

The **AGRICULTURAL HISTORY REVIEW**



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PART I

*

Village and Town: an Occupational Study

JOHN PATTEN

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The Sussex Breed of Cattle in the Nineteenth Century

J. P. BOXALL

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Where was the 'Great Agricultural Depression'? A Geography of
Agricultural Bankruptcy in Late Victorian England and Wales

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Village and Town: an Occupational Study

By JOHN PATTEN

IN pre-industrial England the relations of rural and urban settlements to one another and their individual characteristics are often far from clear. An examination of the structure of occupation in village¹ and town,² where this is possible, may be very revealing and permit differentiation between them.³ In one Suffolk hundred in the early sixteenth century a quite complex pattern of settlements was found to be present. This was made up of villages that were composed entirely of farmers; those having not only farmers but a substantial proportion of 'industrial' workers; some which offered facilities as service centres and markets; as well as towns themselves that were far more significant service centres and sometimes official markets.⁴ The study of *occupational* structure also sheds much light on the relationships between the agricultural countryside and the settlements of various sizes in which a majority of the rural population lived, and to which rural society looked for basic needs and services as well as for outlets for different sorts of farm produce. This approach is particularly revealing, for it opens up a new dimension in the study of the relations of rural society to the local village or town. It is often the case that the attributes of a settlement, especially the possession of a market,⁵ together with others such as the presence of an assize court, have been taken to indicate the urban status of a particular settlement.⁶ The marketing function of such

¹ See A. J. and R. H. Tawney's pioneering study of a quite 'industrialized' part of Gloucestershire in the early seventeenth century, 'An Occupational Census of the 17th Century', *Econ. Hist. Rev.*, 1934, v, pp. 25-59.

² For a study of an individual town, see e.g. J. F. Pound, 'The Social and Trade Structure of Norwich, 1525-1575', *Past and Present*, no. 34, July 1966, pp. 49-64, and for a comparative study, W. G. Hoskins, 'English Provincial Towns in the 16th Century', *Trans. Roy. Hist. Soc.*, 5th ser., 6, 1956, pp. 1-19.

³ As well as being useful indicators of the economic and social structure of particular regions; see e.g. J. Cornwall, 'The People of Rutland in 1522', *Trans. Leicestershire Arch. and Hist. Soc.*, 37, 1961-2, pp. 7-28; also his 'English County Towns in the 1520s', *Econ. Hist. Rev.*, 2nd ser., xv, 1962-3, pp. 54-9, and B. McClenaghan, 'The Springs of Lavenham and the Suffolk Cloth Trade in the Fourteenth and Sixteenth Centuries', Ipswich, 1924.

⁴ See C. W. Chalkin, *Seventeenth Century Kent: A Social and Economic History*, London, 1965, esp. pages 245, 258; and H. K. Roessingh, 'Village and Hamlet in a Sandy Region of the Netherlands in the middle of the 18th century', *Acta Historiae Neerlandica*, iv, 1970, pp. 105-29.

⁵ E.g. A. Everitt, 'The Marketing of Agricultural Produce', in *The Agrarian History of England and Wales, IV, 1500-1640*, ed. J. Thirsk, Cambridge, 1967, esp. pp. 466, 488-9.

⁶ E.g. H. Carter, 'The Urban Hierarchy and Historical Geography: A consideration with reference to North East Wales', *Geogr. Studies*, III, no. 2, 1956, pp. 85-101. Professor Carter has

places is, of course, vital in a rural society, and has received the greatest attention in recent work on the sixteenth and seventeenth centuries. But undoubtedly commercial transactions of an individual sort took place directly between consumer and supplier in other places. Business between a husbandman and a tailor in the particular settlement to which he looked for this service may have taken place outside the market place if it were a market town, even though market day would have been the busiest for a tailor without a market stall or frontage when most potential customers were present for a few hours. If the husbandman went to a village for this service, his own or a neighbouring one, the transaction would have been completely outside any formal market structure. The spread of some basic services into quite small villages is here evident by the 1520's (see below) and probably much earlier. This represents a small but important component in the economic structure of rural areas, illustrating their growing independence, for some settlements were more than just the normal place of residence and worship for the yeomen, husbandmen, and agricultural labourers of the parish.

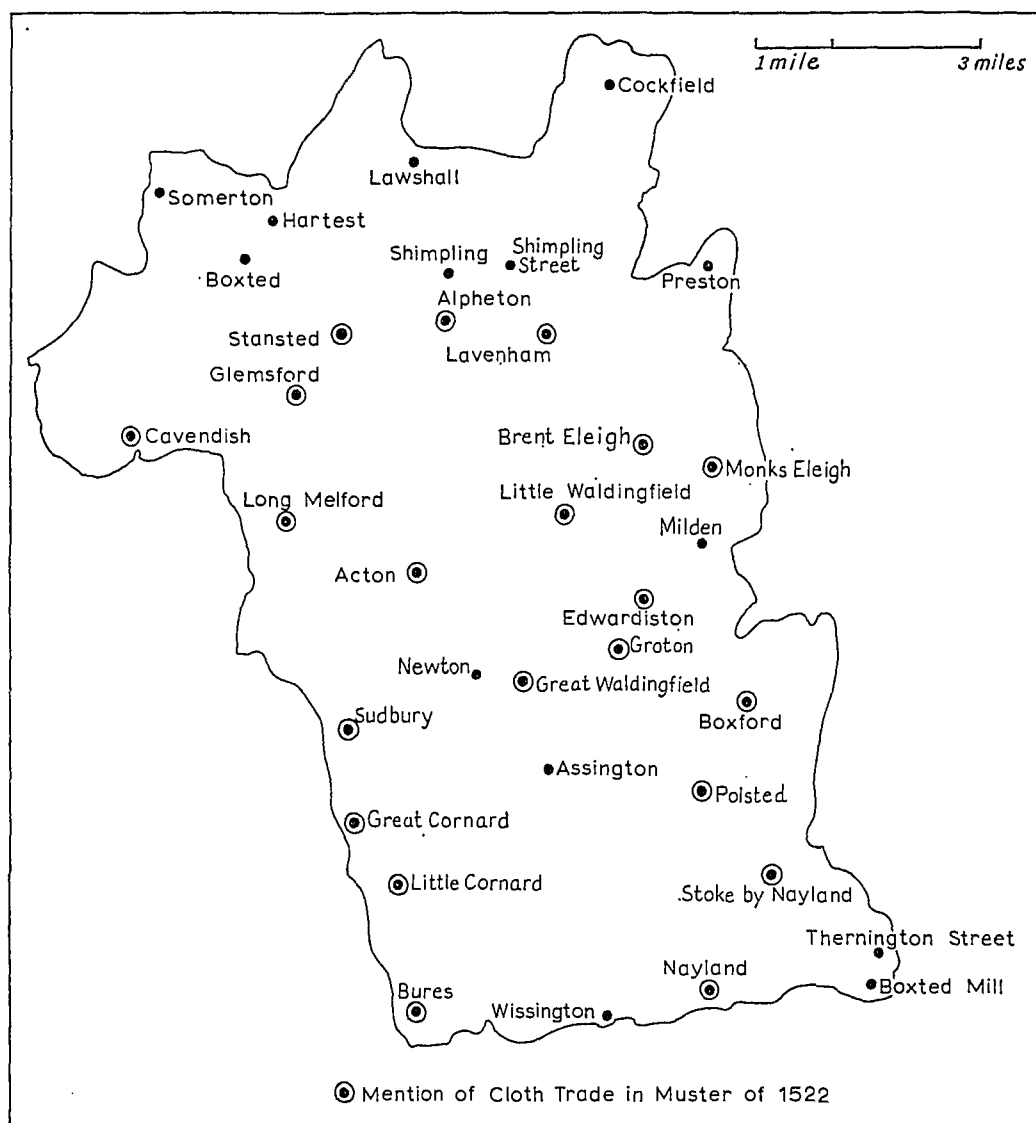
An extant Muster of Harness of 1522 for Babergh Hundred in Suffolk¹ afforded a rare opportunity for the period to examine the occupational structure of thirty-two settlements ranging in size from an important town to tiny villages. The Musters of that year which survive have been described elsewhere,² and in this case give occupational or social designations for 82 per cent of the total recorded names in the hundred, about 1,950 in all. Babergh lies in the south-west of Suffolk, on the border with Essex across the valley of the Stour (see MAP I). It would be hazardous to draw wider conclusions from such a small area, containing probably about 10,500 people. Such difficulties are increased by the fact that it lay in one of the wealthiest and most densely populated counties in England at the time of the lay subsidies taken in 1524 and 1525,³ and may be unrepresentative of conditions in other parts of the country, or even the rest of Suffolk. It was by far the most wealthy hundred in that county in 1524-5, producing over £600 in each of the tax years. Neither Ipswich nor the next most wealthy whole hundred, Thingoe, yielded even £300 in any one

recently reviewed his study in a supplementary note to this paper, reprinted in A. R. H. Baker, J. D. Hamshire, and J. Langton (eds.), *Geographical Interpretations of Historical Sources*, 1970, esp. pp. 285-7.

¹ Babergh Hundred Muster Roll and Valuation, 1522 (transcribed by J. Glyde), Ipswich Public Library, Suffolk Collection, 942.64(3). I am grateful to the Archivist of the Ipswich and East Suffolk Record Office for permission to microfilm this document. The original is in Lincolnshire Record Office, coll. papers of the Earl of Ancaster. 1. Anc 16/2.

² J. Cornwall, 'A Tudor Domesday. The Musters of 1522', *Jnl of the Soc. of Archivists*, III, no. 1, 1965, pp. 19-24.

³ J. Sheail, 'The Regional Distribution of Wealth in England as indicated in the 1524-5 Lay Subsidy Returns', 1968, unpub. Ph.D. thesis, University of London. I am grateful to Dr Sheail for permission to consult his thesis, and for helpful advice on the lay subsidies.



MAP I

BABERGH HUNDRED

year, and most of the rest considerably less.¹ This prosperity was undoubtedly based on the production of coloured cloths that was concentrated in and around Sudbury in this wood pasture region of Suffolk.² The clothing industry had penetrated deeply into the countryside; twenty-one of the thirty-two settlements, including such important centres as Lavenham and Long Melford, had

¹ P.R.O., E359/41.

² J. Thirsk, *The Agrarian History of England and Wales, IV, 1500-1640*, pp. 46-9.

people recorded as actively engaged in cloth manufacturing or finishing trades in 1522. The evidence on occupations afforded by the Muster is probably atypical on at least two counts. Firstly the preponderance of specialized woollen textile trades gave the hundred an unusually 'industrial' character and secondly the prosperity induced by such employment and by agricultural activity may have led to a relatively advanced occupational structure. The penetration of some non-agricultural forms of activity into otherwise rural settlements may have occurred earlier here than in economically less developed and less populated regions.

None the less, an opportunity is provided for an examination of the actual relations between occupation and settlement, the principles of which at least may have wider application. Something may be learnt of these relationships in two ways, by comparing the numbers of different types of occupations present in settlements of different population size, and by the ordering of these settlements according to their degree of functional complexity. This complexity is measured by the presence or absence in each place of the array of trades found in the hundred. The functional relations between the thirty-two settlements so analysed are expressions of the supply and demand for goods and services provided in each. It is impossible to get a true picture of relative numbers engaged in an activity in any particular place as the Muster is not a complete occupational census. What may be stated with some confidence is that an 80 per cent sample of occupations is most unlikely to have missed any activity essential to an overall picture, particularly as omissions are randomly distributed both across the hundred and within particular places. The presence or absence of recorded occupations seems the most objective way of ordering and relating the settlements to one another, and the possession of an official market is for these purposes regarded as simply another function, albeit a most important one.

Parish population size may be estimated from the 1522 Muster, when this is used in conjunction with the subsidy returns of 1524 and 1525.¹ An examination has been made of the names in 1522 compared with those in the subsidy, as experience has shown that no list gives complete cover,² in order to get approximate totals of names of adult males. The total in 1522 was 1,950 and in 1524 about 2,000, some 1,250 being common to both. A fairly high turnover seems apparent at first sight, but this probably reflects as much the different purposes and methods of assessment in the Muster and the Subsidy as any extraordinary demographic events. The Muster was essentially a survey of military ability and of self-assessed wealth, whereas the Subsidy was an actual

¹ See R. S. Schofield, 'Parliamentary Lay Taxation, 1485-1547', unpub. Ph.D. thesis, University of Cambridge, 1963, and Sheail, *op. cit.*

² Sheail, *op. cit.*, p. 48; Cornwall, 'The People of Rutland in 1522', *loc. cit.*, *passim*.

tax, assessed and collected by the local representatives of the government. The two lists of 1524 and 1525 are much more directly comparable. A better estimate of settlement size for the early 1520's may be obtained by using all three lists, for while the Subsidies may have 'caught' most of those who could pay the tax in one year or the other, they did not include the 'able-bodied poor' of the Muster. Of the overall total of recorded names the 1522 list contained 72 per cent, including the poor, the 1524 list 74 per cent, excluding the poor. Some 17 per cent of the 1522 total are listed as poor, 335 in all, 12 per cent of the total names (see TABLE I). A random examination of the 1524 and 1525 lists for the whole of Suffolk, no other hundred Muster surviving in the county, reveals that on the scale of a hundred about 75 per cent of total names appear in 1524, and 70 per cent in 1525, allowing compensating factors for omissions of 25 per cent and 30 per cent respectively to be applied to the surviving totals of each year. This agrees broadly with conclusions for the whole country,¹ and for other individual southern counties, like Buckinghamshire and Rutland.² From these figures an approximate total of adult tax-paying males may be estimated.

The greatest problem remains the omission from the subsidy lists of the poor, namely, those assessed at less than £1. Of the 334 described as poor in 1522, 195 are not recorded in 1524, about 10 per cent of the total in the latter year, a figure agreeing with that found by Dr Cornwall in Rutland. The remaining 139 were incorporated into the subsidy lists, almost all into the £1 wage-earning class. For example, Polstead returned 13 people as poor in 1522, while in 1524 30 were assessed in the £1 class, two of whom, a weaver and a carpenter, had previously been numbered amongst the poor. This approximate 10 per cent figure agrees with that for three Norfolk hundreds in 1522.³ The proportion of poor varied between settlements; Sudbury had little over the average of 10 per cent (see TABLE I), while as might be expected some of the other larger places such as Nayland and Long Melford had higher proportions, 23 per cent. No generalization can be made about any relationship between assessed poverty and settlement size, as for example in Lavenham the proportion was considerably less, 13 per cent. Similarly, there does not appear any positive correlation between poverty and the presence or absence of the cloth trades that were per-

¹ Sheail, *op. cit.*, p. 48, "... about three-quarters appear in both lists."

² J. Cornwall, 'An Elizabethan Census', Records of Buckinghamshire, 16, no. 4, 1959, pp. 258-73, and on Rutland, 'The People of Rutland in 1522', *loc. cit.* Dr Cornwall estimates about 70 per cent cover for 1524 and 65 per cent the following year. See also his 'English Population in the early Sixteenth Century', *Econ. Hist. Rev.*, 2nd ser., xxiii, no. 1, 1970, pp. 32-44, in which he suggests a single compromise factor of $\frac{2}{3}$ for both 1524 and 1525 when using a large sample for the whole country.

³ P.R.O., E36.25, which gives figures for the poor class for Yarmouth, West Flegg, Happening, and Tunsted (a hundred additional to Dr Cornwall's list, 'A Tudor Domesday ...', *loc. cit.*). East Flegg is also recorded, but the poor classes are omitted. Occupations are not systematically recorded. P.R.O., E36.22, gives Musters and assessments for two further Norfolk hundreds, but they do not include the poor class.

TABLE I

<i>Settlements (in order as recorded in 1522 Muster)</i>	<i>Total recorded Names, 1522*</i>	<i>Number described as Poor, 1522</i>	<i>Percentage of Poor to recorded Names, 1522</i>	<i>Total recorded Names, 1524</i>
Sudbury	214	42	19	218
Nayland	126	29	23	102
Stoke by Nayland	124	20	23	117
Polstead	54	13	24	56
Boxford	105	24	22	112
Edwardeston	48	8	16	53
Groton	42	6	14	40
Great Waldingfield				
with Chilton	50	4	8	41
Little Waldingfield	43	6	13	58
Milden	7	1	14	10
Bures	81	6	7	73
Wissington	12	—	—	12
Assington	38	4	10	38
Newton	26	2	7	28
Great Cornard	33	4	12	35
Little Cornard	30	7	27	23
Lavenham	159	22	13	199
Long Melford	125	29	23	154
Glemsford	109	10	9	122
Cavendish	60	6	10	70
Stansted	42	4	4	36
Acton	43	7	16	45
Monks Eleigh	57	13	22	53
Brent Eleigh	25	9	36	28
Preston	25	9	36	25
Boxted	17	6	35	100
Somerton	14	—	—	18
Hartest	56	10	17	39
Alpheton	23	5	21	16
Shimpling	36	3	8	34
Lawshall	53	7	13	51
Cockfield	74	18	24	83

* 705 of the total names in 1522, of whom 195 were described as poor, were not identified in the 1524 list.

haps more prosperous. Brent Eleigh with clothing occupations, and Preston, which was purely agricultural, both had a high proportion of poor people. Weavers were assessed poor in large settlements like Sudbury and Stoke by Nayland and in smaller places like Edwardeston with a population of about 270 and five occupations. The 10 per cent figure may not necessarily include all poor males, for besides the possibilities of deficient recording or deliberate avoid-

ance it must be recognized that the Muster was only concerned with the able-bodied poor. In Sudbury, for example, this class is described as "Artificers and Laborers . . . being able in person to do the king's service and of no substance in goods and not retained." The aged and infirm, too poor to contribute, and not fit to stand muster seem to be omitted, although the Muster was very careful to record those able to pay or serve who were away. At Hartest two labourers are described as away at the wars (in France), at Monks Eleigh six labourers and one butcher, while Isabell Clerk of Edwardeston, 'widow' and 'householder', is recorded as "being in France," and her lands and moveables were assessed by her neighbours. It is difficult to make any allowance for the aged and infirm poor, who would probably not have had large households, and also for other events which could affect turnover such as death, migration, or temporary absence away from home, maturation, differing levels of assessment, etc., some of which may have been self-cancelling in effect.

An estimate of the order of total population for each of the thirty-two settlements has been obtained by taking the figures for 1524 (see TABLE I), adding 25 per cent compared with the 1525 list to compensate for omissions, with a further figure for poor omissions based on the 1522 Muster, an average of 10 per cent. Female numbers are taken to be equal to the final total of males.¹ An arbitrary figure of 40 per cent is added for children under sixteen, the usual tax-paying age.² This figure is based on information taken from life tables of both model and actual contemporary sorts, these last derived from developing countries.³

The estimate of population totals for each settlement is of prime concern and it must be noted that the figures are for each parish as a whole, and not just for its central settlement.⁴ Only rarely in the muster or subsidy lists is any detail of the actual distribution of population within parish boundaries given. It is unlikely that anyone would live more than a couple of miles from the chief settlement of the parish in which undoubtedly most of the population resided, moving out daily to work their own or another's land. People living away from the centre in a hamlet or isolated holding would, with the exception of those

¹ In only 39 cases are women mentioned in the 1522 Muster, usually described as widows. These were presumably often those carrying on the business of deceased husbands as household heads. In the whole country in 1524 some 17,000 taxpayers were enumerated, of whom 650 were women, some 3 per cent.—P.R.O., E179.180.134.

² A figure suggested by D. C. Coleman for the seventeenth century in 'Labour in the English Economy', *Econ. Hist. Rev.*, 2nd ser., VIII, no. 3, and used by J. Cornwall for the early sixteenth century in articles cited on p. 5, footnote 2.

³ E.g. U.N.O. Population Division, Dept of Social Affairs, *Age and Sex Patterns of Mortality*, New York, 1955; A. J. Coale and P. Demeny, *Regional Model Life Tables and Stable Populations*, Princeton, 1966.

⁴ A. Everitt discusses this point with regard to urban parishes in a review of C. W. Chalkin, *Seventeenth-Century Kent*, in *Agric. Hist. Rev.*, XIV, 1966, pp. 65-9.

on boundaries near a neighbouring large centre, have regarded it as their immediate economic, social, and religious focus. They may therefore be thought of as being functionally part of the principal settlement.

An examination of the whole array of settlements, ranked by population and numbers of different types of functions performed (FIGURE I), reveals a distribution of settlements whose functions generally increased in number as their

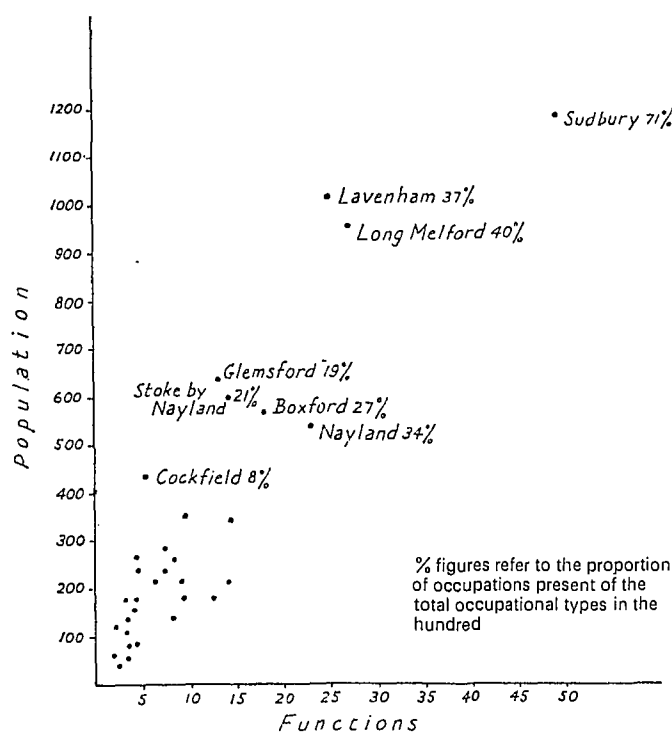


FIG. I

ARITHMETIC SCALE

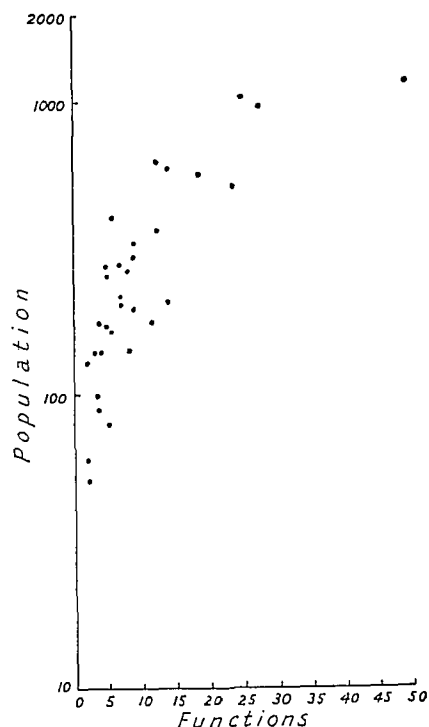


FIG. II

LOG-ARITHMETIC SCALE

size increased. Such settlements as Glemsford or Cockfield seem perhaps a little larger than the number of functions might otherwise suggest, and Nayland seems a little smaller (see TABLE II). Population numbers were not simply a function of occupational specialization, or vice versa, for they may have been affected by parish size, and therefore figures for population per thousand acres illustrating density differences within the hundred are plotted on MAP II. Generally, however, increasing settlement size tended to be accompanied by increasing numbers and increasing specialization of function. Purely agricultural and agricultural service trades were joined by personal services like tailoring or shoemaking (see pp. 12-13), as well as woollen manufacturing, until Sudbury was reached with its goldsmiths and armourers. It is functions and

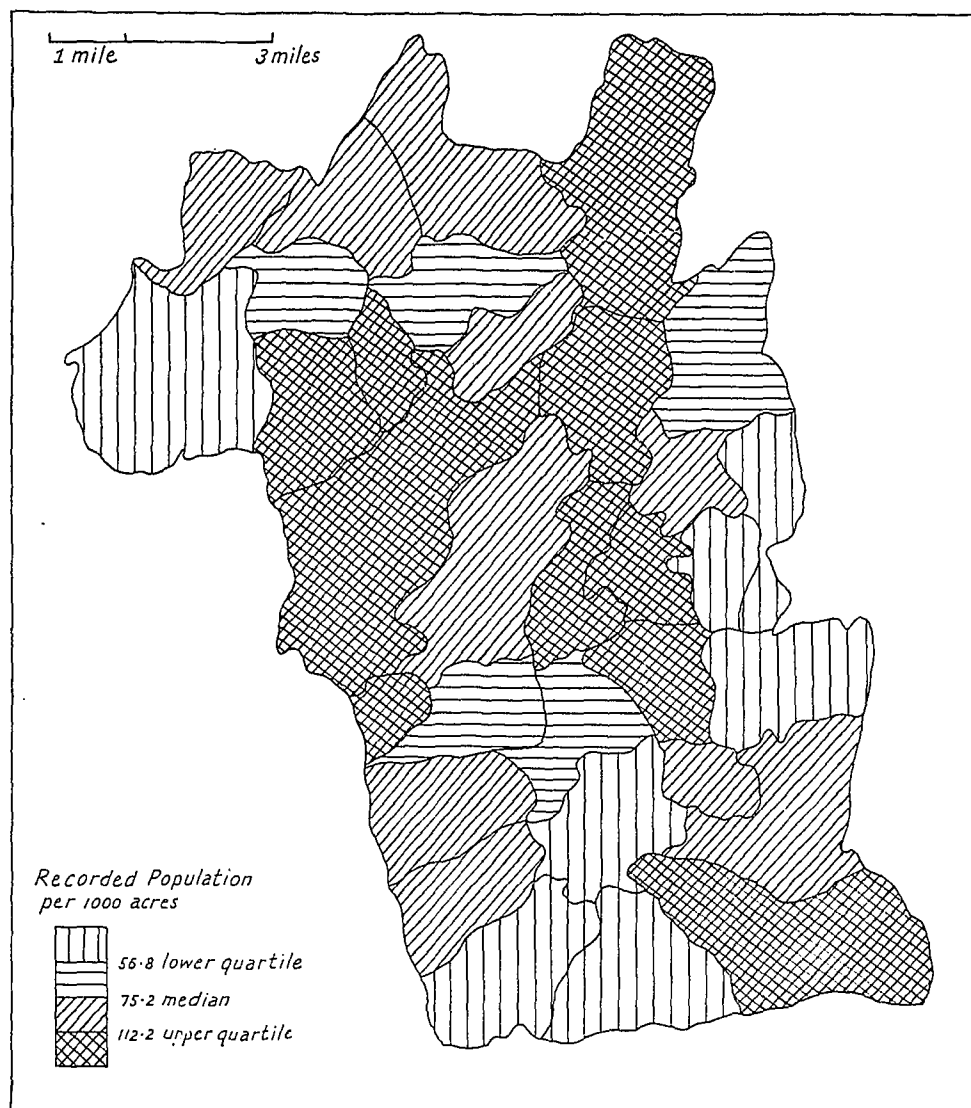
not population size which must be taken as the most important criteria by which groups of settlements may be tentatively classified. Sudbury stands by itself on the graph. Below this major local service centre and market town is a second group: Lavenham, Long Melford, Boxford, and Nayland, which offered far fewer services and had fewer occupations than Sudbury (between 18 and 27 apiece), but none the less they all performed a significant number of non-rural services and functions such as hairdressing, as well as offering facili-

TABLE II

<i>Settlement</i>	<i>Nos. of Trade Types</i>	<i>Estimated Approx. Parish Population (Rounded figures)</i>
Sudbury (m)	49 (c)	1,200
Long Melford	27 (c)	1 000
Lavenham (m)	25 (c)	1,050
Nayland (m)	23 (c)	520
Boxford	18 (c)	570
Stoke by Nayland	14 (c)	600
Groton	14 (c)	210
Glemsford	13 (c)	620
Bures	13 (c)	370
Stansted	12 (c)	180
Cavendish	9 (c)	350
Little Waldingfield	9 (c)	300
Hartest	9	200
Monks Eleigh	8 (c)	270
Brent Eleigh	8 (c)	140
Polstead	7 (c)	290
Acton	7 (c)	230
Great Waldingfield with Chilton	7 (c)	210
Cockfield	6	420
Lawshall	5	260
Shimpling	5	170
Alpheton	5 (c)	80
Edwardeston	5 (c)	270
Great Cornard	5 (c)	170
Assington	4	190
Newton	4	140
Little Cornard	4 (c)	140
Boxted	4	100
Somerton	4	90
Preston	2	130
Wissington	2	60
Milden	2	50

(m) = Market function in 1522

(c) = Cloth trade mentioned in 1522



MAP II

BABERGH HUNDRED, POPULATION DENSITY

ties for marketing. They can be isolated from the remaining 27 settlements of a less complex nature, with fewer than 14 occupations even though some of these, swollen by the cloth industry, were almost as large. Examples are Lavenham and Long Melford which ranked above Boxford and Nayland in size, though all belonged in the same broadly defined group comprising four minor local service centres. The 27 settlements, probably conforming to the conception of a 'village', can in no way be grouped in FIGURE I. Any division between different settlements is perhaps better brought out by examining the same distribution

plotted in a different way (FIGURE II), for there seems to be only one real 'step' in their upward progression when classified by functions. The critical dividing line appears at about the level of 18 to 27 occupations (if those settlements swollen in population size by the clothing industry are grouped with those below). This 'step' may well represent a break between the predominantly rural and urban settlements in Babergh Hundred, those with more than 18 to 23 functions having some urban role as either a major or minor local service centre.

The conclusions drawn from this generalized approach may be reinforced in a more detailed examination of the actual occupational structure of the settlements, both in terms of numbers of types and, when broken down, by the ordering of the quite differentiated and locally specialized occupational pattern that was present in Babergh in 1522. This approach is also likely to yield more information on inter-village differences. The ordering of occupations and settlements, size not being considered, is illustrated in FIGURES III and IV. These graphs or 'scalograms' measure a single variable, the level of occupational complexity of each settlement, the presence or absence of an occupation being taken as an indication of the functional level which each individual settlement had reached.¹ They meet the requirement of a 'Coefficient of Reproducibility' of more than 0.90, in fact 0.94 in this case. Some of the more rigorous demands of the scaling technique, particularly with respect to 'errors' which would, for example, have meant excluding the occupation of tilers from the scale, have not been met, in order to preserve as much information as possible. Indeed, the number of 'errors' in the tiler category may have been caused by the grouping of tiler, tileman, tileburner, and tilemaker under one heading. (An error is defined as a positive or negative entry below or above the heavy line, or 'cutting point' on the graphs.) In order to preserve as much information as possible some occupations, especially the first three, all agricultural trades which might otherwise be taken as ubiquitous, are included. So also are the clothing trades in FIGURE III, which similarly might have been omitted as atypical. The really critical occupations in the classification of centres of agrarian life are the supply and service occupations. Not all occupations found are of equal importance; a scale of necessity or desirability seems to exist to serve the needs of the different settlements. Occupations are, however, arranged on an ordinal scale according to their 'importance' (see FIGURES III and IV).

¹ This method is based on a simplified adaptation of a technique developed by and named after Louis Guttman, who in his 'A basis for scaling qualitative data', *Amer. Sociological Rev.*, 9, no. 2, 1944, pp. 139-50, dealt with the problems of scaling information arranged on a presence/absence, yes/no basis. See also E. A. Stoufer, L. Guttman, and E. A. Sudman, *Measurement and Prediction*, New Jersey, 1950, reprinted New York, 1966, esp. pp. 3-121. Important applications of this are L. Caroe, 'Urban change in East Anglia in the nineteenth century', unpub. Ph.D. thesis, University of Cambridge, 1965, and Roessingh, *op. cit.*, whose study is subtitled 'An application of the Guttman scalogram technique to socio-historical research'.

All possible occupations have not been brought into the scalogram. This is partly because of exigencies of space, and also because, as can be readily seen in the case of Sudbury, the addition of the remainder of its occupations (see TABLE III) would make no difference to the settlement order. Similarly, others

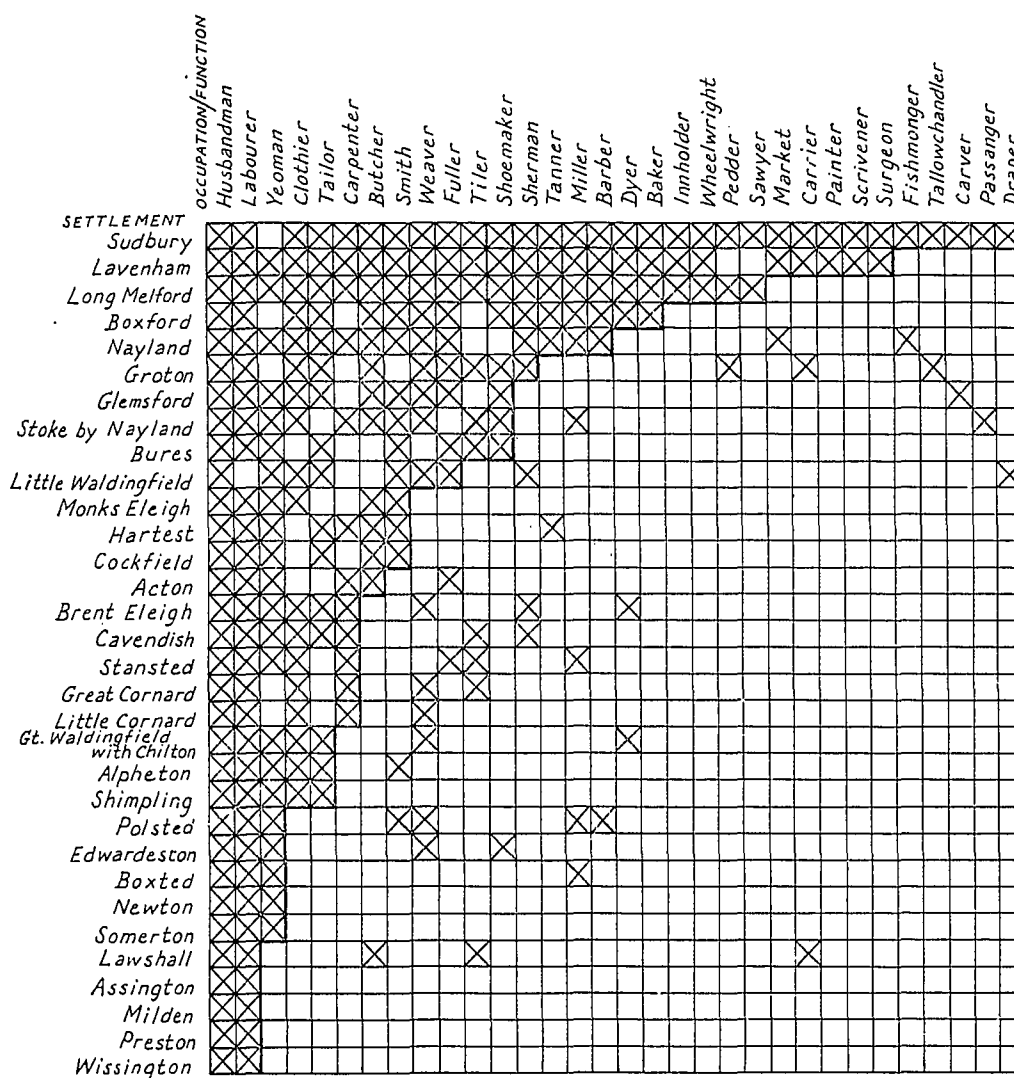


FIG. III

occurring only once or twice have been omitted, since they would be distributed in a random manner across the bottom of the scalograms.¹

¹ These are said 'not to scale'. An important property of scalogram analysis is that the ordering of the 32 settlements based on a large and randomly gathered sample of occupations and functions, 66 different types of which 33 are effective in the scalograms, will essentially be that based on the complete universe of functions. The addition of further functions is not likely to change the order of settlements provided by the sample.

It is important in considering Babergh as a particular case to examine the differences that might result from the withdrawal of the clothing trades (see the 'collapsed' FIGURE IV). Ubiquitous agricultural occupations are retained for they were, of course, undoubtedly basic to the economic functioning of the

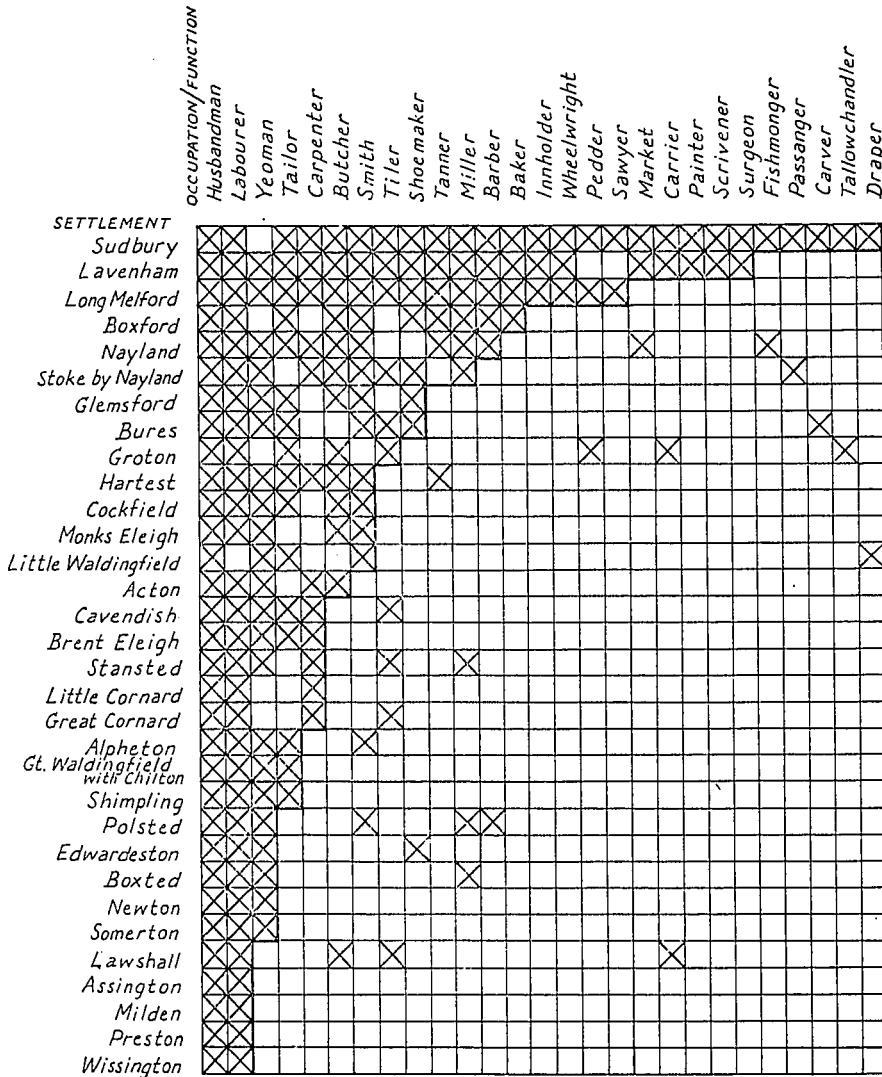


FIG. IV

hundred and their presence was the *raison d'être* of servicing and supply occupations. Since population size is no longer considered, both scalograms give immediate and independent support to the tentative classification suggested above, based on numbers of functions and people; it must be emphasized, however, that the presence of an occupation does not necessarily indicate that it

TABLE III

OCCUPATIONS OMITTED FROM SCALOGRAM

- 5 other occupations occurred twice: Cardmaker, Cook, Cowper, Ploughwright, Thatcher.
- 14 other occupations occurred once in Sudbury: Armourer, Capper, Corser, Fletcher, Gardener, Glover, Goldsmith, Grocer, Horseleech, Pardoner, Pewterer, Plumber, Turner, Wiredrawer.
- 16 other occupations occurred once in other settlements: Brewer, Carver, Cartwright, Chandler, Farrier, Freemason, 'Gaylor', Haberdasher, Harper, Journeyman, Millwright, Skinner, Tawyer, Trumpeter, Vendor, Wineseller.

In all 66 occupations are mentioned in the Muster, as are other designations such as "Meyre," Parish Clerk, Servant, etc., and forms indicating social status such as gent., widow, etc.

served people from outside a particular place, or even within it. It could, of course, simply be the place of residence of someone with that particular occupation. Sudbury dominated the hundred (and probably other hundreds around it) as the centre to which people from lesser settlements went for special needs, and from which grocers and tallow chandlers sent out their specialized goods in small parcels. Most needs were catered for here, though perhaps occasion sometimes demanded an even longer journey to Bury St Edmunds, the 'capital' of west Suffolk, or to London for specialized legal services. Even the services of a pardoner were available at this major local service centre for south-west Suffolk, which was, moreover, an important centre for cloth manufacture, as well as a clearing house for the production of surrounding towns and villages. In every sense it was the 'capital' of a wealthy hundred into which industry had deeply penetrated. Lavenham, Long Melford, Boxford, and Nayland stand fairly clearly defined (see FIGURE III) with far fewer functions than Sudbury, but still offering a wider range of occupational skills than those 27 settlements below. The presence in them of barbers, or bakers, for example, is a good indicator of a near-urban society.

The scalograms reveal some differentiation within the 27 village settlements, though all are in fact grouped together as offering characteristically only a small range of occupations, between 2 and 14 in number. These met simple needs for the services of tailor and shoemaker, for help with building offered by carpenters and tilers, and for a butcher, since in a pastoral farming economy cattle were undoubtedly most important. A number of tanners, mostly in the larger settlements, bear witness to the importance of trade in cured hides, a by-product of the dairying and fattening carried on in the hundred. The villages are graded upwards from the 4 settlements at the bottom which only returned husbandmen and labourers. This can be seen in FIGURE IV, in which the 5 clothing occupations of clothier, weaver, fuller, shearman, and dyer are removed. These were concentrated in the 5 largest settlements, and otherwise scattered throughout the cloth producing area (MAP I). A further

6 had only a few random non-agricultural occupations, together with 'yeomen'. Lawshall for example had a butcher, usually only found in functionally more complex villages, while Polstead had the services of a barber, otherwise associated only with the 5 highest order centres. These 10 seem to represent a lower stratum of villages whose activity was essentially agricultural, but which possessed an occasional exceptional skill of a higher order. Sometimes, perhaps, the village was merely the place of residence of someone whose occupation took him elsewhere, such as the carrier at Lawshall. Most basic needs in these settlements were satisfied in the home. It is noticeable that 8 out of these 10 villages in the lower stratum had no one engaged in the cloth trades (cf. MAP I with FIGURE III), whereas the higher stratum containing the remaining 17 villages mostly had cloth trades as well as some more specialized occupations. The people engaged directly in cloth manufacture, even those engaged only part-time, could not be completely self-sufficient. They created the need for a tailor, a shoemaker, a butcher, or at a higher level a baker, who were only found in Sudbury, Lavenham, Long Melford, and Boxford. But the gradual accretion of functions throughout the 27 villages prevents anything more than a tentative grouping into upper and lower strata. Based on the presence (or absence) of certain occupational skills it indicates the emergence of certain settlements capable of supplying some of their own non-agricultural needs, and perhaps those of nearby purely agricultural parishes. Other trades that might be associated with agricultural activity are lacking: only 2 wheelwrights and 2 ploughwrights are recorded, 1 millwright, and 1 brewer (at Nayland). But then Babergh was not in a great arable area. Ale may have been brewed locally, and there were a number of millers. But only 2 thatchers are recorded in the whole hundred, whereas there were 11 tilers, perhaps indicating the early predominance of this material in roof construction.

Important though the presence of the cloth trade may have been in giving rise to service-type occupations of a basic sort in quite small settlements, its removal from or addition to the occupations in the scalograms makes little difference to the ordering of the settlements. The relations of Sudbury and the four below it grouped together are unaffected, but a number of small movements take place down the scale, which cannot be given great significance. The two most noticeable changes that occur when cloth trades are inserted are the rise of Little Waldingfield from thirteenth to tenth place, and Groton from ninth to sixth place, suggesting that clothing occupations were important in affecting the relations of otherwise similar settlements to one another. Stoke by Nayland on the other hand falls from sixth to eighth place, illustrating that it perhaps had a better array of basic service functions to offer.

The example of Babergh Hundred in the early sixteenth century is revealing as it provides an opportunity for relating even very small places to one another

and to nearby towns. Besides illustrating the penetration of non-agricultural activity into villages, probably influenced by pressure of population on the land, the examination of occupation and settlement shows that places of different sizes and complexity were arranged in a fairly clearly defined system serving their own needs and those of other places at different levels; the groups suggested will not, of course, necessarily have any definitive significance outside the area of study, for their relations would undoubtedly be changed if the sample were extended to take in more places at the higher and lower levels, or ventured into different regions. It also permits a re-statement of the necessity of an integrated view of the relations of settlements of all sizes, town or village, to the countryside which they served and for which they were a focus in England before the industrial revolution.¹

¹ Scaling techniques have been used to great effect in other historical contexts, see e.g. W. O. Aydelotte, 'Voting Patterns in the British House of Commons in the 1840s', *Comp. Stud. in Soc. and Hist.*, v, 1962-3, pp. 134-63. The author is indebted to Mr F. V. Emery, Professor C. T. Smith, and Dr E. A. Wrigley for reading and commenting on this paper; any deficiencies remain the author's own responsibility. The figures were drawn by Miss Mary Potter of the School of Geography, Oxford.

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The Sussex Breed of Cattle in the Nineteenth Century

By J. P. BOXALL

SUSSEX lies among the traditionally arable counties of south-east England. Yet, its livestock farming, perhaps more than most of these counties, had in the nineteenth century considerable claims to attention. From the late eighteenth century, when important developments took place in the breeding of Southdown sheep, right through this period, the Sussex Downlands were famous for their large, efficiently run sheep and corn farms, and for the prosperous, enterprising farmers who occupied them. The fortunes of many of these sheep breeders are, it will be seen, linked with another aspect of Sussex livestock farming on which it is intended to focus particular attention, that is, the breeding of the native Sussex cattle in the Weald.

At the end of the eighteenth century, John Ellman of Glynde, the farmer most responsible for the breeding of the new, improved Southdown, was also experimenting with the breeding of Sussex cattle. Many other, less well publicized farmers were following suit, probably with more success than Ellman. Among them, were two Southdown farmers from the Eastbourne area, Auger and Allfrey.¹

This activity, on the part of Southdown sheep breeders, to improve a breed of cattle which had always belonged to the Weald rather than the Sussex Downlands attracted the attention of the agricultural publicists of the late eighteenth century. Their opinions of the merits of Sussex cattle were overwhelmingly favourable. Arthur Young, junior, the author of the Board of Agriculture survey of Sussex, wrote that the cattle of Sussex "must be unquestionably ranked among the best of the kingdom,"² an opinion that William Marshall was later to affirm.³ Elsewhere, Young junior declared, referring to Southdown sheep and Sussex cattle, "we may search all England through, before we are able to discover any single county that is able to boast of these two articles of stock with as much regard to truth as the farmers of this county."⁴

The Sussex were most frequently compared with the Devons and the Herefords, two related breeds with the same reputation as the Sussex for producing

¹ *Sussex Agricultural Express*, July supplement, 1852 (for Royal Agricultural Society show at Lewes), article on Sussex cattle.

² Rev. A. Young, *General View of the Agriculture of the County of Sussex*, 1813, p. 226.

³ W. Marshall, *Review and Abstract of the County Reports—Southern and Peninsular Counties*, 1817, p. 495.

⁴ *Annals of Agriculture*, 29, 1797, p. 273.

prime beef. According to Arthur Young, senior, "The well known Sussex of Smithfield" were "preferred to most others common in that market." Neither the Devon nor the Hereford could equal the Sussex in size and weight.¹ Few other judges, however, thought that the Sussex, considered in every aspect, was the superior beast of the three. But it was generally agreed that the Sussex, already possessing many fine qualities, had been less improved than the Devons and the Herefords and thus promised in the future developments as rapid and successful as those being seen in the breeding of Southdown sheep.

The Sussex breed appeared to be spread widely over the county at this time, although it was particularly concentrated in the Wealden district. Marshall's estimate was that "on the whole, this breed of cattle may be considered as being in possession (as the established breeding stock) of the entire country between the Eastern division of the Chalk hills and the sea; the District of Maidstone and the Sea Coast of Sussex, exclusive"² in other words, the Wealds of Surrey and Kent as well as of Sussex. On the West Sussex coastal plain (Marshall's 'Sea Coast of Sussex') it was largely Devon, not Sussex, cattle which were fattened, but in the Weald as far west as the neighbourhood of Petworth and beyond, Sussex herds were numerous, and the Earl of Egremont, a large landowner in this area, was following John Ellman in attempting to improve the breed.

The turn of the nineteenth century was probably the period when the numbers of Sussex stock bred in the Weald reached a peak. Although, unfortunately, there is insufficient statistical evidence to demonstrate this conclusively, the recollections and writings of several Sussex men suggest this. William Wood, a farmer with long personal and family connections with the Weald, reckoned the years before the Napoleonic Wars as the time when Sussex cattle breeding was at its most extensive and when almost every Weald farm had its own herd of cattle.³ Henry Evershed, another writer with boyhood memories of the Wealden district early in the nineteenth century, shared this view, knowing of farmers who, through the success of their herds, had been able to purchase the land they occupied and pass it on with their herds to their sons. These herds had later been dispersed.⁴ John Farncombe, the author of the Royal Agricultural Society's prize essay on the farming of Sussex, remembered the Wealden system of rearing Sussex calves and taking them to market as draught oxen as widespread at the turn of the century. But by 1850, when he wrote his essay, it had become a thing of the past.

If Farncombe is to be believed, the first fifty years of the nineteenth century saw a catastrophic decline in Sussex cattle breeding. The pure Sussex breed

¹ *Annals of Agriculture*, 11, 1789, p. 186.

² W. Marshall, *The Rural Economy of the Southern Counties*, I, 1798, p. 352.

³ W. Wood, *A Sussex Farmer*, 1938, p. 17.

⁴ *The Field*, LXXVIII, 1891, p. 286.

by 1850 was, in his opinion, "nearly extinct."¹ Another commentator on Weald farming, by his omissions, reinforced this view. The small farmers of the Weald, he claimed, generally kept two or three cross-bred animals—with some Sussex blood in them—largely for dairying purposes. He made no mention of large-scale rearing in the region.²

Yet the position around 1850 was almost certainly not as black as Farncombe portrayed it. The writer of the prize report on the farming of Kent, although conceding that insufficient attention was being paid to the breeding of Sussex cattle, found them to be predominant in the Kentish Weald. He was also aware of attempts to improve the breed and bring out qualities for which it was later to become famous.³ Farm sale advertisements in the local newspapers of the 1840's and 1850's do not support Farncombe's contention that pure Sussex herds were near to extinction. William Wood reconciled these seeming contradictions by differentiating the High Weald from the Low Weald: the breed had only declined in importance in the Low Weald; in the extreme east, the north, and north-east of the county in the High Weald area, it had not lost ground.⁴

In the first fifty years of the nineteenth century, then, it is evident that significant alterations took place in the farming systems practised in the Weald, though they probably differed in extent throughout this region. The Weald of Sussex covers a large area of the county and is very varied in composition, but, broadly speaking, it was in the nineteenth century an area of small farms and often impoverished farmers. It was a region that attracted the scorn of outside agricultural commentators almost without exception, who could contrast it effectively with the highly efficient farming of the South Downs. It had few areas of rich pasture and it was not ideally suited, as was the coastal plain region of West Sussex, to arable farming. But good quality corn, in particular, wheat, could be grown in the Weald, although the heavy clays of the Low Weald made the costs of production expensive. A mixed farming system was generally practised, but wheat was always considered to be the mainstay of the Low Weald farmer. The most charitable critics of the Weald farmers admired their courage in taking on Weald farms, and had to admit that at least they got some sort of living out of them, whereas improvers of the Alderman Mechi stamp quickly came to grief.⁵ The High Weald area of north and north-east Sussex presented a similarly depressing sight to nineteenth-century improvers. It differed from the Low Weald only in being less suited to corn growing, and in most of the High Weald parishes the cultivation of hops replaced wheat as the farmers' main source of cash.

During the Napoleonic Wars, high corn prices led to an increase in arable

¹ *Journal of the Royal Agricultural Society* [henceforth *J.R.A.S.E.*], XI, 1850, p. 82.

² S. Hawes, *J.R.A.S.E.*, 1858, p. 195. ³ G. Buckland, *J.R.A.S.E.*, 1845, p. 292.

⁴ Wood, *op. cit.*, p. 222. ⁵ *Journal of the Bath and West of England Society*, 1871, p. 30.

farming in the Weald, especially in the clay regions of the Low Weald, when much old pasture was ploughed up. This was undoubtedly the time when many of the old established herds of the Weald were dispersed.¹ In the High Weald, in Kent as well as in Sussex, this trend was less pronounced. The land was less suitable for arable cultivation: the soil was poorer, the terrain more heavily wooded than in the Low Weald. William Wood also suggested that the differing structure of landownership was important. In the High Weald region there existed several large landlords who could prevent excessive ploughing up of pasture on their estates. There were, indeed, some very large landowners, e.g. the De la Warrs, the Earl of Abergavenny, the Courthope family, in the High Weald who had very few equivalents in other parts of the Weald. In many Low Weald parishes, in fact, owner-occupiers were very common.²

In addition, the farmers of the High Weald, who cared for their hops above all else, had a greater need for good farmyard manure, which they used lavishly in the hop gardens, than the Low Weald wheat farmers. The rearing of cattle and fattening in stalls was an important part of their farming system.³ Cobbett, for one, was forcibly struck by the paradox that fine Sussex cattle of the High Weald had their origins in a region which he dismissed as being in a state of utter backwardness and impoverishment. "The forests of Sussex; these miserable tracts of heath and fern and bushes and sand called Ashdown Forest and St Leonard's Forest . . . these wretched tracts and the not much less wretched farms in their neighbourhood, breed the cattle we see fatting in Romney Marsh!" he was driven to exclaim.⁴

In short, the Sussex breed was preserved from the threat of extinction in one small part of the county, for the simple reason that farmers were prevented from snatching at the quick profits promised by wartime corn prices. What happened here in the years after the Napoleonic Wars is hard to discover. The post-war depression of prices did result in the selling of some High Weald herds,⁵ but since this region responded more to the fluctuations of hop prices, which differed from those of other prices, this trend may have been less pronounced than elsewhere. Although the Sussex breed survived through the Napoleonic Wars and the ensuing depression, it failed to sustain the interest and appreciation which it had enjoyed at the turn of the nineteenth century. Sussex farmers in the 1840's bitterly complained that farmers and agricultural journalists at national cattle shows treated the claims of the Sussex with indifference or amusement.

In the first fifty years of the nineteenth century, then, the Sussex breed had

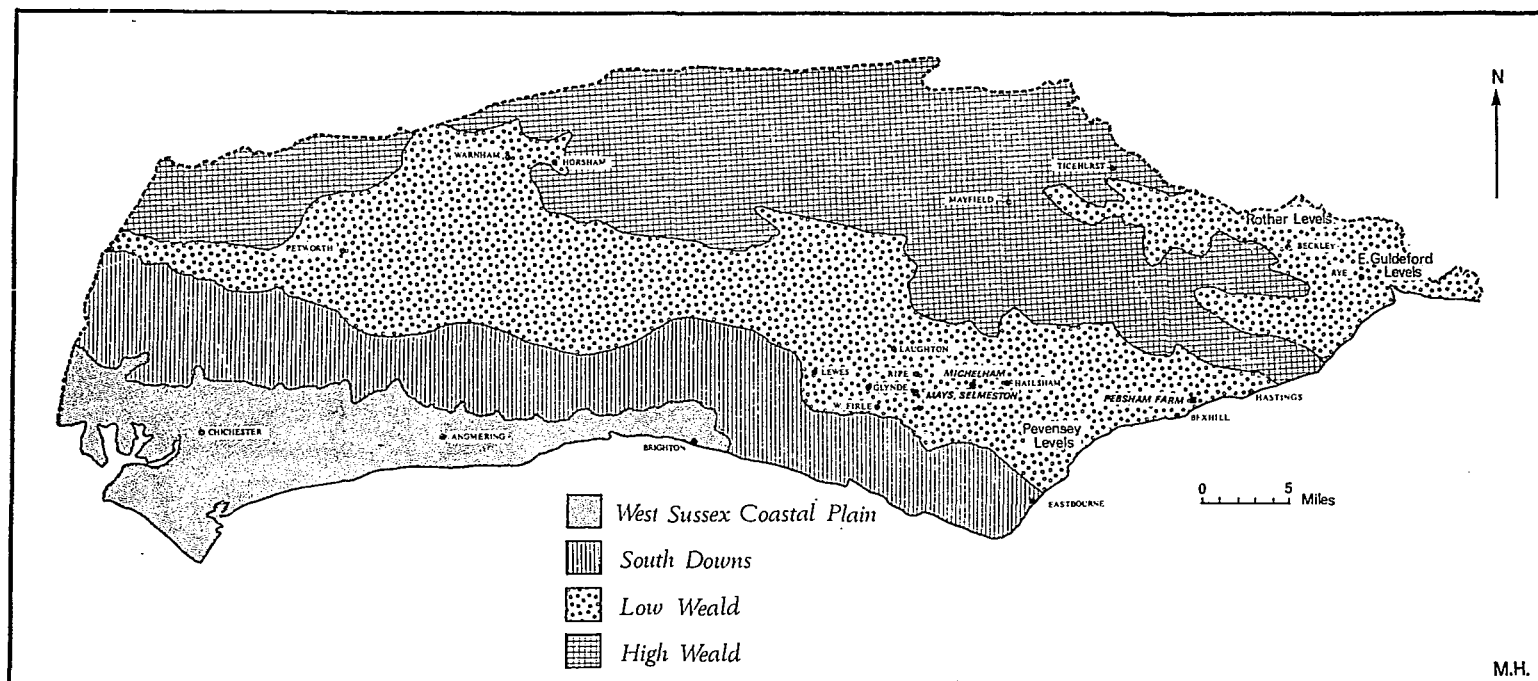
¹ H. Evershed, *The Field*, LXXX, 1892, p. 913; W. Wood, *Live Stock Journal*, xxx, 1889, pp. 169-70.

² Wood, *op. cit.*, 1938, p. 222.

³ W. Youatt, *Cattle*, 1834, p. 47; Buckland, *J.R.A.S.E.*, 1845, pp. 292-3.

⁴ W. Cobbett, *Rural Rides*, ed. G. D. H. and M. Cole, 1930, I, p. 220.

⁵ *Sussex Advertiser*, 19 Oct. 1840: speech of Samuel Selmes to Ticehurst Agricultural Association.



SUSSEX CATTLE BREEDING AND THE FARMING REGIONS OF THE COUNTY

suffered a decline in numbers and a decline in its national reputation as a beef producing animal. It was no longer classed alongside the Devons and the Herefords, which had in the same period maintained their standing and extended the area in which they were bred.¹ The Devons and the Herefords appear to have been supported by a more stable pastoral system than the Weald could provide for the Sussex breed.

The breeding of Southdown sheep in Sussex did not share a similar fate during the Napoleonic Wars. Expansion was uninterrupted, and the extension of Southdown sheep into numerous other counties continued to be rapid when Sussex cattle were shrinking in importance in the Weald. Downland was, of course, ploughed up for arable in the Napoleonic War era, but some of the new arable was employed to feed the sheep,² and no decline in numbers followed. The Downland farmers were, anyway, quicker to use artificial feed, which was not often seen in the Weald.

Livestock farming had always had its problems in the Weald. These centred on the difficulty of providing sufficient fodder all the year round. The loss of pasture during the Napoleonic Wars worsened the situation. Farncombe, in depicting the small Weald farmer relying, after his wheat or hops, on small scale dairying, had no doubt been near the truth, although he exaggerated the consequent decline in Sussex beef herds. Several farmers maintained that the free import of foreign cattle sanctioned in the early 1840's frightened many of the small Weald farmers, who still kept Sussex herds, and further encouraged a shift to dairy cattle.³ Since farmers were accustomed to ascribe so many evils to free trade legislation, it is impossible to judge whether this is correct. But an increasing shift of this nature appears to have taken place in the Weald in the first half of the nineteenth century, no doubt helped in certain areas by the expanding railway network.⁴ This growing interest in dairying created extra competition for the fodder supply of the Weald; and it was the custom of many High Weald farmers, faced by a fodder shortage in the summer months, to dispatch any Sussex cattle they possessed to the marshland around the coast, and so to concentrate their own resources on their dairy cattle.⁵ Many farmers, perhaps, in such circumstances dispensed with Sussex cattle altogether or went in for cross-bred beef and dairy stock.

During the winter months the Wealden farmers were also in the habit of keeping sheep which belonged to the Kent and Sussex marshland graziers and,

¹ J. Sinclair, *History of the Devon Breed*, 1893, pp. 62-3; J. Sinclair and J. Macdonald, *History of Hereford Cattle*, 1909, pp. 129-31; E. L. Jones, 'Economic Aspects of Breed Changes, 1780-1870', *Trans. Woolhope Nat. Field Club*, 38, 1964, p. 38.

² Young, *op. cit.*, 1813, p. 372.

³ *B.P.P.*, 1857, xiv, Qu. 1128-29; letter quoted in *Sussex Advertiser*, 6 Aug. 1872.

⁴ *Agricultural Gazette*, 3 Aug. 1872, p. 1053: Tunbridge Wells Farmers' Club discussion.

⁵ Youatt, *op. cit.*, pp. 46-7.

to a lesser extent, to the Southdown farmers. This must have been an expanding activity during the first half of the nineteenth century, and this further diversification of the livestock farming enterprises of the Weald farmer created even more competition for the inadequate fodder resources of the Weald.¹

Although the Sussex breed never became extinct—indeed, it was destined for a revival—its grip in this period, even in the High Weald, can never have been very strong. On the face of it, it is surprising that such a fine beef breed should ever have established itself in such an uncongenial environment. Not every Weald farmer, however, was a small farmer. There was a substantial minority of larger farmers in the region who probably owned the better ‘purer’ herds which survived the changes of this period. The Weald was never a district suited to the breeding or fattening of sheep: cattle were always the dominant livestock in its mixed farming system, however low its intensity.

The lack of outside interest in the breed did not deter the local breeders. There were many enterprising farmers who were determined to improve the Sussex beast and re-establish its reputation. Newspaper reports of local cattle shows reveal growing activity on their part from at least the early 1840's. In 1842, the local farming newspaper started to keep a list of herd pedigrees, and in 1855 a more formal Herd Book was begun. Price trends became more favourable to breeders and graziers, and the 1860's saw some laying down of land to pasture once more in parts of the Weald. The increasing use of artificial feed which many observers noted in the Weald around this time was a further aid to the expansion of livestock farming.²

The decline in the use of Sussex cattle as draught oxen also gave the improving breeders a chance to perfect the breed. The Sussex cattle of the late eighteenth and early nineteenth centuries had been reared for a dual purpose. At about three years of age they were put under the yoke and, after three or four years' work on the farm, they were sold off to the graziers to be fattened. This system was on the decline in the nineteenth century as horses were increasingly substituted for oxen for purposes of farm labour. But in Sussex this process appears to have been much slower than in other parts of the country, and probably helps to explain why graziers considered the Sussex breed to be inferior to its two rivals, the Devons and the Herefords, during the first half of this century. In the 1840's, when early maturing Shorthorns were the fashion at national cattle shows, Sussex cattle were, not surprisingly, derided. This prejudice towards cattle that were employed as beasts of burden was often shared by local landowners, and possibly is reflected in the comments of John Farncombe, a local land agent: it was the tenant farmers alone who clung obstinately

¹ J. Farncombe, *J.R.A.S.E.*, xi, 1850, p. 82.

² *Land Utilisation Survey—Sussex*, 1942, pp. 498–9; H. Henderson, 'Arable in the Adur Basin, 1780–1931', *Jnl of the Ministry of Agriculture*, Oct. 1936, p. 630; *Agricultural Gazette*, 1863, p. 1162.

to their native breed. Their faith in the breed was well placed. As the use of Sussex draught oxen declined in the 1850's and 1860's, breeders were able to direct attention to removing features which had been useful when the ox team had been the predominant consideration, basically, that is, the cattle's heaviness of bone and its overdeveloped shoulders,¹ and also to produce a beast with a remarkable capacity for early maturity.

It was the activity of such improvers which brought the Sussex breed back once more into national prominence in the 1860's and 1870's. In 1875, Joseph Darby wrote that "until very recently while the Herefords and Devons had been steadily improving, Sussex cattle were admitted to be no better than they had been generations before." But now they were "as near perfect as possible."² In 1870, a local newspaper claimed that "the present improvement . . . is universally admitted by the public to be unexampled in the history of breeding."³ Reports of the Smithfield and other cattle shows of this time in the national agricultural press voiced remarkable enthusiasm for the merits of a breed which had emerged suddenly from obscurity. One Sussex farmer, who exhibited his cattle at Smithfield in the 1860's and attracted much favourable comment and interest, related how he was put in a state of confusion when his admiring fellow farmers insisted, in spite of repeated contradiction, that his cattle must be Devons and not Sussex. Which was the superior beef producing breed was always much debated, but at Smithfield shows from the 1870's, Sussex cattle frequently proved themselves superior to their two rival breeds in weight for age, and tests carried out in Chicago produced similar results.

The Sussex cattle which were now attracting admiration were fine beef producing animals, much sought after by butchers in the quality markets of the Sussex coastal towns. According to Henry Evershed, they were "second to none for early maturity." Instead of being fattened at around seven years, as under the old system, they were now often ready for the butcher at two years and, in exceptional cases, at eighteen months. In addition to this they were very hardy, economical animals, thriving on the poor pastures of the Weald.⁴ Sussex cattle were often criticized for being useless in the dairy, but in this respect they were no different from the Devons and the Herefords. The Sussex were always beef animals and were bred with this in mind. Only later in the century did some breeders come to feel concerned about this milking deficiency.

The re-emergence of the Sussex breed on the national scene from the 1870's was startling in its impact, to outsiders at least, and suggests remarkable activity on the part of Sussex breeders in the period, 1840-70. The farmer who was

¹ *The Field*, 30 March 1872, p. 281; W. Wood, *Live Stock Journal*, xxix, 1889, p. 159.

² 'The Claims and Pretensions of Sussex Cattle', *Jnl of the Bath and West of England Soc.*, 1875, p. 113.

³ Quoted in *The Farmer's Magazine*, 1870, pp. 126-7.

⁴ *The Field*, lxxx, 1892, pp. 913, 984-5.

most concerned in, and most frequently associated with, the improvement of Sussex stock was Edward Cane of Berwick. Berwick is a small parish in East Sussex on the edges of the Weald and the Downs and is situated near a tract of rich marshland otherwise uncommon in the Weald itself. John Ellman, one of the eighteenth-century improvers of Sussex cattle, had farmed nearby, as had several other less prominent breeders. Cane himself came from a prosperous yeoman family which had farmed close by at Ripe for several centuries. In 1861, he occupied just short of 3,000 acres, which made him one of the largest farmers in the county. At one time, Cane held seven separate large farms in the neighbourhood of Berwick.¹ Part of the land he occupied was on the South Downs, and he was a distinguished breeder of sheep as well as of cattle. He was the most active of breeders in attending local sales and buying up good Sussex stock to add to his herd. He was also in the 1850's and 1860's the farmer who did most to encourage other farmers to take more interest in the native breed and to exhibit their cattle outside the county. At Smithfield, he did much to bring the breed before the public eye.²

Second to Cane was Alfred Heasman of Angmering in West Sussex, who started the Herd Book in 1855, and who bought cattle from Cane's stock when Cane was forced to give up breeding. Like Cane, Heasman was not a Weald farmer. He farmed about 700 acres on the West Sussex coastal plain and, again like Cane, he was a well-known breeder of Southdown sheep.³

It is important to note that the two men most commonly associated with the improvements of this period were both non-Wealden farmers known for their sheep as well as their cattle breeding. Similarly, in the late eighteenth century, many of the improvers of Sussex cattle had come from the sheep and corn farms of the South Downs. Plainly, large arable farmers, such as Cane and Heasman, were much better situated than the average Weald farmer to buy Sussex stock which came up for sale. But there was probably more to it than this. The South Down farmers were "the aristocrats of the farming community"⁴ in Sussex, men of capital who took the lead in farming practice and in farming politics. Improvements were to be expected to come from them rather than the "smock-frock" farmers of the Weald. Sussex ox teams had long been a feature of the Downland farms. Often they were purchased from the farmers of the Weald and sometimes they were bred by the Downland farmers themselves. Many South Down farmers who had marshland attached to their farms fattened Sussex oxen which had served their term in the Wealden plough team. The Southdown sheep farmer was involved in the production of quality mutton for the local fashionable resorts and so could easily see a good

¹ *Sussex Agricultural Express*, 13 April 1878: obituary notice of E. Cane.

² *Journal of the Bath and West of England Society*, 1875, p. 117.

³ *Ibid.*, 1871, p. 38.

⁴ Wood, *op. cit.*, 1938, p. 71.

market for the beef producing local breed, if refinements could be made. Throughout the nineteenth century, Sussex imported large numbers of cattle for fattening purposes, Devon, Welsh, and Irish stores in particular, but there were frequent complaints from the graziers that the cattle they received were generally of a very poor quality and were not really suited to meet the demand from the high quality local markets. If the local breed could be developed as a prime beef producer, equivalent to the Southdown sheep, there would be a ready demand for it from both butchers and graziers.¹

Although several Downland farmers, particularly in the Berwick area, had played a prominent part in the improvements, they were a minority among the breeders as a whole. The breeding of Sussex stock has always been associated with the Weald. Registrations in the Herd Books never failed to show the overwhelming predominance of Wealden herds, and from the 1860's the number of Low Weald herds, which had suffered a setback earlier in the century, increased steadily at the expense of the number of High Weald herds. Herds were being registered even in the West Sussex Weald in the breed's former strongholds around Petworth and Horsham.

The Weald farmers did not take the initiative in the mid-century improvements, but they did make an important contribution to them. It was to the breeders of the Weald that the improvers of the Berwick area and elsewhere turned in order to enrich their herds. The parishes of Mayfield and Ticehurst in the High Weald were particularly noted for their Sussex herds, which had probably been passed down for several generations in spite of the upheavals of the early nineteenth century. One of the few local landowners to support unflaggingly the native breed had in the 1840's encouraged the Berwick improvers to look in this direction, and he was later to claim that the mid-century improvements were a consequence of his advice being taken.²

However, the more sought after herds, which appear again and again in the early pedigrees of the Herd Books, were generally to be found not in the heart of the High Weald but in parishes which lay between the High Weald and the rich marshlands of Pevensey and the extreme East Sussex border. In the latter marshland area, Samuel Selmes of Beckley, a grazier who occupied 5,000 acres, and who retired from farming in 1848, had possessed one of the most admired herds in the county.³ Closer to the Berwick area, Sussex cattle emanating from Mays farm, Selmeston, from Mitchelham in Hailsham, and from Pebsham farm, Bexhill, were especially coveted.⁴ The owners of these herds were Weald farmers, but they were very exceptional Weald farmers who

¹ *Agricultural Gazette*, 28 March, 1874, p. 388; W. Wood, *Live Stock Journal*, xxx, 1889, pp. 169-70.

² *Farmer's Magazine*, 1870, pp. 126-7.

³ *J.R.A.S.E.*, 1908, p. 292.

⁴ *Sussex Herd Book*, 1, 1879; *Sussex Agricultural Express*, July supplement, 1852.

occupied large farms and grazed cattle on the rich marshlands of Pevensey and, to a lesser extent, of Laughton. The proximity of these fine grazing areas had probably helped to retain the purity of these particular herds, whereas further inland the tendency of the small farmers to go in for a mixed beef and dairy enterprise had resulted in a greater prevalence of cross-bred animals.

In fact, it had been suggested early in the nineteenth century that there were two distinct kinds of Sussex cattle, one, even at that time, much more refined and improved than the other. Joseph Darby claimed that the more refined strain had always been found in the Pevensey area and was that predominantly used by the light land Downland farmers as oxen and then beef producers. A coarser strain was in use further inland in the Weald where its greater muscular powers were appreciated in tilling the heavy Wealden soils.¹ This suggests that considerable improvement had taken place in Sussex cattle breeding in the eighteenth century, at least in the Pevensey area. Furthermore, the Mitchelham and Mays blood, which was so sought after by mid-century breeders, is said to have had its origins in improvements made by two eighteenth-century breeders, Auger and Allfrey, who farmed in the Eastbourne area close to the Pevensey marshlands.² There is, therefore, in the Pevensey area, evidence of continuity between the late eighteenth-century improvements and the more striking improvements of the nineteenth century. Although the breeding of Sussex cattle suffered a setback in the early nineteenth century, the benefit of early improvements does not appear to have been lost. In the decades when the Sussex breed had such a low national reputation, pure Sussex herds were conserved by the farmers of the High Weald and some early-improved Sussex herds were kept intact by farmers in the Pevensey area. It was on this foundation that Cane and other mid-century improvers built. They were able to make further and crucial advances largely because Sussex oxen were no longer needed for the plough team. The breed's capacity for producing prime beef and for reaching remarkably early maturity could for the first time be readily demonstrated.

The rapid improvement of the Sussex breed and its revival in the Weald was, however, soon checked in the depression years of the late nineteenth century. Although the steep fall in corn prices and, a little later, of hop prices might, theoretically, have further encouraged the farmers of the Weald to shift the emphasis of their farming system more towards cattle breeding and fattening, their long established dependence on these crops left them badly exposed. The shortage of capital and, in some years, of ready cash to pay rents led, according to William Wood, to another wave of selling of Sussex herds.³ The decline in

¹ Young, *op. cit.*, 1813, p. 476; *Jnl of the Bath and West of England Society*, 1875, p. 116.

² *Sussex Agricultural Express*, July supplement, 1852.

³ W. Wood, *Live Stock Journal*, xxx, 1889, pp. 169-70.

beef and store stock prices in the 1880's brought to an end the favourable price conditions that livestock farmers had enjoyed for at least two decades. The only reliable standby for Weald farmers in such circumstances was milk production, and the agricultural statistics for the county show that, where transport facilities were good, this was an activity of growing importance. To a small extent this kept up a demand for Sussex bulls to cross with cows of other breeds and so to produce good dairy and beef animals,¹ but it did not halt a decline in the number of Weald herds. In 1894, one commentator expressed his surprise that the Weald could supply only a tenth of the local demand for beef, in spite of the butchers' preference for Sussex beasts.² The Herd Books of the 1890's indicate a shift in the location of Sussex herds towards and into Kent, a retreat of the breed to its old home in the High Weald region. In 1908, a Sussex cattle breeder from Kent lamented the decline in the number of large herds which had existed in the 1860's and 1870's, just as William Wood had lamented the loss of the herds which had existed before the Napoleonic Wars.³ Sussex cattle, of course, maintained their improved characteristics but they had failed to recapture their old predominance in the Weald as had once seemed likely.

The sale of Sussex herds in the depression years reinforced a trend which had begun during the Napoleonic Wars: a growing concentration of herds in the hands of farmers who both bred and fattened their cattle. Cane and Heasman had been farmers of this type, and so too were many of the other improvers of the Berwick area, whose farms usually had marshland attached to them. Herds were more and more falling into the hands of men of capital who had the facilities to combine fattening with rearing. As both breeders' and graziers' margins fell in the late nineteenth century, they had every incentive to follow this course. There were numerous complaints throughout the century from graziers that Sussex cattle were very hard to come by; this was, in part, caused by the predominance of the breeder-graziers which meant that less cattle were available for sale.⁴

Although farmers in the Weald operated a farming system which enabled them to shift their emphasis from corn to livestock and vice versa, they paid a price for this. It is, of course, much more difficult for a region to move from a corn growing to a livestock system. In 1889, William Wood claimed that the Weald was crying out for large-scale conversion to pasture and stock breeding, but had to concede that the farmers of the Weald, suffering from the collapse of their arable based system, were the last men who could furnish the capital to lay down land to pasture properly and build up new Sussex herds.⁵

¹ W. F. Ingram, *Victoria County History of Sussex*, II, 1907, p. 276.

² *Live Stock Journal*, XXXIX, 1894, p. 684.

³ *J.R.A.S.E.*, 1908, p. 119.

⁴ W. Wood, *Live Stock Journal*, XXX, pp. 169-70; *Sussex Advertiser*, 8 Dec. 1863; *Agricultural Gazette*, 9 Dec. 1878, p. 535.

⁵ W. Wood, *Live Stock Journal*, XXX, pp. 169-70.

A further obstacle prevented such a change in direction. The system of tenant right valuation in Sussex, or at least in the Weald, was never much admired. The payment which an incoming tenant was obliged to make, even for small Weald farms, was usually very heavy. Tenants could borrow capital for this purpose, but this only made the shortage of capital more acute. What was particularly inconvenient was that the customary payments for tenant right were mainly concerned with arable cultivation. In short, a farmer who altered the emphasis of his farming from corn to livestock faced the possibility that when he left his farm he would receive considerably less on the tenant right valuation than he paid when he entered it. Complaints about this inconvenience were not uncommon.¹

The Sussex breed appears to have received a blow during the Napoleonic Wars from which it never fully recovered. In the first half of the century it had been eclipsed by the Devons and the Herefords. Although its improvers had put it on an equal footing with these two rival breeds, it had never managed to catch up with them in national importance as breeding stock. Sussex cattle, being confined to a small corner of the country and being close to that part of the country dominated by the Devon breed, had only limited opportunities for expansion. On the other hand, they had the strong advantage of being the native breed, and although a few farmers here and there preferred to breed Herefords and, later, Aberdeen Angus cattle, they were never more than a few. In the extensive locality of the Weald, the Sussex breed faced little competition and was very favourably placed with regard to highly priced markets. Its failure to assert itself in an area where it had been widespread in the late eighteenth century illustrates well the havoc which fluctuating price movements could cause to livestock farming.

¹ *Agricultural Gazette*, 1863, p. 1162; *ibid.*, 1867, p. 190

Where was the 'Great Agricultural Depression'? A Geography of Agricultural Bankruptcy in Late Victorian England and Wales

By P. J. PERRY

MOST important questions in agricultural history are also questions of agricultural geography; studies of agricultural change must commonly be concerned with spatial as well as temporal changes and relationships. So much is this the case that an historical geographer working primarily in this field might go so far as to suggest that the essence of historical geography is the concurrent application of the methods of history and geography to examine topics which cannot be studied adequately by either discipline alone.

The agricultural depression of the last quarter of the nineteenth century has been a rather neglected topic in British agricultural history. Since Lord Ernle's classic history of English farming,¹ itself a child of the depression and disaster which he witnessed in the early 1880's, the only detailed treatments of the topic have been by Fletcher, Thompson, and Coppock. Each has produced a regional study, on Lancashire, Wiltshire, and the Chilterns respectively, and a more general but by no means comprehensive treatment.² Orwin and Whetham provide a more general discussion of the depression in their book on British agriculture from 1846 to 1914.³ To some extent the depression and its scholarship have become casualties of the substantially successful attempts of two generations of British historians to discredit the idea of a widespread and general depression during the last quarter of the nineteenth century.⁴ The value

¹ Lord Ernle (R. E. Prothero), *English Farming—Past and Present*, 6th edn, Chicago, 1961 (with introduction by G. E. Fussell and O. R. McGregor).

² T. W. Fletcher, 'Lancashire Livestock Farming During the Great Depression', *Agric. Hist. Rev.*, 9(1), 1961, pp. 17-42; *Idem*, 'The Great Depression of English Agriculture, 1873-1896', *Econ. Hist. Rev.*, 2nd ser., 13(3), 1960-1, pp. 417-32; F. M. L. Thompson, 'Agriculture since 1870', *Victoria County History of Wiltshire*, IV, 1959, pp. 92-114; *Idem*, *English Landed Society in the Nineteenth Century*, London, 1963; J. T. Coppock, 'Agricultural changes in the Chilterns, 1875-1900', *Agric. Hist. Rev.*, 9(1), 1961, pp. 1-16; *Idem*, 'The Changing Arable in England and Wales, 1870-1956', *Tidschrift voor Economische en Sociale Geografie*, 50, 1959, pp. 121-30.

³ C. S. Orwin and E. H. Whetham, *History of British Agriculture, 1846-1914*, London, 1964. (Two chapters relate directly, two more marginally, to the depression.)

⁴ *Inter alia*, see S. B. Saul, *The Myth of the Great Depression, 1873-1896*, London, 1969; H. L.

and importance of their work is hardly to be disputed; it does not, however, destroy the validity of the view that British farming passed through a period of crisis and change in the last quarter of the nineteenth century.

The object of this paper is not, however, to look at every aspect of the depression in its geographical and historical context. Rather it is to use one comprehensive source to examine the extent of the depression in the early 1880's and early 1890's.

Under the Bankruptcy Act of 1869¹ notice of bankruptcy in the strict sense, or of the much employed alternative procedure of 'liquidation by arrangement', had to appear in the *London Gazette*.² The occupation of the bankrupt is always given, and his residence; it is therefore possible to map agricultural failures and the geography of depression using this source. The 1869 Act allowed no one to go bankrupt on his own petition, hence the importance of the alternative procedure mentioned above. Unfortunately this 'liquidation by arrangement or composition with creditors', as it was usually termed in the *Gazette*, lay largely outside the control of the courts set up by the act; it was easily entered into and there is no doubt that it was often abused as far as creditors were concerned. The Bankruptcy Act of 1883³ remedied these defects and set up from 1885 the procedure which has, in broad outline, survived to the present day. The first stage in bankruptcy under the 1883 legislation was the 'receiving order'; moreover, bankruptcy on the bankrupt's own petition became possible and in fact common. It seems likely that this stricter legislation played a part in reducing the number of agricultural bankruptcies, but it should be noted that the mid and late 1880's also saw some easing of the depression. A third factor must also be remembered in this context; from the early 1880's people became aware that the depression was no ephemeral one, caused by a succession of bad seasons, but likely to be long-lasting. In these circumstances most, albeit not all, landlords were prepared to make considerable concessions to keep tenants on the land.⁴

The ease of liquidation or composition under the 1869 act has already been mentioned. Just over one hundred and fifty farmers did so in 1871, almost

Beales, '“The Great Depression” in Industry and Trade', *Econ. Hist. Rev.*, 1st ser., 5(1), 1934, pp. 65-75; C. Wilson, 'Economy and Society in late Victorian Britain', *Econ. Hist. Rev.*, 2nd ser., 18(1), 1965, pp. 183-98.

¹ 32 & 33 Vict. c. 11. (The Bankruptcy Act 1869.) The law of bankruptcy in general and the failings of the 1869 legislation in particular are treated in the article on bankruptcy in *Encyclopaedia Britannica*, 11th edn, 1910-11, III, pp. 321-32.

² The set used was that of the General Assembly Library, Wellington, N.Z. A few copies are missing in most years. The equivalent Scottish publication, the *Edinburgh Gazette*, is not available in New Zealand; Scotland has therefore necessarily been excluded from consideration.

³ 46 & 47 Vict., c. 52. (The Bankruptcy Act 1883.)

⁴ The evidence heard by the Royal Commissions of 1880-2 and 1893-5 contains an abundance of references to this phenomenon, as also the Assistant Commissioners' reports and the writings of contemporary agricultural journalists, for example, Richard Jefferies.

seven hundred in 1881. This almost five-fold increase can be accounted for primarily in terms of the onset of the depression, but an awareness among farmers and solicitors that in some cases the provisions of the act could be operated to their advantage was probably an important secondary factor in this increase. By comparison most of the farmer's creditors were weakly placed; the act put the small creditor in a poor position, and most creditors were in no position to have the farmer adjudicated bankrupt (in the strict sense) because of the prior claims of the landowner under the law of distress.¹ Farms became hard to let quite early in the depression; most landlords were therefore unwilling to bankrupt or see bankrupted tenants whom they knew to be almost irreplaceable.

Does all this invalidate the source material in terms of the historical geography of the depression? The almost five-fold increase in gazette notices under the 1869 act between 1871 and 1881 suggests not, although in the light of the discussion above it may not be inappropriate to point out that it is possible to argue either a more than five-fold or less than five-fold intensification of real agricultural failure during this period according to which of the possible complicating factors is given most weight. The 1869 act certainly favoured the liquidating or compounding creditor; it seems doubtful whether, save in exceptional cases, it encouraged farmers to liquidate or compound unless they were in difficulties. Farming was the only skill most farmers possessed; leaving the land meant leaving house and home, and at a time of depression the chances of extracting their diminished capital by giving up farming were uncertain in both legal and market terms. In looking at the geography of this phenomenon, then, we are looking at a geography of the agricultural depression, a reliable geography in the general if not in the most detailed sense. (The 1883 legislation, it should be noted, raises no such problems of an interpretative kind.)

At a more mundane level the *London Gazette* material is tedious and bulky to use, that under the 1869 act more so than that under the 1884 legislation, which latter is printed in a convenient tabular form. Under the 1869 procedure three or four meetings of creditors might take place over several months; there is the resultant problem of ensuring that each bankruptcy is considered only once.² A more serious problem is that throughout the depression a large number

¹ This matter was raised and discussed not infrequently before the Royal Commissions of 1880-2 and 1893-5; some witnesses were inclined to think it favourable to the farmer, e.g. W. C. Little, a Cambridgeshire tenant farmer and assistant commissioner (question 46990, 27 May 1881), others the reverse, e.g. S. Rowlandson, a Durham tenant farmer and landowner (question 35651, 25 March 1881). (Questions and dates, where referred to in the footnotes, refer to the minutes of evidence of the appropriate Royal Commission. These were printed as British Parliamentary Papers (Blue Books), 1881, xv; 1881, xvii; 1882, xiv; 1894, xvi; and 1896, xvii.)

² A related problem is the occasional instance where one failure is followed by those of several possible relatives in the locality or district. These must, of course, be regarded as *bona fide* failures

of those farmers who failed also had non-agricultural occupations which might well have been the main cause of their difficulties. This group, commonly including innkeepers, butchers, and carriers for example, have been excluded from consideration; but where farming was associated with another activity closely connected with agriculture, milling, corn-dealing, and agricultural contracting, for example, the bankruptcy in question forms part of the materials of this study, together with the farmers, graziers, and dairymen. This classification is arbitrary and subjective but necessary; when it is made there remain a large number of failures for consideration. Finally, because the source is so bulky, extraction and mapping the data so tedious, this study focuses on three periods, 1871-3 as pre-depression datum; 1881-3 the latter part of the first period of intense depression; and 1891-3 the earlier part of the second phase of intense depression.

The source material allows two maps to be constructed for each of the three-year periods; the location of individual failures can be shown and a value derived for each county relating the number of failures to the number of farmers and graziers recorded at the census, the first year in each of the three-year periods being a census year. The early 1870's were the Indian Summer of 'high farming', the last years of the nineteenth century in which such methods paid well, to the extent of lively competition for farms.¹ In the most failure-prone county in the early 1870's, Essex, only one in five hundred farmers failed each year; in South Wales, Lancashire, and Devon only one in five thousand failed. The overall pattern at this period is of a higher level of failure in south-eastern England than northward and westward. The ten counties where the annual average of failures exceeded 0.16 per cent (MAP I) were all in south-eastern England, Worcestershire alone excepted.

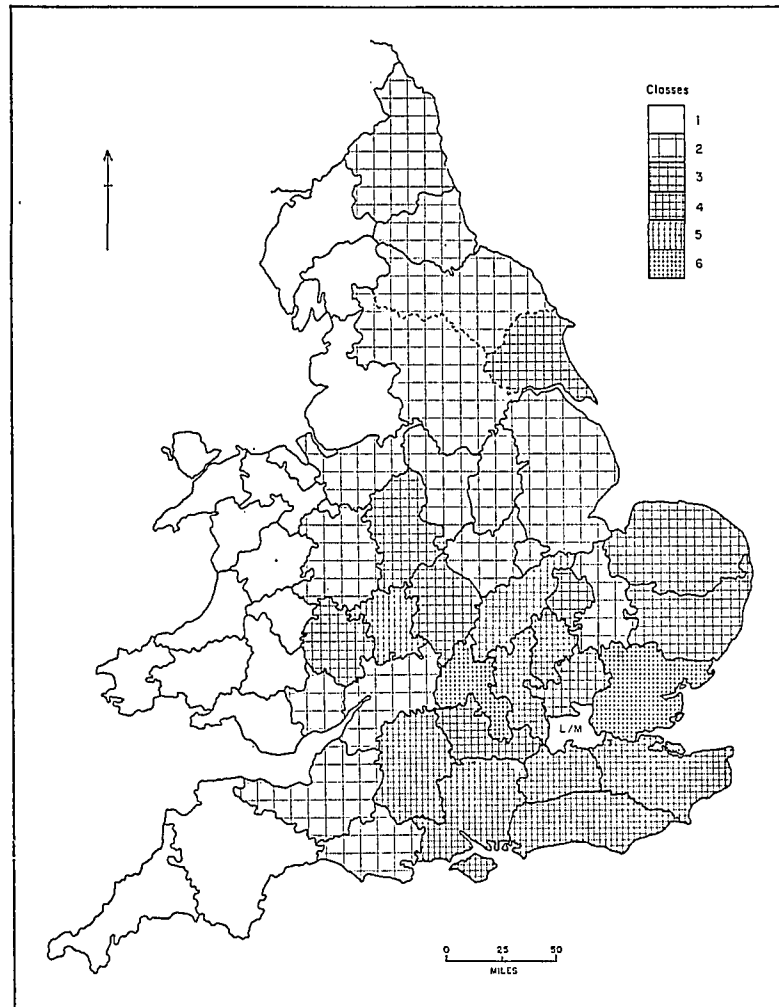
How is this regional concentration to be explained? Contemporary commentators would perhaps have criticized the easy-going outlook and modest energy of the south-eastern farmer and his poorly paid labourer in comparison with those of the north and west.² The economic historians of the 1950's and 1960's would probably point to the declining profitability of grain crops in comparison with livestock through the middle decades of the nineteenth century as likely more seriously to affect southern and eastern England.³ The south-east was also remote from the best urban industrial markets. The higher but the phenomenon suggests some degree of financial interconnection, to the extent where one failure might have wide implications.

¹ See, for example, William Sturge, president of the Institute of Surveyors, questions 3754-5, 11 March 1880; J. Dunn, a Yorkshire tenant farmer, question 33897, 18 March 1881.

² For example, Richard Jefferies, *Hodge and his Masters*, London, 1880 (and subsequent editions). This point of view is also strongly advanced by E. H. Hunt, 'Labour Productivity in British Agriculture, 1850-1914', *Econ. Hist. Rev.*, 2nd ser., 29(2), 1967, pp. 280-92.

³ For example, E. L. Jones, 'The Changing Basis of English Agricultural Prosperity, 1853-1873', *Agric. Hist. Rev.*, 10(2), 1962, pp. 102-19.

proportion of small farmers in the north and west may also have been significant. The early 1870's saw rents reach their highest point in many areas, and for this and other reasons established tenants decided in some cases to quit;¹ to

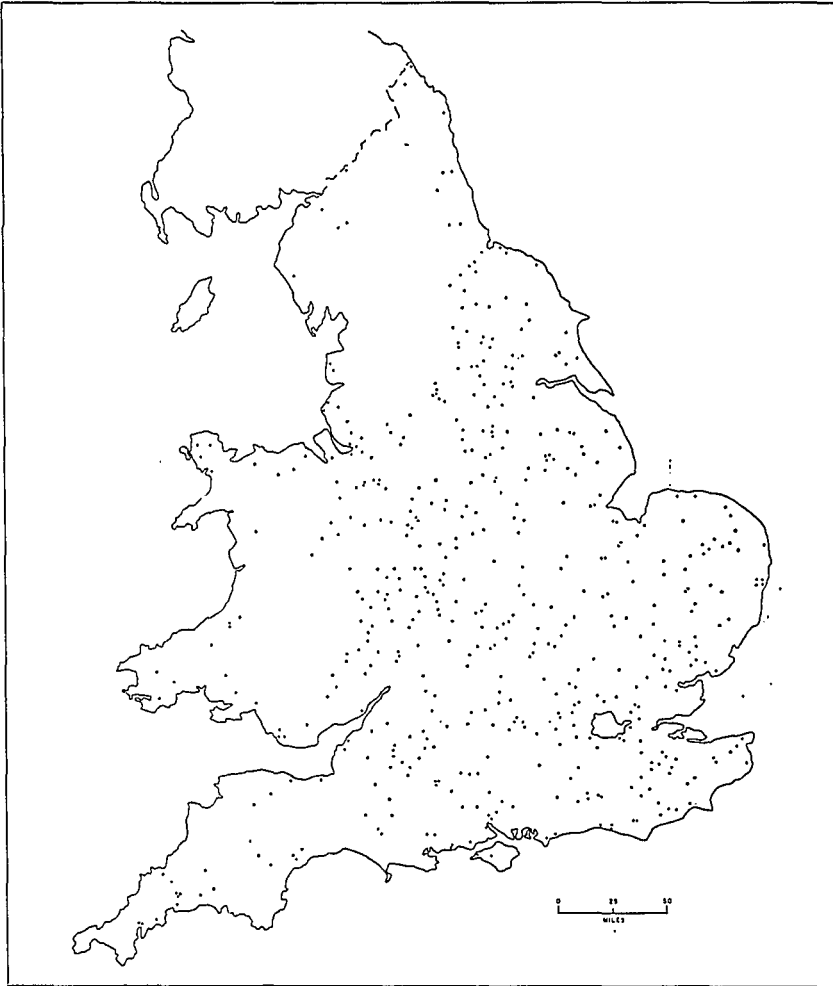


MAP I

Agricultural Failure (assignments and bankruptcies, annual average by counties), 1871-3, as a percentage of the farming population in 1871: (1) less than 0.04 per cent; (2) 0.04 per cent to less than 0.08 per cent; (3) 0.08 per cent to less than 0.12 per cent; (4) 0.12 per cent to less than 0.16 per cent; (5) 0.16 per cent to less than 0.20 per cent; (6) more than 0.20 per cent; L/M, London and Middlesex.

¹ This phenomenon of the early 1870's is discussed by F. M. L. Thompson, 'The Land Market in the Nineteenth Century', *Oxford Economic Papers*, new ser., 9, 1957, pp. 285-308; and *Idem*, 'Agriculture since 1870', *Victoria County History of Wiltshire*, IV, 1959, pp. 92-114; also J. Oxley Parker (ed.), *The Oxley Parker Papers*, Colchester, 1964, pp. 128-34, with reference to Essex. The

suggest that this may relate to the higher level of failure in the south-east, an area of large estates in close proximity to the expensive and fashionable delights of the capital, is speculation, but not unduly so. These are in fact hypotheses



MAP II

Agricultural Failure (assignments and bankruptcies), 1871-3.

which await rigorous testing in the event of adequate sources being available.

The map of individual failures (MAP II) provides a more detailed but less objective view of the early 1870's. It can take no account of variations in the number and size of farms and there is reason, therefore, to believe that in certain areas, Yorkshire and the west Midlands, for example, the apparent frequency of failure is primarily a reflection of a more dense agricultural population. A high level of rents in the early 1870's was also frequently mentioned in evidence before the Royal Commission.

ulation of small farmers. Nevertheless the general impression is one which confirms that given by MAP I. More particularly the relative absence of failure in the grazing counties of the east Midlands, on the Jurassic limestone from Dorset to Lincolnshire, on the chalk, and on the lighter lands of counties where failure was relatively common, in Essex and Kent, for example, is apparent. The importance of the physical environment in this context is evident before the onset of depression.

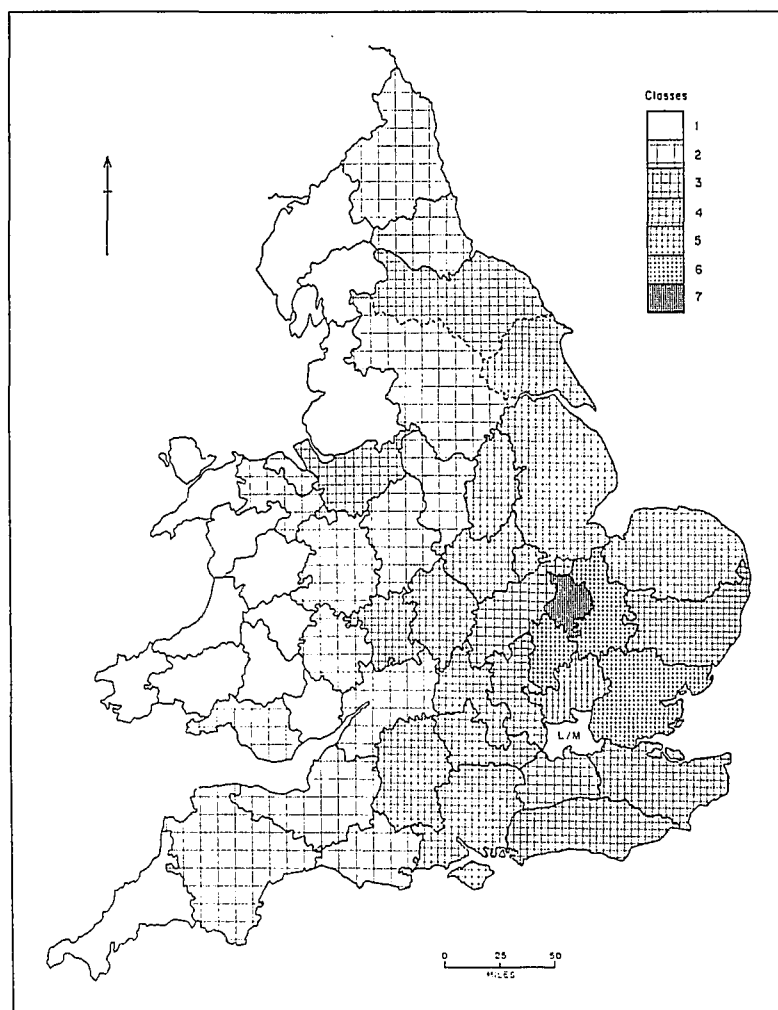
By the early 1880's agricultural prosperity had ended, albeit temporarily in the opinion of most contemporary landowners and farmers. The heartland of the early depression (MAP III) was Huntingdonshire where, on average, one farmer in one hundred and fifty failed each year; locally (as MAP IV suggests) the level may have approached one in say twenty or thirty. In East Anglia as a whole, Norfolk marginally excepted, one farmer in two hundred and fifty failed annually. The area where the annual average of failures exceeded 0.30 per cent extended from Hampshire in the south, north-eastward to the East Riding, with only Northamptonshire and marginally Surrey remaining, to some degree, islands of prosperity. The most obvious explanation of the Northamptonshire anomaly is its concentration on grazing and fattening, but this raises the problem why Leicestershire and Rutland, adjacent counties of similar reputation, were so differently affected. At the other extreme, failure remained rare in Wales and north-western England, for the most part below the 0.10 per cent level. This confirms recent work on the depression which has stressed that essentially, and especially in its early phases, arable agriculture on 'high farming' lines was most affected,¹ but if so why not Northumberland with its tradition of expertise in this context? The relatively high level of failure in Cheshire by comparison with all but its eastern neighbours is also of interest, suggesting that livestock rearers had the edge on dairy farmers at this stage of the depression.

The map of individual failures (MAP IV) for the early 1880's makes apparent the concentrated effects of the depression on the heavy land, and thus explains, at least in part, why some arable counties were not intensely depressed. Norfolk, Lincolnshire, and the East Riding are good examples, and within them western Norfolk contrasts sharply with the centre and east, the Lincolnshire Wolds with the Fens and Trent Valley, the Yorkshire Wolds with Holderness. That a series of unusually cold and wet years exacerbated the situation on the heavy lands during this period must also be remembered, a climatic misfortune much more marked in the south and east than the north and west.² The deficiencies of such a dot map must, however, also be considered; the large

¹ C. S. Orwin and E. H. Whetham, *op. cit.*

² The assistant commissioner for northern England to the Royal Commission of 1880-2 was able to report that in Cumberland and Westmorland only the autumn of 1879 and spring of 1880 had been unfavourable; Cameron of Lochiel, M.P., could claim that the seasons had not been bad for sheep in the Highlands (question 43444, 12 May 1881).

number of dots in Cheshire, east Lancashire, and the West Riding more probably reflects the presence of a large number of small farmers rather than extremely intense depression.

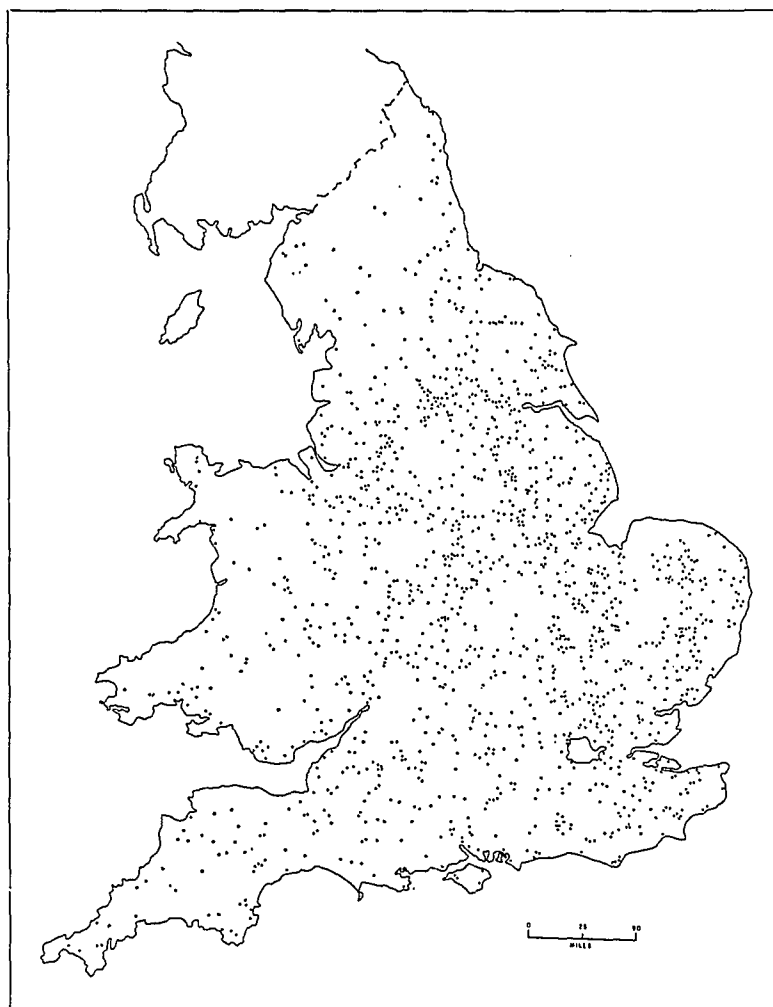


MAP III

Agricultural Failure (assignments and bankruptcies, annual average by counties), 1881-3, as a percentage of the farming population in 1881: (1) less than 0.1 per cent; (2) 0.1 per cent to less than 0.2 per cent; (3) 0.2 per cent to less than 0.3 per cent; (4) 0.3 per cent to less than 0.4 per cent; (5) 0.4 per cent to less than 0.5 per cent; (6) 0.5 per cent to less than 0.6 per cent; (7) more than 0.6 per cent; L/M, London and Middlesex.

By the early 1890's the number of agricultural failures had been considerably reduced, a consequence of the legislation of 1883 and an awareness that the depression and its causes were more than ephemeral. The depression (MAP V)

remained most intense in the south-east, Kent, Suffolk, and Essex in particular, the degree of failure diminishing northward and westward. The most interesting anomaly is the comparative absence of depression in those counties

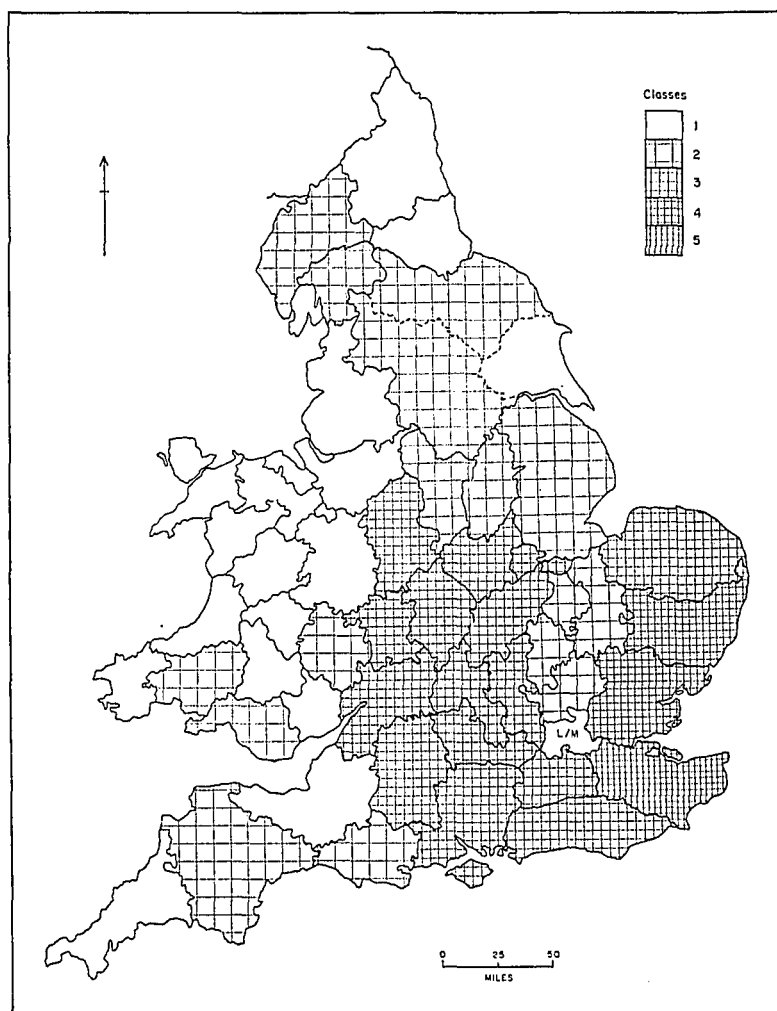


MAP IV

Agricultural Failure (assignments and bankruptcies), 1881-3.

extending from London to the Wash, including those most affected in the early 1880's. The intensity of the earlier depression in this area, proximity to London, and opportunities for the development of market gardening may all have contributed to the more favourable situation of the early 1890's. Most authorities have suggested that depression became more widespread and general in its later phases; it should then be noted that in both the early 1890's and the early 1880's there were about twenty times as many farming bankruptcies in

the most affected as in the least affected counties. In the early 1870's the ratio was only ten times; throughout the depression all kinds of local advantages, of soil, skill, situation or specialization, were more rather than less important



MAP V

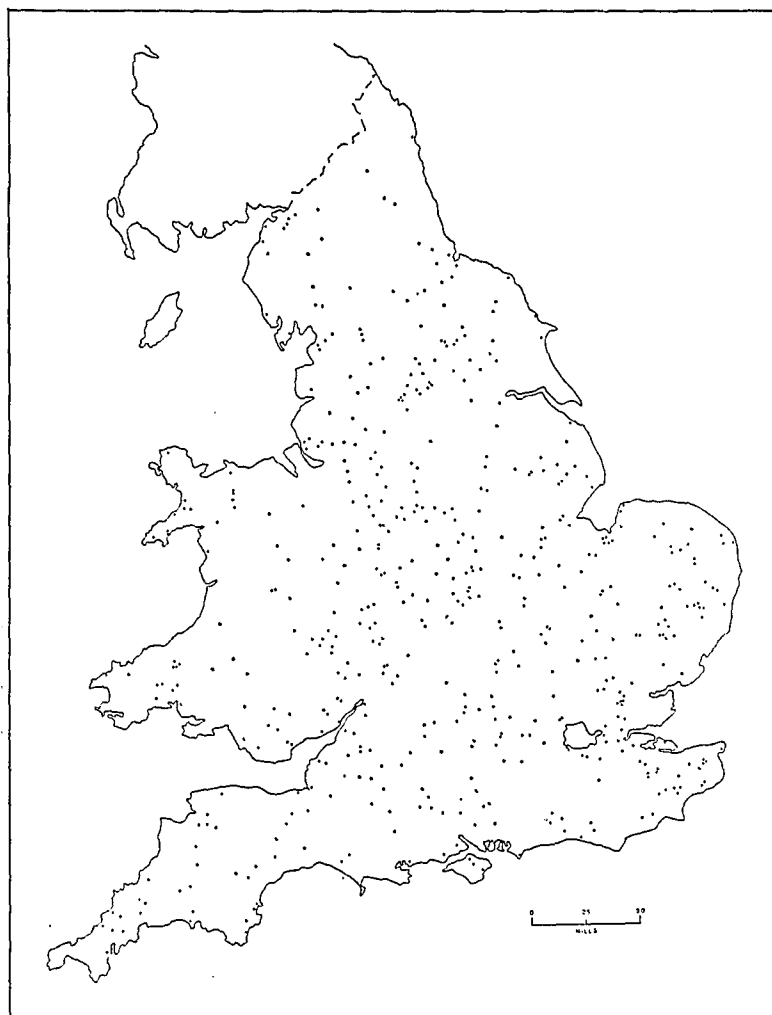
Agricultural Failure (receiving orders—annual average by counties), 1891-3, as a percentage of the farming population in 1891: (1) less than 0.05 per cent; (2) 0.05 per cent to less than 0.10 per cent; (3) 0.10 per cent to less than 0.15 per cent; (4) 0.15 per cent to less than 0.20 per cent; (5) more than 0.20 per cent; L/M, London and Middlesex.

than in normal circumstances as far as survival and even prosperity were concerned.

The map of individual failures in the early 1890's (MAP VI) presents once more a picture of which areas were at an advantage in their environment and

position. Again chalk and limestone England contrasts favourably with the Essex clays and the Weald.

The discussion so far has taken a very objective view of the depression, and in the process a necessarily static one. This is to neglect the progress of the depression and the fact that those most affected by it, farmers in particular,

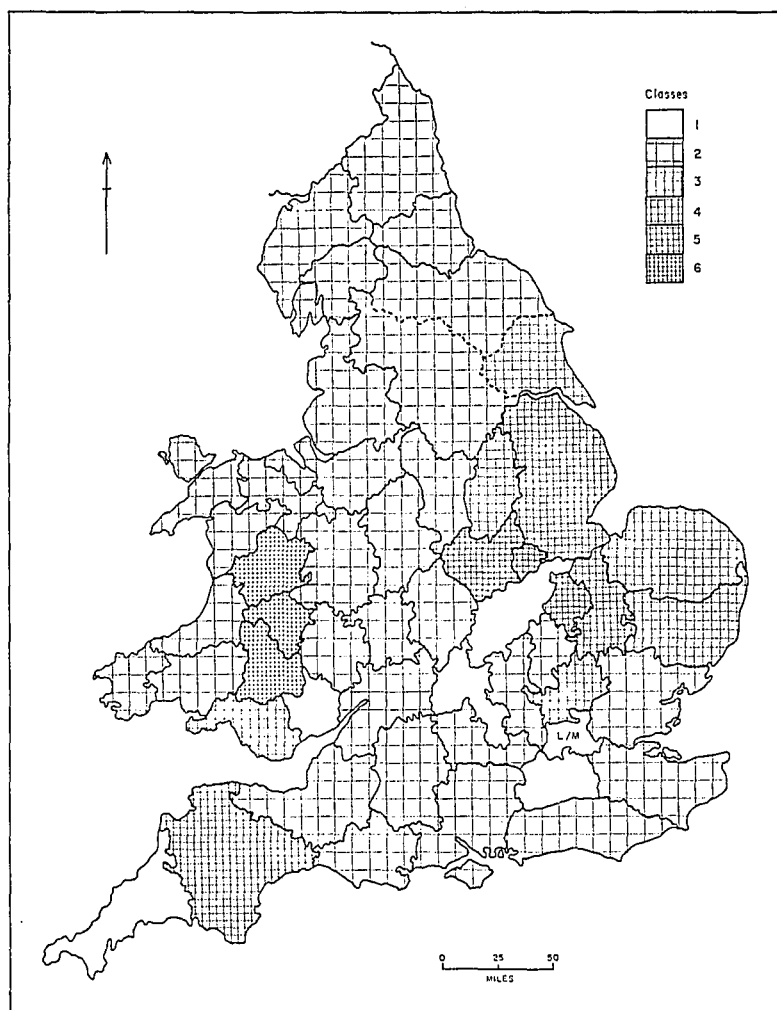


MAP VI

Agricultural Failures (receiving orders), 1891-3.

were prone to take a subjective rather than strictly objective attitude to their experience of adversity. Most farmers, even in a period when changes of tenancy were frequent, could better compare past and present in the one place than take a broad, instantaneous, and comparative geographical view of the situation, as the Royal Commissioners and their assistants tried to do in the early 1880's and mid-1890's. The evidence heard by these two bodies makes it clear that the depression was most intense in the arable east and south, but only

a very small group of witnesses had almost no complaint. Most farmers, dairy-men, graziers, even market gardeners as well as 'high farmers' on traditional arable lines could find something to grumble at: labour costs, margins between store and fat stock prices, or railway rates. The last of the good years lay in the early 1870's.¹



MAP VII

Agricultural Failures, 1881-3 (a) in relation to agricultural failures, 1871-3 (b), (a/b): (1) less than 1.5; (2) 1.5 to less than 3.0; (3) 3.0 to less than 4.5; (4) 4.5 to less than 6.0; (5) 6.0 to less than 7.5; (6) more than 7.5; L/M, London and Middlesex.

¹ For example, James Martin, a Lincolnshire land agent, claimed that farming had been unproductive for four or five years (questions 6868-6869, 20 May 1880); A. Doyle, the assistant commissioner for the western counties that arable farmers in the west Midlands had been losing money since 1874 (question 32514, 11 March 1881, but Doyle is a rather unconvincing witness in many respects).

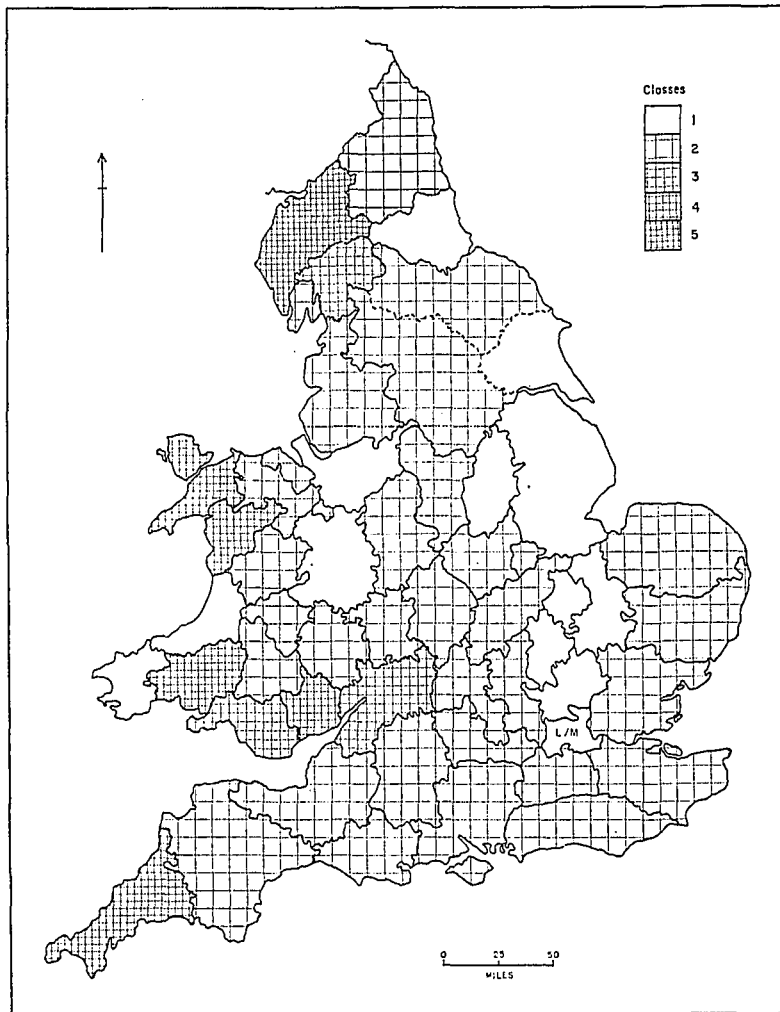
The farmer's view of the depression, and to some extent the landlord's, was then a complicated and dynamic one. A partial understanding of it in general terms can, however, be attained by comparison of the level of failure, county by county, between three year periods. Comparison of the early 1880's with the early 1870's (MAP VII) makes the counties around the Wash the focus of the 'subjective' depression, with a high degree of uniformity of experience in the rest of the country. Northamptonshire and Leicestershire/Rutland remain the most striking anomalies, the more so because they are adjacent; a substantial element in this anomaly is perhaps the very low level of failure in Leicestershire/Rutland in the early 1870's. Even more striking is the high degree of depression in Brecon and Radnorshire, a breeding and hill sheep district exceptionally severely affected by disease in the early depression period;¹ Devonshire too was unfortunate in this respect.² These counties had been used to a very low level of failure in the early 1870's, and bearing in mind that adverse seasons and disease were commonly regarded as the basic cause of the depression in its early stages it is not difficult to understand why the depression was felt to be as disastrous here as elsewhere. It might also be noted that Huntingdonshire, Cambridgeshire, and Lincolnshire, the areas most affected in subjective terms early in 1882, included much high-rented intensive arable land, particularly difficult to work and prone to flooding in wet seasons. Taking an objective view of the depression, on which MAP III is based, the most depressed county of 1881-3 had a level of farmer bankruptcy twenty times that of the least depressed; by comparison, a subjective view of the depression, relating the situation in the early 1880's to the prosperity of ten years earlier, sees the most depressed county of the early 1880's no more than six times worse off than the least depressed. This begins to explain why farmers and landowners believed that the depression was general and extensive, despite objective evidence to the contrary.

Comparison of the early 1890's with the situation a decade earlier (MAP VIII) suggests that by this date the depression was more keenly felt in Cumbria, North Wales, South Wales, and Cornwall, than most of the eastern counties. This is in part a reflection, and a confirmation, of the generally accepted view that the position of the pastoralist worsened in the later period of depression. On an objective view (MAP V) the pastoral north and west remained less depressed; in subjective terms the later depression was more keenly felt by reason of the absence of distress in earlier periods. This explanation is not, however, a wholly convincing one; this map is more complex and irregular than

¹ As noted by A. Doyle, assistant commissioner for the western counties.

² W. C. Little, assistant commissioner for the southern counties, noted that around Holsworthy the loss of sheep through disease on a group of more than one hundred farms equalled half the annual rental or more than the average annual profit.

most in this series and raises such questions as why Pembrokeshire and Cardiganshire were so much more favourably placed than north-west Wales, Lancashire¹ than Cumbria, Devon than Cornwall. The matter calls for further



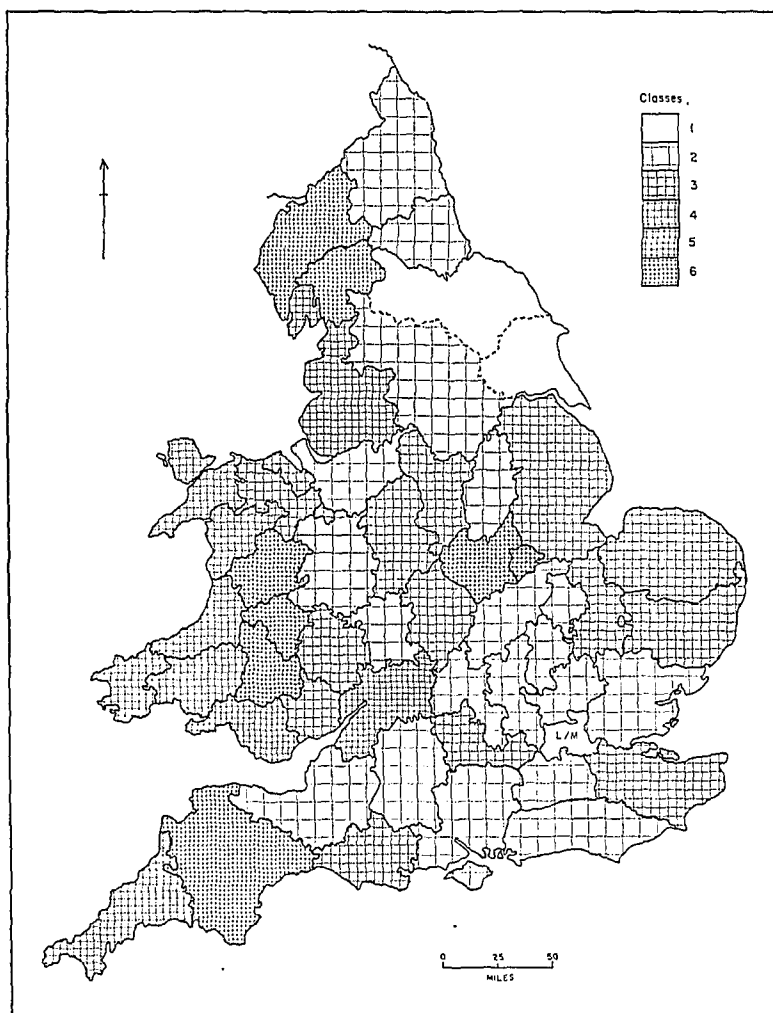
MAP VIII

Agricultural Failures, 1891-3 (a) in relation to agricultural failures, 1881-3 (b), (a/b): (1) less than 0.33; (2) 0.33 to less than 0.67; (3) 0.67 to less than 1.0; (4) 1.0 to less than 1.33; (5) more than 1.33; L/M, London and Middlesex.

discussion and demonstrates the defects of visual analysis and verbal models, as well perhaps as the shortcomings and intractability of the material. It might,

¹ Fletcher's excellent work on the Lancashire situation (*op. cit.*) certainly seems to deal with one extreme of the spectrum of depression, just as contemporary sources may appear unduly concerned with the other.

however, be added that construction of these maps may well justify the considerable effort required in their preparation by providing a series of eventually testable hypotheses.



MAP IX

Agricultural Failure, 1891-3 (a) in relation to agricultural failures, 1871-3 (b), (a/b): (1) less than 0.5; (2) 0.5 to less than 1.0; (3) 1.0 to less than 1.5; (4) 1.5 to less than 2.0; (5) 2.0 to less than 2.5; (6) more than 2.5; L/M, London and Middlesex.

To compare the early 1890's with the early 1870's is to venture on less certain ground. It raises the question of how far back the farmer looked in his judgement (and endurance) of the depression; twenty difficult years had seen new occupiers on many farms, but on the other hand was a sufficiently short

period to be within the living memory of most of those concerned. Moreover, the early 1870's were the last, and thus best remembered, of the good years. The resultant map further emphasizes the late onset of the depression in the pastoral north and west (and also grazing Leicestershire), and presents fewer anomalies in this area than comparison over the shorter period. The dairying counties, Cheshire, Derbyshire, Staffordshire, Somerset, Dorset, and Wiltshire, and the arable counties stand at the other extreme in such a longer term subjective view of the depression. This most probably reflects the stability if not great prosperity of milk production for urban markets, and in the arable counties the acceptance by landowners and farmers by the 1890's that the depression had brought about permanent changes, notably in rents. It also reflects the relatively high level of failure in these counties in the early 1870's.

What conclusions can be drawn from the use of this source material in the way outlined above? Firstly, the utility of the source itself is established in the patterns (and anomalies) which it generates, and the possibly testable hypotheses which emerge. (And this, after all, is the role ascribed to historical geography in some recent methodological writings!)¹ It also suggests potentially important county studies. Secondly, there appears to be a broad similarity between the geographical pattern of failure in the period immediately before the depression and that of the depression itself, its earlier phase in particular. This in turn provides partial explanation of why farmers felt the depression to be widespread. Thirdly, the great importance of environmental factors, of the soil in particular, before, and to a greater extent during, the depression is evident, a feature of the depression which has often been suggested but never made explicit on a national scale. Finally, the widespread opinion of the farming community that it was experiencing some kind of depression, a view not everywhere substantiated by an objective view of the evidence, can be explained in part in subjective historical terms. These four observations neither explain nor explain away the depression; rather I would regard them as fingerposts for a more detailed, more complete, and more sophisticated analysis of a critically formative period in the agricultural geography of Britain.²

¹ For example, N.A.S.-N.R.C. Committee on Geography, *The Science of Geography*, Washington D.C., 1965, p. 61.

² I wish to thank the staff of the General Assembly Library, Wellington, N.Z., the library of Canterbury University and the Canterbury Public Library, Christchurch, N.Z., for their unfailing courtesy, helpfulness, and tolerance; also Miss C. Lynskey and Mrs S. M. Emanuel of Wellington, N.Z., who did most of the tedious work of extracting data from the *London Gazette*, assistance made possible through the generosity of the Research Assistants Fund of Canterbury University; also Mr J. K. Macdonald, B.Sc., Mrs C. McMichael, and Mr G. Mitchell who prepared the maps; and, by no means least, my colleagues in the University of Canterbury for providing an academic environment both stimulating and relaxed.

'Lands' or Relict Strip Fields in South Australia

By C. R. TWIDALE

Introduction

THE Englishman travelling in Australia sees little to remind him of his homeland. Even in the better watered parts of the continent the whole look of the terrain is different, and arid and semi-arid Australia is metaphorically as well as literally half a world removed from green England with its long record of human history and settlement. Yet our hypothetical traveller would see in some semi-arid and arid regions of South Australia at least one relict of human activity to remind him of home. This is the long narrow field unit or *land*, known by various names in Britain, whose survival, making, and purpose have aroused a profound and long-standing interest.¹ *Lands*, which is the name by which they were and are widely known in South Australia,² and which is therefore retained here, remain imprinted on the landscape in several parts of the Flinders Ranges, and are widespread in the Mt Lofty Ranges.³ It must be emphasized that their occurrence here in no way implies the use of the open-field system, but merely results from a method of ploughing. Quite apart from the interest inherent in their occurrence, the South Australian lands derive some significance from the fact that all, of course, postdate the European settlement of the then Colony in 1836, and some few were ploughed as recently as 1949 with ploughs similar in every essential respect to those used a century ago. Thus it has been possible to discuss their making with the ploughmen responsible for them.

Distribution and Relation to Cereal Cultivation

The ridge and furrow microrelief features were first noted about 12 years ago in connection with soil erosion studies in the Mt Lofty Ranges (FIGURE I). The furrows, though shallow, are sufficiently pronounced to channel run-off and induce localized accelerated erosion in the form of gullying, even though the furrows are grassed over.⁴

¹ See C. S. and C. S. Orwin, *The Open Fields*, 3rd edn, 1967.

² Though the term 'bed' was also used occasionally. See, for example, W. Gray, Autobiography of the late Hugh McCullum, ed. Rev. W. Gray, *Proc. Royal Geogr. Soc. Australasia (S.A. Branch)*, 31, 1929-30, pp. 37-69.

³ See C. R. Twidale, G. J. Forrest, and Jennifer A. Shepherd, 'The Imprint of the plough: Lands in the Mt Lofty Ranges, South Australia', *Austr. Geogr.*, 11, 1971, pp. 492-503.

⁴ See C. R. Twidale, *Geomorphology, with special reference to Australia*, Nelson, Melbourne, 1968, pp. 342-6; C. R. Twidale, and M. R. Foale, *Landforms Illustrated*, Nelson, Melbourne, 1969, p. 106.

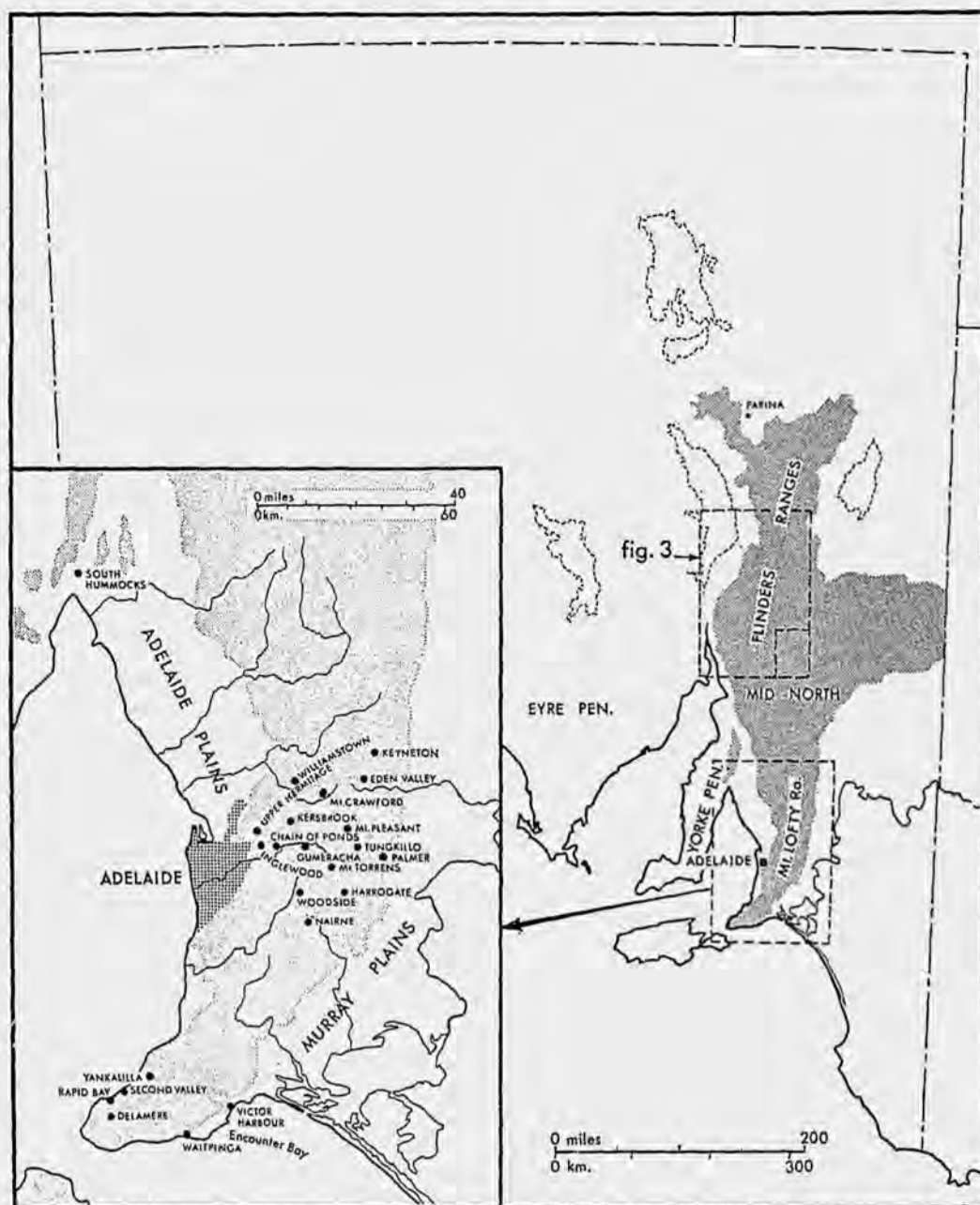


FIG. I

Mt Lofty Ranges, South Australia—Location map. Lands have been observed in each of the districts named in the hills.

Observations over the decade have shown that lands are preserved in many parts of the Mt Lofty Ranges (see FIGURE I and PLATES I, III). It is certain that they were formerly more widespread. None has survived modern cultivation methods, and several have been eliminated during the past decade by the ploughing of the fields in which they occurred, in preparation for pine planting or for potato cultivation. The evidence points to their being made when substantial areas of the Mt Lofty Ranges were ploughed for cereal cultivation—mostly wheat—from approximately 1850 onwards. This area, together with the adjacent Adelaide plains, then not only supplied South Australia but also sent large quantities of grain to Victoria and other parts of Australia. But, following the decline of the Victorian goldfields, new wheat areas were opened up in that state. The hilly and heavily wooded Mt Lofty Ranges were difficult and expensive to clear, and, with quite heavy winter rains, proved more suitable for other types of land use. Between 1860 and 1890, the more easily cleared, drier, and flatter areas of the Mid-North, and especially the mallee¹ lands of Yorke Peninsula and the Murray plains (FIGURE I) became South Australia's major wheat producers² (FIGURE II). The spread of wheat cultivation into the semi-arid regions of the State, to be joined in the 1920's and 1930's by Eyre Peninsula,³ brought about a decline in cereal production in the Ranges, and a return of many cultivated fields to pasture. This in turn ensured the preservation of the ridge and furrow microrelief.

There are fewer lands preserved in the Flinders than in the Mt Lofty Ranges. Lands survive mainly in scarp foot situations and between the channels of rivers debouching on to the plains or valley floors in the Mookra-Bruce-Hammond area, north of Quorn, and on the Lake Torrens plains west and south-west of Hawker. They are also in evidence in Wilpena Pound (FIGURE III). This last is a huge natural amphitheatre, or enclosed basin, in which wheat was cultivated up to 1914.⁴ In that year a flood (ending the drought—see below—in that area) washed away the only access road into the Pound and arable farming was abandoned. Today, a few sheep are run in the basin, but the old field and fence lines can still be seen and in one field lands are well preserved.

¹ Mallee—strictly speaking stunted eucalypts which branch profusely from ground level and have large tuberose roots, but commonly used of the semi-arid regions of the brown or pink pedocalcic soils, over which these woodlands extend.

² See C. Fenner, *South Australia: A Geographical Study*, Christchurch, 1931, pp. 93-153; E. Dunsdorfs, *The Australian Wheat-Growing Industry, 1788-1948*, Melb. Univ. Press, 1956, pp. 114-86, 531; W. S. Kelly, 1962, *Rural Development in South Australia*, Rigby, Adelaide, 1962; D. W. Meinig, *On the Margins of the Good Earth*, 1963.

³ C. R. Twidale and D. L. Smith, '“A perfect desert” transformed: the agricultural development of north-western Eyre Peninsula, South Australia', *Austr. Geogr.*, 11, 1971, pp. 437-54.

⁴ G. Hunt, Senior, Wilpena Homestead; personal communication. See also H. Mincham, *The Story of the Flinders Ranges*, Rigby, Adelaide, 1964.

In addition, lands ploughed before 1916 were visible near Blinman up to 1946,¹ though they are now discernible only on air photographs. That they have survived is remarkable. The paddocks were fenced and ploughed between 1870 and 1916,² when wheat cultivation was far more widespread and frequent

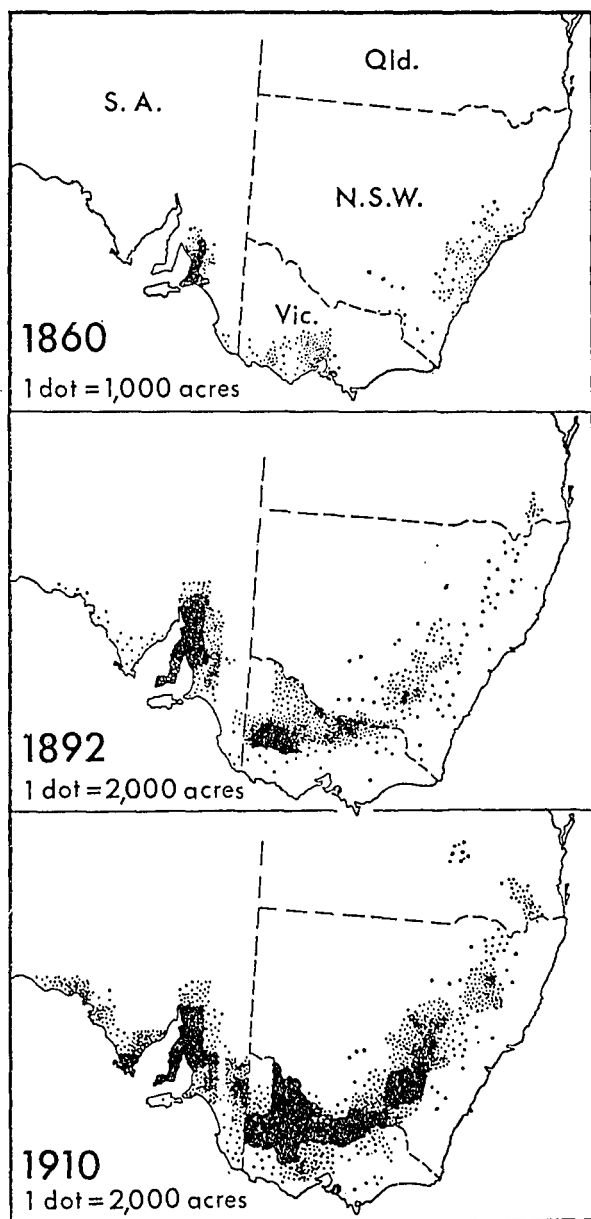


FIG. II

Wheat production in Australia in 1860, 1892, and 1910 (after Dunsdorfs). Note the heavy concentration in the Mt Lofty Ranges in 1860 and the subsequent decline of that region and the increased production first in the northern and mallee areas and second in other states.

¹ G. Hunt, personal communication; C. P. Edwards, Blinman South, personal communication; G. L. Parsons, personal communication to G. J. Forrest.

² See Meining., *op. cit.*, pp. 29-92.

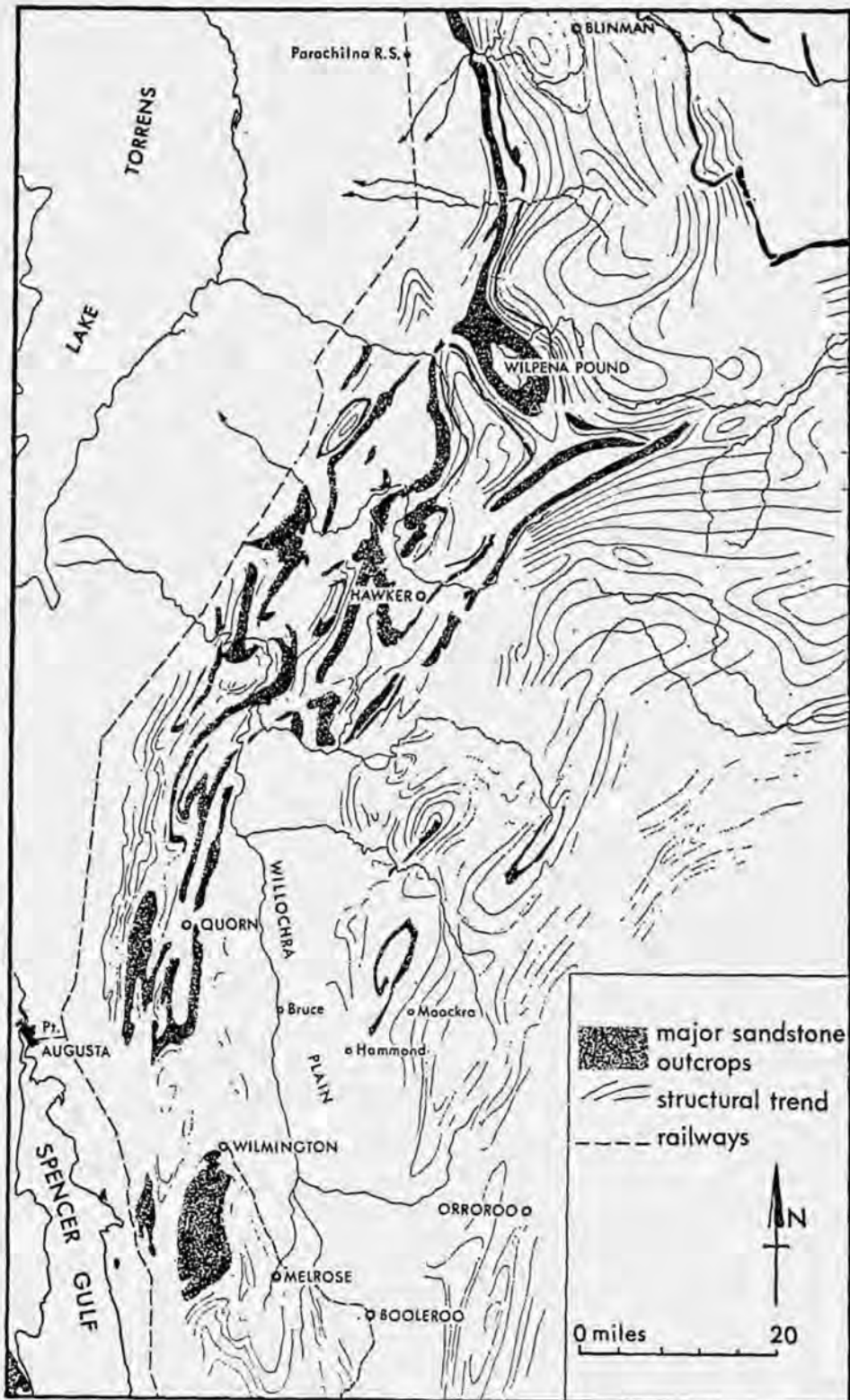


FIG. III

Flinders Ranges, South Australia, showing major sandstone features and locations mentioned in the text.

than it now is in the southern and central Flinders Ranges. Wheat is still grown extensively on the southern part of the Willochra plain (FIGURE III), south of a line extending east from Wilmington, and around Quorn, Hawker, and Moockra, particularly in narrow valleys or near the foot of sandstone escarpments¹ where moisture is especially abundant.² But at times, late in the last century and early in this, the whole of the Willochra plain and large areas of the central Flinders were considered good cereal country. The northern township of Farina (average rainfall just under 6 inches per annum) was named in the expectation that even there wheat could be grown and flour produced.

The fields were ploughed with single share implements,³ and the land was used as a ploughing unit at least during the early years of the twentieth century.⁴ As in the Mt Lofty Ranges, then, preservation is due to the land being allowed to revert to pasture when cereal cultivation was finally abandoned in these northern areas just before or during the First World War (see below). In those parts of the Flinders where cereals are still grown from time to time, no lands have survived modern cultivation methods. In many parts of the northern Willochra plain, the Lake Torrens plains adjacent to the Flinders Ranges, and in many plains and valleys within the upland, contour ploughing aimed at soil conservation, as well as occasional attempts to grow wheat in good seasons, have tended to destroy the ridge and furrow patterns.

In addition to these man-made hazards, the wind-drifting of soil (common during drought) and occasional floods are equally prone to eliminate the furrows discernible as topographic features. More important, however, is the fact that many of the clays deposited on the plains and valleys, and weathered from the underlying argillaceous bedrock, are of the 'cracking' variety—that is, they are hydrophylic and swell markedly on wetting, and shrink and crack on desiccation. Such swelling and contraction give rise to a churning of the soils sufficient to form the networks of microrelief forms known as gilgai,⁵ and to exert enough pressure to thrust fence posts from the ground. In the plains with-

¹ See C. R. Twidale, 'Chronology of Denudation in the southern Flinders Ranges; South Australia', *Trans. Royal Soc. S. Austr.*, 90, 1966, pp. 3–28.

² Cf. G. B. Cressey, Qanats, Karez, and Foggaras, *Geogr. Rev.* 48, 1958, pp. 27–44.

³ Two single-share ploughs were abandoned inside Wilpena Pound in 1914. Both are well preserved and both were made by Ransome and Sims.

⁴ One farmer who experienced these early years on the Willochra plain, but is now unfortunately deceased, was familiar with the term *land*, and his memory is indirectly confirmed by the accounts of several others who have passed on what their fathers told them of early ploughing procedures and who recognized the patterns of ridge and furrow for what they are on air photographs. All agree in general terms with the dating given here, though it has not proved possible to date particular lands. It must be remembered that most of the farmers who cultivated these properties abandoned their calling and left the district for good in 1914 or thereabouts.

⁵ See E. G. Hallsworth, G. K. Robertson, and F. R. Gibbons, 'Studies in pedogenesis in New South Wales. VII. The gilgai soils', *Journ. Soil Sci.*, 6, 1955, pp. 1–31; E. G. Hallsworth, 'The gilgai phenomenon, ch. 10, pp. 415–20, in H. C. T. Stace *et alii*, *A Handbook of Australian Soils*, Relim Tech. Publ., Adelaide, 1968.

in and marginal to the Flinders the majority of gilgai are of linear type and are elongated roughly along the contour. Such superficial disturbances of the soil have apparently been active enough effectively to mask or even to obliterate entirely the imprint of the plough. In some areas it seems that a combination of soil churning, wash, wind, and the feet of grazing animals has so disturbed the pattern of ridge and furrow that they are not distinguishable on the ground.

For example, in the area around Hammond (FIGURE III), furrows have been observed from a low-flying aircraft. Many sets of furrows, some faint, some remarkably clear, and some aligned at obtuse angles to each other because of cross-ploughing, are recorded on aerial photographs. Yet none can be distinguished in the fields, where bare soil patches, low mounds, and patches of stones attest to the presence of irregular gilgai. In this area, the fields were last ploughed in preparation for cereal growing before 1914, when the whole of the southern Flinders Ranges suffered a drought so disastrous that it is still known in the area as The Drought. Yet it is in a sense a misleading attribution, for the drought began in 1913 and in some areas, including Hammond, continued through 1915; but 1914 was evidently the year in which many farms were abandoned. Though these furrows near Hammond were ploughed over half a century ago, they have not yet been destroyed by gilgai development. Finally, lands have also been reported from the South Hummocks, in the Mid-North of South Australia,¹ though again they are no longer visible, having been destroyed by modern cultivation.

Lands may also have been ploughed late in the last century, and early in this, before the use of the tractor and the disc plough, in the newer wheat areas such as the Murray mallee, Yorke Peninsula, and Eyre Peninsula. If so, no traces of them remain in the landscape. The areas mentioned are still major producers of wheat, other cereals, and hay, and the fields are still under cultivation. This plus the common drifting of soil has evidently eliminated any signs of the old ridge and furrow.

Description

Wherever they occur in South Australia, the lands display a similar range of size. At Tungkillo, many are approximately 20 by 200 yards, at Mt Crawford and Harrowgate 10 by 200, at Victor Harbour 7 by 100, and Rapid Bay 7 by 150. But in each area and indeed in many paddocks, there is a considerable range of size.

The lands vary in width between 5 and 60 feet, with a mode of between 15 and 30 feet. They are commonly 150–200 yards in length though some are as short as 20 yards and others as long as 300 yards. In all cases the furrows extend the length of slopes unless interrupted by outcrops or other obstructions; they

¹ K. L. Forrest, personal communication.

do not pass over the crests of hills, though some few carry over minor rises and undulations. Many furrows terminate a few yards short of the field boundary leaving a narrow headland or foraker at the field margin (see e.g. FIGURE IVa). The furrows display no regular curves near the field margins comparable to those described by Eyre¹ in England, though some furrows are sinuous, evidently in response to marked changes in slope. Most furrows run directly down the local slope of land, in the Flinders Ranges on rectilinear or gently concave slopes, and in the Mt Lofty Ranges on slopes which are sigmoidal (upper slope convex, lower concave) in section normal to the contour. In the Mt Lofty Ranges, the ridge and furrow can occur on valley flats (though they are rarely preserved in such situations) and on slopes up to 15°, though 7°–10° is more common. In the Flinders Ranges they are preserved in fields which are almost flat, as on the Willochra plain, or on slopes up to 4° in piedmont zones. Some lands are run diagonally across the slope, so as to maintain parallelism with others which are normal to the contour. In some fields, however, parallel sets sit at quite obtuse angles to each other, for instance near Victor Harbour and near Tungkillo (FIGURE IVb). On some concavo-convex slopes the furrows were curved or sigmoidal in plan, the trend of the furrows being changed in order to maintain proximity to the steepest slope. Only two instances of furrows running along contours have been observed, though near Victor Harbour, Hammond, and Blinman, on nearly flat fields, lands were evidently ploughed at right angles to each other—criss-cross ploughing—at different times. Some are now deepened by erosion, and others may have been slightly filled in by soil washed from the adjacent cambered ridges, but the original depth of furrow was apparently of the order of 5 inches. This is the depth of furrow mentioned in an account of ploughing with the early swing, or non-wheeled, ploughs,² and is also stipulated in the following excerpt from an advertisement laying down conditions for a ploughing match held near Victor Harbour (FIGURE I) in 1886: "All competitors to be subscribers to the funds of 10/6 each. The field to be ploughed with one ridge and one furrow each plough: depth 5 inches; width of furrow at the option of the ploughman; quality to the decision of the judges. Ridge to be formed in six fair furrows. No assistance in setting out except placing poles."³

Ploughing Procedure

All interviews, whether relating first, second, or third hand information, suggest that the ploughing procedure followed in South Australia in the making of lands was similar in broad outline to that used in Britain and described by

¹ S. R. Eyre, 'The Curving Plough Strip and its Historical Implications', *Agric. Hist. Rev.*, 3, 1955, pp. 80–94.

² Gray, *loc. cit.*

³ *Southern Argus*, 11 August 1886.

the Orwins.¹ Using a single share plough equipped with coulter and mould board, a deep double furrow was first prepared; a 'top' was opened. The ploughman then followed down this trench, first on one side and then the other, in such a direction that the mould board threw the soil toward the trench, which was of course filled in. The alternate traverses on either side of the original trench continued, thus creating a broad ridge. But the piling up of soil within the ridge did not go on indefinitely; when the ridge was perhaps about 20 feet across it was left, and another top was opened in what was to become the adjacent ridge or land.

In South Australia the whole procedure of ploughing soil toward the top in order to make a broad ridge was known as 'making a crown', and the furrows which survive in the present landscape mark the junctions of the lands. Some farmers did not open the first broad trench, but merely threw the soil up in a central ridge by ploughing two adjacent furrows traversing in opposite directions.² Temporarily there was (see below) at the crest of the land a narrow strip of unploughed land buried beneath a veneer of soil thrown over from adjacent furrows. Sometimes the coulter was dispensed with, and the soil was torn up, though still thrown by the mould board into furrows.³

During the latter part of the nineteenth century two- and four-share ploughs were available and were used on some farms. But the single share implement remained in use well into the present century. The lowest capital outlay required affords a partial explanation of the extended popularity of the smaller implement, but it must be borne in mind that the team of animals—whether horses, bullocks, or donkeys—required for it was smaller than for the larger machine. The lesser demands of such smaller teams on insecure water supplies assisted the retention of the single share plough until the advent and widespread use of machines powered by the internal combustion engine.⁴

Origin of the Lands

Previous Hypotheses. It has been suggested that lands need not have become permanent features of the landscape.⁵ Simply by treating the furrows formed in one year as the tops for the next year's ploughing, the microrelief features formed could, it is argued, have been neutralized, the implication being that

¹ Orwin and Orwin, *op. cit.* An excellent account of ploughing in the early days of settlement appears in Gray, *op. cit.*

² G. A. W. Depledge, Encounter Bay, personal communication.

³ The method of strip-field ploughing is similar to that described as *en adossant* (i.e. working outwards from a central furrow) described in A. G. Haudricourt and M. J. Bruhnes Delamarre, *L'homme et la charrue à travers le monde*, Gallimard, Paris, 1955, pp. 330–6. There is no suggestion of working inward toward the centre (*en refendant*) initially, though, as is mentioned below, this is what in fact happened in some cases where the lateral furrows of the previous year was taken as the central furrow the next.

⁴ See e.g. Twidale and Smith, *op. cit.*

⁵ Orwin and Orwin, *op. cit.*, p. 33.

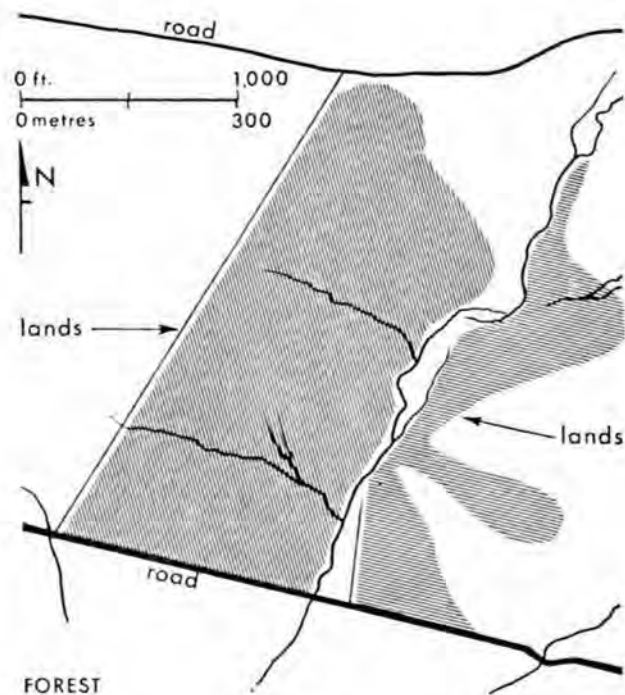


FIG. IVa

Map of a paddock near Mt Crawford, showing lands running downslope but diagonally to the field boundaries. Though of constant width they vary in length and hence in area. Note the foraker at the north-western edge of the paddock.

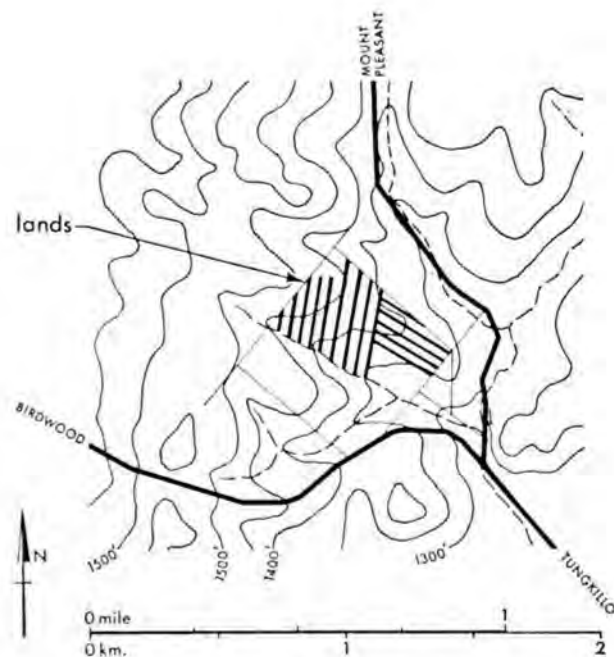


FIG. IVb

Plan of field, near Tungkillio, showing two sets of furrows disposed at an obtuse angle to each other so as to maintain a downslope orientation.

the features which survive in the landscape were imprinted over a number of years. It has been urged that the farmers of old did precisely perpetuate the location of ridge and furrow, and that they must therefore have had a positive reason for developing and retaining the pattern.¹ Local evidence does not support this contention. Interviews with farmers who have ploughed lands and who followed the procedures taught them by their fathers and grandfathers suggest that the South Australian lands were not permanently located, in the sense that the lands were not laid out for all time. Some farmers used the previous year's furrows as tops and ploughed into them, thus shifting the precise position of the depressions.²

The Orwins have suggested that some ridges and furrows were formed to improve land drainage.³ For this reason the lands were perpetuated, and for this reason the furrows were not only cut consistently across the contour but were so spaced that the slope from ridge crest to adjacent furrows was everywhere sufficient adequately to drain the soil. Margaret Clark has argued that if this were the correct explanation not only for the existence of the lands themselves but also for the observed variations in width of ridge, then there should be a correlation between the quality of drainage at a particular site (according to such factors as soils, bedrock, slope, and climate, though she was concerned principally with soil type) and the spacing of furrows ploughed there.⁴ She was not able to discover such a relationship. In South Australia also no such consistent correlation is evident. It has been noted that the lands preserved in valley floors are generally narrow (see e.g. PLATE II), but they are no different from those which occur on adjacent hillsides.

In South Australia, one farmer has stated specifically that ridge and furrow were ploughed to improve drainage.⁵ This farmer actually reverted to the ridge and furrow method of ploughing for the period 1911-46, in order to improve drainage and so increase cereal yields on a field near Victor Harbour. This is, however, a particular and rather atypical site. The field concerned is low-lying, virtually flat (slope $\frac{1}{2}^\circ$), and underlain by heavy, grey pedocalcic soils, the clays of which swell on wetting. Thus a number of factors at this site conspire to prevent good drainage (PLATE IV).

But this is undoubtedly a local and particular situation. In the Mt Lofty Ranges, most lands are preserved on appreciable slopes, and many are ploughed in well-drained sandy soils. Likewise in the Flinders Ranges, the scarp foot situations which seem favoured for wheat growing and where lands are commonly preserved, are well drained. Only in local basins of interior drainage is

¹ Orwin and Orwin, *op. cit.*, pp. 33-5.

² G. A. W. Depledge, personal communication.

³ Orwin and Orwin, *op. cit.*, pp. 33-5.

⁴ H. M. Clark, 'Selion size and soil type', *Agric. Hist. Rev.*, 8, 1960, pp. 91-8.

⁵ Twidale, Forest, and Shepherd, *op. cit.*



PLATE I

Narrow lands on undulating hillside near Harrogate, South Australia (C. R. Twidale).



PLATE II

Narrow and short lands in a narrow alluvial valley floor, near Kersbrook, South Australia (C. R. Twidale).



PLATE III
Lands near Hermitage, Mt. Lofty Ranges.



PLATE IV
Furrows flooded after winter rains delineate old lands near Victor Harbour, South Australia
(R. P. Bourman).

there occasional flooding. In any case, water shortage rather than surplus is the problem in these arid and semi-arid climates.

In addition to her objection earlier referred to relating lands to drainage, Margaret Clark suggests that the drainage improvement hypothesis implies a knowledge of soil science unlikely to be found in farmers of old,¹ though farmers could have been, and surely were, guided in their methods and practices by the accumulated experience of generations of work on the land in a particular area.

As an alternative to the drainage hypothesis, it has been postulated that a land represents a day's labour for the ploughman.² This hypothesis is also held in some parts of South Australia;³ yet it is manifestly invalid, at any rate so far as South Australia is concerned. For if the suggestion were correct there should be a relationship between the site environment on the one hand and size of land on the other. Thus lands ploughed on light sandy soils and on flats or gentle slopes should be more extensive than those made on heavy clay soils and on steep gradients. In both the Flinders and Mt Lofty Ranges, there is no apparent correlation between site difficulty and size of land. The size of land varies between less than 200 and 4,000 square yards, with no apparent relationship between size and the factors mentioned. In any case, this is surely a range of variation greater than can be accounted for by the idiosyncracies of individual sites or ploughmen, or for that matter, and in the case of the lower limit, greater than would be tolerated by the economy of the property concerned. Furthermore, in order to maintain an orientation normal to the contour, the lands are, in many square and rectangular fields, run parallel with the diagonal. Their lengths differ greatly from one part of the field to another without there being any compensating variation in width of land; thus the area of lands even within the same paddock varies enormously—near Mt Crawford for instance by a factor of more than 3 (FIGURE IVa).

Finally, Gray records that in a ploughing match a man using a single share plough was expected to turn over half an acre in five hours.⁴ Now it is unlikely that self-employed farmers in the last century watched the clock any more than their modern counterparts. They most likely worked as long as possible while the job in hand remained to be done, in order to take advantage of favourable conditions such as rain. But even allowing only a 10-hour day, it is clear that about an acre could be ploughed with one share plough. Thus one of the larger lands could represent a day's work, but not the smaller ones of only 200 square yards. With the use of two- and four-share ploughs this daily rate increased, a point confirmed by interviews which put the daily capacity at between one and three acres, depending on conditions.

¹ Clark, *op. cit.*

² *Ibid.*

³ G. A. W. Depledge, personal communication.

⁴ Gray, *op. cit.*

Orientation of the Furrows in Relation to Slope. Most of the lands preserved in South Australia are on fairly steep slopes where drainage impedance is scarcely a problem. In valley floors where there is from time to time temporary waterlogging and where lands are also preserved, the width of the lands does not appear significantly different from that on nearby slopes. Though reference is made above to one instance where furrows were ploughed specifically to improve the drainage in a particular situation, drainage is not the reason for the ploughing of lands in South Australia, or for their common disposition normal to the contour.

Information obtained from interviews suggests that the furrows were ploughed across the contour for three reasons. The first is related to the operation of the one-share plough. The mould board was fitted to the plough so as to throw to one side the soil cut by coulter and share. Mould boards could be fitted to throw either to left or to right, but on an individual plough the throw was always in the one direction. Thus, ploughing along the contour and running say from north to south the plough may have thrown soil to the down-hill side; but running back from south to north, the soil would be thrown uphill, and on even moderate slopes this meant that the soil, which was in effect simply thrust upwards, came down on the board, which became choked. Thus, with the means of haulage available before the invention of the tractor, ploughing was very difficult running along the contour.

The second reason for ploughing across rather than along the contour is merely one of ease of working. It is less arduous, and safer, to plough up and down a slope rather than along it with both bullock or horse team and ploughman operating as it were with one leg longer than the other.¹

The third, relating to both the other two, is that when ploughing along the contour on even moderate slopes, the rear end of the plough, whether one-, two-, or four-share, whether swing or fixed,² tends to slip downslope as the plough is pulled along: the tendency known to early South Australian farmers

¹ Ploughs with two or more wheels were constructed in such a way that inequalities of level produced by ploughing were accommodated; the wheels which ran in the ploughed furrow were larger than those on the other side of the machine which ran on the as yet unploughed land.

² The swing plough had no wheels. The fixed plough, with one, two, or four wheels was introduced in South Australia from about 1857 onwards, according to Gray (*op. cit.*). The single-wheel plough had the advantage that the wheel regulated the depth of furrow; the two- and four-wheel ploughs, which were introduced later, were more easily controlled. Some of the early ploughs used in South Australia were imported from Britain (Gray records the names 'Avery' and 'Ransome & Hornsby' on some of the old ploughs) but from an early date ploughs were manufactured locally. For example, Hugh McCullum, an early resident of the Woodside-Mt Torrens district, was given a plough by his father who bought it from a blacksmith, Daniel Ferguson of Glenunga, now a suburb of Adelaide (Gray, *op. cit.*). The multi-shared ploughs used until the early 1950's in the Harrogate and Victor Harbour districts were made early in this century in Adelaide (G. A. W. Depledge, personal communication, and H. L. Smith, Harrogate, personal communication).

as 'crabbing'.¹ To keep a plough on line, whilst at the same time controlling the team and keeping both it and oneself in a straight line on a considerable slope, was a difficult task. The downslope swing of the plough caused a widening of the furrow ploughing in one direction along the slope and its narrowing on the return journey. Crabbing may also have led to departures from the straight furrow and the involuntary development of curved lands and lands of variable widths on slopes (though see earlier, p. 53).

Ploughing in Strips. The system of ploughing responsible for the making of lands was undoubtedly brought to South Australia by the early immigrants and settlers, who, having cleared the land for cereal cultivation, applied their traditional methods in their new environment. It may be that tradition prevailed until such time as new machinery and means of motivation became available through technological advances, and that until these advances were practised, there was no change on the farm. The force of tradition is illustrated by the case of one farmer near Harrogate (South Australia) who ploughed ridge and furrow until 1949, despite the availability of disc ploughs.² Certainly, the only positive reasons advanced for making lands are those referred to above concerned with drainage improvement and a day's work, both of them already considered in relation to British lands, and both hypotheses therefore possibly exported along with the ploughing procedure itself.

But even before the problem of lands is broached it is necessary to ask why the field was ploughed in long parallel furrows rather than, as is so often done today, particularly in large flat Australian paddocks, in circuits, which is of course, less wasteful of time and effort. One possible reason is that such circuits embrace a range of slopes some of which, as mentioned earlier, were difficult to negotiate. Second, far from being a disadvantage, the necessity or the opportunity to rest at regular intervals at the end of a given unit of work—the land—may have been beneficial before the days of machines for both man and beast probably worked longer and better for periodic rests.

Variable Width of Lands. Neither of the two competing hypotheses proposed in explanation of the variable width of lands—those relating to drainage and to a day's work—appears consistent with the field evidence in South Australia. Of course, dimensions soundly based in experience in parts of Britain may merely have been passed down from generation to generation. It may be that in setting out the lands, the farmers merely paced say 20 yards or 10 yards or a chain—or any well-known or round figure of units, rather than say 19 or 12 or 9 or any other odd or unusual, though logically just as defensible, number of yards. There may be no rationale behind the width of lands. But two possible explanations, one indeed mentioned by the Orwins,³ emerge from a consideration of

¹ G. A. W. Depledge, personal communication.

² Twidale, Forrest, and Shepherd, *op. cit.*

³ Orwin and Orwin, *op. cit.*, p. 34.

ploughing procedure, and the general circumstances of farming in the early days of settlement in South Australia.

First, as noted earlier, in South Australia, as indeed in Britain, a headland was left at each end of the several lands which occupied each field. This was where the team and plough were turned around in preparation for the return trip on the other side of the top. Thus, as he passed from one side of the land to the other, the farmer had a certain amount of dead running, and the wider the land the greater the amount of wasted time and effort for both the team and the ploughman. Hence the width of a land may represent a compromise between the desire not to waste time and energy in the manner outlined above, and the effort required to open the top of each land (where this was the practice). Second, consider the resources available to the early immigrant farmer, and the environment in which he found himself in South Australia. The early farmer, usually holding a 40-acre or 80-acre lot, was essentially dependent on his own resources—his wife, his sons and daughters, but above all, himself. In South Australia with its uncertain rains, it is imperative to take advantage of the opening rains, and to plough and seed immediately after the rains, at the beginning of the season. This is particularly true of the more arid areas, including the Flinders Ranges. Today, with modern quick-moving equipment, a whole field is ploughed in one continuous operation, though the urgency attached to catching the rains is indicated by the common practice of working through the night with the aid of lights. But if the early farmer working with horses and a one-share plough had adopted this plan, the opportunity for ploughing and seeding might have been lost: the team of horses and the one-share plough could not cover the ground quickly enough. What he may have been forced to do was to plough a relatively narrow strip—a land—and then either proceed to the next while his family sowed the first ploughed strip or sow his first land himself before going on to plough the next. Thus, he may have ensured that some at least of his field was sown and stood some chance of yielding a crop.

These may have been powerful enough reasons for the land system to have been retained in South Australia. As has been mentioned, the system had the disadvantage of encouraging gully erosion, but it was not really abandoned until the development of the trailing disc plough and the tractor. With such power and machinery, the farmer can make every yard he travels another yard ploughed and, armed with this equipment, he can plough at such a rate that he can take much larger units of land—whole fields—and still plough and sow in time to take advantage of the rains. These technological advantages were not available to the early settlers and agriculturalists who had perforce to evolve procedures which would be least wasteful of time and effort, and ensure that some parts of their fields, at any rate, were sown and stood to yield the precious crop, if only seed for the next season.

Wheat and Malt Prices in Cambridge in the late Eighteenth Century

By DAVID H. KENNETT

ON 4 May 1748 the lease of the glebe parsonage of Great Barford, Bedfordshire, was renewed by the tenants, Luke Francklin of Great Barford and Edward Francklin of Rainham, Norfolk.¹ As rent, the owners of the glebe, Trinity College, Cambridge, were to be paid on each Michaelmas and Lady Day half of a yearly rent of "£16 6s. 10d., also 12 quarters of 2 bushels of good and merchantable wheat, sweet, clean, and well dressed, and 16 quarters 2 bushels and 3 pecks of good and merchantable malt of barley, well dried and clean dight, or for default of the delivery of said wheat and malt at the election of Edward Francklin and Luke Francklin . . . to pay . . . Trinity College so much in ready money after the manner and price as the best wheat and malt in the market of Cambridge shall be sold the next market day before the said rent of wheat and malt shall be due without fraud or cavin." In consequence, Luke Francklin recorded the prices which wheat and malt fetched on Cambridge market from 25 March 1757 to 29 September 1801.² This paper aims to present the prices which wheat and malt fetched per bushel at Cambridge market between these dates and to demonstrate the effect of the prices on the rent paid for the glebe parsonage of Great Barford, Bedfordshire, to Trinity College.

It is obvious from this index with two prices each year, for 25 March and 29 September, that some years show a wide discrepancy in prices,

especially wheat prices. For example, 1795 shows an increase of almost three shillings in the price of wheat but an increase of only three-pence in the price of malt. This is the most extreme case, except for 1799-1801 when special factors applied, but even peace years like 1768 show a wide variation. In 1768 the price of wheat fell by 1s. 9½d. Also this shows several marked differences from the index of wheat prices at Windsor, published by Ashton.³ The latter shows only prices on 29 September but, for example, in 1759 the price at Windsor for wheat was 4s. 8d.; at Cambridge it was only 3s. 10½d. Equally, in 1768 the price at Cambridge was 5s. 7½d.; at Windsor it was 6s. 11¾d. They are coincident on occasions, however, as in 1776, when the price of wheat was 6s. at both Windsor and Cambridge. This variation is seen even more clearly in an examination of the market prices of cereals recorded for the markets of Bedfordshire from 1770.⁴ To obtain the best price it was advisable to sell in Bedford, but to buy cheaply one had to visit a number of markets. Barley and oats were cheapest at Leighton Buzzard, but for cheap wheat Luton was the most probable source. Rye, sold only at Leighton and Potton, was cheaper at Leighton, but the cheapest price for beans was at Potton.⁵

The index of Cambridge wheat and malt prices published herein shows a steady upward trend throughout the late eighteenth century. This trend is even more dramatically docu-

¹ Beds. C.R.O., document FN1251 (*Barford Rectory*), pp. 207-13. This volume is one of twenty-three volumes of reprints containing many documents which have not survived in the original, including the lease quoted. A terrier of the glebe is FN1251, pp. 264-71.

² The wheat and malt prices are recorded FN1251, p. 262 and pp. 277-81.

³ T. S. Ashton, *Economic Fluctuations in England, 1700-1800*, 1959, p. 181, Table I. Ashton publishes malt prices on p. 182, Table II.

⁴ Beds. C.R.O., documents in the QSM ser. from 1770 and additionally in the QSR ser. from 1775. It is hoped to present a study of these 'Local variations in cereal prices in the late eighteenth century' in due course.

⁵ J. Godber, *History of Bedfordshire*, 1969, p. 358.

THE AGRICULTURAL HISTORY REVIEW

TABLE I
WHEAT AND MALT PRICES AT CAMBRIDGE, 1757-1801

Date	Wheat	Malt	Rent	Date	Wheat	Malt	Rent
	s. d.	s. d.	£ s. d.		s. d.	s. d.	£ s. d.
1757 M25	8 0	4 0	40 16 11	S29	4 6	3 3	29 18 10½
S29	6 6	4 0	37 3 5	1780 M25	4 2½	2 9	27 10 10½
1758 M25	5 6	4 3	35 10 9	S29	not recorded		30 15 2½
S29	5 9	4 0	35 6 8	1781 M25	7 1	2 11½	35 5 0½
1759 M25	3 10½	3 0	27 10 5½	S29	5 9½	2 11½	32 1 8½
S29	3 10½	3 9	26 13 0½	1782 M25	6 0	2 8½	31 15 7½
1760 M25	3 6	2 6	24 18 4½	S29	7 8½	3 5½	38 7 3
S29	3 9	2 6	25 13 1½	1783 M25	7 4½	4 8½	41 14 9
1761 M25	3 0	2 3	22 17 6	S29	8 0	4 8½	43 4 4
S29	3 4½	2 3	23 15 10½	1784 M25	6 9½	4 8½	40 5 5½
1762 M25	4 2½	2 6	26 14 6½	S29	7 6	4 5½	41 3 10
S29	4 4½	3 6	30 10 1½	1785 M25	6 0	3 8½	35 1 3½
1763 M25	3 8½	3 9	29 11 9	S29	6 9	4 2½	38 10 9
S29	4 8½	4 3	33 13 5½	1786 M25	5 0	3 8½	32 12 4
1764 M25	5 0	3 9	32 16 0½	S29	5 7½	3 8½	34 3 11½
S29	6 6	3 9	36 9 6½	1787 M25	5 0	3 8½	32 12 4
1765 M25	6 6	3 6	35 13 2½	S29	6 0	3 8½	35 1 4
S29	5 7½	3 6	33 10 4½	1788 M25	5 10½	3 5½	33 19 10
1766 M25	4 7	3 9	31 15 7½	S29	6 0	3 8½	35 1 4
S29	6 3	3 6	35 1 4½	1789 M25	6 6	3 5½	35 9 6
1767 M25	7 4½	4 0	39 9 9½	S29	7 9½	3 5½	38 12 1
S29	7 10	4 0	40 11 3	1790 M25	7 0	3 8½	37 10 4
1768 M25	7 4½	3 9	38 13 5½	S29	7 3	3 8½	38 2 7
S29	5 7½	3 6	33 10 4½	1791 M25	6 4½	3 8½	36 1 10
1769 M25	4 9½	2 9	29 0 5½	S29	6 0	3 8½	35 1 4
S29	4 9	2 9	28 18 5½	1792 M25	5 0	4 2½	34 5 0
1770 M25	4 3	2 9	27 13 11½	S29	7 3	4 5½	40 11 7
S29	5 6	3 0	31 11 6½	1793 M25	6 9	4 11½	40 19 10
1771 M25	6 0	3 9	35 5 0½	S29	6 6	4 11½	40 7 7
S29	6 9	4 0	37 18 2	1794 M25	6 6	5 5	44 18 6
1772 M25	7 0	3 9	37 14 0½	S29	7 5½	5 2	43 9 6
S29	7 3	4 0	39 2 8	1795 M25	8 6½	5 5	46 19 11
1773 M25	7 0	4 6	40 13 1½	S29	11 6	5 8½	55 1 9
S29	7 6	4 3	40 11 3	1796 M25	11 6	5 11½	55 18 1
1774 M25	7 1	4 6	40 7 2½	S29	8 10½	5 2	47 0 0
S29	8 1½	4 6	42 18 2½	1797 M25	6 0½	4 4½	37 8 4
1775 M25	7 7	4 3	40 15 2	S29	7 0	4 2½	40 12 0
S29	5 9	4 3	36 5 6	1798 M25	5 9½	4 2½	37 10 0
1776 M25	4 9½	3 9	32 5 10½	S29	6 0	4 2½	38 0 8
S29	6 0	3 9	35 5 0½	1799 M25	6 0	4 8½	39 8 4
1777 M25	5 9½	3 3	33 2 2	S29	12 0	5 5½	57 14 1
S29	5 9½	3 3	33 2 2	1800 M25	15 1	9 2½	78 8 11
1778 M25	not recorded		34 4 2	S29	18 0	10 8½	91 1 2
S29	5 6	3 3	32 7 10½	1801 M25	21 2½	10 8½	99 4 8
1779 M25	4 7	3 3	30 2 11½	S29	10 0	8 8½	63 14 0
				1802 M25	not recorded		

TABLE II
FRANCKLIN RENTS PAID TO TRINITY COLLEGE, CAMBRIDGE

<i>Year</i>	<i>Fine</i>	<i>Bursar</i>	<i>Register</i>	<i>Writing</i>	<i>Total</i>
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1741	190 0 0	1 18 0	1 11 0	1 12 0	195 1 0
1748	208 12 0	2 1 7	1 14 0½	1 12 0	213 19 7½
1755	242 0 0	2 8 0	2 0 4	1 12 0	248 0 4
1762	242 0 0	2 8 0	2 0 4	1 12 0	253 0 4
	[includes an alienation of £5 0 0]				
1769	242 0 0	2 8 0	2 0 4	1 12 0	248 0 4
1766	316 0 0	3 3 0	2 12 8	1 12 0	323 7 8
1783	315 0 0	3 3 0	2 12 6	1 19 6	323 15 0
1790	316 0 0	3 3 4	2 12 8	2 12 6	324 16 0
			stamp	2 6	
1797	545 0 0	5 8 6	4 10 8	3 13 6	558 16 10
			stamp	4 2	

mented in the rents paid by the Francklins at seven-year intervals to Trinity College, Cambridge.¹ These are known from 1741 to 1797. The total rent paid on each occasion is made up of four elements: the fine based on the fixed sum of £16 6s. 10d. and a variable dependent on wheat and malt prices at Cambridge market; a fee to the bursar of £1 per cent of the fine; a register fee of 2d. in the pound; and an item called 'writing', presumably a legal fee for the certificate of payment. In 1790 and 1797 stamp duty is also mentioned.

The fine for the next seven years is not recorded. For the four and a half years from Michaelmas 1797 to Michaelmas 1801 the fine would have been £545 13s. 10d., already more than the 1797 figure, and that lease had until Lady Day 1804 to run before the next rent was due. Clearly, for any farmers, such as the Francklins, a rent based on corn prices would show a sharp increase in the course of the eighteenth century, especially in the last decade.²

¹ Beds. C.R.O., document FN1251.

² For access to the documents used for this note, I wish to thank the Bedfordshire County Record Office.

List of Books and Articles on Agrarian History issued since June 1970¹

Compiled by DAVID HEY

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¹ The date of publication (or the year of a society's transactions) is 1971, unless otherwise stated.

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Notes and Comments

THE WINTER CONFERENCE

The one-day winter conference of the British Agricultural History Society was held at the Department of Geography, University College, London, on Saturday, 27 November 1971. The theme of the conference was 'The European Common Agricultural Policy—History and Problems'. This subject was introduced by Mr Michael Tracy (head of the agricultural policies division of O.E.C.D. in Paris) with a paper on 'The Evolution of Agricultural Policies in Europe'. He was followed by Mr Ray Rickard (an agricultural economist from Exeter University) with 'The Common Agricultural Policy and British Agriculture: an Assessment'. In the afternoon a lively discussion took place with the speakers acting as a panel and being joined by Mr W. G. F. van Oosten, the Netherlands Agricultural Attaché, and Mr Moguns Munck, the Danish Agricultural Councillor. These two speakers were able to illuminate many of the problems of European agricultural development from their special knowledge.

PEASANT STUDIES

The History Department of the University of

Pittsburgh is sponsoring a *Peasant Studies Newsletter*, to promote discussion among scholars in varied disciplines who are all studying peasant problems and yet rarely have a chance to meet and exchange ideas. News of current research, contributions, and suggestions for review should be sent to David Sabean, Dept. of History, University of Pittsburgh, Pittsburgh, Pennsylvania, 15213, U.S.A.

BIBLIOGRAPHY OF ENCLOSURE

The Society is publishing, in Spring 1972, J. G. Brewer, *Enclosures and the Open Fields: a Bibliography*. It incorporates W. H. Chaloner's 'Bibliography of Recent Work on Enclosure, the Open Fields, and Related Topics', which was published in this REVIEW in 1954 and brings the subject up to date with further books and articles published up to 1970. The resulting bibliography contains over 350 items, and costs 50 pence. Orders should be sent to The Treasurer, British Agricultural History Society, Museum of English Rural Life, Whiteknights, Reading, Berks.

Book Reviews

W. G. HOSKINS (ed.), *History from the Farm*.

Faber and Faber, 1970. 141 pp. 16 photographs. 13 maps and plans. £2.50.

This is an unusual book about farming history, written mainly by non-professionals. Not quite, however: the influence of W. G. Hoskins is there from the beginning, providing essential expertise and continuity.

In 1968, the *Farmers' Weekly* organized a competition, 'History Starts Here', in which readers were invited to submit histories of their own farms. They received timely guidance in an article by Professor Hoskins, and some of them, no doubt, read his book *Fieldwork in Local History*. The twelve prize-winning entries became the foundation of *History from the Farm*. Six further contributions were added, from other parts of the country not covered by the basic group.

The editor provides a general introduction, 'Farms and History', and prefaces each short study with a paragraph or two of his own, to give emphasis to particularly interesting or unique features. The farms range from Land's End (Glebe Farm in Sancreed parish, Cornwall) to John O' Groats (Summerhill Farm in Caithness), and their histories from prehistoric times to the present century. However, it should be said at once—and Professor Hoskins says it—that "the coverage is uneven in relation to Britain as a whole." In the south-western part of the country, five counties (Dorset, Devon, Cornwall, Hampshire, and Gloucestershire), between them contribute eight farms, which account for something like a third of the book. Seven northern farms and three in Scotland make up the total. The uneven coverage of the book reflects the uneven response to the competition, eastern England and Wales producing very few entries. The reticence of Wales is, on first sight, a puzzle. There is none of the unique flavour of Welsh farming to tempt our rustic palates. Is this, perhaps, because the true Welsh farmer feels much more at home in his own language than English? Regarding the eastern half of the country, there is probably more than a grain of

truth in the editor's comment that "farmers in the West Country and the North Country are more interested in the history of their farmsteads and farms, partly because these have not changed their old identity so much as the large-scale arable farms of the eastern side of Britain." May it not also have something to do with the fact that large-scale, intensive arable farming leaves the farmer and his family with less time on their hands than the mainly livestock producers?

We shall be disappointed if we look into this book expecting to find complete farm histories or a comprehensive history of British farming. They are not intended. However, there is plenty of variation in farming types (as well as in modes of presentation), and each study provides an interesting, individual instance of some of the social and technical changes that have taken place in the English countryside over many hundreds of years.

'Continuity' is a theme that is particularly well-developed, with the Norman Conquest (or even an earlier Conquest) as a frequent starting point: a Dartmoor farm of the 'long-house' type was occupied almost continuously by one family from 1545 to 1958; a holding in North Dorset has been farmed continuously since Roman times; in County Durham, no fewer than fourteen generations of the same family have farmed in the same place without a break from the 1520's to the present day.

At times we seem to spend over-long in the farmhouse and too little time outdoors: in one instance, we hardly set foot in the fields, although there are some 500 acres of them waiting to be tramped! However, in some of these essays there is the sort of farming material that pays proper regard to the farm as a productive unit, and not simply a place to live: the Teesdale farm (production changes over the past thirty years), Craighlearn in Dumfriesshire (Blackface sheep and Galloway hill cattle), and Pittendrum in Aberdeenshire (in 'a treeless land where beeves are good') are all excellent in this respect.

It is gratifying to witness, in this bold

assembly, a "very humble little dairy farm of 56 acres" (Carnpessack in Cornwall), and an even smaller holding of 12 acres (Hatchett's Farm in Nether Wallop, Hampshire) which supports a flock of 50 breeding ewes, take their places alongside a twelve-hundred-acre hill farm in the southern uplands of Scotland. In reality there is a basis for this happy co-existence: four out of five farms are indeed small, that is less than 100 acres; the number of farms of over 300 acres is only 4 per cent of the whole.

Professor Michael Wise's account of Brick House Farm is cruelly depressing. It is meant to be. This is "a classic study of how the Industrial Revolution overwhelmed one of these old farms step by step." A hundred yards below the surface of this little (66 acres) Midland farm lay valuable seams of coal and ironstone. Mineral exploitation from 1824 had, by mid-century, left the land "in a bad state and excessively poor;" in 1885 the farm was so impoverished that it was said to be "worth not more than £50 a year." Today no farm buildings remain, and "the debris of an exhausted industrial landscape" which, until recently, littered its former fields, has been replaced by a council housing estate. Urban and industrial development continue their relentless encroachment on our countryside, engulfing viable farms in a welter of tarmac and concrete. It would seem that the lessons of Brick House Farm have not yet been fully learnt. Nevertheless, there is an antidote in *History from the Farm*: the study of a South Lancashire farm (Allwood House, Astley) shows how the nineteenth-century industrial and urban revolution helped, in a variety of ways, to *create* a new farm in the English landscape.

An attractive feature of this book is the collection of superb photographs, one for nearly every farm (why were two penalized in this respect?), and the plans and maps which accompany the text: the plan of the house and buildings at Lake Farm, Poundsgate (Devon), on p. 44, and the map of Brick House Farm, Rowley Regis (Staffs.), on p. 136, are models of their type. There are also, of course, all the unseen documents, private and public, ancient and recent, which together with the visual

evidence, provided the contributors with a wide variety of source material. We should like to know more, sometime, about the seventeenth-century farm accounts of Thomas Hinson of Hunt Court (Gloucestershire), and the eighteenth-century accounts of John Dent of High Green Farm (County Durham).

In several instances the photographs are not located in the best position in relation to the text. Agrarian historians have a tendency to push back their dates, but 1068 for the Domesday Survey (p. 90) is pushing things a bit too far! But errors of this sort are few.

These delightful, down-to-earth studies are all about real British farms, each an individuality. There is none of "the weary stuff about Top People." Altogether, they give us some of W. G. Hoskins's kind of history—*real* history.

DENNIS BAKER

DOROTHY SYLVESTER, *The Rural Landscape of the Welsh Borderland*. Macmillan, 1969. 548 pp. £8.

The Welsh borderland from the Dee down to the Wye is not only one of the most beautiful parts of Britain, with some of the richest farmland also, but is of the highest interest from the standpoint of the landscape-historian. Its pattern of settlement, as revealed on the Ordnance map, is markedly like that of south-western England: the intermixture of nucleated villages with large areas of complete dispersion into single farmsteads, the great number of isolated churches, the mingling of Celtic and Old English place-names, and so on. Miss Sylvester has written extensively in the past on this region from various aspects, and here gathers together in one large (and extremely expensive) book the fruits of her great knowledge. It is sad that one must say that her book is disappointing in the last resort.

She begins with ten chapters on the region as a whole, purporting to range from Celtic times to the present day. Then follow nine chapters under the general heading of Local Studies, taking the counties one by one and occasionally getting down to smaller areas in great detail. There are 21 plates and no fewer than 58 maps and plans. Many of these are excellently drawn, but some of the general

maps are far too overloaded with different symbols and seem to me, at least, to defeat their object entirely.

Unfortunately, too, the book is written in a turgid, old-fashioned geographical 'style' which makes for heavy going. Jargon abounds, with such words as 'de-ruralisation' and 'Normanisation', and one has to work hard to get a picture of the whole. Certain important subjects are not followed up at all. For example, though Miss Sylvester several times draws attention to the feature of the isolated parish church, she nowhere seems to discuss the siting of these interesting buildings, except a tantalizing reference to those that stand on mounds. Surely this is worth exploring? And the caption to Plate X, showing the village of Alveley in east Shropshire, says "Strongly nucleated . . . Celtic and early Anglo-Saxon roots are claimed for it." We are nowhere told who claims this, and on what grounds. Now that we are all so interested in the problems of continuity of occupation from Romano-British times onwards, it is exasperating to be told no more until pages 344-5, where Alveley appears for the first time in the text as part of the estate of Algar, earl of Mercia, in 1086, or is it 1066?

On page 99, Miss Sylvester refers twice to two Offas as kings of Mercia between 757 and 796. Most of us know of only one. And her long bibliography does not mention one of the most important sources for the history of her region, namely Professor Finberg's *The Early Charters of the West Midlands*, published back in 1961.

The great value of Miss Sylvester's book, into which so much work has clearly gone, lies in the later period, from the seventeenth century onwards. The medieval side, so important in this region, suffers from the fact that little or no use has been made of the manuscript sources such as extents. One cannot discuss the knotty problems of dispersed settlement without the aid of these documents, and even they are not as revealing as we would like. On the eighteenth and nineteenth centuries her book will be constantly used as a quarry, with its excellent use of tithe and estate maps, and of modern printed records.

One is pained to see that Miss Sylvester has nothing new to say about drove-roads. She

makes only one small reference to this subject (p. 136) although Dr Margaret Davies has given a flying start on the Welsh side with her map of these roads in *Wales in Maps* (p. 70). Considering the great number of these roads that cross the frontier, heading right across her region towards English markets and fattening grounds, it is a remarkable omission not to trace them on their way across the borderland if no farther. There is no reference to the cattle trade in the index.

Miss Sylvester's book ends with a glossary of Welsh and English terms. One of these—*berewick*—deserves a gloss from this reviewer. The author defines the word as "a wick in which barley was grown. In practice, a detached part of a manor and semi-independent." This is clearly our old friend *bere-tun*, which has come down to us in south-western England, and as far up as Oxfordshire, as *barton*, with the special meaning of the demesne farm of a large estate. So, too, with *berewick*. It must surely mean the demesne farm of an estate. I do not know that anyone has noticed this simple explanation in print before.

W. G. HOSKINS

A. T. GAYDON (ed.), *A History of Shropshire*,

Vol. VIII. O.U.P., 1968. xx+356 pp. £8.40. The *V.C.H.* for Shropshire has followed the familiar pattern of publication. The first volume came out in 1908: after that, silence for sixty years until the volume under review appeared. It is volume VIII in the new sequence, a topographical volume covering the two hundreds of Condover and Ford. This piece of country includes twenty-two parishes in central Shropshire, from the Severn valley southwards to the foothills of the southern uplands of the county. Mr Gaydon, as the local editor, has produced a book of first-class quality, not only up to the high standards of scholarship one now takes for granted with the *V.C.H.* but advancing notably in some directions under his aegis.

Having said this, it is necessary to utter a loud moan. In reviewing volume V of the *Leicestershire V.C.H.* (A.H.R., vol. xvi, Part 1) I drew attention to the fact that the *V.C.H.* in general seems strangely allergic to maps, and this is

still all too apparent. For example, there is no map showing whereabouts in the county the hundreds under review lie, and no map showing contours and the principal physical features. I found this so baffling and irritating as I read different parochial accounts that I cut up a half-inch map of the area under survey, when I could work it out, and pasted it into my own copy of this volume. One simply cannot understand what is being said on the topographical side without such an elementary guide. This piece of countryside runs from the flood-plain of the Severn up to the high moorlands of the Stiperstones at some 1,600 feet above sea-level, and is a complicated landscape altogether.

There are 46 illustrations of churches, fonts, castles, monuments, roof-trusses, and various kinds of vernacular building, including some most instructive aerial photographs. Among the latter we have a very good air-view of squatter settlement at Exfordsgreen, and another of the village of Pontesbury. The air-view of Pontesbury is particularly revealing, showing as it does the early topography of the village with its pre-Conquest *burh* (or the line thereof) and the Norman castle and the line of its baileys, which has dictated the road-plan to this day. I am all for this kind of illustration, but we must have more line-maps even if it means sacrificing a roof-truss or two.

Under Mr Gaydon's hands, the *V.C.H.* makes in this volume a notable contribution to landscape history in a particularly obscure part of England, above all to the elucidation of the settlement pattern which is so distinctive and so hard to explain without exhaustive documentary research such as we have here. On the whole, large compact villages are few and far between, as in Devon, and we get instead large parishes with scattered settlements: single farms and small townships abound. The maps of Westbury and Pontesbury are well chosen to illustrate this type of settlement. In each case we have a large mother-village associated with a vast hinterland dotted with daughter-townships. But the history of rural settlement is even more complicated than this, for a great number of single farms today represent the shrunken remains of medieval hamlets. Thus in Alberbury-with-Cardeston some hamlets survive,

but no fewer than seventeen others had dwindled to single farms before the end of the Middle Ages.

The process of agrarian change is, indeed, well illustrated by the statistics of changes in the size of settlements. In Condovery hundred, out of some 70 hamlets marked on the map, 22 survive today, 31 have shrunk since the early thirteenth century, and 8 are wholly deserted. A few are uncertain of diagnosis. In Ford hundred, 12 hamlets survive, 51 have shrunk, and 7 are completely deserted.

Two excellent maps show the landscape of the region as it was about the year 1200. A vast amount of research has clearly gone into compiling these maps. They show the extent of common-field land at that date, and the extent of woodland and waste. In both hundreds the wood and waste is considerably more extensive than the common-field arable, so that the later generations are mainly a story of clearance and new settlement. The open fields, too, seem to have been enclosed at an early date.

Interesting squatter settlements make their appearance on the extensive commons. On Kenley common, for example, the first cottage is noticed in 1537, and by the end of the century a dozen had been built, symptoms of land-hunger and of rising population in the second half of the century. There are several other examples of this phase of agrarian history.

Though this was above all a farming region all through its history, there were also important coal, iron, and lead workings, which gave rise no doubt to the dual economy of farmer-craftsmen or farmer-miners so well described by David Hey in a recent issue of this REVIEW.

Altogether a mass of valuable material for agrarian history lies firmly embedded in this volume, which later workers must quarry for with infinite patience. Once again one wishes that the editor had given us a summary introduction to the volume, in order to ease the path of the searcher. I said this in reviewing the Leicestershire volume on Gartree hundred, and I say it again. One realizes that the *V.C.H.* is too massive and well-set to permit of major changes of format, but this is something which could be done without difficulty in the future. After all, the editor, by the time he has com-

pleted his histories of every parish in a region, knows far more about the main lines of agrarian development than any desultory reader could hope to know, and is in the best possible position to produce such a guiding line through the formidable mass of detail. How much longer must we wait for this elementary help for students of regional history?

W. G. HOSKINS

COLIN R. TUBBS, *The New Forest: An Ecological History*. David and Charles, 1969. 248 pp. £2.50, Paperback edn, £1.25.

This book gives a detailed, yet lucid, account of the New Forest from pre-Roman times to the present day, examining such topics as the Royal Forest, the Statutory Inclosures, and the Future. The history of agriculture in the New Forest was examined by the author in the AGRICULTURAL HISTORY REVIEW in 1965. The unenclosed commons sustained a vigorous pastoral economy of cattle, pigs, ponies, and to a lesser extent sheep. In many ways, grazing was complementary to the prime use of the Royal Forest, deer-grazing. For example, green acorns were good pig food, but an excess of acorns without any fibrous food could kill deer and cattle. Thus pigs were allowed to compete with the deer during the autumn when the acorns were falling. The author finds his way through the thickets of Commissions, bylaws, and legislation with admirable ease. There are only one or two blemishes—Wilkinson, not Williamson, wrote the 'Prize Essay on Hampshire' for the Royal Agricultural Society, and a key would have helped to sort the ponies from the cattle and deer in Figure 3. Overall, this is a most valuable addition to the studies of the rural landscape and economy of distinctive parts of the country in the past.

There is an extremely significant subtitle to this book, 'An ecological history'. Almost all previous regional studies have been rather narrow in their outlook on the farming environment. All too often, the reader has wondered whether the ploughman ever saw a wild plant, and whether the shepherd, his sheep, and dogs ever shared the downlands with any other animals. Many economic historians and historical geographers have de-

scribed a 'sterile' world, growing corn, sheep, and cattle, without a wild plant or animal in sight. In view of the large sums of money being spent today on pesticides and attempts at wildlife conservation, the absence of concern for the natural environment by the agricultural historian is quite remarkable. Colin Tubbs tries to broaden the historian's vision of the past.

He writes, "The function of the ecological historian is to synthesize information derived from many different, though often allied fields of research." His book is a model of how this difficult assignment may be carried out. He notes the distribution of pre-Roman settlements and suggests that these people may have begun the clearing of large parts of the forest, causing widespread soil deterioration. The soils became so base-deficient that only light grazing was possible. The vegetation cover in the Dark Ages and medieval period degenerated from woodland through a hazel, grassland, grass-heath stage to heather. The soil scientist and pollen analyst have suggested the various ways in which early farmers changed the vegetation and caused extensive areas of the forest to remain unploughed.

The documentary record of changes in fauna and flora in the forest before the nineteenth century is fragmentary. It can be supplemented by field observations and an assessment of the age of trees and periods of forest regeneration. The oldest generation of trees in the unenclosed woodland dates from between 1650 and 1750, when there was a period of regeneration following one of widespread woodland exploitation. Documentary evidence confirms that efforts were made to reduce grazing and encourage timber growth at that time.

The unenclosed woodlands and heathlands comprise the largest single unit of 'semi-natural' or 'unsown' vegetation remaining in Lowland England today. In addition, a long history of varied land use and land management by forester, farmer, and sportsman has produced a diverse habitat, populated by a unique range of animals. Agriculture has played a large part in forming this landscape, changing the distribution of wild plants and animals. At the same time, the natural environment had a great impact on cultivation and grazing, and Colin

Tubbs, in his book, has shown the close relationship between the farmer and the natural environment. He has given a stimulating boost to work in this field of environmental research.

JOHN SHEAIL

A. L. F. RIVET (ed.), *The Roman Villa in Britain*. Routledge and Kegan Paul, 1969. xvi+299 pp. 74 plates, 46 figures. £3.75.

All disciplines need their synthesizers and their Nestors; Roman Britain has had Haverfield and Collingwood. The late Sir Ian Richmond might have worn the cloak if he had not departed so soon after his translation from the military to the civil zone of Britain. Is Mr Rivet emerging to assume the task? At all events, for some time now he has sat like a robin on a branch observing the students of Roman Britain with a bright observant eye, summarizing here and criticizing there, and beckoning us back to the broader vistas of classical learning and the profounder considerations arising from the fact that Roman Britain was, all said and done, a Roman province. In this capacity he is a fitting editor of the present collection of essays—the first of its type that deals squarely with the Roman villa in Britain.

High time too, if only to tell us how little we know. The province has been too long the near-monopoly of the militarists and the urban diggers. Agriculture, after all, was the foundation of ancient civilization, and the villa was nothing if not the most developed expression of the Roman Empire's agrarian system—though not the only one. And before we consider the work of Rivet and his colleagues, let us pause to honour the not quite unknown soldiers on whose achievements they stand—Paullett Scrope, Cocks, the Curwens, Corder, Winbolt, Radford, Moray Williams, Mrs O'Neill, and many more. There is another aspect that invites meditation: the yet unconsummated marriage of archaeology and agrarian history. In the present collection there are some symptoms of pregnancy—the work of Glanville Jones is mentioned and almost discussed. Nor let us forget that C. E. Stevens, in the steps of Vindogradoff, has for many years been drawing our attention to the Celtic legal and tenorial undertones of Romano-British agrarian life.

Not all the chapters of this collection will be of equal interest to students of agrarian history. D. J. Smith on mosaic pavements and Miss J. Liversidge on 'Furniture and Interior Fittings' help to fill in the cultural and sometimes the economic picture. But readers of this REVIEW will find their pabulum rather in H. C. Bowen on the Celtic background, Richmond on Villa Plans, Rivet on social and economic aspects, and Webster on the future of villa studies.

Bowen's chapter is the fruit of a year-long wrestling with the remains of our 'Celtic' field systems and as such the product of a scholar who not only takes it for granted (the awareness was new in the 'fifties) that by and large Roman villas stood on a Celtic agricultural basis, but is also strongly aware of their agricultural function. He really grapples with what the farming of the pre-Roman British Iron Age was, and surveys it from the archaeological evidence. He is thus conscious that a proportion at least of Roman villas cultivated what were in effect 'Celtic' fields (Messrs P. J. Fowler and G. Webster have recently presented us with two more such associations to add to that of Brading)—although he draws no technical conclusion from this discovery, and such conclusions ought to be drawn by anyone interested in farming techniques. He also rejects the existence of genuine Romano-British strip-fields, although a pretty good example exists near Kings Worthy villa, Hampshire, and an air-photograph leaves no doubt that these strips co-date with the Roman house. Similar associations, moreover, are now known in the Trier district. Where settlement pattern is concerned, Bowen shows plainly that in both pre-Roman and Roman times, *Einzelhöfe* (isolated farms) existed side by side with smaller and larger rural nucleations—a fact demonstrated by him and others in the 1965 C.B.A. conference on Roman rural settlement; but the connection (if any) between villages and villas remains unclarified.

The weakness of Bowen's account is, I think, its inadequate evaluation of the technical progress of agriculture in the Roman period: Bowen is aware of the advance and multiplication of well-made tools, but prefers to be silent

on the implications of the increased variety of cultivated plants, of better-built byres, granaries, stables, and the like. He does not believe much in the value of the Romano-British wine industry, yet Bede mentions British vines, so perhaps they were a Roman gift to Saxon England. Bowen's treatment of Romano-British livestock is cursory, nor does he discuss the problems of Roman introductions, or improvements of native breeds. And since experts have decided that winter-killing was not invariable in the Early Iron Age and Roman period in Britain, surely the problem of how stock were maintained in winter deserves a mention. Bowen does not, in fact, attempt to build a comprehensive picture of a developed villa-agriculture.

Richmond on villa plans is an uncompleted fragment, and as such it must be judged. It is clear and cogent like everything he wrote, but confines itself chiefly to the residence, whereas, it seems to me, the villa-house should always, where possible, be taken as part of a farmyard with its outbuildings. J. T. Smith would probably reject Richmond's continental parallels of British basilical houses, but the former's protoplan is perhaps too restricted and subjective for reality. We might add that the German 'hall' type of villa, of which Mayen is an example, is indeed represented in this country (Titsey).

On social and economic aspects, Rivet is certainly *primus inter pares*. We read his chapter, in which he says many new things and adopts many new lines of attack, with a sense of refreshment and chastisement. His first theme is, What did the Romans mean by the word 'villa'? This is a peculiar discussion, because the word has been used for Roman rural residences in Britain for over a century, and even if misapplied (and I am not sure that it is) or even if it occurs only once among known Roman place-names in Britain (I have suggested that it must be *understood* after at least two other place-names—*Sulloniacae* and *Vagniacae*; and the word 'villula' is applied by a biographer to the estate of St Patrick's father) it is the phenomenon of the romanized rural residence in Britain that primarily concerns us, and not what it was called. All the same, Rivet's central

thesis—that the British villa was essentially a concomitant of town life and dependent on it, agrees with the conceptions of the *Scriptores Rustici* who held that a productive country estate was among the necessary appurtenances of a civilized Roman gentleman. The difference is that a Roman gentleman could live in town without farming; I doubt whether a British nobleman of the first century A.D. could have done so. The origin, moreover, of many villa-owners among the Celtic nobility might well direct attention to the interesting correspondence that appears to be traceable between some computed villa-estate areas and traditional Celtic units in Wales and Ireland. Rivet demonstrates his own point by showing on maps the intimate connection of known villas with urban centres and with roads. This demonstration, however, leaves us unhappy over two other phenomena, namely that the densest villa concentrations are often near the smaller centres, and that areas without villas appear round some towns, suggesting what we know to have been true in the classical world, *viz.* that town dwellers cultivated the areas about their towns. The connection between decurions and rural estates is not, in fact, quite so simply demonstrated; the phenomena suggest that the immediate vicinity of some towns was cultivated by a different class of inhabitant.

In reviewing agrarian progress against the background of taxation and commissariat demands, even though an estimate of yields and demands is a slippery business involving a number of unknowns, Rivet is tackling essential problems, and I rejoice that he has had the courage to make the attempt. Yet why does he allow for a fallow every third year only? The implication is a three-year course, two crop and one fallow, and in fact the testimony of plant-finds in recent years, including evidence for the cultivation of oats and legumes, is much in favour of the introduction, or promotion, of three-course cultivation in the Roman period. But this is most likely to have been primarily a feature of the progressive villa estates free of communal custom and able to enclose. Recent work by Fowler, indeed, suggests that 'Celtic' fields were both enclosed and open, but much more research is necessary to discover the

scope and implications of this fact. All the same, it would have been well if the problem, at least, had been stated.

Nor can we ignore Rivet's view that the ideal villa produced everything that the household needed. Perhaps it did, but very few villas were 'ideal', and Rivet's own evidence is against him (the connection of villas with towns and communications), as is the evidence of archaeology; salutary, for instance is Rahtz's list of finds of extraneous origin in the relatively insignificant and remote villa of Downton, Wiltshire. Nor can we feel comfortable with Rivet's account of British villas in the third century. Disturbances, even abandonment, undoubtedly; but did these precede a recovery at the end of the century, or was an era of progress under the Severi followed by recession? Archaeological reports of recent years, admittedly often brief, inform us of numerous rural buildings originating in the third century. Are all or most dated to the end of the third century, or are we faced with too little attention to the dating of colour-coated ware? One point, however, must be made: third-century inflation certainly aided agriculture in so far as solid produce rose in value as the value of money dropped. But it is good to see Mr Rivet emphasizing the immigrant element among the villa proprietors. The general evidence on the identity of proprietors, though not ample, has been neglected and, when assembled, is found to be sufficient to furnish something of a picture: the extraneous element appears quite plainly, and this surely invites agro-technical inferences.

On the obscure problem of the Roman legal status of British lands, Rivet has a keen point to make, to wit, that one of the aims of the *Constitutio Antoniniana* was to increase income from the 5 per cent inheritance tax, and this would not have been achieved had not the majority of provincial proprietors then acquired complete ownership of their estates. But on actual tenurial problems Rivet has little to say.

As in the Roman bath, the cold douche is kept for the end; Webster on the future of villa studies has some wholesome shocks to deliver. It is not simply that (as he tells us) no more than eight villas have been scientifically excavated

in Britain with anything like completeness; he critically reviews three relatively modern villa excavations (Llantwit Major, Lockleys, and Langton, Yorkshire), and shows how much the conclusions drawn from them require revision. Only the last site, indeed, comes out with anything like credit. Our faith in one aspect of British archaeology is thus gravely shaken. But Webster is also constructive, and proposes a plan for villa research. To his recommendations we would venture to add one more: a villa should never be studied in isolation, but always in terms of its region, communications, soils, position, and its neighbouring sites; also in relation to what happened later in the same area. It is, in fact, the ecology of the villa which stands in need of development.

Rivet ends with a few words on the continuity problem, and Webster deals with the same subject at somewhat greater length. I would confirm Rivet's view that continuity is to be found, if anywhere, among the lower classes of the rural population, including the *coloni*. Webster's discussion is more exclusively archaeological, and he has much to say of coin-evidence (or the lack of it); but he is convinced that evidence will be increasingly forthcoming of the persistence of some form of Romano-British rural life into the sixth century, at least in the south-west. Such evidence has, indeed, considerably increased since he wrote. On one point, however, I would suggest an emendment: the belt-buckles of Sonia Hawkes and G. C. Dunning now seen to evidence military occupation at some villas well into the fifth century, and do not represent *foederati* turned *hospites* as in late Gaul; the continental affinities of their accoutrements now prove to be with those of barbarian troops of the imperial field army, the *Comitatenses*. Honorius, it seems, did not leave Britain as naked as contemporary sources would have us believe. Such settlers may well have been one of the elements making for the occasional survival of villa-estates within identifiable boundaries such as can be found, I believe, about the Roman house of Ditchley, Oxfordshire.

This book is meritorious in its self-criticism, in its fresh approach, and in its active thinking. It gets to grips with much of the economic and

social background that produced and affected the villa. Its deficiencies are accentuated by its own trenchant thinking and we shall anticipate much more of such thought (and action) from its authors in the future.

SHIMON APPLEBAUM

J. GILCHRIST, *The Church and Economic Activity in the Middle Ages*. Macmillan, 1969, xi+309 pp. £4.20.

This book falls into two parts. The first 139 pages are devoted to an analysis of the economic doctrines of the medieval Church as expressed in its canons; and this is followed by a range of extracts (translated) from these canons, beginning with the Council of Nicaea in 325 and ending with the Fifth Lateran Council, 1512-17. The 20 pages of bibliography and 60 pages of notes reveal something of the industry of the author.

The book is concerned with what the Church had to say, in its most formal pronouncements, about economic activity. According to Dr Gilchrist, the views expressed were formulated most clearly during the period 1000-1300, an age of "economic revolution". But what the Church *said* and what the Church *did* were not always the same things, and part of the introductory section is devoted to 'The Doctrines at Work', in which the author explores, necessarily briefly, the implementation of the views on property, usury, the just price, and charity. Dr Gilchrist sees the later Middle Ages as a period of "economic recession," with the canonists fighting a losing battle against newer, more secular (perhaps 'realistic' might be the term used today) forces.

Dr Gilchrist's brief is limited. He is interested in ecclesiastical law rather than in the Church as a great estate holder and financial organization; although he does indicate somewhat briefly that the Church's interests in economic activity was always a mixture of remote idealism and practical involvement. But even within his own sphere one or two small points may be made. By concentrating on what was said in the Councils, the author has minimized the differences between the various units that made up 'the Medieval Church'. Further it may be doubted whether sufficient weight

has been given to the doctrine of apostolic poverty and mendicancy which troubled the Church so much in the thirteenth and fourteenth centuries. Nor is it clear for whom the extracts from the canons are intended—but this book is the first of a promised trilogy, and the whole may make the purpose of this volume clearer. At £4.20, however, it is too dear, even for a specialist work like this.

ALAN ROGERS

PHILIP A. J. PETTIT, *The Royal Forests of Northamptonshire. A Study in their Economy, 1558-1714*. Northamptonshire Record Society, Vol. XXIII, 1968. xvi+236 pp. 7 maps. £2.62½ plus 25p postage.

Here at last we have Dr Pettit's frequently cited D.Phil. thesis on the royal forests of Rockingham, Salcey, and Whittlewood. As one of the first studies of a local forest economy to appear it will be welcomed by those historians and geographers who in the past few years have become increasingly interested in the woodland regions of England.

Dr Pettit begins his account by helping us to gain our bearings. He establishes the locale of the three royal forests in this populous Midlands county, and sets down the fundamental facts of forest law and administration. His three principal subjects are tackled in turn—the Crown's management of its forests and in particular the early Stuarts' attempts to exploit them for revenue; the story of the timber supply in the Northamptonshire forests and the light that these examples throw upon the thesis of a national 'timber crisis'; thirdly, and perhaps of most interest to the readers of this journal, the economy of the Northamptonshire forests, including a case study of the forest village of Brigstock in Rockingham.

The outstanding fact about the Crown's management of its forests that emerges from Dr Pettit's account was its failure. Whether in the preservation of game, in making traditional rents and fines a viable source of income, or in employing the resources of the forests in timber and underwood at all efficiently, successive royal governments from Elizabeth I to Charles II failed dismally. Chiefly to blame was the "anachronistic and discordant ag-

glomeration of private interests" that was supposed to serve as a forest administration. In practice, this meant that the very officials appointed to safeguard the royal interest were often its worst enemies in poaching and depredations upon land and trees. The crookedness of the royal officials was only one of many private interests conspiring to thwart the royal interest. From the top of the social scale to the poor cottagers at the bottom, Dr Pettit's evidence makes it clear that hundreds of local inhabitants were involved in violations. Is it any wonder, then, that the early Stuarts failed in their schemes to revive forest law?

The timber in this group of royal forests began to be exploited with a modicum of effectiveness only after 1660. In the previous hundred years the profits from wood sales had been unimpressive. The lack of a good market was one reason: the county was isolated from water routes and industrial areas, and alternative supplies were held by local landowners keen to exploit the local market. Another factor was once again royal policy. It was marked by "unimaginative and sometimes fatuous conservation," so extreme that timber was often kept until it became worthless for the shipyard. After the Restoration better communications and a growing Navy created markets for Northamptonshire timber, but over the period 1558-1714 there was no timber shortage in the county, and only a slight decline in the size of its forests. Dr Pettit's account shows convincingly that throughout the period the most destructive elements in these forests were the forest officers and the local inhabitants. In short, there is ample testimony in these pages to the incredible neglect by the royal bureaucracy of royal interests under Elizabeth and the early Stuarts.

The final section of the book is in many respects the most interesting, for here the author brings to light a number of important changes in the local forest economy. He shows that the population of most of Northamptonshire's forest villages grew sharply in the sixteenth century as people came in search of land, many no doubt from the fielden parts of the county which were increasingly afflicted (as is shown) with land shortage. Villages often

doubled in population from 1520 to 1670, and some were so large at the latter date—e.g. King's Cliffe in Rockingham with over 800 inhabitants—that they could hardly be called villages any longer. Because of this population growth, however, pasture land became more and more scarce, and after 1600 social tension rose when a handful of well-off farmers stood as islands in a sea of poor cottagers. With land ever scarcer, industrial employments were taken up more and more in the following century, although they were still not commonplace until the end of the period. The study of Brigstock is put to good use in showing how a single village experienced these changes. From it, for instance, we see how thoroughly dependent upon the forest for a living were the mass of cottagers.

These studies afford us a valuable close-up view of the forest communities of Northamptonshire. Many of the changes that Dr Pettit has found taking place there conform broadly to the experiences of woodland communities in other parts of the country. Yet these studies inevitably add nuances and make us aware that there was no 'typical' forest village. Occasionally they suggest questions: for example, was a large class of smallholders and cottagers peculiar to the late sixteenth century and the seventeenth century? Dr Pettit finds this class in considerable force in Northamptonshire forest villages in the reign of Henry VIII; in the case of Brigstock as early as 1400!

Dr Pettit succeeds therefore in his stated aim of writing a history that encompasses political, social, and economic aspects of this group of royal forests, and his proposition that "no forest ever consisted merely of woods and trees" is well borne out in this book. Moreover, the author's command of his material would appear to be nearly complete; he obviously is familiar with the area about which he writes from the ground up and not only on paper. One must, nevertheless, take exception to his *modus operandi* on one or two counts. For one thing the account is not as balanced as it perhaps might have been. Too much space is given to the administration of the forests, nearly two-thirds of the text being spent on matters of

revenue and policy, important subjects to be sure but not ones that will keep the interest of even the most devoted reader after a few dozen pages and where one would have hoped for more space to be given, the evidence allowing, to forest villages such as Brigstock. (It is worth noting that Dr Pettit promises a larger study of this village in future.)

Moreover, Dr Pettit's study of the forest economy reflects too little of the light shed upon the subject by other researchers in the past decade. He might perhaps be excused no reference to the discussions of agriculture and labouring life in the forests in the recent volume of *The Agrarian History of England and Wales, 1500-1640*, which appeared a year before his own book, although one might still have expected reference in the preface or bibliography to such a major work. But the disregard of Dr Thirsk's essay on the origins of rural industries in England, which appeared in 1961 and which had a good deal to say about woodland areas, is difficult to excuse. Studies of the forests of the south-west are also ignored. The result is that the author misses some at least potentially important questions—for instance, why were industrial by-employments taken up comparatively late in the Northamptonshire forests; or, why was the popular reaction to Charles I's revival of forest law so mild in the county by comparison with that in the south-west—and his book is somewhat poorer for it.

What Dr Pettit gives us, therefore, is an extremely well-researched study of the royal forests of Northamptonshire which it is good to have at last in print. One's only major reservation is that more time could have been profitably spent in revising and updating a thesis originally submitted in 1959.

A. L. BEIER

ALAN MACFARLANE, *The Family Life of Ralph Josselin*. Cambridge University Press, 1970. xiii+241 pp. £2.75.

Ralph Josselin was vicar of Earls Colne in Essex from 1641 to his death in 1683. His lengthy and detailed personal diary covers nearly every day between 1644 and 1665 and thereafter at least one entry each week. It is this

diary which forms the basis of Dr Macfarlane's study of Josselin's family life. This book is subtitled 'An Essay in Historical Anthropology'. In the author's own words it "deals with the problems of a demographic and sociological kind which currently intrigue many historians." Trained both as a historian and as a social anthropologist, Macfarlane is eminently suited to undertake the task.

His analysis of Josselin's life falls into four parts. Two chapters of the first, 'The Political, Ecclesiastical and Economic World', are of the greatest direct interest to agrarian historians. Josselin was not only a priest but also a farmer—his grandfather had been a wealthy yeoman who left over £1,000 in his will. Josselin himself, demonstrating considerable energy and planning, spent over £1,000 on the purchase of land during his life. A further £900 went into payment of taxes, to running costs, and to agricultural reinvestment. During the 1650's he saved up to half his annual income and subsequently at least one-third. Land came second only to his children as a form of investment. All this was achieved from an income which averaged between £120 and £180 per annum.

At least one-third of this income came from the land itself, largely in the form of profits earned as rentier or farmer. He leased the bulk of his holdings, farming only 12-20 acres himself. As a farmer Josselin concentrated on arable crops, though he later purchased cows, pigs, and steers. From the 1660's he also kept sheep. His orchard formed another source of profit, and in this Josselin grew mainly apples and pears, together with apricots, gooseberries, and mulligatawny. But the bulk of his farming income came from his corn—wheat, rye, oats, and maslin—and hay crops. As a farmer and a yeoman, he provides an interesting comparison with Robert Loder. In the words of the author, "his whole Diary is an example of the hard-working, endlessly accumulating and re-investing type whose features have been so widely analysed in recent discussions of the 'protestant ethic'."

It is, however, in the other three sections of this book—'The Life Cycle', 'The Social World', and 'The Mental World'—that the novelty of Dr Macfarlane's approach is shown.

It is here that he illuminates so many of the imponderables of seventeenth-century society alluded to by Peter Laslett in *The World We Have Lost*. Josselin's family shows us a personal aspect of historical demography for here we find not only statistics but also *attitudes*. Thus Josselin spoke of "... our Wives like Vines, and our Children like Plants and Branches." Here, therefore, Macfarlane analyses both the statistics of, and the attitudes to, the three components of the 'Life Cycle'—Birth, Marriage, and Death. He includes a particularly valuable analysis of adolescence and the placing of children in work.

Dr Macfarlane also uses another basic anthropological technique in extracting Josselin's kinship ties. Indeed, a kinship diagram illustrates the dustcover of his book. Josselin's case supports the hypothesis of the Cambridge Group—that the extended family was not a significant feature of English pre-industrial society. The welfare functions performed by such family units were provided instead by servants; servants who perhaps represented exchanges of children between households. To Dr Macfarlane, "... geographical mobility, high age of marriage, low expectation of life, and inheritance concentrated in the nuclear family, were some of the major factors militating against the importance of his extended kinship network." Josselin's kinship ties resembled those of a highly mobile modern family.

The final section of the book, 'The Mental World', examines Josselin's attitudes to pain, sin, and the deity, his dreams, imagery, and the structure of thought. It will provide a stimulating text for the historian of ideas.

What therefore has been Dr Macfarlane's achievement? He has produced a fascinating biography of one of the 'middling sort of men', a man who was, moreover, a Puritan cleric. In some ways this compensates for the lack of a full printed edition of the diary. To more conventional historians, the anthropological approach may seem the weakness not the strength of this book. The contrasts of the *mores* of an English clergyman with those of the Comanche may seem more eccentric than credible, but in Dr Macfarlane's hands they are always illuminating. The novel analytical tools he has brought

to bear on Josselin may refresh our reading of other familiar diarists, but this book does not entirely establish their validity. The essentially subjective diary is not ideal material for the social sciences, and this study, based largely on one such source, is at many points unconvincing. Single-instance evidence is not entirely substantiated by cross-references to other societies. The kinship diagram sacrifices the precious chronology of the historian to the grand analytical design. But the weaknesses of this book are probably only those of a 'pioneer' and one looks forward to seeing these methods gainfully employed in the study of a community, rather than an individual. Dr Macfarlane has suggested that anthropology and sociology can make vital contributions to the historical method: further studies may establish their place. His book, therefore, will be a stimulating and useful, but not essential, addition to the bookshelf of the agricultural historian.

J. A. CHARTRES

Agricultural History, Vol. XLIII, no. 1, January 1969. Published for the Agricultural History Society by the University of California Press. 214 pp.

The major part of this issue of the American journal, *Agricultural History*—186 pages—is devoted to the proceedings of a 1967 symposium on eighteenth-century agriculture. The symposium, held in the Smithsonian Institution in Washington, was sponsored by the Smithsonian, the Accokeek Foundation, and the [American] Agricultural History Society. The objects were varied: to obtain practical advice on running a living eighteenth-century farm, to bring eighteenth-century agricultural history to a wider public, and principally, to bring together for exchange of ideas and information a varied group of distinguished specialists, historians, both political and agrarian, biologists, horticulturists, and agricultural economists.

The meeting produced ten short papers and nine comments, and in the tradition of American academic gatherings some of the comments are as lengthy and as valuable as the papers on which they are based. Only one paper, that by

Dr Fussell, is specifically on England, although one other by Slicher van Bath deals with the broad evolutionary development of agriculture in eighteenth-century Europe. The remaining contributions provide a varied view of farming conditions, knowledge, and practices in America, with a certain concentration on Virginia, Maryland, and Georgia, but with topics ranging from landscape architecture and plant hybridization to the political role of small tobacco farmers.

Dr Fussell offers a provocative opening to the symposium by denying the influence of science in English farming of the period. Such contemporary writings as had a scientific basis were neglected by farmers "soaked in local lore," hard-headedly practical in their attitude to novelty, the majority of whom "lived and died without reference to the printed word." The advances made resulted from experimentation and imitation where encouraged by visible results. It is a big subject, of course, and needs more space and deeper consideration than Dr Fussell was allowed to give it. In his urbane commentary, Professor Brandenburg complains that Dr Fussell gives 'science' too restricted a definition and neglects the contemporary belief in enquiry, the enthusiasm for carefully controlled and measured experiment, which was at least scientific in spirit. He instances the activities of the early societies, particularly the Bath and West of England, which from 1783 published 14 volumes of detailed reports on members' experiments.

Slicher van Bath's paper emphasizes the great variety of practices and standards to be found in western Europe, and he points out that the English development of a mixed farming system based on relatively large farm units was unique. In his comment, Folke Døving criticizes van Bath's reliance on figures of yields related to amounts of seed sown. He argues that the ratio of yields to land area provides a better index of agricultural progress, but the examples he gives for England seem to be unhappily chosen. Can it really be held, for instance, that the yield per acre figure for 1812 "represents the peak of the results achieved through eighteenth-century advances in British agriculture"—in the face of the great extension of cultiva-

tion to inferior soils under the pressure of war-time shortages, and in view of the excessively wet and deficient harvest of 1812 itself?

Regrettably, the main body of the contributions on America must be dealt with even more summarily. Those on plant hybridization, silk-culture, and horticulture are primarily bibliographical in character, but are none the less interesting for that, and they provide many valuable insights into the technology of the period. Professor Land's study of the problems of the tobacco planters is principally a statistical exercise based on an examination of Maryland inventories and accounts. It reveals that some 70 per cent of the planters were small men owning no slaves and worth £100 or less. For cultivation they relied heavily upon hand implements, possibly, as Conway Zirkle suggests, because ploughs were of little use on holdings encumbered by rotting tree stumps or on light soils subject to loss of humus and mineral nutrients through leaching. D. Alan Williams shows that the small tobacco farmers of Virginia participated widely in local administration, and he argues that by providing an outlet for ambition this prevented the farmers from challenging the political leadership of the large gentry planters, and so secured political stability in the middle eighteenth century.

Merrill Jensen's paper is much wider in scope. He gives an analysis of what is known about the role of agriculture in American foreign trade before and after the Revolution. Of great political significance was the way in which the various States dealt with the 'farm problem' of the 1780's—the burden of wartime taxes and debts upon the farmers. The new Constitution stopped the States from yielding to the interests of debtors, most of whom were farmers, as opposed to the interests of creditors, most of whom were merchants. Thus developed from old beginnings the portentous division between mercantile and agrarian interests, between city and country, and North and South, which was to play so large a part in American history.

Finally, on a theme which links England with the United States, Professor Loehr writes about Arthur Young and American agriculture. The paper is weak on Young himself, repeating

the old myth of his failure in farming, and neglecting the significance of the many contradictions and changes of mind to be found in his writings. It is more a broad review of the effects on America of progress in English agriculture in general. Professor Woodward's discussion is in fact fuller on Young, and is particularly interesting on his relations with George Washington, and on the intriguing possibility that Young was the author of a contemporary work on *American Husbandry*.

These few inadequate remarks will give some idea of the variety and richness of this valuable collection of papers and comments, to say nothing of the bonus provided by the excerpts from contemporary writings interspersed among the papers themselves. The collection deserves a wide readership, and if it does nothing more, it should attract attention to the important work carried on by *Agricultural History*. Over a great many years now it has published some very significant articles, mainly on American agriculture, of course, but also on England; certainly, its neglect in this country is no compliment to English scholarship. Perhaps a small blow against English parochialism will make a fitting end to this review: may I remind you that a joint subscription of £4 will secure you not only the two annual issues of the *Agricultural History Review* but also the four issues of *Agricultural History*?

G. E. MINGAY

J. H. NORRIS, *The Water-Powered Corn Mills of Cheshire*. Reprinted from the *Transactions of the Lancashire and Cheshire Antiquarian Society*, vols. 75 and 76, 1955-6, Manchester, 1969. 37 pp. 75p.

This reprint makes available to a wider audience an excellent piece of industrial archaeology which is the result of a considerable amount of painstaking research and fieldwork. Mr Norris is to be congratulated on adding yet another valuable piece to the patchwork which is the history of corn milling. It is an odd fact; bearing in mind its importance to basic food production and, no less significant, as a school for many early engineers, that the corn-milling industry has received scant regard from

economic historians. The only full-scale history of corn milling relating to Britain was published as long ago as 1899 and, since then, work on the subject from a purely historical standpoint has been sparse.

Mr Norris and a number of other industrial archaeologists have provided a valuable collection of material bearing on the technological history of corn milling which at the same time throws some light on the industry's general development. This particular work is clearly set out and has a number of very good photographic illustrations. A useful introductory section explains many of the basic technical aspects of water milling and this helps place in perspective the detail given in the gazetteer. The list of Cheshire mills mentions nearly two hundred sites with varying amounts of information on each.

A close analysis of the technical detail given bears out at least one point—that technological improvement in milling was irregularly adopted and old methods persisted, often alongside new ones. Even the comparatively simple change to iron working parts was delayed, in many instances while existing mechanisms continued to function. It is unfortunate that little precise dating of changes and rebuilding could be included but this, of course, would have made the research infinitely more complicated and in many cases may have proved impossible.

The value of the industrial archaeologist to the historian is in his assiduous collection of detail which can provide the groundwork for assimilation and interpretation. Mr Norris has done his part of the job well. It is to be hoped that similar surveys of other areas will appear and that some historian will attempt to do justice to the history of corn milling.

DAVID GRACE

HENRI MENDRAS, *La Fin des Paysans. Changement et Innovations dans les Sociétés rurales françaises*. Librairie Armand Colin, 1970. 306 pp.

This book was first published in 1967, but now appears in a paperback edition. It is of absorbing interest to historians, for it treats of issues which in England were settled in a compara-

tively detached, but socially ruthless manner in the eighteenth and nineteenth centuries, but which are burning current problems in many European countries today. Fortunately, they cannot nowadays be "settled" in a *laissez-faire* way, and it will bring comfort to English historians who have studied the process by which the peasantry was destroyed at home to see the sympathetic understanding with which French sociologists discuss the problems of their peasantry in the modern world.

In a masterly introduction, Professor Mendras presents the dilemma: the need to grow more food without precipitating the social disaster of destroying a large peasant class. Indeed, Professor Mendras does not think that the peasantry will allow itself to be destroyed, but considers rather that a different framework must be devised within which peasant farming can flourish and yet serve the nation efficiently in food production. He then proceeds to a survey of peasant agriculture in the past and the present. He has an instructive tale to tell of the attempts to introduce hybrid maize in recent years into peasant areas of France. He also offers the results of a recent questionnaire among the peasantry, in which they were asked to comment on their prospects for the future. Professor Mendras's title seems to predict the end of the peasantry, and yet his sympathetic book inspires hope for their future, for as he says in his last line: "What would the world be like without peasants?"

JOAN THIRSK

L. T. C. ROLT, *Waterloo Ironworks: a History of Taskers of Andover, 1809-1968*. David and Charles, 1969. 250 pp. £2.25.

The important part which the manufacture of farm tools and machinery played in the British economy during the nineteenth century is often overlooked; the largest firms in the business employed thousands of workers just before 1914, and, as Professor Saul has reminded us, Britain exported agricultural machinery on a considerable scale even to a major industrial power such as Austria-Hungary. It is therefore useful to have this solid and scholarly addition to the literature on the subject from Mr Rolt. He writes most authoritatively on technological

matters, but does not neglect the entrepreneurial, social, and religious aspects of the firm's impact on the Wiltshire-Hampshire countryside (the Taskers were Congregationalists and strong advocates of temperance). There is also interesting new material on the Swing riots of 1830. The founding father of the Waterloo Ironworks was, naturally and fittingly, a blacksmith who added first a foundry and then an ironworks, built on Clatford Marsh, to his original smithy at Abbots Ann. From 1869, Taskers began to build steam traction engines. After about 1900 this developed into a specialization in 'Little Giant' tractors, trailers, and semi-trailers which stood the firm in good stead during the Second World War when tanks and aircraft fuselages had to be transported rapidly by road over great distances. The vicissitudes of the firm between 1896 (when it was joint-stocked) and 1932 show some similarity to those of Napiers. Taskers Ltd were in the hands of a receiver by 1903, and after a revival just before the First World War went into voluntary liquidation in 1931-2, by which time the total number employed in all grades had sunk to 25 and the weekly wage bill totalled only £63 16s. Its expansion since the 1930's is a tribute to the recuperative power of private enterprise when combined with a sound technological base. The book is generously provided with interesting illustrations of the firm's premises and products since 1809.

W. H. CHALONER

A. E. B. OWEN (ed.), *The Records of the Commissioners of Sewers in the Parts of Holland, 1547-1603*, Vol. II, The Lincolnshire Record Society, Vol. 63, 1968. ix+187 pp. £3.

It is difficult to review this volume of the Lincolnshire Record Society, edited by Mr Owen, without referring back to its predecessor, Volume 54, published in 1959, under the same title. That earlier volume was edited by Miss Mary Kirkus, who had conceived the plan and selected the documents to be included in the two volumes (and indeed for another two as well), but her death in 1959 stopped the work which Mr Owen ably continued.

As verdicts for the Holland Courts exist for almost every year of the period under review,

the present volume is only a selection, and consists of those verdicts that are representative of the whole class of documents, both chronologically and from the point of view of their intrinsic interest, so that now three volumes are planned instead of the original four. Mr Owen has also made other alterations, such as printing accounts (e.g. of the dyking of the Welland in 1567) which tell us what was done, rather than what was not done or what ought to be done, as in the verdicts. Other alterations in the present volume include rearrangements of the text and the adding of very helpful explanatory headings to all documents.

But, other than these, there is little that is new in the present volume. Mr Owen himself, in his preface, readily acknowledges that Miss Kirkus in her introduction to Volume I "effectively extracted all that this class of documents [the verdicts] can be made to yield concerning the administrative history of the sewers courts." Indeed, she did more. The sections of her Introduction on the physical conditions and early history of draining in Holland, the Acts of Sewers, the Commissions of Sewers, the analysis of the meeting places of the Courts, the biographical details of the Com-

missioners, the bibliography, and, perhaps above all, the glossary of local draining terms, cover nearly a hundred pages of fascinating reading. It was a pioneer effort that takes us beyond Dugdale and the Webbs in our understanding of drainage administration.

To someone, like the reviewer, who has done work in the Somerset Levels, a similar lowland area on the west coast of England, perhaps two comments could be made. First, in Somerset, barely any documents of the Court before 1780 have come to light, and the surfeit of material in the Fenland areas makes one envious. Secondly, the existence in Holland of Joyce Banks, embankments maintained in sections not by frontagers, but by people who exercised common rights, suggests analogies with the Somersetshire Austre tenements. There were holdings which had unlimited commonage rights on the newly reclaimed marshes in return for specific duties of either wall work or ditch scouring. Clearly, there is room for much comparative work on draining, maintenance, and administration, to which these two volumes of the Lincolnshire Record Society offer an interesting beginning.

MICHAEL WILLIAMS

Shorter Notices

GORDON WINTER, *A Country Camera, 1844-1914. Rural Life as depicted in Photographs from the early Days of Photography to the Outbreak of the First World War*. David and Charles, 1971. 120 pp. £2.25.

Gordon Winter's book, first published by *Country Life* in 1966, is a splendid source of illustrative material on rural social life, drawn from many different parts of the country. Its re-issue is to be warmly welcomed.

THOMAS C. SMITH, *The Agrarian Origins of Modern Japan*. Stanford U.P., 1970. 246 pp. £1.30.

This book originally published in 1959 now makes a welcome appearance in paperback. Its

account of the growth of industries in Japan within the framework of rural society offers many remarkable analogies with English experience. Anyone interested in investigating the development of handicraft and other by-employments in England before 1800 and analysing their impact on social life should read this striking study of parallel circumstances in Japan.

HELEN HARRIS, *Industrial Archaeology of the Peak District*. David and Charles, 1971. 256 pp. £3.15.

Although this volume is mainly concerned with industrial sites in Derbyshire, it also contains descriptions and photographs of agricultural

structures, namely, cornmills, pinfolds, sheep-washing places, packhorse ways and bridges, cheese factories, long walled fields, and lynchets. A parish-by-parish gazetteer at the end gives the precise locations of each site.

JOHN T. SCHLEBECKER, *Bibliography of Books and Pamphlets on the History of Agriculture in the United States, 1607-1967*. American Bibliographical Centre, Clio Press, Santa Barbara, California, 1969. \$15 cloth bound; \$5.50 paper bound.

This is a useful list of over two thousand titles of books (but not of articles) on agricultural history, including significant novels. It has a copious index almost as long as the bibliography.

JOHN BATEMAN, *The Great Landowners of Great Britain and Ireland*, with an Introduction by David Spring. The Victorian Library, Leicester University Press, 1971. xxviii + 534 pp. £3.50.

For those who do not possess a copy of an early edition of this work, first published in 1876, with its fading red covers and yellow, foxed pages, this new edition will afford a good substitute. It contains an introduction by David Spring—short, but helpful inasmuch as it fills in the historical background to the New Domesday of Landowners, the source from which Bateman drew up his own list of great landowners. It also tells something of Bateman's career and the four editions through which his work passed, adding a salutary warning to users of this work, since town properties were excluded from the calculations of landowners' wealth.

H. C. DARBY and I. B. TERRETT, *The Domesday Geography of Midland England*. 2nd edn. C.U.P., 1971. xvii + 490 pp. £10.

This new edition of a work first published in 1954 has been substantially revised. Many of

the maps have been altered and re-drawn, place-name identifications have been revised in the light of more recent research, and some alterations have been made to the text.

ARTHUR YOUNG, *General View of the Agriculture of the County of Hertfordshire (1804)*.

David and Charles, 1971. 236 pp. £5.25.

David and Charles, publishers, continue their programme of reprinting the County Reports of the Board of Agriculture. In this volume Young reviewed the agriculture of a county which had been loudly praised for its high standard of farming in the early eighteenth century, but which was thought, by some at least, to have rested on its laurels since then. Young's verdict was ambivalent; but anyone attempting to define more precisely the chronology of agricultural improvement in different counties of England between the sixteenth and eighteenth centuries will find useful material in this account.

THE CLEVELAND AND TEESSIDE LOCAL HISTORY SOCIETY, *Bulletin*, nos 11, 12, 13. Dec., 1970, Spring, 1971, Summer, 1971.

The Bulletin of this Society started publication in June 1968, and deserves to be better known. Its contents include transcripts of original documents and research articles. No. 11 prints the 1563 census of households in County Durham, an article on the port of Coatham, and another on the Eston gypsum mine in Cleveland. No. 12 contains a valuable article by Roger Fieldhouse on population movements in north-west Yorkshire, 1377-1563; and no. 13 an article on place-names indicative of Danish settlement in north Yorkshire. The *Bulletin*, issued quarterly, is available from D. W. Pattenden, 45 Stanhope Grove, Acklam, Middlesbrough, Teesside, at a subscription of £1 per annum.

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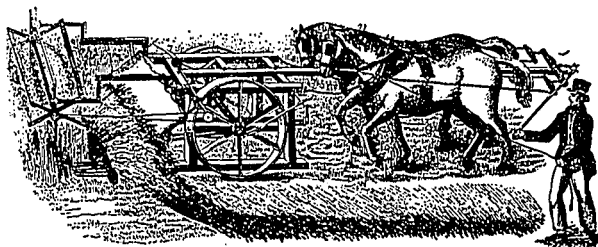
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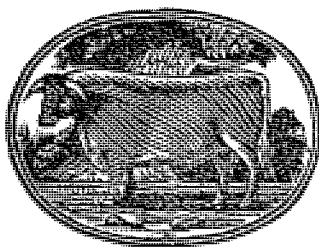
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The Miner and the Agricultural Community in Late Medieval England

By IAN BLANCHARD

THE role of craft or other industrial activities in the economic and social life of the rural community has received surprisingly little attention from the historians of medieval or Tudor England. Apart from the pioneering study of Dr Thirsk on industries in the sixteenth- and seventeenth-century countryside, most writers have contented themselves with merely chronicling the existence of weavers, tanners, charcoal burners, and a multitude of other workers in a rural setting without elucidating the position that they held in that environment.¹ One notable exception to this has been the studies of the medieval extractive industries, in which it has been assumed that the miner or quarryman lived an alienated existence from the rural society in which he resided, earning his living predominantly from his work with a shovel or pick and being dependent for his sustenance upon purchases of grain.² Such a view has gained added support by analogy from accounts of mining communities in subsequent eras and historians of the medieval industry have not passed uninfluenced by descriptions of the Derbyshire mining community in the 1620's, when, impelled by agrarian change and demographic pressure, a large proportion of the population lived such a segregated existence.³ Yet in such a process of analogy there is a considerable danger of ignoring the specific circumstances of the description and thereby creating an economic archetype of 'the medieval miner' to add to the legal one which has emerged out of the corpus of mining law. Certainly under conditions of acute demographic pressure, such as existed in late thirteenth-century England, one might well find mining communities in which each member, with only a small plot of land and perhaps a cow, was dependent upon his ore sales for a livelihood and in such instances archetype and reality might bear a close resemblance. An inadequate holding was not, however, solely the prerogative of the miner at this time, for throughout late thirteenth-century England examples can be found of peasants with

¹ J. Thirsk, 'Industries in the countryside' in F. J. Fisher (ed.), *Essays in the Economic and Social History of Tudor and Stuart England*, Cambridge, 1961.

² See e.g. G. R. Lewis, *The Stannaries: A Study of the English Tin Miner*, 1908; L. F. Salzman, *Medieval English Industries*, Oxford, 1923, ch. 1-5; D. Knoop and G. P. Jones, 'The English Medieval Quarry', *Econ. Hist. Rev.*, ix, 1, 1938. The view has most recently been expressed in J. Hatcher, 'A Diversified Economy: Later Medieval Cornwall', *Econ. Hist. Rev.*, 2nd ser., xxii, 2, 1969.

³ This description in Thirsk, *loc. cit.*, p. 73, is based upon a report of the justices (SP14/113, No. 17), and is referred to in Hatcher, *loc. cit.*, 224

pitifully small holdings, living on the edge of starvation, and eking out an existence in whatever way they could.¹ One might legitimately ask whether the late thirteenth-century lead miner or tinner, with an average annual income from his work in the 'groves' of considerably less than two pounds a year,² had a small holding by choice or circumstance. The critical test as to whether the status of the miner in the thirteenth century was that of an impoverished peasant or specialist worker can only be applied when the exogenous influence of overpopulation is removed. It is thus the purpose of this essay to investigate the relationship of mining and agricultural activity under conditions of falling population and a slack land market, and further to examine some of the social implications inherent in this link.

I

Unfortunately within the historiography of the medieval mining industries the individual miner has become lost amongst the host of archetypes created of him.³ The reason has largely been the nature of the documentation, for, as the image of the medieval serf emerged in the early twentieth century out of the customals and surveys of the great Benedictine estates of eastern England, so the picture of his free mining counterpart has evolved out of the corpus of documents relating to mining law. Other traces of his activity in mining or any other pursuit are singularly lacking. Records of the courts of mining liberties are few in number and those that survive relate to barmotes held at widely differing times and in a variety of places. Documents listing miners by name are similarly scarce. There is certainly every indication that the collectors of seigneurial revenues from those engaged in mining kept detailed accounts of the amounts rendered by each individual from whom it was due, but few again have survived and fewer still are helpful in the pursuit of the elusive miner.

The best known of such particular accounts are the magnificent series of coinage rolls from the stannaries, but even these are not very helpful in providing information about individual tanners.⁴ These rolls record the collection of a due levied on each thousand weight of tin produced and detail the names

¹ For a general synopsis of the work on overpopulation in late thirteenth-century England, see M. M. Postan, 'Medieval Agrarian Society in its Prime: England', *Cambridge Economic History of Europe*, Cambridge, 1966, I, pp. 552-6; for specific examples of acute overpopulation, again in areas with considerable opportunities for activities other than tillage, see H. E. Hallam, 'Population Density in Medieval England', *Econ. Hist. Rev.*, 2nd ser., XIV, 1961, and J. Z. Titow, 'Some Evidence of Thirteenth Century Population Increase', *Econ. Hist. Rev.*, 2nd ser., XIV, 1961.

² See for instance the workforce and production statistics in Hatcher, *op. cit.*, pp. 210-11.

³ This is particularly noticeable in the works which have made passing mention of individual miners, e.g. Lewis, *op. cit.*, pp. 187-8. The one exception to this is in the collective work of the Pateley Bridge Local History Tutorial Class.—B. Jennings (ed.), *A History of Nidderdale*, Huddersfield, 1967, pp. 72-3.

⁴ On the coinage rolls cf. Lewis, *op. cit.*, pp. 131-56.

of those presenting tin for stamping, the number of pieces, their weight, and the amount of duty paid. That the owner, or the person who presented the tin is not synonymous with the miner of the ore is obvious from the rolls. In the fourteenth and fifteenth centuries names like John, Earl of Cornwall, or Philip, the Prior of Tywardratch, recur at not infrequent intervals, often in conjunction with very large amounts of tin. Moreover, many of the lesser men of local origin may have been smelters rather than miners.¹

In the English and Welsh lead-fields similar records were obviously kept. In Derbyshire, for instance, within the king's field of High Peak, the engrossed record of the collection of the dues of 'lot and cope'² for 1439-40 relates "... of lead ore, by oath of the 'berghmaister' as recorded by the bill which was shown and examined at this account."³ Similarly at Halkyn and Vaynol in Flint, during the late fourteenth century a twice annual 'mete' was held to gather in the ore and lead due to the Black Prince, at which time a written record was made in the presence of the Chamberlain and his entourage.⁴ Yet from only one area have documents of this type been preserved, namely from the mining jurisdictions on Mendip.⁵ Within this mining 'camp' were liberties pertaining to the hundred of Chewton and the lordship of Ubley in which each miner had to render to the lord of the liberty one-tenth of the lead produced from his ore, the cost of washing and smelting falling entirely on the miner.⁶ Fortunately, lists of those paying this tithe have survived from the fifteenth and early sixteenth centuries, engrossed on the rolls of the hundred of Chewton and of the hallmote of Ubley, which detail the amount of lead smelted from ore raised within the liberty by each individual miner. These together with a miscellaneous collection of other documents, predominantly of legal origin, allow the identification of individuals engaged in mining who can thereafter be traced in other sources of manorial provenance, the tools of trade of the historian of the social and economic life of rural England.

II

The picture of the miner that emerges from these documents cannot lay claim to any completeness but it is a very different one from that presented by the stereotypes. Thus on Mendip one finds a society in the second quarter of the sixteenth century showing all the first symptoms of overpopulation,⁷ yet

¹ The relationship between miner and smelter within the stannaries warrants very much more attention than it has so far been given.

² On the nature of the dues of 'lot' and 'cope', see J. H. Lander and C. H. Vellacott, 'Lead Mining', *V.C.H. Derbyshire*, 1907, II, pp. 325-7.

³ P.R.O., DL29/22/387.

⁴ P.R.O., SC6/771/21-3, 772/1-2.

⁵ Somerset C.R.O., C/924, DD/WG and S/HY.

⁶ J. W. Gough, 'Mendip Mining Laws and Forest Bounds', *Somerset Record Soc.*, 45, 1930, p. 4.

⁷ P.R.O., E315/385, fols. 30-46v.

even at this late date still possessing certain basic characteristics found elsewhere in mining communities which may perhaps best be illustrated by a study of individual miners within the Marquis of Dorset's liberty. John Philips, jun., for instance, a not atypical miner, whose labours in the 'meers' overlooking Wells normally in the early 1540's seem to have yielded him slightly over a hundredweight of ore annually,¹ enjoyed a much more varied existence than might be supposed. He and indeed his father and brothers with him worked the mineral veins, as did his uncles who lived in Wells, but the real centre of his life lay not on the windswept moorlands but in the sheltered valley wherein lay the village of Chewton. There he was a member of one of the three main village families, the Hippersleys, the Radways, and the Philips, and in his own right he possessed a substantial holding, inherited from his mother, of 35 arable acres lying mainly in the common fields of the village together with 24 acres of several pasture on which he kept considerable flocks.² Thus John Philips, jun., emerges as a peasant farmer of some substance who, even as a young man before acquiring his mother's holding, still stood out in wealth amongst the middle ranks of village society being even then richer than some half of his fellow villagers.³ He was throughout his life a man of widely diversified interests of which one, and a very unimportant one at that, was mining. He might enjoy many privileges in his capacity as a miner but how he exercised them would be partly conditioned by the social and economic pressures to which he was subjected in the many hours of his life spent outside the mining liberty, for his activities as a miner seem in no way to have segregated him politically, economically, or socially from the rural world in which he lived.

Nor in this respect was he in any way different from his contemporaries who owed suit at the minery court or for that matter from other miners in other fields during the later Middle Ages. Indeed as one passes back through time into an age of more abundant land supplies the peasant characteristics of the miner become even more noticeable. Thomas de Waterhouse mined the Low Peak lead-fields in the opening years of the fifteenth century and is recorded as selling small quantities of ore to a group of Cromford smelters.⁴ Yet like his Mendip counterpart he was no solitary miner eking out an existence from his ore finds,

¹ Somerset C.R.O., C924, DD/WG (Waldgrave MSS.), Courts of Chewton minery 1540-7. John Philips, jun. is a typical member of the Chewton mining community of the 1540's which numbered slightly over sixty members, all of whom save two have been studied. Also, though slightly poorer from his agricultural activity and richer from mining, he resembles the members of the forty-four-strong Ubley community of the 1430's which has also been studied. For other examples, see below.

² P.R.O., E315/385, fols. 35, 35v, 37v; Somerset C.R.O., Waldgrave MSS., Courts of Manor of Chewton, 4 July 1542; 1 Sept. 1540; 9 May 1553.

³ P.R.O., E179/169/143.

⁴ P.R.O., DL30/47/546, m. 3, view of frankpledge held 10 May 1400.

in this case, on the hills dividing the small township of Wirksworth from the woodlands of the Duffield Frith, but a fully committed participant in the agricultural life of the arable villages which those hills overlooked. Almost contemporaneously with the record of his mining activity the court rolls of the neighbouring manors reveal his selling off some arable lands and buying others,¹ rounding off a holding which in 1412 comprised a compact farming unit of just over 50 arable acres in the northern part of the manor of Duffield, together with small amounts of meadow and pasture held in severalty.² These latter properties provide a further insight into his activities for he was also engaged in stockbreeding. In 1408 he acquired a lease of a several pasture called 'Farley' in Holbrook and the agistment rolls of a neighbouring park reveal him as owning a not inconsiderable head of stock.³ Overall, therefore, he seems to have been fully integrated into the farming patterns of the surrounding countryside and a similar picture emerges in relation to the varied tenurial patterns of the villages therein. His lead workings together with 15 acres and one and a half messuages were held freehold, two acres of demesne land were held leasehold, whilst by far the largest part of his land, concentrated in the fields of Shortland, Flaxholm, and "les eghes in punchardonland" was held in servile tenure. Some of this latter land was held in partnership with Nicholas Abbot, another substantial farmer of the township; much had been acquired by inheritance from his father; whilst half of the freehold had come to him by way of his marriage. Thus again his holding linked him, not only by contractual ties but by those of kin also, to the life of the village in which he lived.⁴ As to his personal status the documents are silent but socially he seems to have been a man of sufficient importance within village society to have headed the list of jurors summoned to the manorial court at the time of the remaking of the rental.⁵ From the limited amount of information that is available, therefore, Thomas de Waterhouse emerges as being very similar to his Mendip counterpart. He was somewhat richer but still a peasant farmer, living a full and varied existence in the village in which he resided. To these two examples many others could be given from amongst the tenants of Robert de Veteripont who worked

¹ P.R.O., DL30/34/333, m. 3, court held 4 January, 1410; *ibid.*, m. 5, court held 17 March 1410; DL30/34/339, m. 1, view of frankpledge held 17 April 1425; DL30/47/546, m. 6, court held 23 March 1400; DL/47/556, m. 8, court held 22 April 1410; DL30/33/317, court held 8 October 1382; *ibid.*, court held 29 October 1382 (coal mine); *ibid.*, court held 11 Dec. 1382; DL30/33/320, court held 18 January 1386; DL30/33/322, court held 23 Jan. 1388; DL30/33/325, court held 28 September 1390.

² P.R.O., DL42/3, fols. 1v, 5, 5v, 8, 9, 10, 10v, 12v, 13, 13v, 14v, 15, 17, 24v, and for the topographical location of the properties making up the holding, cf. Derbys. C.R.O., Duffield Enclosure Award 1791, and Derby Borough Library, Tithe Award, 1839.

³ P.R.O., DL30/34/332, m. 8, view of frankpledge at Holbrook held 24 October 1408; P.R.O. DL43/1/34.

⁴ See note 1 above.

⁵ P.R.O., DL42/4, fol. 1.

the deposits of Alston Moor,¹ or from the stannaries,² but perhaps one will suffice to show that de Waterhouse was in no way exceptional amongst his contemporaries. A neighbour of Thomas de Waterhouse, and a fellow suitor at the barmote hall of Wirksworth, was John Helot who, after a somewhat mis-spent youth, seems to have settled into a similar existence to his compatriot. He held a considerable arable holding of over 35 acres, in a similarly bewildering variety of tenures, in the village of Alderwasley, together with a messuage and a few acres close to the lead workings.³ He kept a few stock and seems again to have been fully integrated into the life of his village; cultivating part of his holding in partnership with a fellow miner and farmer John Nall; lending money and trading in agricultural produce probably from his holding which yielded enough grain to warrant a tithe payment in excess of a mark.⁴ These examples, therefore, all point to the myth of the 'medieval miner', a myth conjured out of the law books which required a peg upon which to hang certain privileges.

Few in the later Middle Ages would, save in matters concerning their privileges, have called themselves miners in drawing attention to their status. Thus in that unique occupational census of the later Middle Ages—the poll tax of 1379—an examination of the entries in mining districts reveals no one categorized as *miniator* or *plumbarius*.⁵ Men known to have been engaged in the industry preferred the title *cultor*, for that was what they were, farmers, to whom mining was an insignificant sideline, and this perhaps explains how the two activities, industrial and rural, were so easily married together.⁶

III

The amount of time devoted to, and output originating from, the individual miner's activity was very small. Output per man rarely exceeded one or two tons of ore annually. In 1444 at Ubley on Mendip, for instance, there were five

¹ On the miners of late fourteenth-century Alston, cf. P.R.O., Adm. 75/64 A1-4, and C.C.R., pp. 1416-22; *C. Inq. Misc.*, III, p. 222; C.C.R., pp. 1354-60.

² E.g. P.R.O., E306/2/3; SC2/156/27-8; E101/263/19 for the career of John Simon of Tewington.

³ P.R.O., DL42/4, fols. 72, 73v (Wirksworth), 62v, 63, 63v, 66v, 67, 69.

⁴ On Helot's mining activities, see P.R.O., DL30/47/551, Wapentake held 24 August 1405; on other pursuits P.R.O., DL30/525, m. 3; court held 18 December 1381; DL30/45/529, m. 4, court held 13 April 1383; *ibid.*, m. 5, 15 June 1383; DL30/46/533, m. 6, Wapentake held 28 October 1387; DL30/46/541, m. 2, court held 29 March 1395; DL30/34/326, view of frankpledge held 19 October 1391; DL30/34/328, woodmote held 21 July 1395; DL30/34/333, m. 4, court held 25 February 1412. John's brother Hugh seems also to have been engaged in the lead industry, cf. P.R.O., DL30/34/326, court held 9 November 1391.

⁵ See e.g. E179/242/10.

⁶ The one notable exception to this general pattern throughout the English and Welsh mining fields was provided by the royal silver mines—the twelfth-century 'mines of Carlisle' and thirteenth- and fourteenth-century Devon mines. In these two cases, for technico-economic reasons which will be dealt with in my forthcoming book on the lead and silver-lead industries during the later Middle Ages, a permanent workforce was brought into existence.

miners whose production varied from five to ten hundreds of lead, the product of about one to two tons of ore, and these figures were in no way atypical of other years in the century.¹ Three hundred miles away in Weardale, Co. Durham, at about the same time, in the bishop's mine at "Westersedlyng" the 'groves' were worked by Robert de Ashton, Thomas Wadmons, and William Nateras, who between them produced three to four tons of ore, again an average of *circa* one ton *per capita* per annum.² One hundred and fifty years earlier, in Wales, the situation was exactly the same. At Llanbardarn, Glamorgan, in 1301, the four workmen in the mine raised only about two tons of ore each during a year and this was said to be a "good" mine.³ Other examples could be given, but it is finally worth noting that even in the stannaries the average output per worker was less than three hundredweights of tin, the product again of about two tons of ore.⁴ This was hardly the production of a fully employed labourer but the reward of one or two months toil,⁵ seemingly normally concentrated in the period from late April to late June. At the Priddy mines of the bishops of Bath and Wells production was distributed between the quarter days in the following manner in 1457-8:⁶

29 Sept.-2 Feb.	half a ton of lead
3 Feb.-3 April	half a ton of lead
4 April-24 June	three tons of lead
25 June-28 Sept.	one and a half tons of lead

and this picture is confirmed from most of the other fields. The whole social, economic, and legal life of the mines was concentrated at this time when most of the ore was raised, save for those few loads mined, when weather permitted, during the winter 'dead' season.

The whole focus of this activity came at the 'mete', when the product of the season's work was gathered together, measured, and the seigneurial dues collected, and this was normally held at or near the end of the period of maximum activity. On Mendip this was usually the last week of June or the first week of July;⁷ in Derbyshire it was the first week in July,⁸ whilst in Flint it

¹ Somerset C.R.O., DD/S/HY7, m. 1.

² Durham University, Dept. of Palaeography, Bishopric of Durham, Mine Accounts 190013.

³ M. Rhys (ed.), *Ministers' Accounts for West Wales, 1277-1306*: pt 1, 1936, p. 391.

⁴ Based on figures in Hatcher, *op. cit.*, pp. 210-12.

⁵ To provide a standard of comparison it may be noted that a nineteenth-century navy could shift three or four tons of earth per day.

⁶ MSS. of the Dean and Chapter of Wells, unnumbered account roll of the manor of Wells.

⁷ Formal 'metes' were rarely held on Mendip, but the court or halmote primarily concerned with mining was usually held at Ubley in July (e.g. Somerset C.R.O., DD/S/HY7, m. 1); whilst at Priddy or Chewton it was normally the court held on the Nativity of John the Baptist (24 June). See e.g. MSS. of Dean and Chapter, unnumbered account rolls of manor of Wells; Somerset C.R.O., C924 DD/WG, court held 19 July 1535.

⁸ Belvoir Castle, MSS. of his Grace the Duke of Rutland [henceforth *Rutland MSS.*], 1017.

varied between mid-May and early August, although 'metes' held at the former date were normally supplementary to, rather than in place of, those held at the latter.¹ The 'mete' could be a very formal affair with the measurement taking place in the presence of such high estate officials as the receiver, or in the case of the Black Prince's Welsh estates, the Chamberlain, but thereafter it seems to have relaxed into a more festive occasion. The hard work over, the miners set to feasting and carousing, sometimes with ale and victuals provided, at least in part, by the lord of the field.² Thus the mining year closed on a note of festivity analogous to the post-harvesting and shearing feasts and in late July they returned to their farms.

The pattern of work of the husbandman-cum-miner may perhaps therefore be reconstructed. At some time, having acquired the 'arts' of mining from his father or someone willing to teach him, and having acquired a 'mere' either by purchase or prospecting,³ he had entered upon the life of the miner. Thereafter each year, with spring ploughing and lambing past, he would pick up his basket of tools, don his leather 'bradder',⁴ and set off each day from about the middle of April to the hills overlooking his farm to grub for ore. There he would toil in the shallow trenches which represented the workings until July or August when the call of the harvest would return him to full-time work on his farm. At the end of a season, if he was lucky, he might have accumulated a couple of tons of ore, which after the payment of tithes and 'lot and cope' might yield him a cash income of from 15s. to £2, according to the state of the market. Mining, therefore, whilst absorbing little of his working time and dovetailing easily into his agricultural activity, did provide the peasant-cum-miner with a significant cash income.

IV

This cash in his pocket, moreover, perhaps highlights yet another strand in the web which bound the miner into the general framework of rural feudal society. In his capacity as miner his relationships to the lord of the mining field were regulated either by custom or contract, the lord receiving a finite due for the miner's right to exploit the mineral veins. In fields where custom did not reign, such as those of Yorkshire or Durham, the amount of rent that the lord took was formally set out in a chirograph or indenture like that drawn up at Durham between the bishop's master forester, William de Fulthorp, and Robert de Water, whereby the latter had usufruct of the Weardale mines for

¹ P.R.O., SC6/771/21-2; 772/1-2.

² E.g. *Rutland MSS.*, 1013, 1016.

³ For the rather pathetic story of Nicholas Dyke who, wishing to enter the industry, bought a 'grove' in 1377 and then, to be initiated in the 'rights' of mining, apprenticed himself to one William Were all to no avail, see P.R.O., DL30/45/522, m. 3d, 4, 4d.

⁴ An illustration of the appearance of a fifteenth-century Derbyshire lead-miner will be foundacing p. 16 in N. Kirkham, *Derbyshire Lead Mining through the Centuries*, Truro, 1968.

twelve years on payment of four fothers of lead annually for the first half of the term, and five thereafter.¹ Elsewhere the mining rent normally took the form of a render in kind of a proportion of the total product plus a fixed monetary payment on the residual output. Both these payments, normally referred to as 'lot' and 'cope', whilst they might vary between fields, were fixed by mining custom within each field. Thus whilst he acted as a miner only the lord of the lead-field had the right to levy a rent on his production and this in strictly defined terms, but in his own person he was very much more than just a miner and in his role as a farmer he was inextricably linked into the normal tenurial structure of feudal society. Nor does it seem likely that the two aspects of his character were ever completely separated. Certainly his feudal superior in his capacity *qua* farmer had no legal claims upon the ore that he raised *qua* miner but it seems unlikely that the cash he received from the ore's sale did not attract the former's covetous eye. His relationship with his master was both personal and tenurial, yet the franchises the peasant-cum-miner enjoyed in his latter capacity excluded direct interference in that aspect of his life. Any assault, therefore, upon the wealth he acquired in extractive work was most likely to have come through the tenurial link and this immediately focuses attention upon the correlation found between arable rent changes in mining districts and ore production therein.² This has been interpreted as being caused by the effects of the changing demands of a mining community of fluctuating size in stimulating commercialized arable production in the vicinity of the mines.³ Yet in the context of the nature of mining activity outlined above such an explanation seems unlikely and where information may be gleaned about the volume of commercial activity in mining districts it shows that such a cash nexus does not exist. This may be illustrated in the case of one of the major mining districts of the lead industry, the Low Peak district of Derbyshire, during the opening years of the fifteenth century.⁴

Ore production in this area was concentrated at this time within the vicinity

¹ Durham Cursitor's Roll No. 31, m. 12d., quoted in A. Raistrick and B. Jennings, *A History of Lead Mining in the Pennines*, 1965, p. 53.

² Such correlations will be found in many mining districts, the High and Low Peaks of Derbyshire (P.R.O., DL29, bundles 22-4, 183-9, 197, 402-8, 728-33); Flint (P.R.O., SC6, bundles 771-5); Mendip (Somerset C.R.O., Court rolls and accounts of Ubley, MSS.DD/S/HY) and the Stannaries (Hatcher, *op. cit.*, pp. 214 ff.)

³ Hatcher, *op. cit.*, p. 217.

⁴ A correlation may be established between production (variable *a*) and arable rentals (*b*) over very much longer periods than used here, and in many other fields yet the mere establishment of a correlation between *a* and *b* may imply no causation but a common link to a third variable *c* (in this case population change in the area concerned, by migration or natural increase). Thus as population grows there may be more miners and higher production. Also there may be more farmers demanding land and higher rents, no link thereby existing between the two. The period 1416-50 has therefore been chosen when some control may be independently established over each of the variables.

of the township of Wirksworth¹ where, following the recovery in agriculture and mining after the plague, both plummeted downward from *circa* 1400 as on many other manors in the area.² However, whereas after 1410 on other manors there was a stabilization and then continued fall in arable rentals, the course of development was quite different at Wirksworth.³ From 1409-10 there was a slight recovery, followed by a catastrophic fall in rents during the first half of the 1410's *but* then, instead of continuing to fall, from *circa* 1417 the rental of the arable lands within the manor was augmented to a much higher level than in 1410, continuing at a slightly lower plateau until the mid-'thirties, and thereafter stabilizing until mid-century. Moreover, these changes in arable rentals follow very closely similar fluctuations in lead ore production, thereby further illustrating the correlation which may be observed in the Stannaries of Cornwall, or the lead-mining districts of Somerset or Flint.⁴ How is this to be explained? Certainly the answer does not seem to lie in the migration of people into the manor in response to profitable opportunities for the production of lead, thereby acquiring land and thus extending the acreage of rentable land under tillage.⁵ A disaggregation of the manorial arable rental shows that the amount of land in use continued to fall steadily down to the 1430's recovering somewhat thereafter and then continuing its fall, as on other manors in the area.⁶ Nor does the change in rental seem to have been stimulated by market forces for if an alienated body of miners, living within the manor but not owning land, were stimulating the commercial production of grain by their purchases and causing rents to rise *à la Ricardo*, then this grain does not seem to have passed through normal commercial channels. Wirksworth was well endowed with commercial institutions, possessing a weekly market and an annual fair since 1307 at which a toll was levied on grain, eggs, cheese, and other victuals,⁷ yet during the period under review the toll steadily dwindled in size,⁸ suggestive at least of dwindling commercial activity within the manor. What seems, therefore, to have been happening is that, as elsewhere, from 1400 to 1440 the population of the manor seems to have declined and arable land fell out of use, but that from 1417 to 1432 the inhabitants paid on average a higher rent per acre for their holdings. At the same time, from 1417 to 1432, there was

¹ See FIG. I. In the fourteenth and subsequently in the sixteenth century mining within Wirksworth Wapentake, which engrossed most of the Low Peak, also occurred within the lordship of Hartington but in the fifteenth century mining within this part of the area was extinct.

² See my *Economic Change in Derbyshire during the later Middle Ages*, unpublished London Ph.D. thesis, 1967.

³ See FIG. I. As a not untypical example of other manors in the Low Peak, Brassington has been used, for comparison with Wirksworth.

⁴ See FIG. IV and for other correlations references in n. 2, p. 101.

⁵ There were certainly reserves of vacant land available in the manor to allow such a process to take place.

⁶ See FIG. II.

⁷ R. Somerville, *History of the Duchy of Lancaster*, 1953 pp. 1, 20, note 3.

⁸ See FIG. III.

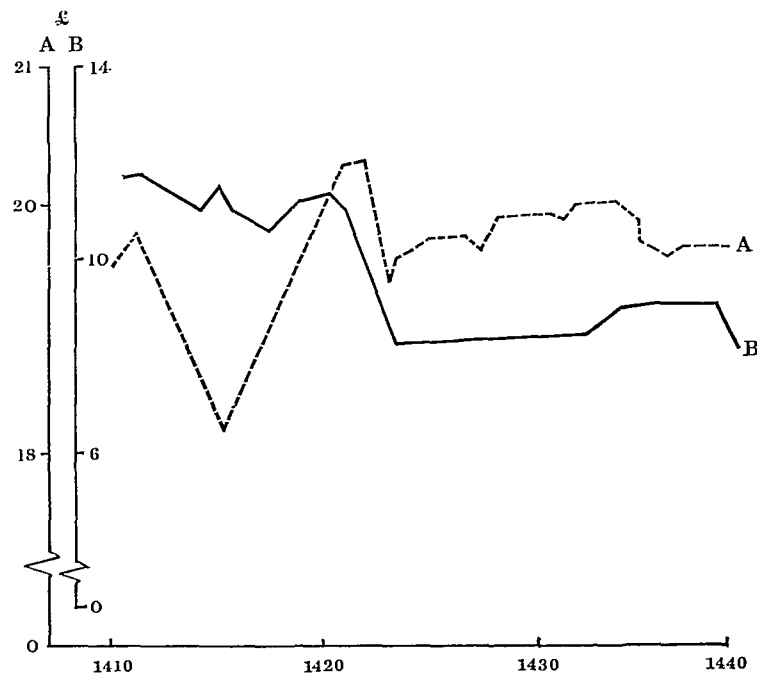


FIG. I.
ARABLE RENTALS
A. Wirksworth B. Brassington

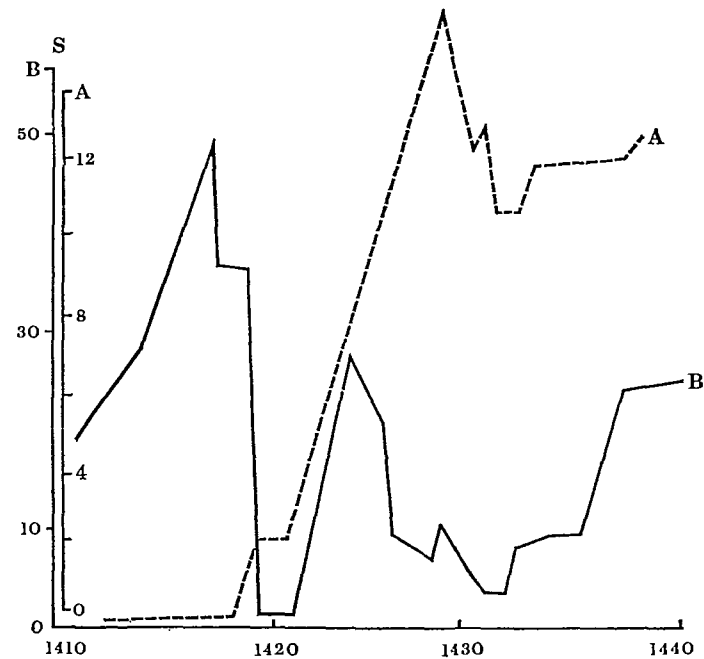


FIG. II.
WIRKSWORTH
Arable Rent Abatements from 1412-16 'charge'
A. Value of unutilized land B. Rent rebated

a marked upswing in the price of lead, which stimulated those engaged in the industry to produce an extra hundredweight or so of ore each¹ (a not inconceivable task in the framework of mining activity outlined above). Thereby the peasant-cum-miner living within the manor enjoyed an increased income both from higher prices for his ore and from increased output. Again, correlation cannot positively establish causation, but it seems possible that the increased *per capita* rent burden borne by tenants may represent an unofficial lordly 'tax' being levied on their increased wealth derived from mining, the income remaining in the hands of the individual peasant-miner after this exaction presumably being saved or spent on a variety of objects of a 'luxury' character.² Thus again the peasant-miner emerges as linked inextricably into the rural environment of which he formed part.

v

The picture of the medieval miner that has thus emerged fully confirms Maitland's belief that in the study of medieval society one is not discovering the simple from out of a subsequently imposed welter of subtleties and technicalities, rather that "simplicity is the outcome of technical subtlety, it is the goal not the starting point. As we go backwards the familiar outlines become blurred, the ideas become fluid and instead of the simple we find the indefinite."³ A marked degree of occupational specialization should not be expected in the Middle Ages. It is the product of a society where international trade and a high level of agricultural productivity have allowed many men to stand aside from the need of directly providing their own food. In an age when a man could expect little more than seven bushels of small grain from each of his arable acres, few could be spared from the toil of tillage to spend their entire working life in government, prayer, or manufactory. Thus when a burgess of a small rural township, like Henry Stringer, described himself in a court case as yeoman, baker, and tanner, this was not merely to conform to the Statute of Additions for he was all these things, as well as being a substantial property owner.⁴ Nor was such variety confined to manufactory; the justice who could in spring be seen behind the plough, or the village priest who tilled his glebe and sometimes lent money usuriously on the side were probably not uncommon sights in fifteenth and early sixteenth-century England.⁵ Mining was but

¹ For price movements, see Beveridge Price History MSS. at the London School of Economics, boxes P7, F1, F7, D3, and for the production, FIG. III.

² I.e. other than basic food grains which would be provided by his holding. Such purchases would therefore not affect the toll.

³ F. W. Maitland, *Domesday Book and Beyond*, 1960 edn, p. 31.

⁴ P.R.O., CP40/1051 fol. 229; CP40/1045 fol. 324; C1/286/1.

⁵ F. R. H. DuBoulay, *An Age of Ambition*, 1970, p. 55; G. G. Coulton, *The Medieval Village*, Cambridge, 1925, p. 284.

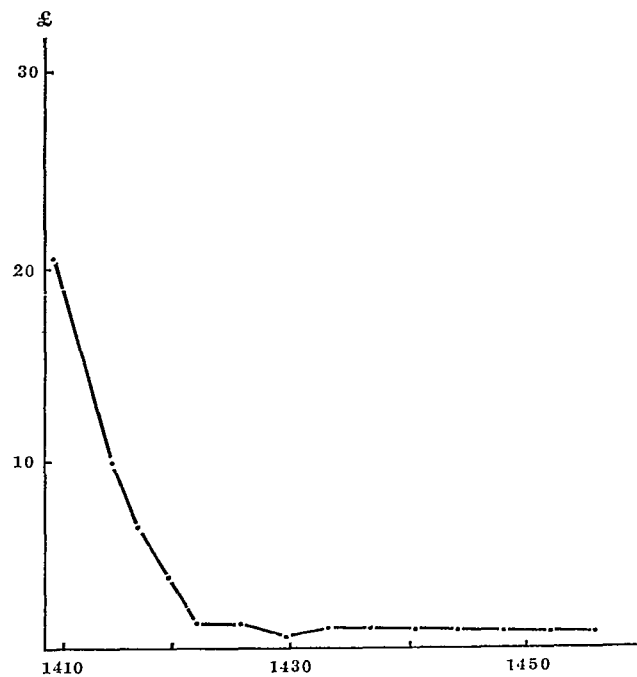


FIG. III.
WIRKSWORTH
Toll of market and fair

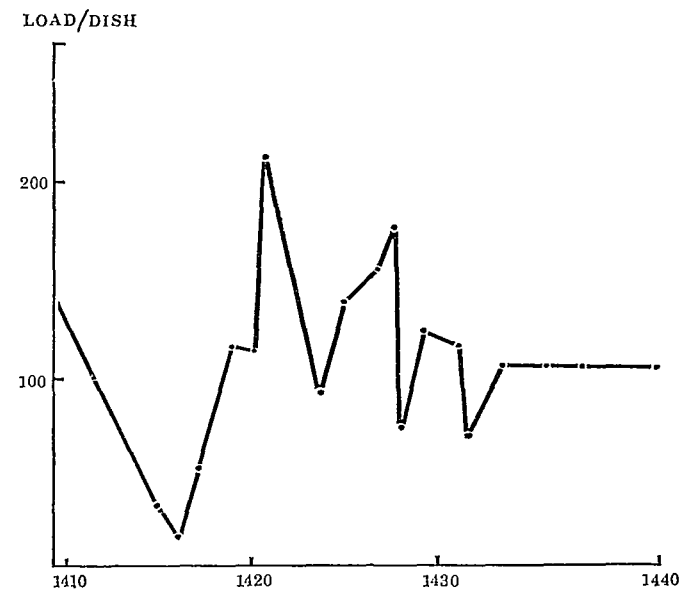


FIG. IV.
WIRKSWORTH WAPENTAKE
Lead production

one activity in which the peasant engaged. Many others, clothmaking, tanning, and a wide variety of other activities await investigation, which when examined will add yet other fragments to the slowly emerging picture of the late medieval English countryman as a political, social, and economic being which will replace the current legal stereotype.¹

¹ I am grateful to the Carnegie Trust for its financial support of my research on the British Lead Industry in the Later Middle Ages, a larger inquiry from which the evidence in this article has been drawn.

Notes and Comments

FORTHCOMING CONFERENCES

SPRING 1973

The annual conference will be held from Monday, 9 April to Wednesday, 11 April 1973 in the north midlands, and will concentrate on the history of agriculture and the landscape in the Derbyshire dales. There will also be an excursion in the vicinity, as well as some more general papers. Full details and application forms will be distributed in the next issue.

THE 1972 ANNUAL CONFERENCE

The Annual Conference was held at Wye College, near Ashford, Kent, from Monday, 10 April to Wednesday, 12 April 1972. It was heartening that the recent trend towards larger conferences was confirmed and fifty-five members attended. Possibly the decision to expand the programme to include six papers was a factor in the larger attendance. Unfortunately Professor E. Leroy Ladurie was prevented by illness from delivering his paper on Inheritance Customs in France, and Professor G. E. Mingay came to the rescue at short notice with a paper rehabilitating the reputation of Arthur Young as a practical farmer and successful innovator. This was followed by Miss Norah Carlin (Christ Church, Canterbury: the income and policies of a rentier landlord in the Middle Ages); Professor A. M. Everitt (Kentish farming families in the nineteenth century); Misses Marie Hartley and Joan Ingilby (The hay harvest in the Yorkshire dales); Mr Dennis Baker (Early Georgian enterprise: the Canter-

bury hop grounds and gentlemen planters); and Miss Margaret Tyler (Land holding in east Kent in the mid-nineteenth century).

On the afternoon of 11 April Professor Everitt led an excursion to visit early Kentish settlements along the Greenway to the south of the Downs, including Eastwell Park, Charing, and Lenham. Also included was Wye College's agricultural museum located in a fine fourteenth-century aisled barn at Brook.

THE ANNUAL GENERAL MEETING

The Society's twentieth AGM was held at Wye College, near Ashford, Kent, on 11 April 1972, with Mr George Ordish in the Chair. Professor W. G. Hoskins, Mr C. A. Jewell, and Mr M. A. Havinden were re-elected President, Treasurer, and Secretary respectively. The meeting heard with regret that Dr Joan Thirsk had resigned the editorship of the REVIEW owing to the pressure of other work, and welcomed Professor G. E. Mingay as her successor. A vote of thanks to Dr Thirsk was passed expressing the Society's gratitude for all the hard work she had put into sustaining the high standard of the REVIEW during the past ten years.

A fourth vacancy occurred on the Executive Committee as a result of Professor Mingay becoming an ex-officio member and the places were filled by the re-election of Dr W. H. Chaloner and Professor F. M. L. Thompson, and the election of Dr Joan Thirsk and Dr D. G. Hey.

(Continued on page 125)

The Bird Pests of British Agriculture in Recent Centuries

By E. L. JONES

"I found during my daily walks that the study of the agrarian topography and history of Kingham was quite compatible with that of its birds."—W. Warde Fowler, *Kingham Old and New*.

A FEW years ago Colin Tubbs and the present writer were able to open an article with the pronouncement that "little work which falls squarely and designedly under the head of ecological history has been carried out in Britain."¹ The assertion would no longer ring true. Public concern about pollution and interest in conservation of the environment threatened to engulf the news media and many scientific journals during the late 1960's. Professional historians have been slower to take an interest in the emergence of severe environmental damage—decades or even centuries ago in the developed countries—but the historical interests and professionalism of ecologists have very much increased.

The concern of the present paper is to examine the successive bird-pest problems which changes in habitats and farming systems have created in Britain since the seventeenth century; the programmes to control different types of pest which were put into operation; their consequences; and to suggest some analogies with the problems generated by the intensification of agriculture in less-developed countries which are now striving to attain high incomes under environmental conditions even more sensitive, perhaps, than in the British case.

I

Man's activities during the centuries of vigorous agricultural development in Britain repeatedly created new habitats and opportunities for birds—novel niches into which some species forcefully imploded. The evolving mixes of crops and stock, which changing relative prices brought into being, were subject to depredations by now one, now another, group of species which therefore rose from the status of a mild irritant to the farmer to that of a major pest. Eradication campaigns necessarily changed direction and emphasis in attempts to cope with the emerging pests of altering agricultural ecologies; and the

¹ 'Vegetation of Sites of Previous Cultivation in the New Forest', *Nature*, 198, 1963, p. 977. I am grateful to Dr E. J. T. Collins for offering to read the present paper at the B.A.H.S. Conference on Agriculture and the History of the Environment in November 1970, and to him, Dr Bruce Campbell, and Messrs L. R. Lewis and C. R. Tubbs for commenting on a draft.

success of these campaigns is not unimportant in helping to explain the increase of British agricultural output, or the reduction of losses, during the recent centuries. These matters have not figured in the writing of agricultural history commensurately with their importance to the economy as it sought to minimize depredations on its production of food for man and his farm animals, that is to reduce the 'untaken harvest' lost to competing species.

Birds are not, of course, the sole competitors with agricultural man. Insects are often serious pests; but insectivorous birds do act as biological control agents over them. Rodents are a major menace and we shall touch briefly on their depredations. The damage they do may be gauged in that almost one-third of India's grain production is lost annually to rats.¹ But once again, in Britain, birds (barn owls) were encouraged as agents of biological control over rodents. And in the world as a whole birds may rival or outclass rodents, or locusts, as crop pests.

Agriculture is an ordering of ecosystems by man to divert the energy flows of plant production to his own ends, including the needs of his beasts of burden and meat and dairy animals. In temperate zones this has involved reducing the number of plant species growing on any one plot and in the case of crops other than grass usually cultivating them in rows. In Britain, recent centuries have seen more and more of the land surface come under more carefully tended crops, including grass, as the 'waste' (often low-intensity grazing land, sometimes partly wooded or scrub-grown) has been transferred by enclosure from communal ownership to private hands and broken up for crop-growing on rotation. Although there have been set-backs during arable depressions, when large expanses of land reverted to rough grazing and scrub, reclamation was the secular trend. It had a direct impact on the composition and density of bird populations, which respond sensitively to shifts in the mix of food supplies, nesting sites, and roosting cover available. The very long-term trend towards simpler agricultural environments with more of the land surface under a limited range of crops, subject to increasingly standardized management practices, *may* have diminished species-variety among birds while, by providing exceptionally favourable conditions for a handful of species (emergent pests), increasing their total biomass. The requirements of the market make it difficult to control the burdensome few bird species which are classified as 'pests' under any one agricultural system by amending the cropping pattern so as to render it unfavourable for them. For instance, effective though it has been shown to be, starving wood pigeon flocks by reducing the acreage of the clover on which they depend at critical periods in winter might well defeat one of the objects

¹ Jules Janick *et al.*, *Plant Science*, San Francisco, 1969, pp. 302-4. See also *The Sunday Times*, 27 October 1968.

of farming.¹ Direct measures of control, killing bird pests by any available means, were necessarily favoured.

In a historical review we must leave aside the problems of a discrepancy between heavy but often very seasonal agricultural damage by birds and the ultimate financial loss. Data are not available, at least not at all readily, but we can observe that physical losses may well have been offset for the farmer by a rise in prices following a reduction in the output to be marketed. Similarly, we must leave aside the growing conviction during the nineteenth century that severe, blanket measures of bird control were not justified because some species were instrumental in keeping down insect or rodent pests and most species at least fed their young on insects thought to be injurious to agriculture.² Practising farmers were probably less open to these doubts about the harmfulness of birds than agricultural writers were.

We may be sure that agricultural change gave rise to bird communities as artificial as the landscape in which they lived. It is true that rather few species caught the eyes (or shotgun pellets) of early naturalists or so-called sportsmen. Most birds adjusted to shifting land-uses and farm methods far too subtly for their fortunes or fate to appear in the patchwork of early ornithological records. The more conspicuous species to the naturalist, the farmer, or the sportsman must stand proxy for them and for their changing response to agricultural development. Birds labelled as 'pests' naturally stand out among these 'indicator species'. The outstanding indicator species of change during the late seventeenth and early eighteenth centuries are birds which were very heavily persecuted, like the kite, buzzard, and raven which preyed on farm poultry and young livestock, and the bullfinch and jay which stripped fruit buds. The indicator species whose response to increasing cultivation of their preferred habitat can be documented include the great bustard, the stone curlew, and the wheatear. And the conspicuous indicator species which were given the chance to swarm by the emergence of the more intensive mixed farming systems of the eighteenth and nineteenth centuries were those pests the wood pigeon, rook, skylark, and house sparrow. In the minds of agriculturists these

¹ Cf. I. Newton, 'Some Aspects of the Control of Birds', *Bird Study*, 17, 1970, pp. 183-5.

² H. Stephens noted in his *Book of the Farm*, 4th edn, 1891, III, p. 110, that whereas once it was thought that "every bird consumed seeds to support their young . . . Now it is known beyond doubt that most birds feed their young on animal, and not on vegetable, food." Charles Waterton had denounced a concerted campaign against the rook in Scotland in the second quarter of the nineteenth century on the grounds that the rook as an eater of grubs was of net benefit to agriculture.—*Essays on Natural History*, London, 1857, pp. 167-75. See also Samuel Copland, *Agriculture, Ancient and Modern*, London, 1867, II, pp. 616-17, and the investigations of R. T. Gunther in the First World War, *Report on Agricultural Damage by Vermin and Birds in the Counties of Norfolk and Oxfordshire*, O.U.P., 1917, and in the Second World War by James Fisher described in his *A History of Birds*, London, 1954, p. 141. The pros and cons of various species from the farmer's viewpoint were discussed in leaflets issued free by the Board of Agriculture and Fisheries during the first decade of the twentieth century. See *Leaflets Nos 1 to 100*, London 11th edn, 1913.

formed a second generation of pests: one might sum up by saying that each farming system got the pests it deserved.

II

Soon after the Restoration a major campaign against bird pests was initiated. This onslaught concentrated firstly on raptors and corvids—kite, buzzard, and raven, which preyed on farmyard poultry and on weak lambs or damaged the hides of dead and dying sheep, and secondly on species, mainly bullfinches and jays, which stripped whole orchards of buds. The protection of poultry, young stock, and fruit loomed large at this period because as distinct from Tudor and early Stuart times grain had become plentiful. England was becoming a substantial exporter of wheat to western Europe. There was room at home to vary diets with more protein. Poultry probably increased in numbers, sheep certainly did, and specialized fruit production grew in response to this demand and in order to buffer farm incomes against weakening cereal prices.¹

Kites and ravens had been protected scavengers in late medieval and early modern London. Clusius reported as many kites there in 1571 as in Cairo, but by the eighteenth century London kites were rare. There is admittedly no conclusive evidence as to whether these birds were red kites (*Milvus milvus*) or black kites (*M. migrans*) but although there is an overlap in range, habitat, and behaviour between the two species, the black kite is the chief street scavenger and was probably the London kite, whereas the red kite tends to become a specialized poultry feeder and was probably the bird of the countryside.² London kites may have decreased to the point of extinction because the streets were cleansed by a large-scale scouring for manures to sell to agriculturists; rural kites came under severe attack as vermin. Ravens, too, lost their privileged status, according to R. S. R. Fitter, "some time between the reigns of Elizabeth and George III."³ Robert Smith, author of *The Directory for Destroying Rats and other Kinds of Fourfooted and Winged Vermin* (1768) claimed to receive as much for killing ravens as for kites and hawks. They had all acquired a bad name for killing young chicken, ducklings, and rabbits, which more than offset their value as scavengers. London ravens were visiting country rabbit warrens, where they were identifiable by the dirty brown of their plumage contrasting with the jet-black of the country ravens.

These species lost their protected status quite abruptly in Charles II's reign,

¹ The causes of this switch in emphasis are still inadequately understood, but see E. L. Jones, *Agriculture and Economic Growth in England, 1650-1815*, London, 1967, pp. 159 ff.

² See M. L. Grossman and John Hamlet, *Birds of Prey of the World*, London, 1965, pp. 232-3; James Fisher, *The Shell Bird Book*, London, 1966, p. 312; A. E. Keys, *History of Eastington, Glos.*, privately printed, 1953, pp. 56-64; and R. Meinertzhagen, *Pirates and Predators*, Edinburgh 1959, pp. 85-6.

³ R. S. R. Fitter, *London's Natural History*, London, 1945, pp. 51-2, 86-7.

when Acts of Henry VIII (1532-3) and Elizabeth (1566) mainly directed against corvids preying on grain were widened in scope and made really forceful. Perhaps individual enterprise could earlier be relied on to combat depredations against precious cereal crops; perhaps heavy losses had been acceptable as part of the natural order. Now the Acts became so interpreted that the churchwardens of each parish could pay head-money for many species of birds and mammals, not simply those inimical to grain production. The churchwardens' accounts for Tenterden in the Weald of Kent for 1626-7 to 1711-12 record payments of head-money for many bird vermin. The kite was not mentioned until 1654-5 and from then until 1675-6 an average of little over two per annum were paid for. But "in the following year there began . . . an intensive campaign for the thinning out of vermin."¹ This campaign lasted about fourteen years, during the first ten of which 380 kites were paid for, 100 in 1684-5 alone. Although there is no evidence of a slackening of effort, the number of kites killed dropped from thirty-five in 1686-7 to thirteen and two in the following two seasons. Thereafter no more than twelve are included in the accounts for any one year. No large raptor's population could withstand such a drain on its numbers, taking place as it was during an era of forest clearance in Kent and elsewhere. A similar campaign was mounted against the buzzard and raven, and other pests, with the result that heads paid for in the peak years 1680-1 to 1689-90 totalled 8,557. Before 1676 only fourteen ravens and three buzzards appear. Very large numbers of ravens, magpies, and crows, but very few kites, stand in the accounts for 1688-9. The larger birds could most easily be procured from the nest partly fledged, which is what repetitive entries relating to lots of two, three, or four heads suggest was the mode of capture. This is supported by the occurrence of nesting-season dates for such entries as are dated. It is especially interesting that a sparrow hawk always realized twopence, so that there was no inducement to palm off its head as that of one of the larger raptors which fetched less.

Specific campaigns against the larger bird pests show up against the figures of mammals killed—foxes, polecats, weasels, stoats, and hedgehogs—which appear in fairly steady annual numbers, except that one or the other usually increased in the years when special action was being taken against the birds. The greatest concerted effort, that starting in 1676, shows a rapid and unbroken rise in the total of bird and mammal heads paid for, to a peak of 2,100 in 1683. Then, for seven years, although with annual fluctuations, the average was approximately 1,600, dropping suddenly to 212 in 1691-2. From then until 1697 no crows, rooks, magpies, or jackdaws at all are listed, the price on their

¹ N. F. Ticehurst, 'On the former abundance of Kite, Buzzard, and Raven in Kent', *British Birds*, 14, 1920, pp. 34-7, and 'Rewards for vermin killing paid by the churchwardens of Tenterden, 1626 to 1712', *Hastings and East Sussex Naturalist*, 5, 1935, pp. 69-82.

heads having apparently been removed. The campaign had seemingly reduced pest populations to levels below those where it was worth the community offering a reward. But in 1697 another drastic thinning-out began and for the next few years large sums were expended, the total take of individual species ceasing however to be distinguished. Only two owls were ever paid for—their true worth was understood—and no payment was made for house sparrows. That was to come.

An explanation of this impressive drive might be that the chief local agriculturists who would figure disproportionately among the churchwardens or could influence them had decided to reduce these particular overhead costs of farming. They were, in effect, securing themselves a subsidy out of the public purse. All ratepayers would have to contribute to the cost of the campaign but the farmers would benefit most, as with the later 'roundsman' system of paying for the employment of pauper labour. The earlier pest control payments would be more acceptable since most people in the countryside would keep poultry and it was on these which the main objects of the campaign preyed—witness a Dorset landowner's note in 1697, "yesterday I by chance rescued one of my chicken from the Kite."¹

Available sources do not permit us to demonstrate that the campaign in the Weald was at first national in extent. Indeed, this is unlikely. Kites, buzzards, and ravens resisted the persecution in some degree and were only gradually driven to the far west, the final pressure coming from the Victorian gamekeeper. Nevertheless the pressure was on, and the red kite, for example, was uncommon by the early nineteenth century in lowland Britain. John Knapp of Alveston, Gloucestershire, who was born in 1767 could recall a chance capture of fifteen kites when he was a small boy, since when he had seen the bird only in pairs or singletons until by 1829 it had become a rare transient in the district, driven away to bigger woods and lonelier spots and made so shy of man that it only approached the skirts of villages to collect nesting material. Its once considerable numbers were "greatly on the decline."² The national population was down to a reported five individuals in mid-Wales by 1905 and the black kite had quite gone, with only five *records* since 1866. There are indications of campaigns contemporaneous with that at Tenterden, for instance at Great Budworth, Cheshire, 1s. 4d. each was paid for 4,470 crow (i.e. rook) heads alone between 1699 and 1703 until in the last-mentioned year the vestry resolved to offer no more payment for them or for fox or hedgehog heads.³ At Crosby, Lancashire, in the first years of the eighteenth century Nicholas

¹ W. B. Barrett, 'The Pepys of South Dorset', *Proc. Dorset Nat. Hist. and Antiquaries Field Club*, xxviii, 1907, p. 41.

² Anon [J. L. Knapp], *The Journal of a Naturalist*, London, 1829, pp. 230-1.

³ A. W. Boyd, *A Country Parish*, London, 1951, pp. 25-6.

Blundell recorded, "I shot one Kite and 13 Crows . . . Betty Swift sent me a Mare to lay to shoot Kites at," i.e. a carcass for bait. When he had given up shooting, his Disbursements Book maintained regular entries "for killing Kites and Hawks."¹ Larger raptors were persecuted wherever sheep were central to the farming system. In Borrowdale a rope was kept especially for raiding golden eagle eyries every year. Adult eagles, and ravens, were killed and the vermin payments recorded in the parish registers.²

The second major target of post-Restoration pest control were species which eat the buds of fruit trees. An increase in orcharding took place in the late seventeenth and early eighteenth centuries as one feature of diversification of agriculture.³ The expansion of the specialized orchard habitat gave scope for the focusing on, and probably the increase of bud-stripping by, bullfinches and jays. Bullfinches in particular occur in churchwardens' accounts as the occasion of substantial 'vermin' payments. Under the obsolete names 'maupe' and 'malpe' many more bullfinches seem to have been killed at Totherne, Wilmslow, and Weaverham in Cheshire than could be found in the locality today. For Great Budworth the entry was made on 11 April 1678, "pd Raph Shawcross for 43 Moaps 00.01.04." At Eastington, Gloucestershire, bullfinches appear in accounts running from the early seventeenth to the early nineteenth centuries only between 1721 and 1755.⁴ At Tenterden in Kent there were only sporadic mentions of jays during the first fifty-three years of the accounts, but four years after the start of the big vermin campaign the numbers shot from two in 1679-80 to 192 in 1681, and in the following nine years 2,273 were paid for. With the general slackening of effort evident in the slaughter of birds of prey, the numbers fell from 271 in the 1689-90 season to thirty in 1691-2, three the next year and none the year after that. The entries for bullfinches are exactly parallel. The species was not mentioned for fifty years (from 1628-9), but thirteen were accounted for in 1679-80, thirty-nine in 1680-1, and 1,408 in the succeeding nine years. Thereafter the numbers fell from 200 in 1689-90, to twelve in 1691-2, and three in 1694-5. Like the jay, payments for bullfinches

¹ Margaret Blundell (ed.), *Blundell's Diary and Letter Book, 1702-28*, Liverpool U.P., 1952, pp. 142-3, 188.

² William Rollinson, *A History of Man in the Lake District*, London, 1967, p. 130n.

³ For the West Midlands see R. C. Gaut, *A History of Worcestershire Agriculture*, Worcester, 1939, p. 193; P. Morgan, 'George Skyppe's Catalogue of Books,' *Trans. Woolhope Club*, xxxv, 1955, p. 27; T. W. M. Johnson, 'The Diary of George Skyppe of Ledbury,' *ibid*, xxxiv, 1952-4, p. 56; E. Ball, 'Fruit Trees Planted by George Skyppe and his son at Upper Hall, Ledbury,' *ibid*, xxxiv, 1952-4, p. 268; Notebook of Richard Hopton, 1724-48, Hereford City Local Collection, Deeds, 9329; Diary of John Holder of Taynton, Glos., 1691-1730 (copy in possession of M. A. Havinden); H. P. R. Finberg, *Gloucestershire Studies*, Leicester, 1957, pp. 176-9; for Kent see C. W. Chalklin, *Seventeenth-century Kent*, London, 1965, pp. 90-1; for Lancashire see Blundell, *op. cit.* pp. 183-4.

⁴ A. W. Boyd, *The Country Diary of a Cheshire Man*, London, 1946, p. 14; Keys, *op. cit.* pp. 56-64.

became once again sporadic and trivial.¹ It is noteworthy that both the jay and the bullfinch had always fetched comparatively high *per capita* rewards and continued to do so; the wave of extermination revealed by the figures does represent a calculated campaign to protect fruit production.

III

One of the more paradoxical features of English agricultural history was the reclamation of land previously only grazed or summer-grazed which took place simultaneously with the post-Restoration expansion of livestock (and fruit) production. This was partly due to the development of intensive mixed farming systems and partly the result of contrary regional shifts in land use. After the middle of the eighteenth century the increases in population and the prices of basic foodstuffs produced a much less ambiguous re-emphasis on cereal production, with, in the latter part of the century, at least, further and very extensive reclamation. From the ornithological point of view there were important associated modifications to habitats, notably the planting of miles of new hedgerows, the establishment of whole new farmsteads out in the enclosed fields or former 'waste', and the draining of wetlands.

The process of extending mixed farming on to former sheep-down may be seen in miniature in the work of one Cotswold family, the Trinders of Holwell, Oxfordshire. Two brothers made a legal agreement in 1672, "to purchase, take, and buy for their joint and equal benefit all such estates as can be procured . . . in Holwell . . . And likewise to procure the Common downs or as much thereof as they can to be ploughed and sown with corn." This they did. The entire family were oddly agreed, part Protestant, part Roman Catholic, and another brother who fled to Flanders in 1689 may have come back with some notions from its advanced agriculture, for in 1693 another agreement was made to plough up 400 acres of pasture, fence it with quickset (probably hawthorn) or walls, and sow much of it with "St Foyne, Great Clover, Hop Clover, Rey Grass, Lucerne, or other seeds of Forreine grasse" for hay. In 1725 or 1727 a big barn, Godfrey's Barn, was built on the family's largest parcel of newly enclosed fields. It had a cat hole in the door² and in 1969 contained a barn owl's feather and pellets.³

The Trinders had replaced the wold grazing with rotations of cereals and fodder crops, and the store they had built would be subject to depredations

¹ N. F. Ticehurst, 'On certain other species of birds and their former status in Kent', *British Birds*, 14, 1920, pp. 86-7.

² By the mid-eighteenth century cats, of whatever colour, were deemed lucky, whereas previously they had often been feared as 'familiars' of witches. The last witch was burnt in Britain in 1722.—Brian Vesey-Fitzgerald, *The Domestic Cat*, London, 1969, pp. 53-4.

³ A. S. T. Fisher, *The History of Broadwell, Oxfordshire*, privately printed, 1968, *passim*, and site inspection. I owe the reference to Rev. David Peck.

from rats and mice. Barn owls were a form of biological pest control: they would keep down the rodents. Stylistically similar barns on the Cotswolds, as elsewhere, often possess owl holes presumably dating from the eighteenth and nineteenth centuries. (A cat hole could be cut in a wooden door at any time and is not so obviously dateable.) Rodent control became crucial as a defence against the invasion by the brown rat, the so-called Norway rat, which began about 1730. William Morris, writing from Holyhead in 1762, said that, "on Monday last, I had three men reaping all my corn, and not a little trouble did we have; Norwegian rats devoured it standing."¹ Rodent depredations were, however, worst on stored grain. "RATTS IN THE REEK" warranted an entry in block capitals in the farm accounts of Francis Prior of Ufton Nervet, Berkshire, in 1777.² Gilbert White, sheltering at the only farm out on the downs between Andover and Winchester in 1787, reported that despite the isolation, it was "much annoyed with Norway rats."³ Indeed the granaries of Hampshire farms were raised up on staddle stones to keep out rodents during the grain shortages of the Napoleonic wars; staddles were "fast gaining ground" in 1809.⁴ But birds as well as rodents were a pest of stored grain. The agricultural commentator on Derbyshire at the same period noted that it was usual to tuck in all straw ends on ricks to a depth of four or five inches so that the straw would be too tightly compressed for birds to peck and pull it.⁵

The emergence of a new ecosystem involving more extensive cereal-growing and attendant habitat changes produced its own new wave of avian pests, but it is as conclusively identified by the decline of the birds of a wilder landscape. Seventeenth-century descriptions of the chalk uplands refer to large, central blocks of plateau grass, mostly bare of trees and scrub, close-bitten by huge flocks of sheep. Birdlife was rather scarce on these open downs, but the community included great bustards, partridges, skylarks, and wheatears. One account written between 1673 and 1694 (but probably after 1680) explains that Salisbury Plain possessed "a Turfe as fine and more sweet than a silken carpet," where the fowlers trapped "Larks and little Wheatears" and where the bustard persisted.⁶

From the late seventeenth century the artificial steppes of the downs and comparable dry upland pastures experienced a transition to cereal and fodder-crop rotations, made technically possible by the introduction of grasses, 'seeds', and roots to feed arable sheep flocks which were walking manure carts, and

¹ Quoted by Brian Vesey-Fitzgerald, *The Vanishing Wildlife of Britain*, London, 1968, p. 97.

² Frederic Turner (ed.), *A Berkshire Bachelor's Diary*, Newbury, 1936, p. 44.

³ Walter Johnson (ed.), *The Journals of Gilbert White*, London, 1931, pp. 299-300.

⁴ Charles Vancouver, *General View . . . Hampshire*, London, 1810, pp. 58-70.

⁵ J. Farey, *General View . . . Derbyshire*, London, 1813, II, pp. 112-13.

⁶ H. C. Brentnall, 'A Longford Manuscript', *Wiltshire Archaeological Magazine*, LII, 1947, pp. 1-56.

without which the thin soils could not be kept in heart. With this contraction of the open grasslands their largest bird species, the great bustard, ceased to nest in Britain. Other species also decreased, but they were able to recover during arable depressions when the land tumbled down to rough pasture.¹ The steepest decline of the bustard seems to have come during the 1770's and 1780's. According to J. Swayne, about 1785 or 1786, "I often heard conversations amongst farmers . . . [on Salisbury Plain] about the scarcity of bustards on the Down, which they attributed to the heath, etc., being broken up and converted to tillage, and to the corn being weeded in the spring, whereby the birds were disturbed and prevented making their nests."² While Gilbert White was sheltering on the downs between Andover and Winchester in 1787 he learnt from the carter that "about 12 years ago he had seen a flock of 18 bustards at one time on that farm, and once since only two."³ The bustard, which had inhabited open parts of eastern Scotland and eastern England in the seventeenth century, had gone as a breeding species from southern England before Waterloo; it lingered longest on the Yorkshire and Lincolnshire Wolds (until the 1820's) and in Norfolk and Suffolk (until the 1830's).

Certainly, hunting and shooting as well as agricultural activity were responsible for the great bustard's decline. One seventeenth-century Earl of Pembroke used to hunt bustards with a greyhound pack and the shepherds chased them with their dogs. The prodigious bills of fare at medieval feasts had been supplied by the cross-bow and not until 1533 do the accounts of the L'Estranges of Hunstanton (1519-78) record an ominous technological advance: "Itm a watter-hen kyllled wt. the *gun*," and swiftly afterwards a crane, another crane, a mallard, and a wigeon were gunned down. These and other Norfolk accounts record a gradual increase in the use of guns to shoot birds during the sixteenth century, while the development of the light flintlock by the end of the seventeenth century, of 'shooting flying' after the Restoration, and in the nineteenth century the production of breach loaders and percussion caps all greatly stepped up the pressures.⁴

Nevertheless, reclamation for agriculture was the major force changing bird populations. One element, better recorded than most, was the draining of

¹ See E. L. Jones, 'Birds and Land-Use in North-West Hampshire' in Edwin Cohen (ed.), *Birds of Hampshire and the Isle of Wight*, Edinburgh, 1963, and 'The Lambourn Downs' in M. C. Radford (ed.), *The Birds of Berkshire and Oxfordshire*, London, 1966, with sources cited; for Wiltshire see A. C. Smith, *The Birds of Wiltshire*, Devizes, 1887, pp. 339 ff.; and for Yorkshire see E. W. Wade, 'Birds of East Yorkshire' in T. Sheppard (ed.), *Handbook to Hull and the East Riding of Yorkshire*, London, 1922, pp. 343-6.

² J. Swayne, 'The Bustard', *Wilts. Arch. Mag.*, II, 1885, p. 212.

³ Johnson (ed.), *op. cit.*, pp. 299-300.

⁴ Thomas Southwell, 'On the Ornithological Archaeology of Norfolk', *Trans. Norfolk and Norwich Naturalists' Soc.*, I, 1870-1, pp. 18-19; A. C. Smith, 'Memoir of Mr John Legg of Market Lavington, an advanced Ornithologist of the 18th century', *Wilts Arch. Mag.*, XXVIII, 1894, p. 12.

wetlands in Lincolnshire and Norfolk. Thomas Southwell's 1879 edition of Richard Lubbock's *Observations on the Fauna of Norfolk* (first published in 1845) remarks (p. iii), "the changes during the past thirty years have indeed been great, perhaps greater than during any like period in the history of our Island. Railways, steam draining mills, and improved cultivation have changed the quaking bogs, where once the Gull placed her procreant cradle, into green pastures where herds feed in safety; the 'wavy swell of the sougling reeds' has given place to the bending ears of golden corn; and the boom of the Bittern, the scream of the Godwit, and the graceful flights of the glancing Tern are sounds and sights altogether of the past." Lubbock himself, in a note, referred to similar changes between 1816 and 1847 and by report during the second half of the eighteenth century, concluding that "oats are grown where seven or eight years back *one hundred and twenty-three* Snipes were killed in one day by the same gun."

Reclamation entered its last impressive phase during the nineteenth century. Albert Pell, in 'The Making of the Land in England: a Retrospect',¹ described a Midlands parish of 1,648 acres enclosed in Elizabethan times but where roads, fences, and hedges were made in the nineteenth century and 1,600 acres drained (not necessarily profitably). There, private diaries showed that as late as 1808 the squire had commonly taken in draw-nets snipe, dotterel, and woodcock which were hardly ever seen by the 1880's. The apogee of Victorian reclamation came during the 1850's. We may cite the instance of Grunty Fen near Littleport, Cambridgeshire, which had been a thistle-grown swamp, "a paradise for goldfinches in the summer and fairly attractive for snipe in the winter." In a second article Pell quoted a written account by the landowner who had set about organizing its reclamation in 1857 and who, on the final day before cultivation work started, shot thirteen couple of snipe.² Or we may mention the final onslaught against the royal forests, the disafforestation and carving into fields and farms of 1,970 acres of forest in Wychwood, Oxfordshire, between October 1856 and January 1858, to the accompaniment of a communal slaughtering of the wildlife.³ Such examples may be multiplied.

The new agricultural environment was in some ways richer in birds than before. Professor Hoskins has observed that the thousands of miles of new hedgerows, and the canals, in the Midlands added to the small-bird population and its variety, while noting the extermination of larger predators like the kites ("a process that is abundantly recorded in the churchwardens' accounts or the

¹ *J.R.A.S.E.*, 2nd ser., XXIII, 1887, p. 362.

² Albert Pell, 'The Making of the Land in England: A Second Retrospect', *J.R.A.S.E.*, 3rd ser., x, 1899, pp. 138-9.

³ C. Belcher, 'Reclaiming of Waste Lands as Instanced in Wichwood Forest', *J.R.A.S.E.*, XXIV, 1863, p. 274.

field-reeves' books of Midland villages") and the loss of heathland species.¹ Recently Dr Norman Moore and others have reviewed the history and ecological function of hedgerows as background to a study of the consequences of their present speedy destruction by farmers.² They show the great dependence of the existing bird fauna on hedges by the neat device of comparing census transects of the surviving open fields at Laxton, Nottinghamshire, with ones along the hedges of neighbouring enclosed land. The average density of birds per 1,000 yards of transects which included hedges was considerably higher (20.5) than in those which had none (8.3); land with hedges was also richer in numbers of species. More plantations, fox and game coverts, windbreaks, and even rural houses introduced a greater variety into the former habitats of open fields or barren heaths and wolds. There is a famous passage in Macaulay in which he starts by describing the untamed state of England in 1685 and concludes that, "it seems highly probable that a fourth part of England has been, in the course of little more than a century, turned from a wild into a garden."³ Yet garden does not convey quite the correct impression where bushy pastures and reedy fens had been converted into comparatively uniform arable fields.

IV

A particular range of species—pests—prospered greatly in the new environment. Unfortunately, although many parish histories quote instances of payments for vermin killed they seldom provide enough data for analysis. The largest collection of information seems to be J. S. Elliott's *Bedfordshire 'Vermin' Payments* (Luton, 1936), where there are breakdowns by species and parish, occasionally from Elizabethan times but mostly from the eighteenth and nineteenth centuries. For all the detail, the extreme difficulty of deducing patterns from scrambled and discontinuous summaries of payments stands revealed. Most begin too late for comparison with the Kentish campaign against predators and bud-eaters. The last payments for mammals are from the 1830's, for birds (house sparrows) from the 1870's.

With the house sparrow we reach the rise of a new wave of pests on cereal crops. Sparrows increased in numbers in the countryside with the spread of mixed farming. The Bedfordshire parish payments suggest the heaviest slaughter from c. 1800 to c. 1830. It is only to be expected that the threatening food scarcity at the turn of the eighteenth and nineteenth centuries would have produced a sharper reaction against the pests of grain crops. An increase in the bounty on sparrow heads was advocated by one agricultural writer about

¹ W. G. Hoskins, *The Making of the English Landscape*, London, 1955, p. 153.

² N. W. Moore *et al.*, 'Hedges. 1. Introduction and Reconnaissance Studies', *Journ. Applied Ecology*, 4, 1967, pp. 201-20.

³ Lord Macaulay, *Works*, 1898 edn, pp. 326-8.

1790.¹ James Wright brought out his *Observations upon the important object of preserving wheat and other grain from vermin* in 1796. William Cobbett's private farm accounts for Botley, Hampshire, include an agreement of 1808 with a Mr Cowherd to pay very high prices for vermin of all kinds—and Cobbett did pay.² Not long afterwards, however, the exercise was starting to seem redundant. John Knapp of Alveston in the Severn Vale protested in 1829 that the parish still paid for vermin heads, observing that while this may once have been necessary to keep down predators in a thinly populated, wooded district, the clearing of the woodland by the axe and the plough, with intensive gamekeeping, meant that "our losses by such means have become a very petty grievance." He was particularly incensed by a recent payment in the churchwardens' accounts for 17 dozen tomtits' heads.³ As the nineteenth century advanced it was increasingly recognized that birds were less universally harmful and sometimes, through eating insect pests, positively valuable, so that any cost-benefit analysis became most complicated.

Nevertheless, even the incomplete Bedfordshire records show that millions of house sparrows were killed and tens of thousands of eggs taken during the eighteenth and nineteenth centuries. At Moggerhanger in Blunham, as an example, payments for sparrows start in 1720-1 (in accounts which begin in 1709-10) but became really sizeable after a Vestry Meeting in 1784. At Harlington sparrows had been on the black-list in 1685 and again in 1699, and although Vestry orders evidently exempted them in 1734 and 1737 they were once more doomed in 1743, becoming an annual charge until all payments stopped in 1831. At Eaton Socon rewards were first paid for sparrows in 1768 and although the records are described as "chaotic" some 250,000 were accounted for between 1782 and 1855. At Stanbridge, where the accounts run from 1733 to 1839, sparrows were killed from the start but no great toll was exacted until 1767. According to the species' monographer, records of payments begin in Warwickshire in 1744,⁴ and Ticehurst concurs with a mid-eighteenth century start in Kent. The new habitat of farms out in the fields provided the house sparrow with breeding and roosting stations—as was reported, it "becomes immediately an inhabitant of the new farm house, in a lonely place or recent enclosure"—⁵while more extensive grain-growing provided much more food. It is not surprising that the bird became a numerous

¹ Anon., *The Complete Farmer*, 4th edn, n.d. [c.1790], under 'Sparrow'.

² Nuffield College MSS. XIII, Farm Account Book, 1810-12.

³ Anon. [J. L. Knapp], *op. cit.*, pp. 163-4.

⁴ D. Summers-Smith, *The House Sparrow*, London, 1963, p. 217. The species was accused of often taking almost every grain for yards around the perimeters of fields, of following the sowers, the reapers, the threshers, and the poulterers to rob them.—J. M. Wilson, *The Rural Cyclopaedia*, Edinburgh, 1852, II, p. 635.

⁵ Anon. [J. L. Knapp], *op. cit.*, p. 218.

pest which farmers attempted to reduce. During the nineteenth century, many parishes formed sparrow clubs. Details of organizing a club were given in leaflet 84 of the Board of Agriculture and Fisheries in 1908. Clubs were active during the First World War, and apparently one or two survive. They may not have been very successful, although a good naturalist attributed an increase of sparrows on Humberside in 1872 to the cessation of paying 'sparrow money'. An earlier authority thought that the problem was exaggerated; that although house sparrows threatened the bread grains in autumn they were easily netted at their communal roosts, or shot and trapped through the winter in dozens in the chaff by the barn door, thereby keeping the breeding population down to an even level.¹ But on balance farmers were probably correct in thinking that the species consumed more grain than weed seeds. Farmers near towns were subjected to autumnal plagues of sparrows and were obliged to grow coarse-bearded wheat, the long awns of which baffled the birds as they clung trying to peck out the ears but the quality of which was inferior.

Rooks were looked on as the old arch-enemies. The scale of depredation feared from them—one can put it only as a fear—is summed up in the jingle about dibbling:

"Four seeds in a hole:
One for the rook, one for the crow,
One to rot and one to grow."

The crow referred to was probably the rook by another name. In other versions the wood pigeon is linked as a culprit. The Bedfordshire accounts show sizeable parish payments for field-keepers' wages, guns and their repair, powder and shot, and there are plenty of cases of payment for 'crow-keeping' or 'crow-scaring'.² Down the east coast the related hooded crow was numerous enough as a winter visitor in the early eighteenth century to threaten sown grain, and the farmers hired boys to drive them away until the crop had sprung.³ But it was mainly the colonial nesting rook, so often confused with the resident carrion crow in observation and nomenclature, which exercised cereal-growers. The Giles of Robert Bloomfield's poem *The Farmer's Boy* (1800) was described as a bird-scarer at Euston, Suffolk, in the spring. He thought little of setting scarecrows—"harmless riflemen of rags and straw"—but recommended placing dead rooks prostrate on the ground, moving them at evening or morning from place to place, so that "death shall terrify the pilfering race."

In practice nothing worked except constant thinning and relentless scaring, dependent on an ample supply of cheap boy or pensioner labour, which popula-

¹ Anon. [J. L. Knapp], *op. cit.*, pp. 216-17.

² Elliott, *op. cit.*, pp. 19-20.

³ John Lewis, *The History and Antiquities . . . of the Isle of Tenet [Thanet] in Kent*, London, 2nd edn, 1736, p. 24.

tion growth in the late eighteenth and nineteenth centuries did produce.
 "William May's Little Boy end'd Bird Keeping

6 weeks	6.0
1 day	2
	6.2"

runs a typical farm account entry.¹ The task was long, lonesome, weather-blown, and mechanical.² Yet it was considered vital, and the farmer's own sons were expected to take a toll of possible bird pests.³ Highly organized committees existed in Dumfriesshire and Forfarshire by the mid-nineteenth century to kill rooks.⁴

A new scourge was arising at the end of the eighteenth century and during the nineteenth century in the form of wood pigeon flocks, a scourge brought into existence by shelter belts and plantations, which the species found preferable to deep woods for nesting, and by the availability of clover leys, vetches, turnip and swede greens, and young corn.⁵ Until the seventeenth century the wood pigeon had been a thinly scattered woodland species. By 1775 Hayes in *A Natural History of British Birds* reported that it was abundant in Buckinghamshire where there was especially plentiful beech mast, but that it was generally found flocking in winter to raid the turnip fields. Francis Prior's Berkshire farm accounts noted on 19 May 1788 that, "several Gent etc. met for shooting at Pigeons at Mr. Case's ye 8 mile Stone from Reading."⁶ By 1835 Selby regarded turnips as the main winter food and thought, as the New Statistical Account of Scotland was shortly to do, that the species was increasing in proportion to the extent of that crop and of new plantations for nest sites. By 1850 wood pigeons had so increased in the Cotswolds that in places vetches could no longer be sown for feed. More than one authority thought the species

¹ Turner (ed.), *op. cit.*, p. 75.

² See Anon., *Stubble Farm*, London, 1880, I, pp. 220 ff, 229, or W. H. Hudson, *A Shepherd's Life*, London, 1936 edn, pp. 5-6, 123-34.

³ For example, as a boy in the 1870's Joshua Lamb of Sibford Grounds Farm in Oxfordshire accounted for some 1,250 of various species, according to his notebook seen at the farm by courtesy of Mrs Lamb. The toll included 'buntlarks', the local name for the corn bunting, regarded as harmful to ricks and interestingly called the 'stocking-weaver' by Wilson, *op. cit.* II, p. 634. Bundles of corn buntings were sometimes to be seen hanging among the skylarks in poulterers' shops.—C. F. Archibald, 'Wild Birds Useful and Injurious, II' *J.R.A.S.E.*, 3rd ser., v, 1894, p. 74.

⁴ Edward Jesse (ed.), *The Natural History of Selbourne*, London, 1851, p. 398, notes added by Sir William Jardine, 1850.

⁵ M. L. Anderson, *A History of Scottish Forestry*, London, 1967, II, p. 297; R. K. Murton, *The Wood Pigeon*, London, 1965, pp. 45-8; Anon. [H. H. Dixon], *Field and Fern*, 1865, p. 117; Copland, *op. cit.*, II, pp. 619-20; John Bravender, 'Farming of Gloucestershire', *J.R.A.S.E.*, XI, 1850, p. 175; Jesse (ed.), *op. cit.*, p. 398; and Jones, in Radford (ed.), *op. cit.*, p. 19; It should be noted that the wood pigeon and the bullfinch are the chief bird pests of agriculture in Britain today, both doing damage of a costly but highly seasonal nature.—Newton, *loc. cit.*, pp. 184-5.

⁶ Turner (ed.), *op. cit.*, p. 75.

commoner in the south than the north of Britain, although its depredations were serious in the arable East Lothian and at Galashiels in Selkirkshire. There it had been a very rare bird at the end of the eighteenth century, but by 1850 an association formed by an agricultural society in East Lothian had killed 8,000 birds (counting two eggs as equalling one surviving adult). By 1862 the United East Lothian Agricultural Society offered 1d. for each head and paid out for 130,440 between December 1862 and June 1870. The increased sowing of clover was blamed for the plague in 1865 and it was the clover which was really punished. Further, the wood pigeon is so heavy that merely by alighting on wheat, beating its wings, it threshed the grain, most of which fell through the straw and was lost to the bird as well as to the farmer. The mid-Victorians became so alarmed that a clockwork pigeon-scarer, firing blanks at regular intervals, was devised.¹

Another species the numbers of which had swollen in the new arable habitat until reckoned a pest was the skylark. Like the wheatears trapped on autumn passage by shepherds on the south coast downs as delicacies for the London market, the skylark had long been netted. It had also long been taken at lures, glinting whorls of glass which attracted the bird down from its song-flight. Aubrey recorded this practice and it had been mentioned by Shakespeare.² The catch was toasted as a gourmet's delight; lures and toasters are still found in museums. Before the First World War 20,000–30,000 larks were often displayed in the London markets.³ The skylark had come to be loathed as damaging to shallow-sown sprouting grain and boys were widely employed to scare it with clappers and rattles. In Victorian times guns and poison were added to the nets to take them, presumably to the no small danger of "the epicures of the metropolis."⁴ Before 1850 partridges were being picked up dead in parts of Hampshire from the arsenic in which local farmers were steeping their seed wheat.

This does not exhaust the list of persecuted species which had responded to the opportunities of mixed farming by increasing dramatically. The agriculturist had changed the ecology of Britain—it has been observed that "all forms of life modify their contexts"⁵—and was obliged to be more energetic in protecting his new crop-mix from avian depredations on a new scale.

¹ During the French Revolutionary or Napoleonic Wars—like the third quarter of the nineteenth century, a period of tightening labour markets—'bird clacks' on poles, turning automatically in the wind to frighten off birds, had appeared in the Brailsford district of Derbyshire.—Farey, *op. cit.*, III, 1817, pp. 646–7.

² John Aubrey, *Natural History of Wiltshire*, Newton Abbot, 1969 edn, p. 64.

³ Gunther, *op. cit.*, p. 39.

⁴ Copland, *op. cit.*, II, pp. 622–3; Jesse (ed.), *op. cit.*, p. 398; C. A. Johns, *British Birds in their Haunts*, London, 1882 edn, apparently written 1860, pp. 178–9n.

⁵ Lynn White, Jr, 'The Historical Roots of Our Ecologic Crisis', *Science*, 155, 1967, p. 1203.

V

A broad analogy may be made between the problem of crop pests which reared up to face British farmers during the eighteenth and nineteenth centuries and that confronting farmers in developing countries today. The modern problem does, however, seem more severe. The Anti-Locust Research Centre now regards the menace of the black-faced dioch as a crop pest over two million square miles of Africa as serious enough for it to transfer resources from insect control to studying the 'feathered locust' as this species is called. The dioch is a sparrow-sized weaver finch which may be the commonest bird in the world and definitely seems the most destructive. Its immense flocks, drawn from a total population of perhaps 100,000 million, consume vast quantities of the millet, guinea corn, wheat, and rice of twenty-five nations. Slaughter by high explosives at roosts (in Senegal) or poisoning by spraying from aircraft (in South Africa) may wipe out 100 million of the species per annum. But pruning even by these drastic means serves merely to expand the breeding space and *per capita* food supply for the survivors. North American wildfowl production for sport is based on similar, though deliberate, manipulation of duck and geese bags to ensure future stocks. A population will collapse very fast once a critical threshold is reached, which evidently is not being reached with the black-faced dioch. Much of the tropical world still uses child labour to pull the strings of rattles in attempts to keep weaver birds off the ripening cereals.¹ Conceivably, Chinese efforts against the tree sparrow (the replacement species for the house sparrow) were concerted enough to reduce that pest of cereals in more temperate latitudes to tolerable levels. During the first half of the winter of 1955-6 2,800,000 sparrows (so-named) were killed in Shantung Province alone, and one Manchurian lad so distinguished himself as to be designated a "sparrow-killing activist."²

A latent function of attempts to control the pests of farming in Britain was the securing of protein for the denser population of the countryside, and of London, in the late eighteenth and nineteenth centuries. Rooks, wood pigeons, skylarks, and house sparrows were not noxious like the carrion eaters which had been the first object of post-Restoration control. The best example of the use of a crop pest itself as food for the human population comes with the stepping-up of the campaign against the house sparrow during the middle of the eighteenth century. From the start of the seventeenth century at least until the mid-nineteenth century, unglazed earthenware pots, probably introduced from the Low Countries, were hung under house eaves for sparrows to nest in,

¹ See, e.g., Cyril Alliston, *Threatened Paradise: North Borneo and Its Peoples*, London, 1966, p. 57.

² Summers-Smith, *op. cit.*, p. 231.

to divert them from burrowing into the thatch and to ensure a supply of fledglings to eat. When the species became a major pest, its kill could be supervised since it took place in the evenings around houses and buildings at the roosts in ivy or thatch, and by 'bat-fowling' along the hedgerows of the village lanes. This was a kind of team game; descriptions are common in countryside histories.¹ It limited the risk of labourers poaching in the game preserves of open country.² Farmers could also encourage the practice in the belief that they were using their men's spare time to keep down a serious pest while allowing them to supplement low real wages with a protein supply. With rook control the best was again made of a bad job and the young birds shot at the rookeries were made into 'rook-pie'. Wood pigeons and skylarks were sent to market as well as being eaten in the countryside in the form of 'squab-pie' or toasted larks. These dietary supplements were the more necessary in that the growing numbers of rural poor had less and less access to wild birds or animals as food with the shift in property rights from communal to private ownership of land and freshwater, quite apart from the conversion of 'waste' to farmed land. And the social system which gave birth to the adamantine protection of reared game dealt a final blow to chances of hunting for the pot. This is not to assert that before the Restoration wild birds and mammals formed a substantial part of rural diets. For most people agriculture had no doubt represented a better investment of time and energy,³ but more supplement to diets from 'natural' sources was obviously available than one or two centuries later. Intensive arable husbandry had one advantage: it had "modified its context" so as to produce graminivorous pests which could be eaten by man. This consumption raised the dietary standards of the farm workforce while lowering overhead production costs to the farmer.

The emergence of more intensive agriculture, the increase of crop pests, and their simultaneous reduction and use as food for the poor, forms an ironic illustration of the principle of the harmony of interests. Nevertheless, it was one aspect of the growth path of Britain's agricultural economy, a path which, with due amendments for different and harsher ecologies, has yet to be trodden by the developing countries. It is more perfect irony that as those lands begin to move along this way, the advanced countries have started upon a further route,

¹ E.g. Maude Robinson, *A South Down Farm in the Sixties*, London, 1938, p. 63; Anon., *Stubble Farm*, *op. cit.*, II, pp. 85-6, 145 ff; Keys, *op. cit.*, pp. 56-64; and Sid Knight, *A Cotswold Lad*, London, 1960, pp. 57-60.

² An indication of the growing pressure of human populations on game and presumably feral birds is that from 1701-60 there were six Acts against poaching small game, but 33 similar Acts between 1760-1816.—Charles Chenevix Trench, *The Poacher and the Squire*, London, 1967, p. 124.

³ Guatemalan Indians use wild birds for food to a negligible extent, since although the birds seem to be 'free goods', hunting them diverts valuable time from farming.—Sol Tax, *Penny Capitalism*, Washington, D.C., 1953, pp. 29-35.

into 'industrial agricultures' where pesticides and herbicides may create a thalidomide-like ecosystem: where

"The sedge is wither'd from the lake,
And no birds sing."

Note added in press. The suggested identification of the London kite as the black kite (*Milvus migrans*) instead of the red kite (*M. milvus*) seems to be wrong. According to E. M. Nicholson, 'The British Approach to Ornithology,' *Ibis*, 101, 1959, p. 39, it would be plausible but for an observation in William Turner's *Avium Praecipuarum*, published at Cologne in 1544. Turner stated that he knew two kites. The kite common in England, as an urban scavenger, was rufous. The other kite was smaller and blacker, and Turner did not recall seeing it in England.

NOTES AND COMMENTS *continued from page 106*

In his report Mr Ordish noted that membership now stood at 764, a net increase of sixteen since last year. The Society had had another active year. The Winter conference on the historical background to the European Common Agricultural Policy had proved most interesting, although the attendance had been disappointing. The Society had published Mr J. G. Brewer's booklet on the bibliography of enclosure and work was proceeding well with the translation of Professor Abel's *Agrarian Crises and Economic Fluctuations* which will be the Society's next publication.

The Treasurer presented the accounts and reported that the Society's finances were still healthy, but that the sharp rise in printing costs over the past three years meant that the subscription would have to be raised if the Society's publications were not to be curtailed in future. He would raise the matter at the next AGM or at an emergency general meeting in the autumn if this proved possible.

The meeting ended with votes of thanks to Wye College and to the Kent Record Office for staging a delightful exhibition of early estate maps during the conference.

VETERINARY HISTORY

The Veterinary History Society is holding a meeting on Wednesday, 18 October, at the Wellcome Institute of the History of Medicine, 183 Euston Road, London N.W.1 (opposite Euston Station) at which all members of the

B.A.H.S. will be welcome. The programme is as follows: 2 p.m., G. E. Fussell, 'Animal Husbandry in Tudor and early Stuart times'; 3.15 p.m. Tea; 3.30 p.m. F. G. Clegg, 'Lead Poisoning of grazing animals: an ancient problem of husbandry'.

FRENCH ANIMAL HUSBANDRY

A new society has just been formed in France called the Société d'Ethnozootechnie which is interested in the evolution to the present day of animal husbandry and its associated equipment, buildings, etc. Its president is Monsieur R. Laurans, Centre d'Enseignement Zootechnique, Rambouillet, France, and the secretary is Mlle Ducrot, Pâtre, 114 rue de Bercy, 75 Paris 13e. The society would welcome contact with any members of the B.A.H.S. having similar interests.

ROMANIAN AGRICULTURAL HISTORY

Romania recently produced two volumes of agrarian history called *Terra Nostra*, which were widely circulated abroad. An important step has since been taken towards coordinating research in agrarian history. At a conference held in November 1971 in Yassy the subject matter of agrarian history was discussed, a programme formulated, and the decision was reached to set up a Society for Agrarian History in Romania. As a result *Terra Nostra* may become the society's journal on a permanent basis.

'Open' and 'Close' Parishes in England in the Eighteenth and Nineteenth Centuries

By B. A. HOLDERNESS

ESTIMATES of employment in agriculture in the first half of the nineteenth century indicate no general deficiency in the supply of agricultural labour, but it is evident that its distribution was imperfect. The most important deficiency occurred in parishes which regularly excluded all but the bare minimum of wage-dependent families from gaining settlements by the expedient of limiting the number of available cottages. These were described as 'close' parishes, often so rigidly controlled by landlords and ratepayers that labourers, employed by farmers in the parish, were compelled to walk to and from work. James Caird, in 1850, believed it very common to find agricultural labourers "lodged at such a distance from their regular place of employment that they have to walk an hour out in the morning and an hour home in the evening, or from forty to fifty miles a week."¹ An 'open' parish was overcrowded, insanitary, and ill regulated, with numerous small proprietors who let tumbledown cottages at exorbitant rents. Charles Kingsley's description in *Alton Locke* is comparatively restrained: "a knot of thatched hovels, all sinking and leaning every way but the right, the windows patched with paper, the doorways stopped with filth, which surrounded a beershop." Gilbert à Beckett, who reported on East Anglia in 1850, expressed the contrast simply: "in almost every Union where the course of my inquiry has taken me, I have found some one or more densely populated parishes in the neighbourhood of others very thinly inhabited by labourers, and in some instances, having scarcely any cottages at all. In the former, the dwellings are for the most part wretched, damp, unwholesome, inconvenient, excessively high rented, and crowded with inmates, to such an extent as to render it impossible that health and comfort should be enjoyed."² The consequences were not merely the poor hygiene, dilapidation, and despair of such villages, but a marked deterioration in the efficiency of farmworkers whose energies were dissipated by their living conditions and their travelling to work, which, as Caird said, was an enormous tax to pay in labour, "their only capital." Victorian scandals like the Gang System were the product and the symptom of 'open' and 'close' parishes. The Gang System depended upon crowds of women and children, recruited from over-

¹ James Caird, *English Agriculture in 1850-1*, London, 1851, p. 516.

² G. A. à Beckett, 'Report to the Poor Law Commissioners on Norfolk, Suffolk, Essex, and Reading Union, Berks', *Report on Laws of Settlement and Removal*, 1850, BPP 1850, xxvii, p. 238.

populated villages and put out to work in neighbouring villages where there were too few labouring families for the purposes of agriculture. From the Victorian viewpoint, the problem was essentially moral. Private squalor was often identified with moral delinquency, and beerhouses received a large proportion of the blame for rural despair and dissipation. However, a number of writers, while remaining acutely conscious of the incontinence of cottage labourers, sought an environmental cause. Dr Hunter, who wrote in 1865, overstated the case when he described 'open' parishes as "penal settlements for people of bad character from all the country round," but foul conditions engendering delinquency and sexual promiscuity were widely described by mid-nineteenth-century investigators, since 'open' villages were forced to receive the "scum and offscour" of the countryside hindered from settling anywhere else. Most counties from Dorset to the East Riding could show one or two particularly notorious examples.¹

The problem of 'open' and 'close' parishes itself became a mid-Victorian scandal. Thirty years of investigation and propaganda culminated in the Union Chargeability Act of 1865, which substituted a system of assessment by poor law unions for the old parish poor rate, and thereby changed the problem from a parochial to a Union responsibility. It was in the thirty years between the Poor Law Inquiry Commission and the Act of 1865 that the issue was first properly discussed and separated from the general problem of rural poverty. It continued to occupy much space in the Reports to the Royal Commission of 1867, but there was already evidence that things were gradually changing for the better. The majority of the regional reporters, who found 'close' parishes to be a serious problem, acknowledged that cottage-building to ensure a better economic distribution of labour had already begun, but in the worst areas difficulties remained until at least the 1880's, in spite of the assistance offered by steady rural depopulation.²

The distinction between 'open' and 'close' parishes was not a new development of the mid-nineteenth century, although the terminology probably dated from around 1830. Limitations upon cottage-building were mentioned by Eden, Davies, Marshall, and others, and in a more precise way by Arthur Young and Richard Burn in the 1760's. Much earlier, Roger North, whose

¹ Caird, *op. cit.*; Dr Hunter, *Seventh Report of the Medical Officers to the Privy Council*, App. 6, BPP 1865, xxvi, p. 135; Rev. James Fraser, in *R.C. Employment of Children, Young Persons and Women in Agriculture*, BPP 1867-8, xvii, p. 92; *Report to the Poor Law Commission on the Employment of Women and Children in Agriculture*, 1843, pp. 220-6.

² For the background, see S. & B. Webb, *History of Local Government in England*, London, 1928, vol. 8, pp. 419 ff. and Robert Pashley, *Pauperism and the Poor Laws*, London, 1852, pp. 274-87, 329 ff. Also, the evidence to the H. of Com. in *S.C. on Settlement and Removal*, 1847, BPP 1847, vol. xi; [Sir Edmund W. Head] 'On Settlement and Poor Removal', *Edinburgh Review*, vol. 87, 1848, pp. 451 ff; *R.C. Employment of Children, Young Persons and Women in Agriculture*, 1867, BPP 1867-8, vol. xvii, and BPP 1868-9, vol. xiii, *passim*.

Discourse on the Poor was not published until 1753, had described conditions which were clearly recognizable: "It is another very great destruction of People, as well as an Impediment to the Recruit of them, that Gentlemen of late years, have taken up an Humour of Destroying their Tenements and Cottages, whereby they make it impossible that Mankind should inhabit upon their Estates. This is done sometimes barefaced, because they harbour the Poor that are a charge to the Parish."¹

In much the same vein, Arthur Young, on various occasions, referred to the malign influence of the settlement laws upon cottage dwellers, as for instance when they provided "a strong and effective motive for many people to do everything in their power against population, by raising an open war against cottages." No one who touched upon the subject underrated the significance of the Acts of Settlement in the establishment and maintenance of 'close' townships. Richard Burn described one of the functions of the parish overseers, "to pull down cottages; to drive out as many inhabitants and admit as few, as possibly they can; that is to depopulate the parish in order to lessen the poor-rate."²

As the quotation from Roger North implies, the Settlement Acts early stimulated landlords to hinder cottagers' settlements as far as possible, but the early history of the 'close' parish can in fact be traced right back to the beginnings of poor law administration in England. Until 1775 the Elizabethan Act which prescribed a minimum of four acres to each cottage, was still in the statute-book. Down to the 1740's at least, Quarter Sessions were prepared to order the destruction of unwanted cottages. Applications for 'judicial' demolition were quite common in the seventeenth century, and as far as one can judge, resort to law was mostly used by large, populous parishes so that, to some extent, Quarter Sessions could be used as a check upon the proliferation of dilapidated eyesores where no other redress was available. After the 1740's, the judicial function languished and thereafter the big parishes were encumbered with the cottages which proprietors chose to erect until they actually fell down.³

¹ Roger North, *A Discourse on the Poor*, London, 1753, p. 51, probably written before 1690.

² A. Young, *Political Arithmetic*, London, 1774, pp. 93-4, 102, where the effect upon sexual morality of the shortage of cottages is clearly drawn; *idem.*, *Farmer's Letters to the People of England*, 1768, pp. 288-9; R. Burn, *A History of the Poor Laws*, London, 1764, p. 211. Cf. also Sir F. M. Eden, *The State of the Poor*, 1, p. 361; D. Davies, *The Case of Labourers in Husbandry*, Bath, 1795, p. 56; W. Marshall, *Rural Economy of the Midland Counties*, London, 1790, pp. 11, 210. In addition, see the neglected work of George Coode, *Report to the Poor Law Commissioners on the Laws of Settlement and Removal*, BPP 1851, xxvi, pp. 171 ff.

³ 31 Eliz., c. 7, repealed 15 Geo. III, c. 32. Cottages could be built on the waste without four acres—43 Eliz., c. 2; J. Dalton, *The Country Justice*, 1635, p. 76; E. Hampson, *The Treatment of Poverty in Cambs., 1597-1834*, Cambridge, 1934, pp. 66, 127-8; E. G. Dowdell, *A Hundred Years of Quarter Sessions: Middlesex, 1660-1760*, Cambridge, 1932, pp. 81-2; D. Marshall, *The English Poor in the Eighteenth Century*, London, 1926, pp. 107-8; H. Copnall, *Notts. County Records of the Seventeenth Century*, Nottingham, 1915, pp. 125 ff; S. A. Peyton, ed., *Minutes of Proceedings in Quarter Sessions: Kesteven, Lincs.*, Lincoln Record Soc., 25, 1931, introduction, pp. c-cii.

In what were to be called 'close' parishes, legal resort was never necessary since the will of the landlord sufficed. As early as 1711, at South Ormsby, Lincs., the up-to-date landowner, Burrell Massingberd, decided in future not to have more cottages on his estate than he and his tenant farmers required for their necessary labourers.¹ To all intents and purposes, the Elizabethan Act, although a useful judicial tool, was a dead letter by the seventeenth century. Landless cottages were already a feature of many estate rentals and surveys by the latter part of the century, not merely because squatters were being brought into the orbit of estate management, but because former cottage smallholdings were being steadily deprived of their land. By 1750-70, the "pauperization" of the agricultural labourer in many parishes of upland Lincolnshire was virtually complete. It was a process independent of the enclosure movement, which if it had adverse effects on the cottage-labourer, merely completed or continued a protracted development.²

Another leading influence upon the establishment of 'close' parishes was early depopulation. Many of the worst examples of 'close' parishes in the mid-nineteenth century were villages which had shrunk or been deserted, for various reasons, between the fourteenth and the early eighteenth centuries. The areas in which deserted villages were numerous, in the north-east Midlands, west Norfolk, and the East Riding, were the main centres of the system by 1850. Enclosure for pasture, the consolidation of holdings under substantial farmers by absentee landlords, and all other factors which influenced local depopulation, contributed in the long-term to the formation of restricted parishes. Consolidation of holdings, which was a movement independent of enclosure, particularly Parliamentary enclosure, most active in the period 1650-1750, was the driving force behind the deprivation of cottage smallholdings just mentioned. Moreover, in areas where pasture farming was of increasing importance, or where, as in the Wolds of Lincolnshire and the East Riding, small, remote, and poor upland townships abounded, the grazier-tenant or warrener-cum-flockmaster often came to hold an overriding influence over his depopulated community in lieu of a landlord. The landlord was usually too remote to care for much except the prompt payment of rent, which was generally too small per acre for him to take an active interest in repairs and dilapidation.³

Deliberate clearances certainly took place after 1750. Evidence from the Census period is quite explicit for many parishes, especially in the Midlands

¹ Lincs. Archives Office, MM IV/I/I.

² See, in part, B. A. Holderness, 'Rural Society in S.E. Lindsey, Lincs., 1660-1840', Nottingham University Ph.D. Thesis, 1968.

³ Holderness, *op. cit.*, ch. vi, *passim*; G. E. Mingay, 'The Size of Farms in the Eighteenth Century', *Econ. Hist. Rev.*, 2nd ser., xiv, 1961, pt iv; A. Harris, *The Rural Landscape of the East Riding of Yorkshire*, London, 1961, *passim*.

between the Cotswolds and the Humber. From 1821 to 1861, demolition of cottages was, together with emigration, the most frequent explanation of dwindling village populations. The information is probably not comprehensive, but there are enough specific notes on the subject in the Censuses to corroborate the evidence from other reports of the wide distribution and the local severity of the problem. In parts of Lincolnshire, a large-scale clearance occurred between 1811 and 1821.¹ According to John Parkinson, writing in 1816, this was partly a reaction against the county's famous cottage system, which had been "created" in the upland parishes from the 1770's onwards to offset the previous tendency to undermine the labourers' modicum of independence as cottage-holders. The local magistracy, dominated by well-meaning clergymen, had been too free in granting settlements to all who claimed a cottage holding, and so alienated landlords and ratepaying farmers from the system in the depression after the war years. The result was that cottages were destroyed and numbers of poor labourers driven into towns like Louth or Horncastle or large villages like Tetford.² It perhaps explains a sudden lack of interest in cow-holdings by landlords at the time, and the gradual substitution of the more innocuous allotment system, which in itself conferred no rights of settlement. However, the worst phase was yet to come. In 1846, Parliament passed an Act, intended to help the poor, by conferring irremovability upon families who had continuously inhabited a parish for five years. Thus, the Poor Removal Act (9 & 10 Vict., c. 66) greatly increased the burden of the 'open' parishes, since they found themselves responsible for many labouring families hitherto domiciled but not settled within their bounds. The 'close' parishes, which still maintained some poor, had done so before 1846 by out-relief in other villages as a general rule. Under the new law, they naturally lost this obligation, and according to several reports, there were landlords who went so far after 1846 as to force out any remaining poor likely to become chargeable to them. No statistics of demolitions exist for the period after 1846, but it is unlikely that much new clearance was necessary, except as a process of tidying up. Nevertheless, several of the reports to the 1850 inquiry stressed the ill effects of the Act.³ A Beckett was convinced that proprietors were even more strongly opposed to building cottages after 1846 than before, and one Norfolk landlord admitted that he had bought land in adjacent parishes to house his own labourers. In Hampshire, where the distribution of labour was tolerably good, the Act caused some demolitions in Alresford Union, and

¹ *Census Enumeration Abstracts, 1801-51*, vol. II, p. 49, note b.

² Board of Agriculture, *Report on the Agricultural State of the Kingdom, Jan./March, 1816*, pp. 157-8. Landlords' motives in establishing cottage cow-holdings may be inferred from Lord Brownlow, *ibid.* pp. 16-17, whose father claimed to have started the system, and the Earl of Winchelsea (in Rutland) in *Annals of Agriculture*, xxxiii, pp. 535 ff. Cf. *ibid.*, vol. xxxvii, p. 514.

³ Pashley, *loc. cit.*; BPP 1850, *op. cit.*, esp. pp. 246, 257, 348.

much the same appears to have been true of parts of Somerset and Dorset.¹ The Act of 1846 was the culminating touch of selfishness, and there is evidence that forces opposed to the system were already massing. Farmers, hitherto bound to their landlords or other ratepayers by the greater fear of inflating the poor rates, increasingly joined in the debate on the other side after the 1840's. Agriculturalists like Caird and some of the essayists of the Royal Agricultural Society in the 1840's and 1850's, as distinct from committed investigators of Utilitarian or Evangelical persuasion, and a handful of landed proprietors, like J. E. Denison of Ossington, Notts., or Sir James Graham of Netherby, Cumb., who did not always practise what they preached, also had some effect. By 1867-9, farmers were leading the local clamour for a better distribution of labour. Even in the Southern Counties in the 1860s, the dread of surplus population shifted to an apprehension that farm labour, if still underemployed, was at times becoming positively scarce. Docking Union in Norfolk anticipated the national system of union chargeability by some years, though not with an unqualified success. From as early as 1841, Robert Weale reckoned that significantly more cottages had been built than pulled down in Bedfordshire, although, with the Woburn estate so dominant in the county, his evidence, even if true, was probably untypical.²

Comparatively little modern research has been undertaken on the subject, and one of the more difficult problems is still that of definition.³ Nineteenth-century investigators had no difficulty in deciding whether a parish was 'open' or 'close' but few made the attempt to define their terms of reference. Even in official reports the majority of writers relied upon their own eyewitness or upon the common knowledge of the district examined. To those who did analyse the distinction, the 'close' parish was simply one in which ownership of land and house accommodation was in the hands of one, or at the most, three proprietors who shared similar interests. The owners had the power, whether or not they possessed the inclination, to exclude potentially chargeable families from settlement. By contrast, 'open' parishes were those in which no such limitations upon settlement could be applied, because ownership was diffuse, the proprietors of lands and cottages serving rather different interests. Cottage owners were often petty tradesmen or speculative builders who pro-

¹ BPP 1850, xxvii, p. 257. Another landowner in Norfolk bought up cottages at Hockham as they came on the market to prevent them from falling to speculators, and lowered their rents.—J. Revans, *ibid.*, pp. 334, 346-8.

² Caird, *loc. cit.*; J. A. Clarke, 'On the Farming of Lincolnshire', *J.R.A.S.E.*, 1851, p. 155; H. Tanner, 'On the Farming of Devon', *J.R.A.S.E.*, 1848, p. 68; Pashley, chaps. xiii, xiv; BPP 1850, xxvii, p. 384; BPP 1867-8, xvii, p. 189. A list of the prize essayists is given in Lord Ernle, *English Farming Past & Present*, 6th edn, 1961, by O. R. MacGregor.

³ A notable exception is D. R. Mills, 'The Poor Laws and the Distribution of Population', *Trans. Institute of British Geographers*, 26, 1959, pp. 193-4, which deals in detail with Kesteven, Lincs., but cites a number of other geographers' theses touching upon the problem.

fitted greatly from the heavy demand for accommodation in their parishes.¹

The ownership of a parish is obviously significant in relation to the power to create 'close' communities, but the writers who used it as a yardstick were compelled to include villages as 'close'—because they were owned by few proprietors—in which the supply of resident wage-labourers was adequate, or even surplus to the needs of the place. Robert Weale, for instance, who defined the problem in terms like those used above, found, when he came to analyse the situation in Bedfordshire, that the correlation between what he called 'close' parishes and those with an inadequate supply of labourers' cottages was not particularly close—there were forty parishes in the county deficient in cottages, but only twenty-five 'close' parishes, of which, moreover only twelve drew labour from outside.² In retrospect, a meaningful definition of a 'close' parish must be a place so restricted in the settlement of wage-dependent families that the supply of labour was insufficient for the cultivation of its area. An 'open' parish was one in which labour was surplus to need, and which provided additional manpower for the neighbourhood. In the nineteenth century, all parishes tended to be described as one or the other, which in the context of the distribution of population, is misleading. Outside some exceptional regions of England, where the maldistribution was severe, the parish which housed its own labourers was almost certainly the commonest type of community. Parishes with a balance of this kind were not necessarily more salubrious or endowed with better cottages than the overpopulated places, since the quality of cottage accommodation in particular places, although related to the present problem, was not conditioned by it. Some of the worst rural housing was to be found in north Northumberland where no juxtaposition of 'open' and 'close' parishes existed.³ Dr Hunter, in one of the best known of the medical reports to the Privy Council in 1865, intimated that the show villages attached to many mid-nineteenth-century estates depended for their success upon the 'open' villages into which the less trustworthy or less regularly employed estate labourers could be compelled to reside out of sight and out of mind.⁴ There are some grounds for believing that the contemporary obsession with the picturesque, which brought about the removal and re-erection of many villages like Milton Abbas in Dorset, had some influence upon the creation of 'close' parishes, but as a general rule 'model' villages were not the most offending examples of the system. Landlords who planned settlements like Holkham, Blankney, Lockinge, Sledmere, and Stanton Harcourt were obviously concerned not to permit the infiltration of unnecessary paupers, but

¹ BPP 1850, xxvii, pp. 238, 382, 403.

² Robert Weale, 'Report on Bedfordshire', BPP 1850, xxvii, pp. 380 ff.

³ E.g. see Caird, *op. cit.*, p. 389; G. E. Fussell, *The English Rural Labourer*, London, 1949, pp. 50 ff.; J. H. Clapham, *Economic History of Modern Britain*, London, 1928, I, pp. 27 ff.

⁴ Dr Hunter, *op. cit.*, App. 6, p. 135.

were otherwise determined to have enough labourers for the purposes of the estate and nearby farms, upon which their reputations as agricultural improvers rested. According to the Census data, the majority of such model or show villages, indeed, were quite populous in relation to their particular localities.

Although the creation of 'close' parishes was seldom achieved in a single stride, many depended for labour ultimately upon the existence of already substantial centres of population. The most important 'open' parishes were often small market towns, and many examples are given in the reports of 1850 and 1867-9. Castleacre in Norfolk, for instance, was reputedly where the Gang System originated; Caird noted of Thetford, and Edward Stanhope of Caistor in Lincs., that many labourers had to walk six to ten miles each day to and from work. Around Louth, according to the 1821 census, many parishes had been reduced by the demolition of cottages and their inhabitants driven to the town. At Coggeshall, the same thing happened: "numbers of men go out from here every morning to work in all the surrounding parishes, come home at eventide, and in the event of illness or accident fall upon us. It is notorious that many cottages have been pulled down so as to drive the labourers into the town."¹ The proximity of a small town was therefore a strong temptation. To some extent living in a small town or large nucleated village offered advantages also to labourers. The number and variety of shopkeepers were greater than in small village communities and there was less opportunity for the establishment of retail trading monopolies over the labouring poor.² In the century after 1750, a large proportion of the places, otherwise castigated as 'open' parishes, developed into focal centres for a dependent agricultural hinterland, and the range of services offered even by small towns in the nineteenth-century directories is surprising. Village tradesmen readily became property speculators, who exploited the demand for accommodation, but the existence of a *petite bourgeoisie* of shopkeepers and artisans itself often ensured some additional employment and some provision of charities for relief of the poor, who in some cases had been drawn into parishes of this kind by the survival of unenclosed commons.

Throughout the period there was a remarkable consensus of opinion about the basic causes and the evil consequences of the system of 'open' and 'close' parishes, and despite the large body of discussion on the subject, so many of

¹ *Report on Employment of Women and Children in Agriculture*, 1843, pp. 220 ff., 279 ff.; Caird, *op. cit.*, p. 161; BPP 1867, xvii, p. 142; *Census Enumeration Abstracts*, 1801-51, pp. 11, 49; BPP 1850, xxvii, p. 278. Similar sentiments were expressed about Norwich, (1850, p. 261) Stowmarket, (p. 247), Woodbridge (p. 253), Colchester (p. 275) Thetford (pp. 257-8), Alton, (p. 331), Basingstoke (p. 337), Newark (p. 373), etc.

² On the subject of village shopkeepers, see the adverse comments in the 1843 Report, *op. cit.*, pp. 140-2.

the same themes and arguments were repeated that a small number of quotations suffices to illustrate the common point of view. It is more difficult to discover the number of 'close' villages, either nationally or in particular localities. In the best manner of Victorian social investigation there are statistical appendages to various reports in 1850 and 1867-9. From three reports, all dealing with Southern England in 1850, evidence from 586 parishes indicates only about one-third (32 per cent) to be short of a resident labour supply. Some of the Rev. James Fraser's data in 1867 agree with this average—in four Unions of Norfolk 33 per cent, and in Westhampnett Union, Sussex, 37 per cent—but from Fraser's and other reports, the proportion elsewhere appears often to have been less, and seldom much greater.¹

Taken together, the various reports give a general picture of the distribution of 'close' villages, if not their number. There was no problem in regions where upland grass farms and family holdings predominated—in Cornwall, Wales, and much of northern England. In Northumberland and Durham, the pattern of settlement, the specially equipped large 'farmeries', cottage boarding, and the 'bondager' system gave immunity even on the good agricultural lands. In Yorkshire the problem was largely confined to the East Riding, but the want of cottages, owing in part to the poor laws, was noted elsewhere in the county in the 1790's.² Around the Welsh border there were only pockets of badly distributed population, especially in the arable parts of Shropshire and Worcs. The problem was most severe in the light soil uplands of the East Riding, Lincolnshire, Nottinghamshire, east Leicestershire, north-west Norfolk, and the Cotswolds, but it also occurred with different intensity on the clays and alluvial soils in which mixed or arable farming was practised in the early nineteenth century, particularly in the Midland Plain. Some areas of southern and eastern England were much less seriously affected. The old forest districts of Kent, Sussex, Surrey, Essex, and Herts., were largely exempt. Suffolk, too, was much less influenced by the system than Norfolk, although this does not appear in the 1850 Report.³ To be precise, the territory south of Norwich—Wymondham—Thetford, nearly the whole of Suffolk, and the main arable area of Essex between the forest and the marshes, contained a much smaller proportion of 'close' parishes than northern East Anglia—for instance, in three unions in Norfolk north of the line, 40 per cent of parishes were 'close' against 17 per cent in two unions, Depwade, Norfolk, and Halstead, Essex, in this zone. That this outline of the distribution of 'open' and 'close' parishes is reasonably accurate may be verified from parochial population statistics in the censuses.

¹ BPP 1867, xvii, esp. James Fraser's *Minutes of Evidence*.

² R. Brown, *Gen. View of the Agriculture of the West Riding*, 1799, p. 13; H. E. Strickland, *Gen. View of the Agriculture of the East Riding*, 1813, p. 42.

³ E.g. in Thingoe Union, many villages were said to be depopulated because of the proximity of Bury, according to à Beckett.—BPP 1850, xxvii, p. 242; this is scarcely borne out by the Censuses.

TABLE I

REGIONAL ANALYSIS OF 'CLOSE' PARISHES IN ENGLAND IN THE MID-NINETEENTH CENTURY

Region	ALL TOWNSHIPS			'CLOSE' TOWNSHIPS			G Acres per house*
	A No. of town- ships	B Av. no. acres per house	C Av. pop. growth, 1801-41	D No. of town- ships	E % all town- ships	F Av. pop. growth, 1801-41	
Essex, Herts., Cambs.	82	16.3	45.7	5	6.1	2.4	40 (5)
Dorset, Som., W. Wilts.	165	16.7	34.7	38	23.0	10.6	40 (29)
Huntingdonshire	98	21.0	54.4	22	22.5	22.4	45 (22)
W. Leics., E. Warks.	145	17.4	39.7	32	22.1	9.6	40 (30)
N.E. Kent	93	20.5	55.9	14	15.5	22.5	45 (18)
Lindsey Marshes	102	28.9	63.7	24	23.6	31.9	60 (17)
Vale of Severn	87	16.3	53.5	9	10.3	15.6	40 (7)
Cotswolds (Glos.)	199	15.1	37.7	56	28.1	22.8	40 (55)
E. Leics., Rutl., West Kesteven	201	28.7	30.2	78	39.8	16.8	60 (47)
West Norfolk	165	25.4	47.0	55	33.3	22.3	55 (48)
East Riding Wolds	157	38.4	61.2	68	43.3	32.0	70 (51)

* Column G gives the number of acres per house used as the demarcation line between 'close' parishes and others, and (in parentheses) the number of places in each region beyond that line. The difference between the numbers in column G and column D was supplied from information other than Census data, for which see text, p. 134.

The accompanying table represents the author's own attempt to calculate the distribution of 'close' villages in selected districts of England. It is based upon analysis of several converging lines of inquiry, the density of population in each village of the chosen district, the relative increase in the number of houses and the growth of population, the evidence of social structure revealed in contemporary directories, and, finally, the rate of expenditure on the poor in two periods, 1785-7 and 1825-9. Used in conjunction, the censuses, local directories, and the poor-rate returns give a reasonably accurate picture of the distribution of 'open' and 'close' parishes.

The proportion of 'close' parishes revealed in TABLE I is rather low. The figures refer to parishes acutely affected by a shortage of labourers and cottages. There were certainly also places which imported part of their daily labour supply, which are difficult to isolate since they tended to share the characteristics of parishes where no restrictions upon settlement were applied. In dealing with the serious maldistribution of the rural labour force, however, such indeterminate parishes were not really very important except where they aggravated conditions in districts in which "decidedly 'close'"¹ parishes abounded. To generalize, one may describe conditions as follows: in the worst affected areas of the north Midlands and the East Riding—the limestone and chalk uplands—the proportion of 'close' parishes was about 40 per cent of the total; elsewhere, in the lower-lying areas and on the Midland Plain, the south-west and the Cotswolds, the average was nearer one-quarter; and there remained many areas even in southern England where the percentage was 15 per cent or much less. A national average is difficult to discover, but from a rapid, and possibly inaccurate, analysis of nearly 14,000 rating townships south of the Tees and Ribble the proportion of 'close' parishes comes out at about 20 per cent.

The social consequences of the system of 'open' and 'close' parishes were numerous and nearly always unpleasant. The heavy emphasis upon labour in the farming of the period—at least in the corn counties—resulted in the development of itinerant labour gangs to eke out a deficient supply of general labour.² The evolution of the Gang System was closely related to the distribution of 'close' villages. It began in an area of west Norfolk where several large open parishes, Swaffham, Castleacre, Litcham, Gayton, Gt Massingham, Middleton, etc., existed side by side with numerous 'close' villages. By the 1850's nearly all these large parishes had at least one public gang. From Norfolk, the Gang System generally spread into similar areas, and in the uplands of Lincolnshire and the East Riding conditions were right for its growth. Edward Stanhope, speaking of the very numerous small villages of the Wolds, declared that "the bad distribution of cottages in this district, as in most other parts of Lincolnshire, arises, not from the destruction of cottages by the large owners to save the rates, but from its being in many respects a new country." Stanhope oversimplified the situation in the county, but his point about Lincolnshire (and the East Riding) being largely a new country is valid, in view of the late development of agriculture in the uplands by contrast with

¹ Francis Howell's phrase in 'Report on Nottinghamshire', BPP 1850, xvii, p. 373.

² The evidence for the Gang System is drawn mainly from the *6th Report of the Children's Employment Commission*, 1862, BPP 1867, vol. xvi, pp. 67 ff., and the *Poor Law Commission Report on Employment in 1843*, *op. cit.*; Edward Stanhope, BPP 1867-8, xvii, p. 133. See also the suggestive article by E. J. T. Collins, 'Harvest Technology and Labour Supply in Britain, 1790-1870'. *Econ. Hist. Rev.*, 2nd ser., xxii, 1969.

Norfolk or Northumberland. Except in the Fens, where the enormous size of the (undivided) parishes created labour problems, the Gang System was entrenched chiefly in regions of 'close' parishes by 1866. Despite the sparseness of population it did not properly exist in Northumberland, and was very much less prevalent in those areas of southern and eastern England in which the problem of 'close' parishes was of minor importance.

Another consequence of the system of 'open' and 'close' parishes was the extra expense and the fatigue caused by the labourers' need to travel to work. Farmers complained of workers' inefficiency, and the labourers found themselves in the unenviable position of paying rents for unsavoury 'open' village accommodation, which were high by any standard, while at the same time having to bear the cost of wear and tear of clothing in walking up to six miles to work. Some overcame the problem of walking by obtaining donkeys. Caird noted it as not uncommon in Lincoln and Norfolk and it was not unknown elsewhere.¹ Donkeys had to be housed and fed and diverted a considerable proportion of the labourers' resources to their upkeep, especially since in 'open' villages the labourers' occupation of more than an exiguous garden plot was scarcely ever possible. The farmers again were prone to complain. The donkeys filled their yards during the day, and in some instances were fed at the farmer's expense. Moreover, they were regarded as an inducement to labourers to steal fodder.

By no means all employers condemned the system which demanded the labourers' travelling to and from work. The majority certainly agreed with à Beckett that they suffered "very considerably by the deterioration in the value of a labourer who has to walk some distance to work,"² but in some places at any rate farmers actively preferred non-resident labour. A Beckett himself reckoned that labourers employed outside their parish of settlement were harder working and more trustworthy than those employed at home.³ The inference is that the uncertainty of employment disciplined 'travelling' labourers to hard work, notwithstanding the fatigue induced by their twice-daily walk, and some reporters met complaints of the laziness of labourers settled in parishes where there was no competition for houses and little for available employment. John Revans who thought it was customary to prefer settled labourers stated that some settled labourers complained if unsettled men were given jobs when settled families were under- or unemployed. Moreover, it was generally true that village cottages were reserved by landowners for the "choicest labourers . . . remarkable for strength and skill and character."⁴ In an area of nucleated villages and scattered farmsteads, the Isle of Ely, it was reported that outlying farmers usually had to settle for the worst

¹ Caird, *op. cit.*, p. 197; BPP *Report*, 1850, *loc. cit.*, p. 273.

² BPP *Report*, 1850, p. 238.

³ *Ibid.*, p. 238.

⁴ *Ibid.*, pp. 331, 334.

labourers since good men had no need to travel any distance for employment.¹ Employers no doubt professed to believe in the disciplinary virtues of poverty, but by the 1860's at any rate were more intimately concerned with securing adequate regular manpower. Even as early as 1846, it was reported that many farmers already took on more men from their own villages than they actually required to keep poor rates as low as possible, although this seems generally to have concerned villages outside the districts in which 'close' parishes were numerous.² The most trustworthy evidence indicates that 'close' parishes tended to reduce the efficiency of agricultural labourers.

The consequences for the poor rates of the various types of parish can only briefly be discussed. Since the *raison d'être* of 'close' parishes was the saving on poor rates, the result should have been a much slower rate of increase of expenditure on the poor in the period than in parishes without restrictions upon cottage accommodation. This at least was the common assumption of contemporaries. It was claimed of some 'close' parishes, indeed, that by 1850 they had abolished their poor rates. Analysis of official statistics demonstrates no such development between 1785-7 and 1825-9.³ The trend of the increases in poor rates bears no close relationship to the system of 'open' and 'close' parishes. In 1,510 townships in various parts of the country, expenditure upon poor relief between 1785-7 and 1825-9 positively declined only in sixteen, and in about a dozen more the rate of increase was negligible. In addition, there were about ten places described as having no poor, all of which were anciently decayed settlements like Leweston in Dorset, Quarles in Norfolk, and Sock Dennis in Somerset. Moreover, the average rate of increase in all the parishes which were 'close' was no less than the overall average for England, and in some cases the increase was startling, for instance at Brooksby in Leicestershire from nothing in 1785-7 to £65 in 1828 (average, 1825-9, £27); at Barmer in Norfolk from nothing to an average of £107 p.a. 1825-9; and at Duggleby in the East Riding, from £3 7s to £122, all of which were 'close' parishes.

There are grounds to assume that the establishment of 'close' parishes was of limited success in its primary objective. The position probably improved for the owners of 'close' parishes after the 1820's, but presumably not to the extent of reversing all the trends at work until that decade. One cannot ignore contemporary opinions and beliefs, but the real contrast, and the distinction obviously in the minds of landowners and other ratepayers, was between the large 'open' parishes or small towns, in which the increase of poor rates was often cripplingly large in the period, and other rural villages, whether closely

¹ E. B. Portman, in BPP 1867, xvii, p. 163.

² *H. of Lords S.C. on Burdens affecting Real Property*, 1846, p. v.; see also Caird, *op. cit.*, pp. 18, 84, 148.

³ Poor rates, 1785-7, in House of Commons *Reports*, vol. 9, pp. 553 ff. (Reprinted, 1803); Poor rates, 1825-9, in BPP 1830-1, vol. xi, pp. 227 ff.

restricted or not. It was in these 'open' parishes that the evil consequences were most marked. As one would expect of nineteenth-century debates, the issue eventually dissolved into a moral question: "We complain of the ante-nuptial unchastity of our women, of the loose talk and conduct of the girls who work in the fields, of the light way in which maidens part with their honour, and how seldom either a parent's or a brother's blood boils with shame—*here*, in cottage herding, is the sufficient account and history of it all."¹

¹ Jas. Fraser in BPP 1867, xvii, p. 93.

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Agricultural Innovation and Detectable Landscape Margins: The Case of Wheelhouses in Northumberland¹

By J. A. HELLEN

FARM buildings, in both plan and layout, are an important aspect of the rural landscape because they indicate something of the past history of the farm and its economy; they are, to use Harvey's phrase, "structural documents."² In their original function, certain farm buildings are significant relict features of technological stages in agrarian history and are, therefore, potentially valuable in the study of innovation and the analysis of agricultural margins. A case in point is the wheelhouse, a relatively small element in the farm-building complex, but a common feature of many Northumbrian farms. Originally designed to house the horse-wheel, a source of rotary power for threshing machines and similar implements, these wheelhouses were subsequently converted to other uses, where they were not demolished when rendered obsolete by technical advances or changes in land use. Although these buildings are of common concern to architectural and agricultural historians, as well as industrial archaeologists, their distribution patterns merit attention, and this short paper is intended to place on record the findings and implications of a survey of them conducted in 1969 and 1970.³ They call for more widespread study, not least because so many are now being demolished.

Development of the wheelhouse

It would be injudicious, in the absence of documentary evidence, to infer too much about agricultural innovation from the survival of wheelhouses alone, and this paper will attempt only to set Northumbrian wheelhouses in their historical context, and to isolate certain suggested subjects for further research

¹ The author wishes to thank Mr H. E. D. Beavis for his kindness in permitting the reproduction of his plans of the wheelhouse at Berwick Hill, to acknowledge the practical help given by students of his department in carrying out the survey, and to thank Dr Joan Thirsk for her comments and advice on the first draft of this paper.

² N. Harvey, *A History of Farm Buildings in England and Wales*, 1970, p. 277.

³ J. A. Hellen, 'Some provisional notes on wheelhouses and their distribution in Northumberland', *Jnl Geog. Soc. Univ. Newcastle upon Tyne*, 18, 1970, pp. 19-29. A check-list of all intact wheelhouses in Northumberland is to be published in the Archaeological News Bulletin for Northumberland, Cumberland, and Westmorland.

which arise from the preliminary survey. Wheelhouses are generally single-storeyed farm outbuildings, round, square, or polygonal in plan, and having, in many Northumbrian cases, conical or pyramidal roofs. Owing to demolitions and the activity of scrap merchants they have become separated from the horse-wheels and threshing machines once functionally associated with them, and they form today conspicuous and incongruous elements of the agrarian landscape.

With the invention of the threshing machine incorporating fluted rollers on the principle of the flax mill, the antiquated flail gradually disappeared from British agriculture in the face of one of the most important technical innovations of the period. Indeed, William Marshall, commenting on Northumberland, called it "the most valuable machine of agriculture that has been discovered for ages past,"¹ and the work of months was reduced to that of weeks. George Meikle, a Scot from Houston Mill near Haddington in East Lothian, is generally credited with the perfection, if not the invention, of the first effective threshing machine constructed at Kilbogie in Clackmannanshire in 1786 for which he took out an English patent. This superseded machines using rotating flails, which had been unsatisfactory when introduced much earlier in the century.

The early threshers seem to have spread quickly from the Scottish corn counties to those of north-east England, a distribution according with "farms where the extent of tillage land requires two or more ploughs."² Some indication of the numerous parallel developments by millwrights and others is given in a standard text on farm implements,³ and the contemporary, mechanical patents, and farming magazines contain numerous references, as does the *Journal of the Royal Agricultural Society*. Various rotary power sources—hand, horse, water, and wind—were harnessed to the new machinery before the much more expensive steam engines were introduced. Atkinson has described in detail the use of the horse, and makes specific reference to wheelhouses, which he records as being "common in Northumberland, in the eastern parts of Co. Durham, the North and East Ridings of Yorkshire, Devon, parts of Cornwall and Dorset," together with a few in the Midlands.⁴ This list could be extended to include many Scottish counties, as well as Cumberland, but although there appears to be some local interest in wheelhouses, as evidenced by local history societies, countryside magazines, and newspapers, no specific work on their geographical distribution at the county scale is known to the author.

¹ W. Marshall, *The Review and Abstract of the County Reports of the Board of Agriculture*, 1, 1808, p. 64.

² J. C. Loudon, *An Encyclopaedia of Agriculture*, 1883, p. 435.

³ G. E. Fussell, *The Farmer's Tools, A.D. 1500-1900*, pp. 152-79.

⁴ F. Atkinson, 'The Horse as a Source of Rotary Power,' *Trans. Newcomen Soc.*, 33, 1960, p. 46.

Contemporary farming encyclopaedias include illustrations and descriptions of the horse-wheel, which was in fact less a 'wheel' than a triangular, square, or polygonal frame, varying with the number of horses involved, and supporting a crown wheel.¹ Wheelhouses or wheel-sheds were built to shelter the permanent overhead or 'overshot' horse-wheel; only later was this contraption replaced or outmoded by the cast-iron 'undershot' or ground-wheel, or light but more costly portable threshing sets. The heavy wheel revolved horizontally on a centre-post set between a base-plate and plummer block, and the overall dimensions were commonly up to 24 or 26 feet in diameter and 7 or 8 feet in height, giving maximum wheelhouse dimensions of 30 and 15 feet respectively. An inner wheel carried the cast-iron crown-wheel, from which a pinion transferred the drive along a tumbling shaft to the threshing machine in an adjacent barn. Horizontal horse-beams radiated from this wheel and centrepost, the horses being harnessed by yoke-bars and moving clock-wise round the circular course. In some instances provision was made for both the horse and water-wheel, but these were probably rare.

Loudon makes the interesting comment that "where windmills are erected, it is found necessary to add such machinery as may allow them to be worked by horses, occasionally, in very calm weather." He further notes that "Meikle's threshing machine to be driven either by wind or six horses" occurred on large corn farms, there being "frequent instances in Berwickshire and Northumberland of farmers incurring that expense on the security of twenty-one years' leases." Another type driven by water or by four horses was described as "a powerful and convenient machine, as advantage may be taken of water when it is abundant, and in dry seasons horses can be applied."²

Reducing, as they did, the number of farm buildings needed to store grain, no less than the size of the labour force, and increasing the quality, quantity, and speed of delivery of grain, the new machines spread quickly in the progressive farming areas of Scotland and northern England, although progress in the south was much slower. As steam power became more common on the large farms, it is probable that by about 1840 new horse-wheels were installed only by small to medium-scale farmers, although existing plant continued to be used until well into the present century and farming manuals described various models for another fifty years thereafter. The fifth edition of a popular farming encyclopaedia included three plates of farm-steadings complete with horse courses as late as 1908; commenting on the threshing machine the author wrote of the marvel of "their venerable age and great capacity."³ In many cases,

¹ D. Low, *Elements of Practical Agriculture*, 1843; H. Stephens, *The Book of the Farm*, 1844, III, plate xxiii.

² Loudon, *op. cit.*, pp. 438-9.

³ J. Macdonald, *Stephen's Book of the Farm*, 1908, I, p. 178 and plates I and II.

the wheelhouse was retained for other purposes after the wheel had been removed, proving particularly valuable for small livestock or grain, fertilizer and machinery storage.

Local Conditions in Northumberland

In their *General View* of Northumbrian agriculture, published in various editions after 1794, Bailey and Culley record the steady rate at which the thresher was adopted: in 1794, for example, they noted that threshing machines were "now becoming general in northern parts of the county; they are all upon the principle of the flax mill, which principle was first introduced into this county for threshing corn . . . near 20 years since" by a Mr Gregson of Wark, and elsewhere, that "about this time Mr Oxley erected a threshing machine at Flodden (near Coldstream) moved by horses;" in the 1797 edition, a Mr Ilderton is reported as having "erected two threshing machines, one at Ilderton and another at Hawkhill (both near Wooler), worked by horses."¹ Details of costs are included by them—a machine of small dimensions could be erected "for about £50, which, with two horses, will thresh and dress 120 bushels of oats, or 60 of wheat, in 8 hours;" a larger machine apparently cost up to £100.² In fact Arthur Young had recorded a Mr Clarke of Belford as "very famous for his knowledge of mechanics . . . the grand machine on which he most builds his reputation, is that of one for the threshing of corn: how far it will answer has not been tried, because the machine will not be produced until a subscription is filled."³

In view of Mingay's comment that the advance of machines "for lightening some of the laborious tasks of the farm" from about the 1780's was slow, and that "only from about the 1850's did machinery become commonplace,"⁴ the existence of numerous wheelhouses in Northumberland is interesting. Fussell has noted that by 1840, "the improved farming of Northumberland and the Lothians was considered a pattern for all England, an honour shared then only by Lincolnshire,"⁵ and contemporary writers confirm the advanced nature of local agriculture by about that time.⁶

¹ J. Bailey & G. Culley, *General View of the Agriculture of the County of Northumberland*, 1797, pp. 46, 53.

² J. C. Morton, *A Cyclopaedia of Practical and Scientific Agriculture*, 1845, II, pp. 967 *et seq.*

³ A. Young, *A Six Month Tour through the North of England*, 1790, IV, p. 58.

⁴ G. E. Mingay, 'The Agricultural Revolution in English History: a Reconsideration', *Agric. Hist.*, 26, 1963, pp. 123-33.

⁵ G. E. Fussell, 'High Farming in the North of England, 1840-80', *Econ. Geog.*, 24, 4, 1948, p. 296.

⁶ J. Grey, 'A View of the Past and Present Status of Agriculture in Northumberland', *T.R.A.S.E.*, 2, 1840, pp. 51-92; T. L. Colbeck, 'On the agriculture of Northumberland', *T.R.A.S.E.*, 8, 1847, pp. 422-37.

Wheelhouse Survey and Method

From contemporary farm plans and encyclopaedias it is clear that the wheelhouse or horse-course was generally sited on the north side of the farm, adjacent to the stack-yard and threshing barn. All possible wheelhouse sites, whether round, polygonal, or square in plan, were identified from close study of all the 25-inch O.S. sheets for Northumberland, the second edition (1896-8), surveyed in 1858 and revised in 1894, being used. In practice every rural building in Northumberland's 2,018 square miles was scrutinized from the plans and a provisional inventory of sites drawn up. It was fully appreciated that such cartographic 'evidence' was not conclusive, and ice-houses and similar buildings might be confused; similarly it was considered impracticable, short of visiting every farm in the county, to check on 'wheel-sheds' or 'threshing mills' of a more orthodox rectangular shape, although these functionally identical buildings are illustrated in some farming encyclopaedias, and are known to exist in the south of Co. Durham. Prior to fieldwork it was possible to check tentative plan identification from air-photo coverage of the coalfield area.

Fieldwork as such was carried out between the spring of 1969 and the summer of 1970 by members of practical classes, and involved visits to every site in the county, necessitating weekend excursions. Standard data sheets giving details of architectural and site characteristics were compiled for each wheelhouse site and the majority of surviving buildings were photographed. In many cases it was possible to identify a demolished wheelhouse from the remains of foundations or roof timbers, as well as the opening in the barn wall through which the lying shaft had passed. In other cases farmers or farm workers were able to specify when demolition had obliterated a wheelhouse—locally known as 'gin gan'—or how often repairs or reroofing had been necessary. It is felt that very few intact wheelhouses were overlooked, although it would be surprising, in view of the number of personnel involved, if some errors had not materialized at this scale of operation.

Wheelhouse Distribution

Prior to field work, 575 sites were identified from the Ordnance Survey sheets; of these, 276 were found intact and 299 proved to have been demolished or remained unauthenticated and the distribution map (FIGURE I) differentiates between these two categories. In fact, considerable regional variation in both the design and building materials of wheelhouses was found, although this is not mapped; of the intact wheelhouses, 184 were round in plan and 92 polygonal—generally hexagonal. Roofs were most often supported by massive dressed stone columns, piers, or solid stone walls enclosing all or most of the circumference; other were supported by columns of brick, rounded stone blocks, or cast-iron. In very many cases the interstices or 'eyes' of the wheel-

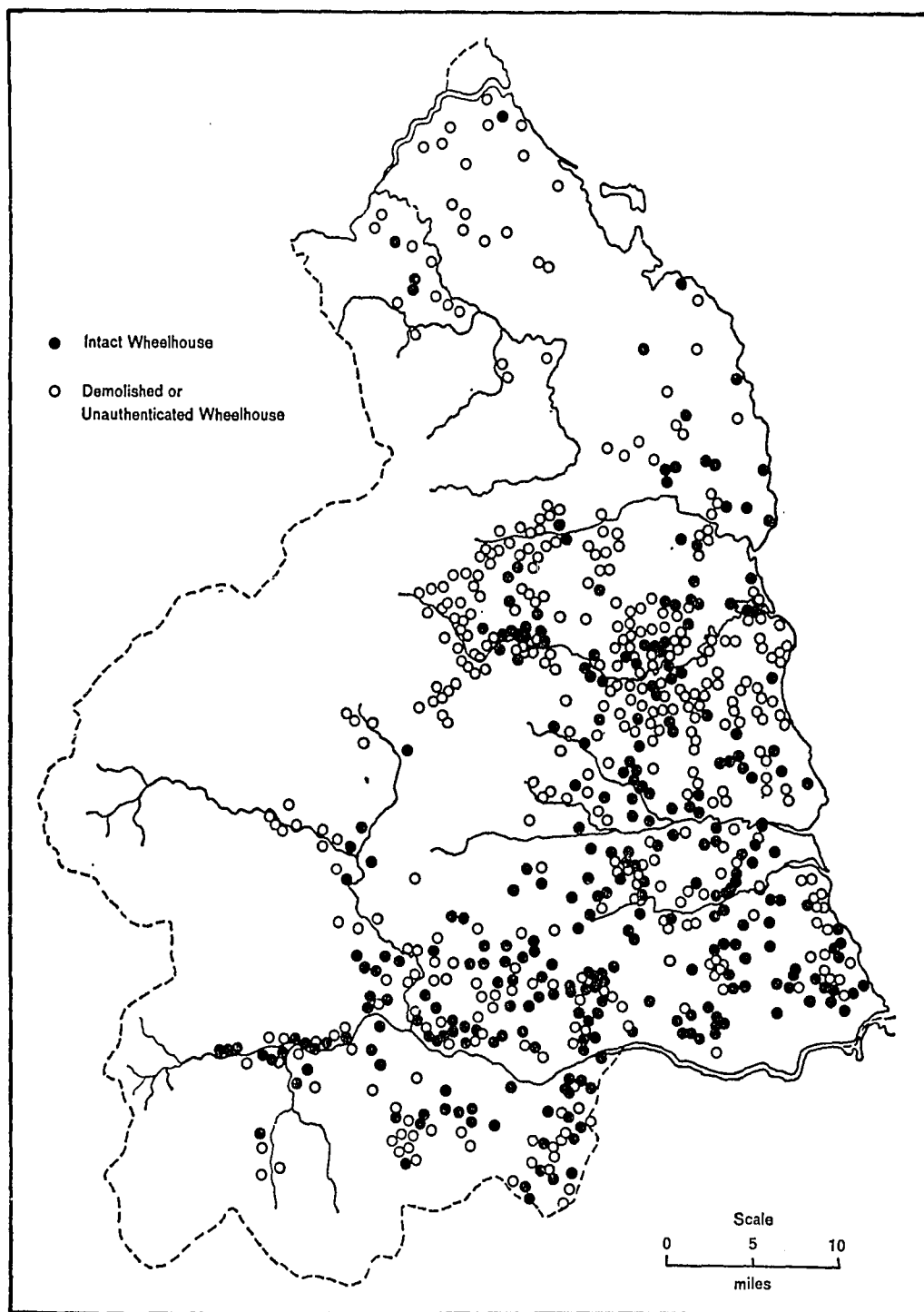


FIG. I

DISTRIBUTION OF WHEELHOUSES IN NORTHUMBERLAND IN 1969-70

house, designed to allow free passage of air, had been neatly filled in with brick or stone or more crudely blocked up with boards or corrugated iron.

The roofs are probably the most striking feature of wheelhouses, and the majority were conical or pyramidal, with a minority having five or six sides but the central roof couple linked direct with the barn by a horizontal or sloping tie ridge. The elaborate roof timbering is a feature of the sheds, the Northumbrian type often lacking the roof couple and having instead a king post supported by the main cross beam, from which the rafters radiate to the walls or piers. Harrison has commented that the faceted pyramidal roof is a "less satisfactory construction and presumably cheaper to erect."¹ A further major variation was found in the roofing materials. Presumably the earliest wheelhouses may have been thatched with straw, although none were found with this material. Red-clay pantiles, manufactured locally or imported cheaply as ballast from the Low Countries by the coal boats, were common near the coast, and necessitated a faceted pyramidal roof type. The later or more expensive structures used slates, tapered to make perfectly conical roofs. It was evident that most wheelhouses had been periodically repaired and that in the case of the large landowners, timbers were probably prefabricated in estate workshops and specialist workmen regularly 'serviced' the installations. In no wheelhouse, however, was an intact wheel located, although several had pieces such as the centre-post, horse-beams, foot-step, or the thresher. Many of the wheelhouses had been completely obliterated by later farm buildings, and no check was possible where tenants were newcomers; many gin gans were reported as having been demolished either in the 1920's or after 1960, and further demolitions are imminent due to high maintenance costs.

Wheelhouse distribution accords broadly with the areas of better soil in the county, although attention will be directed below to the crucial feature of agricultural margins. FIGURE II illustrates the major land-use regions of Northumberland, and the considerable importance of the moorland blocks, occupying some 800 square miles and penetrated by the more fertile valleys of the north and south Tyne, Coquet, Aln, and Breamish, is apparent. Indeed, the moorland fringe assumes considerable importance as a sensitive indicator of changing economic conditions in agrarian history. The greatest number of wheelhouses were apparently situated in the coastal plain and intermediate zone south of Alnwick, together with the valleys of the Aln, Coquet, and Tyne in particular; by contrast in the northern third of the county in the Breamish-Till Basin, Tweedside, and the northern coastal plain, relatively few wheelhouses were located, although this may be a function of the relative size and hence absolute numbers of farms there. It is useful to compare the distribution with the overall

¹ A. & J. K. Harrison, 'The Horse Wheel in North Yorkshire', *Bulletin Cleveland and Teesside Local History Society*, 8, 1969, 12 unnumbered pages.

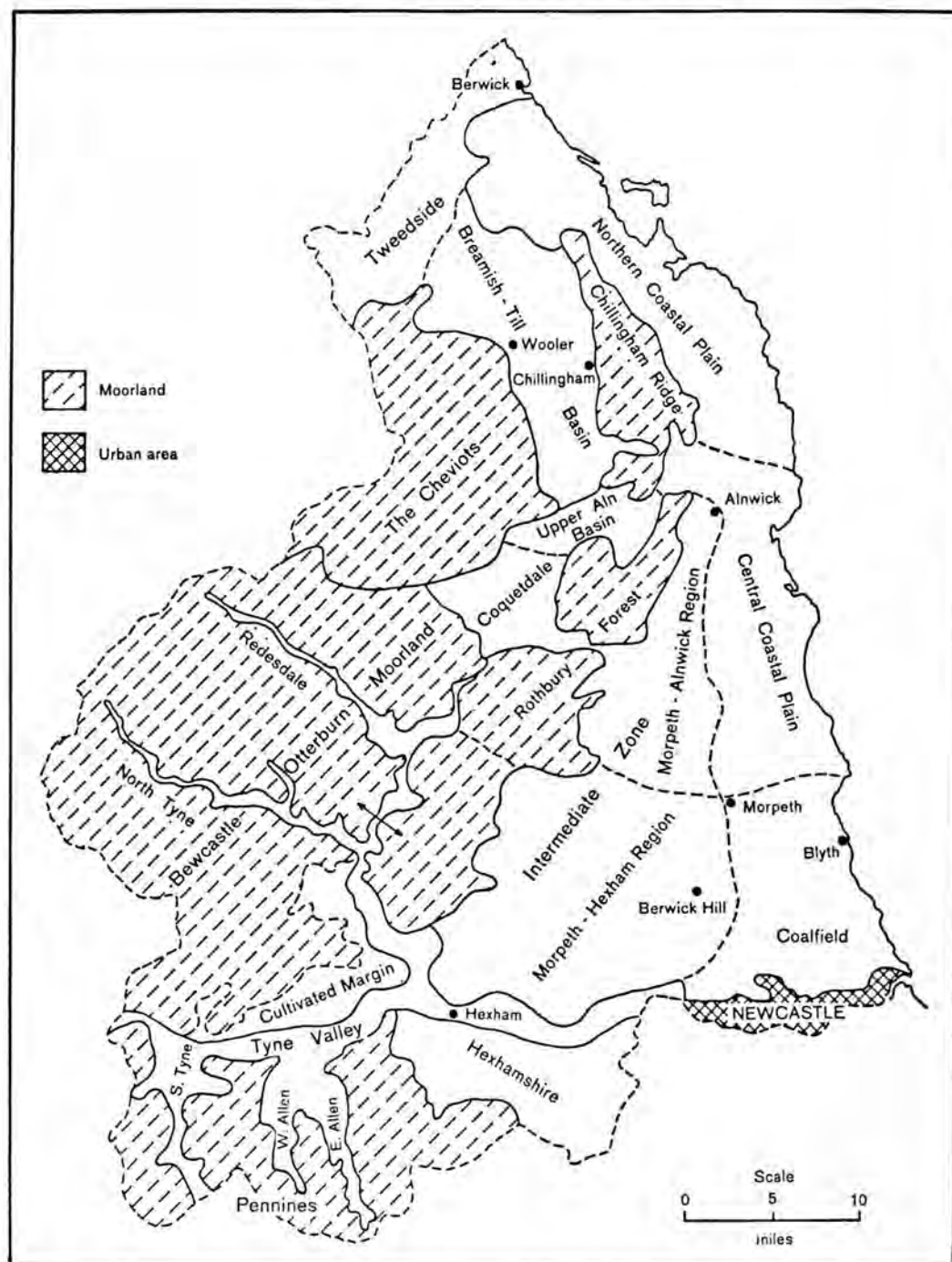


FIG. II

LAND-USE REGIONS OF NORTHUMBERLAND

density of rural settlement, however. Conzen's map of settlement morphology, for example, identifies both 'large' and 'medium or small' dispersed farmsteads in the county, and confirms the dominance of large farms in this northern area.¹ Some explanation of these regional differences may be sought in the agrarian history of a county, already noted as outstanding in the nineteenth century, for in general terms Northumberland was particularly well placed to benefit from rapid technical change and economic prosperity in agriculture. Not only were many farmers progressive, their holdings large and well organized, and their leases long, but industrial Tyneside provided a major market outlet as well as providing a source of capital and the products of engineering skill and industry.

Colbeck's designations of farming regions and land rents in 1847 are useful in any interpretation when taken in combination with modern land-use regions. From about 1770 the five-fold rotation began to transform the northern area and high rents of 35 to 45 shillings per acre were paid for the "excellent turnip soil" of the Breamish-Till Basin and Tweedside.² These dry loams formed the centre of the new turnip husbandry and sheep-fattening which superseded an earlier rye-based farming. Considerable grain surpluses were exported by sea from Berwick and Alnmouth according to contemporary records. The relatively small numbers of wheelhouses located in the area may be explained by a fundamental contrast between the northern and southern parts of the county commented on by Grey, who in 1840 described the "extensive farms" of the area along the line of the Cheviots from Whittingham to the banks of the Tweed and from Warkworth to Berwick; by contrast with the "over-small" farms of the southern parts, farms were generally of 300 to 400 acres, two or three times the county average, and ranged up to 1,000 to 1,200 acres with exceptional holdings of 2,000 to 3,000 acres.³ This bore out Arthur Young's earlier findings from a small sample, which had given the following average farm sizes in acres: Fenton (Wooler district), 500; Belford, 300; Morpeth and district, 265; Hetton (Glendale), 250; Gosforth, 225; Rothbury and district, 100; Cambo, 65; and Glenwelt (Tyne Valley), 30.⁴ The agricultural depression of the last quarter of the nineteenth century saw a conversion to stock-rearing and the scale of farm operations may have caused an unusually high number of wheelhouses to be demolished or replaced by the more costly steam-driven plant.

The Tyne Valley apart, in the southern areas the soils generally show a significant increase in their clay content, but notwithstanding these heavier conditions land prices evidently reached levels of 20 to 40 shillings an acre in 1847, albeit falling rapidly towards the intermediate zone except in the cement-

¹ M. R. G. Conzen, 'Forms of rural and urban settlement in north-east England', in *Scientific Survey of North-eastern England*, 1949, Newcastle upon Tyne, map in end-paper.

² Colbeck, *op. cit.*, p. 429.

³ Grey, *op. cit.*,

⁴ Young, *op. cit.*, p. 343.

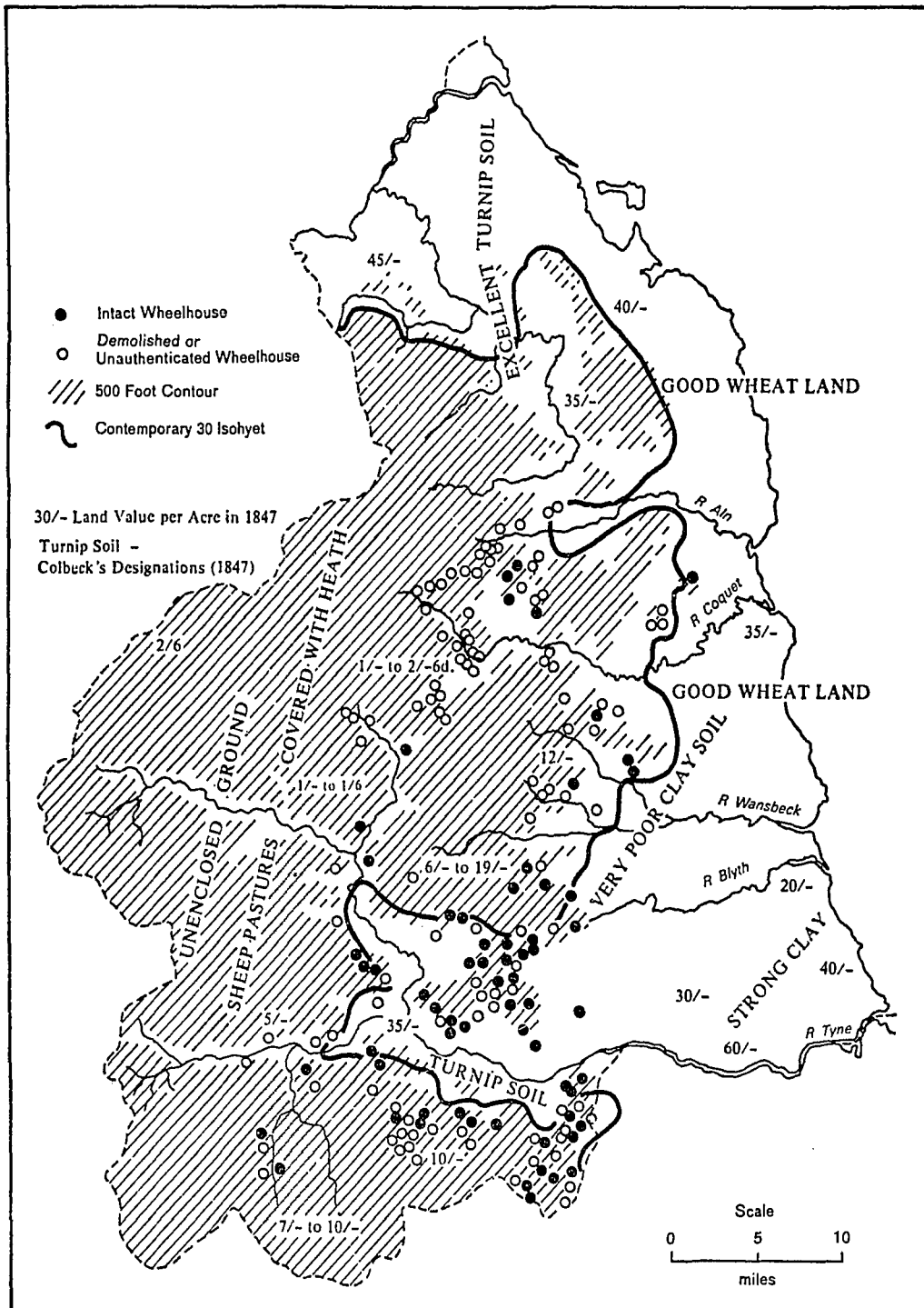


FIG. III

WHEELHOUSE DISTRIBUTION AND MARGINAL LAND IN NORTHUMBERLAND

stone vale of the Upper Coquet and Aln. The arable assault on the margins was particularly marked in this area and led eventually to the exhaustion of soils, despite the application of shell marl and seaweed; in the coastal plain of eastern Northumberland the proportion of arable land in the total of cultivated

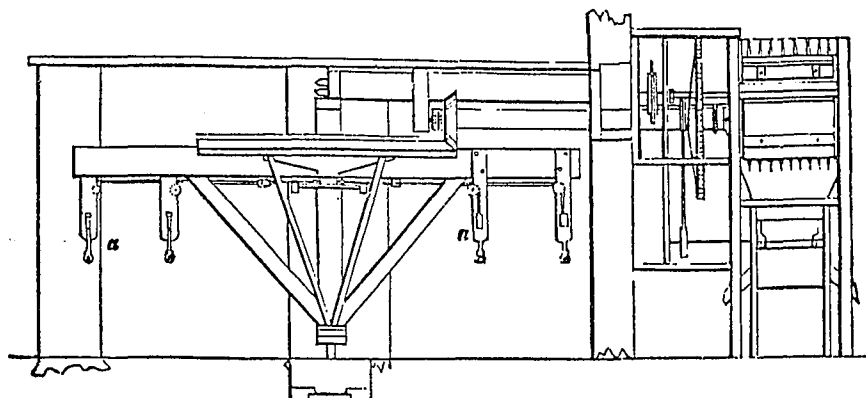


FIG. IV

MEIKLE'S TWO-HORSE THRESHING MACHINE (AFTER LOUDON)

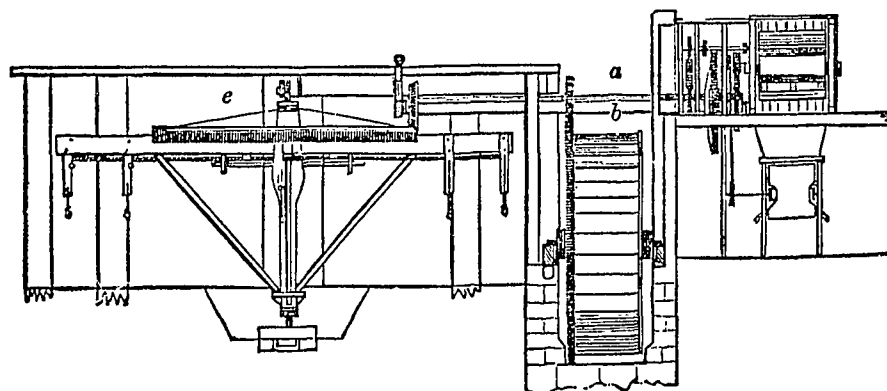


FIG. V

MEIKLE'S THRESHING MACHINE TO BE DRIVEN BY WATER OR BY FOUR HORSES
(AFTER LOUDON)

land fell, according to the Board of Agriculture returns, from 67·6 per cent to 32·3 per cent over the period 1870 to 1929, and wheat, hitherto the dominant grain declined from 8·7 per cent to 0·2 per cent of the total over the same period.¹ The irregular boundary of arable farming, particularly over marginal soils towards the south and west is shown in FIGURE III. Farms were notably

¹ C. J. Knell, 'The evolution of Northumberland's agriculture', unpublished dissertation, Dept. of Geography, Univ. of Newcastle upon Tyne, 1970.

smaller, although rents in 1847 were in the range 30 to 60 shillings per acre, and the Tyneside market provided a ready outlet for bread grains, vegetables, meat, and dairy products.

An interesting aspect of the distribution pattern today is the relationship of wheelhouses to marginal areas. In Figure III the area above the 500-foot contour and the 30-inch isohyet have been superimposed on the county map to separate those wheelhouses situated in areas marginal to agriculture today. In terms of the limits of cereal cultivation, the considerable number of wheelhouses revealed may be taken as evidence of the way high grain prices induced farmers to advance their grain fields to the altitudinal and ecological limits. Not only were the valleys penetrating the Northumbrian moorlands and the northernmost Pennines ploughed up, the heath itself was temporarily burned and cleared.

An equally remarkable decline in the total arable acreage of Northumberland is apparent in official returns: land under tillage in 1866 fell from 327,165 acres to 133,771 acres in 1939, recovering to 186,600 acres by 1969.¹ By comparison, today's outer margin of cultivation, according to J. W. House, "has been well maintained, even extended upwards since the 1930's by a policy of price supports and subsidies to the hill and marginal farmer,"² whereas these areas in the nineteenth century were well beyond the threshold of unstable equilibrium and no political intervention or subsidy counteracted their unprofitability once grain prices fell significantly.

More detailed Board of Agriculture returns show a fall in the percentage of cultivated land under corn crops in the highly critical period between 1870 and 1890: in the coastal plain the decline was from 33 to 23·6 per cent, in the moorland areas from 6 to 2 per cent, in the cultivated uplands from 16·0 to 5·8 per cent, in the Cheviot Hills from 28·1 to 19·5 per cent, and in the Breamish Till Valleys from 33·6 to 29·1 per cent.³ This retreat or instability was clearly proportionally greatest in the moorland and cultivated upland areas, and FIGURE III does show the particularly heavy concentration of wheelhouses on the moorland fringe north and south of Hexham and in the upper sections of the Aln and Coquet. Most of these farms are today involved wholly or largely in non-arable activities and the upper reaches of the Wansbeck, Coquet, and Aln are conspicuous for the large proportion of demolished wheelhouses. The diffusion of wheelhouses to these unlikely areas is made the more remarkable in view of Loudon's comment that threshing machines were justified where the extent of tillage required two or more ploughs and by the size of investment

¹ L. D. Stamp, *The Land of Britain. Part 52—Northumberland*, 1946.

² J. W. House, 'Margins in regional geography: an illustration from north-east England', in *Northern Geographical Essays*, 1966, Newcastle upon Tyne, pp. 139-56.

³ Knell, *op. cit.*, p. 20.

involved: assuming a sevenfold reduction in purchasing power since 1800, a wheelhouse and thresher might well have cost in the range £500 to £1,500 at current prices—an outlay comparable with the cost of a modern grain silo.

The altitudinal location of these wheelhouses and wheelhouse sites, summarized in the table below, indicates that of the intact wheelhouses no less than 54 of the round type, or approximately 29 per cent of their total, plus 18 of the polygonal sort with 19 per cent, are situated above 500 feet. The figure for demolished wheelhouses or unauthenticated sites rises to 103, or over 34 per cent of the total. In aggregate therefore, around 175 of these farm sites are located in what are today highly marginal to semi-marginal agricultural areas.

TABLE I
ALTITUDINAL ZONES OF WHEELHOUSES IN MARGINAL AREAS

<i>Altitudes:</i>	<i>500-599 ft</i>	<i>600-699 ft</i>	<i>700-799 ft</i>	<i>over 800 ft</i>
Intact Wheelhouses:				
Round	24	21	8	1
Polygonal	12	4	1	1
Demolished Wheelhouses	49	32	14	8
Totals	85	57	23	10

Conclusions

Although these notes are intended primarily to place on record the outcome of a fieldwork survey, they also suggest further lines of enquiry. To investigate a technical innovation it is necessary to identify not only all potential adopters by also such diffusion centres as estate workshops or agricultural engineering works in the county and adjacent areas. Dating of wheelhouses is rendered difficult by the repairs and renovations that have occurred since they were first built, and requires detailed study of documentary evidence such as estate and farm records and accounts. It seems likely that a dominant role was played by the major landowners, but the influence of agricultural societies and their publications was probably considerable. Any detailed study of the regional pattern of farm ownership, land rents, and farm size might reveal significant statistical correlations with the phases of wheelhouse building leading to a saturation stage when the majority of grain-producing farms had adopted the invention.

A further subject for enquiry is presented by the pattern of wheelhouses in so far as this indicates 'relict agricultural margins'. In aggregate their distribution depicted in Figure III might be tested as evidence of what have been

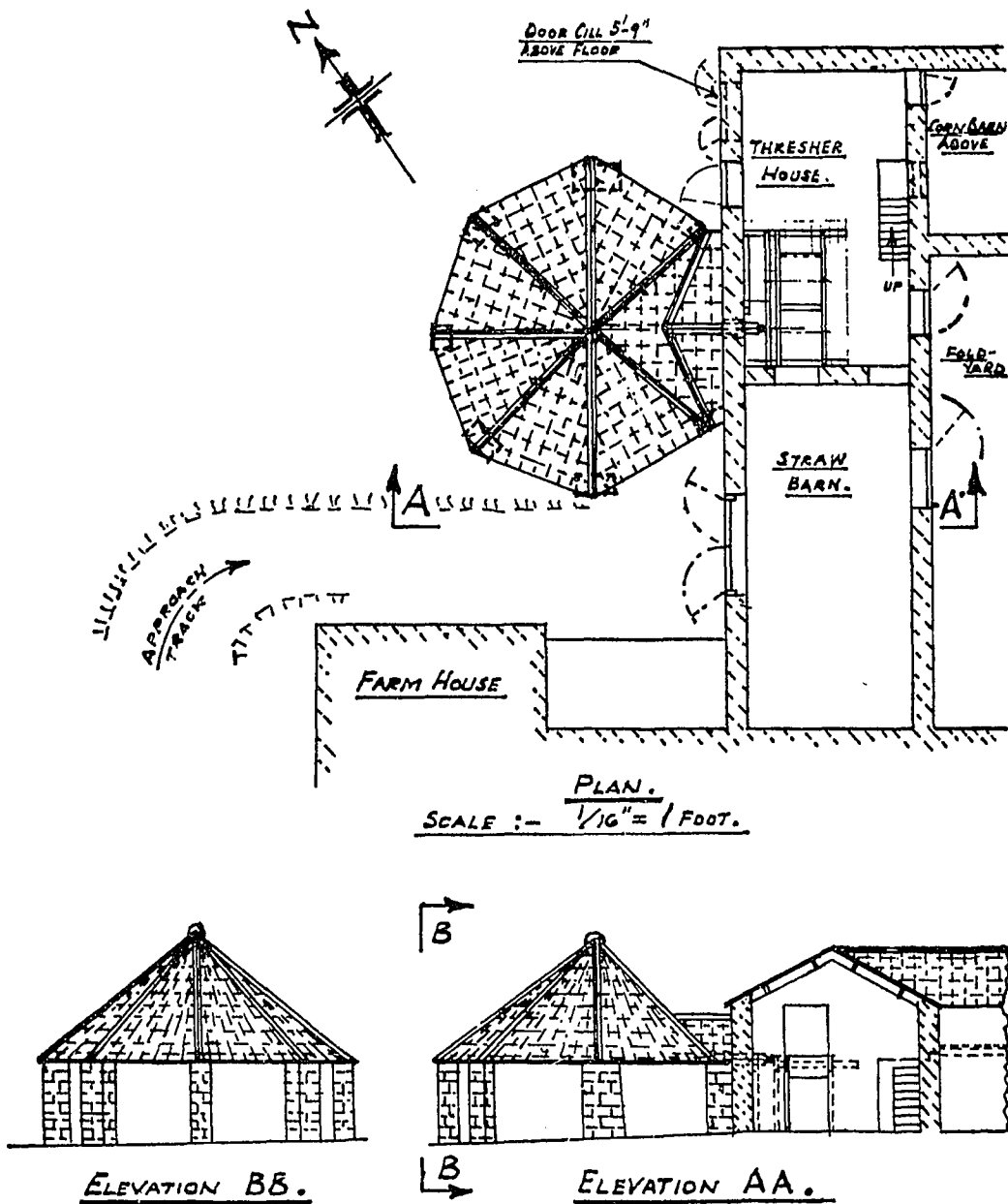


FIG. VI

PLAN AND ELEVATION OF FOUR-HORSE THRESHING PLANT AT BERWICK HILL,
SOUTH NORTHUMBERLAND (H. BEAVIS)

termed "detectable landscape margins." Such interrupted margins are physical evidence of changing patterns of land use, and in particular the marginal economic utility of a specific farm and ecotope. As J. W. House has observed, "in the freer working economy of past times margins shifted with changing technology and demand; some became stranded as relict margins of worked-out resources."¹ In this context an apparently insignificant farm building can assume a useful role in explaining something of the process of historic agricultural innovation as well as fluctuations in the boundaries between unstable forms of land use and the circumstances which caused them to become stranded as incongruous relics.

¹ House, *op. cit.*, p. 144.

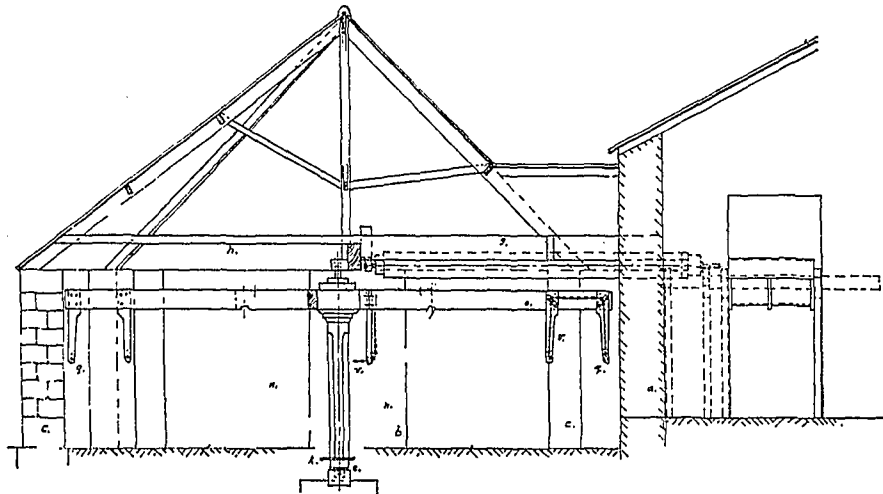


FIG. VII

SECTION THROUGH BERWICK HILL WHEELHOUSE

The Open-Field System of an Urban Community: Stamford in the Nineteenth Century

By STUART ELLIOTT

THE open fields at Laxton in Nottinghamshire are a well-known survival of an agricultural system that once dominated the midland area of England.¹ Just over a hundred years ago the open fields which lay within the boundaries of the borough of Stamford in Lincolnshire seemed likely to survive as a permanent monument to this system alongside those of Laxton. Their enclosure, in 1875, averted this possibility but, in the meantime, the Stamford open fields had gained some notoriety whilst some observers had despaired of the possibility of an enclosure altogether at Stamford.² This article seeks to explore the character and organization of this nineteenth-century open-field system and, although its survival has been attributed to the influence of the Cecil family, to look at some economic factors which may account for its longevity as well as to examine the possible reasons for the enclosure in the 1870's.

The Stamford open fields were some 1,700 acres in extent and lay mainly to the north of the town in a broad semi-circle of land.³ The ground they occupied, at the southernmost end of the limestone heath region of Lincolnshire, was hilly and uneven, and generally higher than the site of the town itself, so that the farmers of Stamford, going out through the ruinous walls and crowded suburbs of the town, encountered a steep incline as they drove their beasts or carts to their holdings.

Of these 1,700 acres, some 1,300 were arable,⁴ a proportion which serves as an adequate example of the serious imbalance between arable and pasture which gave cause for concern to the agents of the Stamford Corporation, one of the open-field freeholders, in the 1830's.⁵ The arable land was divided into

¹ Much of this article is taken from the author's unpublished M.A. thesis, 'The Enclosure of Stamford Open Fields', University of Nottingham, October, 1965. The author would like to thank his colleague, Mr D. Byford, who kindly read the original draft of the article.

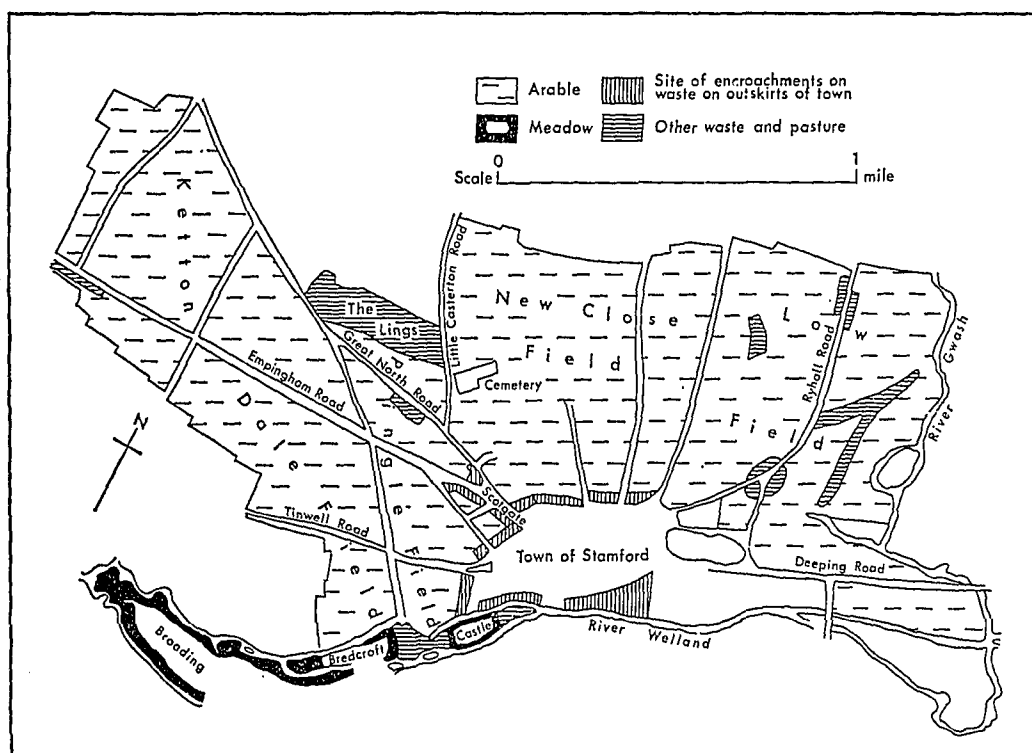
² "It is now certain that no inclosure will take place at present, nor perhaps in the present century." —*Stamford News*, 31 July 1829.

³ Stamford Borough Records, Stamford Enclosure Documents, C.18, The Stamford Enclosure Act (Royal Assent, 25 May 1871); E.57, Map of the Open Fields. (See Sketch Map.)

⁴ Stamford Enclosure Documents, D.54 c, Application to the Inclosure Commission, 1869.

⁵ Stamford Borough Records, Miscellaneous Papers, Packet 60, D. Larrat/H. Weldon, Mayor of Stamford, 2 March 1837.

four great fields, each of them of between 300 and 400 acres in extent.¹ The largest of them, Ketton Dale Field, lay to the west of the town; Pingle Field, divided from the former by the old Roman road which passed through the westerly outskirts of the town, lay to the east of this. Due north of the town lay New Close Field whilst on the north-easterly side lay Low Field (see map). The rotation was, however, a three-field one: Pingle Field and Low Field were



lumped together, and the fallows followed year by year from Ketton Dale to New Close Field and then to Pingle and Low Field.²

A further 130 acres of the open-field land was meadowland. This lay to the south and west of the town between the River Welland and a series of man-made water courses, cut, presumably, to drive the corn mill which lay in the lea of the meagre remains of the town's medieval fortress. To the most easterly of the meadows this ancient stronghold had imparted its name—Castle Meadow. Beyond this, to the west, and extending into the nearby parish of Tinwell, lay

¹ Apportionment of Rent Charge in Lieu of Tithes: All Saints' Parish, 16 April 1841 (Stamford Borough Records), St George's Parish, 4 Dec. 1841 (Lincolnshire Archives Committee Records B.260).

² *Stamford Mercury*, 9 March 1838.

Bredcroft and Broading Meadows, the origins of whose names are buried in the mists of time and legend.¹

The remaining 250 acres or so of the open-field area can be accounted for by pasture and wasteland, access roads, and land which for one reason or another was uncultivable. The largest area of waste was the Lings which lay at the top end of Pingle Field; once the site of the town's gibbet, this piece of land was some 46 acres in extent by the eve of the enclosure, although much of it had been doubtless ploughed away. In the 1850's it was described as an undrained waste.² Pasture land could be found scattered throughout the arable area: a large patch of pasture was to be found in New Close Field, whilst a large 'syck' or access area was situated in Low Field; some commoners tethered their cattle on access roads and paths, whilst the unploughed baulks and headlands constituted valuable grazing areas for the commoners when the fields lay fallow.³ The only other significant area of pasture land was a belt of waste which lay on the outskirts of the town and which, following the line of the town walls, virtually encircled it. The area of waste land and pasture was diminishing all the time in the nineteenth century. The baulks, headlands, and access roads were being ploughed away, whilst the waste which skirted the town was being built on or enclosed as garden ground.⁴

The management of the open field lay in the hands of the Court Baron which met, under the presidency of the lord of the manor's land agent, in a small building on the site of the castle. The court met once a year at Easter in the early nineteenth century although by the 'forties and 'fifties it was meeting much less frequently than this. The business of the court was to elect and swear in the open-field officials (the field reeve, the neatherd, the pindar and the shepherd) and the five constables of the parishes of Stamford. It also received fines of entry and declarations of fealty from tenants and freeholders in the manor. Next, a jury of open-field farmers, who had previously inspected the fields, presented for amerciamment those who had infringed the customary rules of cultivation in them. As time wore on, this jury became more and more pre-occupied with the encroachers on the area of waste which encircled the town, so that, by the time of its last meetings, the only persons presented for amerciamment were those who had encroached on this area. From time to time, the court

¹ S. Elliott, 'The Stamford Meadows', *Stamford Civic Society Annual Report*, 1965; Stamford Enclosure Documents, B.10 c, Thompson, Phillips, and Evans [solicitors]/Assistant Commissioner Wetherell, 3 Jan. 1870.

² G. Burton, *The Chronology of Stamford*, Stamford, 1846, p. 216; *Stamford Mercury*, 31 March 1854.

³ A press report refers to "certain baulks on which cattle are turned out to graze" and states that "the usual time for this is May-day."—*Stamford Mercury*, 15 March 1844.

⁴ Stamford Borough Records, Stamford Court Rolls, vols. 6 and 7; Stamford Enclosure Documents, D.54 j, Enquiries of Assistant Commissioner Wetherell and Answers Thereto, 21 Dec. 1869; *Stamford Mercury*, 12 May 1848.

also issued new regulations dealing with the cultivation of the open fields. For instance, at the meeting of Easter 1838, it was decided that "any cattle belonging to persons not Freemen found trespassing in the Common Open Fields and Meadows of this Manor shall pay a Pin Shot of six shillings and eightpence each head."¹ Another example of this legislation was the progressive reduction of the commoners' 'stint' or number of beasts they could turn out to graze over the open fields in the 1830's as the number of commoners grew and the area of pasture and waste was ploughed away.²

Grazing rights over the open fields were of three kinds: rights of common over the arable fields when they lay fallow, rights over the pasture and waste lands, and rights over the meadows. Arrangements for common grazing over the arable land were similar to those which obtain at Laxton today.³ When the occupiers of the autumn wheat field began to sow their crop, the town crier was sent around the streets of Stamford on the instructions of the steward of the Court to announce that "the hoppers were come in." This cryptic message, which was delivered, according to custom, on 16 October, was the signal to remove the cattle which were grazing on the fallow field. They were driven to "the stubbles," presumably the field which had been cropped that year according to the system of rotation and which was due for fallowing in the following season. On 15 November, the cattle were taken off altogether, probably to winter in the stalls and stables of their owners. Sheep were then wintered on the stubble (now the fallow field) until 15 April when they were taken off and the cattle put back on again until the first sowings were made again in the autumn. These arrangements were confirmed by an order of the court made in 1836. Provision was made in these orders to prevent the spread of disease amongst the communal flock for no sheep "was to be turned out on the fields, meadows, or commons until properly lined by the shepherd."⁴

The arrangements for the common grazing of the arable areas seem to have included those areas of pasture and waste which lay in or near the fallow field, although on the access roads some beasts may have been tethered all the year round. The Lings together with the area of waste around the town were stocked throughout the whole year presumably by beasts of all kinds for there is evidence of commoners' horses grazing on the Lings in the 1840's whilst the Court Orders of 1836 refer to horses being turned on to the "fields meadows and commons." In the meadows, rights of common were exercised from the time the hay was cut until the meadows were "laid again" in the following spring. Here, only horses were permitted to graze.⁵

¹ Stamford Court Rolls, vol. 6. ² *Ibid.*

³ J. D. Chambers, *Laxton: The Last Open Field Village*, London, 1964, p. 23.

⁴ *Stamford Mercury*, 19 July 1839; Stamford Court Rolls, *loc. cit.*

⁵ Burton, *op. cit.*, pp. 130 and 181; *Stamford Mercury*, 4 Sept. 1845; Stamford Court Rolls, *loc. cit.*; Stamford Enclosure Documents, B.12 a, Richard Thompson/Lord Exeter, 29 Sept. 1871.

As we have already seen, the Court Baron also fixed the 'stint'. According to the rules of the court, each person exercising rights of common was allowed to turn out sixty sheep; this seems to have been the case since the middle of the sixteenth century. Prior to 1833 no limit had been set on the number of cattle which could graze on the fields. James Barlow, who was neatherd in 1839 and whose father and grandfather had held this office before him, had known the commoners to turn on as many as fifteen cattle each.¹ By 1836, in response to a plea from the open-field farmers, each person exercising right of common was stinted to six cows and three calves.² William Cole, who was open-field shepherd in the same year, reckoned that the commons could afford grazing for 800 or 900 sheep, although as many as 2,000 had sometimes been turned out.³

The right of common over the open fields was the exclusive privilege of the Freemen of the Borough of Stamford. Until 1835, this status could be acquired by birth, apprenticeship, or gift. On the eve of the Municipal Reform Act, there were 324 Freemen and one might have expected the open fields to be overwhelmed if each and every one of them had exercised his rights. After municipal reform, however, their numbers declined as many of the avenues to this privileged status were closed. Pressure on the grazing areas of the open fields was also eased by the fact that many of them were too poor to purchase stock. In 1837, only a third of their number were in fact taking advantage of their privileges, whilst two years later, only about thirty Freemen were turning out their beasts to graze on the open fields.⁴

Let us now look more closely at those who owned the Stamford open fields and at the farmers who worked in them. By the 1860's the majority of the freeholders in the open fields were institutions of one form or another whilst individual freeholders, who had been quite numerous in the eighteenth century, were on the decline by the 1840's. In the early 1840's there were fifteen individual freeholders; by the early 1870's this number had fallen to seven.⁵ The institutional owners included Stamford Corporation, two Oxford and Cambridge colleges, a class of landowner which cropped up not infrequently in south Lincolnshire, and the Church, together with most of the petty charities which flourished in the town or in the surrounding district.⁶ The largest freeholder was the Marquess of Exeter, the head of the Cecil family and lord of the manor, who owned 985 acres of land. The second largest freehold, 176 acres, was in the hands of the Torkington family who were prominent members of the

¹ *Stamford Mercury*, 19 July 1839.

² *Ibid.*

³ *Ibid.*

⁴ Stamford Borough Records, Minute Book B, p. 252; Burton, *op. cit.*, p. 181; *Stamford Mercury*, 22 Dec. 1837 and 19 July 1839.

⁵ Apportionment of Rent Charge in Lieu of Tithes: All Saints' and St. George's Parishes; Stamford Enclosure Documents, D.35, Copies of claims submitted to the valuer, 2 Jan. 1872.

⁶ Stamford Enclosure Documents, *loc. cit.*

Stamford community. Then came the Corporation of Stamford who owned 79 acres. Much of the remaining area was in the hands of the Church: the vicar of All Saints' Church of Stamford owned 68 acres and the Rector of St John's 41. The only remaining freeholds of any size were those of Sidney Sussex College, Cambridge (64), and Browne's Hospital, a Stamford charity (66). The remaining freeholds, in the hands of local charities in the main, amounted to anything between a few roods to a few acres in size.¹

Lord Exeter was also the largest leaseholder in the open fields. He leased all but 15 acres of the land of Browne's Hospital—approximately 50 acres—the whole of Magdalen College land (9 acres) and the small freehold belonging to Snowden's Hospital, another Stamford charity. There were only three other leaseholders who held between them the remainder of Browne's Hospital's land. The largest of these, Richard Newcomb, was the proprietor of the *Stamford Mercury* and the foremost political opponent of the Cecils in the first half of the nineteenth century.²

Both freeholders and leaseholders enjoyed the rents of some seventy-five tenants in the 1840's and, of these, sixty had some or all of their holdings on land which was owned or leased by the lord of the manor. The largest farm was that of Thomas Roberts who, at this time, occupied approximately 150 acres of Lord Exeter's land; another farm was some 75 acres in size, two were of 68, and 53 acres, four more were of between 50 and 40 acres in extent, whilst the vast majority of tenants held no more than 25 acres.³

A feature which examination of the land ownership and tenancies of the open fields soon makes evident is the utter lack of consolidation of both freeholds and tenant holdings. Elsewhere, the economic pressures consequent upon the great commercial and demographic changes of the industrial revolution period had brought about the piecemeal consolidation and exchange of holdings in open field areas; the process of rationalization had enabled farms in unenclosed areas to be worked more efficiently. However, such terriers that exist of freehold land in the Stamford open fields show no evidence of consolidation whatsoever.⁴ A more precise picture can be constructed from the evidence offered by the Tithe Commutation Awards which dealt with the parishes in which the open fields lay. In this way, it is possible to check on the disposition of tenants' holdings as well as the freeholds. Using this evidence, a random survey of two furlongs in Low Field revealed that here there were twenty 'strips', or 'lands' as they are more often called, owned by six different free-

¹ Stamford Enclosure Documents, *loc. cit.*

² Apportionment of Rent Charge in Lieu of Tithes: All Saints' and St George's Parishes.

³ *Ibid.*

⁴ Elliott, 'The Enclosure of Stamford Open Fields', App. II; Glebe Terrier, All Saints' Parish, 1829; Glebe Terrier, St John's Parish, 1822; Valuation of the Property Belonging to the Corporation of Stamford, Oct. 1837.

holders and occupied by twenty different tenants.¹ The reasons for this situation are obscure and it seems probable that they are bound up with the whole question of the lateness of the enclosure at Stamford which we shall come to in due course.

* * *

The Stamford open-field system was thus a fully fledged agrarian archaism within a larger expanding and transforming national community. Some observers felt that it owed its survival, as did the quaint antiquity of the town itself, to the dispensation of the Cecil family who dominated it as both freeholders and leaseholders and who, from their seat at Burghley House, to the south of the town, showered on the community all the benevolence and patronage of the pre-industrial social *élite*. But patronage, however altruistic, is impotent in the face of the irresistible forces of economic change. True, the open fields had survived the inflationary period of the Napoleonic Wars which had done to death the open-field systems in the surrounding parishes but, in the decades that followed, the growth of the town's population, together with steadily mounting livestock prices, subjected the Stamford open fields to a double screw, which, if it did not bring about their total collapse and abolition, had reduced them, by the time James Caird made his celebrated inspection of English agriculture in 1850-1, to a shattered condition.

After the war, the disadvantages of owning land in the open fields soon made themselves obvious. By the late 'twenties, the high price which enclosed land in the surrounding parishes was fetching was being commented upon in the local press.² When James Torkington attempted to auction his freehold in the open fields in the 'thirties, the bidding only realized half the value of land being sold off for closes and paddocks in nearby parishes.³ Freeholders became even more frustrated when they realized that at least part of their land could be sold for building if an enclosure came about and, as such, its potential value was even higher.⁴ Townsmen, too, found the restrictions imposed on them by the open fields irksome. The growth of population in the 'twenties created initially a demand for paddocks for horses, outbuildings and sheds for carriages and beasts, and tips for stone and other building materials. This soon led to an invasion of the belt of wasteland which surrounded the town. By 1828, property of a considerable value, estimated at £15,000, had been constructed on this area and, as the population continued to grow, many of these buildings

¹ Apportionment of Rent Charge in Lieu of Tithes: All Saints' and St George's Parishes.

² *Stamford Mercury*, 4 Dec. 1829.

³ *Ibid.*, 21 July 1831.

⁴ In 1845 the lord of the manor offered to buy the Corporation's land in the open fields for £90 an acre and to resell sufficient land to furnish the town with a cemetery. Richard Newcomb advised his fellow members of the Council not to accept the offer on the grounds that the Corporation's property in the open fields would be worth five times this amount as building land.—*Stamford Mercury*, 26 Sept. 1845.

were converted into dwelling houses.¹ By the late 'thirties, the freehold area of the open fields was being invaded by dwellings and outhouses, and, although this incursion was of a limited nature, building on the freehold land in the open fields continued until the 'fifties, after which time the population of the town started to level off.² Further, open-field farmers were hamstrung by the customary methods of cultivation in the open fields and by the burdensome privileges of the Freeman. During the Napoleonic Wars, Arthur Young had noted: "The sheep are miserably bad."³ In the late 'thirties the deficiencies of farming in the open fields were pointed out by a land agent in accounting for the run-down condition of the largest farm on the Corporation's land: "Arable land without manure diminishes in value especially in the Open Fields of Stamford, where the folding of sheep cannot be practised."⁴ Stamford's farmers were thus denied the advantages of the new husbandry; the livestock turned out by the Freeman were unequal to the task of manuring the soil of the arable area.

By the early 'thirties there were signs of frustration; the headlands and baulks on which the Freeman were entitled to exercise their rights of common were being ploughed away.⁵ James Torkington, smarting under the indignity of failing to realize an acceptable price for his land, flagrantly violated the customary cultivation of the open fields. By the middle of the decade he was making £6 an acre by letting out his land for potato planting, a practice which annoyed the Freeman for his land was in an exhausted and denuded state by the time they came to turn out their stock. Torkington's efforts towards making good this devastation by sowing grass seed were "announced to be a very equivocal recompense as in some seasons the seed never came to anything."⁶

A less subtle breach of custom on his part was to enclose areas of his freehold on the fallow field by putting up temporary fences and so keeping the Freeman's stock off. In this, Torkington was to prove a source of inspiration to both his own tenants and those of other freeholders.⁷ The growth of this practise provoked one of the Freeman to bring an action against Torkington, allegedly with the financial backing of Lord Exeter. Unfortunately both for Lord Exeter's pocket and for the privileges of the Freeman, the action was non-

¹ *Stamford News*, 11 April 1828; *Stamford Mercury*, 24 Oct. 1828; Elliott, *op. cit.*, App. v, The Growth of the Encroachments of John Clapton on the Waste of the Manor, 1804-63.

² *Stamford Court Rolls*, vols. 6 and 7; Elliott, *op. cit.*, App. vi, The Growth of Encroachments on the Freehold.

³ Arthur Young, *A General View of the Agriculture of the County of Lincolnshire*, London, 1808, p. 420.

⁴ *Stamford Borough Records*, Miscellaneous Papers, Packet 60, D. Larratt/H. Weldon, Mayor of Stamford, 2 March 1837.

⁵ *Stamford Mercury*, 8 April 1836.

⁶ *Ibid.*, 19 May 1837.

⁷ *Stamford Court Rolls*, vol. 6.

suited on a technicality, an outcome that was as indecisive as it was disastrous.¹ The demand for enclosed land in the immediate vicinity of Stamford was so great that only the now equivocal rights of common of the Freeman and the fear that the big guns of the Exeter interest would be turned on them prevented the piecemeal enclosure of the open fields by their occupiers. In 1843 the Freeman, exasperated by the growing resistance to, and erosion of, their rights, chose to strike another blow for their privileges. A group of them, headed by William Reed, the town's chief constable, swarmed on to the fields and, breaking down the fences that the farmers had erected round their holdings, turned on their cattle. This action proved to be ill-judged, naïve, and maladroit. They had acted in an equivocal cause and, what was worse, they had chosen to break down, amongst others, the fences which Torkington had erected. The Torkingtons were not merely wealthy; this wealth had been derived from practice of the law. An action for trespass was thus the inescapable consequence of the fence-breaking. Faced with prosecution by a wealthy family and finding his supporters suddenly lukewarm, Reed was forced to yield.²

This was the signal for which the owners and tenants in the open fields had been waiting. The population of the town had risen from 5,276 in 1821 to 7,760 by 1841; the demand for paddocks and closes in the vicinity of the town was prodigious. Torkington drove home his point by encouraging one of his tenants to start an action for trespass against two Freeman whose stock was found on his land.³ It was a point which did not really need to be made; at the beginning of 1844 the Freeman showed great reluctance in turning out their stock in the usual way. Richard Newcomb's test cow was ceremoniously "booked" and harassed from point to point.⁴ The question of the Freeman's rights now excited men's minds to a high degree. A horse belonging to George Groom, a Freeman, was hamstrung whilst grazing on the Lings by a youth who declared himself opposed to their privileges.⁵ When three men were brought before the magistrates accused of harassing the Freeman's stock, Francis Jelley, the Mayor, studiously undermined and finally rejected the evidence brought against them; two men who appeared before the bench on the same charge on a subsequent occasion were not so lucky. This time Richard Newcomb occupied the magisterial chair and the defendants were convicted of cruelty and ordered to pay costs.⁶

The customary cultivation of the open fields now fell asunder. From 1844 the field officials were no longer appointed by the Court Baron.⁷ Stone was cheap in this limestone region and now stone walls sprang up everywhere as

¹ Burton, *op. cit.*, p. 181; *Stamford Mercury*, 26 Nov. 1841.

² Burton, *op. cit.*; *Stamford Mercury*, 27 April 1843 and 19 Jan. 1844.

³ *Stamford Mercury*, 16 May 1845.

⁴ *Ibid.*, 26 April and 17 May 1844.

⁵ *Ibid.*, 4 Sept. 1845.

⁶ *Ibid.*, 30 Aug. and 6 Sept. 1844.

⁷ *Stamford Court Rolls*, vol. 6.

former arable land was now relet as closes and paddocks. Torkington, by letting his land in this way, was able to more than double his rentals. Even the Corporation joined in, getting rid of one of their oldest tenants, reletting their land in small lots, raising their rents enormously and running the gauntlet of an admonition from the lord of the manor in so doing.¹ By 1850, this process was virtually complete and the former great arable fields were a patchwork of petty closes and paddocks. The Freeman's rights of common were now confined, in the main, to the meadows where the eternal patronage of Lord Exeter suffered them to survive.² Elsewhere, the baulks and access roads throughout the open fields were entirely ploughed away.³ The Lings, in the same way, was greatly reduced in size and what was left was a prolific source of topsoil and stone.⁴ In the 1860's, it was trespassed upon by the local militia who, because of its relative seclusion, were able to improve their riflemanship. Octavius Simpson, one of the foremost citizens of the town, built a causeway across it to facilitate the removal of stone.⁵

As if in acknowledgement of this final collapse, the Court Baron ceased to meet regularly in the 1850's; it met in 1853, then in 1856 and then for the last time in 1863. Its concern was less and less with the regulation of the open fields as a whole and more and more with the amercement of those who had encroached on the waste, especially that part of it which lay on the outskirts of the town.⁶ No doubt Lord Exeter considered that, as so much property had been built here, the proceeds would be worth pocketing. The Freeman too realized their cause was lost and in the early 'fifties made a forlorn attempt at a separate enclosure of the wasteland. This salvage operation was aborted by Lord Exeter who, as lord of the manor, withheld his consent.⁷

* * *

By 1860, therefore, the Stamford open fields had disintegrated all but in name. But there was still required, in 1871, an Act of Parliament to herald their dissolution. How had they managed to survive until well into the second half of the nineteenth century? There can be little doubt that the answer is, in part, bound up with the dynastic ambitions of the Cecil family for whom an important pre-condition of any enclosure would have been the acquisition of all the land in the open fields which could not be clearly established as the freehold of anyone else. For example, a particularly valuable acquisition would have

¹ *Stamford Mercury*, 1 Oct. 1847, and 7 Feb. and 20 Oct. 1848.

² *Ibid.*, 24 Dec. 1869.

³ *Stamford Court Rolls*, vol. 7.

⁴ *Stamford Mercury*, 1 Nov. 1844 and 12 May 1848; *Stamford Enclosure Documents*, D.54 k, undated and unsigned memorandum of c.1870: "Within the last month no less than 500 loads of soil have been stolen from the Lings."

⁵ *Stamford Court Rolls*, vol. 7.

⁶ *Ibid.*

⁷ *Stamford Mercury*, 31 March and 23 June 1854.

been the belt of waste which skirted the town over which Lord Exeter had control as lord of the manor. Lord Exeter's attempts to treat this as his freehold in the 1820's had been resisted by the Freeman and the Corporation. A determination to establish a clear title over the commons and wastes in the open fields may well have persuaded the Marquess to resist an enclosure until he could get one on his own terms.¹ On the other hand, some observers had felt that this resistance represented an attempt by the Cecil interest to preserve its control over the Parliamentary elections in the borough, for the continued existence of the open fields would have prevented the growth of an ungovernable household franchise on the north side of the town.²

Whatever the intentions of the Cecils may have been, however, there were other serious obstacles to the enclosure of the open fields which cannot be ignored. The first of these was the rights of the Freeman. In the event of an enclosure, they would have to be compensated for the loss of their rights of common and this might prove to be expensive. Both Lord Exeter and the Torkingtons were well aware of this problem.³ Worse, matters were made more complex by the Municipal Reform Act of 1835, which, although it abolished the municipal privileges of the Freeman, left considerable doubt as to whether this applied to rights of common. This problem seems to have been of some importance for, in 1840, a Select Committee of the House of Commons discussed the matter without, however, arriving at any solution. The unravelling of this knot clearly presented another obstacle in the shape of possible litigation and increased legal fees. As it happened, the existence of these rights proved to be the salvation of the enclosure scheme in the 'seventies, for, with the failure of the General Enclosure Act of 1869, which was to have effected the Stamford enclosure, the promoters were able to seize on the problem as the justification of a private enclosure Act in the following year.⁴

A second obstacle was clearly the disposition of the freeholds and the tenant holdings in the open fields. The trail leading to many an enclosure had been blazed by the informal swapping and exchange of land so that the enclosure was a relatively inexpensive process which merely confirmed the previous rationalization of holdings. But this process of consolidation and exchange had not taken place at Stamford; the scattered freeholds which characterized landholding in the open fields was another obstacle to an inexpensive and easy

¹ S. Elliott, 'The Cecil Family and the Development of 19th Century Stamford,' *Lincolnshire History and Archaeology*, vol. 1, no. 4, 1969.

² W. G. Hoskins, *The Making of the English Landscape*, London, 1955; J. M. Lee, 'Modern Stamford' in A. Rogers (ed.), *The Making of Stamford*, Leicester, 1965.

³ Stamford Borough Records, Minute Book B, p. 231. Replies to a Corporation petition to landowners in the open fields to bring about an enclosure.

⁴ *Ibid.*, p. 110. Copy of a petition to Parliament on the question of the Freeman's rights; Stamford Enclosure Documents, B.11 b, Thompson, Phillips and Evans/Sherwood, Grubbe, Pritt, and Cameron, 16 Feb. 1871.

enclosure. This state of affairs may, in its turn, have been the result of the survival of a strong manorial organization at Stamford which made such exchanges difficult. The identity of the freeholders and the fact that few of them were farmers also hindered the progress of exchange and consolidation. Farming freeholders in open field areas in the eighteenth century frequently exchanged holdings in order to achieve greater efficiency.¹ In Stamford's case, however, the overwhelming proportion of the freehold was in the hands of the Cecils who, from evidence offered by their actions in other spheres, seemed constitutionally opposed to change of any sort. Much of the remaining freehold was in the hands of the Church or of institutions of one kind or another. Such a class of landowners, some of whom had but a remote connection with the town, were less likely to be concerned with the maximization of profits from the holdings of its tenants than private individuals.

Again, Stamford lay within a region where enclosure came late. Poor soil conditions in the parishes around Stamford delayed enclosure in these districts until after 1790. Only when monetary conditions forced grain prices to extravagant heights did it become worth while to enclose the parishes at the southern tip of the Lincolnshire limestone area as well as the neighbouring parishes in the limestone districts of Rutland and Northamptonshire. Soil conditions in the Stamford open fields militated against an early enclosure.²

Finally, the Stamford open fields served an urban and not a village community. Their role was not central to the economic life of the community as was the case with most open-field systems. In the first place, agricultural trading and the processing of agricultural products and not farming was the hub of the town's economic life.³ Very few of the town's inhabitants were concerned with whole-time farming.⁴ In fact, the majority of tenants in the open fields were not farmers at all. By using the evidence of the Tithe Commutation Awards together with that of nineteenth-century directories, it was possible to construct a picture of the occupations of the tenantry of the open fields. Of the forty-seven tenants whose occupations could be established in this way, only thirteen were farmers and, of these, eight came from the neighbouring parishes of Tinwell and Great Casterton. The remaining tenants were tradesmen of Stamford: innkeepers, butchers, builders, millers, tanners, slaters, and timber merchants. One of the Marquess of Exeter's tenants, George Ratcliffe, was a basketmaker and his holding on the Tithe Map is quite clearly

¹ G. E. Mingay, 'The Size of Farms in the Eighteenth Century', *Econ. Hist. Rev.*, 2nd ser., vol. XIV, no. 3, 1962, p. 478.

² D. Grigg, *The Agricultural Revolution in South Lincolnshire*, Cambridge, 1966, p. 52.

³ *Post Office Directory of Lincolnshire*, 1855, pp. 216-7.

⁴ Census Report, 1831, Enumeration Abstract, vol. 1, pp. 338-9. In this year only 64 families were wholly engaged in farming as opposed to 711 engaged in manufacture and 429 in miscellaneous occupations.

shown to be an osier bed.¹ For men like George Ratcliffe, such a holding would be a necessary adjunct to their trade; for others it would be a useful sideline.² A tenantry such as this can hardly have agitated for an enclosure. Indeed, the main discontent was expressed by landowners, who saw the value of their property falling, and by Richard Newcomb's newspaper the *Stamford Mercury*, although after his death in 1851 this ceased to emit its erstwhile barrage of complaints. When Newcomb appealed to the Mayor of Stamford to start a subscription to get an enclosure under way, the reply that he received was that interest in the matter was so slight that agitation for an enclosure was bound to fail. Another member of the Council was of the opinion "that an enclosure would be an unnecessary expense."³

* * *

All that remains is to review the circumstances in which open field cultivation at Stamford was formally dissolved in the 1870's. By this time, the appearance of Stamford was hardly consonant with that of the satellite community of a great estate, for the property constructed piecemeal on the waste on the outskirts of the town had by now congealed into a veritable slum.⁴ This unprepossessing feature may well have impressed itself on the mind of the third Marquess who succeeded to the title in 1867. Only an enclosure could remedy matters, for Stamford was a town besieged; Burghley Park stood to the south, the waterlogged meadows of the Welland to the east and west, whilst to the north lay the open fields across whose walled enclosures access to new property would be a virtual impossibility.⁵ Moreover, whilst it was worth taking a risk *vis-à-vis* the Freeman's rights with an individual enclosure, the erection of substantial property on land where their rights might yet be resurrected was a different matter.⁶ Thus, there was little room in the town for the

¹ Apportionment of Rent Charge in Lieu of Tithes, All Saint's Parish; Bagley's *Stamford Compendium and Almanac*, Stamford, 1850; *Post Office Directory of Lincolnshire*, 1885.

² Mrs E. M. Scholes, secretary to the Freeman in 1963, informed me that her husband's family were open-field tenants although their main business was the running of livery stables; Mr F. Barlow, chairman of the Freeman in the same year, told me that his forbears, who were farmers in the open fields, had other interests besides agriculture.

³ *Stamford Mercury*, 12 May and 20 Oct. 1848.

⁴ "... on the outskirts of the town there were three or four hundred houses of a miserable nature, many of which were without a single inch of ground and without privy accommodation, and such must continue unless an inclosure took place."—Report of a public meeting held by the Inclosure Commission, Dec. 1869, *Stamford Mercury*, 24 Dec. 1869.

⁵ During the discussion on the provision of a public cemetery in 1845, the town clerk advised the Council not to enclose land in the middle of a field for this purpose as access over the walled enclosures might be difficult.—*Stamford Mercury*, 20 Sept. 1845.

⁶ "There was a great want of housing accommodation as no one would risk building houses on land over which there were doubtful rights of common".—Report of the public meeting held by the Inclosure Commission, Dec. 1869, *Stamford Mercury*, 24 Dec. 1869.

development of public amenities or for houses of style. The Cecils had always prided themselves on their patronage as well as on their taste as town planners; they had made provisions for a gas works, public baths, water supply, and a workhouse so that Stamford would not be deprived of any of the advantages of nineteenth-century urban living. By the 1840's however, the supply of land for such purposes was running out so that when it became necessary to provide the town with a public cemetery, the Marquess could only offer to buy the Corporation's land in the open fields and sell back to it sufficient land for the purpose.¹ The building of better-class housing also suffered and, by the mid-'sixties, the local press was lamenting the shortage of building land.² Enclosure was the only solution to these problems; it would lead to the consolidation of the scattered and enclosed patches in the open fields and settle the question of the Freeman's rights once and for all. After the enclosure, middle-class villas sprang up rapidly whilst the allotments of the Marquess of Exeter were used to provide not merely middle-class villas and working-class terraces but also open spaces, allotments for the labouring poor, playing-fields, a new workhouse, and a children's home.³

Moreover, the shortage of good housing in the town was, by the 1860's, arousing a political opposition which, armed with the Reform Act of 1867, and encouraged by the prospect of the secret ballot, was becoming far more formidable and articulate. Stamford had prided itself on its Toryism, but, in the election campaign of 1868, the Conservative candidate was barracked and many of the newly enfranchised voters declared that they would not support him. A Liberal candidate surprisingly presented himself although the absence of any efficient Liberal organization in the town compelled him to withdraw.⁴ So serious had the situation become that, in the opinion of Lord Exeter's solicitors, an enclosure "would materially increase the Conservative support in the borough."⁵ When the first attempt to secure an enclosure by means of the General Enclosure Act of 1869 failed, they estimated that an enclosure would make a difference of sixty to eighty votes to the Conservatives and that the Tory majority in the town was in danger of being destroyed if an enclosure was not brought about.⁶ The enclosure made it possible to increase the number of houses in the town by over 14 per cent.⁷

¹ *Stamford Mercury*, 20 Sept. 1845.

² "Villa residences in Stamford have long been a desideratum."—*Ibid.*, 28 Feb. 1868.

³ Six Inch Ordnance Survey Map, Sheet TF OO NW; Stamford Borough Records, Deposited Plans in the Borough Surveyor's Office; Stamford Enclosure Documents, H. The Stamford Enclosure Award and Map.

⁴ *Stamford Mercury*, 9 and 30 Oct. 1868 and 20 Nov. 1868; H. J. Hanham, *Elections and Party Management*, Manchester, 1964, pp. 40-1.

⁵ Stamford Enclosure Documents, B.10 d, Thompson, Phillips, and Evans/Sir J. D. C. Hay, M.P., 12 June 1870.

⁶ *Ibid.*, Thompson, Phillips, and Evans/Sir J. D. C. Hay, M.P., 31 July 1870.

⁷ Census Returns, 1881, Area, Houses, and Occupations in Ancient Counties, vol. 1, p. 225.

It was thus politics and patronage and not prices that dictated the final fate of the Stamford open fields, but, prior to this, the system of open-field cultivation had been wrecked by the inexorable pressures of economic change. At Stamford, the survival of the open fields had, in part, been the result of dynastic ambition and, as such, represents a deliberate attempt to perpetuate an archaic agricultural system in defiance of economic reality. Their history confirms the inadequacy of open-field agriculture in the economic and social environment of an urban and industrialized society.

The Genesis of the British Agricultural History Society

By G. E. FUSSELL

IN the twentieth volume of the Society's journal it seems fitting that the beginning of the B.A.H.S. should be put on record. Many years ago Professor R. H. Tawney, who had taken some interest in, and even encouraged, some of my work, especially the transcription of Loder's *Farm Accounts*, suggested to me the possibility of forming an agricultural history society; but then he had second thoughts. It was some time during the depression between the wars, and he feared that not only would there be too little interest to secure sufficient subscribers to maintain such a society. He also felt that, at any rate at that time, the omens were inauspicious for a further proliferation of societies.

Long after this event, even after my own retirement from the Ministry of Agriculture to the rural surroundings of Fressingfield, Suffolk, the same suggestion was made to me, in a casual sort of way, as he would be the first to admit, by Mr Trow-Smith, whose *English Husbandry* (1951), had recently appeared. Since Eric Kerridge had made very much the same suggestion, I was stimulated to make

some attempt to bring this idea into the realm of reality.

The result was that on 1 September 1951 I drafted and sent out to some fifty representative scholars a circular letter, and with the help of Mr Trow-Smith a great number of journals was asked to print a note about the proposal. The result was so encouraging that a room was booked for a preliminary meeting at Kingsway Hall to be held on the morning of 5 April 1952. This meeting was successful, and a small committee was elected to carry on. Kerridge was unable to undertake the secretarial duties, and John W. Y. Higgs of the Museum of English Rural Life took over. Edgar Thomas accepted the post of treasurer. Following this meeting, Sir James Scott Watson was asked to take the Chair at a formal meeting to be held in the lecture theatre at the Science Museum, this hospitality being arranged by Mr O'Dea.

This meeting was held at 2.30 p.m. on 25 September 1952, having been publicized by over a hundred personal letters sent out by Mr Higgs, and in the appropriate press by notices

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Agricultural Treatises and Manorial Accounting in Medieval England

By P. D. A. HARVEY

REVIEW ARTICLE OF DOROTHEA OSCHINSKY, *Walter of Henley and other Treatises on Estate Management and Accounting*. Clarendon Press, Oxford, 1971. xxiv + 504 pp. £7.

IN 1890 the Royal Historical Society published *Walter of Henley's Husbandry*, edited by Elizabeth Lamond. This contained text and translation not only of Walter of Henley's work, but also of three other thirteenth-century treatises: the anonymous 'Husbandry', the 'Seneschaucie', and the 'Rules' of Robert Grosseteste. In 1934 Eileen Power read a paper to the same society opening a discussion 'On the need for a new edition of Walter of Henley'.¹ The need was by then generally admitted: the discovery of new manuscripts of the text and increasing knowledge of medieval agriculture were making it clear that Miss Lamond's edition was an imperfect guide to the precepts of Walter of Henley and his fellows. As time has gone on the need has become more and more evident. Now, at last, it has been met by the newly published book by Dr Dorothea Oschinsky, Senior Lecturer in Palaeography of Liverpool University; in it she gives us new texts and translations of the four treatises edited by Miss Lamond and much else besides.²

It is not difficult to see why we have had to wait so long. Miss Lamond knew of 21 manuscripts of *Walter*, 7 of the *Husbandry*, 7 of the *Seneschaucie* and 6 of the *Rules*; Dr Oschinsky has taken account of 38, 12, 15, and 14 respectively. This larger number of manuscripts would have made little difference to the editor's work had they all been straightforward and accurate copies of their exemplars. This, however,

is far from the case. Three of the texts—the *Seneschaucie*, the *Rules*, and the *Husbandry*—were so drastically rearranged by some of their early copyists that even the basic plan of the original treatises is open to question. All four texts, especially *Walter*, have been glossed, miscopied, and mistakenly corrected, often by scribes who understood little of the authors' arguments. The resulting confusion was only partly resolved by Miss Lamond's edition; it has made it hazardous to draw on any of the texts for detailed technical evidence, and it has made Dr Oschinsky's task a peculiarly hard one. What she has tried to do is to give us the text of each treatise in its original state, as near as possible to what was written by its author or compiler. In this she has been brilliantly successful. On some points, to be sure, there is still room for doubt: the best manuscripts of all the treatises are copies at several removes from the originals. Thus in *Rules*, iv, in the phrase "cumben de quarters en semence, e en seriaunz la terre reprenra," "e en seriaunz" reads very like an insertion misplaced in copying; or, again, the surviving manuscripts do not enable Dr Oschinsky to decide whether the proverb in *Walter*, c. 9 ("On yeer other to wronge wyllle on honde go ant evere at en hende wrong wile wende") has been omitted from the text by one tradition of copyists or inserted as a gloss by the other.³ Points such as these can be resolved only in the unlikely event of the discovery of new and significant manuscripts that have eluded Dr Oschinsky; meanwhile she has provided us with texts of the treatises that are probably as good as we

¹ Eileen Power, 'On the Need for a new Edition of Walter of Henley', *Trans. Roy. Hist. Soc.*, 4th ser., xvii, 1934, pp. 101–16.

² Henceforth references to the treatises are given in the forms used by Dr Oschinsky: *Husbandry* (i.e. the anonymous 'Husbandry'), *Rules*, (i.e. of Robert Grosseteste), *Seneschaucie*, and *Walter* (i.e. Walter of Henley's 'Husbandry').

³ Pp. 347–8.

shall ever have. Their publication is an important event for medieval economic historians. It is not too much to say that we can now for the first time make proper use of these fundamentally important texts.

Dr Oschinsky backs up her texts with discussion of their transmission and with diagrams showing the relationships of the surviving manuscripts and lost exemplars. The variant readings given in the footnotes and critical apparatus to each treatise are confined to those that are relevant in establishing the text and its descent; minor variations in wording or spelling are ignored and it should perhaps be mentioned that although Dr Oschinsky's transcriptions of the texts are basically trustworthy their spelling very occasionally departs from that of the manuscripts.¹ As in Miss Lamond's edition, each text is accompanied by a parallel translation. For *Walter* Dr Oschinsky has used the translation made by William Lambarde in 1577 and hitherto unpublished. Lambarde used a corrupt copy of the text, and Dr Oschinsky has had to correct his translation in many places, but the idea of using it here is a happy one: it is well written, and it is valuable to have the English phraseology of a writer necessarily more familiar with the techniques of medieval agriculture than we are today. For the other three treatises Dr Oschinsky has provided her own fairly free translations; these are more accurate and more comprehensible than Miss Lamond's, reflecting our increased knowledge over the past eighty years, and they even attain elegance of style, a considerable achievement from such unpromising raw material. It is perhaps a pity that Dr Oschinsky does not take the reader more into her confidence over the various difficulties and perplexities that must have arisen in the work of translation, for there

are a few significant points where her interpretation of the texts can reasonably be questioned. These, and some significant manuscript readings that are open to doubt, are listed and discussed at the end of this article. But besides translating the texts Dr Oschinsky provides further elucidation, partly in the critical apparatus, where she explains some points of detail, but mostly in more general discussion of the contents of the treatises in the separate introduction to each text.

It is here that Dr Oschinsky gives us the full benefit of her knowledge not only of the treatises but of medieval agriculture in general. Many aspects of agrarian practice are discussed, learnedly and illuminatingly. Among them is the difficult question of the heaping of corn measures by the threshers and the *incrementa* included in the issue of corn on many manorial accounts. This was important to Walter of Henley and his fellows because it touched on a loophole in the accounting system which might permit the reeve to enrich himself from the lord's corn, and it is important to the economic historian because of its bearing on medieval crop yields. Dr Oschinsky is the first to discuss the problem in a general context and to offer a well-reasoned and convincing explanation of the varied and puzzling evidence of manorial accounts. Her answer may not explain every case—we must always reckon with the strength of local variation in medieval practice—and it will have to be tested against the many references in surviving account rolls.² But here as in many other instances she provides a sound starting-point for further investigation, a starting-point very properly based on the rules and advice offered to those in charge of husbandry and accounting at that time.

In the introduction to each treatise Dr

¹ E.g. the manuscript used for the text of the *Seneschaucy* (B.M. Add. MS. 32085, fols. 132-8v) reads, in cc. 1-16: 'meyns' for 'meynz', c. 9, line 3; 'seit' for 'seyt', c. 9, line 6; 'surcarke' for 'surkarke', c. 13, line 2; 'poet' for 'poez', c. 13, line 2; 'lez' for 'les' (twice), c. 15, line 3.

² Among local peculiarities may be mentioned the entry of amounts 'de incremento mesure' for corn delivered to the lord, though not for the issue of corn whether threshed by hired or customary labour (Newton, Cambs., 1311-12: muniments of the Dean and Chapter of Ely), and the entry of *incrementum* for issues of all types of corn threshed by hired labour except oats (Froyle, Hants., 1363-4, 1365-6: St Mary's Abbey, Winchester, estates: B.M. Add. Rolls 17479, 17480). Cases such as these make it the more likely that local custom in agreements made with hired threshers lay at the root of the use of heaped measures as recorded on the account rolls rather than, as Dr Oschinsky suggests, the greater ease or speed of measuring by heaped measures. Cf. P. D. A. Harvey, *Medieval Oxfordshire village*, 1965, p. 55.

Oschinsky also discusses its origin, date, and authorship. In the case of *Walter* she is able to demonstrate clearly first that its form is that of contemporary sermons and second that its arrangement so clearly follows that of the *Seneschaucy* that it was probably written as a commentary on what must have been the earlier of the two treatises.¹ Beyond this Dr Oschinsky gives us no indisputable new evidence of the provenance of any of the treatises. She points to references in *Walter* that might suggest associations with Gloucestershire and Herefordshire, and connects this with the presence of a *dominus miles* Walter of Henley in 1266-7 in the following of the Clare family who were, of course, important Marcher lords; the suggestion is a very interesting one, but the local associations are not conclusively proved.² Similarly she suggests that the *Husbandry* originated at Ramsey Abbey, primarily because the best (and only un-rearranged) text is in a manuscript with Ramsey associations, but also because the treatise refers to (i) leaving gaps in manorial accounts for the insertion of totals at the audit, (ii) the organization of sheep-farming and wool-marketing for the estate as a whole, not manor by manor, (iii) a method of estimating corn yields that involved recording the issue of individual stacks of unthreshed

corn, and (iv) particularly detailed accounting for corn and for harvest expenses; all these features occur in surviving accounts from the Ramsey estates.³ But in fact (i) is found almost universally in unenrolled manorial accounts,⁴ (ii) is very common on large estates,⁵ while (iii) is one of only three methods mentioned by the treatise and, like (iv), can easily be paralleled elsewhere.⁶ At least five, probably six, of the other manuscripts of the *Husbandry* come from Kent;⁷ the emphasis in the treatise on the profits from woodland and pasture accords very well with a Canterbury or other Kentish origin⁸ and much less well with a Ramsey one. Here again Dr Oschinsky's suggestions are stimulating and interesting, but are not necessarily conclusive.

The same is true of her discussion of the dates of the treatises. Because *Walter* gives an abstract of the document known as the 'Extenta Manerii' while the *Seneschaucy* does not, Dr Oschinsky suggests that the *Seneschaucy* was written before about 1276, when estate management in general and this document in particular were discussed in Parliament, and *Walter* after that date. The argument would be tentative even if these proceedings in Parliament were well attested, but in fact they are known only from references in the sixteenth century.⁹

¹ Pp. 75-82, 149-52.

² Pp. 147-8. The references that Dr Oschinsky associates with later practice in Gloucestershire and Herefordshire are to (i) reaping to leave a long stubble that might be cut for thatch, (ii) the high proportion of butter, as against cheese, produced from the milk, suggesting that the cheese was of low fat-content, and (iii) keeping sheep in houses in winter, and feeding them there on the haulm and pods of peas (pp. 175, 181, 183-4, 376).

³ Pp. 201-2, 204, 207.

⁴ Close examination of most original manorial accounts will show that, as first drawn up, a gap was left for the total of each paragraph of the cash account as well as for the total charge, discharge, and balance; the totals were entered on audit, sometimes by the original clerk, sometimes in another hand. Sometimes gaps were left for totals in the corn account also, but the stock account was normally fully written up from the first, with totals and balances. Occasionally preliminary totals for corn or cash were entered as tiny marginal figures when the roll was first written, e.g. Gisleham, Suff., 1349 (Biskele family estates: B.M. Add. Roll 26085) or Little Hinton and Stockton, Wilts., 1266-7 (muniments of the Dean and Chapter of Winchester).

⁵ D. Knowles, *The Religious Orders in England*, 3v., 1948-59, I, p. 42.

⁶ E.g. on the estates of Merton College, Oxford, as in the surviving grain-estimate rolls of 1272, 1276, 1282, and 1322 (Merton College muniments, 5529 dorse, 4120, 4122b, 4137).

⁷ Pp. 37-8, 201.

⁸ It appears very clearly, for instance, on the enrolled accounts for the estates of the Archbishop of Canterbury in 1273-4.—B.M. Add. MS. 29794.

⁹ Pp. 70-2. It is difficult to follow Dr Oschinsky's argument on the significance for dating of *Walter's* inclusion of the 'Extenta Manerii'; as she herself mentions (p. 68n.), the particular form of the document that he uses had been included in Bracton's 'De legibus' (ed. G. E. Woodbine, 1922, II, p. 219) probably at least twenty years before 1276.

Building on this foundation, Dr Oschinsky argues that the *Seneschaucy* was written after about 1260, because it was omitted from a manuscript compiled then, and noting that *Walter* speaks of 24 weeks between Easter and Michaelmas she suggests that this refers to 1285 when Easter fell on 14 April, exactly 24 weeks before 29 September.¹ Combining this with a note in one manuscript that *Walter* of Henley 'primes fu chivalier e puis se rendist frere precheur', she suggests that the author, whether or not the former retainer of the Clares, became a Dominican about 1280, wrote *Walter* in the sermon form that he now learned, and died before about 1290-1300, the date of a copy of the treatise that refers to the author in the past tense.² Clearly all this is very hypothetical indeed, and Dr Oschinsky claims no more for these arguments than that they point to dates that on general grounds are not unlikely.

But there is room for more work that would enable these two treatises—and the *Husbandry*—to be dated more exactly. Dr Oschinsky gives precise dates for very few of the manuscripts she has used; so many are involved and so much detailed work would be needed to date

any one of them that this is hardly surprising. But now that she has pin-pointed the key manuscripts in the transmission of these treatises it could well be that careful study of their hands and of the associated texts could produce useful results. The treatises themselves also provide some internal evidence for their dates of composition. For instance, the *Seneschaucy* envisages the rendering of manorial accounts by bailiff and reeve jointly. This was a practice only of the earliest period of written accounts, and although on some estates it lingered on into the fourteenth century by the end of Henry III's reign it must have seemed a rather old-fashioned form;³ accounting by the reeve alone is a normal feature of the slicker methods typical of estates where the earliest written accounts date from after 1250, as at Westminster Abbey or Merton College. Even if we accept Dr Oschinsky's *terminus a quo* for the composition of the *Seneschaucy* this points at any rate to a date nearer 1260 than 1276. Other features of the treatise also point to an early date: the direct responsibility of the *famuli* rather than of the reeve on their behalf, and, indeed, the role of the steward himself as an estate supervisor.⁴ In turn, an early date accords better with one

¹ Pp. 89, 144-5.

² Pp. 145-6. Dr Oschinsky does not mention the possibility that casting the treatise in the form of a sermon may have been slightly humorous in intention; the use of ecclesiastical or solemn forms for very mundane purposes was a frequent form of humour in the Middle Ages. It certainly seems bizarre, to say the least, that a new entrant to a landless Order should use the homiletic style that he now learned to write what is by and large a very worldly treatise on estate management. There is no evidence that *Walter* of Henley became a Dominican apart from the note in this single manuscript, and it is not impossible that this too is no more than a humorous reference to the style of the treatise, or even to the fact that it takes the form of a sermon. Humour—and humour of this sort—does occur in texts of this type: the accounting formulary in B.M. Add. MS. 45896 concludes with the mock-serious colophon 'Explicit Rotulus Nobilissimus secundum vsum Ihonis de Barton', and contains the obviously comic entry of the death of a sow by illness, attested 'per visum coronatoris'.

³ In *Accounts and Surveys of the Wiltshire lands of Adam de Stratton*, ed. M. W. Farr, Wilts Arch. & Nat. Hist. Soc., Records Branch, vol. xiv, 1959, we actually see the change taking place: the accounts for 1269-70 and 1272-3 are presented by bailiff and reeve together, those from 1273-4 on by reeve alone. At Peterborough Abbey, however, where old styles of accounting long continued in use, bailiff and reeve were still normally accounting together in 1310 and at Winchester Cathedral Priory the change was not complete until the 1320's (Northants. Record Office, Fitzwilliam (Milton) MS. 2389; J. S. Drew, 'Manorial Accounts of St Swithun's Priory, Winchester', *Eng. Hist. Rev.*, LXII, 1947, pp. 22-3). The reference to joint accountability might help to provide evidence of the place, as well as the date, of the composition of the *Seneschaucy*; the system was widespread (it is found, for instance, at Canterbury, Peterborough, Winchester, and Worcester), but even in the mid-thirteenth century was far from universal (thus it does not appear on the estates of Crowland or Ramsey Abbey, nor on the royal estates). Dr Oschinsky (pp. 96, 234) may be right in saying that the bailiff was held especially responsible for a joint account's accuracy, but the financial responsibility seems always to have been the reeve's alone (Drew, *loc. cit.*, pp. 26-7; N. R. Holt, in *The Pipe Roll of the Bishopric of Winchester, 1210-11*, 1964, p. xx, finds the same use of singular, not plural, verb to express the final debt).

⁴ Dr Oschinsky (pp. 98-9) notes that interest in the *Seneschaucy* soon waned, as it was hardly ever copied after the early fourteenth century. This could well be because the type of organization it describes was now out of date.

piece of internal evidence from *Walter*, which, as Dr Oschinsky shows, must have been written later than the *Seneschaucy*. It is an interesting fact, and may well be a significant one, that *Walter* nowhere suggests that the reeve or bailiff of each manor should present written annual accounts. If *Walter* was written in, say, the last decade of Henry III's reign this would not be surprising, especially if (as will be suggested) the treatise was written for lay owners of small estates: written accounts were probably known then only on a limited number of ecclesiastical and large lay estates. But if *Walter* was written in the mid-1280's the omission would be surprising. Written accounts of that date survive from a wide variety of estates; their use was spreading fast,¹ and they represent just the sort of up-to-date, provident technique that would appeal to Walter of Henley. This, of course, is arguing from negative evidence, and it would be wrong to attach too much weight to it. It may serve to show, though, that we have more to learn about the dates as well as the provenance of these treatises. The question is an important one, for the differences between the four treatises are interesting and may be seen as significant if they can be placed in their proper chronological context. The same applies to the other texts on accounting and estate management that Dr Oschinsky discusses. Probably almost all were written over a relatively short period,² a period when the use of written accounts was spreading rapidly and when other new techniques and new methods of organization were being adopted.

Here we touch on the remaining contents and the overall plan of the book. Besides giving us a full edition of the four treatises, Dr Oschinsky deals with other contemporary texts on estate management and accounting: the detailed list of manuscripts that forms the bulk of the book's first chapter comprises all manu-

scripts containing this type of material, a long chapter is devoted to analysing and discussing the treatises on accounting, and in an appendix nine unpublished texts of this sort are printed in whole or in part. The contents and arrangement of the book are dictated by the conclusions that Dr Oschinsky has reached, first on the purpose of the four treatises that she has edited in full and secondly on their relationship to the development of manorial accounting. These conclusions are basic to her work, and as much of what she says stems from them they deserve very careful examination.

"This book," Dr Oschinsky writes, "by the nature of our principal treatises has become a study of didactic literature for the training of officers employed on non-monastic estates."³ Because many copies of the treatises are found in compilations of legal texts, she argues that they were intended for the instruction of future estate officers—stewards and bailiffs—who would be trained in estate management while acquiring a working knowledge of common law. In the mid-thirteenth century these officers had no need of legal education and they probably learned their job simply by practice and experience—grew into it as it were—but "the legal demands under Edward I made it essential for stewards and bailiffs to have a good legal education," and, from the evidence of the manuscripts, "at least some lawyers received, in addition to their legal training, instruction on estate management, conveyancing, and accounting."⁴ It is in this light that Dr Oschinsky views each of the treatises. Thus of the *Seneschaucy* she writes, "The stress laid on legal training and the legal demands to be made on steward and bailiff suggest that the compiler had himself been trained in law."⁵ The sermon form of *Walter* suggests that this was composed as a lecture: "The delivery of the lecture will very likely have taken place in Oxford. Pre-

¹ By 1325 at Langenhoe, Essex, we see written accounts being prepared for the owner of a single manor (R. H. Britnell, 'Production for the market on a small fourteenth-century estate', *Econ. Hist. Rev.*, 2nd ser., xix, 1966, p. 380).

² Probably very few of these texts were composed later than 1300. For one (Gloucester, Library of the Dean and Chapter, MS. 33, fols. 48–55v), for which Dr Oschinsky suggests a mid-fourteenth-century origin, a mid-thirteenth-century date seems more likely on internal evidence: (i) the growing of winter barley, (ii) the description of all cash discharge as *expense necessarie* except forinsec expenses and liveries, and (iii) the use of *estricum* and *hop* as measures of capacity for corn and flour (pp. 249, 469–75).

³ P. 257.

⁴ Pp. 61–5.

⁵ Pp. 88–9.

scribed courses in business training are known to have existed there, which provided instruction in the art of letter writing, the formulation of writs, deeds, and accounts. Within such a course instruction in estate management would merely have been an extension of the syllabus." Soon afterwards a copyist of *Walter* revised it, by introducing chapter headings and altering some of the more rhetorical turns of phrase, so that it could be used more easily as a textbook; it is this 'didactic version' that is represented by most surviving manuscripts.¹ The *Husbandry* was compiled as a work of reference for an auditor, probably from an existing file of notes and memoranda, arranged in the order in which the matters would arise on audit;² in this form, Dr Oschinsky argues, the work would be of limited use, as auditing procedures varied from one estate to another, but all but one of the surviving copies are of a very much revised version, a 'didactic adaptation' that arranged the material in the order of a manorial account so that it could be used more generally by clerks or bailiffs as a guide to their composition³. The *Rules* too were, of course, not drawn up as a work of general instruction; they were compiled, perhaps by Robert Grosseteste himself, between 1240 and 1242 for the specific guidance of the newly widowed Countess of Lincoln. But from the surviving manuscripts Dr Oschinsky argues that some fifty years later they were "adopted by the legal profession as a textbook for the training of estate personnel" and they thus acquire a sort of honorary status

as a didactic treatise for general instruction.⁴

The suggestion that there existed a regular programme of instruction for future estate officers and that these treatises played an important part in it, were, indeed, mostly written for this purpose, is a very interesting one that deserves careful consideration. We should be wary, though, of regarding it as proved fact. We know little enough of how students learned common law in the thirteenth century, but it is far from certain that any form of instruction was offered them beyond attendance in the courts and gathering up what crumbs of wisdom, experience, and anecdote their elders let fall. To add instruction in estate management to a formal training in the common law is to add hypothesis to hypothesis. Certainly, though, the presence of the treatises in legal manuscripts points to their being used for guidance (which is not the same thing as formal training) by men with knowledge of the law whose duties included estate administration. These men would be the estate stewards or seneschals; what is normally meant by a bailiff, an officer having the oversight of not more than a very few manors, would hardly have needed any form of specialized legal knowledge.⁵ The mid-thirteenth-century steward, however, was expected to supervise the running of an entire estate, which would include holding the court for each manor; this would clearly call for a knowledge of more than local customary law, and the *Seneschaucy* (c.1) specifically says that he "deit saver la assise du regne pur foreyne bosoynes defendre, e pur lez baillifs ke desuz

¹ Pp. 117-20, 148.

² This suggestion can be supported by the curiously contradictory passages in the treatise (e.g. c. 28 and c. 32, or c. 35 and c. 36).

³ Pp. 201-6. It is worth noting, though, that very often—perhaps normally—the same order was followed in writing manorial accounts as in auditing them, i.e. the dorse with the corn and stock accounts would be written first, and the cash account on the front last. This would be the most efficient order of procedure for the clerk as well as for the auditor; it can be demonstrated from accounts where there is a change of hand partway through the writing of the account or where alterations made in the corn or stock account have already been taken into account in the cash account, e.g. Whitchurch, Hants., 1260-1 (muniments of the Dean and Chapter of Winchester), Melbourne, Cambs., 1317-18 (B.M. Add. Roll 25866). Cases where it can be demonstrated that the cash account was written first, the corn and stock accounts last, seem much rarer, but Cuxham, Oxon., 1290-1 (muniments of Merton College, Oxford, 5809), and possibly also Broughton, Hunts., 1378-9 (Ramsey Abbey estates: B.M. Add. Roll 39535), are examples.

⁴ Pp. 5-6, 196-9.

⁵ Dr Oschinsky mentions (p. 89) the legal demands made on the bailiff by c. 21 of the *Seneschaucy*; but this, effectively, requires him to hand over to the steward's judgement any decision requiring a knowledge of more than the local custom of the manor.

luy sunt en lur dutes certefier e aprendre." Significantly, perhaps, towards the end of the thirteenth century, as more emphasis was placed on their duty of holding courts and on their legal qualifications, the stewards played less and less part in the actual running of estates.¹ However, there is no reason to doubt that, as its name implies, the *Seneschaucy* was actually compiled to assist men of legal background who found themselves taking up posts that involved a knowledge of estate management.²

But to find *Walter* bracketed with the *Seneschaucy* as composed for the instruction of estate officers is surprising. Even Dr Oschinsky's interesting demonstration that it is a commentary on the *Seneschaucy* cannot alter the fact that, *prima facie*, it gives advice not on how to run someone else's landed property but on how to extract—honorably and honestly—the greatest profit from one's own. There is no mention of a steward; throughout it is implied that the owner of the estate, presumably a fairly modest one, will oversee it in person. When the author mentions bailiffs (c.33) it is not to instruct them in their duties but to give advice on how they are to be selected. Of course, this could well be a literary device: by being told how to manage landed property from the point of view of its owner *Walter's* audience or readers would learn how to run it on his behalf. But for this suggestion to carry weight much more evidence is needed. Even if it is accepted, it is still difficult to accept the

further suggestion that *Walter* was composed as a lecture for students of estate management at Oxford. Mr H. G. Richardson has shown, from surviving collections of specimen documents, that training in the *ars dictaminis*, known to have been taught at Oxford by the mid-fourteenth century, was probably available there at least a century earlier.³ This *ars dictaminis* was the basic training of a clerk. It included letter-writing and the drafting of conveyances and other legal documents and it is very likely that it came to include training in compiling accounts; there are reasons to suspect that certain specimen manorial accounts originated at Oxford.⁴ Instruction in drafting accounts would naturally include the techniques of auditing, for, as Dr Oschinsky shows, the clerk writing a manorial account played almost the part of an intermediary between the officer rendering the account and the auditors,⁵ but as far as we know the actual running of a landed estate would normally lie quite outside his duties.⁶ To suggest that instruction was offered in estate management is to assume the presence at Oxford of a quite different group of students, the future stewards, and this is something for which we have no evidence. On the whole it seems simplest and soundest to regard *Walter* as written for the edification and profit of small estate owners, who were too lowly to employ an experienced or professional steward and supervised their own property; it was written to be read as a book, not heard as a lecture,⁷ for if an audience of would-be estate

¹ See, for example, Jennifer C. Ward, 'The Estates of the Clare Family, 1066-1317', *Bull. Inst. Hist. Res.*, xxxvii, 1964, p. 115.

² It is interesting to note that the proportion of surviving copies in legal manuscripts is higher for the *Seneschaucy* than for the other three treatises (Oschinsky, p. 61, n.1).

³ H. G. Richardson, 'An Oxford Teacher of the 15th Century', *Bull. John Rylands Library*, xxiii, 1939, pp. 436-57; 'Business Training in medieval Oxford', *Amer. Hist. Rev.*, xliv, 1940-1, pp. 259-80; 'The Oxford law school under John', *Law Quarterly Rev.*, lvii, 1941, pp. 319-38; *Formularies which bear on the history of Oxford, c. 1204-1402*, ed. H. E. Salter, W. A. Pantin, and H. G. Richardson, *Oxf. Hist. Soc.*, N.S. iv, v, 1942, II, pp. 331-54.

⁴ Dr Oschinsky (p. 251) mentions the possible Oxford associations of the text in B.M. Harley MS. 274, fols. 29-49. Several texts of the 'Forma Compoti' group (notably B.M. Add. MS. 45896, B.M. Egerton MS. 2360, and P.R.O., E.163/24/34) contain references to places in Oxfordshire, or are linked with texts that suggest an Oxford origin; this was probably the most popular of the specimen manorial accounts that were in circulation from the late thirteenth century onwards.

⁵ Pp. 231-2.

⁶ Dr Oschinsky, however, argues otherwise (p. 234). We badly need some case-studies of the careers of individual clerks; these would be difficult to compile, but not impossible in areas where surviving records happen to be abundant.

⁷ The changes from rhetorical to less rhetorical style that Dr Oschinsky notes (pp. 118-19) among the

stewards is unlikely, an audience of trainee gentlemen farmers is unthinkable.

If we do not accept that *Walter* was written as a didactic guide for estate officers, it follows that of the four treatises only the *Seneschaucy* was originally compiled for this purpose. This makes it harder to accept the distinction drawn between these texts and two other contemporary treatises on estate management. One of these is the rules in French compiled for the Mohun family's estates centred on Dunster, written in their fourteenth-century cartulary.¹ Dr Oschinsky prints the text as an appendix, but without translation or discussion of its contents; it has never been printed before and although it was written for a particular estate (so too were the *Rules* and the *Husbandry*) and contains some purely local detail this seems all the more reason for fuller elucidation. The other treatise is the Latin text headed 'Scriptum quoddam' in the Gloucester Abbey cartulary published in the Rolls Series.² As Dr Oschinsky points out, this was probably written as a general treatise, not necessarily at Gloucester, as there is another copy in a manuscript from Luffield Priory,³ and yet a third manuscript, of uncertain origin, includes passages from the text translated into French.⁴ The text is a very interesting one; its bureaucratic, almost military, rules for the governance of a manor are very different in tone as well as in content from the other treatises. In 1934 the late Mr R. V. Lennard called attention to the importance of the text and the need for a critical edition.⁵ It is difficult not to regret that Dr Oschinsky's view of the purpose of the four edited texts should have prevented her from

placing these two other treatises alongside them.

Besides determining her choice of the texts to edit, Dr Oschinsky's view of the purpose of the treatises has governed her treatment of those selected. Aspects of the treatises and their history relevant neither to the establishment of the texts nor to their presumed purpose of training estate officers have been omitted. Thus there is no discussion of those points of the *Rules* dealing with the regulation of the household; indeed Dr Oschinsky almost apologizes for including them in the edited text.⁶ She alludes once or twice to the 'sermon' adapted from the opening chapters of *Walter* (i.e. omitting all the agricultural contents), but tells us no more about it, not even mentioning the curious fact that in one version it is written in rhymed couplets,⁷ and for the late medieval English translation of *Walter* we must still use Miss Lamond's edition. It is a pity that Dr Oschinsky should have limited the scope of her edition for reasons that are so open to question.

But the plan of the book has been determined also by Dr Oschinsky's view of the relationship of the four edited texts to the development of manorial accounting. The *Husbandry*, of course, is clearly and closely linked with the system of presenting and auditing manorial accounts, a system that was in general use by the time it was written at the very end of the thirteenth century. But it is argued that in the *Seneschaucy* too "special emphasis is laid on accounting responsibilities and on the importance and methods of checking the accounts of manorial offices,"⁸ and indeed that a similar emphasis on accountability to the lord is to be

alterations made for the 'didactic version' of *Walter* are very interesting, but do not amount to proof that it was originally intended for oral delivery; in one or two cases the revised version seems to use a more high-flown style than the original (as 'vos fenz facet unyr' for 'facez aunir vos fens').

¹ B. M. Egerton MS. 3724, fols. 19-20.

² *Historia et cartularium monasterii sancti Petri Gloucestriae*, ed. W. H. Hart, Rolls Series, xxxiii, 3 v., 1863-7, III, pp. 213-21.

³ Pp. 30, 256.

⁴ In Paris, Bibl. Nat., MS. Fr. 400, at the end of the conflation of *Walter* and the *Husbandry* that Dr Oschinsky describes (p. 49; L. Lacour, 'Traité d'économie rurale composé en Angleterre au treizième siècle', *Bibliothèque de l'École de Chartes*, 4e sér., II, pp. 375-7 (sections 34, 35)).

⁵ *Trans. Roy. Hist. Soc.*, 4th ser., xvii, p. 115.

⁶ P. 198.

⁷ Pp. 21-2, 36, 113. The verse version is in B.M. Egerton MS. 3724, fols. 39-40; the text in Cambridge Univ. Lib. MS. Hh. III. 11, fols. 82-3, is in prose and seems to have much less obvious connection with *Walter*.

⁸ P. 98.

found in both *Walter* and the *Rules*. Dr Oschinsky sees the development of manorial accounting in thirteenth-century England as lying at the heart of the system of demesne farming that created the need for the treatises on estate management. The existence of a well-developed royal accounting system that private estate owners could adapt to their own needs was, she suggests, an important reason why demesne farming flourished in England, and she draws a contrast with Germany, where it failed to develop despite similar economic conditions.¹ It is on this basis that she devotes a substantial part of the present book to accounting treatises and formularies.

For this we have every reason to be grateful. Dr Oschinsky has already given us some valuable work on the accounting treatises;² she now provides the fullest discussion we have yet had of this interesting and important class of text. At the same time, it is not to be compared with her work on the four edited treatises as final or definitive treatment. Almost certainly we have more to learn about the treatises on accounting. For one thing, there are more manuscripts to be discovered; the following additions to those listed in the book are probably no more than a tithe of those that have still to come to light:³

British Museum, Sloane MS. 513, fols. 3r-10v.

Specimen account of Winchester form, with interspersed rules (without heading), opening with the verses 'Quid de quo quantum . . .' (see Oschinsky, p. 241), and continuing 'Notandum quando aliquis debeat ordinare compotum alicuius manerii necesse est quod habeat rotulum redditualement in quo sunt nomina terre tenencium . . .'.⁴

Hand of late 13th cent.; the manuscript, miscellanea mostly of the 15th cent., came from Buckfast Abbey, Devon.⁴

B.M., Add. MS. 45896 (lost; but a photocopy forms MS. Facsimiles 504). Roll giving specimens of a manorial court roll (dated 1348) and an account with interspersed rules (heading missing). The rules and headings of the account, but not the contents of the paragraphs, are those of the 'Forma Compoti' (see Oschinsky, pp. 247-9). Hand of mid-14th cent.; probably compiled for use on the estates of the Harcourt family.⁵

B.M., Add. MS. 48978. Specimen accounts for a single unspecified year (probably about 1260-70), with interspersed rules, etc., for all manorial officers and obedientiaries of Beaulieu Abbey, Hampshire; Bodleian Library, MS. Barlow 49, fols. 58-114, (see Oschinsky, p. 254) is largely a copy of the sections of this text relating to Faringdon. Hand of mid- or late 13th cent.⁶

Bodleian Library, MS. Oseney Roll 2. Roll giving specimens of manorial court rolls (of which one is dated 1333) and an account (imperfect: latter part of stock account only) endorsed with a single rule. The account is one of the 'Forma Compoti' group (see Oschinsky, pp. 247-9). Hand of mid-14th cent.; from the archives of Oseney Abbey, Oxfordshire.

Muniments of King's College, Cambridge: Ministers' accounts before the time of the College, Ogbourn 17 Edward II. Specimen account roll, without rules, dated 1322-3. The account is one of the 'Forma Compoti' group (see Oschinsky, pp. 247-9). Hand of early to mid-14th cent.; from the archives of the English estates of Bec Abbey.⁷

¹ Pp. 72-3, 213-14.

² D. Oschinsky, 'Medieval Treatises on Estate Accounting', *Econ. Hist. Rev.*, 1st ser., xvii, 1947, pp. 52-61; 'Notes on the editing and interpretation of Estate Accounts', *Archives*, ix, 1970, pp. 84-9, 142-52.

³ Besides these additions to the list of surviving manuscripts, one item can be added to the note of those now lost (Oschinsky, p. 10, n.2): Royal MS. 11 A. XVIII, which contained a 'Formula Computus Servientis in Manerio pro A.D. 1377'. This manuscript was probably in existence in 1698, when it was mentioned in Bernard's *Catalogi manuscriptorum Angliae*, but by 1734 it had disappeared (G. F. Warner and J. P. Gilson, *Catalogue of western manuscripts in the Old Royal and King's Collections*, 4v., 1921, I, p. 343).

⁴ N. R. Ker, *Medieval libraries of Great Britain*, 2nd edn., 1964, p. 14.

⁵ Described in the British Museum's *Catalogue of Additions to the Manuscripts*, 1936-45, 2v., 1970, I.

⁶ I am grateful to Mr M. A. F. Borrie for helpful discussion of this manuscript.

⁷ It is interesting that here and in the previous item we see the specimen account for a lay-owned manor being used on ecclesiastical estates. The Bec version shows no obvious adaptation, retaining even the heading

Muniments of the Dean and Chapter of Canterbury: Rural Economy 65. A single membrane from a roll probably of three membranes, giving a specimen account, without rules, in somewhat disarranged order, with specimen deeds on the dorse. The account seems unrelated to other specimen accounts known. Hand of late 13th or early 14th cent.

The last three items are significant as each occurs in a collection of actual manorial rolls, its status as a specimen unrecognized; many others must still be lurking among the thousands of surviving manorial accounts of the thirteenth, fourteenth, and fifteenth centuries. The discovery of further texts and, even more perhaps, detailed study of the forms of actual accounts in relation to the specimen texts have almost certainly much to tell us about the spread of written accounts and accounting techniques in general, as well as about wider questions of estate organization. Further work in collating the various specimen accounts may throw light on their provenance and, in turn, on the training of clerks; those of the 'Forma Compoti' group are particularly promising here as some have wildly corrupt texts suggesting that they were copied and re-copied many times.¹ Here Dr Oschinsky's work opens the way to further research. The chapter on the accounting treatises is very far from being an unimportant part of her book.

At the same time, we may still question the reasoning that led to its inclusion in a work on agricultural treatises. Apart from the *Husbandry* the edited treatises say nothing of the techniques of manorial accountancy. The *Seneschaucy* (c. 81) refers once, almost in passing, to account rolls, as do the *Rules* (vii), while *Walter* does not mention them at all. The 'Expense Domini et Domine'; the cash account is missing from the Oseney version. Dr Oschinsky's insistence on the distinction between monastic and other estates in auditing and accounting techniques (as on pp. 212-13) is interesting, and it is to be hoped that she may develop it further; it is not immediately apparent from the manorial accounts that survive from both types of estate.

¹ Cf. p. 176, n. 4

² Pp. 3-4, 64, 233. Dr Oschinsky's contention (p. 4) that on monastic estates accounting developed late, and then mostly on large estates, is hardly borne out by surviving accounts: I know of no small lay estates to be compared with Little Dunmow Priory, Essex, or Southwick Priory, Hants. (to name only two) from which written accounts survive from before 1250. But I would not disagree with her general argument that manorial accounting developed primarily on very large estates.

³ I would agree with Dr J. Z. Titow (*English Rural Society, 1200-1350*, 1969, pp. 43-4) in associating the growth of demesne farming with the rise in prices of the late twelfth and early thirteenth centuries.

chronology of the widespread adoption of demesne farming is one of the most important outstanding questions in medieval English history, a question with far-reaching implications to which we urgently need an answer. In the present state of our knowledge it cannot be assumed that the spread of demesne farming went hand-in-hand with the adoption of written accounts. Manorial accounts, as Dr Oschinsky points out, are known from few estates, and those mostly very large ones, before the second half of the thirteenth century;² the references to them in the *Rules* and the *Seneschaucy* are not surprising, for both these texts were probably written for very large estates indeed. But it is not improbable that the leasing of estates gave way to the general adoption of demesne farming in the twenty or thirty years after 1200.³ Of course demesne farming implied some form of account-keeping and audit: the lord of the manor and his reeve or bailiff would have to know the state of account between them, how much money was owing from one to another at any particular time. But this need not imply the compilation of written accounts. There is no reason why proceedings at audit should not have been conducted entirely by verbal explanation aided by tallies and counters; indeed, this would seem the obvious and natural method. It was only in the reign of Edward I that the sophisticated techniques of written accounts became general, a process in which the accounting treatises and specimen texts clearly played an important part. But this had no necessary connection with the good husbandry, the close watch on reeve and *famuli*, the eye for profit, that were necessary to efficient demesne farming; there is no essential link between the treatises on husbandry, written for estate owners and their stewards, and the

treatises on accounting, written for the clerks who drew up the manorial accounts.

Whether or not we agree with all Dr Oschinsky's conclusions, it cannot be questioned that she has given us a most important and valuable book. In some ways it is not easy to use, as information on a particular topic is apt to be scattered in several places. It will be a great pity if future students of medieval agriculture allow

themselves to be daunted by this: the book is learned and thorough, a mine of erudite information and of interesting, stimulating ideas, and it will be the starting-point for researches in this field for many years to come. We may be certain that forty years hence we or our successors will have no reason to meet for a discussion 'On the need for a new edition of Walter of Henley'.

APPENDIX

Questioned Readings and Translations [Godefroy: F. Godefroy, *Dictionnaire de l'ancienne langue française* (10v., 1880-1902)]

Seneschaucy

- c. 18. par la perche mesure: by the measured perch. A preferable translation might be 'measured by the perch'.
- cc. 19, 48. custumers, custumeres, custumes: customary tenants. As they are differentiated from the boon-workers, who were themselves customary tenants, 'customary workers' (i.e. customary tenants doing their week-work) might be a better translation.
- c. 21. vyleyn aleger: remove villeins from the lord's jurisdiction. Perhaps, more precisely, 'manumit villeins'.
- cc. 26, 36, 52, 56. The translation does not follow the author's distinction between *affres*, 'plough-horses', and *avers*, 'cattle', especially 'draught-cattle' (the usage differs from that of the glossarial note cited on p. 27, n.1, where *averium* is applied to any farm animal). In c. 31 'affres' is almost certainly a scribal slip for 'avers', which occurs in the same context in c. 57.
- cc. 27, 62. mors, morz: killed. Probably 'bitten' (Godefroy, s.v. *mors* (1)).
- c. 38. lez crappes: the chaff. Probably 'the sweepings of straw' (cf. Godefroy, s.v. *crape*); the chaff would be 'lez remesilles de ventur' that are mentioned next.
- c. 38. ventresse: winnowers. Strictly, 'winnowing-women'; winnowing was, of course, normally women's work.
- c. 38. huise: boots. Thus Godefroy, s.v. *heuse* (1); but the word is a cognate of the English *hose*, i.e. stockings or leggings, and this fits the context better. The author occasionally uses English words, as 'croddes' in c. 43.
- cc. 39, 74. tascurs: stackers. Almost certainly 'threshers', and probably 'hired threshers' (corresponding to the Latin *tascatores*); the implied contrast with *baturs*, the threshers in general, is significant in view of variation between them in records of heaping measures (cf. Oschinsky, pp. 170-1, and p. 171, n. 2 above). But in some areas *tasker*, in English, seems to have been synonymous with *thresher* from the 14th century to the 19th (B. Sundby, *Studies in the Middle English dialect material of Worcestershire records* (1963), pp. 235-6; *The Countryman*, lxxiii, no.1 (Autumn 1969), p. 63; *English dialect dictionary*, ed. J. Wright (6v., 1898-1905), s.v. *task* (3)).
- c. 41. forage: hay. More likely straw used as fodder (presumably mostly oats straw), in contrast to *litere*, the straw that could be used only as litter.
- c. 43. de plaider nul play: to begin an action at law. But 'to hear a plea' (cf. the use of *pleyder* in c. 21) fits the context better.
- cc. 53, 54. The translation does not bring out the distinction between the *tenurs dez charues*, the men who hold and guide the ploughs (Latin *tentores*, etc.), and the *charuurs* the men who drive on the oxen when ploughing (Latin *fugatores*, etc.); the description of their duties shows that these are the meanings intended.
- c. 61. lez hetches e lez thetches reparayller e

fere: repair and do hedging, fences and hurdles. 'thetches' is obscure, but it can equally be read as 'checches' on the manuscript (B.M. Add. MS. 32085, fol. 137), and it is tempting to see it as a scribal error for 'cresches' (cf. 'cresches' in *Walter*, c. 103); in this case the meaning would be 'make and repair the hay-racks and mangers', which fits the context admirably. Alternatively *thetch* might be taken as an English word, in which case the phrase might mean 'make and repair the doors and thatched roofs'.

- c. 71. e fere lez amendes: assess the fines. Simply 'make good their loss' would fit the context better.

Walter

- c. 47. estreit: narrow (Lambarde's translation). Dr Oschinsky suggests (pp. 165, 321 n.) that this should be 'straight', but this is a scarcely admissible translation of *estreit*, and 'narrow' makes good sense: the furrow between the selions should be as narrow as possible (to gain land and save wasted seed) and to reduce its width the small hillock of soil that runs down its centre (since it was formed by two separate traverses of the plough in opposite directions) should be turned over to one side with spades after the plough has passed.
- c. 55. gerner: barn. Correctly, 'garner' (as in the translation of the *Seneschaucy*, cc. 39, 40).
- c. 64. e pus estramer sure: and after cast upon it. I.e. spread straw on it (Godefroy, s.v. *estramer*).
- c. 65. en wasseaus: in muckhyles. Correctly, 'in wet places' (as on p. 177, and in the translation to the *Seneschaucy*, c. 23; Godefroy, s.v. *gacel*).
- c. 66. sans feyntyse: without loytering. Better perhaps, 'without deceit'.
- c. 106. ii des meudres: two of the lesser (amended by Dr Oschinsky from Lambarde's 'two of the greatest'). It is difficult to accept this amendment on which much of the discussion on pp. 185, 382, is based: *meudre* is a normal comparative of *bon* (Godefroy, s.v. *meillor*), and though a few manuscripts of *Walter* give instead some form of *menor* (e.g. B.M. Lansdowne MS.

1176, fol. 136v, clearly reads 'meindr's') these are not the best texts, nor does this make such good sense. The translation should almost certainly be 'two of the best'.

Rules

- i. vos foreyne terres: those of your lands which are not part of your demesne manors. 'those of your lands which are not part of your manorial demesnes' might be a clearer interpretation, for the contents of rules i and ii suggest that it is meant to include tenants' lands on all manors, even those in demesne; rule ii envisages a further survey of the demesne manors, but this time restricted to the lands of the manorial demesnes.

xviii. aline: soul. Probably 'alme'; the manuscript (B.M. Harley MS. 1005, fol. 53) admits either reading.

Husbandry

- c. 9. aioynz: mated. Alternatively, 'added to the older stock' (Godefroy, s.v. *ajoinde*).
- c. 12. veux: aged cattle. Probably 'calves'.
- c. 19. dedenz la cort: on the manor. Perhaps 'in the farmyard', the reference being to all the poultry and smaller livestock that would normally be kept in or around the farm buildings.
- c. 37. des acres de rente: acres put out to rent. Probably 'increases of rent' (Godefroy, s.v. *acrois*).
- c. 39. clonnes: nails. Probably 'clouues', meaning either nails or cloves; the manuscript (Bodl. MS. Ashmole 1524, fol. 25) admits either reading, and both interpretations fit the context.
- c. 51. chevestres: harnesses. Or, more specifically, 'halters' (Latin *capistrum*).
- c. 58. espesement: sparsely. Literally, 'thickly' (Godefroy, s.v. *espesement* (2)), but in the context this does not affect the sense.

Appendix I

- p. 459. carta forinseca (*bis*; and quoted thus on p. 236). Correctly 'carca forinseca', i.e. forinsec charge; the manuscript admits either reading, but the latter makes better sense.
- p. 459. Finito compotus. Correctly 'Finito

compoto': the manuscript reads 'Finito compot'.

Appendix III

p. 463. titulus. Or, more likely, 'tunc': the manuscript reads 't'c' or 't't'.

p. 463. The table at the end of Appendix III is an editorial illustration, not part of the text.

Appendix IX

p. 476. caefe. Probably 'aese', though the manuscript is not very clear.

GENESIS OF BRITISH AGRICULTURAL HISTORY SOCIETY

Continued from page 169

circulated by Mr Trow-Smith. At this meeting ninety people were present, and a large number of letters from well-wishers was received. Sir James Scott Watson took the Chair and outlined the need for such a society. I explained what had so far happened, and moved that such a society be formed. Naturally different views about the Society and its objectives were expressed during the discussion, but the faint hearts about its future were reassured by a stimulating address by Professor Slicher van Bath. Mr (now Professor) W. E. Minchinton seconded my proposal, and the motion was put to the vote, which was unanimous in favour.

The Chairman proposed that a formal committee be elected. Mr Trow-Smith proposed that the first meeting of the Society should be held at Reading University, and Mr John Higgs agreed to this. A committee was elected. Since Mr Higgs was the secretary, it was arranged that the address of the Society should be the Museum of English Rural Life, 7 Shinfield Road, Reading, Berks. Sir James Scott Watson remained chairman, and Professor Edgar Thomas, treasurer. Other com-

mittee members were: Mr Frank Atkinson, Mr G. E. Fussell, Mr Alexander Hay, Mr W. E. Minchinton, Mr Francis Payne, Mr R. Trow-Smith. The Association of Agriculture presented a cheque for £15 15s. to assist with the expenses of establishing the Society.

After a good deal of work the Inaugural Meeting of the British Agricultural History Society was held at Reading University on Monday, 13 April 1953, with Sir James Scott Watson as the first speaker on 'The scope of agricultural history'. After lunch an address of welcome was given by the Vice-Chancellor of the University, Mr J. F. Wolfenden, C.B.E., and a paper on 'The Manor in English History' was read by Sir Frank Stenton. I circulated a press notice about the meeting, which over 100 people attended, and this was published in a good many journals and magazines whose readers were likely to be interested. With this Conference the Society may be said to have been launched upon what has fortunately proved to be a successful career. H. P. R. Finberg agreed in the following month to become editor of the Society's Review.

Book Reviews

A. R. H. BAKER, J. D. HAMSHIRE, and JOHN LANGTON (eds.) *Geographical Interpretations of Historical Sources*. David and Charles, 1970. 458 pp. £4.20.

J. T. COPPOCK, *An Agricultural Geography of Great Britain*. Bell, 1971. xiv + 345 pp. £2.75.

The volume of essays edited by Dr Baker and others is most welcome. There are twenty-one essays culled from a wide range of journals. Historical geographers tend to publish articles rather than books—like most of us perhaps—but since they have no journal of their own their work tends to be scattered and often rather inaccessible. The essays brought together here are not, however, a random collection nor are they necessarily representative of the subject in general. They are organized around the central theme of source materials and their interpretation. They illustrate a very wide range of historical sources and an equally wide range of problems, and the varied methods employed in tackling them. We have first an excellent critical introduction by the three editors with a useful list of references mostly to very recent work.

Of the twenty-one essays no fewer than fourteen are upon agrarian subjects so that the book is good value for readers of this REVIEW. The agrarian essays range in time from Darby's classic essay on Domesday Woodland published twenty or so years ago to Coppock's 'Agricultural Changes in the Chilterns, 1875-1900', first published in this REVIEW some ten years ago. Several of the essays have a supplementary note bringing the subject up to date where necessary. The medieval period is represented by four essays ranging around such major sources as Domesday Book, the Hundred Rolls, the Inquisitiones Nonarum, and the tax assessments of the early fourteenth century. In addition Frank Emery's paper on Moated Settlements is of course medieval in scope, and is based largely upon the interpretation of the Ordnance map and of aerial photographs. The seminal period of the sixteenth and seventeenth centuries is represented by two local studies,

three if we count Wrigley's Family Limitation in Pre-Industrial England, which is concerned with a large and fertile rural parish in east Devon. The 'agricultural revolution', if one may still use the term, is well represented also. Altogether this is a valuable book to possess, not only because of the information it contains but even more so for the impetus it must surely give to similar studies in other parts of Britain. It succeeds well in its stated objective.

Professor Coppock's book deals exclusively with the agricultural geography of our own times, though it harks back in places to the year 1867 in order to demonstrate the incidence of change over the past hundred years. It covers the whole picture of modern farming, beginning with a discussion of such general factors as climate, soils, size of land-holdings, labour supply, markets, machinery, and land use; and then proceeds to a geographical analysis of the major types of farming—dairying, beef cattle, sheep, pigs, poultry, cropping, and horticulture. It is an excellent survey of the pattern of modern farming, as up to date as it can be, crammed with useful statistics on every conceivable aspect of farming and yet readable throughout. Professor Coppock gives us a plentiful supply of maps, but since most of them are printed four to a page they are occasionally difficult to read. An example of this is the map on p. 317 which tries to show types of farming "by number of mandays" in 1965 over the whole of Britain, or one of the maps in Fig. 2 showing Day-degrees Fahrenheit, also too full of detail for this tiny scale. On the whole, though, the maps come off despite their limitations of size, and are a valuable feature of the book. This is a first-class survey of the whole subject, both for the specialist and the intelligent general reader.

W. G. HOSKINS

A. N. WEBB (ed.), *An Edition of the Cartulary of Burscough Priory*, Chetham Society Publications, 3rd ser., XVIII, 1970, vii+297 pp. £4 to non-members.

Lancashire is one of those counties of England for which there is little evidence for its econo-

mic and social life during the early Middle Ages. The Domesday Book account is sparse and there are fewer records from this part of the county than from most other places. For this reason, this edition of the Cartulary of Burscough Priory is welcome. It shows a late twelfth-century Augustinian priory building up its estates, mainly in the early thirteenth century, in the immediate neighbourhood of the convent; the few outlying estates were regularly leased (sometimes on a hereditary basis), reserving to the canons a right of accommodation, but the main estates of the priory lay no more than seven or so miles away. In the nature of the records, there are few signs here of how the estates were managed or of the type of farming employed, but frequent references to wood, marsh, and rough grazing clearly reveal the continuing process of colonization in an area regarded generally as very backward during the first medieval centuries. There are many references to mills, of wind, water, and horse variety.

The main value of this book must be local rather than general. Detailed boundaries (marked by crosses) reveal much of topographical interest, and the growth of Ormskirk as a small medieval town is very clear. The only reference outside the immediate area is to the church of Ratcliffe on Soar (Notts.). Each charter is transcribed in full, preceded by a brief note of its content and followed by notes on persons mentioned in it. Almost all the texts are Latin, a few late medieval English ones appearing at the end of the book. Appendices of further charters and pedigrees, a map and two full indexes complete a careful work of scholarship.

ALAN ROGERS

W. HARWOOD LONG, *A Survey of the Agriculture of Yorkshire*. County Agricultural Surveys, no. 6. Royal Agricultural Society of England, 1969. x + 256 pp., maps, illus. £1.50.

There can be very few English counties with such a varied farming pattern as Yorkshire. Moreover, as Mr Harwood Long shows, intriguing local and regional differences are nothing new. They are older by far than the twentieth

century, which provides the main terms of reference for this study, older than William Marshall's "island in miniature" of the 1780's and older too, one suspects, than the probate inventories of the late seventeenth century which yield some of the author's earliest detailed information.

A Survey of the Agriculture of Yorkshire, however, in common with its predecessors in the same series, is concerned less with distant antecedents than with the situation as it existed at about the time of writing. The result is a volume which, whilst recognizing the contribution of the past, and more particularly the recent past, to the shaping of the present structure, nevertheless has for its main theme the state of Yorkshire agriculture in the early 1960's.

The first chapter, which sets the scene by discussing the county's agriculture in a national context, is followed by a brief account of physical features. This is succeeded in turn by a substantial chapter on the farming districts of Yorkshire. Some readers may find this the most interesting part of the book, especially if used in association with chapter 7, which describes farm enterprises during the 1960's. Here, clearly and concisely, are portrayed those similarities and differences, between arable husbandry on the Wolds and in the Vale of York and between farming practice in the western Dales and the Moorlands of the north-east for example, which are fundamental to an understanding of the agricultural scene. The remainder of the book deals systematically with livestock husbandry, crops, and grass and such topics as marketing, land ownership, and agricultural education.

The text is related throughout to a statistical appendix of some forty pages and, more generally, to a number of maps. Whilst it is good to have the maps (not all the Royal Agricultural Society's authors are as helpful as Mr Harwood Long in this respect), their potential is only partly realized in this volume. And surely it would be possible for the Society to insist that all photographs included in their *Surveys* should carry both a date and a precise indication of where they were taken? Future historians may regret not being told when the horse-drawn sledges in Wharfedale shown opposite

p. 54 were photographed, or the precise whereabouts of the field patterns illustrated on the following page.

These criticisms apart, this is an admirable book, written with a light touch (the bulls of Whenby Lodge on pp. 83-4 should not be missed), and at its published price of £1.50 exceptionally good value.

A. HARRIS

JOHN SHEAIL, *Rabbits and their History*. David & Charles, 1971. 226 pp., illus. £2.75.

Surprisingly little attention has been devoted to the detailed history of the rabbit in Britain although, as Miss Elspeth Veale has shown, its story is a long and fascinating one. Dr Sheail, a geographer attached to the Nature Conservancy, has now written a valuable and attractive monograph on the subject.

The agricultural historian will find much of interest in this book, from the account of the warren as a method of land management to the sections which deal with the habitat and control of the rabbit. We are told about the geographical distribution of the warren, what it looked like, how it was organized, and, more briefly, how it came into prominence and at last disappeared. There are references to the rabbit as a sporting animal and farm pest, to traffic in skins and fur, and to myxomatosis. The discussion, which covers broadly the period between 1500 and the 1950's, is highly readable.

A pioneering work such as this perhaps inevitably prompts questions. Until more is known about the comparative costs and profits of warrening at different periods, the rise and decline of the warren itself must necessarily demand further attention. And if, as Dr Sheail says, some warrens "were found on good farmland," one wonders what local circumstances conspired to tip the balance of advantages in favour of the rabbit and against some other form of land use. Perhaps, as Dr Sheail himself hints, the warren can be understood fully only in the context of contemporary farming regions and practice. Dr Sheail's observation that the railways modified both the distribution of warrens and the arrangements for marketing their produce raises interesting problems. So too does that extraordinary phenomenon the

game warren, to which the author devotes a section. Its geographical distribution, especially when compared with that of an earlier generation of warrens, might prove enlightening. Again, the impact of the rabbit on its surroundings, here vividly portrayed, has implications for the student of crop yields and liveweight gain in areas where the rabbit was once numerous.

This is an engaging book. It is greatly to be hoped that it will attract historians, geographers, and others to their nearest record office, there to unearth and pursue the rabbit further.

A. HARRIS

Mary Wedlake's *Priced List of Modern Farm Implements*. Reprinted by the Museum of English Rural Life. Univ. of Reading, 1970. 54 pp. 20p.

The subjection of Victorian women has become a notoriously untrue assumption, illustrated in many outstanding examples. The reprinting of Mary Wedlake's Priced List of 1850, by the Museum of English Rural Life, supplies one more example of the highly self-reliant women of the Victorian age. She took up the business, which had been established for forty years, when her husband died, and apparently ran it with some success. The List describes and offers a great variety of implements, tools, etc., and is an excellent guide to the kind of things the farmer could then buy. Mrs Wedlake was strongly supported by members of the aristocracy; the list she supplies of these people is long and impressive, and it must have been by the influence of some of them that her List was distributed with one number of the *Journal of the Royal Agricultural Society*.

In addition to producing farm implements, etc., Mrs Wedlake was concerned in the then current railway boom. She also aimed at the business to be got by supplying intending emigrants with the equipment they would require, providing a list, not uninformative, of what was necessary "for the cultivation of fifty acres and upwards." Something of a curiosity, this List is nevertheless a quite valuable historical document, and was well worth reprinting.

G. E. FUSSELL

E. J. T. COLLINS. *Sickle to Combine: A Review of Harvest Techniques from 1800 to the Present Day*. Univ. of Reading, Museum of English Rural Life, 1970. 48 pp. 100 illus. 65p.

Most modern minds when considering the increased work that can today be done by one man as compared with that he could do in the recent past think of the mechanical aids engineering has provided for his use. This is no less true of farming than of any other industry. It has remained for Dr Collins to give another slant to the subject. In this piece of research he has shown that before, or perhaps at the same time as, he turned to the machine, the farmer sought to improve the daily quantity of work done by each of his men by introducing improved hand tools in gathering the harvest, i.e., what was called the bagging hook. This was a much heavier and more cumbersome type of sickle, a tool few men would care to use for the whole of an eight-hour day, but which was probably used for longer hours by our indomitable ancestors. Dr Collins argues that hand tools continued to be used for harvest work side by side with the machines which slowly became popular after the 1851 Crystal Palace Exhibition. He supports this contention by an estimate that perhaps 25 per cent of British corn was cut by machine in 1871, 80 per cent in 1900 and so on.

After being cut, bound, and shocked the corn harvest was formerly ricked, threshed by hand, winnowed by using a winnowing basket, and then sacked, these processes being familiar to all. When the traction engine came into use, steam power drove the threshing machine, but it was not until the oil-fuelled tractor was invented that the horse was superseded as power unit for the reaper. Today all these processes are obsolete, the whole job being done by the combine supported by a drying plant. This story is told in much detail by Dr Collins, with a wealth of illustrations. He has performed the seemingly impossible task of discovering some new, and incidentally quite fascinating, information about the development of harvest technique in Britain during the nineteenth century.

G. E. FUSSELL

D. J. MALE, *Russian Peasant Organization before Collectivization; a Study of Commune and Gathering, 1925-1930*, Soviet and East European Studies Monograph Series, C.U.P., 1971. viii + 253 pp. £4.

In the period between the Emancipation of the serfs in 1861 and the revolution of 1917, the peasant commune in Russia had a dual function. Not only was it the organ of village self-government, responsible for many aspects of local administration, including the regulation of agriculture and land-tenure; it was also the lowest unit of the central government system, and the village elder—the elected executive officer of the commune gathering—had to perform specified fiscal and judicial duties on behalf of the state bureaucracy. The nature of the commune as an economic, social, and political institution was the subject of much controversy. Valued by the government as a conservative bulwark of peasant traditionalism, idealized by the Populists as a rudimentary form of agrarian socialism, and scorned by the Marxists as a symbol of Russia's backwardness, the commune came into its own in the revolutions of 1905 and 1917 as the agent of peasant seizure and redistribution of the land of the large estates. The lessons of 1905 caused the government to reassess the role of the commune: the Stolypin reforms sought to encourage peasant landholding on an individual rather than a communal basis, but little progress was made in this direction before 1917.

Donald Male's book examines the problem posed for the Soviet government by the vitality of the commune after 1917, with particular emphasis on the background to the ultimate solution of that problem, the mass collectivization drive of 1929-30. In law, the functions of the commune were clearly distinct from those of the rural soviet, the lowest unit of the new state administration. The commune was to restrict itself to matters of agricultural organization, whereas the rural soviet was to take over many of the tasks of local administration which had been performed by the commune before the revolution. In practice, however, there was considerable overlap between the functions of the commune and the rural soviet, and it was usually the commune which proved to be the

dominant organization—a situation which hardly commended itself to the Soviet government as it endeavoured to secure an adequate agricultural base for its ambitious programme of industrialization. The Bolsheviks were deeply suspicious of the commune as an institution which represented traditional peasant resistance to agrarian reform and provided a platform for Stalin's political bogey-man, the *kulak* or rich peasant. In the end, after a period of considerable vacillation, it was decided that neither the commune nor the rural soviet was capable of conducting the transition to voluntary collectivization with the necessary speed, and collectivization was forced through by detachments of party workers from the towns.

Mr Male provides a detailed, painstaking, and, on the whole, lucid analysis of the extremely complex and confused situation which existed in the Russian countryside in the 1920's. Much relevant material is made available for the first time in English: the text is illustrated with numerous statistical tables, and there are helpful maps and diagrams. In contrast to the Soviet sources with which he has had to contend, the author is meticulous in defining and explaining his terminology, and the Appendices include a useful English-Russian and Russian-English glossary. This monograph represents a serious and important contribution to our knowledge of the relationship between the Soviet state and the Russian peasantry on the eve of collectivization.

MAUREEN PERRIE

JOHN BURKE, *Suffolk*. Batsford, 1971. 200 pp. £1.80.

This is a book for the glove compartment of a subtopian motorist, his windows closed against the smell of "muck-spreading, ditch weeds and burning rubbish." He must be able to enjoy sentences like "Leafless branches are sketched in filigree on the sullen yet luminous sky, each thread of twig faithfully reflected in the water." The writer has clearly read every anecdote about the past of the county which has appeared in any guide book. Whether, in rewriting them, he has always been faithful to his sources, one would need to be omniscient to judge. His handling of some small details on

my own doorstep makes me doubt. The stone coffins of Icklingham were never "forgotten;" there is no village there called Briswell; the Elveden memorial which he calls "a tall Corinthian column" is described by Pevsner as a "tall composite column with urn." Abbot Samson of Bury would hardly have been pleased to read that the Bishop of Ely was his "superior."

The publisher must be convinced, and probably correctly, that many of the motorists who crowd our roads look upon our county only as a museum of ancient monuments with little significance for today. There is a plethora of anecdotes about men of the past, the few names dropped of living persons are mostly those of literary or artistic interest. However, amongst the names of the dead, those of two of our very famous sons, Tusser and Arthur Young, do not appear in the lengthy index. They were the advanced agriculturalists of their time, and the author does not expect his readers to be interested in advanced agriculture, ancient or modern. The motorist is told that along the road "farmland continues," but nothing is said of that farmland, although it is our advanced agriculture which is the main justification for the very existence of our Suffolk. The thirty-nine artistic photographs show only nine living animals, two peasants over sixty, four under ten, two holiday-makers and one dog. The book has been given a misleading title.

J. T. MUNDAY

JAMES A. BATEMAN, *Animal Traps and Trapping*. David & Charles, 1971. 286 pp. illus. £3.50.

Agricultural historians have given a great deal of attention to the plough, horse harness, the scythe, sickle, and mower. They have paid less attention to the animal trap, although it was also an important piece of equipment in rural communities in the past. Traps were used to catch mammals, birds, fish, and insects for food, and to protect crops growing in the fields or stored in barns. Sportsmen also set traps for catching the natural predators of their game birds and animals. This book is essentially an inventory of these devices and gives details of their manufacture in the world today. There is

information on bear traps, Eskimo squirrel traps, a bug trap from Poona, a giraffe wheel trap, and the German self-setting mouse trap. The book is extremely well illustrated and the descriptions are lucid. The author tries to cover as much ground as possible: there are chapters on the history of trapping and legislation, "the traps of nature," and the ethics of trapping. This is a laudable objective in a book selling at £3.50, but unfortunately these chapters are too superficial. For example, less than one page is devoted to such topics as trapping in Siberia or the medieval game laws: the details are so scanty they will hardly serve as an entrée for further study. Perhaps the book would have been more helpful to the agricultural historian if the author had concentrated on the British Isles, Europe, or the Americas: he would then have been able to examine these themes in greater depth.

JOHN SHEAIL

J. J. BAGLEY (ed.), *The Great Diurnal of Nicholas Blundell of Little Crosby, Lancashire. Volume 2. 1712-1719*. Transcribed and annotated by F. Tyrer. Record Society of Lancashire and Cheshire, 1970. xiv + 328 pp. 17 plates, 2 figures. £3.15 to non-members.

The publication of the second volume of Nicholas Blundell's diary carries the text down to the end of 1719. Like the first instalment, which covered the years 1702-11, the present volume is well produced and very thoroughly indexed—an absolute necessity in the case of texts such as this which are more likely to be

consulted and ransacked for information on specific points than avidly read from cover to cover.

The second volume, like its predecessor, contains a great deal which will be of particular interest to historians of agriculture and rural society in the early eighteenth century. As a source of information about farming methods and experiments, about prices, rents, wages, and labour the diary is of considerable value, as it is also for its annual reports on the weather and on the state of the different harvests. (See, for example, pp. 119-20.) Blundell was an active agriculturalist with varied interests, but the present volume may be especially useful to historians on two counts. First of all, the diary contains frequent references to the subject of land drainage—a constant problem in this low-lying south-west corner of Lancashire. (See the long entry on water-courses in the index.) Secondly, the diary is extremely informative about the practice of marling. (See, for example, pp. 21-7 and 282-3.)

South-west Lancashire, however, is not the only backcloth to the events described in this second volume of the diary. As a practising Roman Catholic, Blundell recognized that it would be expedient to go into temporary exile during the uncertain times which followed the 1715 Jacobite Rebellion. It was to Flanders that the Blundells eventually came in 1716, and the section of the diary relating to the period which they spent there is crammed with observations on all aspects of their new environment.

R. C. RICHARDSON

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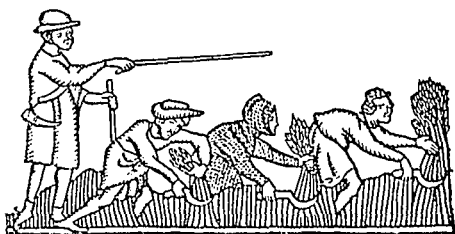
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