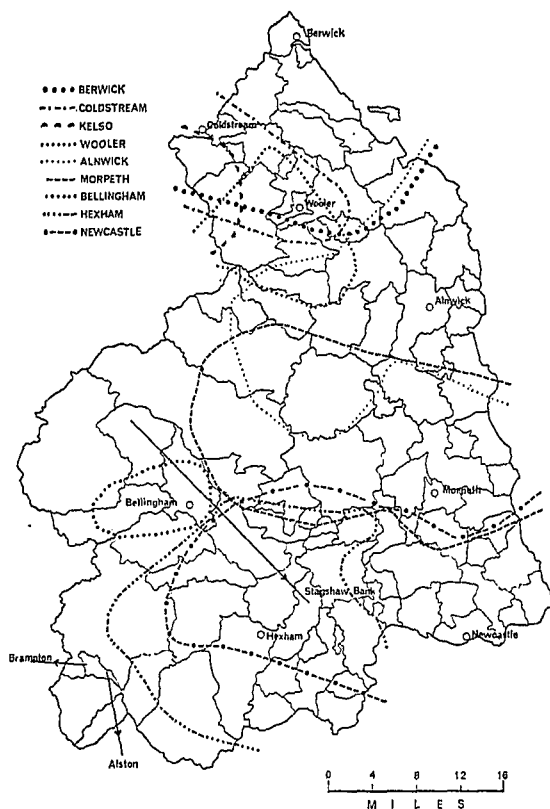
⁴³ T. Pennant, *A Tour of Scotland*, 1774, p. 42.

⁴⁴ See Macdonald, thesis, *passim*.

⁴⁵ Culley, *op. cit.*, 2nd edn, 1794, p. 85.

⁴⁶ Bailey and Culley, *op. cit.*, 1805, pp. 136-7.

⁴⁷ P.R.O. (Ashridge)/IR/18.



MAP 3. Market hinterlands in Northumberland, c. 1840

Source: P.R.O. (Ashridge)/IR/18

the Glendale neighbourhood. They had been introduced at an earlier date to other parts of the county, but really as little more than experiments. In Glendale, they were brought in by innovation leaders to make money and it was their success in doing just this that assured their rapid diffusion throughout the neighbourhood.⁴⁸ As Culley was fond of saying, profit would always overcome prejudice.⁴⁹ But the example of turnip drilling is more concise and appropriate.

Culley first came to Glendale in 1766, and in that year saw his first field of drilled, as opposed to broadcast, turnips: not in Glendale, but across the Scottish border, at Mr Pringle's farm

⁴⁸ Stuart Macdonald, 'The Role of the Individual in Agricultural Change: the Example of George Culley of Fenton', in *Change in the Countryside* (eds. R. A. Butlin and H. S. A. Fox). *Inst. Brit. Geog.* (forthcoming).

⁴⁹ E.g. Culley, *op. cit.*, 1801, p. 124.

near Coldstream. At this date Culley had heard of Tull's system, but had not been impressed until he actually saw drilling in practice—not that Pringle's drilling of turnips on ridges as a highly fertilized fallow crop was much like the system recommended by Tull.⁵⁰ Only two other men in the region were drilling turnips at this time, one Philip Howard of Corby in Cumberland, and a William Dawson from near Kelso. There were then three centres from which the extremely important practice of drilling turnips might have spread, but Howard at Corby was a squire, Pringle at Coldstream an army surgeon, and only Dawson at Kelso a working farmer. Howard and Pringle had no imitators, but, to quote Culley, "no sooner did Mr Dawson (an actual farmer) adopt the same system, than it was immediately followed, not only by several farmers in his vicinity, but by those very farmers adjoining Mr. Pringle, whose crops they had seen for ten or twelve years so much superior to their own."⁵¹ Even Culley, though he had experimented from Pringle's example, had actually learned from Dawson by visiting him personally and by sending a man to learn the art.⁵² Dawson himself had learned the value of drilling turnips and how to do it when he spent six years farming in the south of England as a young man.⁵³ Upon his return to Scotland he had difficulty finding a ploughman who could form the ridges for turnip drilling. Dawson chose a young man—James MacDougal—and taught him personally.⁵⁴ MacDougal worked for Dawson from 1765 as ploughman, overseer, and instructor of visiting students until 1778, when he took his own farm in Peebles "where his example"—and the quotation is from his obituary—"as a farmer paying rent, and acting at his own risk, had immediate influence,

⁵⁰ N.C.R.O./ZCU/3/1: George Culley to Arthur Young, c. 1791.

⁵¹ Bailey and Culley, *op. cit.*, 1805, p. 102; R. M. Garnier, *History of the English Landed Interest (Modern Period)*, 1893, p. 242.

⁵² N.C., 14 Jan. 1848: John Grey to Hexham Farmers' Club.

⁵³ *Annals of Agriculture*, xx, 1793, p. 164.

⁵⁴ Robert Douglas, *General View of the Agriculture of Roxburgh and Selkirk*, 1798, p. 69.

as to the ready introduction and rapid diffusion of the turnip . . . husbandry among practical farmers."⁵⁵ In Glendale Culley introduced turnip drilling about 1780, admitting freely that he had "learned from our neighbours on the Scotch side."⁵⁶ By 1790 the innovation had become general throughout the Glendale neighbourhood.⁵⁷

In the late eighteenth century one farmer summed up the degree to which his colleagues were receptive to new ideas. "I never converse with farmers without a fever; I would as soon argue with a methodist, and deem a horse in a mill a superior character."⁵⁸ So much attention

in studies of the diffusion of agricultural innovation is directed towards finding what went where, when it went, and why it did so. Comparatively little attention is given to the practical, rather than the theoretical, problem of just how the process worked. Not all farmers were methodists. George Culley's rebuke to an over-confident correspondent may be much more typical of the attitude of a very important minority of farmers. "I often say that we have a deal to learn yet. And every wise humble man will learn every yr and every day. But a conceited selfwise *animal*, I will not call him a man, will not nor ever can learn."⁵⁹

⁵⁵ *Farmer's Magazine*, xxiii, 1822, p. 512.

⁵⁶ *Annals of Agriculture*, xv, 1791, p. 628.

⁵⁷ *Ibid.*, xiv, 1790, pp. 183, 473.

⁵⁸ *Ibid.*, iv, 1785, p. 37.

⁵⁹ N.C.R.O./ZCU/6: George Culley to John Welch, 1 Dec. 1801.

The Landlord and Agricultural Transformation, 1870–1900: A Comment on Richard Perren's Hypothesis¹

By CORMAC Ó GRÁDA

IN a well-known article, published in *THE AGRICULTURAL HISTORY REVIEW* in 1970, Richard Perren suggested that the "Great Depression of British Agriculture" during the 1870's and later decades may have been exacerbated by low investment on the part of landlords.² Dr Perren's main point, which echoes an earlier statement by Clapham,³ is that more investment in the land on the part of proprietors would have accelerated the switch into more profitable agricultural activities, and thus have made for more buoyant rents:

These developments required increased capital both from the tenant farmer and from the landlord. From the tenant more capital was required to buy more livestock and also for purchased feeding if they were used; from the landlord increased livestock usually implied heavier expenditure on new buildings to house them, especially if the farmer concentrated on stall- or yard-feeding. . . Thus successful adaptation required from the landowner a certain level of expenditure, both on land and on farm buildings. . . *There was a broad correlation between the amount a landlord spent on the farms on his estate and the extent to which rent levels were maintained after 1879.*⁴

¹ My thanks are due to Michael Edelstein, Paddy Geary, Colm McCarthy, Des Norton, Richard Perren, and the referee, who made very helpful comments on an earlier draft of this note.

² Richard Perren, 'The Landlord and Agricultural Transformation, 1870–1900', *Ag. Hist. Rev.*, xviii, 1970, pp. 36–51; reprinted in P. J. Perry (ed.), *British Agriculture 1875–1914*, 1973, pp. 109–28.

³ J. H. Clapham, *An Economic History of Great Britain: Machines and National Rivalries 1887–1914*, Cambridge, 1936, p. 83.

⁴ Perren, *loc. cit.*, pp. 37, 50; my italics.

Dr Perren's test of this hypothesis is based on the fortunes of eight selected estates, for which statistical information is reported in the Royal Commission on Agriculture of 1894–7.⁵

The general rule for these eight estates was that the larger expenditures on repairs, new buildings and land improvements were associated with the smaller declines in rent and net estate income. This was tested by calculating Spearman's rank correlation coefficient between the expenditure on the permanent structure and land of the estates, expressed as a percentage of the rents received over the twenty-one years, 1872–92, and the decline in rent per acre between 1872–4 and 1890–2. This was found to have a value of -0.67 .

This paper makes two points. First, the statistical support lent by a larger sample of estates to Dr Perren's "general rule" is weaker than that implied in the above passage. Second, the historical relevance of the "general rule" is perhaps questionable: that expenditures by landlords yielded increased rents does not imply that the expenditure—in view of the alternative uses to which it might be put—was beneficial from the standpoint of efficient resource allocation.

In the course of its work the Royal Commission approached several landowners for information on the finances of their estates during the previous two decades. In the Commission's opinion statistics from "certain typical estates" would be a useful supplement to the mass of oral evidence presented to it. Neither the Commission's sampling procedure nor the response

⁵ *Ibid.*, p. 43.

rate of landlords is known, but the Commission's report contains accounts for fifty estates in all, thirty in England and twenty in Scotland. As Dr Perren rightly points out, not all accounts cover the whole period for which details were requested, nor did all estates retain a constant acreage at the time. Dr Perren accordingly reduced the set investigated to eight estates, four in "arable," and four in "livestock" areas. The arable-livestock distinction is pertinent, since the severity of the depression differed across regions and sectors.⁶ But I would argue that the sample is unnecessarily narrow—excluding some estates, for example, because they were "very small outlying estates of large landowners."⁷ A more defensible criterion of selection, used here, might be to select estates that maintained a constant, or near-constant, acreage over the period, and for which the relevant details were furnished by proprietors. This yields 13 estates in England for the period 1872-92, and 24 from its final decade: the totals are 24 and 38 respectively, if one includes Scottish estates as well.⁸

For two reasons, least squares regression is preferable to the rank correlation measure used by Dr Perren. In the first place, regression permits us to distinguish between "arable" and "livestock" in our sample, simply by including a dummy variable; whereas with the Spearman rank correlation statistic one is limited to two variables only. Indeed, Dr Perren's use of the latter arguably reduces the relevance of his textual distinction between land types. Secondly, if one regresses the change in rent per acre on improvement outlays per acre, rather than on outlay as a proportion of rent received, the rent

change can then be interpreted, if somewhat loosely, as a return on a particular outlay.

The Royal Commission data may thus be used as a rough check on the hypothesis that there was underinvestment during the depression, if the sum of improvement outlays (I) over a particular period is interpreted as investment, and the associated rent change (RC) as a return on that investment. In that case the coefficient on I is our estimate of the realized rate of return (b), and the intercept term our measure of rent change on land not improved over the period. Using a long time-period like that of Dr Perren to estimate b may be defended on the grounds that year-to-year rent changes during the depression were erratic. However, it involves an aggregation element since

$$RC_j = b_j I_j, j = 1, \dots, t$$

and b_j may have varied over the period. In that case b is a weighted average of the b_j 's. The test is crude, since the timing of the returns is unknown. Clearly, if the returns occurred with a time lag of several decades, or if most investment took place at the end of the period, the test is an inappropriate one. However, the Royal Commission data eliminate the latter possibility; the former, though surely implausible, awaits investigation.

The estimates include a dummy term (D) for land type; D was set at unity for "livestock" land, and zero for "arable". The inclusion of D improved the fit, and also reduced the size of the coefficient on I . This is because investment per acre was substantially less on "arable" estates than others: omission of D would thus bias b upwards.⁹ Rent and improvement expenditures were calculated in the same manner as in Dr Perren's study.

The estimated coefficients on I are all negative. Not only was the correlation between what landlords spent on tenants' farms and rent

⁶ See, e.g., T. W. Fletcher, 'The Great Depression of English Agriculture, 1873-1896', *Econ. Hist. Rev.*, 2nd ser., XIII, 1960-1; also reprinted in Perry (ed.), *op. cit.*

⁷ Perren, *loc. cit.*, p. 38.

⁸ See *R.C. Agriculture: Particulars on Expenditures and Outgoings on Certain Estates in Great Britain, and Farm Accounts*, B.P.P. XVI (1896). The estates are numbered from I to L in the report. I have used data on the following estates for 1872-92: II, III, VII-XI, XIV, XVI, XVIII, XXVII, XXVIII, XXX, XXXIII, XXXIV, XXXVI, XXXVIII-XLI, XLIV-XLVII. In addition, information provided for I, VI, XII, XIX, XX, XXII-XXVI, XXIX, XXXVII, XLVIII, XLIX was included in the regressions for 1882-92.

⁹ The following estates were put in the "arable" category: VIII-XII, XXVII, XXX. During 1882-92, for example, the average outlay for all estates included in the sample was £3.1 per acre, but it barely exceeded £2.2 on the "arable." The point about bias is well explained in R. J. Wonnacott and T. H. Wonnacott, *Econometrics*, New York, 1970, pp. 68-73.

buoyancy rather weak, but also during the depression the return on landlord investment by this test was less than, say, the yield on Consols.¹⁰ It is true that the overall price level dropped considerably during the period—so that the realized rate of return exceeded the nominal by 1–1½ per cent. However, this also applies to the return on investments outside agriculture.¹¹

¹⁰ "Corrected" Consol and railway stock debenture yields are given in C. K. Harley, 'Goschen's Conversion of the National Debt and the Yield on Consols', *Econ. Hist. Rev.*, 2nd ser. xxix, 1976, pp. 105–6. Between 1879 and 1892 the yield on Consols dropped from 3·17 to 2·61, and the railway-stock yield from 3·73 to 2·93. One might have expected, as Professor Thompson has put it, "that the normal returns on agricultural investment, if economically sound, . . . [compare] with those in private commercial and manufacturing enterprises, rather than with those obtained from public utilities." See F. M. L. Thompson, *English Landed Society in the Nineteenth Century*, 1963, p. 252.

¹¹ For contemporary price changes, see B. R. Mitchell

The underinvestment hypothesis thus remains unproven. But how are the results in Table I best interpreted? One interpretation might be that landlords, caught in a futile effort at bailing out hard-hit tenants, were simply throwing good money after bad. This would be in the spirit of recent allegations about landlord investment behaviour during the decades of "high farming" and earlier: it has been argued that much of their investment before the depression "never paid" and resulted in an "over-capitalized agriculture."¹²

and P. Deane, *Abstract of British Historical Statistics*, Cambridge, 1962, pp. 474–7.

¹² See, for example, Thompson, *op. cit.*, p. 247; J. D. Chambers and G. E. Mingay, *The Agricultural Revolution 1750–1880*, 1966, pp. 167–8, 176–7; F. M. L. Thompson, 'English Great Estates in the Nineteenth Century', *First International Conference of Economic History: Contributions*, Paris, 1960, p. 394.

TABLE I

Period	Sample size	RC = a + bI + cD + u			R ²	r _{RC,I}
		a	b	c		
1872–92	13	–0·369 (4·39)	–0·027 (1·79)	0·427 (4·29)	0·59	0·19
1872–92	24	–0·365 (4·46)	–0·028 (2·49)	0·330 (4·00)	0·41	–0·21
1882–92	24	–0·306 (6·27)	–0·013 (0·88)	0·221 (4·56)	0·47	0·17
1882–92	38	–0·290 (4·86)	–0·020 (1·35)	0·176 (3·05)	0·17	–0·08

Note: The bracketed figures are *t*-statistics. *r*_{RC,I} is the simple correlation coefficient between RC and I.

The Landlord and Agricultural Transformation, 1870–1900: A Rejoinder¹

By RICHARD PERREN

DR Ó Gráda's comment on my article embodies the use of a more sophisticated technique than I employed to measure the efficiency of landlord investment during the "Great Depression" of British agriculture. However, neither the methodology used nor the conclusions reached are beyond criticism. Although it is an ingenious and resourceful exploitation of the data, and more comprehensive than my own, the nature of the source makes it doubtful whether this treatment is a success. Ordinary least squares (OLS) regression is appropriate where the statistical information provides a fairly unambiguous measurement of the phenomenon it is employed to explain, and where the explanatory variables can be correctly identified. It is also necessary that the model which is selected should be correctly specified; and at the very least this requires that it includes the single most important explanatory variable. On a number of counts Dr Ó Gráda's model fails to satisfy these needs.

The use of rent charge (*RC*) as an estimate of the return on landlord investment is open to query. In taking the difference between average rent per acre between two points in time, Dr Ó Gráda misses out any return on investment in the intervening years. This certainly presents a problem with both his 1872–92 equations because rents generally rose up to 1877.² Nineteenth-century landlords would have expected to receive a stream of income from the money they invested, in the form of annual returns,

¹ I should like to thank R. Edwards, C. P. Hallwood, C. H. Lee, G. A. Mackay, and A. G. Kemp for their helpful comments on points contained in this reply. I should also like to thank Cormac Ó Gráda, who freely supplied information regarding the compilation of his data. I am responsible for any errors and misunderstandings remaining.

² R. H. Rhee, *The Rent of Agricultural Land in England and Wales, 1870–1943*, 1949, pp. 40, 42.

over the lifetime of their investments. I do not think that the division of the data into two partially overlapping sets fully answers the inability of Dr Ó Gráda's measure of these returns to include all of the continuing income effects between the base and final years. Thus the return on this investment is biased downwards.

There are also problems involved in the timing of the returns, which he admits is unknown.³ Certain items of expenditure cause more difficulty than others. With buildings there is no problem because they could be filled with crops, animals, or equipment as soon as completed. However, laying down permanent pasture was a more complex business, as revealed by the parliamentary debates of 1883 over the various Bills to provide landlord compensation for tenants' improvements. One member observed:

It was too difficult to obtain anything like an approximate idea of what the compensation should be for laying down permanent pasturage. It was difficult because so much depended upon the way it was dealt with and cared for during the first 10 years. They all knew that [if] during the first two years the grass was mown and no sheep fed over it, and if at the end of the third year fresh seed were thrown down, and afterwards careful attention were given to it, at the end of 10 years there would be really good old turf. . . . It was a matter of impossibility to make with approximate accuracy . . . a calculation of what should be paid.⁴

As permanent pasture was one of the items included in the Royal Commission estate

³ Ó Gráda, "The Landlord and Agricultural Transformation, above, p. 41.

⁴ *Hansard*, 9 May 1883, col. 329: speech by Mr Stavely Hill.

accounts, and therefore in Dr Ó Gráda's measure of improvement expenditure (I), it is not difficult to see that the same problems arise when one considers the possible timing of any returns to landlords on this investment. Again, some other types of investment were likely to have had a very short life. In the estate accounts column 13 is headed: "Drainage, Allowance for Grass Seeds, and other Improvements." Although the expenditures were titled PERMANENT IMPROVEMENTS,⁵ it is hard to believe that some landlords did not include things like lime, bone manure, and other fertilizers which had a life of anywhere between two and around five years.⁶ Indeed, the whole problem of the timing and duration of returns on agricultural investments was widely acknowledged to be exceedingly difficult. The Agricultural Holdings Act of 1883 admitted that it was impossible to determine, except in individual cases. The 1875 Act, which that of 1883 replaced, did have a schedule setting out the duration of various classes of investment, but that of 1883 scrapped the schedule, and set up a formal machinery of arbitration to decide each case on its merits, if landlord and tenant could not agree together.⁷

Whereas the return on investment (RC) is biased downwards by unavoidable omissions, Dr Ó Gráda's statistic for the actual improvement outlay (I) is complete. However, it is difficult to know precisely what meaning should be attached to it when it is related to RC . Thus RC is simply the difference between two points in time which may or may not be fully representative of the intervening years, whilst I constitutes a measure of the stock of improvements over the whole period chosen for the regressions. The specification of the model is itself misleading. At one point Dr Ó Gráda writes: "the intercept term [is] our measure of rent charge on land not improved over the

period." If one accepts his following assertion that the negative coefficient on I is "the realized rate of return"⁸ on investment, then the logic of his former statement is that rents would have declined less had landlords *not* invested at all. This is a line of argument that I find too unconventional to accept. It is generally acknowledged that rents declined not because landlords invested in their estates, but because agricultural prices fell. Indeed, landlords invested to arrest this decline in rents. But because Dr Ó Gráda has chosen a cross-sectional model there is no way that the decline in agricultural prices can be incorporated into it, since prices declined over time. Although this decline had a different impact on each estate according to how the output mix from the farms on each varied, this is something that cannot be observed for each estate. It may be argued that the dummy for land type (D) goes some way towards filling this gap but, as I hope to show below, it does not perform this function satisfactorily.

If we turn to the regression results we find that here we are on very uncertain ground. Indeed, the regression results are at such variance with the statements in the text that one is left with the impression that they have been added as an after-thought. In all the equations the correlation between I and RC is very weak. Thus any regression of I on RC will not yield a statistically significant estimate of the slope bI . Even when the dummy is added to the regressions the results are not much better. The best R^2 (coefficient of determination) value is for the first equation (1872-92, sample size 13) where it is 0.59. But without the dummy the R^2 is only 0.5 (which can be inferred from $r_{RC,I}$). Of course, the use of dummies is completely legitimate, but the reader is warned that over 90 per cent of this equation's explanatory power is vested in a variable that takes only the values of 1 and 0. A similar conclusion applies also to the other three equations. When we examine the slope coefficients bI there are further difficulties. Dr Ó Gráda states: "The estimated

⁵ *R.C. Agriculture: Particulars on Expenditures and Outgoings on Certain Estates in Great Britain, and Farm Accounts*, B.P.P., xvi (1896).

⁶ J. R. McQuiston, 'Tenant Right: Farmer Against Landlord in Victorian England, 1847-1883', *Ag. Hist.*, XLVII, 1973, p. 93.

⁷ Cf. 38 & 39 Vict., ch. 92, with 46 & 47 Vict., chs. 61-2.

⁸ See above, p. 41.

coefficients on I are all negative."⁹ This is misleading. Only in the case of one equation (1872-92, sample size 24) does the standard statistical test support this assertion. We can test the hypothesis for the first equation (1872-92, sample size 13) that bI has a negative influence on RC . This involves a one-tailed test of the null hypothesis $H_0: bI = 0$ against the alternative $H_1: bI < 0$. If H_0 is true bI will be centred on $bI = 0$, and there will be only a 5 per cent possibility of observing a t -statistic for this coefficient of less than -1.812 ; this defines our rejection region.¹⁰ Dr Ó Gráda's observed t -statistic is -1.79 , and this falls within the region bounded by the critical value because it is greater. Hence we cannot reject the null hypothesis. Of course, Dr Ó Gráda may have chosen to test at a less rigorous level, but the 95 per cent one is usually employed,¹¹ and it is appropriate in a case where the dangers of falsely rejecting the null hypothesis are greater than those of wrongly accepting it; that is where the sign for bI is contrary to what theory might lead us to expect. Similar conclusions are reached if we test the same hypothesis for the estimate of bI in both the 1882-92 equations. In the third case (1882-92, sample size 24) the t -statistic Dr Ó Gráda has obtained is so poor that it is significant only below the 90 per cent level. Therefore, as we cannot say that the value obtained is significantly different from zero, we know nothing about its sign.

There is one point where I think Dr Ó Gráda has misunderstood part of my original article.

⁹ See above, p. 41.

¹⁰ From the table of critical values of t . This is with $n-k$ degrees of freedom where n = sample size = 13; and k = number of explanatory variables (which in this case are a , bI and cD) = 3. Dr Ó Gráda's presentation of t -statistic is technically incorrect: for bI the sign should be negative. The testing of hypotheses is well explained in R. J. Wonnacott and T. H. Wonnacott, *Econometrics*, New York, 1970, pp. 63-70, where they deal with "interpreting an estimated regression." See also J. Stewart, *Understanding Econometrics*, 1976, pp. 37-46.

¹¹ Indeed, it is one that he himself has used in a recent publication elsewhere, which also indicates that he does understand these elementary points about the interpretation of regression results: C. Ó Gráda, 'The Beginnings of the Irish Creamery System, 1880-1914', *Econ. Hist. Rev.*, 2nd ser., xxx, 1977, pp. 293-4.

The hypothesis he refers to in his title was simply that "there was a broad correlation between the amount a landlord spent on the farms on his estate and the extent to which rent levels were maintained after 1879."¹² But somewhere along the line Dr Ó Gráda has transformed this simple statement into the hypothesis that depression may have been exacerbated by low investment on the part of landlords. On re-reading my article I can find no point where this is said. But I do agree with his statement that the rate of return on landlord investment at this time was negative, although I do not agree that his model is an effective demonstration of this fact. Indeed, the use of the model in this instance is rather akin to taking a sledgehammer to crack a nut, and then missing. After all, there is support for this view of the return on landlord investment in works that are neither new nor so old that their conclusions have been forgotten.¹³ Indeed, it would be no more than common sense to draw the same inference from my article which correlated estate expenditures with the extent of rent declines. It is unfortunate that Dr Ó Gráda did not carry out my original rank correlation exercise between rent fall and expenditure as a percentage of rent received on the larger sample which he has used for his regressions, because this is a way of directly testing the original hypothesis. I have performed this exercise for the English estates only, for 1872-92 and 1882-92. In the first place it must be emphasized that when the sample size is widened the relationship, as shown by the Spearman coefficients, is considerably weaker. Indeed, it should be rejected because the original test was conducted at the 95 per cent level, and the results obtained here are significant only at the 86 and 83 per cent levels, respectively. However, the Pearson correlations between the percentage decline in rent per

¹² Perren, 'The Landlord and Agricultural Transformation, 1870-1900', *Ag. Hist. Rev.*, xviii, 1970, p. 50.

¹³ F. M. L. Thompson, *English Landed Society in the Nineteenth Century*, 1963, pp. 315-16; C. S. Orwin and E. H. Whetham, *History of British Agriculture, 1846-1914*, 1964, p. 309.

TABLE I

CORRELATIONS BETWEEN PERCENTAGE DECLINE IN RENT PER ACRE AND EXPENDITURE AS A PERCENTAGE OF RENT RECEIVED (COLS. *a* AND *b*) AND EXPENDITURE PER ACRE (COL. *c*) FOR ENGLISH ESTATES ONLY

<i>Period</i>	<i>Sample size</i>	r_s <i>a</i>	<i>b</i>	r <i>c</i>
1872-92	8	-0.67 (0.03)	0.51 (0.10)	0.52 (0.09)
1872-92	13	-0.32 (0.14)	0.27 (0.19)	0.33 (0.14)
1882-92	8	-0.52 (0.09)	0.44 (0.14)	0.47 (0.12)
1882-92	24	-0.20 (0.17)	0.04 (0.43)	0.20 (0.17)

Notes:

r_s , Spearman rank correlation; r , Pearson product moment correlation.

Rent decline per acre between 1872-4 and 1890-2, my original dates and those used by Dr Ó Gráda for his equations. Expenditure per acre is calculated as in Dr Ó Gráda's equations (i.e. for all years in the sample minus the last).

For the Spearman correlation the highest expenditure and the largest rent fall are given the highest ranking.

The first and third samples are my original eight estates. The second and fourth samples are for Dr Ó Gráda's first and third equations. My original sample includes estate XIII; Dr Ó Gráda excludes this estate from his samples.

The bracketed figures are the level of significance.

acre¹⁴ and expenditure per acre (which is Dr Ó Gráda's measure of investment) are also statistically insignificant. The results which are presented in the table confirm the extremely poor relationship which is also shown in the statistics presented in Dr Ó Gráda's comment.

Perhaps some remark on the appropriateness

¹⁴ I prefer to use this measure of rent change, rather than Dr Ó Gráda's absolute figure: I think it gives a better indication of the extent of rent falls. This is because a rent fall of 10p an acre on land originally let at 80p an acre represents a greater percentage decline than a fall of 12p on land let at £1.10.

of OLS regression to this problem should be made here. My opinion is that the nature of the data, as collected by the Royal Commission, does not permit a measurement of the rate of return on landlord investment. Also the formulation of Dr Ó Gráda's model omits the most important explanatory variable, price change, and there is no way that it can be included with this specification. These problems are "historical," and are faced by all historians when they decide what methods to apply to data which are often very limited. But given that Dr Ó Gráda feels the source material can sustain his particular approach, the interpretation of his results requires that certain well-established statistical procedures be impartially applied. In particular, his lack of significance tests for the parameter estimates of his coefficients of *I* is a cause for concern. As Dr Ó Gráda has chosen to ignore the low level of significance which can be attached to three of these values, one wonders why he should bother to include their *t*-statistics at all if they are merely to be ignored. These tests are not a thing that can be neglected or done in an unthinking and purely mechanical way, as they are a crucial part of the interpretation of regression results; a matter which at least one textbook author regards as: "in part an art requiring practice and common sense grounded in an understanding of basic statistical principles."¹⁵ The linear model adopted by Dr Ó Gráda is an extremely powerful and widely used statistical tool. But its use demands care. "As in all statistical applications, however, the power of the method depends on the underlying assumptions being fulfilled for the particular application in question."¹⁶ My own feeling is that in this case they are not.

¹⁵ R. E. Beals, *Statistics for Economists*, Chicago, 1972, p. 284.

¹⁶ J. Johnston, *Econometric Methods*, 2nd edn, New York, 1972, pp. 159-60.

The Trade in Pedigree Livestock 1850-1910

By EDITH H. WHETHAM

GORGE COATES published the first volume of his herd book for Shorthorn cattle in 1822, but it was fifty years old before the Shorthorn breeders formed a society to take responsibility for later issues. The first volume of the Hereford herd book was published in 1846, the second in 1852, though the Hereford Herd Book Society was not formed until 1876. In Table I the breeds of cattle and sheep are classed by the decade in which the first herd or flock book was published, with the date at which the relevant society was formed in brackets if it differs substantially:

century by migrants from Europe, including farm families from Britain and Ireland. Barclay, the historian of the Aberdeen-Angus cattle, estimated that about 2,000 of that breed were exported from Scotland to North America between 1880 and 1883.¹ The editor of the Hereford Herd Book wrote in 1882:²

Now that there is a very extensive demand sprung up for purebred Hereford cattle for exportation to America, their being entered in the English Herd book is made a *sine qua non*. Those who have hitherto ridiculed the

TABLE I
HERD AND FLOCK BOOKS BEGUN IN BRITAIN BY DECADES

	Cattle	Sheep
1820-9	Shorthorn (1875)	-
1840-9	Hereford (1876)	-
1850-9	Devon (1884), Sussex (1879)	-
1860-9	Aberdeen-Angus (1879)	-
1870-9	Ayrshire, Galloway, Jersey, Red Poll (1888), N. and S. Welsh Black (combined 1904)	-
1880-9	Guernsey, Highland, Longhorn	Oxford Down, Shropshire, Suffolk
1890-9	Lincoln Red Shorthorn, South Devon	Border-Leicester, Cheviot Cotswold, Dorset Horn, Hampshire, Kent (Romney), Kerry Hill, Leicester, Lincoln, Southdown, Wensleydale
1900-10	British Holstein (Friesian), Dairy Shorthorn	Blackfaced, Derbyshire Gritstone, Devon Longwool, Dorset Down, Exmoor, Lonk, Ryeland, Welsh Mountain

The functions of the breed societies were to publish the pedigrees hitherto kept by the livestock breeders; to register new entries, and to confirm that they qualified under the rules of each society; and to publicize the merits of the relevant breed.

The stimulus to the formation of these breed societies seems to have come from the countries being settled in the last half of the nineteenth

idea of entering their herds, and who have not paid proper attention to keeping private herd books, anxiously send in such pedigrees as they can make out.

¹ J. R. Barclay, 'Aberdeen-Angus Cattle', *Scot. Jnl Agr.*, II, 1919, p. 459; R. Wallace, *Farm Livestock of Great Britain*, 5th edn, 1923.

² T. Duckham, 'What is a Hereford?', *Livestock Jnl*, 10 Nov. 1882, p. 431.

Among cattle the Guernsey and Jerseys, and among sheep the Hampshire Downs, Oxford Downs, Shropshires, and Southdowns, acquired breed societies in the United States before they appeared in Britain, where their beginning was sometimes in response to pressure from America.³ The annual report on the trade in Shorthorns published by the *Livestock Journal* commented in 1906 on the higher prices obtained at British sales for those animals whose pedigrees met the requirements of the American and Argentine herd books.⁴ Shorthorns were the dominant breed among the exports of cattle since it was the dominant breed in Britain and Ireland until the Second World War. Out of a total of nearly seven million cattle recorded in Britain in 1908, about 4½ million were then classed as Shorthorns, including both the Lincoln Red Shorthorns and the "Irish" cattle. In contrast, the Devons, Ayrshires, and Herefords had fewer than half a million each, and other breeds still smaller numbers.⁵

The number of animals exported from the United Kingdom "not for food" increased in

the 1880's and 1890's, after a rise had occurred in the 1870's in average export values (Table II). In these decades, the westward expansion of the railways across North America opened up the prairies for cattle ranching, and created a huge demand for livestock, at first for Shorthorns, and then for Herefords and Aberdeen-Angus. Between 1870 and 1890, the number of cattle in the United States about doubled, from thirty million to sixty million. By this last date there were also more than twenty million cattle in the Argentine, mostly bred from Shorthorn, Hereford, or Aberdeen-Angus bulls, and breeders in South America became the main buyers of British pedigree cattle in the new century.⁶

Overseas countries periodically banned imports of live animals from Britain whenever there was an epidemic here of foot-and-mouth disease. Such action was reasonable enough in North America, where this disease was hardly known, but it was endemic in South America.⁷ Further complications to the trade arose at the end of the century with the use of tuberculin to diagnose tuberculosis. Most importing

³ H. M. Briggs, *Modern Breeds of Livestock*, New York, 1958.

⁴ J. Thornton, 'Shorthorns in 1905', *Livestock Jnl Almanac*, 1906, pp. 114-26.

⁵ *Agricultural Output of Great Britain*, Cd. 6277, 1912, p. 37.

⁶ *Historical Statistics of the United States: Colonial Times to 1957*, Bureau of the Census, Washington, 1960.

⁷ F. P. Matthews, 'Shorthorns in 1911', *Livestock Jnl Almanac*, 1912, pp. 120-7; 'Shorthorns in 1913', *ibid.*, 1914, pp. 25, 117.

TABLE II
BRITISH EXPORTS OF LIVE ANIMALS AND AVERAGE
EXPORT VALUES 1861-1910

Quinquennial average	Cattle		Sheep	
	Thousands	£ per head	Thousands	£ per head
1861-5	0.5	25	3.8	6.2
1866-70	0.5	26	3.7	4.0
1871-5	0.7	46	4.8	8.1
1876-80	0.6	73	2.8	8.1
1881-5	3.1	39	5.3	7.5
1886-90	2.0	44	7.4	6.8
1891-5	4.6	19	7.2	7.5
1896-1900	3.3	34	8.8	11.5
1901-5	2.8	45	5.7	12.1
1906-10	4.8	45	8.8	12.7

Source: Departmental Committee, *British Export Trade in Livestock*, Cd. 5947, 1911, pp. 24, 26.

countries then required that animals should have passed the tuberculin test, carried out by veterinary surgeons in government employ either in the exporting country or while in quarantine at the port of entry; animals which reacted to the test while in quarantine were destroyed without compensation. Since there was no official testing service in Britain, animals had to be exported subject to the risk of destruction on arrival. The main reason for establishing the committee of 1911 was to persuade the Board of Agriculture to set up a testing and quarantine station in Britain; it had just begun to function when war was declared, and the trade soon vanished.⁸

In spite of these difficulties, and in spite of the low prices of the 1890's, the demand for British livestock continued, and exports reached a new peak in the boom years of 1906-7. Some of this demand may be ascribed to a "snob" element attached to animals imported at high cost from British breeders, whose private records might trace pedigrees back into the eighteenth century; but apart from fashion and prestige there remained the undoubted value of British pedigree livestock when used in the right circumstances by those who had an "eye for the beast." By the end of the nineteenth century, the top breeders in North and South America, in Australia, New Zealand, and South Africa, as well as in Britain and Ireland, were using related livestock whose pedigrees were known for several generations, whose characteristics differed because of adaptations to suit local conditions, but whose differences were kept within limits by the interchange both of livestock and of judges for the main exhibitions in each country.

Such differences were perhaps more marked in the case of sheep than of cattle. Until the 1890's the sheep industries in North and South America, and in Australasia, served the international market in wool, with meat as a subsidiary product for limited local markets. The demand for breeding stock concentrated on the long-wooled British breeds, notably Lincolns,

Kents (Romneys), and Leicesters; rams of these breeds were used for crossing with merino or part-merino ewes which were the original imported stock, though English Shropshires were also favoured in parts of America as giving a good fleece, high fertility, and a meaty lamb. When refrigeration opened the British meat market to farmers in other continents there was a gradual shift from the long-wooled to the Down breeds of sheep, in order to produce early maturing lambs rather than wool, the price of wool having fallen sharply upon international markets from the 1860's onwards. But in the Argentine the demand for Lincoln sheep for the unfenced pampas remained strong through the first decade of the twentieth century.⁹

The formation of breed societies was thus one response to the growth of the export trade in pedigree livestock, but other changes also occurred in the organization of the home trade. Some breed societies instituted collective sales of breeding stock for their members, since only the largest breeders could hope to attract overseas buyers to their annual sale of surplus stock. A group of Shorthorn breeders in the Midlands began twice-yearly collective sales at Birmingham in 1868, and others followed at York, Perth, and Aberdeen. The Sussex Cattle Society held an annual sale at Lewes from 1888, the Highland Cattle Society one at Oban from 1892.¹⁰

A further development was the growth of firms specializing in the marketing and transport of livestock, and in the introduction of foreign buyers to likely sources of supply. The firm of A. Mansell at Shrewsbury, for example, was the official auctioneer for the Shropshire Sheep Society, and it was exporting more than three thousand head of various types of livestock in 1910-11.¹¹

The background to this expanding trade in British pedigree livestock was of course the

⁸ Cd. 5947, 1911, App. x.

¹⁰ J. Thornton, 'Shorthorns in 1907', *Livestock Jnl Almanac*, 1908, pp. 112-21; E. Walford Davies, *Sussex Cattle*, Lewes, n.d.; J. Cameron, 'Highland Cattle', in C. Brynор Jones, ed., *Livestock on the Farm*, 1915, p. 93.

¹¹ Cd. 6032, 1912, *passim*.

⁹ Departmental Committee, British Export Trade in Livestock, Cd. 5947, 1911, and Cd. 6032, 1912, *passim*.

rapidly expanding imports of food into the United Kingdom. Within thirty years from 1870, British imports of fresh, chilled, and frozen beef grew from a few thousand tons annually to more than 200,000 tons, and of mutton and lamb to nearly that figure. Dr Perren has recently described how the exports of meat from North America diminished after 1900 as home consumption caught up with production, but Britain continued to draw

imports of meat and dairy products from the southern hemisphere until after the middle of the present century.¹² This trade evolved naturally from the export of British breeds of livestock during the latter half of the nineteenth century, converting the grass of the empty continents into food for the British people.

¹² R. Perren, 'The North American Beef and Cattle Trade with Great Britain 1870-1914', *Econ. Hist. Rev.*, 2nd ser., XXIV, 1971, pp. 430-44.

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Annual List and Brief Review of Articles on Agrarian History, 1977¹

By RAINE MORGAN

FEW important articles on prehistory were published in 1977. Most notable among them perhaps was that by North and Thomas (160), who put forward a new explanation of man's transition from hunting to settled agriculture. They contend that population pressure was crucial, since it prompted nomadic bands to exclude outsiders from resources and in the process become sedentary. Resulting from this, and more important, was the development of exclusive property rights which provided a vital incentive to raise efficiency and develop new techniques.

For the medieval period Bridbury (25) takes issue with those who argue that the English economy was seriously damaged by wartime taxation and that the Black Death ravaged a population already depleted by royal excess. He cites the firmness of rents and prices, and the failure of labour to exact a higher real wage as evidence of continued population pressure right up to the catastrophe. Conditions thereafter are examined in two separate articles. In one, Farmer (73) provides a follow-up to Titow's work by analysing more evidence on grain-yield ratios from the Winchester accounts. Although results for wheat and barley were poor immediately after the Black Death, productivity soon recovered and later increased substantially, perhaps because of higher livestock numbers. The author finds no support for the traditional view that abandonment of marginal land was a factor. In the early 1400's reeves were sowing grains very largely where their predecessors had been sowing them a century before. This tallies with conclusions drawn from accounts of an Essex manor examined by Britnell (27), who shows that the fall in corn yields and prices was associated with a more extensive use of the existing demesne. On another aspect of estate management Jones (120) spotlights the land dealings of the enterprising Prior John, almoner of Spalding, who not only successfully consolidated and enlarged properties on his own account but also allowed villeins to deal in land so that higher rents could be charged.

The early modern period continues to be the most productive. On methodology Overton de-

¹The date of publication is 1977 unless otherwise noted. References to articles or off-prints should be sent to the Bibliographical Unit, Institute of Agricultural History, University of Reading.

scribes a way of analysing the agricultural content of probate inventories by computer (164), and provides examples to illustrate regional farming patterns and the spread of roots in East Anglia. The limitations of Gregory King as a social analyst are described by Holmes (101), who finds his estimates of income unrealistically low and his figures of population "more the product of strained deduction, of mathematical jiggling, or even plain guesswork, than of firmly grounded information."

There are a number of articles on Scottish agrarian history. Lindsay (136) explains how commercial woodland management in the Highlands was hindered by an expansion of animal husbandry; since trees had to be protected from grazing stock for up to ten years landowners had to weigh possible future income against certain short-term losses in rent and enclosure costs. The origin of the modern rearrangement of Scottish farms into small related groups is reconsidered by Dodgshon (68). Although it was thought that they emerged out of run-rig divisions in the eighteenth and nineteenth centuries the author maintains that the process began much earlier, and concludes that splitting was an on-going process throughout medieval and early modern times. In an article on East Lothian, Whyte (219) challenges the view of stagnation, even decline in seventeenth-century farming, and suggests that the introduction of lime at this time had a significant impact on land use, yields, and the level of rent. Reasons for the survival of the Aberdeenshire peasantry into the late nineteenth century are explored by Carter (39). He points out that lairds found it more profitable to let out reclaimable land rather than improve it themselves, while they also came to depend on the small peasant units as suppliers of casual labour, and of store cattle for fattening on their own larger farms. For England Beckett takes another critical look at the Habakkuk thesis on landownership (12), testing the main points against changes which occurred in Cumbria between the late seventeenth and early eighteenth centuries. In particular he questions whether improved mortgage facilities and strict settlement played more than a limited role in the growth of large estates there, and although the lesser gentry were selling in Cumbria, he suggests that the causes lay in peculiar financial circumstances and speculative mining ventures, rather than in static rents and extra-

vagant life styles as Habakkuk has contended.

The inquiry into social conflict continues. Wells examines the cause of outrage among food rioters in the south-west around 1800 (215), and shows that the belief in a "moral economy" had an important bearing on events. The assumed right to food at a fair price led urban workers to intimidate millers and bakers into releasing supplies in times of scarcity. Booth (20) emphasizes the high incidence of unrest at this time in the north-west, where there was a heavy dependence on imported corn, but here he detects a growing political element. The thesis of the "Great Rebuilding" is reassessed by Machin (146, 147), who argues that activity was basically cyclical in nature and related to changes in farmers' profits and security of tenure. Chartres (41) rejects the "binding mud" analysis of road transport in early modern times, and describes the extensive network of carrier services in operation by the early decades of the eighteenth century.

In two valuable articles on harvest technology, Perkins (170) denies (*pace* Collins) that labour shortage was the main cause of the hand-tool revolution after 1750, at least in Lincolnshire and the East Riding. His main argument is that technical change was a complex process in which numerous forces were at work, including existing modes of husbandry and the landownership structure, as well as soil, and topographical and climatic conditions. Enclosure is receiving more attention. Crafts analyses the process at the macro level (48), and finds that prices, though not necessarily wheat prices, had more bearing than the rate of interest. In a study of land purchase in Sussex (40), Chapman finds that it was mostly craftsmen and tradesmen who bought allotments compulsorily sold to cover enclosure commissioners' costs. The commissioners themselves are the subject of a separate article by Turner (208), who examines their skills and evaluates the importance of the enclosure movement in furthering the surveying and land agents' professions generally. In an important article on aristocratic indebtedness, Cannadine (35) analyses the finances of landed families in the nineteenth century and provides evidence supporting the view that large debts were neither uncommon nor necessarily ruinous up to the 1870's, though after this time declining revenues and loss of confidence severely curtailed them. The degree to which local circumstances could inhibit the progress of new ideas is indicated by Colyer (44), who describes the multitude of difficulties confronting an English land agent in Cardiganshire during the 1840's. For Ireland Ó Gráda (162) traces the beginnings of the creamery system from 1880, concluding that although initially the Irish farmer was slower to adopt it than his Dutch counterpart he quickly made up lost ground, and by 1914 had achieved a revolution in dairying.

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Book Reviews

GRAHAME CLARK, *World Prehistory in New Perspective*. 3rd edn. C.U.P., 1977. xx + 554 pp., 31 tables, 305 illus., 33 maps. £16 (£5.95 paper).

This third edition of Grahame Clark's monumental work on World Prehistory contains a more detailed and up-to-date coverage of particularly America and Australasia than did its predecessors. Besides an introductory chapter on Palaeolithic man and his origins, there are two chapters on the prehistory of Europe, two on North America, two on Asia, and one on each of the three continents Africa, South America, and Australia-Oceania. The text is nicely reproduced, comprising maps of distribution, tables of radio-carbon datings and chronological sequences, drawings of types of artifacts, reconstructions of famous examples of prehistoric architecture, and a great number of photographs of different items. In the margins are references to a selected bibliography, placed at the end together with an index.

No other archaeologist would probably have been capable of covering all aspects of the archaeology of the world so well as Professor Clark. He is extremely well informed about all kinds of recent publications, including bioarchaeological as well as sociological views, his interest is focused on the adaptive capacity and inventiveness of men, and he assumes that every pattern of culture has its own value. Though diffusion and migration can hardly be ignored, they can—according to his introductory remarks—no longer be accepted as blanket explanations of change. This is an important statement by the grand old man of European archaeology, because it means that the cultures of remote parts of the world are no longer to be evaluated exclusively from the white man's standpoint.

However, the inventiveness of men seems not to have been shared by their women in prehistory. Astonishingly enough from the archaeological literature we learn little about the activities of the sex represented in pictures of clay figurines and mother goddesses. Were the flint blades and scrapers used by women as well as by men? What did the housewives do with their pots and baking-utensils, their needles and spinning-whorls, their digging-sticks and net-bags? Were they worshipped as mistresses and goddesses all the time?

Archaeological science was started by men. And men's views are still dominating the subject with their predominant interest in hunting and fishing, bows and arrows, harpoons and dugouts, axes and adzes, spears and clubs for fighting and ceremonies. The tiresome daily work of digging up roots and collecting edible plants, weeding small cultivated plots, winnowing and sieving the grain, grinding it,

and baking bread is not the subject of this book, because its aim is first and foremost to provide us with exact datings and a structure upon which we can hang all such activities.

Still it is felt by the reviewer that such archaeological evidence as plough-marks, ard-ploughs, digging-sticks, and wooden spades should be given space alongside chariots and harnesses, graves and garments, wild and domesticated animals because they provided the fundament of subsistence. In a way this only reflects how neglected the techniques of agriculture in the past have been until quite recently. Until about two decades ago specialists in the study of ploughing implements were almost exclusively concerned with the classification of those items, based on their unimportant details, instead of their ability to till the field. It is now an urgent task for scholars in agricultural history to observe what marks are left on the tools because of the process of wear, and what can be observed in the field of fossil marks of the spade and the plough, plough pebbles and shares, coulter, and relics of the plough itself, and to study them in comparison with written sources, for example from the antiquity of China, and the classic cultures of the Mediterranean area.

However, this has not been the purpose of Grahame Clark. What he has given us is an excellent handbook which should be used by everybody concerned with a special study, whether it be the development of agricultural techniques or a special area or country. He provides us with reliable facts about different cultures and their sequence, their characteristic features and geographical distribution, as well as their interrelationship with other cultures and their exact datings. With Grahame Clark as a companion you always feel on safe ground.

AXEL STEENBERG

G. E. FUSSELL, *Farms, Farmers and Society, Systems of Food Production and Population Numbers*. Coronado Press, Lawrence, Kansas, 1976. x + 332 pp. \$15.

In this book George Fussell sets out to distil his vast reading in agricultural history into a comprehensive account for the general reader of "at least some part of the relation between the development of farming technique and the social organization that was able to expand as the farmers were able to produce enough food to supply a large non-agricultural population." The problem in writing this kind of study is to decide at what level to pitch it, and in some respects Dr Fussell has been too modest: he addresses himself to the general reader, but has a tendency to underestimate how much knowledge he

has taken for granted. There is thus a risk that general readers will not always fully grasp all the implications of his statements.

It was an ambitious task to tackle the entire agricultural history of the world, from the origins of farming to the present day, and it is thus not altogether surprising if the treatment is somewhat uneven. In fact, Europe and the lands of European settlement occupy most of the stage. The method is by straightforward chronological progression, though it is interesting to note that the chapters tend to get shorter as the book progresses. The largest chapter (forty pages) is devoted to prehistoric, ancient Greek, and Roman agriculture. This was a wise choice because most readers will probably know less about this period than the others, and it is the one where Dr Fussell's expertise is most telling. The medieval period is also well covered (indeed about half the book relates to the period before 1500). The range of Dr Fussell's reading (in several languages) is amazing, with 799 items being cited in the bibliography in addition to scores more in the footnote references. With such a mass of documentation behind the book it can hardly fail to be an interesting compendium, but the variety of information can sometimes be bewildering. The tendency towards compression in a study of this kind is unavoidable, and it is to be hoped that readers who are unfamiliar with agricultural history will find it a tempting hors-d'œuvre. If they wish to take the subject further, Dr Fussell has provided them with a veritable feast of bibliographical references.

MICHAEL HAVINDEN

MARY HARVEY, *The Morphological and Tenurial Structure of a Yorkshire Township: Preston in Holderness, 1066-1750*. Department of Geography, Queen Mary College, University of London, Occasional Paper No. 13, 1978. 32 pp. No price stated.

Until parliamentary enclosure, the low-lying Holderness region in the eastern extremity of Yorkshire was farmed upon a distinctive system, remarkable for its simplicity of form. Although the arable covered the major part of each township, it was divided into only two fields and farmed on a two-course rotation. Almost all the lands in each field were aligned in the same direction, even where they crossed streams or tracks, so that their length commonly exceeded 1,000 yards. Eighteenth-century terriers show that although the Preston fields were subdivided into seven bydales, these units were different from furlongs in that they were not cropping divisions, their bounds were not marked by changes in direction, and as they were much larger than furlongs, they were fewer in number.

The terriers reveal a regular ordering of holdings throughout the fields, with each bydale containing a

complete cycle of the order of named lands. Parcels belonging to each holding always lay in the same relative position, with the same neighbouring parcels. The possibility that the lands and bydales conformed to some regular ancient measurement reinforces the impression that the field layout was deliberately planned. Lack of documentation makes it impossible to date this planning accurately, but the author suggests a late eleventh- or early twelfth-century date, shortly after the "harrying of the north", when Holderness formed part of the fee of the Duke of Albemarle. The paper is set out with admirable clarity and has important implications for the study of other planned landscapes.

DAVID HEY

HAROLD RICHARDSON (ed.), *Court Rolls of the Manor of Acomb*. Yorkshire Archaeological Society Record Series, II, CXXXVII (for 1975), 1978. xiv + 216 pp. No price stated.

The cost of publishing has spotlighted a dilemma which has long faced local record societies. On the one hand there is their concern to publish scholarly editions of texts whose interest will transcend county boundaries; and on the other there is the need to produce publications of sufficient interest to the ordinary member to ensure the societies' survival. To marry these is difficult but not impossible. Unfortunately, this book falls neatly between the two stools. The first question asked by university researcher and by ordinary member alike is surely, "Is it interesting?" Reluctantly, the answer here has to be, "No". The only possible justification for publishing seems to have been that someone had done the work; but that work has not extended to providing any editorial comment on the records themselves or on the individuals recorded in them. While there are obvious advantages for the historian of Acomb and for the genealogist, this volume is far too parochial, its time-span far too great, to make any serious contribution to the history of manor courts. With no editor to guide the casual reader through the maze of surrenders and admissions, members of the Y.A.S. may justifiably feel rather hard-done-by for their year's subscription.

ANDREW JONES

MONIQUE CHAUVIN, *Les comptes de la châtelainie de Lamballe, 1387-1482*. Université de Haute-Bretagne, Rennes II, Institut Armoricaïn de Recherches Economiques et Humaines, no. 24, Paris, Klincksieck, 1977. 349 pp., 11 plates, 4 maps. 75 Fr.

This is the first serious modern study of seigneurial accounts in Brittany in the later Middle Ages to be published. Briefly outlining the disturbed political history of Lamballe (one of the constituent parts of the great *apanage* of Penthièvre lying to the south

and east of the bay of St Brieuç) and general problems relating to Breton monetary changes during the period, the author passes on to a rigorous analysis of thirty-three discontinuous accounts which are her main source. The mechanism of account is clearly set out. Receipts are examined in great detail, especially from the evolution of rents and renders in kind (wheat and rye are the main crops), and the farming out of thirty-four seigneurial mills (including three fulling mills and a tannery). Upkeep of mills and market halls, wages of officials, pensions to religious houses and others were regular items of expenditure, but by far the largest category was payment by "my lord's letters" without further detail supplied. In 1471, for instance, 4,600 *livres* out of 7,700 *livres* was spent in this way. As a result, although the author concludes that the castellany was exploited efficiently, and accounts generally show a credit balance, there is no means of establishing actual profits. In this respect, as in so many others, these particular documents, of which extensive extracts are provided both in footnotes and in an appendix, are typical of those which survive in surprisingly large numbers for the estates of other leading Breton families, although few comparisons are attempted.

MICHAEL JONES

R. MACHIN (ed.), *Probate Inventories and Manorial Excepts of Chetmole, Leigh and Yetminster*. University of Bristol, Department of Extramural Studies, 1976. 171 pp. £1.

This cyclostyled volume reproduces 141 probate inventories from the Peculiar of Yetminster in Dorset, ranging in date from 1576 to 1769; the majority (some eighty) are from the second half of the seventeenth century. The excepts record transfers on the court rolls of customary tenures which were "in practice virtually freehold." Mr Machin provides a valuable introduction in which he analyses the evidence from the inventories, including a particularly valuable section on the evidence for lending. He also uses the excepts and inventories to describe the family cycle of the tenants and to reconstruct the plans of their houses. In four cases he has been able to relate this documentary evidence to surviving houses whose plans are given. He has also contributed a most useful glossary and an index of persons. This is an extremely valuable book at a most reasonable price.

J. P. COOPER

VICTOR SKIPP, *Crisis and Development: An Ecological Case Study of the Forest of Arden, 1570-1674*. C.U.P., 1978. xii + 132 pp. £6.50.

During the sixteenth and seventeenth centuries the British population doubled in size, growing faster than that of any other European country. In the

early fourteenth century a population of four to five million could not be sustained, yet this time the threat of a Malthusian check was averted. How was the barrier surmounted?

With admirable clarity, Mr Skipp has presented a convincing account of the demographic and agrarian history of the five north Arden parishes that he wrote about in the Finberg *Festschrift* published by this Society in 1970. His demographic analysis, based on several years' work by extramural classes, reveals a rapid growth of population in the late sixteenth and early seventeenth centuries, leading to a serious imbalance between population and resources. A mild check on growth between 1613 and 1619 reduced the local population by about 10 per cent, but recovery was rapid, and the total number of people rose from about 3,100 before the check to about 3,400 in 1640, remaining near this level for the rest of the century. Though life for the numerous landless cottagers was undoubtedly harsh, no further Malthusian crisis developed.

A considerable exodus of refugees in the 1610's and 1620's and continued later emigration partly account for this success, but more positive responses were necessary to deal with the previous influx. The new landless cottagers were accommodated by subletting and division of property as well as encroachments on the waste, and the whole nature of the agrarian economy was transformed so that food could be provided for those without facilities for producing their own. From about 1610 onwards probate inventories reveal a pronounced shift from a pastoral economy to one much more geared to arable production. Convertible husbandry, intensive enclosure activity, improvements such as marling and liming, and a concentration on kine rather than beef cattle improved the local food supply and provided fresh employment. At the same time, though here the evidence is less clear, the number of craftsmen increased considerably; the chief group were the landless weavers, who were quite different in character from the craftsmen-farmers of the old economy. Thus, agricultural and industrial developments can best be understood as a response to demographic pressures.

It is a pity that Mr Skipp stops in 1674 and takes no account of A. Gooder's article, 'The Population Crisis of 1727-30 in Warwickshire', in *Midland History*, 1, 4 (1972), pp. 1-22, which is very relevant to his thesis. Nevertheless, his book is an important contribution to our understanding of early modern agrarian history, and it should stimulate and direct much further research. How pleasing it is to read a demographic study that is not divorced from the social and economic history of the region, and how rewarding are his efforts to explain the interactions of demographic and agrarian change. The experience of these north Arden parishes may well have

been typical of many other parts of the country, though, as Mr Skipp is careful to point out, we obviously need to establish a typology of reaction among different types of community. In north Arden, where a significant body of landless cottagers established themselves, we have what the author calls a "high pressure" positive reaction; where sufficient land was available to absorb immigrants a "low pressure" solution on medieval lines was all that was necessary; elsewhere parishes reacted negatively, and refused to support additional numbers. Mr Skipp puts forward several "general propositions" which will help to focus research and to provide a framework of understanding. The biggest problem is to trace the movements of the landless; shall we ever know where the north Arden emigrants finally settled or where the immigrants in "low pressure" regions came from? The equation is unlikely to be simple.

DAVID HEY

JOAN THIRSK, *Economic Policy and Projects: The Development of a Consumer Society in Early Modern England*. Clarendon Press: O.U.P., 1978. vi + 199 pp. £6.

The economy and society of early modern England are commonly associated with underdevelopment, chronic underemployment of labour, and inflation, rather than with significant developments in the shaping of a consumer society, which appears as the predominant theme or sub-title of this major revisionary work in English economic and social history.

To date it has been left to Professors John and Eversley to stress the importance of an expanding home market in stimulating the production of consumer goods between 1700 and 1780. Now Dr Thirsk questions very strongly the convention of treating "the mass market for consumer goods as a product of the Industrial Revolution, insignificant before the later eighteenth century," involving initially a middle-class demand which "gradually filtered down to the working class." The roots of this significant economic development are to be traced back to "the first half of the sixteenth century, when a deliberate policy decision was taken to encourage consumer industries, in order to reduce imports, and to give more work to the poor," so that by 1600 "goods that had been deemed rich men's luxuries in 1540 were being made in so many different qualities and at such varied prices that they came within the reach of everyman." Thereafter, during the seventeenth century, "home demand for cheap goods was as stimulating and expansive as the demand for expensive quality wares, probably even more so." There developed before 1700 "a consumer society that embraced not only the nobility and gentry . . . but included humble peasants,

labourers, and servants as well" (pp. 8, 125, 179).

Economic Policy and Projects represents in essence the Ford Lectures which Dr Thirsk delivered at Oxford during 1975. It places in a wider economic context the emergence of new industries and new kinds of employment during the late sixteenth and seventeenth centuries, centred around the basic argument that "throughout the seventeenth century the production of new consumer goods absorbed an increasing quantity of the nation's economic resources" (pp. v, 158).

"Project" and "projector" are two key words associated with the seventeenth century and, following an important introductory chapter, the next three chapters explore in considerable detail the industrial and agricultural projects which were begun between 1540 and 1630. Chapter v examines the quality of goods which were produced, and the types and depth of demand which they attracted. How they were viewed and assessed by political economists up to and including Adam Smith forms the subject matter of Chapter vi.

The "new" projects or occupations, whose economic significance is measured in this study, were of two kinds: some were entirely new, whereas others enjoyed a new success on account of technical advances. On the industrial side were stocking-knitting, button-making, pins and nails, salt, starch, soap, knives and tools, tobacco-pipes, pots and ovens, alum-mining, ribbon- and lace-making, linen-weaving, the brewing of ale and beer, and the distilling of *aqua vitae*. On the agricultural side they included the growing of rape for the sake of the oil; flax and hemp, partly for the oil, but more for the making of thread, linen, and canvas; woad, madder, and weld for dyes; tobacco, flowers and vegetables, vines, and mulberries for the feeding of silkworms.

Although not all projects succeeded, their introduction had many unforeseen but profound consequences, not least in creating employment both in rural areas and in towns. Dr Thirsk's study abounds with local examples of places or communities which benefited materially from the introduction of new occupations. Staffordshire, for instance, became "a county brimming with rural industries," while "to satisfy the home and foreign demand for stockings in the 1690's, 15.3 per cent of labouring and pauper families could have supplemented their living by knitting as a by-employment" (p. 168).

There is much to interest the historian of agriculture and rural economies in Dr Thirsk's book. The early 1580's saw the development of a considerable interest in woad (pp. 3-4, 28-30). Here was a crop which spread with astonishing rapidity throughout southern England, so that in 1586 4,910 acres in twelve southern counties were sown with woad. Here was work for about 20,000 people,

"equivalent to the *total* population of 25 modest market towns of 800 inhabitants apiece, or 100 villages of 200 inhabitants each." In the knowledge that cole-seed and hemp were excellent crops on newly drained fen, plans to produce oil at home, originating successfully during the 1570's, were linked with drainage projects "and gave fresh encouragement to yet another group of inventors and projectors—those who were commending their designs for windmills and drainage engines." During the seventeenth century "the cultivation of rape-seed, and the crushing of rape oil, became two commonplace occupations in the eastern half of England," with Cambridgeshire as the leading county and Wisbech as the principal port, having seven seed-crushing mills at work in 1735: "no wonder that Wisbech could afford street lighting with oil lamps before York, Coventry, or Birmingham" (pp. 30, 69–72). In relation to the linen industry, hemp and flax developed in scattered villages all over England on a scale sufficient to support a substantial local industry.

Tobacco was introduced as a new field crop to Winchcombe, Gloucestershire, in 1619. Despite a government ban on its cultivation at the end of that year in order to encourage the settlement and prosperity of the Virginia plantation, seven years later it was still being grown in thirty-nine places in Gloucestershire, while fifty years later in 1670 it was being cultivated in twenty-two counties in England and Wales. It proved to be a superbly profitable crop, being generally recognized from the late 1620's "as a poor man's crop that yielded him a good profit in return for much hard labour." Tobacco-growing forged ahead as a peasant activity to become an occupation that employed hundreds of poor people during the 1640's and 1650's (pp. 87–8, 102–3, 136, 141).

Projects not only "diversified industry and agriculture to an unprecedented degree," but their reality influenced political economists and their essays during the second half of the seventeenth century, causing them to emphasize the potential benefits of home-based production, including "systems of farming that employed labour intensively." In political and economic thinking new consumer industries and the success of industrial occupations combined with farming in rural areas introduced "new propositions that displaced some long-established tenets of the old political economy," such as sixteenth-century preoccupations with overseas trade or the notion that "cereals were the staff of life and ploughmen formed the backbone of the nation" (pp. 8, 147–8).

In arguing that projects initiated during the sixteenth and seventeenth centuries produced more goods in greater quantity than ever before, and thereby promoted the growth of a consumer

society, Dr Thirsk stresses that "their success is readily demonstrated in any random comparison between the standard household goods of husbandmen living in the first half of the sixteenth century and those living in the later seventeenth." In personal wear, household goods, and diet there was more choice. Country wares were made for common people but how could they afford them and how was their diffusion achieved?

During the seventeenth century the incomes of the lower classes improved, especially since wages earned by wives and children were added to those of their husbands. Seventeenth-century market-towns grew in size, assumed a grander role in trading and social and cultural life, and "the lively demand for consumer goods that was maintained there was fuelled by the purchasing power of yeomen and gentry from a wide rural area" (pp. 173, 175). Because pastoral areas came to support dual economies, more agricultural wealth was being created in pastoral than in arable country. Overall, even "if we cannot speak with certainty of rising *per capita* incomes throughout the population in the seventeenth century, we can point to numerous communities in the kingdom, especially in towns and in pastoral-industrial areas, where the labouring classes found cash to spare for consumer goods in 1700 that had no place in their budgets in 1550—brass cooking pots, iron frying pans, earthenware dishes, knitted stockings, even a lace frill for a cap or apron" (p. 175).

Another important theme in Dr Thirsk's book concerns the expansion of rural industrial by-employments, especially in pastoral areas. Rural industries flourished because they offered a lot of serviceable goods—"nothing expensive, just everyday necessities, plus some fancy wares that were cheap and cheerful, and came within the purses of working men and women" (p. 118). It is "the simplicity of the industrial structure supporting substantial rural industries [which] requires emphasis, for some economic historians have a strong desire to turn it into something far more elaborate, and look for capital accumulation where nothing so grand was needed or was taking place" (p. 111). Fixed capital costs were tiny in most of the new consumer industries, so that "the carefully planned financial organization of industry that we take for granted in the nineteenth century was rudimentary in the seventeenth," when "industrial enterprises were launched . . . without calling for investment in expensive fixed equipment," when "makeshifts were just as serviceable," when woad could be adopted as a new crop one year to disappear the next (pp. 169, 171). Most consumer occupations were started on a shoe-string and they grew rapidly because they quickly attracted many individuals operating independently (p. 172).

In the final analysis it is readily admitted that the quantitative contribution of the new industries and new crops cannot be precisely measured, but equally the same difficulties of accurate measurement apply to the old products. The reviewer cannot but agree with the author's lament that "the theme of this book would be satisfyingly rounded off, if it were possible to measure the value of the contribution made by new consumer industries and new crops to the total production of the nation" (p. 177).

Dr Thirsk's *Economic Policy and Projects* is much to be welcomed; not only is it beautifully written but it covers much unfamiliar ground on the sixteenth and seventeenth centuries, and suggests several new openings for research. It is clearly a major revisionary work, which points to new interpretations of England's early modern economy in the light of what followed during the eighteenth and nineteenth centuries.

JOHN WHYMAN

CENTRE D'ESTUDIS HISTÒRICS INTERNACIONALS,
Estudis d'Història Agrària. Vol. I. Barcelona,
Curial Edicions Catalanes, 1978. 284 pp.

The end of *Franquismo* in Spain has seen the emergence of a number of new journals dedicated to the study of economic and social history. Nowhere is this more evident than in the field of agricultural history. In 1976 the Ministry of Agriculture in Madrid began to publish *Agricultura y Sociedad* which among other things is notable for its re-editions of important historical documents with particular relevance to the Spanish countryside.

Now the Centre for the Study of International History at the University of Barcelona and Curial, publishers of the excellent historical review, *Recerques*, have brought out *Estudis d'Història Agrària* (Studies in Agrarian History). The aim of the new journal, according to its editor, Emili Giralt, is to provide an outlet for the numerous projects in rural history that are at present being undertaken throughout the peninsula, in Galicia, Andalusia, Euskadi, Madrid, Catalonia, and Valencia. Particular attention is to be paid to problems of theory, methodology, and interpretation. Giralt states at the outset the desire of the review's collaborators to encourage healthy polemic.

The first edition augurs well for the future. There are articles by Slicher Van Bath on technical developments in European agriculture, by Rodney Hilton on the peasantry as a class, and by Joan Martínez Alier which poses the question: Does the development of capitalist agriculture imply the proletarianization of the peasantry?

The review has also gathered in a rich harvest of articles on a variety of topics covering the last millenium and a half of Spanish agricultural history. Miguel Barceló studies the plagues of locusts in

Carpenteria between 578 and 640, and corroborates the opinion of P. D. King that the reduction of population in Hispania in the sixth and seventh centuries induced the aristocracy and the monarchy of Toledo to increase their hold over an already enslaved labour force.

An article on the Church lands in Zamora in the twelfth and thirteenth centuries by José-Luis Martín shows how the kings, bishops, abbots, and others repopulated the area according to a feudal model, maintaining numerous peasants in dependence during periods of apparent predominance of personal freedom.

Agricultural production and productivity in seventeenth-century Catalonia is researched by Eva Serra i Puig from decimal and cadastral sources, while Esteban Canales has worked on the patrimonial archive of the House of Moya, which shows the yields of two plantations in the district of Massanet de la Selva (Gerona) between 1616 and 1859. Both accounts demonstrate the prime significance of cereal cultivation, particularly wheat, and the fluctuating roles of other crops.

Relative yields of different crops in Barcelona and the Baix Llobregat in the mid-eighteenth century is the subject of a detailed account by Elisa Badosa i Coll.

A. Sopeña, Ramon Garrabou, and Teresa Carnero i Arbat offer three studies of the nineteenth century. Sopeña compares the differing fortunes of two estates in the Baix Noguera (Catalonia) from 1830 to 1860, both of which experienced increases in cultivation. Garrabou, one of the leading writers on agrarian history in Spain today, analyses the accounts of three estates in inland Catalonia which he finds representative of the whole "comarca". Finally, Teresa Carnero writes on the Great Depression in Valencian agriculture during the 1880's, showing how the agrarian middle classes rejected technical improvements in rice cultivation, preferring instead to lobby for increased tariff protection.

In short, *Estudis d'Història Agrària* promises to be an invaluable and comprehensive work on Spanish agriculture, and deserves every encouragement.

JOSEPH HARRISON

M. W. FLINN *et al.*, *Scottish Population History from the Seventeenth Century to the 1930's*. C.U.P., 1977. xxv + 547 pp., 3 maps, 23 figs. £19.50.

In 1968 Professor Flinn and his colleagues were awarded a grant from the S.S.R.C. to investigate the *terra incognita* of Scottish population history, and all concerned must be warmly congratulated on their remarkable feat of achieving so much within a comparatively short space of time. They have faced and, as far as can reasonably be expected, overcome some

grave difficulties arising out of the deficiencies of their source material. Since, apparently, not a single parish register can be found of a quality suitable for family reconstitution, there are little more than tantalizing glimpses of possible increases in procreation and family size during the eighteenth century, and estimates of the prevailing rates of fertility have to be inferred by recourse to the somewhat adventurous method of invoking and applying the regional model life tables of Coale and Demeny, as demonstrated by Hollingsworth in his *Historical Demography* (1969). In the circumstances the contributors prefer to focus on fluctuations (rather than levels) of mortality, using for this purpose an index constructed by aggregating the burials in 115 registers. This has some obvious shortcomings (notably the under-representation of some regions), but is used to decidedly good effect. Of course, the situation with respect to sources was transformed with the advent of civil registration in 1855.

Part I offers a convenient summary view of long-term changes, and prefaces more detailed accounts of the seventeenth, eighteenth, and nineteenth and twentieth centuries, written by Professor Smout, Miss Mitchison, and Professor Flinn respectively. In short, they show that, like its predecessor, the seventeenth century was marked by frequent mortality crises culminating in that of the "ill-years" of the 1690's (the last occasion on which people died of hunger in large numbers), which effectively prevented population growth. The virtual disappearance of such crises during the eighteenth century is tentatively ascribed to improved trade which mitigated local famines, to some autonomous decline in the frequency or virulence of disease, and to a noticeably higher sense of responsibility among landlords (more especially in the Lowlands) than they had hitherto evinced. Population growth appears to have commenced about 1750, and was assisted by vaccination after 1800. However, the balance of population was shifting townwards, eventually engendering environmental problems with which contemporary authorities were unable to cope. The increases in mortality after about 1830 were not reversed until stronger public health measures and higher living standards began to take effect some forty years later. A subsequent fall in mortality was then accompanied, as elsewhere, by a decline in fertility, and by the 1920's Scotland's population had ceased to grow. There is a good deal of useful material on migration within and beyond the borders of Scotland, which in every decade during the nineteenth century grew more slowly than England and Wales, and which, strikingly, lost some 44 per cent (net) of its natural increase between 1895 and 1938.

The study addresses itself to a number of matters of special interest to students of agricultural history

and rural society. It is suggested that agrarian improvements can have had little impact on mortality before the 1790's. There is an interesting section on illegitimacy in the nineteenth century, and its connection with variations in the pattern of farm service and rural housing. Appendix B makes available the fiars prices (annual statements of the accepted prices of basic farm products) for a number of counties through the period 1619-1826. And, with the study throughout emphasizing regional differences, particular attention is paid to the Malthusian pressures invited by the growth of population in the Highlands and islands after the middle of the eighteenth century. Cattle-raising, kelping, and fishing were each part of the reaction, as were emigration and the subdivision of holdings. As in Ireland, the cultivation of the potato became a major feature of peasant subsistence, and is adjudged to have offered a fifty-year breathing space between the 1780's and the 1830's. Although the famine of the late 1840's did not have an impact so dire as in Ireland (the scale of the problem was more manageable and institutional, and geographical circumstances more favourable), it did, nevertheless, presage responses very reminiscent of those described by Connell and Kennedy for Ireland. These included regular emigration, an imbalanced sex-ratio limiting the incidence of marriage (in this case, however, a deficit of males), and a somewhat late age at marriage, all of which worked to reduce crude fertility rates in the hitherto hard-pressed areas.

It was the aim of the authors to provide a general framework serving as a springboard for future inquiries, and the vast amount of informed comment on the sources will be a boon to intending researchers. They also aspired to make a contribution towards the understanding of demographic processes, and to interest those concerned with the social history of Scotland. In all these aims they have succeeded admirably, and the product of their labours must be accounted a splendid contribution to the demographic history as a specialist discipline, and to British social history in the wider sense.

W. A. ARMSTRONG

M. L. PARRY, *Climatic Change, Agriculture and Settlement*. Folkestone, Dawson/Archon Books, 1978. 214 pp., 44 figs., 8 plates, 4 tables. £9.

In recent years the concept of climatic change has gained widespread acceptance and the nature of present and future change has been the subject of considerable speculation. Much of the debate has centred on the effects of such changes on agricultural production and food supply, for in a world struggling to meet the dietary needs of an ever-expanding population, the impact of climatic fluctuations could well be of major significance. The

evidence from the past presented in this volume suggests that there is considerable cause for concern.

Attempts to assess the influence of climate on human affairs have seldom met with much success, but in presenting the results of his work Dr Parry has done much to change that situation. The opening chapter on new evidence and old attitudes, plus the excellent survey of current thinking on the process and chronology of climatic change, together provide a useful perspective for the more detailed study that follows. The latter focuses on the upland area around the Lammermuir Hills in south-east Scotland, a region in which agriculture and settlement were particularly vulnerable to the vagaries of climate, yet it is far from parochial in its outlook, with well-integrated accounts of similarly affected areas in Scandinavia, Iceland, and North America. In the climatically marginal areas of northern Europe the important elements influencing agricultural activities, particularly cereal production, are identified as exposure, summer wetness, and summer warmth, and using climatic data from south-east Scotland these elements are combined to produce a map of the marginal land in that area. Similar maps for Britain and northern Europe were also produced to identify areas most likely to experience environmental stress during periods of climatic change. South-east Scotland provides abundant evidence of the effects of climatically induced stress working through such factors as site viability, crop yield, and harvest failure, and this has been used to illustrate the significant contribution of climatic change to shifts in cultivation and rural settlement. An examination of comparable conditions elsewhere in northern Europe reinforces the conclusions reached from the Scottish evidence, and several short accounts of the changing situation in the Great Plains of North America, where the critical climatic elements were different from those in Europe, provide useful comparison. The study concludes with a short assessment of the impact of short-term climatic fluctuations in climatically marginal areas.

In examining the relationship of former climatic change to agriculture and settlement, Dr Parry has made an important contribution to a largely neglected sector of historical geography. A major part of the contribution is technique, for this is the first major attempt to quantify the elements involved. Given the complex nature of much of the data and their questionable accuracy in some cases, this is no easy task, but Dr Parry has been generally successful in remaining within the limitations of the data while presenting a quantitative framework for the role of climatic change. Adequate consideration is also given to the socio-economic, cultural, and technological factors that might be expected to influence agriculture and settlement.

The overall structure of the book is good, although a final chapter summarizing the conclusions and the implications of the study would not have been out of place. Documentation is excellent, both extensive and up to date, with some thirty-three pages in this relatively slim volume devoted to notes, references, and bibliography. In contrast, the quality of the illustrations is mixed. This may be due in part to printing (as in Fig. 16, where the moorland symbol is far from distinct) but more often it is due to lack of standardization in the use of symbols. In several cases similar types of shading are used to indicate different conditions on adjacent maps (e.g. marginal and sub-marginal land in Figs. 19 and 20), which could lead to confusion. For the most part the illustrations are well integrated with the text.

Dr Parry has produced a book which will appeal not only to historians and climatologists but to a much wider readership as well. His detailed quantitative approach will surely be adopted by others which can only lead to an improved understanding of the impact of weather and climate on human activities in the past—an improvement long overdue!

DAVID KEMP

E. J. T. COLLINS, *The Economy of Upland Britain, 1750-1950: An Illustrated Review*. Univ. of Reading Centre for Agricultural Strategy, 1978. 116 pp., 37 plates. £2.20 post-free.

The upland zone of Britain discussed in this book consists primarily of the upland parts of Scotland (including Aberdeen and Perthshire), upland Wales, and upland northern England. The text itself is brief, occupying nineteen pages; there follows a very interesting collection of photographs, stretching well back into the nineteenth century, and a comprehensive set of appendices with maps and statistical tables on the population, land use, livestock population, crop yields, and mineral deposits of the upland zone.

Despite the brevity of his text, Dr Collins succeeds in giving a lucid account of the role of agriculture, extractive industries, manufacturing, fishing, and forestry in the upland economy, together with recent developments in hydro-electricity, water supply, forestry, and recreation. In the industrial revolution the uplands played an important part in supplying food, raw materials, manufactures, and manpower to the lowlands, and thereby supported a considerable population. The decline of this role, after 1880, created the regional problems which persist today. Trade and investment flows, the author remarks, assumed a pattern similar to those between rich and poor countries, and primary and secondary producers in the world economy. Since the 1930's government intervention has sought to counter the depressing influence of

market forces. But "the emptiness of the upland landscape—the abandoned mines, derelict factories and deserted farmhouses—testify to the unevenness of the struggle."

G. E. MINGAY

DAVID W. HOWELL, *Land and People in Nineteenth-Century Wales*. Routledge & Kegan Paul, 1977. xv + 207 pp. £6.95.

Agricultural historians have every reason to welcome these new Studies in Economic History, edited by Professor F. M. L. Thompson. We have already had Eric Evans's *The Contentious Tithe*, now we are offered David Howell's excellent general survey of nineteenth-century Welsh agriculture, and more volumes of direct interest are promised soon.

Studies of various aspects of Welsh agricultural history have appeared in print before, but this is the first book that deals with the whole of the country during this period. We are told that the title is meant to stress that the study is an economic history with a strong emphasis on human factors. In this it succeeds admirably, covering all the themes and topics that one expects in a book on farming, with frequent comparisons with other parts of Britain. It will be essential reading not only for those concerned with the history of Wales but for all students of modern agricultural history.

Dr Howell has made extensive use of the private papers of landowners, and this has undoubtedly given him a new perspective, allowing him to argue persuasively that the rift between anglicized, C. of E., and Tory owners and Welsh-speaking, Nonconformist, and Liberal tenants has been greatly overplayed. Wales was a country of estates that were mostly let in small parcels to tenants. Letters show that although landlords rarely managed their estates personally, they were in regular touch with agents and other officials over everyday affairs, and it is untrue to say that they were largely absentees. Letters from agents to landowners on behalf of tenants show, too, that they were not the harsh figures that some would have us believe. In difficult years tenants were often allowed to run up high arrears of rent. The complex progression from leases for lives to yearly tenancies met with little opposition, and did not result in holdings frequently changing hands. Indeed, the author stresses that throughout the century families remained tenants on the same farms from generation to generation to a remarkable degree. By the mid-century yearly agreements had become the basic form of land tenure, under which the landlord was made responsible for improvements. Estate accounts show that during the second half of the nineteenth century large owners in many instances invested 20–25 per cent of gross income, and received only a

small return through rent increases. All this demonstrates that much of the criticism by the Nonconformist radical press was ill-founded. The number of political evictions was grossly exaggerated, and the Welsh Land Question was to a considerable extent the product of sectarian and political grievances.

Thus, the author argues that the undoubted backwardness of Welsh agriculture was only marginally a consequence of imperfect tenurial relationships. More important constraints were those of physical geography, poor communications with potential markets in the great centres of trade and manufacture, the language barrier restricting diffusion of ideas and information, the lack of capital, and the conservative peasant mentality. The traditional Welsh ideal was that of the small family farm, but with the rise of population this became increasingly difficult to attain. Land hunger kept farms small, and the Welsh farmer could survive only by relentless hard work and frugal living. The sale of stores paid the rent, and sales of butter, cheese, eggs, and spare poultry paid for current expenses. At least he was shielded from the drastic fluctuations experienced in some English counties. Dr Howell portrays the Welsh peasant as short of capital, ill-educated, wanting in enterprise, wedded to traditional methods, and suspicious of change; his basic concern was to keep down the rent, and even the coming of the railways did not inject a spirit of enterprise and capital. Perhaps it is as well that this assessment comes from an author who is unmistakably Welsh, and who reminded us at a recent conference of the society that there are two levels to life: the material and the spiritual.

DAVID HEY

RICHARD PERREN, *The Meat Trade in Britain 1840–1914*. Routledge & Kegan Paul, 1978. x + 258 pp. £7.50.

The production of meat accounted for a large part of total English farm output in the nineteenth century (30 per cent in 1867–71, and 36 per cent in 1894–8). By 1910–14 the 1½ million tons of domestic meat consumed in the United Kingdom were supplemented by over a million tons of imports, and consumption per head, 87.3 pounds in the 1850's, had risen to almost 127 pounds.

Richard Perren's monograph deals with an important subject, and plugs a notable gap in the existing literature. More than this, the range of topics which he covers is considerably wider than his title might suggest. In addition to the trade in domestic livestock and dead meat (including the horrifying trade in tuberculous carcasses), and the import trade from Europe, Australasia, and the Americas, the book deals also with the changes in the internal distribution of meat and the markets of

London and the provinces. An important element in this changing picture was the contemporary developments in steam shipping and cold storage. (The first cold store in Britain appears to have been one started in 1877, and for some time the chilled beef imported from America had to be distributed rapidly or kept on board while a customer was found.)

Of particular value to the specialist are the book's many statistical tables. And many of the figures slipped into the tightly packed text are extremely striking: to take but one small example, the thirteen million sheep and mere half a million people of the New Zealand of 1880, where, before the export trade, a sheep had little value beyond that of its fleece; and when the frozen-mutton trade began a return of 1½d. per pound was sufficient to cover the New Zealand farmer's expenses and make export worth while, though at Smithfield his mutton was sold at 4d. or 5d. a pound. A vast amount of research has gone into the making of this deceptively slim volume which now becomes an invaluable source for the period.

G. E. MINGAY

MAISIE and RICHARD CONRAT, *The American Farm*.

Scolar Press, 1977. 256 pp., illus. £12.50.

The work of more than eighty photographers, some well known, the majority obscure, occupies most of the pages of this book. The text has a supporting and explanatory role, and though brief is full of penetrating observations illuminated by the words of those who actually worked the land. It is certainly not a makeweight but a commentary worth reading in its own right. Still, it is the photographs which really give the book its unique character. For the most part they are unfamiliar, and range from the sowing of grain by hand in the Maine of 1888 to southern cotton pickers of the 1860's, Nebraska plains sodhouses of the 1880's, and migratory pickers of California fruit, lettuce, and peas in the 1960's. The immediacy of the photograph brings out more vividly than any text the enormous variations in American farming and its progress from bullock-ploughs and wooden shacks to the huge, mechanized, agro-business complexes of today. The isolation of western farmsteads, the back-breaking labour of the early years, the hardships of cultivating virgin land in primitive conditions are brilliantly portrayed. Many of the pictures have a sombre, pathetic quality—there is not much happiness in their scenes—the dust-bowl farms, abandoned Montana farmhouses, derelict shacks which were once homes in Oklahoma. Others show rich wheat lands, huge orchards, and vast plains of lettuce, their cultivation making fantastic patterns across the landscape. But it is the faces which linger in the memory long after the book is closed: faces

of poverty, suffering, and endurance. Here is the visual element which truly brings to life the prosaic under-statements of the textbook.

G. E. MINGAY

HEATHER GILBERT, *The End of the Road: The Life of Lord Mount Stephen, Vol. II, 1891-1921*. Aberdeen U.P., 1977. xiii + 442 pp., illus. £10.

This book concludes Mrs Gilbert's biography of Lord Mount Stephen. (The earlier volume, *Awakening Continent: The Life of Lord Mount Stephen, Vol. I, 1829-91*, was noted briefly in this REVIEW, vol. xv, 1967, pp. 61-2.) Its strength lies in Mrs Gilbert's exhaustive search through the available primary materials, and her painstaking reconstruction of events from 1891 to Stephen's death in 1921. In my view, however, this volume is much less successful than the earlier book, which focused on Stephen's powerful leadership in the construction and early operation of the Canadian Pacific Railway, and was informed by the surviving voluminous correspondence between Stephen and Sir John A. Macdonald. Unfortunately, vol. II lacks both a tight, thematic focus and the flavour which Stephen's correspondence would have given it. Stephen destroyed the bulk of his papers, and Mrs Gilbert has had to rely on correspondence by his friends and business colleagues, notably Gaspard Farrer, a London merchant banker and a close friend of Stephen for more than forty years. Farrer's papers would have been an invaluable supplement to Stephen's, but as the principal source for the book they fall short. Stephen seems to loom in the background as a financial *eminence grise* and a generous and good friend, but he never comes to life in this book as he does in vol. I, and this is a serious flaw.

Why produce a biography of Stephen anyway? The motivation behind the first volume seems clear enough: Stephen as the builder of the C.P.R., the cornerstone of a transcontinental Canada. To the extent our interest lies in Stephen as a businessman, vol. II is disappointing because it contains so few insights into his reputed financial skills and expertise in business management, and makes no attempt to assess his strengths and weaknesses as a businessman. It is not clear that, after his participation in the C.P.R. ended, Stephen's life as a businessman is of particular interest. Instead of probing and assessing his business acumen, Mrs Gilbert regales the reader with anecdotes and incidents from Stephen's life. He offered advice, bought and sold securities, clipped coupons, made generous charitable donations, especially to the King's Fund, and—as a final index of success—paid death duties of £710,000. But so did many others! What was different or unique about Stephen's contribution to the development of business? What explains his great

success as a business practitioner? One illustration comes to mind. On page 289 we learn that he was "always afraid of debt." Did this fear influence his views on appropriate capital structures for large corporations? Did it colour his advice to business associates? There are no answers to these and other relevant questions. Perhaps there never can be without Stephen's papers and specific corroborating evidence.

In my opinion this book is of limited interest to economic and business historians, although certain sections may prove useful to specialists in financial and railroad history—for example, the parts dealing with the establishment of the Northern Securities Company and with relations between the Great Northern and Northern Pacific Railroads. And social historians may appreciate Mrs Gilbert's portrayal of personal relations among the Wolseleys, or her discussions of Frances Wolseley's promotion of women's gardening and Stephen's charitable interests. But overall the book fails to provide much insight into Stephen himself. Not that this failure is due to Mrs Gilbert. On the contrary, she has made the most of a difficult subject; the book's failure can be traced directly to Stephen's insistence on privacy and the destruction of his personal records.

PETER GEORGE

MICHAEL FENTON, *Farmers and Farming in Lindsey 1900-1914*. Centre for the Study of Rural Society, Bishop Grosseteste College, Lincoln, 1978. iv + 47 pp. £1.10 post-free.

An established county of arable farming, Lincolnshire saw only a small decline in its cropland in the period covered by this study (from 67 per cent to 65.3 per cent). Also remarkable is the rise in the area occupied by tenants; this increased by over 12,000 acres in the early years of the twentieth century, and fell back to below the 1900 level only in 1911-14. The scope of Michael Fenton's concise but detailed and amply footnoted discussion is broad, and it inevitably focuses much more on the county as a whole than on Lindsey. On a county scale he covers land use, yields, and price movements (all illustrated by graphs), as well as tenancy holdings, and there is, too, a useful account of the formation of the Lincolnshire Farmers' Union, the forerunner of the N.F.U. Of particular interest is his examination of the cost and supply of farm labour. He notes the difficulty in generalizing about wages, and points out the superior working conditions enjoyed by yearly paid men. Although fears of a scarcity of labour haunted farmers, the migration from the land was exaggerated: the county figures show only a small decline (from 34 per cent to 32 per cent) in the proportion of labourers in the important 15-25 years bracket. Farm labourers, incidentally, worked longer than in other occupations: between the ages

of 25 and 55 they constituted only about 16-17 per cent of the whole of the county's work-force; between 55 and 65 years, however, the proportion rose to over 19 per cent, and over 65 years to as high as 25 per cent. As an occupation, farm work was growing: between 1901 and 1911 the number of farm labourers in Lincolnshire rose by over 4,400 to a total of 38,866.

G. E. MINGAY

WILLARD W. COCHRANE and MARY E. RYAN, *American Farm Policy, 1948-1973*. University of Minnesota Press, Minneapolis, 1976. xiv + 431 pp. \$18.50.

This useful volume sets out not only to record the experience of U.S. farming policy in the period 1948 to 1973, but also to appraise its effectiveness, and to draw some lessons for future application. As is well known, the main tool of farm policy was price support. This was not only extremely expensive to American tax payers (who paid out an average of \$3.7 billion a year between 1948 and 1973) but it tended to exacerbate American agriculture's main problem: persistent over-supply of food in relation to inelastic demand. Superficially the policy was rather unsuccessful. Despite its huge cost it failed to prevent a sharp contraction in the size of the farm sector, and it failed to enable farmers to enjoy increases in income commensurate with their 60 per cent rise in output; yet the authors argue that without the government's support policies the situation would have been far worse. Agricultural prices would have had to fall by as much as 40 per cent, in their estimation, to have reduced production to the level which would have been demanded in a free market. They believe that this would have brought ruin and despair to large areas of rural America, and would have been quite unacceptable socially and politically, as well as economically. Even with prevailing agricultural policies the number of farms fell from 5.8 million in 1948 to 2.8 million in 1973, with the inevitable swathe of bankruptcies such a rapid decline entails. Those who remained in farming pushed their average gross farm incomes from \$5,983 in 1948 to \$16,850 in 1968, only to see their retained net income go from \$2,745 to a mere \$3,978—that is, to see it fall from c. 40-5 per cent to c. 20-5 per cent of gross receipts. Only in the exceptional year of 1973, when all prices rose, did it rise to \$11,332, but even this was only 33 per cent of their gross sales. The authors are thus under no illusions about the intractable nature of the American farm problem but they believe that with suitable modifications and improvements, government policy can maintain a prosperous agriculture without some of the most acute problems of stock-piling experienced in the past.

MICHAEL HAVINDEN

WILHELM ABEL, *Agrarkrisen und Agrarkonjunktur: Eine Geschichte der Land- und Ernährungswirtschaft Mitteleuropas seit dem hohen Mittelalter*. Hamburg and Berlin: Verlag Paul Parey, 1978. 323 pp, 76 diags, 28 tables, bibl., index of authors. 3rd revised and enlarged edition. DM 98.

It surprises me that this important book—published first in 1935, brought thoroughly up to date in 1966, and again in the current edition of 1978, maintaining its basic positions for more than forty years—is not more often quoted in this country. Can it be that these words in the subtitle: “a history of agriculture and food production in Central Europe since the high Middle Ages” have put off some readers? England, and indeed France, Italy, the Low Countries, and Scandinavia, occur so frequently in the book that they, but particularly England, appear as honorary members of a central Europe which seems to consist of Germany, Austria, Czechoslovakia, and Poland. Indeed, Abel thinks in terms of a European continuum which only a serious war can upset. Since Abel's great work has already appeared in French, Italian, and Japanese, it is good to know that an English translation is to be published by Methuen.

The volume is a presentation of quantities, prices (mainly of grain), wages, the consumption of the main foods through seven centuries, stating prices in terms of silver to achieve continuous comparable series. Abel explains his methods in an appendix. It is not quantitative in the sense that the statistics have been subjected to violent manipulation. Virtually every sentence contains figures, in this edition based on the latest knowledge, for on nearly every page two or three references are to material published during the ten years since the second edition. This new information confirms the periodization of agricultural history established in the first edition, and gradually adopted by agricultural historians all through Europe. The new material completes, and expands, the picture presented in the first edition, providing firmer detail, but never overloading, a volume that fully validates the relatively straightforward picture drawn forty years ago.

The author, one gathers, has tried to keep the volume a rigorous statement of the facts of prices, wages, population numbers, and available food. He adumbrates the ideas available as explanations, but eschews dogmatic assertions. At one moment he notes a fall of population, at another, growth, at one date bad harvests or even climatic change, later a distinct improvement of agricultural techniques. The reader is led towards possible explanations, and could only dare to disagree if he could produce a better set of figures. Many may welcome this procedure for it quite clearly indicates where further research is necessary.

Nevertheless, the author prefers natural and

social explanations related to population changes, to the weather, to pestilence, to changes in feudal or landownership conditions, and rarely gives credence to monetary explanations. This will attract the sympathy of agricultural historians near to the soil, the crop, the animal, and the farming man.

This volume is deliberately dry: it has many figures, graphs, and tables. The reader, himself, works up his own excitement, aided by telling anecdote, and a host of minor insights in the rewarding small print. The graphs are simple and straightforward, essaying no optical effect. Except for one or two utterly unimportant misprints, there are no obstacles to reading, for the book is simply written. It is full of place-names, and would have benefited by more maps, and so the reader not enjoying an excellent knowledge of European geography must use a good atlas, for much of the detail makes full sense only when tied to a locality. The bibliography is thoroughly up to date, but the index lists only authors cited: it is hard to see how a subject index could have been compiled.

Professor Abel's three major works are pivotal to the labours of an agricultural historian in Europe. He has written of German agriculture from the early Middle Ages to the nineteenth century, of poverty and starvation in pre-industrial Europe, and in this book of the ups and downs of farming with figures extended to the 1970's. All three are masterfully lucid and terse. They establish the solid framework, much of the detail, and the statistics of the history of agriculture in central Europe and its margins. But, while Professor Abel makes his focus the state of affairs in central Europe, a reader in Britain can quite fairly pretend the book is about Britain, for its account of Britain is secure, and calibrate his picture of Britain against conditions in a peripheral Europe.

D. J. DAVIS

ANNE DIGBY, *Pauper Palaces*. Routledge & Kegan Paul, Studies in Economic History, 1978. x + 266 pp., 15 figs., 3 maps, 20 photographs. £6.95. *Pauper Palaces* is not, as one might think, a popular or superficial account of old workhouses: it should be subtitled “A Study of the Poor Law in Norfolk in the Eighteenth and Nineteenth Centuries”. The book is, in fact, a thorough and highly detailed examination of the influence of the local landed interest and local economic conditions on the development of poor relief. Norfolk was one of the East Anglian counties noted for its eighteenth-century incorporations. In these private arrangements the union of parishes, the building of a large “house of industry” (the “pauper palace” of George Crabbe), and its supervision by a body of guardians, foreshadowed the measures commonly associated with the New Poor Law. Indeed, as the author remarks,

the Norfolk house of industry had more highly developed welfare arrangements for the impotent poor, and measures for the productive employment of the able-bodied, than had the post-1834 workhouse. In accommodation, too, the new regime offered little advance; only a rechristening of the yards and certain rooms was needed to transform the Smallburgh house of industry into a union workhouse.

The incorporations were to be found only in central and eastern Norfolk, where the resident landowners, clergy, and farmers of moderate means had a direct interest in efficient organization of relief; in west and south Norfolk, where most of the county's large estates were concentrated, incorporations were unknown. Long before 1834, however, the incorporations were in decline, and in the Norfolk unions disillusion with centralized control of relief had led to widespread resumption of a parochial system. After 1834 the county was rapidly and expensively brought into conformation with the New Poor Law, the twelve new workhouses built between 1835 and 1839 costing over £75,000. The architectural style was perhaps inappropriately grand, with the Docking workhouse a faint (though suitably humble) reflection of Holkham Hall, and the Aylsham house reminiscent of near-by Blickling.

As a highly agricultural county with some local problems of surplus labour, Norfolk's pauper population was proportionately some 70 per cent above

the national average and *per capita* relief expenditure was comparably high. Though the guardians, as elsewhere, resorted to doubtful means of increasing outdoor relief, the proportion of paupers so maintained (between 80.3 and 84.3 per cent in 1839-47) was below the national average. Detailed study of provision in the workhouses chronicles the development of specialized care for the old, the sick, and the young. Workhouse schools even possessed some advantages over others in the villages (though in one union the farmer-guardians objected to the use of maps in the schoolroom as tending to encourage migration and a fall in the labour reserve for harvest). Adequacy of provision, indeed, was pulled in opposite directions by the humane concern of some guardians and central officials (who included Dr J. P. Kay, later Sir James Kay-Shuttleworth), and the pressure for economy exerted by the rate-payers. Outdoor relief for the aged, for example, fell far short of the modest 4s. 6d. which was thought to be a reasonable weekly allowance in 1895. The chairman of the St Faith's guardians was asked how he expected old persons to live on the average of 2s. 6d. paid in his union. "I tell you it is a miracle to me," he replied, "and they cannot do it without some help or another." A miraculous existence on half a crown a week makes a sad comment on the state of Norfolk rural society at the end of the last century.

G. E. MINGAY

Shorter Notices

Beamish One: First Report of the North of England Open Air Museum. The Museum, Beamish Hall, Stanley, Co. Durham, 1978. 72 pp., 80 illus. £1.75 post-free.

This first *Report* of the North of England Open Air Museum is only in part an account of the Museum's first years of growth (it was opened in 1970); it is also a useful contribution to the industrial archaeology and agrarian history of the region. Illustrated articles deal with the northern chaldron coal wagon, colliery winding engines, and cottage beds, and a longer study by Vera Chapman of farms on the moorland edge is especially valuable for readers of this journal. Three farms, carved out of the moorland by enclosure in the later eighteenth and early nineteenth centuries, are discussed in some detail, and there are interesting plans and photographs of the farmsteads and buildings. The creation of these marginal farms and their subsequent vicissitudes make an intriguing story.

GEORGE STURT, *The Bettesworth Book; William Smith, Potter and Farmer: 1790-1858.* Firle, Sussex, Caliban Books, 1978. xv + 325 pp. and x + 230 pp. respectively. £7.50 each volume.

These two books by George Sturt (*alias* Bourne) have been republished through the enterprise of Caliban Books of 13 The Dock, Firle, Sussex. *The Bettesworth Book* is the first part of three studies of Frederick Bettesworth, who as Frederick Grover worked for Sturt as a gardener at Lower Bourne, near Farnham, Surrey, in the 1890's. The new volume is a facsimile of the second edition published in 1902. *William Smith* is Sturt's biography of his grandfather, first published in 1919; Smith's pottery and farm were at Farnborough, Hampshire. Both volumes are illuminating sources, full of Sturt's affection for a now lost countryside, and bring to life a rural society, way of life, and forms of speech which, too, have disappeared.

Notes and Comments

ANNUAL CONFERENCE

The spring conference will be held at the College of Ripon and York St John, Ripon, north Yorkshire, from 9 to 11 April. Papers will be presented as follows: Dr E. J. T. Collins (Reading University), 'English woodlands since charcoal iron, 1750-1914'; Mr R. T. Fieldhouse (Leeds University), 'Agriculture in Wensleydale from 1600 to the present day'; Dr P. M. Roebuck (New University of Ulster), 'The rise of the large estate, 1640-1760: the evidence of the Yorkshire baronetage'; Mr D. Byford (Doncaster Metropolitan Institute of Higher Education), 'Agriculture in the south Yorkshire marshlands and Cornelius Vermuyden'; Mr S. A. Counce (Leeds University), 'Farming with horses in the East Riding of Yorkshire: an oral history'. There will be an excursion to Middleham and Masham led by the Secretary. Inquiries about the conference should be addressed to Dr J. A. Chartres, Secretary, BAHS, School of Economic Studies, The University, Leeds LS2 9JT.

INTERNATIONAL COUNCIL ON ARCHIVES

The ninth Congress of the International Council on Archives is to be held in London, 15-19 September 1980, with the main theme 'The uses of archives'. Details may be obtained from ICAIX Secretariat, c/o Conference Organizing Division, Peter Peregrinus Ltd, 2 Savoy Hill, London WC2R 0BP.

HISTORIC LANDSCAPES STEERING GROUP

A steering group has been formed to further awareness of, and encourage and co-ordinate research in historic landscapes, and a handbook is in preparation. Further particulars may be obtained from the Secretary, Historic Landscapes Steering Group, Department of Geography, Polytechnic of North London, Marlborough Building, 383 Holloway Road, London N7.

SOCIETY FOR LANDSCAPE STUDIES

The inaugural conference of a new Society for Landscape Studies is to be held in Leeds, 31 March-1 April 1979. The society intends to publish the proceedings of this conference as the first volume of a new periodical, *Landscape History*, to appear annually from 1979. Inquiries about membership of the society should be addressed to its Treasurer, Dr R. T. Smith, School of Geography, The University, Leeds LS2 9JT.

FACTOR PRODUCTIVITY IN AGRICULTURE IN INDUSTRIALIZING ECONOMIES

A limited number of complete sets of the papers on

this subject, which were presented to the International Economic History Congress at Edinburgh in August 1978, are now available. The papers are: William N. Parker and Stephen J. DeCania (Yale), 'Two hidden sources of productivity growth in American agriculture, 1860-1930'; B. A. Holderness (East Anglia), 'Productivity trends in English agriculture, 1600-1850: observations and preliminary results'; G. P. H. Chorley (London), 'Nitrogen legumes and crop productivity in northern Europe (1750-1880)'; Roger Price (East Anglia), 'Labour productivity and agricultural revolution: the case of France, c. 1852-c. 1882'; P. K. O'Brien and D. Heath (Oxford), 'Agricultural efficiency in Britain and France, 1789-1914'; Radha Sinha (Glasgow), 'Agricultural productivity in Meiji Japan'; Cormac Ó Gráda (University College, Dublin), 'On some aspects of productivity change in Irish agriculture, 1845-1926'; Irena Kostrowicka (Warsaw), 'Changes in agricultural productivity in the kingdom of Poland in the nineteenth and twentieth centuries'; Giorgio Porisini (Bologna), 'Results of research into wheat yields in Italy from 1815 to 1922'; Donald N. McCloskey (Chicago), 'Comments on the papers delivered to the session on agricultural productivity'. The set is available for £3, which includes postage by surface mail. Anyone requiring a set should write to the Director, Institute of Historical Research, University of London, Senate House, London WC1E 7HU. Cheques should be made payable to the "University of London".

WINTER CONFERENCE

The winter conference was held on 2 December 1978 at the Polytechnic of Central London, New Cavendish Street, and had as its theme 'Recent views on enclosure'. Some eighty or more members of the Society, and of the Historical Geography Research Group of the Institute of British Geographers, heard papers from Professor Maurice Beresford on 'Enclosure records within the Tudor and Stuart Chancery and Exchequer'; Dr John Chapman, 'Regional variations in parliamentary enclosure'; Dr Michael Martin, 'The small landowner and parliamentary enclosure: some Warwickshire evidence'; and Dr Michael Turner, 'Landownership and parliamentary enclosure'. The papers shed much new light on the nature and handling of evidences on enclosure, its economic and social costs, and on the fashionable issue of its economic determinants. Discussion was necessarily truncated in a one-day conference, but valuable none the less. It was one of the most successful winter conferences of recent years.

Economic Policy and Projects

The Development of a
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Joan Thirsk

The late sixteenth and seven-teenth centuries saw a remarkable diversification of English industry. The author identifies a deliberate government policy initiated in the 1540s to create new industries in order to reduce expensive imports and to lessen dependence on foreign wares. The goods supplied fostered the growth of a consumer society. 'Dr Thirsk's new book, based on her Ford Lectures for 1975, is a most important contribution to our understanding of early modern English economic history. . . most stimulating study.' *The Times Higher Education Supplement*. Joan Thirsk's 1975 Ford Lectures at Oxford are a contribution to English economic history of major importance. . . No student of early modern England can neglect Dr Thirsk's book.' *The Times Literary Supplement*. £6

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GRACE, D. R. and
PHILLIPS, D. C.

Ransomes of Ipswich:
a history of the firm and
a guide to the records,
pp 64, £3.00

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COLLINS, E. J. T.

*The economy of upland
Britain, 1750–1950:*
an illustrated review.
Centre for Agricultural
Strategy, University of
Reading, Paper 4, May
1978, pp 115, £2.00

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Obtainable from the
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History and Museum of
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The above prices include post
and packing.

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THE BRITISH AGRICULTURAL HISTORY SOCIETY

Articles and correspondence relating to editorial matter for the *Agricultural History Review*, and books for review, should be sent to Professor G. E. Mingay, Editor, *Agricultural History Review*, Rutherford College, University of Kent, Canterbury, Kent.

Correspondence about conferences and meetings of the Society should be sent to Dr J. A. Chartres, School of Economic Studies, The University, Leeds, LS2 9JT.

Correspondence on matters relating to membership, subscriptions, details of change of address, sale of publications, and exchange publications should be addressed to Andrew Jewell, Treasurer, B.A.H.S., Museum of English Rural Life, The University, Whiteknights, Reading, Berkshire.

Correspondence on advertising should be sent to E. J. Collins, Museum of English Rural Life, The University, Whiteknights, Reading, Berkshire.

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EDITOR: G. E. MINGAY

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The
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VOLUME 27 1979
PART II

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ROGER KAIN

Elizabethan Village Surveys: A Comment
C. J. HARRISON

The Horse Trade of the Midlands in the Seventeenth Century
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Tithe as an Index of Pre-industrial Agricultural Production

By ROGER KAIN

I
THE growth of agricultural production and population are fundamental variables in any model of the pre-industrial economy. But, paradoxically, one of the principal *lacunae* in European agricultural history is the lack of quantitative data on agricultural production in the period before central governments began collecting agricultural statistics on systematic annual bases in the nineteenth century. For example, Deane and Cole in a standard work on British economic growth state that, "For corn there are no production or quasi-production series which might be regarded as reliable guides, and we cannot place much faith in the pattern of change which might emerge from a comparison of the scattered accounts of contemporaries."¹ Instead, they estimate the output of British agriculture by reference to consumption data, an exercise fraught with all sorts of difficulties. Contemporary estimates of consumption are purely notional, and, as Dr E. J. F. Collins has demonstrated in a recent issue of this *Review*, there is growing evidence that households switched from one cereal to another in response to prices.²

Over the past fifteen years or so, a growing group of continental, mainly French, agricultural historians has been making a concerted effort to chart the broad trends of agricultural growth by monitoring the output of the industry from the fourteenth to the eighteenth centuries with indices calculated from the annual value of tithes paid by farmers to ecclesiastical and lay tithe owners. One purpose

of this article is to review some of this work. Though tithe payments may well be an imperfect index of agricultural production, for some continental European countries they can be shown to have some advantages over *ad hoc* estimates based on consumption. A second purpose of the article is to examine briefly the nature of the English tithe record in order to highlight some of the problems that might be encountered in attempts to measure English agricultural production from tithe payments.

The driving force behind the initiation of a concerted project to reconstruct the pattern of pre-industrial agricultural output was the French National Centre for Scientific Research (C.N.R.S.). In October 1963, its Modern History Commission reported on the need for research on the movement of agricultural production in *ancien régime* France. One of the main advocates of this venture was the historian Ernest Labrousse, who was convinced that tithe accounts would form the sheet-anchor for such a study. Three years later, the Association of French Economic Historians (A.F.H.E.) agreed to sponsor a study of pre-industrial agricultural production, and entrusted its organization to the Centre for Historical Research (C.R.H.) of the École Pratique des Hautes Études in Paris. Seventeen papers examining the relationship between tithe and agricultural production were presented at the first national congress of the A.F.H.E. in Paris, held on 11-12 January 1966. These papers have been edited by Joseph Goy and Emmanuel Le Roy Ladurie, and were published in 1972.³ Most of them relate to France, and in particular to the Midi, where Le Roy Ladurie had earlier used some very long series of tithe accounts in

¹ Phyllis Deane & W. A. Cole, *British Economic Growth 1688-1959*, 2nd edn, Cambridge, 1967, p. 92.

² E. J. F. Collins, 'Dietary Change and Cereal Consumption in the Nineteenth Century', *Ag. Hist. Rev.*, XXIII, 1975, pp. 97-115.

³ J. Goy & E. Le Roy Ladurie, eds., *Les fluctuations du produit de la ferme. Conjectures dérivées et documentales de la fin du Moyen Âge au XVIII^e siècle*, Paris, 1972.

his classic study of the peasants of Languedoc.⁴

At a congress on historical methodology held at Saint-Jacques de Compostelle, 24-27 April 1973, it was decided to extend the geographical base of these studies of pre-industrial agricultural production to a rather more international level by inviting more agricultural historians to take part in a further stage of the project, coordinated again by the C.R.H. in Paris. This phase culminated in a colloquium at which fifty-five papers were presented under the auspices of Section A3 of the Seventh International Economic History Congress, held at the Collège de France from 30 June to 2 July 1977. A majority of these papers were concerned with tithe and agricultural production in France, Spain, and Italy, but there were also contributions from Belgium, Canada, East and West Germany, Great Britain, Hungary, Mexico, Netherlands, Poland, Portugal, Switzerland, the U.S.A., and the U.S.S.R. A synthesis of the main findings of these papers was reported to the main meeting of the Economic History Congress in Edinburgh in August 1978. The texts of all the papers, together with a fuller synthesis, are to be published.⁵

It is clear from these papers and from the discussions that French, Spanish, and Italian agricultural historians in particular have brought home a rich harvest of tithe data, which, when analysed, can be related in a fairly direct way to the trend of agricultural output. But what is also clear is that on the northern margins of Europe the agrarian revolutions of Germany, Holland, and Great Britain produced a relationship between tithe and output which is by no means as straightforward. Some of the problems with the British tithe record are examined in a later section. The following section examines the theoretical general relationship between tithe and production, and summarizes some of the main trends in French

agricultural output revealed by an analysis of tithe payments.⁶

II

The essential point of the Labrousse and Le Roy Ladurie thesis is that, if the rate of tithe and tithable area remains constant, or if changes in either are known, and if tithe is levied in kind on all crops and livestock directly by the parson, then the annual account of tithe rendered to him will exactly reflect gross agricultural output from the tithery. If a continuous record of these annual tithe receipts is available over a number of years, then these data can be graphed, and moving means calculated to describe the overall trend of production. But this ideal archival situation is not always found, and there are a number of factors which can make the record much less useful and even confuse and obscure the arithmetical relationship, so attractive by virtue of its simplicity, between tithe and production. Firstly, not all crops were tithable. This fact immediately begs the question, What is being measured by an index based on tithe payments? This is certainly a problem with English tithe records, as will be shown later, and it can also be a serious problem on the Continent. In Languedoc, for example, wine was not tithable but clearly was an important element in the agricultural production of these pre-industrial communities. In Spain and Italy there is also the problem that often maize was not tithed at all. So what is being measured by tithe? On this point our French colleagues are quite unequivocal. They say that in an environment of almost complete ignorance, where existing estimates of production are either based on the return to seed grain, after Slicher Van Bath, or on the work of Toutain, based in part on the erroneous estimates of Vauban and Gregory King, then a graph showing perhaps only the trend in wheat from the tithe is indeed a valuable step for-

⁴ E. Le Roy Ladurie, *Les paysans de Languedoc*, Paris, 1966.

⁵ Publication details can be obtained from the Centre des Recherches Historiques, École des Hautes Études en Sciences Sociales, 54 Boulevard Raspail, Paris, Cedex 06.

⁶ E. Le Roy Ladurie & J. Goy, 'Présentation', in Goy & Ladurie, *op. cit.*, pp. 9-24; G. Frêche, 'Dîme et production agricole: remarques méthodologiques à propos de la région toulousaine', *ibid.*, pp. 214-44; M. Morineau, 'Réflexions tardives et conclusions prospectives', *ibid.*, pp. 320-33.

ward.⁷ It is difficult to fault the compelling logic of such arguments. Other complications are introduced where tithe was compounded for cash rather than paid in kind. Firstly, it is necessary to remove the effects of general price inflation. To do this a series of agricultural prices are required for markets close to the tithery so that the tithe composition payments can be deflated in proportion to them. A further problem is that where tithes were compounded for cash, their collection was often leased out to tithe farmers. Occasionally these leases were on an annual basis, but more commonly they were fixed for a number of years irrespective of the actual output in any one year. There would not, therefore, be an immediate response in the tithe record to changes in production but rather a lag of time depending on the length of the lease. Problems, however, do not end with leasing. The distinction between great and small tithes could change through time, as could the rate of tithe, the area titheable, the units of measurement, and the attitudes of tithe owners towards collecting tithe and of tithe payers to rendering it.

In short, there are a number of problems in using accounts of tithe payments to measure production, although the idea has great attraction by virtue of its apparent simplicity. But, with the rich ecclesiastical collections in their departmental archives, French agrarian historians have been able to subject tithe series to careful critical analysis, reject the doubtful returns, and use only those where good documentary evidence on rate, area, and produce titheable are available. For example, Joseph Ruwet found seven excellent series amongst the thirty extant for the Namur region of north-eastern France.⁸ It is also apparent that in France, as in England, it is not possible to speak of a single "tithe system."⁹ Tithe regulations

and customs in the Paris basin, for example, were much more complicated than the simpler system which applied in the south.¹⁰ Some of the best tithe series in the whole of Europe are to be found in Andalusian Spain. Tithe payments here were largely unaffected by religious wars or strife, and the rate of tithe remained constant at a strict 10 per cent. The only problem is that, with many collections still in the hands of private individuals and local church institutions, access can be difficult, and classification sometimes non-existent.¹¹

Figs. I and II are examples of the type of local study from which it is hoped to build up regional, national, and, eventually, European trends. In general terms, all three of the Lyonnais chapelries studied by Head-König display a certain parallelism. There were high points of production in the years 1660-80, a rapid fall to a low between 1706 and 1711, and then a slow recovery to a high point, 1760-5. This was succeeded by twenty years of regression at the end of the eighteenth century.¹² In Andalusia Pierre Ponsot puts the seventeenth-century high point in the decade 1650-60, but there was a similar early eighteenth-century decline followed by growth to 1770 and then regression to the end of the century.¹³ On the basis of the seventeen papers published in 1972, Emmanuel Le Roy Ladurie has produced, with the assistance of Joseph Goy, a first sketch of a periodization of production trends in France from the beginning of the fifteenth century to the end of the eighteenth.¹⁴ This is summarized briefly overleaf:

XVIII^e siècle et sa suppression, Bordeaux, 1912; E. J. Evans, *The Contentious Tithe: The Tithe Problem and English Agriculture, 1750-1850*, 1976.

¹⁰ M. Baulant, 'Du bon usage des dîmes dans la région parisienne', in Goy & Ladurie, *op. cit.*, pp. 25-43.

¹¹ P. Ponsot, 'En Andalousie occidentale: les fluctuations de la production du blé sous l'Ancien Régime', *ibid.*, pp. 304-5.

¹² A.-L. Head König, 'Rente foncière et dîmes dans le Lyonnais aux XVII^e et XVIII^e siècles: leur concordance', *ibid.*, pp. 159-61.

¹³ Ponsot, *loc. cit.*, pp. 310-11.

¹⁴ E. Le Roy Ladurie & J. Goy, 'Première esquisse d'une conjoncture du produit décimal et domanial, fin du Moyen Age—XVIII^e siècle', in Goy & Ladurie, *op. cit.*, pp. 334-74.

⁷ M. Morineau, 'Histoire sans frontière: Prix et "révolution agricole"', *Annales E.S.C.*, xxiv, 1969, pp. 403-23; E. Le Roy Ladurie, 'Les comptes fantastiques de Gregory King', *Annales E.S.C.*, xxiii, 1968, pp. 1086-102.

⁸ J. Ruwet, 'Pour un indice de la production céréalière à l'époque moderne: la région de Namur', in Goy & Ladurie, *op. cit.*, p. 70.

⁹ H. Marion, *La dîme ecclésiastique en France au*

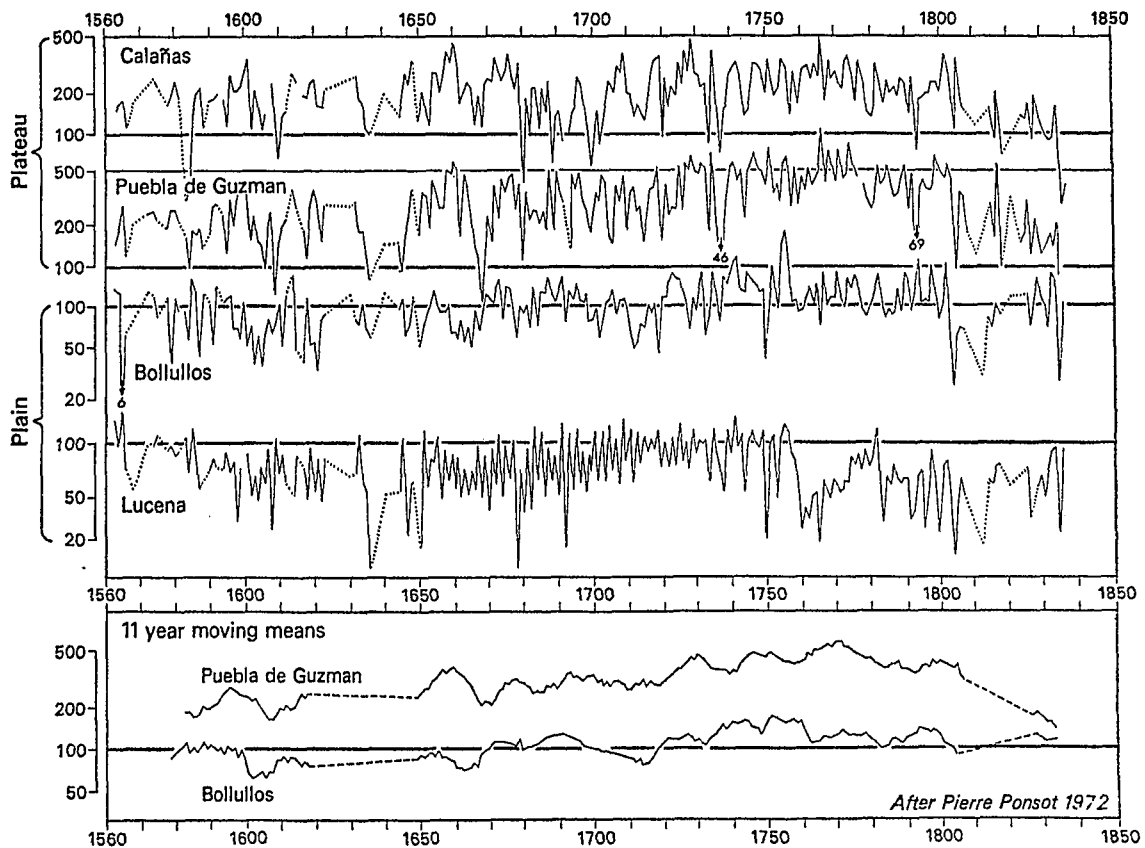


FIG. 1.

1400-50: there was a dramatic fall in production in the Paris basin between 1420 and 1445 which was mirrored in the tithe records of Forez and Provence, but, on the other hand, Artois and Flanders were hardly affected by this "crisis of the Hundred Years War."

1451-1500: a period of recovery everywhere to pre-war levels.

1501-50: a national high point in tithe revenues was reached 1510-20, and again 1540-50, with the exception of Alsace, which lagged behind other areas, and Languedoc, where livestock production fell away in the 1530's.

1551-1600: civil war after 1560 and tithe strikes both reduce the value of tithe as an indicator of production, but there is little doubt that there was a general fall in production to reach low points around 1590. Again Alsace stood apart from this general trend.

1601-50: all France was affected by expansion through to 1625-30, but only rarely were the sixteenth-century high points exceeded. After 1630 decline associated with the Thirty Years War set in, starting in the north-east, and the geography of this decline reflected in general terms the geography of the war.

1651-1700: growth through to the 1670's, with new high points reached in Languedoc, Provence, Bordelais, Périgord, Lyonnais, Auvergne, and Haut-Normandie, and a post-war recovery in the north-east. But after about 1680 the "crisis of Louis XIV" began in earnest, and tithe revenues fell as rapidly as they had done in the Thirty Years War.

1701-1800: after 1720 the real growth associated everywhere with the eighteenth century began, although there is no implication of an agricultural revolution in the technological sense of the term.

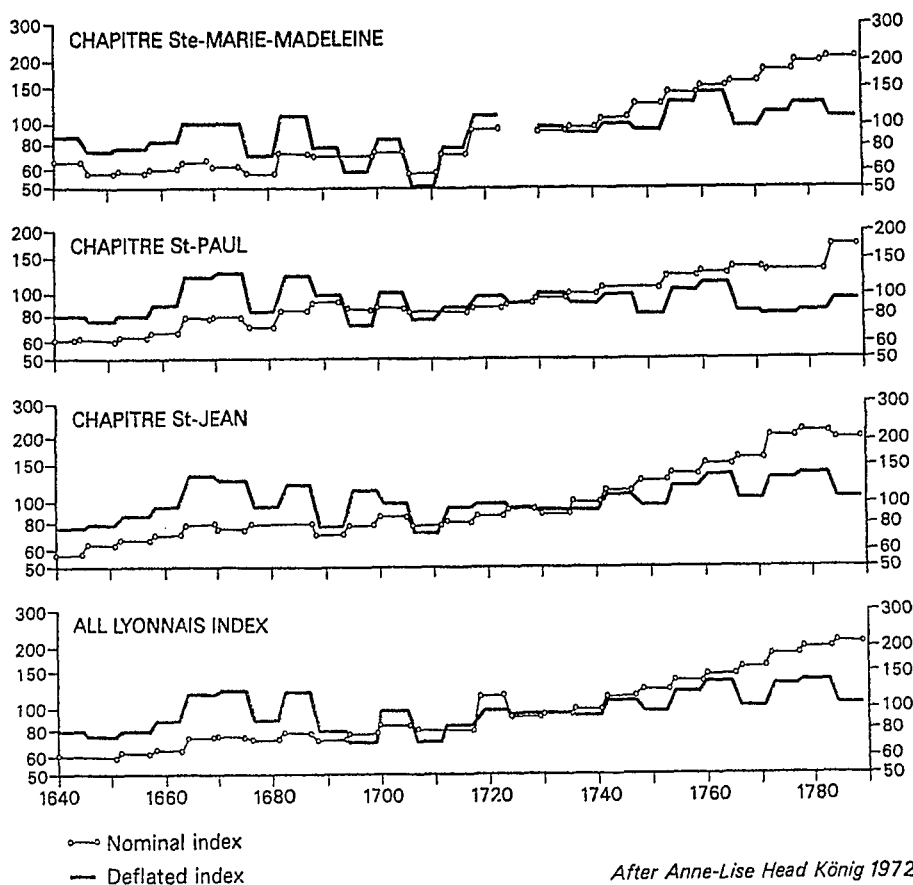


FIG. 2.

After Anne-Lise Head König 1972

Papers presented at the 1977 colloquium show that the late seventeenth-century crisis was in fact a continental, not just a French, phenomenon, and that most of the eighteenth century was a period of growth in output.

By contrast with our French colleagues, English agrarian historians have made relatively little use of pre-nineteenth-century tithe accounts and have concentrated instead on the mid-nineteenth-century tithe surveys. The only reference that the author of this paper has found by an English historian to the general idea of using tithe payments as a surrogate for production data is in N. J. Pounds's *Historical Geography of Europe*, where he remarks that "The listing of tithe payments should be a fairly accurate measure of the nature and volume of agricultural production, though it was sometimes customary not to exact the tithe of certain

crops."¹⁵ But there is no English equivalent of the pioneering studies in France of J. Ruwet or E. Le Roy Ladurie.¹⁶ P. K. Mitchell is one of the few English agricultural historians to make extensive use of parish tithe accounts: he used them in his doctoral thesis to reconstruct the pattern of crop yields in west Cleveland,¹⁷ Amongst other places, other more local studies have been made of Ecclesfield in Yorkshire, Rossendale in Lancashire, and Sheldon in Warwickshire.¹⁸ One reason for this limited

¹⁵ N. J. G. Pounds, *An Historical Geography of Europe, 450 B.C.-A.D. 1330*, Cambridge, 1973, p. 372.

¹⁶ J. Ruwet, 'Mesure de la production agricole sous l'Ancien Régime', *Annales E.S.C.*, xix, 1964, pp. 625-42; E. Le Roy Ladurie, *op. cit.*, 1966.

¹⁷ P. K. Mitchell, *West Cleveland Land Use, circa 1550 to 1850*, unpubl. Ph.D. thesis, Univ. Durham, 1965.

¹⁸ D. Hey, *The Village of Ecclesfield*, Huddersfield, 1968; G. H. Tupling, *The Economic History of Rossendale*, Manchester, 1927; V. H. T. Skipp, ed., *Discovering Sheldon*, Birmingham, 1960.

use is that in England and Wales the record itself is very fragmentary. Some notes on the availability of tithe accounts in English repositories are presented in the final section of this article. A further and equally compelling reason is to be found in the nature of the English tithe "system." The following section is a review of some aspects of tithe collection and payment which might affect the value of English tithe accounts for monitoring agricultural production.

III

In broad outline the history of tithes in Britain is similar to that of continental Europe. Many of the general objections to the use of tithe as a measure of agricultural output noted in the French context apply with equal force to Britain. These are notably questions concerning the uniformity of the tithed area through time, and the rate of tithe itself.¹⁹ But there are a number of factors unique to Britain which can affect the simple equation which in theory relates tithe to output. Much of the following discussion relates to England and Wales, for although there were similarities in the English tithe system to those of Scotland and Ireland, there were also some important differences between them.

In Scotland tithe ceased to exist in 1633, when an Act of Parliament made over all Church lands and revenues to the state, and granted parochial incumbents a stipend for their support.²⁰ In Ireland commutation came much later, but again earlier than in England: Irish tithes were abolished by the Irish Tithes Composition Acts of 1823 and 1832.²¹ Prior to these Acts, the articles titheable and the manner of paying tithes were governed by a variety of local customs. Neighbouring parishes, and for

that matter neighbouring lands, differed in their tithes and the manner of tithing. A fairly general arrangement in many parts of Ireland prior to 1823 was to pay an acreable rate, fixed over long periods of time.²² As Dr Doyle, Bishop of Kildare and Leighlin, remarked in his evidence before the Select Committee on Tithes, 1832, this meant that, "In some places the tithe exceeded one tenth part of the produce and in other places that it was not half as much."²³ Clearly, in these circumstances a very careful study of parish tithe customs must be made where there is documentary evidence. Where this is not available it would be unwise to make any assessment of the relationship between production and tithe.

In England and Wales the overriding principle was that the "custom of the parish" was the final arbiter of the manner of tithing.²⁴ There was the usual distinction between the great or rectorial tithes, and the small or vicarial tithes. The great tithes were usually of hay, corn, and wood, and the small tithes all the rest. But the division between the great and small tithes was by no means fixed and unalterable.²⁵

¹⁹ R. C. Simington, 'Tithe Applotment Books of 1834. Agricultural Returns: Produce and Prices', *J. Dept. Agriculture, Dublin*, xxxviii, 1941, pp. 239-52.

²⁰ B.P.P. 1831-2, XXI, q. 3164.

²¹ The parish tithe files (P.R.O. I.R.18) are probably the best sources for unravelling the complexities of local tithing practices. See also the following list of articles which describe customs in various parts of the country: Anon, 'Tithing Customs at North Somercotes, A.D. 1588', *Lincs. Historian*, x, 1952, pp. 375, 381; R. M. Barton, *Life in Cornwall in the Nineteenth Century*, Truro, 1970, pp. 105-6, 110, 119-20, 128-9, 202-3; R. F. Dickinson, 'Tithing Customs in West Cumberland in the Eighteenth Century', *Trans. Cumb. West. Antiq. Arch. Soc.*, n.s., LX, 1960, pp. 130-4; W. E. Godfrey, 'A Stavely Tithe Book of the Rev. James Gisborne', *J. Derbys. Arch. Nat. Hist. Soc.*, LXXI, 1951, pp. 38-46; R. Hansford Worth, 'The Tenants and Commoners of Dartmoor', *Trans. Devon Assoc.*, LXXVI, 1944, pp. 187-214; C. A. F. Meekings, 'St Teath's Tithes—1295', *Devon and Cornwall Notes and Queries*, xxxii, 1972, pp. 168-70; F. C. Morgan, 'Bosbury Tithes and Oblations, 1635-1641', *Trans. Woolhope Nat. Field Club*, xxxviii, 1965, pp. 140-8; D. Gethin Thomas, 'The Gelligaer Parish Tithe Customs', *Gelligaer*, vii, 1970, pp. 11-17; A. V. Woodman, 'Dunton Tithe Procedure', *Records of Bucks.*, xvi, 1960, pp. 363-4. See also Evans, *op. cit.*; G. F. A. Best, *Temporal Pillars*, Cambridge, 1964; C. Hill, *Economic Problems of the Church*, Oxford, 1956.

²² Evans, *op. cit.*, p. 7.

¹⁹ Frêche, *loc. cit.*, 214-44.

²⁰ J. A. Symon, *Scottish Farming Past and Present*, Edinburgh, 1959, pp. 81-3; C. S. Orwin & E. S. Whetnam, *History of British Agriculture 1846-1914*, 1964, pp. 185-6.

²¹ J. H. Johnson, 'The Irish Tithe Composition Applotment Books as a Geographical Source', *Irish Geography*, III, 1958, pp. 254-62; R. C. Simington, 'The Tithe Composition Applotment Books', *Analectica Hibernica*, x, 1941, pp. 295-8.

All the ancient treatises classify hay as a great tithe, but in twenty-three out of thirty-four parishes in Staffordshire studied by Evans, tithe hay, or its composition in lieu, was collected as a small tithe. Even corn tithe, usually guarded most jealously because of its great value, was not always collected by great-tithe owners in eighteenth-century England.²⁶ The division between great and small tithes was further complicated by the introduction of new crops. Changes in farming systems in response to price movements and technical innovation could distort the relationship between tithe and agricultural production as non-titheable crops entered into rotations, or the balance between great and small tithes changed. It can be argued that in many parts of southern and eastern England a record of tithe payments would be an index of production with very little meaning from, say, the seventeenth century onwards.²⁷

Tithes might be collected in kind, a method which became less common with time; or they were compounded for, in which case collection was usually leased out to a tithe farmer; or they were taken as a modus, which was fixed at a cash value per acre or per farm for all time. Tithe in kind was either calculated in gross terms as the "in field" value, or parish custom might dictate some reduction in the costs of collection if it was rendered direct to the tithe barn or when the value of a cash composition was calculated.²⁸ Collection costs in large, hilly parishes could amount to 40 per cent of the annual value of tithes, but the customary values varied from parish to parish and from incumbent to incumbent in the same parish.²⁹ Methods of assessing the level of compositions varied a good deal. By the end of the eighteenth century most tithe was paid in cash, but the wide variation in the manner of assessment

meant that some tithe owners got much closer to the "tenth" than others. Many compositions were set for a number of years during which the rate did not vary with output. For example, some tithes were calculated on the basis of compositions which remained unchanged for almost forty years, while the existence of a prescriptive modus might freeze the value of tithe for all time at a mid-sixteenth-century, or even earlier, value.³⁰ Compositions could be raised to take account of increasing output, and of course could also be reduced where the landowners were strong enough. But invariably most compositions lagged well behind changes in output or the prevailing level of prices. Before considering tithe payments as an index of production, it is important to be aware of the discrepancy perceived by tithe owners between the value of their tithes and the produce of the land. It is important also to be aware of the scale of differences that might be involved. The value of the Kendal tithes was increased some sixfold as a result of twenty years of dispute and legal wrangling.³¹ In the words of Eric Evans, "A modus set aside or a valuable crop established as titheable could treble or quadruple tithe income."³²

The reformation produced a considerable redistribution of tithe property and affected the manner of tithe payment. After the sale of tithes forfeited to the Crown in the 1530's, about one-third of English great tithes were held by lay impropiators. But there was considerable regional variation in the scale of impropriation. In Yorkshire, for example, the proportion of impropriate tithe was as high as 63 per cent.³³ As the attitude of lay tithe owners to tithe collection was often quite different from that of clerical owners, this uneven distribution could affect the relationship between tithe and agricultural production from one part of the country to another. Another factor particular to England was enclosure. The effect of en-

²⁶ E. J. Evans, 'Tithing Customs and Disputes: The Evidence of Glebe Terriers, 1608-1850', *Ag. Hist. Rev.*, XVIII, 1970, p. 22.

²⁷ Hill, *op. cit.*, pp. 81-2; J. A. Venn, *The Foundations of Agricultural Economics*, 2nd edn, Cambridge, 1933, pp. 150-65.

²⁸ Evans, *op. cit.*, 1976, pp. 21-6.

²⁹ R. J. P. Kain, *The Land of Kent in the Middle of the Nineteenth Century*, unpubl. Ph.D. thesis, Univ. London, 1973, pp. 140-351.

³⁰ Evans, *op. cit.*, 1976, pp. 26-8.

³¹ E. J. Evans, 'A Nineteenth Century Tithe Dispute and its Significance: The Case of Kendal', *Trans. Cumb. West. Antiq. Arch. Soc.*, LXXXVII, 1974, pp. 159-85.

³² Evans, *op. cit.*, 1976, p. 42.

³³ Hill, *op. cit.*, p. 145.

closures in the pre-parliamentary period on the value of tithes depended on how the economy of a village was changed after enclosure. Enclosures for grass often reduced great tithe revenues by anything up to 90 per cent while enclosure of land to form parks could lead to the total disappearance of tithes. On the other hand, enclosure could produce the opposite effect, as in seventeenth-century Buckinghamshire, when old coppice woodland was replaced by enclosures for corn.³⁴ The parliamentary enclosure movement of the eighteenth century had a much more sweeping effect on the payment of tithes. About 70 per cent of the enclosure Acts passed between 1757 and 1835 included some provision for at least partial tithe commutation. In over 2,000 mainly English midland parishes tithe ceased to reflect agricultural production after part, or perhaps all, was replaced, usually by an allotment of land.³⁵

IV

Many elements of the English tithe system discussed in section III were by no means unique to the British context, though some of them operated to a different degree compared with the Continent, often diminishing the effectiveness with which tithe payments might be expected to indicate the trend of agricultural output. In summary, the theoretical relationship between tithe and agricultural production as set out in section II may be seriously distorted in England by the wide variety of tithing customs which obtained; and by enclosure, technical innovations, and the introduction of new crops, which all affected land use and cropping patterns, thereby altering the balance between great and small tithes. It seems unlikely, therefore, that tithe evidence will be as useful a measure of pre-industrial agricultural production for this country as for France, Spain, Italy, and Switzerland, for example. But as yet there has been no study undertaken to test the tithe-production relationship in an English context.

³⁴ Hill, *op. cit.*, pp. 101-4.

³⁵ W. R. Ward, 'The Tithe Question in England in the Early Nineteenth Century', *J. Eccles. Hist.*, xvi, 1965, pp. 67-81.

There is also the problem of the fragmentary nature of the surviving record of pre-nineteenth-century tithe payments in England, alluded to in section I. An ideal documentary situation would be a collection of annual series of tithe payments, preferably taken in kind and continuous for a century or more, from parishes representative of their local region. A search for such account books could begin with parish chests, progress to parochial and diocesan records deposited in county record offices, and then go on to other diocesan, institutional, and estate archives. A survey of English county record offices has revealed the existence of what appear to be quite reasonable accounts in a number of counties. In Devon, for example, there are records for Kilmington from 1618 to 1700, for Malborough from 1606 to 1719, and for Stockland from 1657 to 1741. In addition, there are a number of shorter series which when ranged alongside each other might produce a composite picture. The Oxfordshire County Record Office has accounts for a number of parishes, but they are mainly for short runs of years. A similar situation obtains in Cornwall. In the Buckinghamshire Record Office there is a three-volume account book for Monks Risborough running from 1744 to 1788. In Berkshire there are accounts for four parishes covering more than fifty years. These few examples suggest that the record, although not a rich one in county record offices, would seem worth exploring, as would other repositories of diocesan records like the Department of Western Manuscripts of the Bodleian Library, Oxford.³⁶ One problem with many of these accounts is that on close inspection some may well be records of only the vicarial or small tithes, and, therefore, rather limited indicators of total agricultural production. The most promising sources of rectorial- or great-tithe

³⁶ I should like to thank all the county and diocesan archivists who so kindly replied to my inquiries. The examples refer to particular information supplied by the archivists of Devon Record Office, Oxfordshire Record Office, Cornwall County Record Office, County of Buckingham Record Office, Berkshire Record Office, and the Keeper of Western Manuscripts of the Bodleian Library, Oxford.

accounts are probably the records of the great institutional, collegiate, and aristocratic lay improprators.

It would, though, be foolish to pretend that the English documentary record is as rich as in some continental countries, or as suited for the direct measurement of agricultural output. By way of a postscript to this review, and in view of the great advances made in France, for example, towards filling this important *lacuna* in agricultural history, perhaps English agricul-

tural historians might submit a few tithe series to the sort of statistical analysis employed by some continental econometric historians to try to identify variables accounting for fluctuations in tithe payments.³⁷ It may then be possible to speak more positively about the value of tithe as an index of the output of English agriculture in the pre-industrial period.

³⁷ C. Pfister, *Agrarkonjunktur und Witterungsverlauf im westlichen Schweizer Mittelland, 1755-1797*, Bern, 1975. See also Morineau, in Goy & Ladurie, *op. cit.*

Notes and Comments

DR G. E. FUSSELL

Dr G. E. Fussell, past President of the British Agricultural History Society and doyen of agricultural historians, celebrated his ninetieth birthday on 10 September this year. Members of the B.A.H.S. will wish to join with all his many other friends and colleagues in expressing our congratulations and sincere good wishes.

George Fussell's many important contributions to agricultural history are well known, and though it may be inappropriate to pick out only two or three of them, we might mention particularly his *Old English Farming Books*, *The Farmer's Tools*, and *The English Dairy Farmer*. To the list of more than 500 publications which are detailed in the 1967 bibliography of his writings, many more recent additions must now be made. And still he writes!

Many happy returns.

ANNUAL CONFERENCE AND AGM, 1979

The twenty-seventh conference of the Society was held at the College of Ripon and York St John, Ripon, north Yorkshire, on 9-11 April 1979. Papers were presented by Dr P. Roebuck, 'The rise of the large estate: the evidence of the Yorkshire baronetage'; Dr E. J. T. Collins, 'English woodlands since charcoal iron, 1750-1914'; Mr R. T. Fieldhouse, 'Agriculture in Wensleydale and Swaledale from 1600 to the present day'; Mr D. Byford, 'Agriculture in the south Yorkshire marshlands and Cornelius Vermuyden'; Mr S. A. Caunce, 'Farm horsemen in the East Riding at the turn of the present century'; and Dr J. A. Chartres lectured on the local landscape and conducted an excursion

to Norton Conyers, Well, Thorpe Perrow, Jervaulx, and Masham.

The A.G.M. was held on 10 April and made a change in the constitution of the Society, enlarging the Executive Committee from twelve to sixteen elected members. Miss Edith Whetham retired as President, and was replaced by Professor W. H. Chaloner. Mr Andrew Jewell retired as Treasurer after sixteen years in office and received the thanks of the meeting for his great efforts on behalf of the Society. Dr E. J. T. Collins was elected as Treasurer and Dr J. A. Chartres re-elected as Secretary. Nine vacancies on the new Executive Committee were filled by the election of Dr D. Howell, Mr G. Ordish, Dr R. Perren, and Dr W. J. Rowe for terms of four years; Mr D. Byford and Dr M. E. Turner for three years; Dr M. Overton for two; and Dr J. Betty and Miss Edith Whetham for one year.

The Chairman, Dr W. J. Rowe, reported a slight decrease in membership during the year from 835 to 820 but, allowing for those suspended for non-payment, this represented little real loss. He looked forward to the publication of the translation of Professor Abel's *Agrarkrisen und Agrarkonjunktur* by Methuen, possibly before the next A.G.M.

The Treasurer reported a reasonably satisfactory year as a result of the economies made in the production of the *Review* and the benefits accruing from the last increase in subscriptions. The balance on the year was £916, and reserves stood at £6,894.

The Editor reported the receipt of twenty articles during the year, and a backlog of sixteen waiting for publication. Publication delays now remained at under two years.

(continued on page 109)

Elizabethan Village Surveys: A Comment

By C. J. HARRISON

THE completion of a thesis on the history in the second half of the sixteenth century of the peasant communities of Cannock and Rugeley, two central Staffordshire manors, has prompted me to question the value of such a study, and to examine current assumptions about the form which such a local history should take.¹ Are there not already a sufficient number of studies of this sort: Miss Davenport on Forncett (Norfolk), the Orwins on Laxton (Nottinghamshire), Professor Hoskins on Wigston Magna (Leicestershire), and Mrs Spufford on the Cambridgeshire villages of Chippenham, Orwell, and Willingham? Such studies, together with the numerous manorial histories in the Victoria County Histories, have been expanded into county histories such as Joan Thirsk's on Lincolnshire, and incorporated into national surveys such as Dr Kerridge's *The Agricultural Revolution*, and, most influentially, in the publication ten years ago of volume IV of *The Agrarian History of England and Wales*.² May we not now assume that we have a reasonably complete and accurate picture of the agrarian history of England and Wales in the Tudor and early Stuart period? Are not all subsequent local histories merely the dotting of already dotted "i's" and the crossing of already crossed "t's," little more than convenient exercises for the journeyman historian? Should not the master craftsmen move on to other, more pressing, subjects instead of burdening the historical world with an unmanageable weight of

true but unilluminating facts? Furthermore, is not the form of such local studies well established after over seventy years of research? Is there not general agreement on what constitutes the basic questions, and on the materials and methods necessary to tackle them? What is the value of further local studies?

This investigation is based upon work on Cannock Chase, and thus begins with a description of the area. There then follows a detailed examination of two land surveys of the manor of Cannock. Finally, the uses to which such surveys have been put, and the validity of the assumptions underlying such uses, will be considered.

I

Cannock was the largest of the royal forests in Staffordshire, with boundaries extending along the rivers Penk, Sow, Trent, and Thame, and as far south as Wolverhampton and Walsall. By the mid-fourteenth century forest jurisdiction was restricted to seven discontinuous hays. Larger than any of these, dominating the original forest area, was Cannock Chase. Its forty square miles were organized into two bailiwicks which were coextensive with the ancient demesne manors of Cannock and Rugeley. Chase and manors came into the possession of the Paget family in 1546.

Most of the Chase was uninhabited, the villages lying on the edge of an upland plateau, Cannock on the southern extremity, Rugeley on the north-eastern. In 1570 there were fifty-two dwellings in the township of Cannock, and a further nineteen at or near the dependent hamlets of Hednesford and Leacroft. The total population was about 320, and this had risen to 400 by the turn of the century. In Rugeley and the associated hamlet of Brereton there were 115 dwellings in 1570, a population of about 520, which had risen to over 600 by the end of the century. Both townships had a weekly mar-

¹ C. J. Harrison, *The Social and Economic History of Cannock and Rugeley, 1546-1597*, unpubl. Ph.D. thesis, Keele, 1974.

² F. G. Davenport, *The Economic Development of a Norfolk Manor, 1086-1565*, Cambridge, 1906; C. S. and C. S. Orwin, *The Open Fields*, 1938, 3rd edn, Oxford, 1967; W. G. Hoskins, *The Midland Peasant*, 1957; Margaret Spufford, *Contrasting Communities*, Cambridge, 1974; Joan Thirsk, *English Peasant Farming*, 1957; E. Kerridge, *The Agricultural Revolution*, 1967; Joan Thirsk, (ed.), *The Agrarian History of England and Wales (1500-1640)*, IV, Cambridge, 1967.

ket, and Rugeley even boasted some permanent shops. (There were a large number of ale-houses, nine in Cannock and eighteen in Rugeley, one for every twenty resident adults.) Each manor combined an open-field system with a large number of enclosures. As for communications, Watling Street was clearly important for Cannock, whilst the bridge over the Trent gave access from Rugeley to Uttoxeter, Burton, Lichfield, and Tamworth; the main route between Cannock and Rugeley was along the valley of the Rising Brook.³

There is no doubting the importance of the Chase: a barrier to communications, a source of fuel, food, and work, its resources were competed for by rich and poor alike. About one-quarter of the total area of waste, 5,400 statutory acres, was oak woodland. Assuming fifteen oaks an acre, a conservative estimate, there must have been at least 81,000 trees. This acreage of woodland was maintained until the late 1580's.⁴ From the 1560's there was a major development of the Chase ironworks with a consequent demand for locally produced charcoal. Felling, cording, and charking provided employment for some of the local people, but, on the whole, the peasant community benefited more from other uses of the Chase.⁵ It was a source of domestic fuel, and materials for building, hedging, and tool-making. It provided pannage for pigs, and both sheep and cattle were fed on the trowse or loppings from the oaks and hollies which grew there. This trowse was a most important source of fodder, enabling about 7,000 sheep to be commoned on the Chase each winter. Two detailed and complete censuses of this commoned flock show that the majority of constituent flocks were very small—in the winter of 1581-2 nearly a half of all flocks (78 out of 164) numbered twenty or less—and that these flocks were all owned by

locals, many, probably most, being the poorer villagers. The importance of these grazing rights, which cost a nominal 12d. per twenty sheep per six months, can be seen when one notes that in 1598-9 there were sixty-one flocks from Rugeley and Brereton, totalling 2,380 sheep, commoned on the Chase; that is to say, one in three men owned and commoned a flock that winter.⁶

The Chase also provided bracken which was used as a litter, and later on in the century, in the form of ash, as a lye for the bucking of clothes. Population pressures in the 1580's led to shift cultivation of corn, and the erection of squatters' cottages on the Chase. As one would expect, poaching was widespread—hares, rabbits, game birds, even the occasional deer were regular, if illegal, supplements to the peasant diet.⁷

It is clear from the evidence that the Chase was an important source of food, fuel, and employment for the peasants of Cannock and Rugeley. To establish how important, one must ascertain what other resources were available, i.e. one is committed to a conventional study of the pattern of farming within these villages.

II

In 1897 W. J. Corbett published a seminal article on Elizabethan land surveys.⁸ Since then historians have used such surveys as the basis of their accounts of the structure of particular village societies (as of Forncett, Chippenham, and Laxton) or the structure of farming in a region (as in Joan Thirsk's work on Lincolnshire) or to identify and categorize a particular group within the rural community (as in Tawney's *The Agrarian Problem in the Sixteenth Century*). The question is, ought one to use such surveys for these purposes? In short, are they a reliable source? The evidence of two surveys of the manor of Cannock suggests that they are not as secure a source as has been believed. One

³ Harrison, *op. cit.*, pp. 2-6, 14-15, 143; L. M. Cantor, 'The Medieval Forests and Chases of Staffordshire', *North Staffs. Journal of Field Studies*, VIII, 1968, pp. 39-53.

⁴ Harrison, *op. cit.*, pp. 91-3; Staffs. C.R.O. (hereafter S.R.O.): D1734/2/2/43.

⁵ A. C. Jones and C. J. Harrison (eds.), 'The Cannock Chase Ironworks, 1590', *English Historical Review*, XCIII, 1978, pp. 794-810.

⁶ Harrison, *op. cit.*, pp. 102-8; S.R.O.: D1734/2/1/264, fos. 8-13; D1734/2/1/298, fos. 9-14.

⁷ Harrison, *op. cit.*, pp. 29, 101, 107.

⁸ W. J. Corbett, 'Elizabethan Village Surveys', *Trans. Roy. Hist. Soc.*, n.s., XI, 1897, pp. 67-87.

is a conventional survey of tenancies, made in 1570, the other, made in 1554, records, atypically, not only tenancies but also sub-tenancies. An analysis below of these two surveys shows that conventional surveys can be a seriously misleading source of social and economic structure.

The survey of 1570 was made to provide the basis for a new rental.⁹ Firstly, it should be noted that there was at that time no change either in the tenure by which manorial land was held or in farming practice; thus, the survey records a normal not an abnormal situation. Secondly, virtually all land was held directly or indirectly from the lord; thus, this survey includes all cultivated land in the manor which, it should be remembered, was coextensive with the village and dependent hamlets.

One cannot be certain of the procedure adopted, but the volume of topographical information recorded, and the condition of the Field Book, which looks and feels as though it was written under difficult circumstances, suggest that the surveyor, accompanied by the estate officials and the jury, did in fact perambulate the fields and enclosures, noting what he saw as he went. This was not a survey in the sense now understood: no map or plan was produced, but one need not doubt either its accuracy or its completeness. Those involved, the surveyor, the estate officials, and the thirteen local landholders who made up the jury, were accustomed to making visual estimates of the size of plots of land. None had a motive to misreport, not even the jurors, whose advantages of security and valued common rights as customary tenants far outweighed the potential advantage of avoiding payment of rents which were low, and heriots and entry fines which were reasonable. Tendency to error in one group would have been checked by the others.

The surveyor recorded the position and size (expressed in customary acres) of every enclosure, together with the name of the tenant and, where appropriate, the name of the holding. He also recorded the position, size, and the name of the tenant of each parcel of

"landes" or strips within the common fields. (Interlineations and changes were made in 1574 when the manor was again surveyed. The completeness of the 1570 survey is evidenced by the small number and small size of lands omitted in 1570 and noted in 1574.) The surveyor then calculated from the Field Book the size of each tenant's holding both in the common fields and in the enclosures; he also noted the number of dwellings, if any, held by each tenant. His arithmetic was remarkably accurate, eloquent comment on the importance which he attached to the operation. This information was then incorporated into a new rental.¹⁰

One may reasonably conclude that there was a complete and accurate survey of all cultivated land in the manor of Cannock. (As far as one can tell, all land was held directly or indirectly from the manorial lord.) From this evidence one can reconstruct the pattern of land usage: there were 1,450 acres in enclosures, and 300 acres in the common fields. Cannock was a manor of numerous small enclosures, the largest only 40 acres, and the vast majority 10 acres or less. Of the enclosed land, 376 acres, about one-quarter, were under permanent grass. No doubt some of the remaining enclosures were also used for grazing, though not all, for it is doubtful if the common fields on their own were large enough to supply the grain needs of the community. (The shift cultivation on the Chase suggests that land for corn was at a premium. And in Rugeley, with double the acreage in the common fields but also double the population, grain was regularly imported from Lichfield, at least that is my interpretation of the numerous presentments of Lichfield bakers in the manor court for "illegally" selling in Rugeley.) Crops grown in the common fields were winter rye and barley; there is, unfortunately, little evidence in the court rolls on the crops grown in the enclosures.¹¹

The land survey recorded in the Field Book provides unequivocal if limited information on the global usage of cultivated land in the manor. The question is, may it also be used to establish

⁹ Harrison, *op. cit.*, pp. 67-82; S.R.O.: D1734/2/3/32.

¹⁰ S.R.O.: D1734/2/3/44-5; D1734/J2028-9.

¹¹ Harrison, *op. cit.*, pp. 71-3.

the distribution of land for farming, and from that the structure of the community? It is possible to calculate from the survey the distribution of tenancies. If the pattern of tenancies was identical or close to the distribution of land for farming then one could establish the structure of the village community, using size of tenement as one's index.

With this objective in mind, an analysis of the tenancies was made. The small holdings of two knights and one armigerous were omitted from the analysis. These men were all major landholders elsewhere; were they to be retained in the analysis they would appear as small copyholders, clearly a distortion of the reality. Certain unassigned lands were also deleted. Allowing for these excisions, the 1570 Field Book reveals that there were just over 1,700 acres shared between forty-eight tenants. (Most held by copy of court roll; there were some tenants-at-will and a few leaseholders; and a small number of acres were claimed as freehold. Tenure affected rights and rents, not the size of a holding. For the purpose of reconstructing the distribution of land, these tenurial distinctions may be ignored.) An analysis of this information in the Field Book shows that there was great inequality in the distribution of land. Four men held between them 810 acres, just under one-half of all land in Cannock. At the other end of the spectrum one-fifth held less than 5 acres, and a further fifth between 5 and 10 acres.¹²

The question is, may one use these data on the distribution of tenancies to identify the various socio-economic groups within the community? Obviously much will depend upon definition. In the context of a pastoral community with extensive common rights over the waste and much by-employment, should one term as peasants those with less than 5 acres or should one include in this category those with between 5 and 10 acres of land? What was the minimum size of holding in this manor sufficient to support a household? Within certain limits the choice is in large measure arbitrary, and to select different criteria is to generate different

structures. But before selecting and justifying the use of particular criteria, it is necessary to show that the data may be used in this way.

Figures on tenancies, *ipso facto*, give no information on the number of landless labourers; their existence, numbers, and significance must be established from other sources. This, in itself, is not an unimportant limitation in the use of land surveys to establish the structure of a community. Secondly, figures on tenancies will only be an accurate summary of the distribution of land for farming (the assumed and accepted index of structure) if there was little or no sub-tenancing. In the case of Cannock there is little quantifiable information on labourers. What of sub-tenants? There are no direct references to sub-tenancing in the 1570 Field Book or, for that matter, in the consequent rental. The Field Book does include one indirect clue to their existence: seventy-one dwellings are recorded but only forty-eight tenants are noted. (The three excluded tenants are known to have lived elsewhere.) If all the dwellings were occupied then there must have been twenty-three sub-tenants, though not all of these need have been engaged in farming for themselves: some may have been servants, artisans, or labourers, and others elderly, even peasants retired.

Alerted to the possibility of a large number of sub-tenants, one turns to other evidence. There are very few references to them in the numerous rentals of the period—made in 1545, 1549, 1570, 1585, and 1597. Nor, in general, are they referred to in the numerous, detailed, and virtually complete court rolls. Over the period 1545 to 1600 only thirty-nine cases of sub-tenancing are recorded in the court rolls, and most of these relate to very small acreages. There was one important exception. In 1575 Leveson, a major copyholder, died, and as was customary the jury reported in the manor court on the deceased's holding.¹³ In this case, and only in this case, the jury added information on sub-tenants. They recorded that all 208 acres of Leveson's holding were in the hands of sub-tenants whom they also named. But for the survival of this *single* entry the number of

¹² *Ibid.*, pp. 79–81.

¹³ S.R.O.: D1734/2/1/184 m.12d.

known sub-tenancies would fall by a dozen, and the amount of land known to have been redistributed through sub-tenanting would not exceed 8 per cent. As it is, given the Leveson evidence, one may say that at some time in the fifty-five-year period examined, up to 20 per cent of all land was in the hands of sub-tenants. (This figure is weighted in favour of the widespread existence of sub-tenanting. It is impossible to say how much land was sub-tenanted at any particular time, on this evidence, save for 1575 when the figure was about 15 per cent.) Even on this evidence, the data on the distribution of tenancies cease to carry conviction as an accurate reflection of the distribution of land for farming. The weight of all this evidence, itself unusually full, including as it does one field survey, five rentals, complete and extensive court rolls, and numerous court papers, indicates that at any one time up to 15 per cent of all cultivated land in Cannock was in the hands of sub-tenants. This conclusion is entirely erroneous.

In 1554 London-based estate officials came to Staffordshire to oversee the surveying of the Paget manors, including Cannock. A field survey was made. The common fields were either excluded or, more probably, written up in a now missing document; apart from this omission, the 1554 Field Book is complete.¹⁴ This Field Book, unlike that of 1570, records not only the name of the tenant but also the sub-tenant, where there was one, of each parcel of land. Given this information, one can calculate both the distribution of tenancies and the distribution of land for farming. The basic data are summarized in Table I. In order that meaningful comparisons between the distribution of tenancies in 1554 and 1570 may be made, the figures for the latter have been adjusted: land in the common fields is excluded, and the holdings of the two knights and the armigerous, held by non-gentles in 1554, are included.

Dealing first with the tenancies, there seems to have been a small movement towards the consolidation of holdings between 1554 and 1570. More interestingly, and more impor-

¹⁴ S.R.O.: D1734/2/3/36.

TABLE I
TENANCIES AND FARMS IN CANNOCK,
1554 AND 1570

<i>Size of holding (in acres)</i>	<i>1554 Field Book</i>		<i>1570 Field Book</i>
	<i>Farms</i>	<i>Tenancies</i>	<i>Tenancies</i>
0-9	45 (62%)	28 (54%)	24 (47%)
10-49	24 (33%)	18 (35%)	21 (41%)
50-99	1 (1%)	1 (2%)	3 (6%)
100-149	1 (1%)	4 (8%)	—
150-199	—	—	2 (4%)
200-249	1 (1%)	1 (2%)	—
250-299	1 (1%)	—	1 (2%)
	73 (99%)	52 (101%)	51 (100%)

tantly, the 1554 Field Book shows that the distribution of land for farming was very different from the distribution of tenancies. In 1554 there was a minimum of 1,400 acres in enclosures, of which 510 acres (36 per cent) remained in the hands of the tenants, and 890 acres (64 per cent) were sub-let. That is to say, two-thirds of the manorial land in Cannock was cultivated by sub-tenants; this compares with a maximum upper limit, estimated from all other evidences available, of 15 per cent at any particular time.

Some tenants retained no land; of the fifty-two tenants, sixteen sub-let all their land. Their holdings varied in size from a single cottage and a rood to 223 acres. These men, just under a third of all the tenants, neither lived on nor farmed the land they held. They were absentees; their tenancies were primarily an investment; their function in the economy of the village was largely parasitic. Once alerted to their identity through the 1554 Field Book, one can find other evidence to confirm that the practice of sub-letting continued. In 1554 the Fowkes held 1 messuage, 3 cottages, and 59 acres in Cannock, all of which were in the hands of sub-tenants. Twenty years later title to this land was in dispute, and the tenant copyholder, Edward Fowke, was instructed to present his evidence in the manor court. He was given time to do this because, to quote the surveyor's memorandum of 1574, Fowkes

“dwelleth ferre of at Cateshill in Bromsgrove.”¹⁵ Clearly, the Fowke holding was still in the occupation of sub-tenants.

Land was redistributed not only amongst the resident tenants but also amongst non-tenants. There were thirty-seven men, one-half of all the cultivators of the land, whose entire holdings were in sub-tenancies. Were these men identified at all from other records they would appear at this time as landless. Most of these men had very small farms, but this was not true in every case: Alporte had 35 acres; Fynney, 35 acres and 1 messuage; Nykin, 23 acres and 3 closes; and Rusheton had 41 acres, 6 crofts, and a cottage. To call these men “landless” would be to make a serious misidentification. Similar errors are possible with the tenants: significant accumulations of sub-tenanted land were not restricted to the “new men.” Some tenants with small holdings increased the size of their farms out of all proportion through sub-tenanting. Bostocke held 9 acres of which he let out 8; to this single retained acre he added over 200 in sub-tenanted land. Thus, an apparently poor peasant emerges as one of the largest farmers on the manor. Less surprisingly, larger copyholds were added to in this way. Colman let out some of his 118 acres, but more than made up for this by sub-tenanting a further 187 acres. His farm, the largest on the manor, totalled 278 acres. The above cases show that some men acquired sizeable farms through sub-tenanting, and as a result accumulated a disproportionate amount of the farming land. At the same time, there were more men competing for the finite acreage available. The over-all effect was to increase the percentage, and more importantly the number of smaller holdings. Extensive sub-tenanting did not lead to a more equitable distribution of resources.

Many of those with the smallest farms, such as Thomas Ball with a messuage and 5 acres, never became tenants in this manor. But for the survival of the 1554 Field Book such men would always appear as “landless”. Some sub-tenants did eventually acquire their own tenancies. In 1554 Ralph Bromall’s holding of 8 acres, a close,

¹⁵ S.R.O.: D11734/2/3/113, fo. 26.

and a cottage was entirely in sub-tenanted land. In August 1560 he was admitted to a small copyholding; this was not the same land as that which he held in 1554.¹⁶

The flexibility of this system of landholding made possible any variety of provision for relatives, and family connections often underlay the sub-tenanting arrangements. Most of William Fynnye’s 35 acres was in the tenure of Agnes, wife of Roger Fynnye, a relative of William. Hugo Dekin sub-let his holding of 1 acre 2 roods to Ralph Dekin, and in his turn held a sub-tenancy of a messuage and just over 2 acres from Ralph. (Such exchanges of land were fairly common.) Thomas Henney, who held a messuage and 18 acres, had by 1554 sub-let land and dwelling to his fifteen-year-old son. The son was not formally admitted to the copyholding until 1560. This is one of a number of cases where the transfer of land by sub-tenanting preceded its formal conveyance. (The transfer of a sizeable farm to a fifteen-year-old boy shows that in this village community maturity was reached and responsibility taken at an early age.)¹⁷

Whilst family connection was often important, the majority of sub-tenancies were arrangements between non-relatives.¹⁸ Where there was a family connection, as in the case of Henney and his son, there was probably no financial arrangement between the parties, but the majority of sub-tenancies, i.e. all those between non-relatives and many between relatives, must have been based upon payment either in kind (crop rents) or in money.¹⁹ We have here, then, evidence of a large and, for this manor, hitherto unsuspected peasant land-market. The existence of a market in sub-tenancies, operating alongside and to a certain extent superimposed on a by no means inactive copyhold market, presents a number of problems for the historian. Firstly, the inherent

¹⁶ Harrison, *op. cit.*, p. 63.

¹⁷ *Ibid.*, p. 47. Nor was this a unique case. See *ibid.*, p. 53.

¹⁸ The same was true at Rossendale. See G. H. Tupling, *The Economic History of Rossendale*, Chetham Soc., n.s., LXXXVI, 1927, p. 88.

¹⁹ Thirsk, *Agrarian History*, IV, p. 106.

complexity of two complementary systems of acquiring land and lack of evidence make it impossible to give anything other than an inadequately partial and misleadingly limited account of the distribution, over a period of time, of land for farming. Secondly, the existence of this market makes it impossible to establish how much the peasant farmer had to pay for his land. It is difficult enough to calculate the real annual cost of copyhold land where one needs to know (a) the annual rent and size of holding, (b) the amount of all heriots and entry fines, and (c) if the land was transferred by inheritance or, if by sale, what consideration was paid. Even for a manor as well documented as Cannock, there are only seven cases where such calculations are possible; charges varied between 1·6d. and 19d. per acre per annum, with smaller holdings costing more than larger ones.²⁰ The exactness of these figures, so laboriously accumulated, brings little comfort. They do not represent the real cost of farm land because they do not incorporate details of the rents which sub-tenants paid to their landlords. Such rents could be considerably greater than the copyhold rent, as Tupling has shown in his work on Rossendale and Accrington.²¹ Thirdly, there is the problem of the legal status of these lettings.²² The tenure of copyhold land was shared between lord and copyholder; the estate resided in the latter. It is difficult to see what legal status the sub-tenancies had, and yet given that two-thirds of all land was held in this way, and over a half of all farmers had holdings which consisted entirely in sub-tenanted land, there must have been some security of tenure. Of these three problems, it is the first which has the widest ramifications.²³

²⁰ Harrison, *op. cit.*, p. 65.

²¹ See Tupling, *op. cit.*, App. E, where he lists the copyhold rent and then the sub-tenant's rent of a number of holdings in Rossendale: 1s. 4d., 4s.; 2s. 9½d., 7s. 2½d.; 4d., 9s. 4d. The proportionate increase in the manor of Accrington was even greater: 2½d., 13s. 11½d.; 4d., 43s. 11d. (*ibid.*, App. F).

²² At Rossendale such lettings "operated very much as leases": *ibid.*, p. 86.

²³ This account of the 1554 Field Book is based on Harrison, *op. cit.*, pp. 82-7.

III

Was the proportion of sub-tenancing in Cannock atypically high? Unfortunately, it is impossible to answer this question with certainty. As far as I know, no one has published an account, similar to the one given here, of a detailed analysis of tenants and sub-tenants as recorded in a field book. Not that the 1554 Field Book is unique in kind. As Tawney pointed out, "it is not uncommon for the surveyors of the sixteenth century to record the names both of the owners and occupiers in estate and field maps." We do have some impressionistic comments on the incidence of sub-tenancing. Tupling notes of Rossendale that "a quite considerable amount of land was being let to sub-tenants. . ." Mrs Spufford refers to an "army of sub-tenants" in the Cambridgeshire village of Willingham, and Joan Thirsk notes "the widespread practice of sub-letting" in five Holland manors at the beginning of the seventeenth century.²⁴

It is probably no co-incidence that in these manors, as in Cannock, common rights were extensive. At Cannock tenure, too, was important. The majority of tenants held by copyhold of inheritance, and enjoyed both security of tenure and low rents. They were also entitled to sub-let their land without payment of a licence or fee to the lord, and this, too, was the case at Rossendale. (On manors where the copyholder's estate was less advantageous, sub-tenancing was often less easy to contract and probably less profitable.) A high demand for land may have encouraged sub-tenancing. Cannock, situated in the west Midlands, was in an area of some population pressure. The same was true at Willingham which "expanded so rapidly between 1524 and 1664 that its fens supported one of the highest densities of households in the county."²⁵ Such evidence as we have suggests that the situation in Cannock was

²⁴ R. H. Tawney, *The Agrarian Problem in the Sixteenth Century*, 1912, reprinted 1967, p. 70; Tupling, *op. cit.*, p. 84; Spufford, *op. cit.*, p. 144; Thirsk, *Peasant Farming*, p. 42. Mrs Spufford kindly informs me that she has never found a source which notes sub-tenants as such. Her "army of sub-tenants" was deduced from wills alone.

²⁵ Spufford, *op. cit.*, p. 22.

not unique. In those villages where demand for land was high as a result of increasing population, where tenure permitted sub-letting, common rights were extensive, and there is evidence of sub-tenanting, one may reasonably conclude that sub-tenanting was widespread.

Historians have been aware of the existence of sub-letting, and most, when using land surveys, attempt to check this evidence against other sources such as probate inventories, wills, and court rolls, and they usually add a *caveat* about sub-tenanting.²⁶ The question is whether these precautions are sufficient to justify the use of land surveys to establish the structure of village societies, especially in those manors which experienced the conditions noted above. Let me recapitulate some of the serious errors which would have been made about the structure of the manor of Cannock but for the fortuitous survival of the 1554 Field Book. One would have put the proportion of sub-tenanting in Cannock at 15 per cent, in fact it was 64 per cent. One would not have known that a third of all landholders were absentees. Serious mis-identification of rich and poor would have been made.

Land surveys may be reliable evidence on the

²⁶ Thirsk, *Agrarian History*, IV, p. 401, n. 2; *idem*, *Peasant Farming*, pp. 41-3; Spufford, *op. cit.*, pp. 142-4, 166-7.

distribution of landed wealth within a manor, and on the amount and proportion of land in the meadows, common fields, and enclosures. In those manors where one has reason to believe there was more than nominal sub-tenanting, land surveys will not be a reliable indicator of the distribution of land for farming. And, if the distribution of farming land is considered the essential index of structure, as so often it has been, then these surveys may not be used to establish the structure of these village communities. There is no obvious alternative source of the distribution of farming land; therefore, if these villages are not to be consigned to a historical limbo on the grounds that we can say little about their structure, then we shall need to revise our concept of structure. Such revision of necessity would need to be radical, for one would have to abandon the traditional socio-economic model of the village community. If such a revision were made it would apply not only to these villages but to all. We could not have one concept of structure for one group of villages and a different one for the rest. The result would be a new type of local history. There is still an academic need for village histories and these will continue to change our perception of the history of rural communities in early modern England.

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The Horse Trade of the Midlands in the Seventeenth Century

By P. R. EDWARDS

I

THE seventeenth century was an important period in the growth of the domestic market. Much research is still needed to fill in the details but the general trends are clear. Stress has been laid upon the ever-increasing importance of London as a centre for the consumption of food, and as a buyer of other commodities. On a far smaller scale, admittedly, was the growth of regional centres also requiring an increasing amount of food, commodities, and services. Owing to such factors as increasing demand, expanding population, the sophistication of taste, and improvement in transport facilities, a degree of specialization grew up in the production of foodstuffs and commodities, which in itself stimulated trade between the various regions. The open market found itself unable to cope with this vast increase in trading activity, and after a period of painful adjustment alternative methods were eventually evolved to cater for the new demands. If the seventeenth century did not see the end of this period of transition, it none the less marked a critical phase in which many of the new influences could be seen at work. The livestock trade was not exempt from the effect of these pressures, and it is the aim of this article to illustrate their effect on the economy by reference to the horse trade in the Midlands.

In this article I have made particular use of toll books, recording the sale of horses at markets and fairs. Stemming from legislation enacted during the reigns of Mary and Elizabeth, designed to check the sale of stolen horses, they often give details about prices, type of animals sold, catchment areas, scale of operations, and even the social classes involved.¹ Vouchees had to be given by each seller, and the

horses were often described in great detail, giving such information as type, colour, gait, value, and distinguishing marks.

The books, none the less, have a number of shortcomings which the researcher must bear in mind. The chance survival in one place rather than another, and the absence of long runs, and overlapping with those from other fairs are serious handicaps. Moreover, one cannot be certain of the accuracy of the books. Tolls were leased from time to time, and perhaps only infrequently kept. Some toll books are mere lines of scribble, seemingly written down on any piece of paper. Others, although neatly set out in books, give the impression of being fair copies written at leisure after the fair had ended by people who may not necessarily have written the first draft. In a number of cases it is apparent that the scribe did not know the names of the places to which he refers. This is a particular difficulty for anyone trying to analyse the toll books of fairs such as that at Shrewsbury, for one not only has to place the host of Joneses and Davieses in the correct parish but also has to try to decipher the attempts of semi-literate Englishmen at spelling Welsh place-names. At no time would the list have reflected the full scale of operations of any particular fair. Burgesses were usually exempt from the payment of toll, and in addition a number of reciprocal agreements, albeit occasionally hotly contested, existed between various places. Also unrecorded were those who slipped through the net without paying toll, a growing problem in the seventeenth century, and symptomatic of the gradual decline of the open market. Bearing in mind all the problems, the toll books none the less remain an invaluable aid to our understanding of the horse trade during a critical period. Even their shortcomings bear mute witness to the great changes

¹ 2 & 3 Philip and Mary, c. 7; 31 Eliz., c. 12.

that were taking place in the organization of the trade.

II

A significant economic development, discernible from the late sixteenth century, can be seen in the greater sophistication of taste and the growing demand for many different qualities of the same article at a range of prices. In the horse trade purchasers of horses were showing new discrimination in their transactions, and new demands were being made on breeders to produce horses for special purposes.² A contemporary account of this development was given by Thomas Blundeville, who was one of the first publicists for the improvement of English breeds.

... so many perchance would have a breede of great trotting horses meete for the warre, and to serue in the field. Some other againe would have a breede of ambling Horses of a meane stature for the journie and to travell by the waie. Some againe would haue perhaps a race of swift Runners to runne for wagers, or to gallop the Bucke, or to serue for such exercises of pleasure. But the plaine councieman would perchance have a breede onelie for draught or burthern.³

Horses, the "internal combustion engine" of pre-mechanized England, were of vital importance to the economy, and were, indeed, used for a greater variety of purposes as the seventeenth century progressed. On the farm horses were more and more employed as draught animals, not only to draw the plough but also to pull the larger wagons introduced by the Dutch in the mid-sixteenth century. Coaches, also introduced by the Dutch at the same time, became fashionable with the well-to-do, as did the sport of horse racing, popularized by James I at the beginning of the century. Horses were also used to provide motive power in the pits and other industrial concerns, pulling loads or

working gins and other devices. On the roads packhorse trains and wagons increased in number in order to carry the growing volume of trade around the country.⁴

By the end of the sixteenth century it appears that certain fairs had acquired a reputation for a particular type of horse, and therefore attracted more than a purely local trade to them. Shrewsbury was one such centre. Although many of the horses were bought and sold by Shropshire men, a substantial long-distance traffic also existed, the importance of which seemed to lie in the small sturdy horses brought in for sale from the Welsh border.⁵ In particular, the herds of semi-wild horses known as merlins that roamed the vast common pastures of Montgomeryshire were rounded up from the hills at the age of three and brought to market. Many of these small horses, sure-footed in climbing the mountains, were employed in their native districts, conveying the produce of the country to the market at Welshpool or Shrewsbury.⁶ Montgomeryshire had been noted for its horses as far back as the Middle Ages. Later, in the 1720's, Daniel Defoe wrote that

This county is noted for an excellent breed of Welsh horses, which, though not very large, are exceeding valuable, and very much esteemed all over England.⁷

In the mid-sixteenth century an attempt was made by the government to increase the height of such mountain and border breeds by a statute ordering the destruction of stoned horses of under 15 hands and mares of 13 hands. This attempt to destroy such breeds was short-sighted, and directly opposed to the interests of mining and carrying, for which purposes small horses were admirably suited. A large slice of the horse trade comprised the sale of ponies to

² J. A. Chartres, 'Road Carrying in England in the Seventeenth Century: Myth and Reality', *Econ. Hist. Rev.*, 2nd ser. xxx, 1977, pp. 73-94.

³ Shrops. R.O.: Shrews. Borough Records, 2645-68, Horse Toll Books, 1548-1674.

⁴ 'Montgomeryshire Horses, Cobs, and Ponies', *Montg. Colln.*, xxii, 1888, p. 19.

⁵ D. Defoe, *A Tour through the Whole Island of Great Britain*, 1971 edn, p. 383.

² Joan Thirsk, 'Horse Breeding in the Seventeenth Century' (unpubl. lecture), p. 22.

³ T. Blundeville, *The Foure Chiefest Offices Belonging to Horsemanship*, 1580, fols. 6-7.

operating in the counties of Northampton, Buckingham, Oxford, and Hertford, and buying up horses in hundreds.²¹ According to Defoe the town of Northampton was

counted the centre of all the horse markets and horse fairs in England, there being no less than four fairs in a year. Here they buy horses of all sorts; as well for the saddle as for the coach and cart, but chiefly for the two latter.²²

Such horses were the specialization of Leicestershire and Northamptonshire. The toll books of Bucton Green, near Northampton, show the influence of the metropolitan trade with dealers from London and the south-east buying up horses and geldings for use as either coach or cart horses.²³ Richard Clough, who appears in the toll book of the fair held at Penkrige on 23 September 1640 as having bought six geldings at a cost of £77 8s. 4d., was present at Bucton Green on 25 June 1627, where he is recorded as having purchased two nags for £11 5s. 6d. Clough seems to have specialized in fairly high-quality horses, for at the St James's Day fair held at Derby on 25 July 1639 he spent £25 10s. 8d. on two nags and one mare. The fair at Rothwell, near Kettering, catered to an even greater extent for a more sophisticated market. Toll books exist for the last sixteen years of the seventeenth century, and it is obvious that horses and geldings were the attraction of the fair.²⁴ The price that some people paid was considerable. At a time when £8 was a fairly high figure to pay for a horse, the mean valuation for those horses and geldings individually priced was £12 4s. and £8 17s. 3d. respectively, but prices in excess of £20 were not uncommon. The visual effect of a nicely matched pair of horses was a selling point, and in a number of cases horses and geldings were sold in twos. London dealers bought many of the horses, often on a consider-

able scale. Mr Knight was at the May fair in three successive years, 1685-7, when he is recorded as having bought a total of thirty-one horses. Other purchasers came from the ranks of the gentry, and the fair, like that at Penkrige, drew custom from a wide area, attracted by the high-quality horses sold there. The farm accounts of the Hatcher family, a prosperous gentry family from Careby in Lincolnshire, indicate that whilst they went to Melton Mowbray and Fotheringhay for geldings, they bought their coach horses at Rothwell.²⁵

III

The patterns of movement in the horse trade were quite complex and midland fairs, lying in a central position in the country, had an important role to play in the flow and direction of this traffic. In particular, toll books of the fairs held at Nottingham²⁶ and Derby²⁷ seem to suggest that they occupied a pivotal position in the trade. Nottingham fair attracted sellers from some of the noted horse-breeding areas of the country such as Yorkshire and the Lincolnshire fens. Defoe, describing Bedall in the North Riding and the Barnard Castle area of Durham, not only commented on the excellent quality of the horses bred in these two districts but also noted the exceptional number of horse breeders and dealers there.²⁸ Evidently many of these animals were brought south for resale at such north-midland fairs as Nottingham or, as has been seen, to centres further south like Penkrige, which were outlets for good-quality stock.²⁹

East-midland buyers regularly attended the fairs at Nottingham and Derby and many of the horses that they bought there were resold at local fairs to dealers from the capital. Leicestershire men were more numerous at Nottingham fair than those from Northampton,

²¹ P.R.O.; E101/107/27-8.

²² Defoe, *op. cit.*, p. 406.

²³ Northants. R.O.: ZA 2455, Bucton Green horse fair, 25 June 1627.

²⁴ Northants. R.O.: 595, Rothwell horse fair 1684-99.

²⁵ Joan Thirsk, *English Peasant Farming*, 1957, p. 176.

²⁶ Nott. Borough Lib.: CA 1504, Horse toll books, 1636-48.

²⁷ Derby Central Lib.: Derby horse fair books, 1638-61, 1677, 1697-1700.

²⁸ Defoe, *op. cit.*, pp. 512-13, 515.

²⁹ *Supra*, p. 92.

and indeed their presence at such fairs as Nottingham and Derby helps to explain the large number of horses noted in the county by Daniel Defoe. The occasional buyer came to Nottingham from London and the Home Counties, one mare, significantly, being sold in 1664 to Robert Fox, a coachman of London. There was also a westerly movement of horses. Derbyshire dealers bought much young stock at Nottingham, a proportion of which found its way at a later date to the Derby fair. The occasional dealer came from further west. George Deane from Blymhill in Staffordshire travelled regularly to the St Matthew's Day fair held on 21 September, and on five recorded visits between 1636 and 1647 bought 9 mares, 7 fillies, 1 foal, and 1 nag.

At Derby a similar pattern of trade can be more clearly seen owing to the survival of a good run of toll books for the middle of the century. Leicestershire and Northamptonshire dealers came to the fair in force, buying up horses in considerable numbers. In 1646 701 horses were recorded as having been sold at the six fairs, nearly one-quarter (23·7 per cent) of which were bought by purchasers from these two counties. More horses in gross went to Leicestershire, an adjacent county, but on occasions Northamptonshire dealers dominated the fair. At the Easter fair, held on 19 April 1650, over two-fifths (41·8 per cent) of all recorded purchases (ninety-eight horses) were made by men from Northamptonshire. Between 1639 and 1656 William Champion from Clipston was virtually ever-present at the Easter fair (except for the war years 1642-5), and over the whole period bought at least 5 nags, 10 colts, 12 stoned colts, 1 gelded colt, and 7 geldings. Between the same years William Eaton of Cottesbrooke bought a minimum of 2 mares, 1 filly, 2 horses, 1 stoned horse, 19 nags, 18 colts, 8 stoned colts, 2 gelded colts, and 18 geldings.³⁰

Dealers from the west Midlands were also more numerous here than at Nottingham fair. Shropshire buyers are recorded as having bought 155 horses between 1638 and 1661, virtually all of which (92·3 per cent) were either

mares or fillies. On five recorded visits to the fair between 1651 and 1661 William Skitt, a chapman from Willaston in the parish of Prees, bought 21 mares, 4 fillies, selling 1 mare, 1 nag, 1 gelding, and 1 colt during the same period. In this respect the demands of dealers from the county differed from those of their counterparts who lived in the east Midlands. This admirably illustrates the different requirements of pastoral and arable regions, a situation which was mentioned by John Worlidge in 1675:

which difference we may observe between the great breeding places for horses in the parstues and woodlands, full of gallant lusty mares, and the naked corn countries of horses and geldings.³¹

The horses imported into Shropshire were larger and more powerful than the native breed, and were mainly bought as draught and wagon horses. Even at the beginning of the nineteenth century draught horses were being brought into the county from Derbyshire and Leicestershire.³² In a *History and Gazetteer of Derbyshire*, printed in 1831, it was stated that the county had long been famous for its horses, ranking next to the Leicestershire for its stout, bony, clean-legged breed of work-horses, which were principally black in colour.³³ Virtually all of the Shropshire dealers operating at Derby lived near the eastern border of the county, that is to say on the side neighbouring Derbyshire. It is interesting to note that dealers from the same area also travelled to Market Bosworth fair where they purchased a similar type of horse. Between 1603 and 1632 Shropshire dealers paid toll on 52 horses at the latter fair, the number being made up of 23 mares, 25 fillies, 3 nags, and 1 colt.

Warwickshire fairs such as those at Stratford³⁴ and Warwick,³⁵ located like Derby be-

³¹ J. Worlidge, *Systema Agriculturae*, 1675, p. 160.

³² J. Plymley, *General View of the Agriculture of the County of Shropshire*, 1803, p. 262.

³³ T. Noble (ed.), *History and Gazetteer of the County of Derby*, Derby, 1831, I, p. 188.

³⁴ Shakespeare Library, Stratford-on-Avon: Misc. Docts. v, vii, xiv.

³⁵ Warwicks. R.O.: W13/1, Warwick Borough horse fairs, 1651-6, 1684-93.

³⁰ Also at Market Bosworth on 29 June 1627.

tween pastoral and arable regions, also catered for the needs of both. Good-quality horses were sold at Warwick, the average prices of the various types of horse sold there in 1651 being appreciably higher than those sold at Derby five years earlier. The fair supplied not only plough and cart horses but also light saddle horses. The felden areas of Warwickshire and Northamptonshire obtained geldings and horses, doubtlessly for similar purposes as those bought at Derby. The wood-pasture areas of Warwickshire and Worcestershire, such as the Forests of Arden and Feckenham, bought in not only young stock for rearing but also brood mares for breeding and for use as draught animals. Arden also supplied numerous horses that were sold at the fair, many having been over-wintered there and brought back for sale to buyers from the east Midlands. Inevitably, most of the business involved men from Warwickshire and the adjacent parts of Northamptonshire and Oxfordshire, but persons from the counties of Bedfordshire, Cheshire, Lincolnshire, Middlesex, Norfolk, Suffolk, and Yorkshire are also recorded in the toll books of 1651.

Stratford fair was similar to that of Warwick. If any difference can be discerned it is in the greater number of young stock that was sold there. A number of these young horses seem to have been brought to the fair by persons from the east Midlands, where there would have been less winter feed available than in wood-pasture areas of Worcestershire and Warwickshire. Both fairs supplied the neighbouring arable areas, although buyers from the east Midlands tended to go to Warwick, whilst people from the felden part of Worcestershire were more in evidence at Stratford.

IV

The development of a long-distance trade and the growth of fairs specializing in the sale of a certain type of horse were largely due to the rise of a specialist class of horse dealer. An examination of toll books of midlands fairs reveals that certain people were travelling around the area and attending a number of fairs

on a regular basis. It is clear that many of these people knew each other well, meeting one another on their annual round. This can best be illustrated by the numerous examples in the toll books of dealers standing *vouchee* for one another, even though they often lived miles apart. When John Maggs of Marston Bigott, Somerset, bought a brown mare from Robert Harrington of Whitechapel, London, at Warwick fair on 24 August 1688 he stated that he accepted the horse "with this voucher onley whom he knows". The *vouchee*, in fact, was William Harries of Old Bedlam, London, and while it is easy to see how he could have become acquainted with Robert Harrington, it is likely that he had come to know John Maggs through meeting him at various fairs around the country.

Such men were often acting in the capacity of middlemen, buying horses of a certain type at one fair and selling them at another. Many of the transactions at fairs, especially those involving long-distance traffic, took the form of exchanges between dealers. Bringing horses of one type to a fair, they would make an exchange for a horse of a different kind instead of receiving a straight cash payment. Of course, if a Derbyshire dealer, for instance, brought a large draught mare to Shrewsbury and exchanged it for a Border horse, the difference was made up in money.

Many horse dealers seem to have come into the trade through occupations which involved them with horses. Trade *with* horses naturally led to trade *in* horses.³⁶ A case in point is the Dabbs family of Atherstone, Bulkington, Hartshill, and Nuneaton in north-east Warwickshire, who travelled extensively around the midland fairs, buying and selling horses on a considerable scale. Between 1618 and 1656 various members of the family are recorded at Derby, Market Bosworth, Nottingham, Shrewsbury, Stratford, and Warwick fairs, in fact in almost every toll book of midland fairs in the early seventeenth century. In this period they bought at least 114 horses and sold 106. Arthur Dabbs of Atherstone was classed at

³⁶ Chartres, *loc. cit.*, p. 82.

different times as a yeoman, chapman, and butcher. John, another butcher, came from the neighbouring parish of Bulkington, as did Arthur Dabbs, senior. Samuel Dabbs of Nuneaton was variously described as a silk-weaver, yeoman, and chapman. A relation also lived on the Strand in London: Samuel Dabbs was a mealman, and is recorded in company with other members of the family at Stratford on 24 September 1646 and at Derby on 7 May 1647.

Butchers elsewhere were involved in other activities which necessitated the buying and selling of horses. In the first half of the seventeenth century a group of butchers from Newport, Shropshire, were acting as wool merchants,³⁷ collecting parcels of the fine March wool from local farmers, and taking them to the wool staplers who had established themselves in the area.³⁸ The Robson and Boycott families, in particular, combined their trade with that of wool merchants and horse dealers, and regularly visited Shrewsbury to buy horses and cattle.

William Frizwell of Bedworth, Warwickshire, was listed in the Kidderminster toll books³⁹ as both butcher and chapman. Four other members of the family were regularly recorded in the toll books of Dudley,⁴⁰ Kidderminster, and Warwick at the turn of the seventeenth century, John Frizwell being specifically called a "horse squarser" in the Kidderminster book for the fair held on 24 August 1705. Apart from the Frizwell family, other notable dealers from Bedworth who appear regularly in toll books of midland fairs are Humphrey Hanbury, Luke Bradbury, Thomas Liddell, and William Satchell. The Bedworth area by this date had become a noted mining centre, and supplied large quantities of coal to Coventry and further afield. The coal was transported overland, and it is reasonable to assume that the large number of references to Bedworth men in the books

was due to their involvement in the coal industry, supplying horses not only as pack animals but also to work gins and other equipment.

These examples show that horse dealing was not only often combined with the pursuit of another occupation but also frequently a family tradition. Various members of the Rocke family of north Worcestershire and south Staffordshire were frequently to be seen at Shrewsbury at the end of the sixteenth century and beginning of the seventeenth. Between 1585 and 1626 thirteen members of the family living in the three industrial parishes of Old Swinford in Worcestershire, and Kingswinford and Rowley Regis in Staffordshire are recorded in the toll books there, and it is evident that more than one generation is represented. They are mainly classified as chapmen, and their concern seems to have been to supply the mining and metal-working industries of their home area with work-horses. Between the two dates they are listed as buying 321 horses and selling a further 32.

One member of the family, John Rocke, a chapman of Rowley Regis, made his will on 3 September 1609, and this document shows his involvement with the horse trade.⁴¹ To his eldest son, Roger, he left

all my furniture belonging to my horses with two of the best horses or mares that he can choose amongst any horessces [*sic*] within one week after my death with sufficient hay to winter them and also all the debts I have owing unto me in whose hands soever they be.

Roger, however, did not long outlive his father. At an unknown date later in 1609 or early in 1610 he made his own will, leaving to his younger brother, Thomas, "the worst of my two horessces which my father gave me."⁴²

The toll books also reveal the existence of groups of horse dealers living in one, often closely defined, area. Such factors as easy access to the regional fairs and good communications

³⁷ Staffs. R.O.: Sutherland Colln., D593/J/16.

³⁸ P. J. Bowden, *The Wool Trade in Tudor and Stuart England*, 1971, p. 81.

³⁹ Kidderminster Borough Lib.: horse toll book, 1693-1711.

⁴⁰ Dudley Borough Lib.: horse toll book, 1702-8.

⁴¹ Worcs. R.O.: Wills 1609/87. ⁴² *Ibid.*, 1609/152.

were obviously important. One group of dealers lived in a block of parishes adjoining Watling Street on the north-eastern border of Warwickshire. The Dabbs family, already referred to, formed part of this group. John Alcock, a chapman from Wolvey, was another dealer who travelled to a number of midland fairs. On 29 June 1632 he sold a mare at Market Bosworth, and twelve years later he is recorded at Stratford on 14 and 24 September where he sold 14 mares, 2 fillies, 1 foal, 4 colts, and 1 gelding, obtaining a colt in return for one of the mares. John obtained many of his horses at Derby and Shrewsbury, for he is regularly listed in the toll books as having bought animals there.

Dealers from this area were by far the most numerous group from Warwickshire at the Derby and Market Bosworth fairs. Between 1639 and 1649 dealers from a contiguous group of parishes stretching from Merevale to Monk's Kirby were involved in three-quarters of both the sales and purchases of Warwickshire men at Derby (73.7 per cent and 75.4 per cent respectively). They were not so dominant at Shrewsbury fair, but apart from John Alcock and the Dabbs family men such as Thomas Watson of Hurley were regular attenders here, as at Derby and Market Bosworth. Not surprisingly, they were also much in evidence at the Warwickshire fairs of Stratford and Warwick.

Gentry families sometimes made use of horse dealers. The accounts of the Leveson family's estate at Lilleshall in Shropshire record that in February 1677 Thomas Rowley of Preston-upon-Wealdmoors twice accompanied the estate agent, Thomas Wickstead, to Benthall to view Mr Benthall's grey horse: after all, they were paying £57 for the animal.⁴³ In general, however, such families used their own servants to buy and sell horses for them. The Levesons used Robin Parkes in this capacity. In 1674 he was out for a week when he travelled to Lenton fair, near Nottingham, with two horses, one of which was sold for £15 10s.⁴⁴ The estate

accounts record that on 6 September 1676 he paid in £18, the surplus from the sale of a bay gelding at Penkridge fair after £16 had been expended on a grey horse.⁴⁵ He was also present at fairs there in 1675 and 1678, although it is not known what transactions were made on these occasions.⁴⁶ In 1676 he also journeyed into Radnorshire on his master's business, and bought a bay stallion there for £26 1s. 6d.⁴⁷ Toll books, moreover, contain numerous references to servants who were acting on behalf of their masters. In the Penkridge toll book for 23 September 1640, Thomas Mason, a servant of John Stiles of the Bell, Smithfield, is recorded as having bought three bay geldings and one bay nag for £41 5s. It is interesting to note that the previous year, on 25 July, Thomas had been at the St James's Day fair at Derby where he had bought a bay gelding and a bay nag for £19.

The reference relating to Thomas Rowley⁴⁸ is also a reminder that a considerable proportion of all transactions did not take place at markets or fairs. Edward James was a grazier and horse breeder living in the parish of Penkridge, Staffordshire. Between 1692 and 1710 his farm accounts record that whereas he bought, sold or exchanged nineteen horses at various fairs, his private deals involved fifty-one horses.⁴⁹ Edward James bred and dealt in good-quality horses, but more humble animals were sold privately as well. When Richard Wells of Wem, Shropshire, made his will on 10 December 1602, the debts he recorded include £7 4s. 8d. for three mares that he had sold to three of his fellow parishioners.⁵⁰ Geoffrey Higginson was granted particularly easy terms, being allowed to pay the £2 6s. he owed in instalments of 1s. per week.

Horse dealers belonged to a growing community of wayfarers, an increasingly important section of society from the late sixteenth century onwards. By the opening of the seven-

⁴³ *Ibid.*, D593/F/2/8.

⁴⁴ *Ibid.*, D593/F/2/8; D593/F/2/11.

⁴⁵ *Ibid.*, D593/F/2/8. ⁴⁶ *Supra*, p. 98.

⁴⁷ *Ibid.*, D593/F/2/8. ⁴⁸ *Supra*, p. 98.

⁴⁹ *Ibid.*, D593/F/2/8.

⁵⁰ *Staffs. R.O.*: HM 27/3, farm accounts of Edward James, 1692-1710.

⁵¹ *Lichfield Joint R.O.*: 18 May 1603, Wem.

⁴³ *Staffs. R.O.*: Sutherland Colln., D593/F/2/38.

⁴⁴ *Ibid.*, D593/F/2/6.

teenth century such people had established a distinct identity, holding particular ideas and attitudes that to a large extent were different from those of settled society of town and village.⁵¹ Horse dealers, in particular, had acquired a popular reputation for untrustworthiness, and in this respect the comparison between them and modern second-hand-car dealers is quite apt. In 1659 the Secretary of State, Sir Edward Nicholas, wrote to the Marquis of Newcastle concerning some horse dealers:

for itt is two professions, a good horse-man, and a horse-courser. I pretende to the firste, but knowe nothinge of the seconde, for Ile cosen no bodye. I only take care nott to be cosende, which they finde I can doe reasonably well att thatt.⁵²

Horse stealing was widespread in spite of its being a capital offence. Thieves often went to great lengths to disguise any distinguishing marks on stolen horses, painting on or obliterating blazes and stockings as the need arose. Some Derbyshire dealers, suspected as horse thieves, were tried at the Staffordshire Quarter Sessions in 1608-9. The record relates that

they could give no reckoning, how, or where, or of whom they bought them, being indeed riff-raff horses not fit for horse coursers to traffic withall in any fair or market . . . [they had previously brought horses but] they have not sold them in any fair or market openly, but in the pastures and fields where they go, and have had divers chapmen secretly to receive them at their hands, who almost are ill as the horse stealers themselves. . .⁵³

Stolen horses, however, were taken to fairs to be sold. In 1615 David Jones, a shoemaker from "Pulseoid" in Denbighshire (described as "a short well trust fellowe somewhat pale faced wth a little blacke beard, a notorious theefe, and a great horsestealer"), was imprisoned in

⁵¹ Everitt, *loc. cit.*, pp. 558-9, 562.

⁵² Sir G. F. Warner (ed.), *The Nicholas Papers* . . . , Camden Society, 3rd ser., XXXI, 1920, pp. 110-11.

⁵³ Joan Thirsk and J. P. Cooper (eds.), *17th Century Economic Documents*, Oxford, 1972, p. 331.

Stafford after having tried to sell a gelding at Penkridge fair. The horse belonged to a Dr Williams of Ruthin, Denbighshire, and at the time of the theft had been tied to a door in the street along with other horses.⁵⁴

V

No discussion of economic activity in the seventeenth century can fail to mention the impact of the Civil War on the flow of trade. The movement of livestock around the country was particularly hampered, and this fact is brought out very clearly in the toll books. At Derby 360 horses are recorded as having been sold in 1639, and 290 in 1642, the year that war broke out. In 1643 and 1644 the numbers declined to 36 and 43 respectively. In 1643 one or two people from distant towns are listed, although, of course, their presence at Derby may have been due to other causes. In 1644, however, the furthest that anyone ventured was only from north-east Worcestershire. Many of the regular dealers seem to have avoided the fair altogether, especially the large-scale dealers from Warwickshire, Leicestershire, and Northamptonshire. Trading began to pick up in 1645 with 169 horses sold, and in 1646 a record number of 701 horses were listed in the books.

Other fairs must have experienced a similar period of decline, followed by a subsequent improvement as the re-establishment of peace tempted people back on to the road. At Shrewsbury two additional fairs were granted in 1638, and the toll books for that year record the sale of more horses than for any year since 1616. After this, however, nothing is known until 1646 when the run of toll books begins again. Shrewsbury was a royalist centre until its capture by Parliamentarians on 22 February 1645, but as much of the surrounding countryside was under increasing Parliamentary control and skirmishes were often taking place, disruption of trade was inevitable. On 16 May 1643 Lord Capel, the Royalist commander in Shropshire, Cheshire, and Wales, wrote from Whitchurch

⁵⁴ Staffs. R.O.: D1287/10/2, common place book of Matthew Craddock, 1614.

in north Shropshire to Sir Francis Ottley, governor of Shrewsbury, that

A large influx of people to the May fair from the surrounding country bringing horses, sheep, linen and woollen fabrics afforded a favourite opportunity for treachery or plunder. . .⁵⁵

Three days later Lord Capel wrote again to Sir Francis congratulating him on the care that he had taken on fair day and exhorting him to continue the good work.⁵⁶ None the less, the danger was ever present. Letters coming from Chester dated 7 August 1644 and recorded by *Mercurius Civicus* give an account of the activities of Colonel Mytton, the local parliamentary commander, in the area around Shrewsbury:

Colonel Mytton for the Parliamentarians lately faced Shrewsbury with his horse and with another party kept Montford Bridge and wheeled about the town with another party through Crow Meole and Brace Meole towards the Welsh Gate within three miles of Shrewsbury to Atcham Bridge where Colonel Hunte governor of Shrewsbury, lies and drove away many of his horses, calves, and sheep and did much to hinder Shrewsbury fair which was that day.⁵⁷

The war certainly disrupted the trade of markets and fairs. The merchant community was hardly likely to feel secure with reports of excesses, real or imaginary, the common talk of the market place. In 1643 Colonel Hastings, who was operating in Leicestershire, felt obliged to make a declaration forbidding looting by his troops, and threatening death to anyone who took horses, money, or goods to the value of 2d. in Leicestershire and Derbyshire. He assured the merchants that if they brought their goods into Leicester to sell, their horses would not be seized "as was lately done at

Derby to the grosse prejudice and terror of his Majesties subjects."⁵⁸

Conversely, whilst it is clear that the reduction in the number of horses recorded in the toll books of the war years represents a real decline in the trading activities of markets and fairs, the war must have stimulated the demand for horses. They were, obviously, needed in great numbers, and not just for the cavalry but also to carry supplies and munitions or to move ordnance. In this respect the war aided the expansion and diversification of the horse trade, for even if many of the horses were acquired as spoils of war the armies could only have obtained a regular supply by dealing more honestly with horse breeders and dealers. Indeed, the absence of such men from the toll books during these years could indicate that they were dealing directly with the armies.

VI

Taking the seventeenth century as a whole, the overall picture for the horse trade was one of growth and diversification. Horses were being used in greater numbers over a wider range of activities, and the insistent and varied demand made horse breeding a profitable occupation in many rural communities. As the market became more diverse, and the types of horses sold more varied, the prices charged widened, as did the range of customers to be catered for. Horse dealers, travelling extensively around the country, were largely instrumental in supplying the growing differentiation in demand by buying, selling, and exchanging horses with one another at the different fairs. Many of these men had come into the trade through an occupation that involved them with horses, often as carriers, and this enabled them to see the potentialities of an expanding and more discriminating market. These dealers were, in fact, acting in the capacity of middlemen, the growth of whom was similarly affecting the marketing of many other commodities, and was the inevitable result of the growth of specialization and organization of the market on a regional and national basis.

⁵⁵ W. Phillips (ed.), 'The Ottley Papers relating to the Civil War', pt 1, *Trans. Shrops. Arch. Soc.*, VII, 1895, p. 320.

⁵⁶ *Ibid.*

⁵⁷ Phillips (ed.), *loc. cit.* VIII, 1896, p. 245.

⁵⁸ Derby C.R.O.: D803M/Z9, fols. 47-8.

Members of Parliament and Enclosure: A Reconsideration

By J. M. MARTIN

THERE can remain little doubt that enclosure by Private Act, whatever its merits, laid a heavy burden of expense on the owners of common-field land.¹ In addition, we have had the recent demonstration that in Buckinghamshire the Act was accompanied by a decline in original owners amounting to nearly 40 per cent for parishes enclosed between 1780 and 1825.² Such conclusions prompt a reassessment of the personalities who nevertheless successfully carried through this type of legislation.

The view of W. E. Tate, which has successfully held the field for many years, was that the evidence served "to forbid the conclusion that Members of Parliament in general used their position as legislators in order to safeguard their personal interests or those of their constituents." The figures who engaged in this work were seen as successfully resisting the temptation "to sink the legislator in the landowner."³ The purpose of this present piece is to reconsider that verdict in the light of an examination of the Warwickshire evidence on this topic.

I

The first matter worth looking at is the actual pattern of Commons procedure. As Tate showed, the practice was for the House to nominate two or three Members to oversee and introduce a draft Bill. After a Second Reading this was duly submitted to a Commons Com-

¹ For the most recent study of costs see M. R. Turner, 'The Cost of Parliamentary Enclosure in Buckinghamshire', *Ag. Hist. Rev.*, xxi, 1973, pp. 35-46.

² M. E. Turner, 'Parliamentary Enclosure and Landownership in Buckinghamshire', *Econ. Hist. Rev.*, 2nd ser., xxviii, 1975, pp. 569-75; J. M. Martin, 'The Small Landowner and Parliamentary Enclosure in Warwickshire', *Econ. Hist. Rev.*, 2nd ser., xxxii, 3, 1979.

³ W. E. Tate, 'Members of Parliament and their Personal Relations to Enclosure', *Ag. Hist.*, xxiii, 1949, pp. 118-20.

mittee for detailed scrutiny; one of the Members described above then made the Report back to the House. A final Reading quickly followed. It is significant that a substantial sample of those Warwickshire Bills where the draft details encountered no opposition was found to take on average no more than twenty-one days in their progress through the House, from First Reading to Engrossment. The third quarter of the century found a large number of such proposals making their way through the House at the same time, in addition to a swelling in the tide of other types of legislation. In 1780 this tendency attracted the attention of the Lord Chancellor. During the course of a broad attack on the whole machinery of enclosure by Private Act he observed that he could "point out with certainty one source of the evil . . . [which was] the rapidity with which private bills were hurried through the committees of the other House. . ."⁴

In a recent examination of these procedures Miss Lambert noted that most of the criticism derives less from the eighteenth century than from the evidence of Select Committees of the years 1824-37.⁵ This is no doubt true. Nevertheless, she herself goes on to quote at length from the 1775 Committee to the effect that "many Members of your Committee cannot but remember the great Inconveniences which were felt, and much complained of . . . [that] Persons residing at a Distance . . . were put to great Expences for an Inclosure . . . too late to have an opportunity of . . . laying their Observations upon such Bills before Parliament with Effect."⁶

⁴ 'Commutation of Tithes for Land in Bills of Enclosure', *Parliamentary History*, xxii, 30 March 1781, pp. 59-61.

⁵ S. Lambert, *Bills and Acts: Legislative Procedure in Eighteenth Century England*, 1971, pp. 101-2, 129, 136.

⁶ *Ibid.*, pp. 135-6.

A further matter of some interest is the make-up of the important Commons Committee (omitted altogether from Tate's discussion). Before 1760 the Members were listed in the Journal, and included between fifty and sixty-five names. In the Lords, where the Committee bore a similar unwieldy appearance, a provisory clause permitted any five peers to act as a quorum, and it is clear from Miss Lambert's study that a similar procedure was followed in the Commons.⁷ There then arises the question of how far Members nominated actually attended such Committees. The example quoted at length by Miss Lambert is hardly reassuring on this score. A Committee which attracted much general interest held twenty meetings in all, but of forty-two Members only six attended more than twice, while of thirty-five additional nominations only five ever actually served.⁸

In the light of such revelations Miss Lambert concedes that uncertainty must remain over whether parliamentary scrutiny of enclosure Bills could be regarded as adequate. She stresses, nevertheless, that the recognized procedure of the two Houses did offer some protection; here the House of Lords Committee Books yield evidence that some care was taken with technical difficulties which arose, and also with ensuring that the rules of procedure were followed. With all this, however, it must be said that in the illustrations which she puts forward the main benefit was in protecting and clarifying the interests of the substantial landowner and the rector. Whether the framework offered by the parliamentary process was able to extend protection to the rights of the larger community and humbler common-field owners remains the nub of the issue. And here several additional causes of doubt exist.

To begin with, where this larger community challenged a petition the occasion is not always recorded in the Journals, so that its relationship with Parliament is partly obscured. To cite examples: the Journal has no record of the 1731 petition relating to Atherstone, although this document survives in the Compton-Brace-

bridge collection; similarly the attempt in 1778 to foist an enclosure on the cottagers of Sutton Coldfield and their counter-moves finds no reference in the parliamentary record.⁹

A further point is that the belief referred to by Miss Lambert that an enclosure ought to secure the support of three-quarters of the interested parties is not wholly borne out by the Warwickshire evidence. The Commons Journal sets out the details of support found in fourteen agricultural townships, all successfully enclosed during the years 1730-60.¹⁰ This shows that 85 (27.4 per cent) of the 312 interested parties had failed to sign the appropriate draft Bill. In half the cases less than three-quarters of the owners' signatures were appended. The size of common-field holdings can also be gauged for thirteen of the townships, and this shows that the owners of 73½ (11.5 per cent) of 627½ yardlands had not signed their approval of the draft schemes. This sample relates, furthermore, to the early decades of the movement, characterized by Miss Lambert as an era in which Parliament "conceived its function to be to authorize agreements arrived at, rather than to arbitrate between parties."¹¹ Nevertheless, only nine of twenty-seven Warwickshire Bills initiated in the Commons before 1760 were endorsed by the signatures of all the interested parties.

There remains a further area of doubt. Miss Lambert rightly draws attention to the safeguard apparently offered by certain established practices, notably the requirement that all individuals with a claim to land affected by a Bill

⁹ For the draft and final copies of the Atherstone petition, together with the cottagers' counter-objections, all dating from the 1730's, see: Warwicks. R.O.: Compton-Bracebridge MS., box H.R./35; for a similar pattern of events at Sutton Coldfield in 1778 see: Birmingham Central Reference Library, Sutton Coldfield Miscellaneous Collection, no. 424509; fols. 19, 27 (1778, 1824).

¹⁰ The Journal also records nine other Bills where no dissenting names appear; four other Bills included are: Bishops Tachbrook (tithe settlement only); Wilnecote (owners of 84 of 700 acres refused to sign); Kenilworth (forest, urban; 12 of 69 owners refused); Flecknoe (Bill in Committee from 11 March 1730 to 2 March 1731; 9 of 33 owners refused; ultimately failed).

¹¹ Lambert, *op. cit.*, pp. 133, 136.

⁷ Lambert, *op. cit.*, pp. 100-1. ⁸ *Ibid.*, p. 100.

should be approached personally to give their consents; secondly that the Committee should be informed in writing whether each individual was for or against the proposed change. Nevertheless, such a safeguard relied, if it was to be effective, on accurate and disinterested reporting. That this was not forthcoming on every occasion can be demonstrated from the example of Bills which gave rise to counter-petitions on behalf of the smaller proprietors. Thus at Flecknoe Mr Digby and Sir J. Isham were given leave on 20 March 1730 to bring in a Bill. This followed their report on the petition that "the Parties concerned have agreed and consented that the same should be inclosed."¹² But a counter-petition received by the House on 11 April from "several freeholders and proprietors on behalf of themselves and others . . ." proves this statement to be false. The solicitor's statement of the case earlier in the same year had also referred to the fact that a quarter of the thirty-three interested proprietors opposed the enclosure.¹³ Other similar cases exist.¹⁴

In such instances it seems that the actual course of events owed more to the personalities of M.P.s than to the framework of established procedure. This makes it worth looking again at these figures, and in particular at their relationship to the petitioners.

II

When we turn from these general considerations to look more closely at the Warwickshire evidence we find that the Leigh family estate records contribute some interesting information with a bearing on this question. It proved possible to turn up, for example, a day-by-day description of the task of steering a draft Bill

¹² On the testimony of Mr N. Masters and Useby Holms; *H.C.J.*, XXI, 20 March 1730, p. 507. A second petition was received by the Committee, 2 March 1731: *ibid.*, p. 654.

¹³ "A True State of the Case . . ." copy in Warwicks. R.O., ref. Z./12/1-2.

¹⁴ Initiation in the Lords probably concealed the opposition of the body of cottagers at Nuneaton (1730), referred to in Compton-Bracebridge MS., box H.R./35. For petition see: *H.L.J.*, XXIII, p. 616; Report, p. 637.

through the Commons.¹⁵ This brought to light the suggestion that the principal landowner (in this instance J. H. Leigh) was at some pains to secure the attendance of particular Members for the crucial Committee stage of enclosure Bills in which he had an interest. On 15 February 1794 we find his town solicitor "writing to Mr Leigh as to the Petition and the Opposition, and attending the Opposers' solicitor several times, explaining the Business, and he recommending the Parties to give it up." The petition in question was for an enclosure of the parish of Longborough over the Gloucestershire border. On 12 March the preparation of the Bill was placed in the hands of Mr Berkeley, a fellow landowner and relative by marriage of the Leighs. On the 20th the solicitor is found "attending the Commons for a list of the Committee." On the same day he notes that "a messenger and letter were sent [by himself] to Mr Major and six other Members requesting their attendance on the Commons Committee on the 25th instance." Finally, on the eve of the meeting of the committee, the same gentleman is found "attending Mr Beman [J. H. Leigh's nominee as commissioner] this Day as to the Opposition and advising him thereon." The Committee duly met, and the Bill ultimately passed up to the Lords, where the same procedure was acted out. On 3 April there were dispatched "a letter and messenger to the Earl of Guilford to attend the Lords Committee on Tuesday next, and the like to Lord Hawke and the Bishop of Gloucester."

The actual pattern of involvement in enclosure, as in other areas of economic activity in Warwickshire, suggests that the initial step was dictated largely by personal considerations. The career of Sir Charles Mordaunt illustrates this point. Representing his county for forty years in the Commons, he presented the Committee Report on twenty-two of thirty-eight

¹⁵ The Leigh MS. relates to Warwickshire's most extensive landed estate: Birthplace Library, Stratford-on-Avon; Longborough Papers, ser. B, box 2, bundle 4: headed "Expenses Account, As to Obt. Act, 23 November 1793, J. H. Leigh, and Others"; notes dated 15 Feb. 1793; 20 March 1793; 2 April 1793.

Warwickshire Bills passing through the House between 1736 and 1769. But as lord of the manor of Wellesbourne Mountford his was the very first Warwickshire petition to be recorded in the Commons Journal in 1730.¹⁶ He was the principal figure also in the petition three years later to re-allot the common fields of Wellesbourne Hastings. Finally, in 1736 Mordaunt presented his first Commons Committee Report which was on behalf of the neighbouring parish of Alderminster. Here two of his Wellesbourne tenants, Thomas Aylesworth and Thomas Venors, were also employed as local award commissioners (Aylesworth's first appearance had been as commissioner at Wellesbourne Hastings, but neither figured again after the Alderminster award). These details illuminate a pattern which was to be repeated in later legislation, as the career of Sir Roger Newdigate illustrates. Making his first appearance during the years 1742-7, Newdigate went on to represent Oxford University from 1751 to 1780 without a break. According to Namier he took his parliamentary duties exceptionally seriously, which makes it the more astonishing that his first active participation in Warwickshire enclosure legislation was as principal petitioner in the Chilvers Coton Bill of 1764.¹⁷ He assisted after that in the preparation of a number of Warwickshire Bills, culminating in that of Bedworth (1769), where his father had developed the family coal-mines; Sir Roger took the lead in handling the draft legislation, presenting the Report from the Commons Committee himself. However, he appears to have lent his assistance on only two further occasions, both in the years 1770-1.¹⁸

A similar spectacle is offered by the conduct of the Isham family of Northamptonshire who represented their county without interruption throughout the years 1698-1772. They assisted in the preparation and reported on only two Warwickshire Bills: those for Flecknoe (1730) and Wolfhamcote (1757), where Hester Rayns-

ford, daughter of Sir Justinian Isham, was in both instances the principal beneficiary.¹⁹

Other Warwickshire personalities whose initiation into parliamentary enclosure activity took on a distinctly personal colouring included William Throckmorton Bromley, heir of an ancient family with Jacobite connections, and Thomas Skipwith. The latter was promoted into his own former county seat in 1770 by his kinsman William, Earl Craven. From that time Skipwith became as important in carrying through local enclosure Bills, including several on behalf of his own family, as Mordaunt had been earlier in the century.²⁰ It is noteworthy that his father, Sir Francis, and other relatives were amongst the county's foremost enclosing landowners in those years.

In the use of friends and relatives to advance territorial and personal ambition a further notable local figure was the first Viscount Beauchamp, later first Earl (1750) and Marquis (1793) of Hertford. According to Horace Walpole his principal aim in life was to secure a marquisate, and in fact the evidence shows that he had hopes of grasping a dukedom.²¹ Though during his long life he held lucrative political office, the road to the latter prize lay also through the amassment of a landed income which would serve to recommend his elevation.

The return on the Marquis's Warwickshire property rose between 1776 and 1797 from £2,376 to £5,906,²² an increase which reflected an attempt to round out and consolidate his seat at Ragley. Much of this rent-rise can be traced to large-scale pre-enclosure land purchase and post-enclosure improvement within the adjoining parishes of Binton and Old Stratford. To assist in the task of consolidating his influence in the Commons, Hertford found places for no less than six sons in the lower

¹⁶ *H.C.J.*, xxi, p. 441.

¹⁷ L. Namier and J. Brookes, *The House of Commons, 1754-90*, 1964, III, pp. 196-7.

¹⁸ 1771 was the year of the Bedworth award.

¹⁹ *H.C.J.*, xxi, pp. 507, 654, 827. *Ibid.*, xxvii, pp. 676, 743.

²⁰ His first act on arrival was to present the Committee Report for Stretton-on-Fosse, where his father was principal owner: *H.C.J.*, xxxi, 20 March 1771, p. 271.

²¹ Namier and Brookes, *op. cit.*, II, p. 424; Warwicks. R.O.: Seymour Ragley Collection, C.R. 114, A/345.

²² *Ibid.*, Rentals 1776-97, C.R. 114, A/192-3; 208.

House (leaving out of account his able brother, General Conway). ". . . What with sons and daughters, and boroughs, and employments of all kinds I have never," exclaimed one unkind observer, "heard of such a trading voyage as his Lordship has proved."²³

Given this background it is no surprise to find that the preparation of the Binton Bill was placed in the hands of General Conway and the brother of the Earl of Warwick. The son of Lord North and Sir R. Lawley were nominated to draft that of Shottery (Old Stratford). The appearance of North, his first in connection with a Warwickshire enclosure, was separated by only three Bills from his own petition to enclose the Warwickshire parish of Shotteswell (1793). Here we find that through the good offices of Lawley he received compensation for 29½ yardlands in the face of substantial opposition from the owners of 9 of the remaining 21.²⁴ Hertford and Lawley were linked by local politics. The former's power base in Coventry was used to challenge the political dominance of Warwickshire by the Old Tory gentry, while Lawley represented a similar challenge from the commercial interests of Birmingham.²⁵

At Warwick castle Paul Methuen, the Earl's close friend and client in the borough seat, was involved with only two Bills (Alcester Heath and Warwick).²⁶ The Earl had an interest in both Bills, and both encountered notable local opposition, leading in the case of Warwick to the presentation of a counter-petition.

Several case studies demonstrate that this use of relatives and friends was not confined to great county landowners; the lesser gentry pursued the same practice whenever opportunity offered. The example of Sanderson Miller, a gentleman of quite small estate, offers perhaps the most vivid illustration of the political connections which a man of even modest fortune

could succeed in establishing. The enclosure of the tiny parish of Radway, which contained the whole of his estate, found him with a quite extraordinary fund of social and political goodwill to call upon. Of help in this respect was an amateur interest in architectural design which he shared with Thomas Prowse, Member for Somerset (1740-67). The two had accomplished the plan of Hagley Hall for Sir G. Lyttelton, described as the closest political intimate of the Grenvilles and of Pitt.²⁷ In a fascinating note to Miller, Lyttelton states that "as his mote towards the expense of inclosure he encloses a note to enable him to wait with less inconvenience for the good effects of Mr. Pitt's more powerful friendship."²⁸ An entry in Miller's yearly accounts duly describes receiving the note, which was for £50, from Lyttelton.²⁹ When in time his Bill came before the House the list of Members appointed to the Committee is found to commence with the names of Mordaunt and Prowse, and goes on to record two Grenvilles and Pitt, along with a host of local personalities.³⁰ Not surprisingly the relationship between landowner and legislator is often difficult to disentangle. This is particularly true of political connections. Such an instance is afforded by the Foleshill Bill which Lord Guernsey helped to prepare. The leading beneficiary was Richard Hopkins, and the link with Guernsey appears to be through William Northey, a friend of the Earl of Aylesford, the former's father. Northey sat for Maidstone in the Earl's interest, and was also married to the sister of Richard Hopkins, whose inheritance came to the Northeys in 1799.³¹ This example highlights the risk in making assertions about the absence of connections between petitioner and legislator.

²⁷ *Ibid.*, p. 336.

²⁸ A. C. Wood (ed.), *Sanderson Miller Diaries, 1749-50, 1756-7, 1975*, Warwicks. R.O.: C.R. 1382/1; 1382/32; L. Dickens and M. Stanton (eds), *An Eighteenth Century Correspondence*, 1910, p. 348.

²⁹ A. C. Wood (ed.), *Accounts of S. Miller, 1742-59*, Warwicks. R.O.: C.R. 125/B/5, Dec. 1756. I am indebted to Mr Wood for additional information on Miller.

³⁰ *H.C.J.*, xxvii, pp. 404, 429.

³¹ Namier and Brookes, *op. cit.*, III, p. 213; Namier, *op. cit.*, p. 114.

²³ Quoted in L. Namier, *The Structure of Politics at the Accession of George III*, 1960, p. 400.

²⁴ *H.C.J.*, XLVIII, Petition, p. 221; Report, p. 728.

²⁵ Namier and Brookes, *op. cit.*, I, pp. 399-403; II, pp. 24-5; Namier, *op. cit.*, p. 103; W. B. Stephens (ed.), *V.C.H. Warwickshire*, VIII, 1969, 'Coventry Politics' by K. J. Allison, pp. 248-55.

²⁶ He had hopes of a peerage, but died still a commoner; Namier and Brookes, *op. cit.*, III, p. 134.

In practice we find that a very substantial proportion of leading beneficiaries under Warwickshire awards, regardless of rank, had access to the Commons through relatives and friends.³² Furthermore, some appear to have acquired a seat themselves merely in order to see such legislation through the House. One such figure, John Spencer of Althorp, over the Northamptonshire border, sat in the Commons (in the interest of the Earl of Warwick) for only just over four years, between 1756 and 1761. Significantly his short legislative career is found to coincide with the introduction of the only Warwickshire Bills (Priors Hardwick and Marston 1757-8) in which he had a personal interest as principal landowner.

One reason why this feature of enclosure legislation has been missed in the past lies in the fact that after 1760 the Journal neglects to provide the names of Members nominated to constitute the Committee. Fortunately, in Warwickshire the movement began unusually early, so that the pattern described above stands out more clearly than elsewhere. The results of an inquiry into the personalities who proposed or reported on draft Bills in Warwickshire over the period 1730-79 show that a total of seventy-one such draft Bills were successfully initiated in the Commons between these dates. In over half a specific personal connection existed between the principal petitioner and at least one of the M.P.s who took a hand in the way described above. The claim made in Tate's pioneering study that such a connection did not exist on a large scale should perhaps be treated therefore with some caution.

If one asks a further question, namely in what number of instances the leading petitioner had a relative or friend sitting in one of the two Houses, then the answer is in at least sixty out of eighty cases (this includes nine Bills initiated in the Lords between 1720 and 1742).

Another point arises out of this discussion. The conventional practice appears to have

favoured the nomination of a local M.P. with a considerable fund of experience in overseeing this type of draft Bill in the House and in Committee. At the same time it appears customary to appoint a friend, relative, or client to watch over the interests of the principal petitioner. Tate's figures for Oxfordshire enclosures lend themselves to such an interpretation: he records 156 Members taking part in enclosure proceedings on 756 "occasions" over the whole period 1757-1843; but the significant point is that a small group of eleven M.P.s participated on more than ten "occasions".³³ This special group we should see as the experienced local Members, like Mordaunt and Skipwith in Warwickshire. Since Tate's table is an enumeration not of Bills, but of the three "occasions" when M.P.s were nominated to "prepare and bring in," to present, and finally to report on a Bill, the appearance of 145 of his Members on ten "occasions" or less meant each was involved with at most three or four separate Bills.

III

One can take issue with Tate on other matters. The Mordaunts, Cravens, Willoughbys, Throckmortons, Bromleys, and Skipwiths formed part of a closely knit association of country gentlemen linked by marriage alliance and political obligation. Both Mordaunt and Newdigate were recognized leaders of the old country Tories, bound to those figures at the centre of local politics whose names had in 1721 been dispatched to the Pretender as likely supporters. Claims like those of Tate which seem to endow such personalities with a sense of responsibility "to the community at large" are not wholly accurate, given the social climate of that age.

It is true that amongst a handful of county M.P.s self-interest transcended the ownership of a particular landed estate. This was true for example of Sir Thomas Skipwith, found shouldering the main burden of parliamentary work on Mordaunt's retirement. His estates were spread widely throughout the county,

³² Namier noted that "In . . . old aristocratic houses or . . . the aftermath of great men . . . the predestination of Parliament extended even to younger sons," *op. cit.*, p. 3.

³³ Tate, *loc. cit.*, table 2, p. 219.

extending from Monk's Kirby in the north to Bidford-on-Avon in the far south.³⁴ His grandfather, Sir Fulwar, and other relatives were active in launching the earliest Warwickshire turnpike schemes, while the enclosure Acts often also included the construction of feeder village roads in the remoter parts.³⁵ From the swelling traffic in food and other commodities which arose from these diverse activities, Skipwith was himself one of the first to gain.

Such promotion schemes held out other attractions. One was the build-up of goodwill with powerfully placed figures in the City and in Parliament. So in 1774 we find Skipwith reporting on the Bill to raise £5,000 for the important turnpike running the length of the county from Birmingham down to the Oxfordshire border at Warmington.³⁶ This came within three years of his Bill to enclose Burton Dassett, adjoining the road at Warmington, where the petitioners consisted of two of the powerful Grenville brothers and Sir R. Ladbrooke, the distiller and Member for the City of London.³⁷

Figures like Skipwith do nothing to weaken the suggestion that many legislators were acting to serve personal interests of one kind or another. Doubts then arise as to how far such men would be open to the just claims of the larger community. During the course of a debate in 1780 on the Ilmington, Warwickshire, Bill, Lord Chancellor Thurlow voiced such feeling. We are told that he "turned his attention to . . . the mode in which Private [enclosure] Bills were permitted to make their way through both Houses . . . to the great injury of many, if not the total ruin of some private families. He then proceeded to examine every provision of the [Ilmington] Bill pointing out some act of injustice, impartiality,

obscurity, or cause of confusion in each."³⁸

It is true of course that the practice of requiring to know the names of all proprietors, and whether or not they agreed to an enclosure, continued to offer some safeguard to the humbler class of owner. To set against this is the progressive reticence of the official record on opposition of one sort or another. Miss Lambert notes that after 1741 the practice of submitting enclosure petitions to the detailed scrutiny of a parliamentary Committee, and the subsequent publication of its report in the *Journal*, were abruptly ended.³⁹ Also abandoned from 1760 was the practice of listing in the published account of the Report on the Bill the actual names of individuals refusing, or otherwise not signing, and their share of the common-field yardlands. After that time dissent was recorded merely in terms of the aggregate value of the "interest", one-sixth of which was made up not of land but of tithe (converted into land only after enclosure).

It might be fitting at this juncture to turn back to the broader framework of the enclosure process. What gives final point to the discussion is local information showing that opposition to enclosure Bills from one quarter or another was by no means a rare event. A description of the protracted nature of the legislative business is recorded in the Stockton register. The entry notes that "an enclosure of Stockton parish was attempted in the year 1778 and [again in the year] 1786, but without Success. In the year 1791 the Inclosure business was resumed, and after many Meetings and Debates the Bill was at last signed in the Presence of Sir T. Biddulph. . ."⁴⁰ In an examination of 170 Nottinghamshire petitions covering the whole period 1743-1826, W. E. Tate found only twenty-nine instances of delay of a year or more, while in no more than fifteen of these cases was there even the possibility of

³⁴ J. M. Martin, *Warwickshire and the Parliamentary Enclosure Movement*, unpubl. Ph.D. thesis, Birmingham, 1965, II, App. xxiv.

³⁵ See the 'Act for Repairing the Road leading from Dunchurch to . . . Meriden-Hill . . .', 10 Geo. I, and a similar Act of 3 Geo. II, for the road from Stratford-on-Avon to the ". . . top of long Compton Hill."

³⁶ *H.C.J.*, xxxiv, p. 599.

³⁷ *Ibid.*, xxxiii, p. 133; Report, p. 271.

³⁸ Debate: 'Commutation of Tithes for Land . . .', *loc. cit.*, pp. 59-61.

³⁹ Lambert, *op. cit.*, pp. 131-3.

⁴⁰ Warwicks. R.O.: Stockton Parish Register, 1777-1809, D.R.58.

opposition.⁴¹ In Warwickshire the years 1730–99 saw 121 petitions originating from 102 townships. No less than twenty-two of these failed, leading in all instances to a delay of at least a year before the presentation of any further petition. There were, in addition, nine cases where Bills were successfully pushed through at the first attempt, but where, nevertheless, evidence of opposition exists. This took the form in almost all instances of either a counter-petition or the use of the procedure that all-comers should “have voice” in the Committee. Of the total of thirty-one cases described, all but five certainly arose out of opposition from one quarter or another. Altogether it appears that twenty-five of the 102 townships saw the failure of at least one petition, the lodging of a counter-petition, or the opening of the Commons Committee in order to swamp opposition.

Parliamentary opposition was thus not uncommon. As to its origin there must remain doubt. Probably it arose in many cases less from the smaller proprietors than from within the ranks of the gentry class, or from the Church aggrieved at some technical detail or the choice of commissioners. Thus of the fifteen counter-petitions only five (those for Flecknoe, Atherstone, Priors Marston, Harbury, and Sutton Coldfield) originated with the less substantial proprietors. For this class parliamentary obstruction was too expensive a venture, and the hope of success too slender.⁴² In general their antipathy found expression only in a refusal to sign the Bill. Even this degree of resistance was glossed over after 1770 by the

⁴¹ W. E. Tate, ‘Opposition to Parliamentary Enclosure in Eighteenth Century England’, *Ag. Hist.*, xix, 1945, p. 141.

⁴² At Priors Marston (1757), where a faction of opposing freeholders went so far as to present a counter-petition, the well-known surveyor G. Salmon noted the “strong opposition to this Inclosure . . . the Bill being litigated in the House which increased the Expense prodigiously.” It was also a factor in the high cost of other enclosures. See expenses of the enclosures at Loxley, Gaydon, Sawbridge, and Priors Marston in volume compiled by G. Salmon; photostat of original in Warwicks. R.O., Z.496 (U). I am indebted to R. Chamberlain-Brothers for this reference. For initial concealment of opposition: *H.C.*, xxvii, p. 674.

employment of the lawyers’ expression “neuter” to distinguish those proprietors who, while refusing to sign, declared they would not positively oppose the Bill.⁴³

That opposition should be encountered from one quarter or another is hardly a matter for surprise. It was appreciated that once the Bill had become law there remained no possibility of reversing the process, and only the details of the survey remained to be agreed. In the words of one Warwickshire gentleman, “If anyone should find Fault and object against anything in the Act . . . as hard upon him. To be answered there is nothing in it but what everyone approved under his Hand, and now it is ’stablished by an Act must be submitted to and observed, therefore to no purpose to talk against it.”⁴⁴

Given this background of uncertain success, the appointment of relative or friend to introduce and report on a Bill was a move which might crucially affect the chance of succeeding. He could influence the proposals so that the “interest” of the outright opponents was reduced to a minimum, and could fashion the details to the satisfaction of the more powerful parties. Failure on one or other score clearly caused a number of Warwickshire Bills to be lost, a very expensive penalty.

IV

To conclude: the purpose of this discussion has been to take a fresh look at the personalities who successfully carried through enclosure by Act of Parliament during the eighteenth century. The idea that Members saw themselves as acting to fulfil an obligation towards their constituents as a whole within the rural community seems a little doubtful.

Within the county community enclosure commissioners were customarily nominated by the interested parties; this pattern has been recognized for some time. We have put forward the suggestion that a similar tendency can

⁴³ Close examination of the changing terminology allows of no other interpretation.

⁴⁴ W. Bromley, in a letter relating to the enclosure of Bubbenhall, 1726–33: Warwicks. R.O.: Z.413(S.M.).

be traced within Parliament: watching over the interests of the leading petitioner was one at least of the two or three M.P.s nominated to bring in and report on each draft Bill. It proved possible to trace a link between landowner and M.P. in over half of seventy-one Bills coming before the House in the years 1730-79. Reflecting this practice was the fact that no more than a handful of Members acted on more than half a dozen occasions.

The details contained in the estate papers of two Warwickshire landowners, J. H. Leigh and Sanderson Miller, confirm this evidence and demonstrate that the principal petitioner took more than a casual interest in the make-up of the Commons Committee: the available evi-

dence hints at the likelihood that in practice its business was conducted by a tiny handful of interested M.P.s, as in the Lords.

The service of parliamentary friends was a matter of no small importance, since local information shows that actual opposition, and the consequent risk of a Bill failing, was quite substantial in a number of instances.

Finally, the intimacy outlined above between landowner and M.P. has a significance beyond the limits of the present discussion. It offers a key to an understanding of contemporary criticism of the enclosure process, to which reference was made in the course of this article.

NOTES AND COMMENTS

(continued from page 81)

The meeting concluded with a vote of thanks to the retiring President, Miss Edith Whetham.

WINTER CONFERENCE, 1979

The Winter Conference will be held on Saturday, 1 December 1979 jointly with the Historical Geography Research Group of the Institute of British Geographers. The venue is the Polytechnic of Central London, New Cavendish Street, and the theme will be 'Distress and unrest in the countryside'. All inquiries should be addressed to Dr A. D. M. Phillips, Department of Geography, University of Keele, Keele, Staffordshire ST5 5BG.

SPRING CONFERENCE, 1980

The Spring Conference will be held at the University College of Wales, Aberystwyth, on 14-16 April 1980; inquiries should be addressed to the Secretary. Programme and booking forms will appear in the February issue of the *Review*.

HISTORY TODAY

Michael Crowder, newly appointed editor of *History Today*, plans to include in the magazine a new regular feature on historical monuments which are being restored and opened to the public or are not well known. The term "monuments" is taken broadly to include, for example, the Laxton open fields, and members of this Society concerned with ones likely to be of interest to readers of *History Today* are asked to get in touch with the feature editor, Dr David Starkey, of the London School of Economics.

SOUTHERN HISTORY

Southern History is the title of a new addition to the journals concerned with regional and local history. The editor is J. R. Lowerson, Centre for Continuing Education, University of Sussex, and the annual subscription is £10. Volume I is to be published in October 1979 (subsequent annual issues in May) and includes, among others, articles on the decline of Canterbury in the late Middle Ages, the Courtenay Earls of Devon, the south-western rebellion of 1549, the market towns of southern England 1500-1700, and social crime in the rural south.

Government Provision of Farm Labour in England and Wales, 1914-18

By P. E. DEWEY

I

THAT the British economy experienced a labour shortage during the First World War is well known. There were two main aspects to the labour-supply problem; sufficient manpower had to be found for the Armed Forces, yet, at the same time, adequate labour supplies ensured for those civilian industries deemed "essential."

The redistribution of the national labour force necessitated by the war was largely accomplished by voluntary choice, and not by compulsion. Thus voluntary recruiting was not replaced by conscription into the Forces until March 1916.¹ Voluntary choice also dominated the other aspect of the labour problem; the transfer of labour from "inessential" to "essential" industries. In the crucial early months of the war, when the wartime structure of the labour force was being formed, official regulation was confined to declaring certain industries exempt from the attentions of the recruiting authorities. Admiralty and War Office personnel were the first to enjoy this protection, in the autumn of 1914. The first industry to enjoy complete protection was munitions, on the formation of the Ministry of Munitions in July 1915.² The result of this lack of an overall labour distribution policy was that labour was largely redistributed within the civilian sector by market forces. The strength of market forces was particularly apparent in the case of munitions, the most spectacular of the wartime growth industries. The historian of wartime labour regulation, writing about the transfer of labour into munitions, commented:

This vast transfer was not as to the greater proportion due to Government action, but rather to the operation of the laws of supply and demand, assisted by patriotism on the one hand and by a desire to remain in civilian life on the other.³

It was not until 1916 that official policy became more positive. Conscription, it was hoped would solve the first aspect of the labour problem. The second was to be tackled, for the first time, in a comprehensive manner; a list of "reserved occupations," which accompanied the promulgation of conscription, specified industries whose occupants were exempt from conscription. Should, however, they leave the shelter of their reserved occupation, they would lay themselves open to the attentions of the military authorities.⁴

The late application of these measures could do little to counteract a distribution of labour which had already largely taken place through the operation of market forces. The tardiness of government in evolving a positive policy also ensured the failure of a later and more ambitious attempt to control the civilian distribution of labour: the inception of the Ministry of National Service. Formed in August 1917 and charged, *inter alia*, with arranging the transfer of labour from "less essential" to "more essential" industries, this aim was defeated by the existence of a labour shortage which by that time had become general.⁵

However, even in the early months of 1916, it seems apparent that the free working of the labour market had already largely determined the wartime distribution of civilian labour. Henceforth the government had to work within a framework which was not of its making. Should it wish to alter this framework—for

¹ N. B. Dearle, *An Economic Chronicle of the Great War for Great Britain and Ireland, 1914-1919*, Oxford, 1929, p. 75.

² H. Wolfe, *Labour Supply and Regulation*, Oxford, 1924, p. 20.

³ *Ibid.*, p. 73.

⁴ *Ibid.*, p. 33.

⁵ *Ibid.*, pp. 50-2.

example, to resuscitate a previously neglected industry—it would face two major obstacles. Firstly, the existence of a general labour shortage meant that the free market could not be relied upon for the necessary labour supplies: the mere raising of wages in the particular industry would not necessarily call forth the requisite supply of labour from other industries. Secondly, should the government attempt to use labour over which it had direct control (e.g. soldiers), it would be open to the charge of “industrial conscription,” to which it was extremely sensitive.⁶

II

In December 1916 the government decided to adopt a policy of increased food production, and, shortly afterwards, the Food Production Department was formed to carry out this policy. The general success of the department's work is already known.⁷ It is less often recognized that its success was closely bound up with the importation into agriculture of government-controlled labour on a large scale, that opposition to this procedure from the existing labour force was ineffective, and that such a major intervention in the labour market probably worked to the economic detriment of the civilian labourer. After the war, in an unusually candid moment, Lord Ernle (who as R. E. Prothero was President of the Board of Agriculture during the last two years of the war) described the official labour supply as “blackleg labour on a massive scale.”⁸ It is proposed here to examine the ways in which agriculture made good its losses of labour during the war, to evaluate the relative efficacy of the various types of replacement labour, and finally to inquire how the government was able to draft a large amount of labour into agriculture without effective opposition from the existing labour force.

The decline in the regular farm labour force,

⁶ See n. 60, below.

⁷ The food production campaign is detailed in T. H. Middleton, *Food Production in War*, Oxford, 1923.

⁸ Lord Ernle, *English Farming Past and Present*, 6th edn, 1964, p. 405; *idem*, *The Land and its People: Chapters in Rural Life and History*, 1925, p. 69.

and the degree to which this was offset by a rise in the supply of replacement labour, is set out in the Appendix. The supply of conventional labour had fallen by 1916 to about 90 per cent of its pre-war level, and did not recover thereafter. But replacement labour of various types ensured that the overall labour supply had recovered to about 97 per cent of its pre-war level by the last year of the war. Officially supplied labour (chiefly soldiers, prisoners of war, and the Women's Land Army) accounted for slightly over half of all replacement labour during the war. The remainder consisted largely of village women and some miscellaneous types of labour.

Soldier labour was officially supplied to farmers as early as the summer of 1915; those who wished it were given two weeks' leave for the purpose. The finding of employment and the rate of wages to be paid were left to private negotiation between soldier and farmer. The scheme was elaborated in the early autumn, when official rates of pay for the corn harvest were specified, and it was stipulated that soldiers would be supplied only if it could be proved that a shortage of civilian labour existed.⁹ In the spring of 1917 the amount of soldier labour made available to farmers was substantially increased; special agricultural companies, formed from Home Defence troops, were placed in camps of about 100 men apiece in agricultural areas, and farmers could apply to the camp commandant for soldier labour. At the same time attempts were made to locate soldiers who could plough, and supply them to farmers for the ploughing season. Initially this scheme misfired: out of 12,500 soldiers who claimed to be able to plough, it was found that only about one-eighth could do so, and the rest had to be recalled. A more accurate count was then taken, and finally about 18,000 were released for ploughing. A few thousand more were supplied for general purposes, so that by late in the spring of 1917 there were about 40,000 soldiers

⁹ A. K. Montgomery, *The Maintenance of the Agricultural Labour Supply in England and Wales*, Rome, 1922, pp. 22-3.

on the land.¹⁰ Numbers fell off in the autumn, possibly to as low as 26,000, but were back at the 40,000 level by January 1918.¹¹ From then on growth was rapid, and by late spring there were some 60,000 at work. For the hay and corn harvests, extra men were supplied, and the final figure at the end of the war may have been as high as 84,000 (11 November 1918). There were still 72,000 on the land at the end of December 1918.¹²

In sheer size, soldier labour was the largest single source of replacement labour. Whether it was as efficient as the labour which it replaced is disputed. Since they were drawn from the young adult male population, it might be presumed that soldiers were at least as physically capable as civilian farm workers. This was the position adopted in a comprehensive survey of the farm labour supply by the Agricultural Wages Board during the winter of 1917-18, which concluded that soldiers were as efficient as civilian labourers.¹³ This was an opinion from which many farmers dissented, especially when it seemed to them that the Army had not taken sufficient care to select men with an appropriate background. But in spite of some unfortunate initial experiences, there seems little doubt that, as the Army became more careful in its selection, complaints became less frequent.¹⁴ The soldiers who had been taken for ploughing also benefited from an increasing number of training courses run by the Food Production Department: in all, 4,000 were trained for horse ploughing, 4,000 for tractor ploughing, and some 200 for steam ploughing.¹⁵ As time went on, the soldiers also acquired valuable experience. Although officially subject to recall at short notice in case of emergency, the bulk of the soldiers were in practice permanent members of the farm labour force, and it may be presumed that this

encouraged farmers to pay more attention to training than might otherwise have been the case. Where information is available it suggests that the soldiers were by 1918 a skilled work force; in Kesteven (Lincs.) in January 1918 only 109 out of a total of 957 soldiers were classed as unskilled (usually taken to indicate men without responsibility for animals)—a ratio of 11 per cent, which compares well with the 56 per cent revealed by the 1911 Census of Population.¹⁶ On balance, it seems not unlikely that the average soldier may indeed have become as efficient as the average civilian labourer.

Even if soldier labour eventually became as efficient as civilian labour, it was for most of the war more expensive for the farmer. Soldiers were supplied after the summer of 1915 at rates of pay determined by the War Office, and, until the minimum wage for farm labour came into force after March 1918, War Office rates approximated those of the most skilled farm labourers—those in charge of animals. Thus in 1915 and 1916 Army rates worked out at 24s. per six-day week.¹⁷ This may be compared with an average rate for civilian cattlemen in the winter of 1916-17 of 24s. 2d. per week.¹⁸ Thereafter civilian rates rose faster than Army rates, and the gap was closed in 1918. Yet, until then, the Army was in effect demanding a skilled wage for labour of only average efficiency.

The use of prisoners of war in agriculture was virtually ignored for the greater part of the war, but in 1918 this was radically changed; prisoners were utilized in agriculture on a large scale, especially during the last few months of the war, and agriculture dominated the allocation of prisoner labour.

The first plans for the employment of prisoners in farming date from February 1917, when "a few prisoners" were at work. By June of that year "a considerable number" were working on farms and upon some of the land-drainage schemes operated by the Board of

¹⁰ Middleton, *op. cit.*, pp. 185-6. ¹¹ *Ibid.*, p. 231.

¹² Report of the War Cabinet for the year 1918, B.P.P. 1919, xxx, pp. 236-7; Montgomery, *op. cit.*, p. 41.

¹³ Agricultural Wages Board, *Report on the Wages and Conditions of Employment in Agriculture*, 1, B.P.P. 1919, ix, paras. 119-26.

¹⁴ *Ibid.*, paras. 121, 123.

¹⁵ Montgomery, *op. cit.*, pp. 35-40.

¹⁶ Agricultural Wages Board, *op. cit.*, II, para. 18; *Census of Population, General Report*, p. 113.

¹⁷ Montgomery, *op. cit.*, pp. 30-3.

¹⁸ Average of rates for thirty-eight English and Welsh counties in Agricultural Wages Board, *op. cit.*, II, para. 272.

Agriculture in the eastern counties.¹⁹ But as late as February 1918 agriculture occupied a low priority in the allocation of prisoners, employing only 4,000 out of a working population of 25,000 (16 per cent). Shortly after this agriculture rapidly assumed first priority, and by June was employing 60 per cent of the working population (25,000 out of 42,000). In absolute numbers the peak level of employment was reached in early November, with 30,000 working in agriculture out of a total prisoner work force of 50,000 (60 per cent). During the last months of the war, agriculture completely outweighed the claims of other bodies competing for prisoner labour—chiefly the War Office, Ministry of Munitions, and the Air Ministry.²⁰

Before 1918 the general organization of the prisoners working in the United Kingdom was not conducive to their use in agriculture, since they were located in large camps chiefly in urban areas. When it was decided to supply much greater numbers to agriculture a different scheme was devised: a large number of camps situated in rural areas, each with a much smaller complement of men than had hitherto been customary. In this way a much greater number of farmers could be supplied with labour. This method was adopted from January 1918, and the bulk of prisoners supplied to agriculture came from such camps. By October 1918 there were about 330 of these camps (or "depots") in existence, each with a complement of about eighty men. Although under the control of the War Office the men would be made available to local farmers if suitable arrangements for their supervision could be made. At first this provision proved an impediment to their use, since the War Office insisted that they should be guarded by a British N.C.O. while at work. Such men were, however, in short supply (about one to every 200 prisoners), and so the rule was later amended to permit a wider range of supervisors; a policeman, British farm

worker, or even a prisoner N.C.O. Even more usefully, from the farmer's point of view, it was made permissible for prisoners to be lodged on farms. Up to three prisoners per farm were allowed for minimum periods of two weeks. Thus the time previously occupied in daily travel could be put to good account.²¹

The efficiency of prisoner labour, however, left something to be desired. An inquiry into this matter in the summer of 1918 by the Prisoner of War Employment Committee (which controlled the allocation of prisoners) produced general agreement that it was extremely inefficient. It was not a matter of inferior-quality work, but of slow work. Farmers, camp commandants, and officials of the Food Production Department acknowledged that prisoners had performed almost every possible farm task conscientiously, but at about half of the speed of British civilian workers.²²

There were several reasons for the low productivity of prisoners. Two possible explanations were dismissed by the committee: inexperience and malice. It was observed that prisoners did not work faster as they gained experience, and it was considered that, on the whole, they could not be justifiably accused of idling. But it was noted that there were several objective reasons for their poor performance. Firstly, they were poorly fed during the day. Until July 1918 when farmers were obliged to provide a midday meal, they were forbidden to feed the prisoners; only tea, coffee, cocoa or milk was permitted. (It was noted, however, that when farmers had disobeyed instructions and given some food, productivity had increased appreciably.) Apart from these liquids, the prisoners had only camp rations, 4 ounces of broken biscuit and 1 ounce of cheese to sustain them from 6 a.m. to 6 p.m. The committee described this ration as "not really enough to enable a man to perform hard

¹⁹ Montgomery, *op. cit.*, pp. 42-7; *Prisoners of War Employment Committee, First Interim Report, op. cit.*, pt II, Remuneration of prisoners.

²² P.R.O.: Nat. Serv. I/132, L. 1/627, Meetings of 7 June and 21 June 1918, especially evidence of J. Steel, W. P. Theakston, and Lieutenant Parker.

¹⁹ Montgomery, *op. cit.*, p. 43.

²⁰ P.R.O.: Ministry of National Service, Nat. Serv. I/132, L. 1/627, *Prisoners of War Employment Committee, First Interim Report*, pt I, App. B(1).

manual work." Secondly, the inadequate supervision also reduced productivity. In the absence of a British N.C.O., or a guard with personality and drive, the prisoners worked largely at their own pace. Thirdly, it was recognized that the prisoners had no incentive to work harder. They were paid either 1d. or 1½d. an hour, and piecework was not usual. Nor was there any provision for buying extra food with the money which they earned.²³

In spite of the low productivity of prisoner labour, the War Office charged farmers for their services at rates approximating to those of civilian British workers. After paying the prisoners the balance was used by the War Office to defray the cost of the scheme. In terms of cost-efficiency to the farmers, prisoners must be rated as the least successful of all the types of labour imported into agriculture during the war.

Considerable effort was expended during the war in attempts to mobilize educated women for work in agriculture. The most successful, and the most novel, example of this was the Women's Land Army, formed in January 1917. For the first time, the government raised a trained, mobile force of women for agricultural work, organized (at least, superficially) on military lines. The experiment made a striking impression on contemporaries, and formed the model for the much larger Land Army of the Second World War. But two cautionary points should be made. Firstly, the W.L.A. did not spring into being fully fledged from the imagination of the Board of Agriculture: its main distinguishing features had already been present in previous organizations. Secondly, the direct importance of the W.L.A. as a source of replacement labour was small. Even at the height of its strength during the last year of the war, it accounted for no more than about 7 per cent of the replacement labour. For the whole war period the figure is about 5 per cent.

²³ P.R.O.: Nat. Serv. I/132, *Notes by the Food Production Department as to the Present System of Employing Prisoners of War in Agricultural Work*, n.d. This report seems to be based on the evidence referred to in n. 22 above.

Prior to the formation of the W.L.A. there can be traced five organizations working towards similar ends. Four of these were private bodies: the National Political League, the Women's Defence Relief Corps, the Women's Legion, and the Women's Farm and Garden Union.²⁴ They all had the common aim of raising the number of women working on the land, and in practice most of their effort went towards recruiting the educated woman. The work of the N.P.L. and of the W.L. was terminated by the Board of Agriculture, which considered that of the former to be "mischievous" and that of the latter to be inefficient.²⁵ The W.D.R.C. survived intact until its work was taken over by the board in 1917. The most successful of the four was the W.F.G.U., which survived throughout the war, although in attenuated form after the beginning of 1916 when the board, drawing on the experience of the W.F.G.U., formed its own organization to undertake similar work. This, the last of the pre-W.L.A. organizations, was the Women's National Land Service Corps. It existed to supply farmers with seasonal female labour (again, of the more educated type), and performed this function throughout the war. However, after the formation of the W.L.A. it was largely directed to the harvesting of flax, in high demand for aircraft fabric, for the remainder of the war.²⁶

In spite of the efforts of the various organizations the results up to the formation of the W.L.A. were not impressive. Even taking the whole war period these organizations garnered no more than about 12,000 recruits (4,000 of whom were flax harvesters).²⁷ Moreover, the majority were untrained seasonal workers. But the essential strengths of the W.L.A.—the

²⁴ Imperial War Museum, LAND IV; P.R.O.: Ministry of Agriculture and Fisheries, MAF 42/8, 12027/L.3.

²⁵ P.R.O.: MAF 59/1, L. 29047, *Women's County Committees: Organisation of Women's Labour*, p. 20; P.R.O.: MAF 42/8, 12027/L.3, especially the report of Miss Hobbs (17 Oct. 1917).

²⁶ Imperial War Museum, LAND IV, especially the interim, annual, and final reports of the W.N.L.S.C. (Feb. 1916–Nov. 1919).

²⁷ Imperial War Museum, LAND IV, *Annual Report of the W.N.L.S.C. for the Period 1.10.17–30.9.18*, p. 30.

emphasis on *esprit de corps* and a well-educated labour force—had been pioneered.

The aims of the W.L.A. were to supply a full-time, mobile, trained, and disciplined force of women which would be available throughout the year. These were rather different from the aims of previous organizations. The W.L.A. also was distinguished by offering a living minimum wage to its members, and by having a much more elaborate organization. There was, however, a broad similarity between the W.L.A. and the other bodies in the type of recruit, who tended to be middle class, comparatively well educated, and of urban origin.²⁸

The Land Army proved extremely popular on its inception: 45,000 applications for membership were received in the first few months of its existence. Selection standards, however, were high, and only 5,000 of these were recruited.²⁹ After this a period of slow growth set in; by the end of 1917 there were still no more than 7,000 members. It was not until the spring of 1918 that it began to grow more rapidly, but then expansion was rapid; by the late summer it had more than doubled, and reached its maximum working size of 16,000 in September 1918.³⁰

The reasons for this erratic growth are various. The initial concept of the W.L.A. was a limited one; it should be a high-quality, extremely mobile force, capable of giving aid at the most acute points of labour shortage as they developed. Farmers were assured that it would be a small, auxiliary organization. This was a necessary reassurance, since its creation was feared by farmers as the prelude to further conscription of their regular labour force. This limited role was abandoned in the spring of 1918, following the German offensives and the consequent increase in the rate of conscription. A new recruiting campaign for the W.L.A. was begun, the welfare organization was expanded, and the Land Army became, in

Lord Ernle's words, ". . . a cadre capable of indefinite expansion."³¹

If the actual working size of the W.L.A. was comparatively small, this was offset by the high quality of the recruits. The high rejection rate among the first applicants was attributed by Ernle to the high standards of physical fitness required, but there seems little doubt that much attention was also given to the need to maintain a high standard of character and morale, and the result was a highly motivated and comparatively well-educated labour force.³²

The Land Army morale was assisted with material advantages not enjoyed by previous organizations. The most important was a minimum wage. Throughout the war this was maintained at a level inferior to that of the civilian male labourer, but above that of the village woman. Thus in the spring of 1918, when a minimum wage of 25s. per week for adult male civilians was being instituted, the W.L.A. minimum was 20s., and the average rate for village women was reckoned as 18s.³³ In addition, should she become unemployed through no fault of her own, the Land Army woman would receive free board and lodging for up to four weeks. A complete uniform and footwear were provided free of charge, as was free rail travel when changing employment.³⁴

It was especially necessary to maintain morale, since the calibre and attitude of the recruit were the main determinant of the amount and quality of work performed. In spite of its name and uniform, members were not subject to military discipline. Rules were plentiful but there was no sanction which could be imposed if they were breached, short of dismissal. Although members undertook to serve for periods of six months or a year, they were in practice free to leave at any time.³⁵ Self-discipline seems to have been the only effective form of discipline, and on the whole it

²⁸ Ernle, *The Land and its People*, ch. vii.

²⁹ *Ibid.*, p. 181.

³⁰ Imperial War Museum, LAND V, F.7; Ernle, *The Land and its People*, p. 128. V. Sackville-West, *The Women's Land Army*, 1944, p. 9, refers to a maximum enrolment of 23,000 in 1918, but this is unconfirmed.

³¹ Ernle, *The Land and its People*, pp. 128-9, 178, 186.

³² *Ibid.*, p. 128; P.R.O.: MAF 42/8, 33867, p. 3.

³³ Agricultural Wages Board, *op. cit.*, I, para. 329; Ernle, *The Land and its People*, p. 184.

³⁴ Imperial War Museum, LAND V, *W.L.A. Handbook*, p. 7.

³⁵ *Ibid.*, pp. 7-8.

worked well. Indiscipline seems to have been a minor problem, and morale was high except for a lean period in late 1917 when it was felt that farmers did not appreciate the services of the Land Army.³⁶

The effectiveness of the Land Army is not in doubt. Numerous testimonies from farmers show that a high opinion was held of its work. These are perhaps best summed up in the words of a Northamptonshire farmer, who described the Land Army women as "plucky, patriotic and keen."³⁷ There are also more objective reasons for this belief. The Land Army women had all undergone at least one month's training (later extended to six weeks), and, although it was conceded that this period was inadequate to do more than train the muscles, it meant that, at least formally, the Land Army women were the most highly trained of all the types of replacement labour. The only extant survey of W.L.A. occupations, for August 1918, shows that of 13,000 recruits in the sample about 6,000 were engaged in milking—one of the most skilled tasks on the farm.³⁸ In view of the fact that they were paid less than the civilian male labourer, the Land Army women must be reckoned from the farmer's point of view to be at least as cost-effective as his regular labour.

The largest source of non-governmental replacement labour was the village woman (although government exhortation played some part in inducing village women to take up farm work). No precise tally of the numbers involved is available. The War Cabinet reported that in 1917 there were 270,000 women working on the land, and 300,000 in 1918. The reports assumed that before the war the number of women employed on the land was 90,000, so that an increased employment of 180,000 in 1917 and 210,000 in 1918 is implied.³⁹ These figures, the only national ones available, have necessarily had to form the basis for the calculations in the Appendix, and it should be

noted that there are potential sources of error which make it advisable to treat them with caution.

First, there is no agreement on the size of the pre-war female labour force. A subcommittee of the Board of Agriculture, considering this problem in 1919, commented: "There is not one set of these figures which can be reconciled with another. . ." The figures ranged from 244,000 (1908 Census of Production) to 57,000 (1911 Census of Population), depending on the extent to which farmers' wives and other female relatives are included in the agricultural work force.⁴⁰

Second, official records covered only women who were induced by the government to work in agriculture and omitted those who found work privately. Notwithstanding this, the War Cabinet figures purport to include all women engaged in agriculture. The information on which the War Cabinet based its estimates came from the local Labour Exchanges and the Women's Organizers of the Food Production Department. While the latter would have known how many women were officially registered, they had no means of knowing how many women found work privately, while the Labour Exchanges were habitually ignored by farmers, even in war time.⁴¹ The suspicion must remain that a large part of the War Cabinet's figures were based on guess-work.

Having accepted (with reservations) the War Cabinet estimates as a starting-point, the next problem is to determine how much of the female work force was employed on a part-time basis. There is evidence to show that only a small proportion of the women allegedly at work on the land were actually so employed at any one time. Thus in 1916, the Board of Agriculture reported that 140,000 women had been officially registered for agricultural work, and that 72,000 of them had been issued with arm-bands, which were issued on completion of one

³⁶ Ernle, *The Land and its People*, pp. 177-8.

³⁷ Agricultural Wages Board, *op. cit.*, 1, para. 145.

³⁸ Ernle, *The Land and its People*, pp. 182-3.

³⁹ *Report of the War Cabinet for 1917*, B.P.P. 1918, XIV, p. 161; *Report of the War Cabinet for 1918*, B.P.P. 1919, xxx, p. 237.

⁴⁰ Board of Agriculture, *Report of the Sub-Committee Appointed to Consider the Employment of Women in Agriculture in England and Wales*, 1919, p. 29.

⁴¹ P.R.O.: MAF 42/8, *Report of the Food Production Department (England and Wales) for the Period up to the 1st June 1918 (from 19 Feb. 1917)*, p. 10.

month's work on the land.⁴² But a tally of the numbers actually at work in August 1916, also carried out by the Board of Agriculture, showed only 28,767 at work.⁴³ In July 1918, when according to the War Cabinet an extra 200,000 women should have been at work on the land, a survey by the Board of Trade (the body responsible at that time for questions concerning agricultural labour) could find only 30,000 permanent, and 15,000 temporary workers.⁴⁴ On balance, it seems not unreasonable to assume that four-fifths of the women cited by the War Cabinet were part-timers, and the War Cabinet figures have been scaled down accordingly.

Whether the village woman was a satisfactory labourer is difficult to say. The Board of Agriculture considered that on the whole village women were satisfactory, but it is not difficult to find instances of dissatisfaction amongst farmers, especially when comparing the village woman with the educated woman. Thus a farmer in south-west England commented in July 1917:

The countrywoman, even if she condescends to work, is no earthly use. The educated girl, with a little patience, makes an invaluable worker.⁴⁵

This attitude may have had some basis. Village women had not been engaged in field work on a substantial scale for several decades. The sole major exception to this was Northumberland, where it was still customary for farmers to hire married couples to undertake jointly the whole range of farm operations (the so-called "double hind" system). A national inquiry in 1918 by the Agricultural Wages Board into the whole question of agricultural

⁴² I. O. Andrews and M. A. Hobbs, *Economic Effects of the War upon Women and Children in Great Britain*, New York, 1920, p. 71.

⁴³ P.R.O.: MAF 59/1, L. 29369, *Work of the Women's War Agricultural Committees for the Year Ending August 1916*, p. 2.

⁴⁴ Board of Trade, *Report on the State of Employment in all Occupations in the United Kingdom in July 1918*, 1918, pp. 11, 24.

⁴⁵ Board of Trade, *Report on the State of Employment in Agriculture in Great Britain at the End of July 1918*, 1918, p. 5.

labour saw fit to mention women's work as widespread in only two other counties—Lincolnshire (Holland) and Oxfordshire. In other parts of England and Wales women were extensively employed in yard and barn work, but those concerned were usually members of the farmers' families; the use of outside women was the exception rather than the rule.⁴⁶ Thus the rural females who were not members of farm families did not have the necessary skills which could be called upon in war time. Nor were such skills imparted during the war: although training centres did exist, some run by the Board of Agriculture, some by county authorities, and some by private citizens, they had few pupils. In addition there were financial disincentives; subsistence allowances whilst training were rare, some centres even charged tuition fees, and relatively few scholarships existed; in the year 1916-17 only 426 scholarships for women were provided by the Board of Agriculture.⁴⁷ The board's major training effort was reserved for the Women's Land Army in 1917 and 1918; the relatively unskilled village woman was ignored.

Of the remaining miscellaneous categories of replacement labour the largest group was that of schoolchildren. From the earliest months of the war farmers demanded the co-operation of local education authorities in releasing children from the obligation to attend school so that they might be employed in agriculture. It was legally open for any child to be withdrawn from school attendance in the case of sickness "or any other unavoidable cause." It was also permissible for any education authority to pass a by-law stating that employment in a specified occupation might constitute such an unavoidable cause in time of national emergency.⁴⁸ Many authorities rapidly passed such by-laws with a view to enabling children to work in agriculture during school terms: by the autumn of 1916 fifty-seven authorities had

⁴⁶ Agricultural Wages Board, *op. cit.*, 1, paras. 132, 138.

⁴⁷ P.R.O.: MAF 59/1.

⁴⁸ Board of Education, *Correspondence Relating to School Attendance between the Board of Education and Certain Local Education Authorities, since the Outbreak of War*, B.P.P., 1914-16, L, pp. 7, 11.

done so. At that time the maximum number of children recorded as exempt from school for agricultural employment is recorded—some 15,000.⁴⁹ Returns of the numbers involved apparently ceased after this time, but the system continued in existence and there is no indication that the number declined. There seems little doubt that this form of labour was extremely low-cost to the farmer. No minimum rates of pay were laid down. The Board of Education confined itself to suggesting to education authorities that, should the proposed employment not pay more than 6s. a week for a child under thirteen years of age, it might be better for the child to remain at school.⁵⁰

In addition to the children exempted from school attendance there was also of course the labour of children employed during the school holidays. While it seems likely that this increased during the war it has gone largely unrecorded, with the exception of camps of public-school boys formed to assist with the 1917 and 1918 harvests. The numbers involved were, however, comparatively small: 5,000 in 1917 and 15,000 in 1918.⁵¹

The last type of miscellaneous labour of any noteworthy size is that of the War Agricultural Volunteers. This body was formed by the government in May 1918, shortly after the upper age limit for conscription had been raised from forty-five to fifty-one years. The scheme permitted men aged forty-five years and above, who would otherwise be liable for service in the Forces, to elect to work in agriculture instead. The scheme also embraced men who, although under forty-five, were not fit enough for active service (although still fit enough to join the Forces). Most of the men who entered the W.A.V. had previously been employed in gardening; at its peak the W.A.V. had a strength of about 4,000.⁵²

⁴⁹ Board of Education, *School Attendance and Employment in Agriculture*, B.P.P. 1914-16, L, Cd. 7881, pp. 5, 9; Cd. 7932, pp. 4-5; B.P.P. 1916, xxii, Cd. 8171, p. 4; Cd. 8202, pp. 3-4; Cd. 8302, pp. 3-4.

⁵⁰ Board of Education, *Report of the Board of Education for 1914-15*, B.P.P. 1914-16, xviii, p. 20.

⁵¹ Ernle, *The Land and its People*, p. 129.

⁵² *Report of the War Cabinet for 1918*, *op. cit.*, p. 237.

Two other types of labour, upon which high hopes had been placed, proved disappointing. Few of the large number of Belgian refugees had any farming experience. Of the 100,000 or so who arrived in England, 23,907 were occupationally classified; it was found that only 654 had previously been engaged in agriculture. Montgomery, who gives this information, adds that "a few" entered agriculture, but gives no details.⁵³

Similarly, most of the alien citizens interned seem to have been reluctant to take up farm work. One source states that in May 1917 500 were employed on farms, but this is unconfirmed.⁵⁴ The sole instance which has been traced is the use of twenty aliens in Lincolnshire in January 1918.⁵⁵

III

There are two main questions raised by a consideration of the history of wartime labour replacement in agriculture. First, why was so much of this labour officially supplied? Second, why was little effective opposition to this process shown by the existing labour force?

The answers to the first question lie in the nature of the agricultural industry, and in the nature and timing of policy changes. In industrial economies agricultural incomes per head are usually lower than industrial incomes.⁵⁶ On the eve of the First World War British agriculture was a low-wage industry. Since the government largely left the agricultural industry to the free play of market forces for the first two years of the war, and since other forms of employment proved attractive to the agricultural worker, by the end of 1916 farming, as well as still being a low-wage industry, suffered from a greater degree of labour shortage than previously. But with the inauguration of the food production campaign in January 1917 policy suddenly changed. Alone among the

⁵³ Montgomery, *op. cit.*, p. 69.

⁵⁴ *Ibid.*, p. 49. Ernle, *The Land and its People*, p. 128, states that "under 2,000" were engaged in agriculture.

⁵⁵ Agricultural Wages Board, *op. cit.*, II, para. 18.

⁵⁶ J. R. Bellerby, *Agriculture and Industry: Relative Income*, 1956.

major industries agriculture was now required to expand its output, after two years of growing shortage of labour and other factors of production had barely permitted the pre-war level of output to be maintained.⁵⁷ The labour force would clearly have to be expanded, but market mechanisms would have been inadequate for the purpose. The continuing gap between agricultural and industrial earnings meant that very large wage increases would have to be offered to draw off labour from non-agricultural occupations. Also, by this time the degree of general labour shortage was becoming marked, so that even if farm wages were to rise sharply the necessary labour might not have been forthcoming. And if wages had risen thus, and labour had shown its willingness to move into agriculture, there was still the problem of lack of time; in January 1917 only a few months remained before the harvest had to be sown. The only certain way in which adequate labour could be provided for the food production campaign of 1917 and 1918 was for the government to play a far larger role in directly supplying labour than it had so far done. Thus the officially supplied labour force grew during 1917 and was further expanded in 1918, partly as compensation for the renewed conscription of farm workers which took place during the spring.

If the timing of the campaign made government intervention in the supply of labour necessary it also made it more feasible, since it was only after the first two years of the war that the government had sufficient supplies of labour under its control which it felt able to use in agriculture. The removal of fear of a German invasion as a consequence of the Battle of Jutland (30-31 May 1916) left the Army free to deploy its Home Defence forces on other tasks, while the sharp rise in 1918 in the numbers of prisoners available swelled the ranks of potential farm labourers.

The second striking feature of labour replacement—the lack of opposition from the

existing labour force—presents a sharp contrast with other industries, where stronger trade unions had erected barriers to entry. In the case of munitions, for example, much negotiation was necessary before the trade unions agreed to “dilution” by unskilled labour from outside the industry. Such barriers were not in evidence in the case of agriculture. The main reason for this is simply that agricultural trade unions were comparatively weak before the war, and in spite of the enhanced degree of labour shortage during the war did not improve their position before the government began to supply replacement labour in large quantities.

Agricultural trade unionism, having virtually expired since the heyday of Joseph Arch's union in the 1870's, had begun to revive only in the early twentieth century. The one purely agricultural union, the National Agricultural Labourers' Union, founded in Norfolk in 1906, had about 12,000 members in 1914. The only other union with a substantial number of farm workers amongst its members was the Workers' Union, founded in 1896. Although the number of farm workers in the union is not known, it was estimated to have 250 purely agricultural branches in the summer of 1914.⁵⁸ During the war, the National's membership may have risen to about 16,000 by the end of 1916, but any increased influence which this may have brought was offset by a conflict within the leadership over whether to resist government labour importation or not. This conflict was not resolved before the food production campaign began.⁵⁹ The number of agricultural branches in the Workers' Union fell sharply to about forty in late 1916 owing to the recruitment of members and organizers (although the actual drop in membership is again unknown). The influence of both unions, especially the National, revived with the food production campaign, especially during 1918, when they

⁵⁸ Estimates of the strengths of the two unions before and during the war are discussed by R. Hyman, *The Workers' Union 1898-1929*, unpubl. D.Phil. thesis, Oxford, 1968, pp. 269-70.

⁵⁹ M. Madden, *The National Union of Agricultural Workers 1906-1956*, unpubl. B.Litt. thesis, Oxford, 1956, pp. 36-7.

⁵⁷ P. E. Dewey, 'Agricultural Labour Supply in England and Wales during the First World War', *Econ. Hist. Rev.*, 2nd ser., xxviii, 1975, p. 105.

were installed as a permanent part of the wage-negotiation machinery. This recognition led to an enormous rise in membership, but came too late to stiffen opposition to government labour importation.

In spite of the low level of unionization in agriculture before the war, it might have been expected that some more effective protest would be made at wartime labour importation. The War Cabinet was certainly concerned at the possibility; it was discussed on 13 July 1917, and it was decided that the existing system of loaning soldiers to agriculture should be continued "until the question of industrial conscription should be raised."⁶⁰ The question, however, never was effectively raised. This was almost certainly due mainly to limited unionization, but there were other factors at work: the policy split in the National cited above; a feeling that food production was more important than sectoral advantage; and, in 1918, the undercutting of potential unrest by the inauguration of the minimum wage.

⁶⁰ P.R.O.: CAB 23/3, 184 (12).

Thus farming provides a striking contrast to the wartime labour history of most civilian industries. Government-controlled labour was imported in large quantities, with little effective opposition. The main reason for intervention on this scale was the official resuscitation of agriculture, at a time when free market mechanisms would have been inadequate to meet the increased demand for labour. The weakness of the agricultural trade unions, plus the large force of labour directly under government control, allowed such intervention to succeed. Without such intervention it might have been expected that the sudden rise in demand for agricultural labour after 1916 would have led to a more rapid rise in agricultural than in industrial wages. This did not take place: the gap between agricultural and industrial incomes was as great at the end of the war as at the beginning.⁶¹ It was indeed, as Lord Ernle remarked, a case of "blackleg labour on a massive scale."

⁶¹ A. L. Bowley, *Prices and Wages in the United Kingdom, 1914-1920, 1921*, pp. 105-6.

APPENDIX

Labour Supply and Replacement in Agriculture, 1915-18

TABLE I
TOTAL AGRICULTURAL LABOUR SUPPLY, 1908 AND 1915-18
(*'000 man-units*)

	1908	1915	1916	1917	1918
Conventional labour (As per cent)	1,318 (100)	1,231 (93)	1,195 (91)	1,173 (89)	1,172 (89)
Replacement labour (As per cent)	—	15 (1)	30 (2)	86 (6)	114 (8)
Totals (As per cent)	1,318 (100)	1,246 (94)	1,225 (93)	1,259 (95)	1,286 (97)

TABLE II
LABOUR REPLACEMENT IN AGRICULTURE, 1915-18
(*'000 man-units*)

	1915	1916	1917	1918	1915-18 Totals	As per cent
<i>Official labour:</i>						
Soldiers	11	14	40	45	110	45
Prisoners of war	0	0	3	14	17	7
Women's Land Army	0	0	3	8	11	5
<i>Other labour:</i>						
Village women	0	6	25	30	61	25
Miscellaneous	4	10	15	17	46	18
Totals	15	30	86	114	245	100

Source: P. E. Dewey, 'Agricultural Labour Supply in England and Wales during the First World War', *Econ. Hist. Rev.*, 2nd ser., xxviii, 1975, p. 104.

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Roger Kain lectures in Geography in the University of Exeter, and his thesis explored the possibility of computer processing tithe survey data. He is currently compiling an *Atlas of Agriculture in England and Wales, c. 1840*, and is writing, with Hugh Prince, a handbook to the tithe surveys.

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Accounts of a Sheep and Corn Farm, 1558–60

By MICHAEL ZELL

FEW sixteenth-century accounts of small and medium-sized farms have survived, in contrast to the relative wealth of records produced by the manorial bailiffs and stewards of great lay and ecclesiastical estates. Much of what is known about the practices of the farmers derives from probate inventories and from the leases which they made with their landlords. Printed below are the accounts of the farm of the manor of Exton, Hampshire, along with inventories of chattels and stock. They reflect the methods and economy of a medium-sized sheep-corn estate in the chalk country of the Hampshire downs, a district similar to the Wiltshire downland described fully by Dr Kerridge and others.¹ Such a farm was frequently quite large by Tudor standards, and depended upon having large numbers of livestock—usually sheep—to fertilize the extensive arable. It produced certain crops like wheat and barley for the market, as well as fodder crops for domestic use. The profits of the farm derived both from the sales of livestock and wool, as well as from corn sales. The general pattern of such husbandry is shown in some detail in the documents printed here.

The Exton accounts have survived because of the untimely death of its farmer, Richard Person or Parson, in March 1558. He left his young son John and his widow Margaret as his executors and heirs to his lease and goods. Person had the farm from the Dean and Chapter of Winchester Cathedral, to whom he paid about £15 p.a. for the farm of the demesne, and another £5 p.a. for the water-mill at Exton.²

¹ See especially the imaginative reconstruction of farming practices and farmers' wealth by W. G. Hoskins, 'The Leicestershire Farmer in the 16th Century', in *Essays in Leicestershire History*, 1950, based on probate inventories; E. Kerridge in *V.C.H. Wiltshire*, iv, pp. 43 ff.; also Joan Thirsk (ed.), *The Agrarian History of England and Wales: IV, 1500–1640*, Cambridge, 1967, p. 65.

² Exton had long been part of the Winchester Cathedral Priory estates, and was granted to the new Dean

Person's testament, made just before his death, specified that, should his widow remarry within the next eighteen years she must give over the farm to her son John, and accept in return a cash payment of £40, and after that a £10 annuity. As it turned out, Person's widow did not adhere to the testament but, as the sole adult administrator of Person's estate, conveyed the farm over to one James Massam, whom she soon afterwards married. It appears that she wanted both the profits of the farm and a new husband, and until John Person's uncle Thomas sued her and Massam in Chancery she seems to have got away with it. The accounts and inventory of Exton farm survive as an appendix to the decree in Chancery, promulgated 15 June 1560. In the name of the eleven-year-old John Person, his uncle had sued to recover possession of the farm against Massam and John's mother, and claimed that Massam was "a wastefull man and far indebted," who had spoiled and dilapidated the farm and its stock. The court decided that Margaret had not followed the terms of her late husband's will, and that her son John was being defrauded of his inheritance. It ordered Massam and Margaret off the farm, and turned it over to the overseer of Richard Person's testament, Lord Chidioc Paulet. The decree also required that the household stuff be divided equally between Margaret and her son. An inventory of the farm and a view of its accounts had been taken by two local gentlemen, William Uvedall, the sheriff, and Henry Wallop, Esq., on 11 June 1560, just prior to the final decree in Chancery.³

and Chapter in 1542. The total income of the manor in 1539 was about £39 p.a. See *V.C.H. Hampshire*, III, p. 320, and Dugdale, *Monasticon Anglicanum* (1846 edn), I, p. 217.

³ P.R.O.: C 3/145/10 (which includes the bill, answer, replication, and rejoinder) and C 78/17, no. 24 (the decree which includes a summary of the parties' arguments). An almost identical case is *Truslowe v. Holloway* (at C 78/18/34) in which the plaintiff sued the widow and her new husband on behalf of an under-age heir for the

Massam's accounts cover the period between Margaret Person's inheritance of the farm and the accounting ordered by Chancery in 1560. The first is an account of corn and livestock on hand in 1558, and of farm production and utilization between 1558 and 1560. The second account is of money income and cash expenditure during the two-year period. The reader will notice that in all instances the two do not necessarily match. Following these two is the inventory taken by Uvedall and Wallop in 1560, which does not assign money values to the items inventoried. The household chattels *per se* have been excluded from this transcript as they detail nothing out of the ordinary from many other probate inventories. The inventory is useful, however, because it estimates the acreage sown in the several arable crops.

The first set of accounts shows a sizeable, capitalist farming business. Noticeable are the fairly high level of sales of grain as well as wool; and the heavy expenditure of corn and beasts for domestic use, indicating quite a numerous household. The latter is underlined by the considerable wages bill noted in the cash account further on. Unlike many smaller farms, Exton had both kinds of plough beasts, oxen and horses. The method of calculation used in the first set of accounts is intended to show how far the occupant maintained the stock and corn at or below the level it was when he began his occupancy. Thus, taking into consideration the amount of wheat on hand at the beginning of his management and the quantity of wheat grown during the period, the account shows that Massam owed 15 quarters to the farm. His deficit of barley and malt was much greater. The account of sheep is meant not only to show the total number of beasts but also to distinguish the farmer's own stock from the 500-600 animals which were leased to Person with the farm by Winchester Cathedral. For all types of livestock Massam had not maintained the stocking levels of 1558, and thus the accounts lend credence to the complaint

recovery of the deceased man's chattels and lease; as in *Person v. Massam*, the widow had conveyed the dead man's lease to her second husband, thus cutting out her son.

against him in 1560. Massam's alleged expenditures—in the cash account—are somewhat dubious. He and his new wife were not only taking the profits of the farm but crediting themselves with the cash payments which Richard Person's testament had decreed for Margaret, had she given up control of the farm upon her marriage. Equally questionable is Massam's claim to have spent £60 on maintenance and repairs, a figure more than five times as large as the value of the farm equipment. A minor deficiency in the accounts is the absence of information about oats in the first set of figures, although it is clear that oats were cultivated on the farm. From the cash account the price of wool appears stable, as does the average selling price of barley (about 7s. per quarter in both years). In contrast, the average price per quarter of wheat sold in 1559 was more than double that of the preceding year.⁴

Whatever Massam's failings as an accountant or as a farmer, the present accounts show a prosperous agricultural enterprise. The figures in the accounts do not allow an accurate estimate of the net profits of the farm, but in 1558 the grain sales alone were more than twice the rent of the whole farm with its stock. With the west country clothiers near by and a burgeoning demand for food, the income of Exton farm to the farmer must have been far in excess of the rent fixed at least twenty years earlier by the old prior and convent of Winchester Cathedral.

Note: The document which follows is an edited transcript of the accounts of Exton farm enrolled in P.R.O. C 78/17/24. All items in the accounts, other than household goods, are included, but in slightly abbreviated form and in modern English. In some cases headings have been added. All numbers and dates have been transcribed as they appear in the MS. In the final inventory I have added totals (in parentheses).

⁴ National price series for 1559 based on the 1558 harvest do not explain this extraordinary increase in wheat prices: an indication that one should not over-emphasize national averages and must allow for wide local variations in harvest quality and grain prices. See W. G. Hoskins, 'Harvest Fluctuations and English Economic History, 1480-1619', *Ag. Hist. Rev.*, XII, 1, 1964.

THE AGRICULTURAL HISTORY REVIEW

ACCOUNT OF STOCK AND CORN BY JAMES MASSAM FOR APRIL 1558-11 JUNE 1560

Wheat

Wheat remaining upon the inventory the said 1 April	15 qrs	
Wheat Grown Anno 1558	90 qrs	1 bus.
Wheat Grown Anno 1559	80 qrs	1 bus.
	<hr/>	
Sum	185 qrs	2 bus.

Whereof—

Wheat spent in the house, 1558	41 qrs	
Wheat spent in the house, 1559	35 qrs	
Wheat spent in the house, 1 April to 11 June 1560	6 qrs	5 bus.
Wheat sown, 1558	22 qrs	
Wheat sown, 1559	25 qrs	
Wheat sold, 1558	22 qrs	
Wheat sold, 1559	34 qrs	6 bus.
Wheat paid in legacies		7 bus.
	<hr/>	
Sum	185 qrs	2 bus. [sic]

and so lacketh of the inventory 15 qrs

Barley and Malt

Barley remaining upon the inventory	15 qrs	
Malt remaining upon the inventory	40 qrs	
Barley grown, 1558	180 qrs	6 bus.
Barley grown, 1559	92 qrs	1 bus.
	<hr/>	
Sum	327 qrs	7 bus.

Whereof—

Malt spent in the house, 1558	42 qrs	
Malt spent in the house, 1559	40 qrs	
Barley sown, 1558	41 qrs	
Barley sown, 1559	52 qrs	
Malt and barley sold, 1558	116 qrs	1 bus.
Malt and barley sold, 1559	15 qrs	
Barley paid for legacies	8 qrs	4 bus.
Barley spent for fattening of hogs	5 qrs	
Malt spent in the house, 1 April to 11 June 1560	5 qrs	2 bus.
	<hr/>	
Sum	324 qrs	7 bus.

and so remaineth 3 qrs. And so there is lacketh of the
Inventory 15 qrs of barley, 40 qrs of malt: 52 qrs*The Account of Sheep*

Sheep of all sorts remaining upon the inventory	160
Lambs remaining upon the inventory	218
Sheep of all sorts, of the lord's stock, according to Massam	536
Lambs increased, 1559	209
Lambs increased, 1560	152
	<hr/>
Sum	1,275

SHEEP AND CORN ACCOUNTS

125

Whereof—

Sheep spent in the house, 1558	49
Sheep spent in the house, 1559	62
Sheep spent in the house, 1 April to 11 June 1560	12
Lambs spent in the house, 1558	15
Lambs spent in the house, 1559	10
Sheep dead of the murrain, 1558	13
Sheep dead of the murrain, 1559	54
Lambs dead of the murrain, 1558	40
Lambs dead of the murrain, 1559	39
Sheep stolen out of the pastures, 1558	15
Sheep stolen out of the pastures, 1559	5
Sheep sold, 1558	35
Sheep sold, 1559	38
Lambs sold, 1558	20
Sheep paid in legacies	9
Sheep paid to the shepherd for wages	2
	<hr/>
Sum	418

and so remaineth of all sorts: 857
Md. There lacketh of the Inventory and the lord's stock 54

The Account of Rodder [Horned] Cattle

Kine remaining upon the inventory	32
Bulls remaining upon the inventory	3
Steers remaining upon the inventory	6
Yearlings upon the inventory	14
Weanling calves upon the inventory	14
Calves increased, 1558	22
Calves increased, 1559	18
	<hr/>
Sum	109

Whereof—

Cattle spent, 1558	6
Cattle spent, 1559	7
Calves spent, 1558	6
Calves spent, 1559	5
Kine sold, 1558	2
Kine sold, 1559	3
Steers sold, 1558	1
Calves sold, 1558	2
Calves sold, 1559	1
Bull sold, 1559	1
Yearling calves dead of the murrain, 1558	4
Yearling calves dead of the murrain, 1559	4
Kine dead of the murrain, 1559	4
Kine paid in legacies	1
	<hr/>
Sum	47

and so remaineth 62
Md there lacketh of the inventory 8

The Account of Horse and Beasts

Cart horses remaining upon the inventory	13
Hackney horses upon the inventory	2

Sum	15
-----	----

Whereof—

Cart horses dead	2
Hackney horses dead	1
Cart horse sold	1

Sum	4
-----	---

and so remaineth	11
Md there lacketh of the inventory	4

The Account of Hogs

Great hogs remaining upon the inventory	20
Weanlings upon the inventory	15
Hogs increased, 1558 and 1559	34

Sum	69
-----	----

Whereof—

Hogs spent in the house, 1558	14
Hogs spent in the house, 1559	20

Sum	34
-----	----

and so remaineth	35
Md there lacketh of the inventory	12

The Account of Goods of Household

The whole goods of household, within the house, priced by the inventory	£	s.	d.
	77	9	0

Whereof—

Remaining at the day of this account, within the house	67	15	2
And so there lacketh	9	13	10

The Account of Necessaries of Husbandry

The whole inventory of husbandry	11	16	8
----------------------------------	----	----	---

Whereof—

Remaining at the day of this account	10	15	0
And so there lacketh	1	1	8

Receipts

For 20 qrs of wheat sold, 1558	7	0	0
For 40 qrs of malt sold, 1558	13	6	8
For 76 qrs 1 bus. of barley sold, 1558	23	14	2
For 2 qrs of oats sold, 1558	12	0	0
For 32 tods of wool sold, 1558	22	12	0
For 5 kine, 1 steer, 1 bull sold, 1558	7	10	0
For 3 calves sold, 1558	1	2	4
For 35 kebbe [cullied] sheep sold, 1558	6	0	0
For 20 lambs sold, 1558	1	2	4
For 38 slaughter and murrain fells sold, 1558	1	3	4
For 15 slaughter and murrain hides sold, 1558	18	3	8
For 1 horse sold, 1558	2	7	0
	15	0	0

(1559:)

For 34 qrs, 6 bus. of wheat sold, 1559	28	9	0
For 3 qrs of malt sold, 1559	1	5	4
For 3 qrs of barley sold, 1559	4	13	4
For 12 qrs of wool sold, 1559	25	10	0
For 32 tods of wool sold, 1559	5	0	0
For 1 pork hog sold, 1559	7	3	4
For 38 sheep sold, 1559	1	3	4
For 16 slaughter and murrain fells sold, 1559	2	10	2
For 101 slaughter and murrain hides sold, 1559	2	0	0

(1558-60 not dated:)

For 28 qrs of wheat and malt sold of the profits of the mill, "for the half year"	7	15	10
For the rent of the mill for 1 year and 3/4 of a year to the Feast of St John the Baptist (24 June) 1560	12	16	8
For 1 year's fine of the mill	1	0	0
From tenants' rents due to the lord of the manor at Lady Day, 1560	1	10	4

Sum of Receipts

£181 6 8 [sic]

Payments and Expenses

Burial costs of Richard Person; month's mind, year's mind	£	s.	d.
Apparel for the children	9	16	10
Servants' wages for 2 years and 1/2 year, to Midsummer 1560	18	17	8
For legacies in the will of Richard Person (later Massam)	53	17	7
Legacy of £40 to Margaret Person [sic] specified in will	11	9	8
Annuity to Margaret Massam [sic] and fifteenth	40	0	0
Paid to the Crown in subsidies and fifteenths	10	0	0
Rent of farm, 1558	4	0	0
Rent of mill, 1559 [sic]	15	10	0
Rent of farm and mill, Michaelmas 1559	5	0	0
Officers' fees and charges of the court, Lady Day 1560	20	10	0
Officers' fees and charges of the court, Lady Day 1560	4	4	10
Repairs, maintenance, smith's charges	2	7	9
	60	0	0

Sum of expenses

£258 11 8 [sic]

INVENTORY OF CHATTELS, NECESSARIES OF HUSBANDRY AND STOCK AND CORN BY WILLIAM UVEDALL
AND HENRY WALLOP, ESQS., 11 JUNE 1560 (*at mm. 32-3*)

The House (particular items inventoried but not valued)

The Hall	The Chamber over the Parlour
The Buttery within the Hall	The Maidens Chamber
The Horders Loft	The Cheese Loft
The Little Chamber	The Malt House
The Inner Chamber there	The Yielding House
The Outer Parlour	The Kitchen
The Inner Parlour	The Day House

Necessaries of Husbandry

1 new iron-bound cart	4 ladders
1 old iron-bound cart	4 wedges
6 harrows and a drag	3 axes
1 roller	2 scythes
2 ploughs with their chains	3 hedging bills
harness for the horses and carts	7 rip hooks
2 wood ropes	

Stock and Corn on the Farm

kine	21	heifers	1
bulls	3	ii yearlings	8
steers	2	yearlings	10
oxen	4	weanlings	12
cart horses	10	hackney horses	1
wether sheep in the fold	252	sucking lambs	5
store rams	16	weanling lambs	148
tegs	133	fattening sheep in the pasture	32
ewes	274		
boars	4	hogs of one year's age	2
sows	4	hogs of $\frac{3}{4}$ year's age	5
barrow hogs	1	hogs of $\frac{1}{2}$ year's age	7

acres

Wheat in the field, by estimation	75
Barley in the field	93
Oats in the field	12
Vetches in the field	5
Peas in the field	12

(Total 197 acres in crop)

[End of account]

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Book Reviews

EDWARD MILLER and JOHN HATCHER, *Medieval England: Rural Society and Economic Change 1086-1348*. Longman, *Social and economic history of England*, ed. Asa Briggs, 1978. xviii + 302 pp. £4.95.

This is the best popular book on rural England during this period for a great many years. It is well written, up to date, and remarkably comprehensive, with the emphasis where it should be, upon the land and the people. The first chapter deals with King William's England and the last with King Edward's England. In between are chapters on land and people, markets, villages, villagers—their status and tenure, and their family and fortunes—lords, and landlords and the land. We are promised a second volume on *Towns, Trade and Economic Policies 1086-1348*, and one of the strengths of this book is that it covers, briefly, price trends, the growth of towns, and international trade, so that we see rural England in an urban and commercial context.

The approach is, with due caution, frankly Postanian, though here and there—for example in the discussion of wages—there is a hint of the difficulties. On the whole, therefore, this is a statement of the orthodox, Malthusian and Ricardian, view of the history of rural England.

Though there is here no very thorough discussion of population history, this must be the starting-point in all discussions of the Postan thesis. Surveys, rentals, and inquisitions are very unreliable sources, and, as our authors point out, there were great regional differences, but with due attention to the proper weighting of the different regions, and careful comparison only of equal cohorts of years, some general statement is possible. This argues a continuous but slowing population rise from 1086 to about 1294, which, were the Domesday population 2,000,000, would give a 1294 population of about 7,200,000. Thereafter came a decline down to about 1318, which left a population of about 6,740,000. Population seems to have been stagnant in south-eastern England in 1260-92, and to have declined in the east Midlands in 1244-80, southern England in 1287-1311, the west Midlands in 1273, and in Yorkshire in 1290-1309. The point nowhere made in this book, that in the five counties of eastern England, between the Humber and the mouth of the Thames, there was no population decline down to 1300, is surely significant, for in 1086 one-third of the people recorded in Domesday lived in eastern England, and by 1300 nearly a half (46 per cent). Eastern England was also *the* land of small holders—people with less than 10-20 acres of land—but in most of

England, in the time of King Edward as in the time of King William, about 60 per cent of the English peasantry had the supposed minimum of land for survival. Morcelllement took place only in the highly developed regions of eastern and south-eastern England, and the east Midlands, because much of southern and south-western England, the west Midlands, and the Welsh marches had to absorb by new settlement substantial numbers of landless slaves and newly emancipated small holders in a somewhat primitive economy. By 1300 Hampshire was supporting only half as many people per square mile as Norfolk.

East Anglia could do this because it had a more advanced agriculture. It grew mainly barley, with sizeable crops of legumes which fixated nitrates in the soil, and sowed its crops very thickly. It fallowed only once in six or eight years, marled the land freely, and almost achieved continuous cultivation. It virtually abolished oxen by the 1240's (Miller and Hatcher say, p. 227, "oxen remained the principal draught animals in every part of England"), and it laid greater stress upon milch kine than on sheep, which are the sign of a backward economy. It made cheeses out of cows' milk, not out of ewes' milk. These characteristics existed elsewhere in the progressive parts of England where most Englishmen lived. Our authors' contention that yield ratios were not so high in 1300 as now is true, but the gross amount of corn available in eastern England was very much greater than elsewhere, and these counties carried the rest. Lynn exported wheat to Flanders because Norfolk had a surplus. But for the Black Death the population pressure in these counties would have brought the agricultural revolution, which was, to some extent, a rediscovery of old East Anglian practices, much nearer.

Two other points of criticism are necessary, one major and one minor. The pages on diet are inadequate, though, as Dr Johnson says about women preachers and dogs walking on their hind legs, we are surprised to find a discussion at all. They contain the myth of the "carbohydrate" diet. The English peasant had an adequate protein consumption from bread, herrings, and dairy products, and vitamin C from cabbage, leeks, onions, and garlic. His "sub-scorbutic" condition is a myth.

Lastly, I wonder when medieval historians will learn that the correct translation of *salina* is not "saltpans"? It occurs all the way through Darby's *Domesday Geography* and describes a technique of salt extraction which Englishmen never used (except once, misguidedly, in eighteenth-century Norfolk)—the sun-pan method—which we use in

our great saltworks at Dampier, on the north-west coast of Western Australia, and which the French use at Les Salins, at the mouth of the Rhône. The English translation of *salina* is "saltern," which is the word the Old English landbooks use when describing them in Sussex. Even R. E. Latham's *Revised Medieval Latin Word-List* gets it wrong. John Ray sufficiently described the technique when in 1674 he wrote, in his *Collection of English Words not generally used* (pp. 147-8):

The manner of making Salt of Sea-sand in Lancashire.

In summer time in dry weather they skimme or pare off the upper part of the sand in the flats and washes that are covered at full sea, and bare when the tide is out, and lay it up on great heaps. Of this sand they take and put in troughs bored with holes at the bottom, and thereon pour water, . . . which water, draining through the sand, carries the salt therein contained down with it into vessels placed underneath to receive it. So long as this liquor is strong enough to bear an egg they pour on more water; so soon as the egg begins to sink they cast the sand out of the troughs, and put in new. This water thus impregnate with salt they boil in leaden pans wherein the water evaporating the salt remains behind.

The "great heap" is the saltern, and the associated buildings the saltcote.

The book is well produced, and I counted only six misprints, which is quite good these days. Everyone interested in medieval English agrarian history should read it.

H. E. HALLAM

C. PHYTHIAN-ADAMS, *Continuity, Fields and Fission: The Making of a Midland Parish*. University of Leicester, Department of English Local History, Occasional Papers, Third Series, no. 4, 1978. 53 pp. £3.95.

The extent to which there was continuity in a variety of forms from Roman times to the Anglo-Saxon has remained a vexed question since it was reopened twenty years ago by H. P. R. Finberg's study of Withington in the Cotswolds. The debate continues, but with an increasing tendency, it seems, towards an acceptance of continuity, not least because of the untiring efforts of G. R. J. Jones to establish the extent of the survival into later periods of Romano-British and even earlier arrangements in systems of central manors with satellite hamlets—multiple estates, as he terms them. Much of the debate has been conducted at the macro-scale, both historically and geographically, with broad generalizations supported to varying degrees by particular instances. Ultimately,

however, it is at the local level that this hypothesis has to be tested and Phythian-Adams has conducted such an inquisition in the parish of Claybrooke on the boundary between Leicestershire and Warwickshire.

For reasons relating to the equivocal nature of the evidence and the complex character of the problem being investigated, Phythian-Adams adopts the retrogressive method of working from the better-known to the lesser-known, from the recent to the remote past, so that his path starts out on relatively firm ground, but becomes increasingly unsure as it moves further into the more distant periods of history. He interrogates an impressively wide range of witnesses—including the present-day landscape and modern maps as well as medieval records and earlier charters—to make them yield their evidence in his efforts to reconstruct in meticulous detail the subsequent development and ultimate origins of such features as parish and property boundaries, field and settlement patterns, and the fragmentation of estates. Although essentially very circumspect in his approach, Phythian-Adams is compelled by the nature of the evidence also to be conjectural. He readily recognizes that he is dealing with possibilities and probabilities rather than with positive proof, with convictions rather than with certainties. He at least is prepared to argue that the origins of Claybrooke parish, and hence of the wider territorial entity that seems to have preceded it, are most realistically to be sought in some period before the arrival of the Danes in the late ninth century, and quite possibly in the Roman period. He makes a strong case for this interpretation. Few could disagree with Phythian-Adams's claim that there need to be more parish biographies of the kind which he has produced.

ALAN R. H. BAKER

R. R. DAVIES, *Lordship and Society in the March of Wales 1282-1400*. Oxford, Clarendon Press, 1978. xvi + 512 pp. £15.

This magisterial work, the most important book on this period of Welsh history since W. Rees published his *South Wales and the March, 1284-1415. A Social and Agrarian Study* in 1924, will excite political and administrative historians even more than agrarian historians. The nature of the evidence and the nature of medieval Welsh society and economy alike dictate that of the twin subjects lordship receives 70 per cent of the space and society the rest.

To readers of this journal, part IV, 'Marcher Society', will be the most interesting, but the comparative absence in these regions of demesne agriculture, and the overwhelmingly secular nature of Marcher lordship, ensure that there is little to say about agriculture. Nevertheless, there is much

that is interesting. Our author deals with "English and Welsh in Marcher Society," and then proceeds to discuss the two nations separately. In his chapter on the English he discusses both the burgesses and the rural settlers in a new and rewarding way. His discussion of the Welsh has to follow deep-rutted tracks long worn by numerous predecessors, and he divides this chapter between the free and the unfree. He accepts the explanation of the origin of the Welsh *uchelwr*, which the late Professor Jones Pierce first made known, but hesitatingly, as if he had as yet undisclosed reservations. More positive is his clear explanation of Welsh *gavelkind*, which did not always lead to impoverishment, but truly could reduce the affluent to penury.

The heart of Professor Davies's discussion of the Welsh peasantry is in his discourse on the economic structure of Marcher society. When he writes about the distribution of wealth he makes lavish use of unpublished sources to delineate a pattern not hitherto described. Discussion of the Marcher land-market leads naturally to a dissertation upon the squirearchy, who were to be very important in later generations. Finally, in writing about the fifteenth century, he touches upon the decline of serfdom and customary tenure, and gives us more about the relationships of the English settlers and the Welsh.

This is an interesting, humane, and lucid book, the product of long years of ripe scholarship. Five hundred years of publishing at Oxford have also given us a book which, in spite of its size, is pleasant to read and handle and almost (not quite) free from minor blemishes.

H. E. HALLAM

EMMANUEL LE ROY LADURIE, *Montaillou: Cathars and Catholics in a French village, 1294-1324*, translated by Barbara Bray. Scolar Press, 1978. 383 pp. £12.50.

Montaillou has been hailed universally as a major publishing and historical event. It burst on the scene (in a rather longer French version) in 1975, and now appears in an English translation. Here, it is argued, is the authentic medieval voice, the life of the real peasant for the first time revealed in all its facets (especially sexual: marital and extra-marital relationships appear at great length in many different parts of the book). Exploiting the records of heresy trials of the early fourteenth century, especially those from the village of Montaillou where almost all the inhabitants were rounded up and interrogated in great detail, the author has analysed the world of the southern French villager in the mode of the modern anthropologist.

The picture that emerges is a fascinating one—a village on the north-facing slopes of the Pyrenees, divided into a double economy, the agricultural

(mixed farming with arable, including turnip growing, and small flocks of sheep) and the shepherd economy, looking after "large flocks of at least several hundred head of sheep" engaged in transhumance, a migratory way of life from the summer pastures on the French side of the mountains to the winter pastures in north Catalonia. "Montaillou was a mountain-dwelling micro-society, whose people generally had little money, little prestige and little power"; it was organized on a household (*domus*) basis rather than on estates.

A great deal is revealed about this one village and about others in the neighbourhood—but some hesitations begin to grow as the book proceeds. For one thing, the evidence is somewhat thin—fourteen law cases per year spread over some seven years (1318-25). Only twenty-eight persons in all came from Montaillou itself (the significance of the first date given, 1294, is not clear unless thirty years is taken as a generation). What is more, Professor Le Roy Ladurie sticks closely to his chosen source material: little is drawn from other sources, either documentary or physical (especially surviving medieval buildings—there is only one totally uninformative photograph used as end papers without caption). The evidence available serves the author's interests well: it describes social relationships, but not the physical environment. More could be said from other sources on such topics as, for instance, a money economy and credit, or the secular law courts, or the training that the parish priest obtained, or even on hand-queens in the village.

Because of this intensive use of a limited source, the book is unexpectedly repetitious, sometimes tediously so: the same incident occurs time and again in considerable detail (the long quotations have a freshness about them which they quickly lose on repetition). Despite this, however, the author fails to get inside the sources: he remains bound by his own presuppositions. To describe Pierre Maury as a "democrat" is anachronistic. He frequently uses the term "irregular unions" for the temporary sexual liaisons which the villagers formed from time to time—perhaps in an attempt to shock his readers; but it reflects a lack of understanding of a social structure only just beginning to come to terms with the demands of an intrusive Church for the "regularisation" of sexual relations (i.e. "marriage" according to the Church's rules, not customary practices heretofore enjoyed).

A third hesitation is one which the author clearly shares—the fear that such a study will be taken as describing a "typical" medieval village. But the place (with its virtual lack of serfdom) and the time (which saw a flow of upland population into the lowlands of France or Spain) were quite specific. Montaillou was not typical of anything; it

was a village in disintegration—not just because of the Inquisition's attack on heresy, but because of the collapse of the mafia-type rule of the Clergue family, which could lead on occasion to such brutality as the cutting out of the tongue of an elderly village gossip. These were the real wielders of power, not the Comte de Foix or the captain of his castle in the village. And when their hold was broken, village society was in disarray. Montaillou cannot be compared with a heavily manorialized village in the champaign country, or with an industrialized village in the north. What Le Roy Ladurie has explored are the particularities rather than the general characteristics of one village in the south of France.

Is *Montaillou* then unique? Does it depend so much on the chance survival of a particular set of records that it can never be repeated? What is revealed is what the sources speak of and this alone. Are there other sources similar to these?

The answer is probably No: but at this point the real achievement of this book stands clear to be seen by all. There may be other sources as yet unexplored, though hardly as rich as the registers of that arch-Inquisitor Jacques Fournier. But there are already well-known sources which will now, as a result of the work of Le Roy Ladurie, be looked at in a new light. Care will be taken to see what light they throw on popular culture—on subjects such as diet, or body language, or mental horizons and world pictures, or the terms used in affection or in hostility, or on the chauvinism (usually adult and male) implicit in the records themselves, or in the methods by which the common culture was transmitted, or the many, many other subjects touched on briefly by this wide-ranging study. This is the real value of *Montaillou* for other historians, the questions it raises about other local communities and the ways in which the sources can be analysed. And this being so, the absence of a subject index is unpardonable: how can one find what this wise and humane author has to say about contraception, or demography, naming customs, tithes, or even—for the readers of this journal—crops and farm tools? The publishers must remedy this in the subsequent editions of this volume which will certainly be demanded.

Perhaps what is the most important conclusion of this whole study is slipped in and may be passed over unnoticed: "the communal spirit, far from being a survival from pre-history, must have developed in upper Ariège between the fourteenth and eighteenth centuries, parallel with the growing role of the village community as a force within the state and as a fiscal and political unit." If Professor Le Roy Ladurie can spare the time from satisfying the demands of the film-makers for more information into the sex-lives of the Occitan peasant,

perhaps he could expand these few words into his next book.

ALAN ROGERS

EDWARD BRITTON, *The Community of the Vill: A Study in the History of the Family and Village Life in Fourteenth-Century England*. Toronto, Macmillan of Canada, 1977. xvii + 291 pp. \$22.50.

This remarkable book is a product of the Toronto school of medieval historians which Professor Ambrose J. Raftis has led with such distinction for a good number of years. Dr Edward Britton is the editor of the *Herald Gazette* in Bracebridge, Ontario, and this book is the outcome of his studies for a Ph.D. at the Pontifical Institute of Medieval Studies.

The subtitle is sufficient explanation of the contents: the method is to see the macrocosm in the microcosm, here the Huntingdonshire village of Broughton in 1288-1340. Dr Britton divides his book into five parts and deals with the family, including family groupings, marriage, the children, and the domestic group; economic status, especially movable property, landholding, industry, and trades; social interaction, particularly village officials, co-operation, friction, and social mobility; village demography; and the village community and beyond.

There are a great many fascinating things in this beautifully written book, but room for only a few comments. Dr Britton divides his villagers into A, B, and C families, in order of wealth and influence, and there are a few unattached persons. He is at pains several times to stress the honourable and important part which women played in this society, particularly the major importance of ale-wives as money-earners, and the equitable treatment of adulterers and adultresses. His pages on adultery are very important, for they stress the need to maintain marriage as the buttress of a landholding society.

The chosen period is that which Professor Postan has selected to begin the downward trend in population. To many readers of this journal Dr Britton's attitude to the Postan thesis will be the most interesting part of the book. He shows that in 1288-1340 there was a decline in replacement rates, but suggests that emigration was a more potent factor. There follow several interesting pages in which Dr Britton considers aspects of the Postan thesis. He points out the confusion between "subsistence" and "subsistence income," and criticizes Dr Titow's assumption that only the holding produced the peasant's needs. He also lightly discusses peasant diet, points out that a largely grain diet is not a "carbohydrate" diet—a notion derived from popular literature on dieting—

but that good bread is rich in second-class protein, and underlines once more the significance of the number of butchers' shops in Broughton The Huntingdonshire peasants were, in fact, rather richer than many English peasants, for the median holding was a half-virgate, and there were many peasant virgaters. In Broughton 43 out of 85 families had nearly 20 acres of land each, but at the bottom end 31 families had less than 2 acres each. These poorest families declined only 1 per cent more, in 1288-1340, than the richest, and there was no connection between the size of the holding and vulnerability to the famines of 1315-17. The Malthusians have forgotten the importance of village livestock, including goats, geese, and poultry, the amount of food a cottage garden can produce, and the resources of commons in this village of Broughton Wood.

Dr Britton's book will provide reading and discussion for many years. It is a most important challenge to orthodoxy, whether Marxist or Malthusian, and a splendid example of the new social history. Perhaps Dr Britton's profession has also taught him something else. He writes clearly and elegantly, without any of the sociological claptrap which defaces the work of some social historians. Too many young social historians are like the 1920's Bloomsbury intellectuals, who sat all night on the edge of the bed talking about sex, instead of getting into bed and getting on with it.

H. E. HALLAM

R. S. GOTTFRIED, *Epidemic Disease in Fifteenth Century England: The Medical Response and the Demographic Consequences*. Leicester U.P., 1978. xiii + 262 pp., 40 tables, 2 maps. £10.

Although many aspects of the economic history of late fourteenth- and fifteenth-century England remain obscure, the majority of medievalists are inclined to take widespread evidence of agricultural recession, the phenomenon of the deserted village, and the contraction of some old-established centres of trade and industry as pointers to "arrested economic development and declining national income," in Postan's words. The role of population in relation to these developments is ambiguous. During the century following the Black Death its undoubted absolute decline served to reduce aggregate output, but on the other hand tended to increase per-capita income. Land and food became relatively abundant and cheap, and the return to labour reflected its scarcity value. Yet for many years (precisely how long is a matter of disagreement) population seems to have failed to respond to these favourable conditions.

As its title suggests, Gottfried's study is concerned with the mechanics of population change, and in particular with the vexed question of the

extent to which the plague continued to be a primary factor in regulating population. To this end he has brought the computer to bear on the demographic content of some 20,000 probated registered wills and related documents in Norfolk, Suffolk, the Archdeaconry of St Albans, and the Prerogative Court of Canterbury between the 1430's and the 1480's. Differences of opinion have in the past been expressed about the social coverage of wills; Gottfried believes that they are representative of the adult male population, excluding perhaps the bottom 25 or 30 per cent.

Without doubt he is on surest ground when using this material to trace aggregate fluctuations in mortality. From literary evidence he has ascertained that between 1430 and 1480 there were some eighteen years of national epidemics, and as many as twenty-seven in some places. When graphed by year and season of death, his testamentary data correlate well with this picture, causing Gottfried to conclude that his findings support the "biological" (as distinct from the Malthusian) interpretation of mortality. They thus give valuable empirical support to the case argued by, amongst others, J. D. Chambers and M. J. Hatcher, and alone amply justify his researches. Not surprisingly, contemporary medical authorities understood little of the causation of epidemic disease. Readers of medical works were warned against "fleschly lust with wymmen" and "gret repleccacions," and in one eccentric treatise given instruction on how to recognize Lucifer, the presumed agent of epidemic disease, in disguise.

Beyond this, the demographic limitations of the testamentary material and lack of complementary sources naturally make themselves apparent, and assumptions abound, so that the book takes on an increasingly speculative air. Whilst it is clear from Gottfried's researches that the incidence of plague was far from being restricted to urban centres (as supposed by Creighton, Shrewsbury, and Bean), his attempts to identify rural seats of endemic disease are somewhat inconclusive, since the size of the base populations at risk is unknown. A tendency for comparatively late average age at marriage, according with Hajnal's well-known postulations, is inferred from the fact that testators in age group 1 (i.e. whose wills mention parents, and who account for 1.3 per cent of the sample) refer to spouses in only one-third of all cases. The wealth levels of testators have to be based upon the size of bequests to the high altar of the church of burial. Much space is devoted to the computation of replacement indices after the manner pioneered by Gottfried's mentor, Professor Thrupp. Obviously, female progeny are often unmentioned, and thus Gottfried relies chiefly upon male replacement rates. At no point in the period did these reach

unity, except briefly among some *élite* groups, although there are signs of a general rise in the late 1460's and 1470's. Even then they were "not large enough to give firm evidence that population was growing at significant levels, or even growing at all." Moreover, if the trend were established beyond any doubt we should still be left with the problem of accounting for it, in terms of an increase in fertility, a decrease in infant mortality, or a change in the aetiological character of epidemic disease, as the author candidly points out.

Gottfried's study thus makes an important contribution to our knowledge of mortality fluctuations and their causes, and beyond this is necessarily far less conclusive. Nevertheless, one cannot but admire the heroic quality of his struggle with the testamentary sources which, *faute de mieux*, have to be used. This is a deeply interesting and original book, which incidentally has been very pleasingly produced (in America) at what by today's standard must be regarded as a moderate price.

W. A. ARMSTRONG

J. SÉGUY, *Les Assemblées Anabaptistes-Mennonites de France*. Paris, Mouton, 1977. 904 pp. No price stated.

The dauntingly enormous bulk of this volume—a converted doctoral thesis of unmistakably French proportions—and its invaluable forty-page bibliography of works in French, German, and English suggest that the study of Anabaptist history has become a growth industry in Europe as well as in America. The belated product of nineteenth-century emigrations, a four-volume *Mennonite Encyclopedia* emanated from Pennsylvania in the 1950's, while since 1905 a publishing house in the same state has issued a *Mennonite Yearbook*; Goshen College in Indiana boasts its own specialist journal, the *Mennonite Quarterly Review*.

Dr Séguy makes a significant contribution to the sociology and typology of religions by surveying the origins, organization, and vicissitudes of the Mennonite-Anabaptist sect in the Alsace, Lorraine, and Montbéliard regions from the early sixteenth century to the present day. He has much to say about the geography of the movement, the social composition of the religious radicals, and (following Troeltsch and Weber) their social teaching and the consolidation of their community life, their reactions to the French Revolution and the two world wars, and the notable change in the twentieth century from isolation and introversion to social awareness and evangelism.

For readers of this journal the central feature of Séguy's book will no doubt be his extended discussion of the agricultural activities of the Mennonite-Anabaptist communities. Farming and

Anabaptism in the eastern part of France were until recently virtually inseparable, agriculture being not simply an occupation but the essential basis for the Anabaptist religious life and a reinforcement of its exclusiveness. Compelled originally by religious, economic, and political necessity to live well away from towns, authority, and a hostile society at large, the Mennonite-Anabaptists made a virtue of necessity and became renowned agriculturists. In agriculture, as in their religion and social organization, the desire—the need—to innovate was strong and natural. Land reclamation, drainage schemes, crop rotations, the scientific use of fertilizers, the development of new farming implements, high crop yields and lush pastures, stock-raising and dairying (they were celebrated for their gruyère cheese) are among the features of the Mennonite-Anabaptist economy which became famous between the seventeenth and nineteenth centuries. Though wrongly credited with the introduction of the potato into the eastern region of France, the Anabaptists became well-known protagonists of the crop. It is certain that they pioneered the growing of clover and of madder. But what is also impressive about these religious agriculturists is the sheer scale (as well as the variety and inventiveness) of their activities. No wonder that some of the eighteenth-century physiocrats regretted that France was not more densely and more evenly populated with Anabaptists!

Agriculture has continued to be a leading occupation for this religious group down to the present day, and the speed with which mechanization has been introduced on to their farms demonstrates that their drive to innovate is as strong as ever. But although farming remains a major activity of the religious communities, they are no longer exclusively employed in this way. "Comment peut-on être 'menno' sans être agriculteur?" has been one of the central questions which the religious groups have had to face as, more and more, they have become an integral part of modern France and not just a separate enclave within it.

R. C. RICHARDSON

ALEXANDER FENTON, *The Northern Isles: Orkney and Shetland*. Edinburgh, John Donald, 1978. x + 721 pp., 287 plates. £15.

The Northern Isles: Orkney and Shetland attempts—for most part with great success—the descriptive reconstruction of the material culture of the two northerly groups of islands; these are very distinct from one another, but combine in each case the characteristics of geographical isolation with, paradoxically, sensitivity to influences from diverse and distant sources. Distinctive individual character together with a slight delay and check on modernizing forces has produced evidences in material

shape that could probably not be equalled anywhere else in the British Isles. The author's approach to these historical riches is indicated by the titles of the seventy-one chapters into which the book is divided. The fundamental method is to look hard at the objects and material facets of the environment; each type of object is separately scrutinized as to the finest details of use, design, manner of operation, and developing style, the account being completed in each individual case over the whole span of the record from early often up to modern times. It should be emphasized that the whole range of records—written and oral as well as the objects themselves—is used.

The result is far from being a mere list of chance historical survivals. The relentless accumulation of details in the end succeeds in re-creating the life of the people with astonishing solidity. One has the illusion of listening to an observer talking of his own practical experience—an observer blessed with an accurate memory and a gift for simple explanation. The account may be sectionalized, but so complete is the coverage that the individual objects and activities fuse into coherent and interdependent sequences. Part of the secret is that it is an account of activity as well as of inert objects. There is always life and movement pulsing through these pages. Indeed, specific examination sometimes broadens into a delineation of social groupings; something of the structure of society comes through. The range of possessions and the variety of craftsmanship are unexpectedly wide, although Mr Fenton's account, so solid and realistic, might tempt the reader to think that he could step into a house of, say, the seventeenth century and cope with all the daily duties. The main activity is, of course, agricultural, and each process is minutely described up to the final consumption of the produce. It is impossible to think that such accounts, with the interlocking of many circumstantial details, are other than completely accurate. It must be said, however, that while we see so much of individual skill and ingenuity, of the use of resources as given, there is little indication of the wider scale of these resources. We cannot judge how close were the limits imposed by availability of land and grazing or fuel rights. Some figures are given for grain yields, but what this meant for individual subsistence is not explored.

It is possible to be over-persuaded by the apparent completeness of the picture (although not, certainly, because of any overt claim by the author). Even with all the evidence here laid out the total impression must still be dependent on the chance of what happens to have survived. With the long time-spans that are traversed in each section it is easy for any but the most careful reader to compress events and usages that are widely separated

in time into one solid but static picture. The extent to which the particular methods and objects dealt with in different chapters were strictly contemporaneous, and whether on putting them together they truly fill the canvas, requires stringent checking.

Mr Fenton confesses to being more interested in the objects and ways of the past than in those of the twentieth, or perhaps even the nineteenth, century. Yet he does not halt his account where his interest diminishes. The result is a subtle distortion. It is perhaps right that he should not lovingly describe the operation or design of a combine-harvester as he does the flail or sickle; but with the diminishing detail the balance of the impressions left on the reader is of a traditional society with a few modern additions extraneously appended to it. And that is scarcely fair to the innovating capacity and adaptability found in both groups of islands. Indeed, it is in the treatment of problems of change that the method of the book meets with the greatest problems. True, it is made clear that there is no period without its changes. Innovations and adaptations are always minutely altering the pattern of work and material equipment. Yet, in a sense, these are seen as modifications of a long-continued and localized system—a traditional and particular culture. The view is completely convincing in all that had happened up to 1800; but from then on innovation force of a different order of magnitude begins to work. A new question arises about the place and force of the traditional culture. Do, for example, agricultural methods that are more international than local in their basic conception begin to take over? How far did they reduce the customs of the islands to an international uniformity? Is tradition seen only in survivals, relatively numerous as they may be, or are the traditional modes still dominant? No doubt it is a matter of balance, but it would be interesting to know whether the author thinks that Shetland, and, more particularly, Orkney, still have a form of agriculture peculiar to themselves. He offers no answer. But where mention is found of combine-harvesters and cheese factories among so many material objects of an earlier day the reader is bound to wonder.

The ambiguous political and geographical position of the islands crystallizes the question of the origins of their customs; what have been the relative strengths of Scottish and, on the other hand, Scandinavian influences in the various historical epochs? Language may give clues. Among his many skills Mr Fenton includes those of the linguistic scholar, and, as with every other aspect of the material objects he is examining, he meticulously lists linguistic derivations. Some conclusions are clear and immediate, but more often the indications are ambiguous or tentative, and it is never certain, of course, that linguistic coincides with material

identity. Once again, too, the method of concentration upon the particular keeps obscure whatever there may be of a general picture of the flow of influences. He attempts no general and systematic assessment of the linguistic evidence.

In sum, the present reviewer feels that if Mr Fenton could shed some of his scholarly reticence, his refusal to go beyond the immediately provable and detailed facts, he would contribute even more to an understanding of the influences at work within the Scottish rural scene. In his previous work on *Scottish Country Life* he stopped short of any general speculation; he does so again, and the world of scholarship is the poorer. Still, with these reservations, he has written a book which is massive in its information yet still readable, and which over many parts of his subject has an air of definitive and unchallengeable authority.

MALCOLM GRAY

R. FIELDHOUSE and B. JENNINGS, *A History of Richmond and Swaledale*. Chichester, Phillimore, 1978. 520 pp. illus. £9.50.

Many years of work have obviously gone into this impressive book, which like earlier works on Nidderdale and on Harrogate and Knaresborough is based upon W.E.A./Leeds University extramural tutorial classes. It contains a wealth of information about the town and the dale, all of it placed in a wider setting and related to general problems of economic and social history. Covering all periods from prehistory to the twentieth century, it will have a wide appeal in Yorkshire, and offers a great deal of information on many topics that currently interest agricultural historians.

Inevitably, sudden changes of topic, period, and scene interrupt the sense of continuity, and at times Richmond and Swaledale seem rather divorced from each other, but in compensation the historian who merely wishes to read what the authors have to say on certain topics will find the arrangement of the book rewarding. The chapters on the early modern period are particularly strong, but historians of later periods will find less of interest, perhaps because in many ways the area had by then lost much of its former importance.

The authors are very good at interpreting topographical evidence, whether it is the street pattern of the medieval new town or the varied field patterns of the dale. This visual and map evidence is constantly related to documentary sources in a way that readers of this journal will applaud. Faced with so much information, the reviewer can select only topics that are of particular general interest to agricultural historians, though there is much else to interest students of urban history, vernacular architecture, industrial archaeology, religion, education, and other fields.

In the early Middle Ages the main valley up to Reeth and Healaugh contained several settlements that were surrounded by small open fields with extensive pastures beyond; higher up the valley two forests were developed for pastoral farming through a series of vaccaries. Early medieval expansion came to a halt in 1314-15 when a series of arable and livestock disasters following bad weather coincided with repeated Scottish raids. The Black Death, further epidemics in 1369 and 1374, and a succession of regional and local plagues for the next hundred years reduced the population drastically. Taxation assessments make the decline clear and show that the area took a long time to recover.

Agrarian historians of the sixteenth and seventeenth centuries will certainly need to consult chapter 6, which reads like a series of specialist articles on the effects of tenurial and inheritance patterns on agrarian developments. It is comforting to read that we should not be surprised that historians are often confused by such things, for "contemporaries were hopelessly muddled." In an inflationary age conflict between landlords wishing to raise rents and tenants determined to pay no more than they had done was inevitable, especially where land was held by customary tenure rather than by lease. Confusion arose because of a considerable overlap in the customs appurtenant to different forms of tenure, and the battle was prolonged. As for partible inheritance, the effect of the custom "was to create a pattern of smallholdings often verging on economic ruin. It perpetuated a peasant farming system and stimulated a search for subsidiary sources of income."

Lead-mining, of course, was the chief subsidiary source, but the Richmond area was also noted for its knitted stockings. The authors have used probate inventories and corporation records (particularly apprenticeship indentures) to great effect in demonstrating the character and the widespread nature of this useful by-employment. During the early seventeenth century Richmond hosiers collected knitted stockings not only from Richmond and Swaledale but also from Wensleydale and Teesdale, and sent most of them to London or abroad; during the late seventeenth and early eighteenth centuries over 2,000 dozen pairs a year were normally exported overseas from Stockton, and a similar quantity sent by coaster to the capital.

The disappearance of the open fields by the beginning of the seventeenth century meant the virtual disappearance of arable farming. Most of the good meadow and pasture land had also been enclosed by that time. Intakes from the commons and the constant subdivision of large fields produced the characteristic small closes that we see today.

Farmers were dependent on a subsidiary employment and their beast-gates in the carefully regulated cow pastures. Cattle were significantly more important than sheep, and it was through dairy-cum-beef farming that the dalesmen survived.

DAVID HEY

R. W. DUNNING (ed.), *Victoria County History of Somerset, Volume IV*. O.U.P. for Institute of Historical Research, 1978. xx + 260 pp. Illus. £40.

This is the second volume of the Somerset series to be published with the financial assistance of the county council. Covered in it are the hundreds of Crewkerne, Martock, and South Petherton. All three are located in the southern part of the county: Crewkerne, a small, compact area near the southern boundary, Martock, even smaller (being once coterminous with the manor and ancient parish of Martock), and South Petherton, having a detached portion, Whitestaunton, on the boundary with Devon.

Agriculturally, all three districts were once marked by a fairly even division between arable and pasture, and by the existence of open fields and some extensive commons. The arable farming of Crewkerne declined with the fall in prices after the Napoleonic Wars, and an increased area of meadow and pasture was used for dairying and mixed cultivation. Combe farm here was considered a model in the middle nineteenth century, employing a Chandler's liquid manure drill, a Hornsby drill, a drying kiln for corn, and a water-powered bone-crushing mill. In Martock the decline of the medieval manorial units and enclosure of open fields and commons led to consolidation of holdings and the appearance of larger freehold farms; wheat and beans, with flax, gave way to pasture, which by 1841 was nearly twice the area of the remaining arable. The manors of South Petherton hundred were also much changed by enclosures, though in Barrington some open-field tillage survived to the end of the nineteenth century. This and some other parishes in the hundred depended in part on the domestic industries of cloth-making (flax-dressing, linen-weaving), the manufacture of rope, twine, and sailcloth, and the making of smock frocks and straw bonnets; and especially on gloving, which gave considerable employment to women and girls. Some parishes were severely affected when the gloving trade declined. In farming the tendency was, as in the other hundreds, for arable to decline in favour of pasture.

The volume is produced to the traditionally high standards of the V.C.H., and as always is a quarry of valuable detail for the patient searcher through its pages.

G. E. MINGAY

M. E. TURNER (ed.), W. E. TATE, *A Domesday of English Enclosure Acts and Awards*. University of Reading Library, 1978. viii + 459 pp. £30 post free.

The lists of parliamentary enclosures compiled by W. E. Tate have long been an invaluable source for students of the enclosure movement, and the absence, in published form, of some of the county lists, coupled with the inaccessibility of others, has been a major handicap. Dr Turner has therefore provided a great service in editing and revising Tate's papers, and making them available in this volume. The result is a massive collection of basic information about parliamentary enclosures, including the dates of all known Acts and Awards, the acreages recorded, and the present whereabouts of the awards themselves, all listed by counties. In addition, the introduction provides a summary of the whole procedure involved, together with the various source materials associated with each stage, which will be of considerable help to those attempting to delve into the subject for the first time.

It is perhaps a little unfortunate that Dr Turner's stated brief was to complete Tate's plan as initially conceived, for this has produced a layout less easy to use than it might have been. In particular, the division of each county list into separate sections, depending on whether an enclosure was reported to contain open field or not, is both inconvenient and misleading. Few would now accept that the term "open field," as commonly used in the eighteenth and nineteenth centuries, had as precise a meaning as may have appeared to writers in the earlier part of this century, and the value of knowing that an Award contains some quantity, however insignificant, of this ill-defined category of land seems far outweighed by the loss of the simple chronological order which otherwise might have prevailed. Moreover, the lists are not accurate, for the categories in the Acts were not necessarily intended to be exact statements of the types of land it was actually intended to enclose. Two of the twenty-nine West Sussex enclosures listed as containing open-field arable do not do so, and a casual glance at other counties reveals similar errors. This is particularly regrettable, since most of the rest of the information provided appears to be extremely reliable.

A further problem is the absence of cross-referencing to other works. One of the major difficulties in all enclosure studies is the multiplicity of lists, many of them inaccurate, and often using entirely different names to refer to the same enclosure. It would have been extremely valuable to have the various errors, misprints, and mis-identifications firmly categorized as such, rather than have to assume, from the absence of some

records, that the author or editor has seen good reason to reject them.

In spite of these criticisms this remains an invaluable work and a worthy memorial to the life-long efforts of W. E. Tate. It will form an indispensable reference point for all future studies of the parliamentary enclosure movement.

J. CHAPMAN

G. E. MINGAY (ed.), J. L. and B. HAMMOND, *The Village Labourer*. Longman, 1978. xliii + 296 pp. Paperback £4.50; hardback £8.50.

A qualified welcome may be extended to this reprint. *The Village Labourer* first saw the light of day in 1911, and added a useful historical dimension to the contemporary debate concerning the problems of the land and the labourer. It last appeared in 1948. Few readers of this journal will need to be reminded of the merits of the Hammonds' work; they are properly credited with bringing to bear a deep sense of human sympathy, considerable historical imagination, and highly developed literary skills. In short, as Professor Mingay comments, their history was "alive, immediate, urgent and throbbing with moral fervour."

From today's standpoint the shortcomings of *The Village Labourer* are equally apparent. There is a distinct regional bias towards the south and east. The study is not an overview of the position of the labourer, but rather an examination of three aspects assumed to be closely linked in a causal sense. These are: the social consequences of enclosure; the nefarious effects of the old Poor Law; and the Swing riots of 1830. Only comparatively recently has their account of the riots been superseded by the work of Hobsbawm and Rudé, but most of the Hammonds' assumptions concerning the economic and social impact of the Poor Law are now open to serious question in the light of modern research since the 1950's. In particular they overlook population growth as a fundamental factor in rural poverty. Their assessment of the consequences of eighteenth- and nineteenth-century enclosure is equally dubious, and in this case far less excusable. Although the Hammonds could not have taken the results of Gonner's patient statistical inquiries into account in their first edition (*Common Land and Inclosure* was published in 1912), even that of 1948 continued to disregard his findings as well as the more recent material of scholars such as Clapham and Chambers. The Hammonds always relied heavily on arguing from the supposed salient instance, and, unlike Gonner, had no quantitative sense whatsoever; but as journalists they were apparently very well aware that the most effective method of coping with awkward facts was to ignore them. Parallel instances may be found in the companion reprint,

The Town Labourer, edited by Dr Lovell. The Hammonds were prepared to conduct discussions on aspects of the standard of living with their critics in the learned journals, but took little cognizance of them in later editions of their books.

One is bound to hesitate before agreeing that it was a good idea to reprint such a partial, tendentious, and outdated work in 1978. But on balance there is a case to be made for doing so. As is pointed out on the cover, *The Village Labourer* remains essential reading for a full understanding of the long-argued controversies which it stimulated, and will no doubt continue to shape popular concepts of the course of social change on the land. It is certainly preferable that students should be referred to this edition, with its excellent critical introduction and extensive bibliography, than that they should rely on the existing copies which are widely available in libraries and in second-hand bookshops.

W. A. ARMSTRONG

JOHN POST, *The Last Great Subsistence Crisis in the Western World*. Johns Hopkins U.P., 1977. xv + 240 pp. £9.70.

Readers of Dr Post's articles in the *Journal of Economic History* (June 1974) and the *Economic History Review* (February 1976) will already be familiar with many of the views put forward here in book form. But these views lose none of their interest by amplification and supplementation. The great merit of the book is that it deals with historical themes and problems which are well known, but are far from being well understood. For example, we all knew of the harvest failures and economic crises that characterized the years 1816 to 1818, on which Dr Post focuses, but did we understand the full extent and severity of the ensuing distress and suffering? Climate obviously had a vital bearing on the poor agricultural yields, but no one has argued more convincingly than Dr Post that concentrations of volcanic dust in the upper atmosphere, following great eruptions in the years 1811 to 1818, were the main cause of falling average temperatures throughout the western world. The distress in 1817 was known to be severe, but only Dr Post has compared it so closely with the earlier subsistence crises of 1709-10 and 1740-1 which also struck on a European scale. He then goes on to give detailed accounts of the popular disturbances and social protest movements which resulted directly from deteriorating economic conditions, not only in England but also in Europe and in the eastern United States. These disorders, it is argued, frightened many European governments away from liberal policies and transformed them into more oppressive regimes, at least in the short term. Dr Post draws on an impressive range of sources in

German, French, and English to prove his points. One of his more interesting arguments is directed against the idea of the autonomous incidence of infectious disease. It is argued strongly that many diseases are famine-linked, and moreover that epidemics became rarer in the western world after 1670 mainly because of improved quarantine regulations imposed on overseas shipping. Another old theme to receive new treatment is the question of whether high agricultural prices stimulate or depress semi-developed economies: again the arguments in favour of depression are forceful.

In view of the dramatic literary evidence on the severity of the crisis produced by Dr Post, mortality rates adduced from statistical evidence seem surprisingly low. Was this European crisis really so closely comparable with that of 1709-10? But one does not have to agree with all the views put forward in this book in order to admire it. Truly scientific studies of this kind are rare enough. The i's are dotted, the t's are crossed, no awkward issues are avoided. A valuable bibliography is appended. Dr Post's book deepens immeasurably our understanding of this crisis period.

J. R. WORDIE

CHRISTOPHER SIMON SYKES, *The Visitors' Book*. Weidenfeld & Nicolson, 1978. 224 pp. Illus. £12.50.

The basis of this new book on the Sykes family of Sledmere is the discovery of a long-forgotten cache of photographs. These—splendidly reproduced in this handsome volume—range beyond the family, their home, and their travels, and include fascinating studies of servants, grooms, estate workmen, and village life. This is not to suggest that the text is negligible: it is almost entirely confined to the story of the family, but is indeed an excellent complement to the photographs, lucid, entertaining, and informative.

The study begins with the celebrated fourth baronet, Sir Tatton Sykes (died 1863), said to be one of the three great sights of Yorkshire (the others being York Minster and Fountains Abbey). Sir Tatton's long-outmoded style of dress and other foibles are well known, though well worth the recounting, and among the less familiar details of his career mentioned here are his introduction of bone manure and his exploits as a drover.

Sir Tatton's heir, another Sir Tatton, was hardly less of an eccentric. He was a hypochondriac who wore six coats to maintain his body temperature, took his chef with him on his travels especially to prepare the milk puddings considered essential for his diet, and evinced a powerful dislike of both flowers and front doors, the latter phobia taken to the extent of putting false front doors on new cottages. He was also something of a recluse who

rose at six and retired at eight; it is not entirely surprising that his wife, thirty years his junior, resorted to the pleasures of London society and became a compulsive gambler and alcoholic. A tremendous scandal over her debts gave unwelcome publicity to the family's domestic affairs near the end of the century.

The book comes down to the 1930's with the story of Sir Mark, the sixth baronet, a highly talented man eminent in letters and politics, and an officer in the Boer War, and his successor, Sir Richard, who showed early promise as a film director and script writer. Along the way we meet Christopher Sykes, younger son of the fourth baronet, intimate of the Prince of Wales, and a somewhat sad and introspective *habitué* of the London scene, the scandalous Lady Florence Paget, and Venetia, sister of Jessica the alcoholic, who was famous for her parsimony, said to extend to entertaining a visitor with the cat's leavings.

Together these bizarre characters make a fascinating study; and if all the details of the tales told here are not entirely true, at least they deserve to be. One is left pondering the influences of upbringing, family background, social position, and great landed wealth. There was much talent, and much waste of it. As Christopher Sykes confided to his diary:

How curious it is to look at our family party, lying gloomy and querulous each in their arm chair by the fire; and think of the wealth and position fortune has lavished upon us, and how little we enjoy it. Splendid to relate, very little in reality.

G. E. MINGAY

EDITH H. WHETHAM, *The Agrarian History of England and Wales, Volume VIII, 1914-39*. C.U.P., 1978. xxiii + 353 pp. £12.50.

Volume VIII of *The Agrarian History* has been written single-handed by our Society's President, and is a remarkable *tour de force*. Miss Whetham's account of the years between 1914 and 1939 rests on extensive research, and commands a great range of statistical and other materials; yet she succeeds in producing a volume of reasonable length which is everywhere illuminating, invariably interesting, and always readable. Her work will be widely welcomed as the standard source of reference and the major elucidation of a most complex and rapidly changing period in our modern agrarian history.

The treatment is chronological, and is firmly based on informed assessments of changes in markets, prices, and costs of production. The period is broken down into the three phases of war, depression, and intervention, an inevitable approach, perhaps, though one which conceals somewhat the

existence of long-term trends, and makes it a little difficult to follow these through the volume; and there is relatively little on the social aspects of the land and the farming population. Four chapters set the opening scene, considering production, markets, types of farming, and the agricultural environment of 1914. The war and its brief aftermath of prosperity and price control are next discussed, and then follows a systematic account of the depression era and its vicissitudes. This takes the reader up to the period of new policies of renewed and permanent government intervention. The volume concludes with a consideration of scientific research, and its uses, the further changes in farming practice in the 1930's, and the general character of the countryside as it was on the eve of the Second World War.

The picture that emerges is enormously varied. There were many significant advances in techniques, though the application of machinery to labourious farm tasks, for example to the lifting of potatoes, was by no means a simple operation. The labour force fell, and productivity rose, though these changes did little for the profits of farming between the wars. Bankruptcies, Miss Whetham points out, were few in relation to the existing 200,000 or so holdings of above 20 acres—only 600 even in the peak of 1932, and an average of 426 a year between 1922 and 1933—but these figures were not a true reflection of the extent of difficulty, hardship, and distress. Farmers gave up, and farm-workers lost their jobs, and the farms themselves were sadly neglected. Clement Attlee thought farm conditions in eastern England were comparable only to those in areas of abandoned mines or in derelict towns.

The progress of change was uneven, and in 1939 English farming was still poised between rival technologies. Farmers then, concludes Miss Whetham, were probably still using much the same kind of equipment as fifty years before; they still employed half a million regular hands, and the continued role of the horse as the principal source of power limited the degree to which implements could be changed; the fields and buildings, similarly, were mostly those of the previous century or even of some earlier period, while among the pedigree breeders of shorthorns names like Booth and Bates were still current. Tradition still had its influence, as against the more tangible forces of prices, costs, and profits, and the machine age had yet fully to come in.

G. E. MINGAY

LAWRENCE ALDERSON, *The Chance to Survive: Rare Breeds in a Changing World*. Cameron & Tayleur/David & Charles, 1978. 192 pp. £7.50. This book does not have an academic approach. It is obviously aimed at the wide popular readership amongst those interested in rare-breed conserva-

tion. But with fifty-five colour plates and a black-and-white photograph on nearly every page it provides a valuable source of illustrations of extinct and declining livestock for the agricultural historian.

The first chapter sets the scene with a worldwide survey of recently extinct breeds, and others that are declining, giving detailed lists for Britain and France, but the disadvantageous lack of reference to illustrations in the text here becomes evident. Next follows a chapter on breed origins and development which the agricultural historian will realize is weak, if only because no evidence is given to substantiate the statements in the text or summarized in the diagrams. Students of the subject would be advised to seek the more reliable reviews in existence, few of which are given in the bibliography.

Chapter 3 presents the case for preserving minority breeds, but this is weakened by the lack of evidence to support many of the statements. More emphasis is placed on commercial than academic, e.g. historical, value, but again doubtful historical statements are made; for instance that the Wensleydale breed of sheep represents the sheep kept by the Cistercians. Here and throughout the book the author creates confusion by naming the Orkney breed of sheep the North Ronaldsay, since that is the only island on which it had survived in recent times.

The author then deals in some detail with the way in which livestock breeders in the last 200 years, in selecting for "improved" types, have tended to go to extremes, and have eliminated other characters that may be of value in different future systems, pigs and poultry being used to provide the best examples. The fifth chapter, entitled commercial considerations, covers the productivity of minority breeds at some length, and quotes some useful nineteenth-century figures as well as results from recent experimental work.

Chapter 6 deals with visual attractions such as colour and horns and their inheritance. But it seems odd that wool characteristics, which are far more than visual, are included here, and not in the previous chapter.

The last chapter details the strategy for genetic conservation. The author starts by drawing attention to the conflict which exists between the livestock breeder's urge to change and improve and the conservationist's desire to maintain the status quo. Between the extremes of sacrifice of genetic characters in the interests of uniformity, and replacement by cross-breeding, a middle course is advocated in which a breed would be maintained as a closed population, and mating organized to ensure maximum variation.

These admirable sentiments do not appear to be

fully matched by the acceptance procedure of the Rare Breeds Survival Trust, quoted on page 172. The insistence on breeding true to type ignores the fact that a breed not doing so would preserve more variation. Then in including a factor for the age of a breed, would it not have been better historically to use the question: "Was it known before 1900?" rather than "Has it been known for seventy-five years?"

In stating on page 182 that the R.B.S.T. has gained the support of the Animal Breeding Research Organization, the author surely puts the cart before the horse since the A.B.R.O. Report for 1970 contained an article by the reviewer advocating gene conservation and the setting up of such a society. The outline of colour inheritance in sheep in the appendix on page 184 is taken from an article by the reviewer without acknowledgement. There is a selective bibliography, a useful list of addresses of breed societies and other organizations, but the advisory committee of the R.B.S.T. listed is that for 1973 and not the year the book was published.

M. L. RYDER

LEE R. MARTIN (ed.), *A Survey of Agricultural Economics Literature. Volume I Traditional Fields of Agricultural Economics, 1940s to 1970s*. Univ. Minnesota Press, 1977. xviii + 540 pp. \$25.

The American Agricultural Economics Association decided some years ago that there was a need for a major review of the agricultural economics literature published over the last thirty years. The first volume dealing with traditional fields of agricultural economics has now appeared; a further two are promised. The aim of this major undertaking is to furnish teachers and researchers in agricultural economics and related subjects with a comprehensive survey of the literature. To this end the volume is in seven parts, each part having an acknowledged expert responsible for its contents. The parts are:

- I Farm Management and Production Economics, 1946-70 (Harald R. Jensen, pp. 86 including 285 references);
- II The Analysis of Productive Efficiency in Agricultural Marketing: Models, Methods, and Progress (Ben C. French, pp. 103, 763 references);
- III Policy for Commercial Agriculture, 1945-71 (G. E. Brandow, pp. 83, 242 references);
- IV Postwar Policies Relating to Trade in Agricultural Products (D. Gale Johnson, pp. 30, 175 references);
- V Agricultural Price Analysis and Outlook (William G. Tomek and Kenneth L. Robinson, pp. 80, 380 references);

VI Agricultural Finance and Capital Markets (J. R. Brake and Emanuel Melichar, pp. 68, 300 references);

VII Technical Change in Agriculture (Willis Peterson and Yujiro Hayami, pp. 43, 163 references).

In all, therefore, 2,308 review papers are encompassed in this one volume, and are subjected to analysis and survey, providing a most useful source for reference. One limitation is that references are mainly confined to U.S. literature and that studies in other countries receive only a passing mention.

The scale of American activity in the field is daunting, but then so is the expenditure. In the second part on 'The Productive Efficiency in Agricultural Marketing' the statement appears "since World War II the United States Department of Agriculture and state experiment stations (with federal help) have allocated between \$4 million and \$8 million per year to projects dealing with efficiency in various parts of the marketing system for agricultural products." There is perhaps a slight suspicion that agricultural economics in America has become an industry in its own right, and after spending so much money and so much time examining productive efficiency in another industry, it is tempting to suggest that the time may be at hand when it should consider examining its own efficiency. The following statement somehow seems rather unconvincing: "To evaluate the public benefits accruing from the analytical system described in this paper we need to consider the general contributions to economic knowledge, the direct effects on marketing costs and prices, and the side effects on employment, income distribution, economic growth, and related factors. Unfortunately, there are few quantitative measures of these effects. About the best that we can do is to compile a list of favorable and unfavorable indicators and then attempt to form some conclusion on the benefit-cost ratio."

However, this volume undoubtedly serves as a useful and scholarly review of the traditional fields of agricultural economic activity, and the subsequent volumes will be awaited with interest.

PETER NEWBOUND

GEORGE G. JUDGE *et al.* (eds.), *A Survey of Agricultural Economics Literature, Vol. 2*. Univ. Minnesota P., for the American Agricultural Economics Association, 1977. xxii + 473 pp. \$25.

This is the second volume of three, which together provide a comprehensive and highly professional review of American writings on agricultural economics over the period 1940-74. The whole enterprise is much to be commended and repre-

sents an invaluable service to scholarship by selecting, summarizing, interpreting, and evaluating the main contributions to this vast literature.

This volume is concerned with quantitative methods. Its sections include reviews of the following aspects: estimation and statistical inference in economics; economic optimization in agricultural and resource economics; systems analysis and simulation; and information systems (including a detailed account of the agricultural economic data currently available, a review of technical developments in the methodology of agricultural statistics, and an assessment of the adequacy of the data).

Two persistent themes recur. The first is that the various quantitative approaches need to be

more fully integrated in problem-solving and in the testing of theories. The second is that agricultural economists, in their search for "optimal solutions," have used models which have been insufficiently flexible and not well adapted to the realities of the evolutionary nature of the research process.

There is little in this volume which will be of interest to the historian of agriculture, but to the student of the recent history of scientific method and its application to the complexities of agricultural situations and developments it is a mine of information.

D. K. BRITTON

Shorter Notices

GEORGE STURT, *Memoirs of a Surrey Labourer; Lucy Bettesworth*. Firle, Sussex, Caliban books, 1978. vii + 318 pp. £7.50; 280 pp. £7.50 respectively.

These two further reprints by Caliban Books of the works of George Sturt make an entirely appropriate combination. Both are concerned with the life, work, and outlook of a fairly typical labouring couple, Frederick Grover (alias Bettesworth) and his wife, about the turn of the century. Grover was Sturt's gardener, and his anecdotes, views, and speech were of such interest to Sturt that he took the trouble of making copious notes of them, the basis of his *Bettesworth Book* (also reprinted by Caliban in 1978) and the two present volumes. Though closely linked by a theme, these two books are substantially different. *Memoirs of a Surrey Labourer* (first published in 1907) is largely concerned with Bettesworth in his declining years—his struggle to maintain an ailing wife and keep a roof over their heads. It is a poignant story, beautifully told, and well conveys the sense of isolation, self-reliance, and yet helplessness of the elderly country poor, not least in their dealings with the officials of the Poor Law and the inevitable infirmary. *Lucy Bettesworth* (first published in 1913) discusses the labourer's married life and the work of country women, though these are mainly the "odds and ends," as Sturt put it, of his material relating to the Bettesworths. Much of this volume is concerned with more general aspects of labouring life: the summer migrations in search of work, the design and use of farm implements, the enormous

condescension and unsuitability of the education offered by country schools. Both books capture admirably the feel of a now departed way of life.

ROBERT TROW-SMITH, *Farming through the Ages in Pictures*. Farming Press, Ipswich, 1978. 111 pp., 114 plates. £4.95. PETER WILKES, *An Illustrated History of Farming*. Bourne End, Bucks., Spurbooks, 1978. 159 pp., 74 plates. £5.

Two books consisting largely of photographs of farming subjects may seem to constitute an unfortunate publishing coincidence. In fact the books are in several respects complementary rather than competing. Robert Trow-Smith's volume has only a very brief text but picture captions that are full of interesting detail and comment, and many of the pictures themselves are new, coming from the author's own collection. His illustrations begin with prehistoric corrals and conclude a wide-ranging survey with Land Army girls and Italian prisoners on the land in the Second World War. Peter Wilkes has much more text to support his fewer pictures, and his coverage is much narrower, concentrating on developments in farm implements and machinery since the early nineteenth century, and particularly on those of the present century. His captions are on the brief side, and a number of the older items shown are not dated. Both volumes are of necessity selective in what they choose to illustrate and discuss, and the second is rather more specialized. But both have much that is new and interesting and will be particularly valuable for schoolroom use.

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