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*

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Field Systems in the Vale of Holmesdale
by ALAN R. H. BAKER

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The Leather Crafts in Tudor and Stuart England
by L. A. CLARKSON

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A South Yorkshire Estate in the Late Nineteenth Century
by T. W. BEASTALL

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Field Systems in the Vale of Holmesdale¹

By ALAN R. H. BAKER

THE Kentish rural landscape of the seventeenth century was basically one of small, enclosed fields, dotted with isolated farms and hamlets, interspersed with occasional nucleated villages. Nevertheless, the remnants of an open-field system of some sort were still visible. Estate maps, rentals, and surveys of the period reveal that open arable fields were largely confined to two zones, stretching east-west across the county: first, on the lower slopes of the dip-slope of the North Downs, particularly where soils were derived directly from the Upper Chalk, in east Kent and in the Hoo Peninsula; secondly, at the foot of the North Downs' escarpment, in the Vale of Holmesdale.² Estate maps depict clearly the patterns of these open fields, but for evidence concerning their origins and development it is necessary to turn to more ambiguous sources. Interpretations of this equivocal evidence have varied: H. L. Gray's explanation of Kentish open fields as products of partible inheritance has been rejected by M. D. Nightingale, who suggested that they were products of co-operative ploughing. Whereas Gray favoured partible inheritance but did not reject co-operative ploughing in explaining Kentish open fields, Nightingale favoured co-operative ploughing and rejected partible inheritance.³ Much uncertainty about Kentish field systems stems from a paucity of exhaustive studies of particular townships, especially of townships in which open fields can be detected in the seventeenth century. This present paper is intended to examine more closely than hitherto the open fields of the Kentish section of the Vale of Holmesdale. A review of published accounts of Holmesdale's field arrangements is followed by an account of the field system of a single manor, Wrotham. These descriptions are then briefly related to studies of field systems in the Surrey section of the Vale.

¹ I would like to acknowledge helpful criticisms in the early stages of the preparation of this paper from Professor H. C. Darby, Mr H. C. Prince, and Dr Joan Thirsk. I owe thanks to the University of London for a grant from the Central Research Fund towards research expenses and to Mr K. Wass, of the Department of Geography, University College London, for drawing the maps.

² D. C. Coleman, 'The economy of Kent under the later Stuarts', unpublished Ph.D. thesis, University of London, 1951, pp. 18-56; M. D. Nightingale, 'Some evidence of open field agriculture in Kent', unpublished B.Litt. thesis, University of Oxford, 1952, pp. 53-63; A. R. H. Baker, 'The field systems of Kent', unpublished Ph.D. thesis, University of London, 1963, pp. 217-64.

³ H. L. Gray, *English Field Systems*, 1915, pp. 272-304 and 403-18; M. D. Nightingale, *op. cit.*, pp. 11-42.

I

Between the crests of the escarpments of the North Downs and Lower Greensand lies a Gault Clay Vale, the Vale of Holmesdale. Within it, there occurs a great variety of soils, ranging from fertile loams developed on the Lower Chalk and, to the west of Sevenoaks, on the Upper Greensand, to heavy clays on the Gault and generally poor, sandy soils on the Folkestone and Hythe Beds of the Lower Greensand.¹ The Vale is no more than 3 or 4 miles wide, from north to south, but about 60 miles long, from east to west. Its strip parishes and early settlements have often attracted comment. S. W. Woolridge and D. L. Linton suggested that the line of favourable scarp-foot soils, of springs, and of the Chalk escarpment forming a well-marked guiding feature into the heart of a forested country help to explain the importance of Holmesdale in the early settlement of south-eastern England.² Seventeenth-century estate maps show nucleated villages nestling at the foot of the Downs, as well as numerous hamlets and dispersed farms. They show, too, signs of disintegrating open-field systems: although most landholdings were enclosed, some included unenclosed parcels of land lying within enclosed fields.³ The consolidation and enclosure of these unenclosed parcels proceeded by private agreement, by exchange and purchase, rather than by Chancery Decree or Parliamentary Act.⁴ Studies of manors in the Kentish section of Holmesdale have hardly grappled with the origins, development, and utilization of these open fields, with what Gray called "the manner in which the inhabitants of a township subdivided and tilled their arable, meadow, and pasture lands."⁵ More is known, however, about the manner of tillage than about the method of subdivision.

On the manorial demesne at Westerham, T. A. M. Bishop observed a system of what he termed 'convertible husbandry'.⁶ Certain fields, after some years of continuous cultivation, were wholly abandoned for long periods; every field remained partly uncultivated many times; and every field but one

¹ A. D. Hall and E. J. Russell, *A Report on the Agriculture and Soils of Kent, Surrey, and Sussex*, 1911, pp. 94-107 and 112-24.

² S. W. Woolridge and D. L. Linton, 'The loam-terrains of south-east England and their relation to its early history', *Antiquity*, VII, 1933, pp. 297-310; 'Some aspects of the Saxon settlement in south-east England considered in relation to the geographical background', *Geography*, XX, 1935, pp. 161-75.

³ A. R. H. Baker, 'Some early Kentish estate maps and a note on their portrayal of field boundaries', *Archaeologia Cantiana*, LXXVII, 1962, pp. 177-84.

⁴ W. E. Tate, 'A Hand-list of English Enclosure Acts and Awards. Part 17. Open fields, commons, and enclosures in Kent', *Archaeologia Cantiana*, LVI, 1943, pp. 54-63.

⁵ H. L. Gray, *op. cit.*, p. 3.

⁶ T. A. M. Bishop, 'The rotation of crops at Westerham, 1297-1350', *Econ. Hist. Rev.*, IX, 1938, pp. 38-44.

remained wholly uncultivated at least once between 1297 and 1350. Bishop maintained that the cultivated lands comprised a nucleus of more or less permanent arable, amounting to about 120 acres, which he called the 'in-fields', associated with 'outfields', expanding from 400 to 600 acres, of which relatively small amounts were sporadically cultivated. While a three-course rotation was the general practice at Westerham, the system was extremely flexible and the fields seem to have been cultivated and pastured in severalty. "Irregular and heterogeneous rotations on many fields, the transference even of more or less regularly cultivated fields from one season to another, and the tendency of nearly every field to revert, at frequent intervals and for varying periods, to an uncultivated state—these practices could only have been adjusted with great difficulty, if at all, to communal methods and interests in the management of arable and pasture."¹ Irregular rotations and the sowing of demesne fields in sections, each having a different crop, have been observed by F. R. H. Du Boulay on the manor of Otford in the fourteenth and early fifteenth centuries.² Miss A. Smith, in a study of agriculture on the Kentish manors of Canterbury Cathedral Priory (1272–1379), concluded that, on eight manors in the Vale of Holmesdale, crop rotations showed characteristics similar to those observed by Bishop at Westerham: a three-course rotation on a more or less continuously cultivated 'infield', and irregular rotations on the sporadically cultivated 'outfield'.³ Individual fields were also sown in sections with different crops. The terms 'infield' and 'outfield' are possibly misleading: Bishop did not show that the continuously cultivated lands, the 'infield', formed a compact nucleus, and at Westwell, the only manor investigated closely by Miss Smith, the so-called 'infields' did not form a central core of land but were intermingled with the sporadically cultivated lands, the so-called 'outfields'. It was an infield-outfield system in terms of the rotation of crops, but not in terms of the location of fields. This rotational flexibility was observed not only on manors located on predominantly sandy soils on the Lower Greensand but also on manors located on fertile marls on the Lower Chalk; it was not a simple response to light soils.

Crop rotations on the demesnes were certainly flexible: it is impossible to discern the nature of crop rotations on the tenants' lands, partly because there is no direct evidence, and partly because it is difficult to decide how far the lands of the lord were intermingled with those of his tenants. The de-

¹ *Ibid.*, pp. 43–4.

² F. R. H. Du Boulay, 'Late-continued demesne farming at Otford', *Archaeologia Cantiana*, LXXIII, 1959, pp. 116–24.

³ A. Smith, 'A geographical study of agriculture on the Kentish manors of Canterbury Cathedral Priory, 1272–1379', unpublished M.A. thesis, University of Liverpool, 1961, pp. 32–48.

mesne at Westerham seems to have comprised units of compact fields, and the large sizes of some of the fields at Otford and at Westwell suggest that they were compact also. The tenants, however, often held land as scattered, intermixed, and unenclosed parcels. Arable fields subdivided into unenclosed parcels have been observed throughout Holmesdale, and those at Sundridge, Otford, and Kemsing have attracted comment.¹ H. W. Knocker noted open fields at Sundridge in the mid-thirteenth century, when rentals refer to small parcels of land lying within named fields. He concluded that these open fields were common fields, but produced no evidence of common rotations or of common pasturing. He did, however, produce evidence of co-operative ploughing, although he did not overtly claim that this was the origin of the unenclosed parcels.² Open fields at Otford in the early fourteenth century were similarly assumed to have been common fields by G. Ward, but he noted that these 'common fields' were all small and based on dispersed farms and hamlets, rather than large and based on Otford village.³ Similarly, Ward assumed that open fields at Kemsing were common fields, and that they were a product of co-operative ploughing, although no evidence of this or of common rotations or pasturing was produced.⁴ More recently, Du Boulay has shown that some of the unenclosed arable parcels at Otford in the early fifteenth century were produced by the leasing to tenants of small portions of demesne fields.⁵ Studies of field arrangements in the Vale of Holmesdale have relied considerably on assumptions and have paid little attention to land tenure or to the custom of gavelkind. An exception was E. Harrison's study of the manor of Ightham, based largely on fifteenth- and sixteenth-century court rolls.⁶ This revealed that, in addition to the village, the settlement pattern of the manor comprised seven hamlets and numerous dispersed farms; that the principal function of the manorial court was the recording of transferences of land, both on inheritance and as a consequence of an active market in land; and that a second major function was bringing

¹ M. D. Nightingale has accumulated considerable testimony of former open fields in Holmesdale: he found evidence of arable fields subdivided into unenclosed parcels at Aylesford, Boxley, Charing, Harrietsham, Hollingbourne, Kemsing, Sundridge, and Westwell.—*op. cit.*, pp. 50–2. He assumed that these open fields were cultivated and pastured in common, although no evidence of either practice at any of these places was cited by him.

² H. W. Knocker, 'The evolution of the Holmesdale. No. 3. The manor of Sundrish', *Archaeologia Cantiana*, XLIV, 1932, pp. 189–210.

³ G. Ward, 'A note on the yokes of Otford', *Archaeologia Cantiana*, XLII, 1930, pp. 147–56.

⁴ G. Ward, *Sevenoaks Essays*, 1931, pp. 242–4.

⁵ F. R. H. Du Boulay, *loc. cit.*, p. 121.

⁶ E. Harrison, 'The court rolls and other records of the manor of Ightham as a contribution to local history', *Archaeologia Cantiana*, XLVIII, 1936, pp. 169–218 and XLIX, 1937, pp. 1–95; 'Some records of Ightham parish', *Archaeologia Cantiana*, LIII, 1941, pp. 17–23.

tenants to task for trespass, encroachments, hedge-breaking, and neglect to repair hedges, fences, and ditches. The only attempt made by the court to organize agricultural activities on a communal basis related to common pasturing on Ightham Common. Although noting that most of the land was held in gavelkind and citing the partitioning of a holding between two sons in 1589, Harrison made no analysis of the impact of gavelkind tenure upon field and settlement patterns. In view of the importance which Gray attached to this tenure, it is surprising that few attempts have been made to assess its impact upon the landscapes of individual townships. What follows is an attempt partially to remedy this omission.

II

The archiepiscopal manor of Wrotham extended over a number of modern parishes and its exact boundaries defy definition. Nevertheless, the early nineteenth-century ecclesiastical parishes of Wrotham and Stanstead contained most, and probably all, of the manor and together comprised what may be termed the township of Wrotham.¹ The township extended for about six miles from north to south, and for two to three miles from west to east. The most fertile soils lay at the scarp-foot, in an east-west zone of chalky marl, barely half a mile wide. To the north lay thin, dry soils on the steep scarp-face and beyond them stiff, stony clays on Clay-with-flints; to the south lay tenacious, ill-drained soils on Gault Clay and beyond them varied though generally lime-deficient soils on the Lower Greensand. In terms of both relief and of soils, the central part of the township, at the scarp-foot, was more suited to cultivation than any other (Fig. 1). In 1801 a zone at the scarp-foot formed the most extensive area of cultivated land in the township: here there was little wood, whereas elsewhere numerous small woods, and in the south-east an extensive wood, interrupted the cultivated areas. A close network of roads and tracks served the many isolated farms and cottages which existed in addition to the hamlets of Stanstead and Plaxtol, and the nucleated village of Wrotham. Dispersed farms set amidst an enclosed landscape are evident in eighteenth- and early nineteenth-century estate maps.² A comparison of these maps with the tithe maps of 1842 shows that many field boundaries were being removed, to increase the sizes of individual fields, at a time when

¹ H. W. Knocker considered that the manor of Wrotham in 1086 included the modern parishes of Stanstead, Ightham, Wrotham, and Shipbourne—'The valley of Holmesdale. Its evolution and development', *Archaeologia Cantiana*, xxxi, 1915, pp. 155-77. These parishes comprised the Hundred of Wrotham—E. Hasted, *The History and Topographical Survey of the County of Kent*, vol. v, 2nd ed. 1798, p. 1.

² Kent Archives Office (hereafter K.A.O.) U55 E37, U405 P3, U82 P5, U442 P45, and U442 P68.

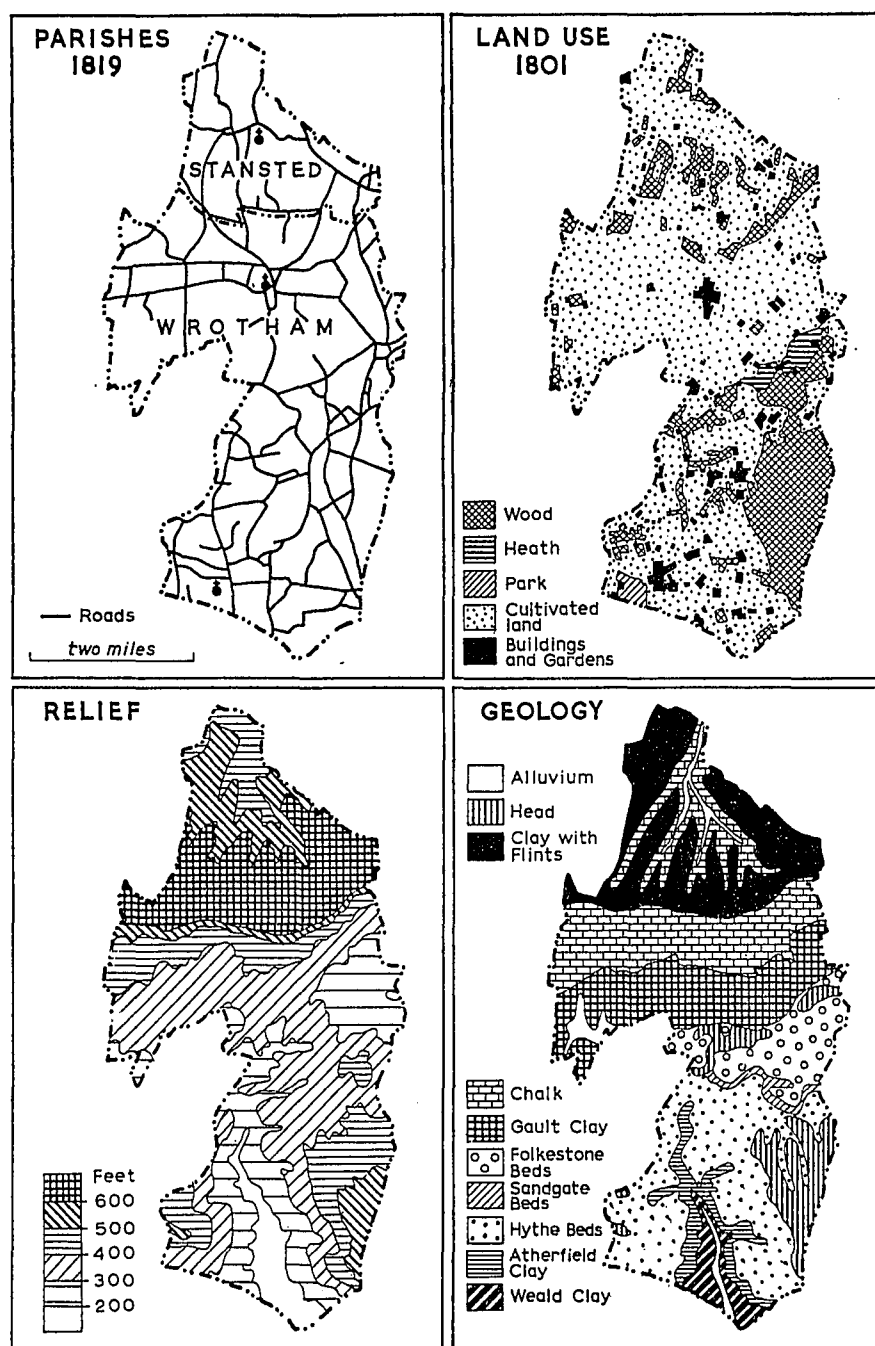


FIG. I. WROTHAM: THE SETTING.

Sources: Index Map to the Tithe Survey (1819), Sheet 6; Ordnance Survey One-inch Map (1st edn, 1801); Ordnance Survey One-inch Map (7th edn, 1959), Sheet 171; Geological Survey One-inch Map (Drift edn, 1924 and 1950), Sheets 271 and 287.

many townships in the Midlands saw an extension of the hedgerow by parliamentary enclosure (Fig. II). The tithe map portrays one arable field, of a little over 7 acres, called 'Common Field'.¹ This field was, by 1842, enclosed and in single ownership and occupation, as indeed it was by 1759.² Furthermore, the tithe map depicts a contrast of field patterns: large, rectangular fields on either side of Wrotham village, on the chalky marls, and much smaller, more irregularly shaped fields to the north and south of the village.

A map of 1620, depicting principally the manorial demesne, shows that fields to the east and west of the village were large, rectangular, and, with one exception, enclosed, whereas fields to the south-west were smaller and more irregular in shape.³ A similar contrast of field patterns was found within the two parks: fields of the eastern park, 'Wrotham Park', were large and rectangular, those of the western park, 'Ightham Park', smaller and irregular (Fig. III). Similar contrasts elsewhere have been regarded as a reflection of the age of enclosure, small, irregular fields representing an earlier period of enclosure than large, rectangular fields. The existence in 1620 at Wrotham of one large, rectangular field subdivided internally into unenclosed parcels suggests the possibility of a similar explanation here. This subdivided field, called 'Common Field', comprised 17 unenclosed parcels shared among three persons. By 1658 this field was in the hands of a single person, and by 1759 it had been converted into four enclosures, one of which was still termed 'Common Field', as it was in 1842 also.⁴ New field boundaries were erected not only within this subdivided field: the large rectangular fields of the early seventeenth century had been converted by the latter half of the next century into smaller, though still rectangular, fields (Fig. II). Certainly some of the rectangularity of the fields at Wrotham in 1800 was a consequence of the erection of field boundaries during the previous two centuries. Estate maps show that contrasting field patterns also reflected contrasting ownership of land: fields of the demesne were generally large and rectangular, and fields of the tenants generally small and irregular. The demesne lands occupied the best soils of the township, loams at the scarp-foot; the tenants' lands were situated principally on the poorer soils, and this was reflected in covenants of leases stipulating the number of cartloads of manure and lime that were to be put on the land annually.⁵

During the sixteenth century, landholdings at Wrotham were becoming concentrated into fewer hands, but the process had different consequences

¹ K.A.O. CTR 406.

² K.A.O. U681 P8.

³ K.A.O. U681 P31 and U49 P4.

⁴ K.A.O. U830 T5.

⁵ K.A.O. U522 T37 and T43. Lessees were also usually required, when the lease fell in, to surrender the lands "well and sufficiently hedged, fenced and inclosed."

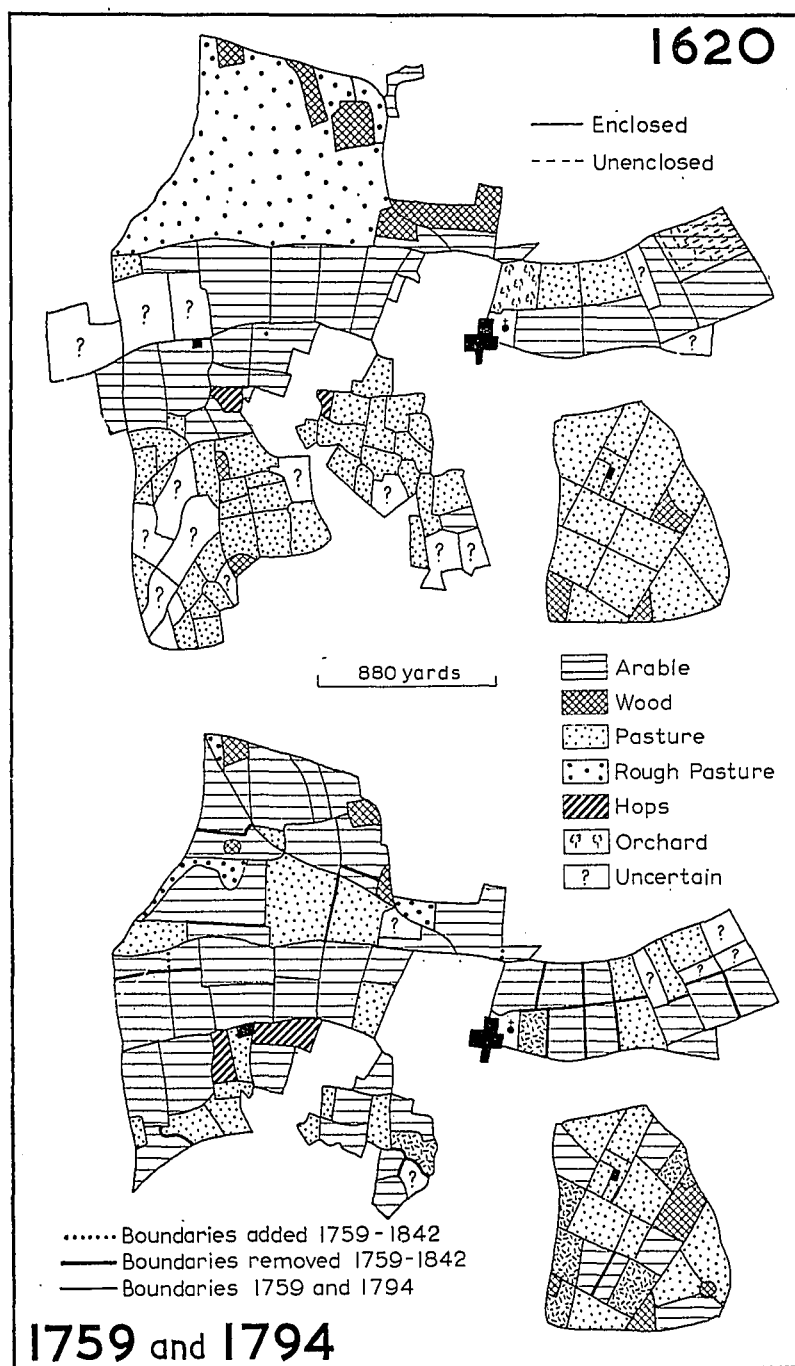


FIG. II. WROTHAM: SOME CHANGES OF FIELD BOUNDARIES AND LAND USE, 1620-1842.

Sources: K.A.O. U681 P31 and P8, U405 P3, and CTR 406B.

[illegible]

Source: K.A.O. U68I P3I.

¹ K.A.O. U83o M25. Additional copies of this survey of the manor in 1568 are: K.A.O. U55 M61/1 and M61/2.

² K.A.O. U55 M73.

Most of the demesne fields, however, were already in 1568 enclosed and held in severalty. In at least one instance a large field of 1568 had been converted into two fields by 1586: 'Eastfelde' and 'The Staple' were described in 1568 as 'one severall close of arable land', but in 1586 they were separate enclosures. New field boundaries had also been erected in East Park (or Wrotham Park), for in 1568 it was 'one severall pasture' but by 1586 it was 'one peece of land . . . having nowe therein a lodge and 15 severall closes', all of which were still pastures in 1620. The pastures of both parks were occasionally rented out during the sixteenth century, but there was no great demand for them.¹ Some enclosures had been made in West Park before 1505-6, although no rent was forthcoming from them in that year. In 1531-2, 1532-3, 1533-4, and 1539-40, a substantial income was received from the leasing of West Park but none at all from East Park. The former had been converted into fields and let at an earlier date than the latter. The small, irregular fields of West Park in 1620 were much older than the large, rectangular fields of East Park. Similarly, the fields of the tenantry had developed very differently from those of the demesne.

A view of the manor at Wrotham at the end of the fifteenth century is provided by a survey made in 1494.² There were then 151 tenants, nearly a third more than in 1538.³ Only rarely does the survey of 1494 state acreages of individual pieces of land, so that the relative size of holdings can only be compared indirectly through the total rents that each paid. The lowest rent owed from a single holding was 2d., and the highest was £4 6s. 3d. The 131 holdings (compared with 90 in 1538) were not evenly distributed between these two extremes (Table I).

TABLE I
RENTAL VALUES OF HOLDINGS

	1494 %	1538 %
5s. or less	69.5	53.9
5.1-10s.	13.7	17.9
10.1-15s.	6.1	10.1
15.1-20s.	2.3	4.6
More than 20s.	8.4	13.5

¹ K.A.O. U55 M71 and M72; Lambeth Palace Library (hereafter L.P.L.) CR 1252; British Museum (hereafter B.M.) Add. MS. 5535.

² K.A.O. U55 M59.

³ The figure for 1538 was 107.—K.A.O. U55 M60/2. In each case the figure has been calculated by counting co-heirs as two; the resulting figures are therefore minimal.

Thus there were more holdings in 1494 than in 1538, and in particular there were more holdings of the lower rental values, and, both absolutely and proportionately, holdings of middle and higher values increased in numbers between 1494 and 1538. There was considerable inequality of holding size and the inequality was increasing as the fifteenth century ended. Yet most holdings in 1494 were small: one-fifth owed a rent of 1s. or less, nearly two-fifths a rent of 2s. or less, and just over one-half a rent of 3s. or less. The median rental of a holding was 2s.-3s., compared with 3s.-4s. in 1538. Furthermore, an individual holding tended to be situated in one part of the township rather than distributed throughout it (Table II). In 1494 an individual holding was slightly more concentrated than in 1538: there were proportionately more holdings with land in only one or two boroughs, but less than half as many with land in three boroughs.¹ Towards the end of the fifteenth century, some holdings were being enlarged at the expense of others and consequently an individual owner was acquiring land with a wider distribution throughout the township.

TABLE II
LOCATION OF HOLDINGS

	1494 %	1538 %
Holdings with land in only 1 borough	74.8	73.1
„ 2 boroughs	19.9	16.8
„ 3 boroughs	3.0	7.8
„ 4 boroughs	1.5	nil
„ 5 boroughs	0.8	2.3
„ 6 boroughs	nil	nil

Nearly all of the land in 1494 was freehold, there being only 16 copyholds, mainly messuages and shops in the village of Wrotham. The survey contains no direct reference to the operation of gavelkind tenure, but it is possible to detect its influence in a few instances. Some brothers held land jointly, but patrimonial holdings were also being or had been partitioned. William Der-

¹ The Kentish rural borough or 'borgh' was a territorial tithing. C. I. Elton, *The Tenures of Kent*, 1867, pp. 153-4: "The country districts were everywhere divided into tythings, which may at first have meant the lands of ten free families, but which soon became a mere local division. . . The word *borough* (from *Borh*, a pledge) is the Kentish name for districts elsewhere called tythings." More recently, F. R. H. Du Boulay has given two definitions of *borgh*: (1) the Kentish name for tithing; (2) the sub-district of a Kentish manor, the inhabitants of which were grouped together for the maintenance of law and order.—*Medieval Bexley*, 1961, p. 48.

man, for example, held "part of one messuage, garden and croft of land called Huntys," Thomas Haych held "half a messuage, garden and piece of land lying together called Bernechert," and Richard Pickerell held "one croft of land called Goldis except one parcel of land there lying in the middle of the said croft." Such subdivided messuages and crofts seem to represent the residue of former partitionings, but it is impossible to decide from the survey when they took place. The survey uses a great variety of terms to describe holdings: apart from crofts, they could comprise 'gardens', 'meadows', 'closes', 'haughs', 'pieces' and 'parcels' of land, 'fields' and 'parcels of land lying in a certain named field'. Undoubtedly, crofts and enclosures of one sort and another dominated the landscape. Frequently, groups of various types of land are described as being under one enclosure (*subter unam clausuram*), which probably meant that they were adjacent. The heirs of John Wolverich held "one piece of land called Holeys, one croft of land called Littill Longfeld, one piece of land called Great Longefeld, nine acres of land in Halefeld, one croft of land called Ramsland and one croft called Mellcroft together lying under one enclosure." A typical median holding was that of Richard Cooke, who held in the borough of Hale for a rent of 2s. 10d. "one piece of land called Bakisland, one parcel of land and meadow called Stoke-mede and one piece of land called Taylers." The typical holding at Wrotham at the end of the fifteenth century thus comprised a messuage, an adjacent garden, and a number of small crofts and larger fields, lying often as a compact unit and never widely fragmented, and being held and cultivated in severalty.

This picture of a landscape dominated by crofts and enclosed fields must be modified in two respects. First, some crofts and fields were being enlarged: William Hubbill, for example, held "two crofts of land together called Ashfeld and Copfeld now called Tayntfeld," and others held two crofts "now made into one." The hedgerow which dominated the landscape at Wrotham in 1494 was, in places, being removed. Secondly, some holdings included unenclosed parcels of land lying within enclosed fields. In addition to subdivided crofts, some larger fields were subdivided into unenclosed parcels shared by sometimes large numbers of tenants. The vague terminology of the survey makes it difficult to ascertain the exact number of parcels and of tenants with land in any particular subdivided field, but there is no doubt that the fields were generally shared among only a few tenants, that they contained only a few parcels, and that most lay within the adjacent boroughs of Wrotham and Nepicar, at the foot of the Chalk escarpment. Thus the subdivided fields were limited both in number and in extent: their total impact upon the landscape of Wrotham in 1494 was small, but never-

theless significant, for most of them were, as a comparison with the map of 1620 shows, part of the demesne. A comparison of the subdivided fields which can be identified both in 1494 and 1538 shows a reduction in the number of tenants between those two dates in 8 of the 9 fields, and an increase in the number of tenants in only one of the 9 fields (Table III). Although in details the accuracy of these figures may be suspect, the general picture which they convey is not: between 1494 and 1538, the parcels of a subdivided field came into fewer hands, the complexity of the parcel pattern was reduced and occasionally eliminated.

TABLE III
SUBDIVIDED FIELDS AT WROTHAM

Name	Number of parcels identified	Number of tenants	
		1494	1538
Bitmontshole Feld	3	3	2
Costismeade	6	5	3
Dunstall	3	3	2
Eastfeld	2	2	3
The Farthing	2	2	1
Raungers	17	8	6
The Reed	2	2	1
Sandfeld	2	4	3
Stonyfurlong	3	2	1

The wooded appearance of the landscape created by hedged crofts and enclosures was emphasized by numerous areas, large and small, of actual woodland. Apart from the large areas of woodland called 'Le Herst' and 'Bechinwood' in the south-east, there were many smaller areas of woodland throughout the township. There was, in fact, some woodland on one-sixth of the holdings. Similarly, small pieces of common pasture were widely distributed in addition to the larger heaths called 'Le Borow' and 'Le Napse', on the Lower Greensand ridge. In two instances, heathland formed part of a landholding but more usually the heathland was common land. Fields, woods, and commons were interspersed with houses and farm-buildings (Table IV).

Little settlement had taken place in Stanstead, in the heavily wooded, Clay-with-flints country above the escarpment. Some tenants who held land in Stanstead and in that part of the borough of Wrotham which was above the escarpment (*supra montem*) in fact had dwellings below it. The borough of Roughway, in the south-eastern, most thickly wooded part of the township,

similarly had only a light scattering of dwellings. Apart from Wrotham village, small groups of messuages formed hamlets, at 'Le Bergh' in the borough of Wrotham, for example, at 'Plott' in Wingfield, and at 'Southeastrete' in Hale, and isolated farms were dispersed throughout the township.

TABLE IV
LOCATION OF MESSUAGES, 1494

<i>Borough</i>	<i>Number of messuages</i>
Wrotham	42
Wingfield	40
Hale	29
Nepicar	13
Roughway	8
Stanstead	6
	—
	138

The middle decades of the fifteenth century saw years of economic depression at Wrotham and the reeve had difficulty in finding a permanent lessee of the manorial demesne.¹ In 1453-4 the demesne was intended to be leased out, together with a few customary labour services, for an annual rent of £13 13s. 4d., but in fact only parts of the demesne were leased, to seven different people, for a total rent of £5 13s. 8d. The remaining lands, comprising about half of the demesne, lay vacant for want of a farmer. Similarly, land falling into the lord's possession by escheat or for lack of heirs was sometimes vacant for want of a new tenant and when it was rented out again, its new rent was sometimes lower than it had previously been. There was no great demand for land at Wrotham in the middle of the fifteenth century. Consequently, the demesne was not always leased in its entirety to a single lessee, but in parcels to a number of lessees. Most of the demesne with the manor house was leased, when possible, to a single tenant, but small parts were let to others. This process seems to explain the subdivided fields that existed on the demesne until the early seventeenth century.

The decades that ended the fourteenth century and began the fifteenth saw the manorial economy of Wrotham in a critical period of instability and transition. The lord of the manor was trying to find a lessee to cultivate his demesne but was having difficulty in doing so. In 1382-3 the demesne was leased to Roger Bereford for £20 annually and he had for his use all of West-park, and certain customary boon-services owed from the lord's tenants.

¹ L.P.L. CR 1240; K.A.O. U55 M71.

These services were very few and, from the point of view of the tenants, light: for example, the total ploughing services only amounted to the ploughing of 13½ acres. The farmer was also allowed all the perquisites of the manorial court.¹ It seems that the terms of the lease were more favourable to the farmer than to the lord of the manor. Nevertheless, by 1393-4 the demesne was again being farmed by the lord and his officials, as it was also in the following year.² By 1393-4 more services had been commuted than in 1382-3, and the principal source of income was rents and commuted services and customs. The second largest source was sales of corn, principally wheat. On the expenditure side, the largest item was repairs to buildings and fences. In 1394-5 the principal sources of income were the same, but purchases of livestock and wages of labourers and officials formed the two largest items of expenditure. In both years the accounts concerned with the farming of the demesne showed deficits and, although allowance must be made for agricultural products supplied to the Archbishop's household, it nevertheless seems that demesne farming was not a particularly profitable concern. Of the livestock, sheep and pigs provided the main income, from sales of fleeces and live pigs. Of the crops, wheat was the most important and a large amount was sold each year. The total sown acreage amounted to just over 150 acres: of this, just over one-third was sown with wheat, about one-sixth with barley, about one-sixth with oats, not quite one-sixth with peas, and not quite one-sixth with vetches. Wheat, both in terms of income derived from it and acreage sown, was twice as important as any other crop. Accounts for only two consecutive years do not allow any precise conclusions to be drawn about crop rotations, but they do at least suggest the probable nature of the cropping system. The accounts state the acreage of each crop sown in 1393-4 and 1394-5 and say whether the seed was sown in 'Eastfeld' or in 'Westfeld' (Table V).

It is thus seen that 'Eastfeld' and 'Westfeld' were operated on a broad two-course rotation, with wheat and barley being grown in one year, followed by oats, peas, and vetches the next year. But each of these large fields was not considered a single unit: in fact, each field was divided into sections sown with different crops and, in addition, in any one year, there was some land lying fallow in both fields. The rotation was far from being a simple two-course. It seems probable that the two-course rotation was once practised, but by the end of the fourteenth century it had advanced considerably, and the rotation was extremely flexible.

A few years later, the demesne was again leased out, again for an annual rent of £20, for in 1397-8 a new farmer took up the first year of a seven-year

¹ K.A.O. U55 M63.

² K.A.O. U55 M64-7.

TABLE V
CROP ACREAGES ON THE DEMESNE

	1393-4	1394-5
'Eastfeld':	30 ac. wheat 38½ ac. wheat 4 ac. winter barley 25 ac. spring barley 97½ ac.	20 ac. peas 23 ac. vetches 23½ ac. oats 66½ ac.
'Westfeld':	16½ ac. peas 17 ac. vetches 22½ ac. oats 56 ac.	59 ac. wheat 5 ac. winter barley 64 ac.
Other fields:	nil	20 ac. spring barley
Total sown acreage:	153½ ac.	150½ ac.

lease.¹ But the arrangement proved unsatisfactory and in 1399-1400 the demesne was again being farmed by the lord's officials.² In 1399-1400 the lord was cultivating most of his lands, but he was leasing out a part. In all, about 12 acres of the demesne were leased by the lord to his tenants in various fields of the manor (*in diversis campis huius manerii*), for a total rent of 11s. 2d. By 1406-7 this practice had been extended, for although most of the demesne was being cultivated by the lord, leased portions produced a rent of £2 16s. 0d.³ The practice of leasing parcels of the demesne fields to different tenants thus dates at least from the end of the fourteenth century. As the fields had often been sown in sections with different crops, so they came to be leased out in parcels to different tenants.

A picture of the manor towards the end of the thirteenth century can be reconstructed from a rental and custumal which is included in the "great description of his lands and tenants which Archbishop Pecham caused to be made between 1283 and 1285."⁴ The demesne lands in 1285 comprised 264½ acres of arable, 133½ acres of meadow, 16 acres of pasture, and 1,196 acres of wood. The arable is described as thirteen separate pieces, ranging in size from

¹ L.P.L. CR 1141.

² L.P.L. CR 1142.

³ L.P.L. CR 1145. The leased parcels included 3 acres 'in Algaresschote' and 3 acres in 'West Whytehell', both probably parts of 'Westfeld'.

⁴ F. R. H. Du Boulay, 'Denns, droving, and danger', *Archaeologia Cantiana*, LXXVI, 1961, pp. 75-87. The rental is Dean and Chapter of Canterbury MS. E24.

2½ acres to 50 acres. Each area of arable is said to be in a named piece of land: thus 12 acres were 'In Chalk Welleshote', 32 acres were 'In Stonyforlang', 20 acres were 'In Rengreshote, Longden et Littleshote', and 50 acres were 'In Estfeld'. In 1394-5 the demesne fields were referred to as 'Westfeld' and 'Eastfeld', and the pieces named in 1285 seem to have been individual sections of these two large fields. A comparison of the names of these pieces with field-names on the map of 1620 shows that in 1285 the demesne in fact comprised two great blocks of arable land, one to the west and one to the east of the village, and three blocks of meadow and pasture to the south of the village.

The description of the lands of the tenants is less precise than that of the demesne: only infrequently are field-names stated. There was only a moderate inequality of holding sizes in 1285, for three-quarters of the tenants each held only one piece of land and almost all others each had fewer than five pieces. Nevertheless, inequality there was, and already by 1285 one large holding had come to be termed a 'manor'. It is impossible to discover the exact sizes of individual holdings, for the rental frequently lists five or more tenants as together paying the rent on a single piece of land. The general picture, however, is of small holdings. William Blacson held only 1 acre and John, son of Dunstan, 7 acres. Occasionally a parcel of land is said to be *in crofto*, and in one instance a parcel is said to be in the middle of a meadow, but it is difficult to interpret the significance of these infrequent descriptions. Of the 409 tenants, only about 20, or about 5 per cent, held land in more than one borough: the comparable figure in 1494 was 25 per cent. While the lands of a single tenant in 1285 were not necessarily compact, they were certainly not widely scattered. Individual holdings were more compact in the late thirteenth century than they were in the late fifteenth century. Even by 1285, settlement at Wrotham was widely dispersed: numerous small holdings existed throughout the township.

The rental frequently refers to *heredes*, *socii*, *parcenarii*, and *pares*, but interpretation of these phrases is not easy. It could be claimed that they imply a form of joint-tillage which obviated the partitioning effects of gavelkind tenure, or it could be claimed that such phrases represented the most convenient way for the lord to apportion the responsibility for rents and services from a partitioned holding. The evidence of the rental is inconclusive on this point, but in any case proof of the occurrence of either joint-tillage or partitioning would not mean that the other did not also take place. There is no need to regard joint-tillage and partitioning as being mutually exclusive. That tenants did at times partition their tenements can be inferred at Wrotham, for one divided tenement owed divided rents and services but

only one suit of court, to be performed by one parcener for the others. William Fara's tenement was partitioned so that his sons Richard and Robert received jointly two parcels, of 3 acres 3 roods and of 6 acres, while Henry Fara, their brother, received parcels of 1 acre $3\frac{1}{2}$ roods and of 3 acres. Thus Henry claimed his third of the patrimonial holding while Richard and Robert held their two-thirds jointly. The land parcels, rents, and services of the patrimonial holding had been partitioned in precise proportions, of two-thirds and one-third. The subdivision of tenements at Wrotham is also discernible when a holding is described and the name of the previous holder also stated. In the portion of the rental relating to the manor of Bexley, such references are stated to relate to the tenant in c. 1214, and it may be assumed that the Wrotham references are to the same or nearly the same date.¹ Where the name of the previous holder of a parcel at Wrotham is stated, the subdivision that had occurred between c. 1214 and 1285 is clear (Table VI).

TABLE VI
SOME SAMPLE INCREASES OF TENANT NUMBERS
DURING THE THIRTEENTH CENTURY

Area of land	Numbers of tenants	
	c. 1214	1285
$1\frac{1}{2}$ acres	1	5
$1\frac{1}{2}$ acres 16 feet	1	8
$6\frac{1}{2}$ acres	1	8
$9\frac{1}{2}$ acres	3	7
13 acres	1	13

Increasing pressure upon the land, as a result of population growth, undoubtedly led to the partitioning of holdings at Wrotham during the thirteenth century.

Such partitioning could have taken the form either of the subdivision of individual units of land, i.e. fields or parts of fields, or else the subdivision of a holding as a whole: the former would have produced or accentuated a pattern of parcels within individual fields, while the latter would have resulted in a fragmentation of holdings. That inheritance of land could produce *subdivided fields* is seen in a deed of 1296 whereby Guydo de Eldham leased to Martin de Pecham all his lands in Wrotham which by the law of inheritance had descended to him on his father's death, excepting "*quodo campo vocato Bromfeld et insuper terciam partem unius campi vocati Northfeld.*"²

¹ F. R. H. Du Boulay, *op. cit.*, p. 18.

² B.M. Add. Ch. 16,508.

Similarly, the rental of 1285 shows that tenements were at times subdivided into parcels of exactly equal sizes and describes one tenement as including "three parts of Lusieshagh." That inheritance could produce *fragmented holdings* is seen in another late thirteenth-century deed whereby John de Frenyngham sold his tenement in Wrotham: the deed specifically states that John held the entire tenement in Wrotham because his brother and co-heir, Ralph, had not claimed his portion of their inheritance; in exchange John had not claimed his portion of their inheritance of their father's lands in Loose. The patrimonial holding was fragmented.¹ Inheritance practices, together with the leasing, selling, and exchanging of land, produced both subdivided fields and small holdings. The landscape was predominantly one of small fields enclosed by hedges and ditches and sometimes subdivided internally into unenclosed parcels.²

On the other hand, the demesne fields were large: 'Eastfeld' certainly and 'Westfeld' probably were enclosed, although their internal subdivisions were not.³ Further, not all of the lands of the tenantry were being partitioned: the free alienation of land *inter vivos*, a feature of gavelkind tenure, made possible the consolidation and augmentation of holdings by purchase and exchange. A number of late thirteenth-century charters show Martin de Pecham purchasing parcels of land "*in campo occidentali de Wrotham*," and, as the parcels were described as being adjacent to some already in his possession, it seems that he was consolidating and enlarging unenclosed parcels.⁴ Charters in fact suggest what the rental of 1285 fails to reveal: that some of the tenants at Wrotham held unenclosed parcels of land within a large field called 'Westfeld'. One charter describes a parcel within this field as lying adjacent to 'Dunstrete', now known as the Pilgrims' Way, and a glance at the map of the demesne in 1620 shows a gap immediately to the west of the village, between the village itself and the 'Westfeld' of the demesne (Fig. III).⁵ It was here that the 'Westfeld' of the tenants must have been located. During the thirteenth century, parcels within the tenants' 'Westfeld' were being consolidated and later deeds, rentals, and surveys make no mention of it. Even by 1285, only a few of the tenants could have held land within it, for it

¹ B.M. Add. Ch. 16,501.

² Land transactions are recorded in numerous collections of title deeds: see, for example, K.A.O. U47:3 T46, U601 T164-72, and B.M. Add. Ch. 16,494-16,508. That holdings comprised enclosed fields is seen in descriptions of land "*sicut sepibus undique includitur*"—see, for example, B.M. Add. Ch. 16,497 and 16,500.

³ The heirs of Walter son of Cocus were responsible for making "*j haccum contra Estfeld de manerio domini*"—Dean and Chapter of Canterbury MS. E24, f. 82v.

⁴ K.A.O. U47:3 T46:105; B.M. Add. Ch. 16,502.

⁵ B.M. Add. Ch. 16,498; K.A.O. U681 P31.

lay within the borough of Wrotham, whereas most of the tenantry lands lay in the other five boroughs. Perhaps at some period before the thirteenth century most tenants dwelt in Wrotham village and cultivated only 'Westfeld': it may have been a one-field township, such as J. E. A. Jolliffe postulated.¹ But it is certain that by the end of the thirteenth century, settlement had become much more widely dispersed and the cleared area more extensive.

Early dispersal of settlement, the operation of the market in land, and the partitioning of inheritances had repercussions on the manor's customary services. The total services due from each borough are stated in the 1285 rental at the end of the list of the tenants of each borough. The total services due from the first borough described in the rental have written against most services a money value: for example, tenants of the borough had to plough 2 acres 1 rood at 6d. per acre; to reap and bring in 9 acres 1½ roods of wheat at 12d. per acre, doing this with 4½ carts at 6d. per cart; and to reap but not bring in 1½ acres of barley at 12d. per acre. On the other hand, the services of enclosing 12 perches of the *Burgiard* and of threshing 5 bushels of wheat have no such money value against them. It seems that by 1285 most, but not all, services had been commuted. Services apportioned to individual tenants often included small fractions, which again suggests that commutation had already taken place. Certainly commutation of most services had taken place by 1309-10, when income from commuted services and customs was nearly £12.² Only seven holdings were referred to in 1285 as being full or half *iuga*, many small parcels being referred to instead as *forland*, *gavelland*, *cotland*, *nova terra*, *assartum*, or simply as *land*. Services on Kentish manors were usually based on *iuga*, and the early commutation of most services probably accounts for the early disappearance of *iuga* from Wrotham.³ Growth of population and the intense subdivision of holdings would have made the apportionment of services increasingly difficult. For many of the holdings, the 1285 rental states that tenants owed nothing except rent and suit of court, and such holdings are sometimes stated to have been *nova terra*, so that these would seem to represent assarts made subsequent to the commutation of services. Most assarts were located either in the borough of Stanstead, on the Clay-with-flints above the escarpment, or in the borough of Roughway, on sandy soils on the Lower Greensand ridge.

If cultivation of the demesne arable lands was being carried out less with

¹ J. E. A. Jolliffe, *Pre-Feudal England: The Jutes*, 1933, pp. 1-19.

² L.P.L. CR 1139.

³ By contrast, the late commutation of services (c. 1447) on the archiepiscopal manor of Gillingham accounts for the survival of *iuga* there until the mid-fifteenth century: once services were commuted, the financial and tenorial framework of the *iuga* disintegrated.—A. R. H. Baker, *op. cit.*, pp. 73-7 and 90.

labour services than with wage labour, nevertheless, tenants still owed important services in relation to pasturing on them. Tenants of each *cotland* were to produce annually "five hurdles for a fold of the lord," and certain tenants were "to common over the demesne with all their ewes and . . . to go to the fold of the lord from hokeday until the feast of St Martin." The rental suggests a curious mixture of tenants' duties and rights in this connection, for some were "able to have five ewes and no more" commoning the demesne, while others could only common their sheep if they had ploughed twelve furrows of the demesne for each ox that they owned. The making of folds and the regulations for folding sheep suggest a rigid control of grazing on the demesne, to ensure the efficient utilization of dung and to permit a more flexible rotation of crops. Total reaping services amounted to just over 228 acres, which was only 36 acres less than the total arable lands of the demesne. This suggests that, through an efficient use of animal manure, only a small proportion of the arable lay fallow. It might be thought that only 36 acres or about one-seventh of the total arable of the demesne lay fallow annually, but an account of 1309-10 shows that in that year 81 acres or a little less than one-third lay fallow.¹ It is impossible to ascertain crop rotations from an isolated account, but there was in 1309-10, as in 1393-4 and 1394-5, a broad contrast between crops sown in 'Westfeld' and in 'Eastfeld'. In 1309-10, the wheat and barley was in 'Eastfeld', the oats and vetches in 'Westfeld'. Within each of these fields, different sections were sown with different crops, and by comparing acreages sown in 1309-10 with the total acreage of each section in 1285, it is seen that some sections had more than one crop sown on them, some sections were only partly sown, and some lay fallow. There was considerable flexibility in the rotation of crops at Wrotham in the early fourteenth century.

Field and settlement patterns at Wrotham were, then, closely linked to population pressure and land tenure. During the thirteenth century a rapid growth of population coupled with the partitioning of inheritances and the free alienation of land, both of which were aspects of gavelkind tenure, produced a multiplicity of small, dispersed holdings and a pattern of fragmented farms and subdivided fields and crofts. By the end of the fourteenth century, pressure upon land was less and the supply of land exceeded demand. It was not until the second half of the fifteenth century that demand for land again began to mount, but even then the tenant population was only about a third of what it had been two centuries earlier. The late fifteenth century and all of the sixteenth saw an increasing inequality in the size of holdings, and during this period the operation of the land market was far more important than

¹ L.P.L. CR 1139.

the custom of inheritance in influencing field and settlement patterns. Holdings were enlarged by purchase and exchange, and there are only a few signs of their reduction as a result of partitioning. During the sixteenth century, some lands in the township were dis-gavelled.¹ The intensive colonization of the thirteenth-century landscape was reflected in the numerous small crofts, enclosed fields, and isolated farms that formed the landscape of the sixteenth century. By 1600 there were only a few subdivided fields and crofts on the lands of the tenants: most had been consolidated into a single tenant's hands. Those subdivided fields that did exist in the sixteenth century were mainly on the demesne and were the result of leasing parcels to different tenants. Unenclosed parcels on the demesne were consolidated and enclosed by the middle of the seventeenth century; in contrast, fields of the tenants were being amalgamated and opened up. By the end of the eighteenth century, the demesne fields were also being enlarged by the removal of interior boundaries. The large, rectangular fields of the demesne had a very different evolution from the small, irregular fields of the tenantry: the contrast of field patterns reflected not only different periods of enclosure but also different land ownership.

III

Field and settlement patterns at Wrotham show close similarities with those of other townships in the Vale of Holmesdale. At the end of the thirteenth century, the settlement pattern comprised not only nucleated villages but also hamlets and isolated farms. Open fields—or, more accurately, enclosed fields subdivided into unenclosed parcels—were mostly small, but numerous, and they were based as much on dispersed farms and hamlets as on nucleated villages. A Holmesdale township possessed a multiple open-field system, rather than a two- or three-field system. The unenclosed parcels originated in a number of ways. Some may have been a product of co-operative ploughing by agnatic or by neighbouring groups: but there is no evidence of co-operative ploughing organized on a village or manorial basis. Some were a product of gavelkind tenure, of the partitioning of inheritances, and of the selling and leasing of land. Some probably resulted from the subdivision of assarts among the assarters. On the demesnes, unenclosed parcels of land were a feature of flexible crop rotations, of the sowing of sections of fields with different crops; later they were a consequence of the leasing of fields in parcels. There is no evidence, however, that the open fields of the Kentish section of Holmesdale were common fields, i.e. subject to common grazing by the livestock of an entire township. Fifteenth-century court rolls

¹ E. Hasted, *op. cit.*, p. 17.

of Wrotham and Ightham contain many references to livestock trespassing on the demesne and on lands of the tenants: this confirms that land was held in severalty. There were no manorial regulations concerning crop rotations or common grazing on the fallow arable. If common grazing was practised, it must have been by private agreement among individuals rather than by dictation of the manorial court.¹

Perhaps not surprisingly, field and settlement patterns of the Surrey section of the Vale of Holmesdale correspond quite closely with those in the Kentish section. E. M. Yates has shown that, in a number of parishes in the Dorking area, multiple open fields were associated with a pattern of hamlets and isolated farms.² He suggested that the primary settlement pattern was a series of farms and hamlets, occupied by agnatic groups and each hamlet having one arable field used continuously. Secondary settlement extended on to more difficult soils: where population was very scattered, the enforcement of labour services would have been difficult and the early commutation of services likely. A weak manorial system made possible the early dispersal of settlement. Some hamlets, as population grew, developed into villages and, where there was a shortage of common pastures, grazing on the town-field—the arable nucleus—became subject to manorial control. Some of the Surrey townships certainly had common fields.

This suggested development of settlement in Surrey may also be applicable in the Kentish section of Holmesdale. Weak manorial organization, an abundance of wastes and common pastures, and the operation of gavelkind tenure seem to explain the early dispersal of settlement and the absence of common pasturing over the township arable. It seems probable that inheritance practices and the operation of the land market could account for the multiple open fields in Surrey in the later Middle Ages as they do for those in Kent. Yates made little reference to either, although he did suggest that with the decay of kinship groups the fields associated with the primary settlement were divided into large strips. Yates hankers after racial explanations of the field systems of Kent, like Meitzen, Gray, and Jolliffe before him, and has suggested that the affinities of field and settlement patterns in Kent, Surrey, and Sussex lend support to the view that the latter counties experienced an earlier Jutish colonization before that of the Saxons.³ This may

¹ K.A.O. U55 M13-17; E. Harrison, *loc. cit.*

² E. M. Yates, 'A study of settlement patterns', *Field Studies*, 1, 1961, pp. 65-84. Yates has also observed analogous features in north-west Sussex, in two parishes occupying situations topographically similar to those in Holmesdale, in this case lying astride the escarpment of the South Downs.—'History in a map', *Geographical Journal*, cxxvi, 1960, pp. 32-51.

³ A. Meitzen, *Siedlung und Agrarwesen der Westgermanen und Ostgermanen, der Kelten, Römer, Finnen und Slaven*, 1895; H. L. Gray, *op. cit.*; J. E. A. Jolliffe, *op. cit.*

have been so: but the evidence presented in this paper suggests that settlement and field patterns were closely linked with soils and topography, with an abundance of waste, with a weak manorial organization, with land tenure, and with the pressure of population upon land. Factors not connected with race were important: the 'Kentish field system', as Gray termed it, does not appear to have been limited to Kent. Something similar to it may have developed wherever this particular group of geographical and social factors was found in combination.

Letter to the Editor

CHARLES VARLEY—THE UNFORTUNATE
HUSBANDMAN

SIR,—With reference to Dr E. R. R. Green's very nice review of my book, *The Unfortunate Husbandman*, I am in full agreement with him regarding the lack of notes on the source of the material reprinted. The original typescript of *The Unfortunate Husbandman* contained very full notes, and references, but with modern publishing being what it is, these

notes had to be sacrificed in the interest of a popular appeal. I would have preferred to have published the original typescript, with notes and reproduction of the famous Varley pamphlet, which set out his claim to the Governorship of New Jersey, but, unfortunately, I failed to find a publisher willing to issue the considerably more important book I actually wrote. Yours sincerely,

DESMOND CLARKE

Notes and Comments

THE BRITISH AGRICULTURAL HISTORY
SOCIETY

The joint winter conference with the Association of Agriculture was held at the London School of Economics on Saturday, 4 December. The president of the Society, Professor H. P. R. Finberg, took the chair. At the morning session Dr J. T. Coppock, Professor-elect of Geography, Edinburgh University, spoke on 'The Changing Pattern of Land Use.' The afternoon discussion was devoted to the same subject and was led by Mr H. C. Prince and Dr F. M. L. Thompson of University College, London, and Dr G. E. Mingay of the University of Kent.

The Dublin conference in April 1966 has had to be cancelled at short notice and the executive committee feels it is now too late to attempt to organize another conference else-

where. The annual general meeting of the Society will, therefore, be held at University College, Gower Street, London, W.C.1 on 16 April 1966 at 11 a.m. Details and an agenda of the meeting are enclosed.

Arrangements are in hand for the annual conference in April 1967 to be held in Dublin.

HISTORICAL FARM RECORDS

In the past few years efforts have been made to further the collection and preservation of the business records of individual farmers. Some repositories hold very few such items, while, more seriously, large numbers have apparently been destroyed. Their scarcity and wide dispersal presumably explain why this source has not been systematically used by scholars who have little alternative but to rely on secondary sources (often defective)

(continued on p. 76)

The Leather Crafts in Tudor and Stuart England¹

By L. A. CLARKSON

IN the predominantly agrarian economy of sixteenth- and seventeenth-century England, the most important industries were those associated with agriculture. They used raw materials from the farms, supplied essential consumer goods to the agrarian population, and, not infrequently, provided by-employments for agricultural workers. The most important was the woollen textile industry, for it was valuable not only to the domestic economy but also to England's overseas trade. Of other industries we have only scanty knowledge, and those that have attracted attention, such as the 'heavy' industries which form the basis of Professor Nef's 'early industrial revolution', were not typical.

Contemporaries usually took the leather industry for granted, with the result that historians have largely ignored it. Yet there are good grounds for regarding this industry as second or third only to the manufacture of woollen cloth as an industrial occupation.² Certainly Macpherson, writing of the late eighteenth century, thought so at a time when the relative importance of the industry was probably declining and occasionally a seventeenth-century writer remarked on its importance.³ But the clearest indication of the rôle of the industry in Tudor and Stuart England was the existence of a large body of legislation controlling the manufacture and sale of leather and leather goods. Only the cloth industry attracted comparable attention from the government; and the Leather Act of 1563 was, with the Statute of Artificers and the Cloth Act of 1552, the foundation of Tudor industrial policy.⁴

¹ I am greatly indebted to Dr Joan Thirsk and Dr A. Everitt of the Department of English Local History, Leicester University, for many helpful comments on this paper.

² Possibly building employed more than the leather industry, and the building crafts must have been more widespread than the leather crafts. However, we still know very little about the magnitude of the building industry throughout the country. See W. G. Hoskins, 'The Rebuilding of Rural England, 1570-1640', in *Provincial England*, London, 1963, pp. 131-48.

³ D. Macpherson, *Annals of Commerce*, IV, 1805, p. 254; H. B[elasyse], *An English Traveller's First Curiosity* . . . (1657), *Hist. MSS. Comm.*, Various Collections, II, p. 200; *Leather: A Discourse tendered to the High Court of Parliament*, 1629, reprinted in E. Arber, *An English Garner*, IV, 1897, pp. 215-16.

⁴ The regulation of the leather industry is discussed in L. A. Clarkson, 'English Economic Policy in the Sixteenth and Seventeenth Centuries: The Case of the Leather Industry', *Bulletin of the Institute of Historical Research*, XXXVIII, 1965, pp. 149-62.

The leather industry in the sixteenth and seventeenth centuries was important for the reasons already summarized. It provided the farmer with the goods he needed: "... boots and shoes for himself and children, and leather for saddles, cart saddles, horse collars and other accommodations about husbandry. . . ."¹ The manufacture of leather and leather goods was often combined with farming, although farming was usually the subsidiary occupation; and hides and skins used by tanners and leather-dressers came from farmers and butchers.²

The sale of hides and skins presented farmers with a useful source of income and it has even been suggested that the hide and skin market was, on occasions, more important to them than the sale of meat.³ However, this does not seem very likely. The value of a beef carcass in the sixteenth and seventeenth centuries was perhaps ten times that of the hide, and with sheep the skin was less important than the wool and meat.⁴ From time to time in the seventeenth century the supply of hides and skins increased because of increasing meat consumption and not because of an increased demand for hides. The result was that prices of hides and skins fell and surplus supplies were buried.⁵

"In most villages of the realme there is some one dresser or worker of leather, and for the supplies of such as have not there are in most of the market townes iij, iiij, or v, and in many great townes and cities x or xxt^e."⁶ Leather and leather goods were made throughout the country; but to some extent leather manufacturing was an urban occupation since supplies and hides were available in the towns as a by-product of meat consumption, and the towns were markets for leather goods. The larger the town the more numerous the leather workers. London was "the place of greatest concourse

¹ *An Humble Petition . . . concerning the . . . Transportation of Leather*, 1641, Thomason Tracts, British Museum, E168 (4), p. 3.

² An analysis of tanners' inventories from various parts of the country suggests that on an average the value of farm stock was about 12 per cent of the value of tanning stock. Tanning was the treatment of hides with a vegetable tanning agent, usually oak bark and water. Leather-dressing was the preparation of skins with train oil, egg yolks, alum, and other materials. The two methods of preparing leather divided the industry into the heavy and light leather crafts, the former making and using tanned leather, the latter working with dressed leather. See L. A. Clarkson, 'The Organization of the English Leather Industry in the late Sixteenth and Seventeenth Centuries', *Economic History Review*, 2nd series, XIII, 1960, pp. 246-7.

³ W. G. Hoskins, 'English Provincial Towns in the Early Sixteenth Century', *Trans. Royal Historical Society*, 5th series, 6, 1956, p. 15; also T. S. Ashton, *The Industrial Revolution, 1760-1830*, 1948, p. 24.

⁴ Estimate from prices in J. E. T. Rogers, *A History of Agriculture and Prices*, v, 1887, p. 411; and W. Beveridge, *Prices and Wages in England*, 1939, pp. 30, 32, 81, 83.

⁵ P.R.O. P.C. 2:58, 71; *Cal. S.P.D.*, 1675, pp. 369-70.

⁶ B.M. Lans. MS. 74, fo. 154.

for tradesmen dealing in leather."¹ There were about 3,000 shoemakers in the city and suburbs in the early seventeenth century, the same number of leather-dressers and glovers, and many other craftsmen using leather. There were about eighty tan yards in Bermondsey and Southwark alone in the late seventeenth century,² and in the early eighteenth century the metropolitan area provided 10 per cent of the revenue raised from an excise duty imposed on English leather, much more than was raised in any other district.³

In many parts of the country the leather industry was relatively much more important than in London. Some areas in the sixteenth and seventeenth centuries had developed as specialized producing regions conducting a national trade in leather or leather products, and in other districts the leather crafts formed one of the most important groups of industrial occupations, even though their importance may have been confined to their own locality. In general, the leather crafts in these areas were associated with pastoral and grazing activities.

The leather crafts were very numerous in the pastoral regions of western England. Following the imposition of an excise duty on leather in 1697, many towns and villages of England sent petitions of protest to Parliament.⁴ Sixty of the 154 petitions received came from a large, roughly triangular, area with its base on the Cotswolds from Bristol to Oxford, its apex at the Mersey, and embracing Cheshire, Shropshire, Herefordshire, Gloucestershire, Worcestershire, and parts of Oxfordshire, Warwickshire, and Staffordshire.

In the north of this region Chester was an important manufacturing and trading centre. Between the mid-sixteenth and the mid-seventeenth centuries one-fifth of the annual new admissions to the freedom of the city were leather workers, although later in the seventeenth century the proportion declined. The merchants of Chester exported large quantities of dressed calf skins from the port under licence, claiming that "the countrey adjoyneinge [did not afford] anie other commodities transportable."⁵ The dressing of skins and the manufacture of gloves were common occupations not only in Chester but throughout Cheshire, Shropshire, and Herefordshire. At Nantwich,

¹ Minute Book of the Company of Curriers, 1628-56, Guild Hall MSS. 6112:1, p. 77.

² P.R.O. S.P. 14:7, no. 88; B.M. Add. MS. 12,504, fo. 112; *Commons' Journals*, XII, p. 18.

³ Calculated from P.R.O. E.351:1481. The excise duty of 15 per cent *ad valorem* was first imposed in 1697 for three years and continued in 1710 and 1711. The above account is for June 1717-June 1718, the earliest in which receipts are presented on a regional basis.

⁴ *Commons' Journals*, XI, p. 758 *et seq.*, *passim*; XII, *passim*.

⁵ *The Rolls of the Freemen of the City of Chester, Part 1, 1392-1700*, Lancs. and Cheshire Records Society, LI, 1906; P.R.O. S.P. 12:185, no. 71; S.P. Docket, 11 March 1604-5; P.C. 2:39, 543; B.M. Harleian MS. 2004, fos. 5-10, 76-132; Cotton MS. Titus B IV, fo. 301; *Acts of the Privy Council*, 1616, II, p. 651.

glove-making maintained "a great Number of Poor, many of which are incapable of following any other Employ."¹ "An abundance of poor people" were employed at making gloves in the Kington-Weobley-Pembridge district of Herefordshire, while in the town of Hereford "many hundred families" were supported by the same occupation.² Similarly at Ludlow leather-dressing and glove-making "hath been for many years last past a great support to the poor people dwelling in or near the said Town."³ Glove-making was also important in parts of Oxfordshire, especially in the Oxford-Woodstock-Witney district which had "always been famous for dressing Alum Leather and making gloves."⁴

Glovers and leather-dressers of western England supplied a national market. London merchants bought leather and gloves at Chester and Bristol; glovers at Hereford, Ross-on-Wye, and Brecon had a "wholesale trade to London" which was probably identical with that of other towns in the region.⁵ In addition, a good deal of production must have been sold locally in towns such as Bristol, Chester, Gloucester, and Oxford.

Several factors explain the specialization of this region in the production of light leather and gloves. First, the region was, generally, a pastoral one and supplies of calf skins and sheep skins were available locally for the leather manufacturers. These were supplemented by imports of skins—especially sheep and lamb—from Ireland. The light leather workers of Chester claimed at the end of the seventeenth century that "time out of mind [they] used to import great quantities of sheep skins and lamb skins from Ireland; the manufacturing thereof employed many thousand people. . ."—a claim borne out by an examination of the town's port books. Skins were also imported into Bristol and other western ports. Local manufacturers claimed that Irish skins were "more fit for gloves than those of England," but it is more likely that the light leather industry of western England had outgrown local supplies of skins.⁶

A second reason for the presence of the light leather crafts in some parts

¹ *Commons' Journals*, XI, pp. 766–7. ² *Ibid.*, XII, pp. 18, 20. ³ *Ibid.*, XI, p. 764.

⁴ *Ibid.*, XII, pp. 20, 22, 30. See also T. E. Schulz, 'The Woodstock Glove Industry', *Oxoniensia*, III, p. 142.

⁵ P.R.O. S.P. 16:377, no. 38; S.P. 14:31; *Commons' Journals*, XII, pp. 20, 482, 547.

⁶ *Ibid.*, XII, p. 11; P.R.O. E. 190:1324:17; 1332:1. See also A. K. Longfield, *Anglo-Irish Trade in the Sixteenth Century*, 1929, p. 222; P. McGrath (ed.), *Merchants and Merchandise in Seventeenth Century Bristol*, Bristol Records Society, XIX, 1955, pp. 282–5, 286–7, 289–90; T. S. Willan, *Studies in Elizabethan Foreign Trade*, 1959, pp. 83, 86. For the total imports of skins from Ireland in the later seventeenth century, see R. Dunlop, 'A Note on the Export Trade of Ireland in 1641, 1665, and 1669', *Eng. Hist. Rev.*, XXII, 1907, p. 755; *Commons' Journals*, XII, p. 37.

of western England may have been the quality of the water supplies. In the Oxford district the water was such that "all skins of a more delicate kind . . . are so well seasoned with it for the making of white leather, that more whiter, softer nor better is hardly found."¹

But these considerations were not sufficient to explain the growth of leather-dressing and particularly glove-making serving a national market. On strictly economic grounds it might have been cheaper to carry leather in bulk to London to be manufactured into gloves rather than transport it in the form of made-up goods. However, the social structure of the glove-making regions favoured the development of a local industry. In the words of Dr Thirsk, these regions contained "a populous community of small farmers . . . pursuing a pastoral economy."² A non-farming occupation was necessary to supplement the small incomes from agriculture, and the supply of skins from local sources and Ireland, together with the suitability of local leather-dressing materials, and the existence of a national demand for gloves, provided the conditions for a growth of glove-making as a small-scale handicraft. From all accounts glove-making in the west of England was a craft followed by poor workers. Glovers in Shrewsbury eked out "a bare subsistence." Those in Montgomeryshire explained to parliament that their "trades are mean and [provide] but a bare subsistence being dispersed in many hands. . ." Glovers at Chester in the late sixteenth century could afford to buy leather only in small quantities, "never more than 20s. together at one time," and could not expect to make more than four shillings profit a week.³

By contrast with light leather manufacturers, tanners in western England seem to have found their markets locally. Nevertheless, they made an important contribution to the local economy, using hides from the surrounding countryside and also Irish imports. In Bristol in the early sixteenth century light leather workers, tanners, and other craftsmen working with heavy leather comprised 17 per cent of the labour force; in Gloucester in the early seventeenth century they comprised about 11 per cent. In both places tanners were able to buy oak bark from iron workers in the Forest of Dean, and it is likely that the existence of iron manufacturing nearby encouraged the growth of tanning. There is also a case for suspecting some connection between leather working and iron working in parts of Shropshire between the

¹ A. Wood, *Survey of the Antiquities of the City of Oxford*, 1661-2, ed. A. Clark, Oxford Historical Society, 1889, p. 395.

² Joan Thirsk, 'Industries in the Countryside', *Essays in the Economic and Social History of Tudor and Stuart England*, ed. F. J. Fisher, 1961, pp. 70-1, 86.

³ *Commons' Journals*, xii, pp. 11, 52; B.M. Harleian MS. 1996, fos. 248-9. The reference is certainly to gross profit.

Severn and Teme Rivers and in the Birmingham–Walsall–Wolverhampton district, where the manufacture of saddles and harnesses created a joint demand for leather and metal goods such as bits, buckles, and stirrup irons. Tanning was one of the leading occupations in sixteenth-century Birmingham, although it was gradually overshadowed by the faster growth of the metal crafts.¹

In eastern England the leather industry was important in several districts, although probably on a less extensive scale than in the west. One region in which the manufacture of leather was carried on for a national market was the pastoral district of High Suffolk where the industry was ancillary to dairying. Throughout the sixteenth and seventeenth centuries large quantities of tanned hides and calf skins were sent yearly around the coast from East Anglian ports, particularly Ipswich and Woodbridge, to London, where, it was said, the leather was much valued by shoemakers, because it was stronger than any other leather.² Far more leather came to London by this route than in any other recorded way.

There were some differences between the Suffolk leather industry and that of the pastoral districts of western England. Suffolk specialized in tanning rather than leather-dressing and glove-making, perhaps because supplies of sheep and lamb skins were not easily obtainable from Ireland to supplement local calf skins. Secondly, there were no outstanding urban centres where the leather crafts were carried on. Ipswich was an important regional market for hides and leather, but in the main tanning was done in the villages of the Suffolk countryside where hides and other tanning materials were readily available. The evidence is sparse, but it seems likely that tanning, as well as the manufacture of cloth, was an important supplement to the pastoral activities of a population consisting mainly of small freeholders.³

Moving northwards, Norwich provides an interesting example of the importance of the leather crafts in a large industrial town. Although Norwich

¹ *Commons' Journals*, xi, pp. 758–9; P.R.O. Exchequer Depositions, E. 134:5 Car. I Mich. 14; Longfield, *op. cit.*, p. 222; McGrath, *op. cit.*, pp. 86–7; *Calendar of the Bristol Apprenticeship Book*, pt. 1, 1532–42, Bristol Records Society Publications, xiv, 1949, pp. 199–200; figures for Gloucester recalculated from R. H. and A. J. Tawney, 'An Occupational Census of the Seventeenth Century', *Econ. Hist. Rev.*, v, 1934–5, pp. 36–8; P.R.O. Exchequer, Special Commissions, E. 178:929; E. 178:5304; for the iron industry in Shropshire see H. R. Schubert, *History of the British Iron and Steel Industry*, 1957, pp. 179–80; for Birmingham industries see W. H. B. Court, *The Rise of the Midland Industries*, 1938, pp. 31–2, 34–5; C. Gill, *History of Birmingham*, I, 1952, p. 45.

² P.R.O. London Coastal Books. References as in Table I; *Cal. S.P.D. Eliz.*, ccl, p. 561.

³ P.R.O. Exchequer Depositions, E. 134:43 Eliz. Hil. 18; Exchequer Depositions, E. 134:11. Car. I. Trinity 11 shows the existence of tanning as an occupation in small Suffolk villages; Joan Thirsk, 'Industries in the Countryside', *loc. cit.*, pp. 75–8, 86.

was predominantly a cloth town, it nevertheless contained a large number of leather workers. Between 1548 and 1719, 1,079 leather craftsmen were made freemen of the city—that is just over 10 per cent of the new enrolments; and worsted weavers and leather workers between them formed about 40 per cent of the industrial and commercial population of the city.¹ Over half the leather craftsmen were shoemakers, and it is apparent that most of the leather produced in the city went to meet the demands of the local population for footwear and other leather goods. There was no shortage of hides and skins. Norwich was the second city of the kingdom and consequently a large meat-consuming centre. A “prodigious number of black cattle” were fattened between the Yare and the Waveney for the London and Norwich markets, while the wood-pasture region south-west of Norwich produced calf skins and hides which may have been used by the city’s leather workers.²

Farther north again, the leather crafts were of considerable importance in parts of Lincolnshire. Dr Thirsk has remarked that the “marketing of bullocks, calves and leather . . . was one of the pillars of the economy” of the Lincolnshire claylands, and leather was also an important business in the marshlands and fens.³ The prominence of the industry at Stamford is reflected in the Hall Book. Between 1657 and 1721, eighty of the 637 freemen whose occupations can be identified were associated with the leather industry, nearly half of them being shoemakers.⁴ Elsewhere leather workers were to be found in many towns and villages of the country, and numerous inventories of tanners, shoemakers, leather-dressers, and other leather workers have survived.⁵ The industry was clearly associated with the grazing and cattle-fattening activities in many parts of the county. There is no evidence that the Lincolnshire leather workers supplied distant markets, although it is possible that they did so.

The West Riding of Yorkshire was a leather-manufacturing district of note in the sixteenth and seventeenth centuries. Although the industry may have started by using local hides, in the sixteenth and seventeenth centuries tan-

¹ Calculated from *Register of the Freemen of Norwich, 1548-1713*, ed. P. Millican, *passim*.

² D. Defoe, *A Tour Through England and Wales*, Everyman ed., 1928, II, pp. 64-5; K. J. Allison, ‘The Sheep-Corn Husbandry of Norfolk in the Sixteenth and Seventeenth Centuries,’ *Agric. Hist. Rev.*, v, 1957, pp. 12-13. The Norfolk wood pasture area might well repay study as a possible leather-manufacturing district.

³ Joan Thirsk, *English Peasant Farming*, 1957, pp. 30, 70-1, 105-6.

⁴ Stamford Hall Book, 1657-1721, Stamford Town Hall. This information was kindly supplied by Dr Thirsk.

⁵ A by no means exhaustive examination of the inventories kept at the Lincolnshire Archives Office revealed 57 inventories of leather craftsmen, mainly of heavy leather workers. With the cataloguing of inventories on an occupational basis at the L.A.O., it should be possible to conduct some kind of occupational census for the county.

ners were dependent on supplies imported from London. Large quantities of raw hides were carried every year to Hull, and then "vpp Humber and the fresh rivers there to Turnbridge and Bawtre, and hence by land to our seuerall dwellings within the said West Riding of Yorkshire." This trade was stopped temporarily in 1626 by a proclamation prohibiting the coastal trade in hides and leather. The West Riding tanners then explained that, in the preceding year, they had shipped nearly 5,000 hides from London, which "did much exceed the number which we bought in former years."

"The reason thereof was the great visitacon wch was in London the next yeare before wch hindred vs from buying hides there and so made a great scarcity thereof, and deereness of leather amongst vs . . . and so enforced vs to buy more the last yeare for storing and replenishing of our tan pittes and better serving of our Neighbours with Leather."

Eventually the Yorkshire tanners were permitted to carry 4,000 hides annually from London.¹

About a sixth of the hides shipped in 1626 was taken to Sheffield where, in the late seventeenth century, leather workers were only less numerous than metal, cloth, and agricultural workers.² More information is necessary before it can be said with certainty what was the basis of the West Riding leather industry, but there was probably a connection with iron working which provided a plentiful supply of oak bark. The leather produced seems to have been used locally, and it is probable that the semi-industrial nature of the region with its many cloth and metal workers created a demand for leather for domestic and industrial purposes that could not be met by local supplies of hides.

Elsewhere in Yorkshire the leather crafts were more obviously linked with local agriculture. In many ways Beverley and York were typical of those towns in the sixteenth and seventeenth centuries that lacked a distinctive industrial character and where, consequently, the leather industry provided a large proportion of the employment. It was observed of Beverley in the late seventeenth century that the "principal trade of the town is making malt, oatmeal, and tann'd leather." Defoe repeated the remark a few years later and added significantly that he could "find no considerable manufacture carried on there." At one time Beverley had been a prosperous cloth-working town, but this activity had declined during the fifteenth century, leaving the

¹ For the coastal trade in hides between London and Hull see the London Port Books, references as in Table I; P.R.O. S.P. 16:65, no. 45; *Acts of the Privy Council, Dec. 1626, part 1*, pp. 401-2; P.R.O. S.P. 16:65, no. 45; P.C. 2:39, fos. 705, 717-19.

² P.R.O. S.P. 16:65, no. 45; E. J. Buckatzsch, 'Occupations in the Parish Registers of Sheffield, 1655-1719', *Econ. Hist. Rev.*, 2nd series, 1, 1949, p. 145.

processing of agricultural products from the surrounding countryside as the basis of the town's economy.¹ A similar situation obtained at York. Roughly 20 per cent of the new admissions to the freedom of the city in the second half of the sixteenth and the seventeenth centuries were leather workers. Even when the cloth industry was at its height before the sixteenth century, textile workers did not furnish so large a proportion of freemen as this. York was still one of the largest English cities in the sixteenth century, and most leather and leather goods made there seem to have been used locally. Hides were bought from local butchers, who in turn obtained animals from the mixed farming areas round about, and probably also from the nearby pastoral region of the Galtres forest.²

The leather industry played an important part in the economy of Midland England, which specialized in sheep- and cattle-grazing in both enclosed and common fields. Animals were fattened on locally grown grain since transport difficulties restricted the development of corn growing for a national market.³ As the result of the work of Professor W. G. Hoskins, the importance of tanning in Leicester is well known. By the mid-sixteenth century tanners and other leather craftsmen were the largest industrial group in the town, a position they retained until the mid-seventeenth century, after which their relative importance declined. Both tanners and butchers increased in number during the sixteenth century as grazing was extended in the countryside following enclosure.⁴ It is not clear where the leather workers of the city found their markets. No doubt much leather was used locally, but the high proportion of leather workers in the town suggests that they also served more distant markets, as did their neighbours at Northampton.

Like Leicester, Northampton was situated in a sheep- and cattle-raising area and was an important centre of the leather crafts in the sixteenth and seventeenth centuries. It developed notably as a shoemaking town. Accord-

¹ W. Camden, *Britannia* (republished with additions by E. Gibson, 1695), p. 745; Defoe, *Tours*, II, pp. 236, 238; H. Heaton, *The Yorkshire Woollen and Worsted Industry*, 1920, p. 49. There were extensive cattle grazings near Beverley, on the marshes of the Ouse and Humber, and along the East Riding coast.

² *The Freemen of York*, I, 1272-1558; II, 1558-1759, Surtees Society, xcvi, cii; J. N. Bartlett, 'The Expansion and Decline of York in the later Middle Ages', *Econ. Hist. Rev.*, 2nd series, xii, 1959, p. 25; *York City Records*, III, Yorks. Arch. Soc., 1953, p. 7.

³ J. D. Gould, 'Mr. Beresford and the Lost Villages', *Agric. Hist. Rev.*, III, 1955, p. 112. Also personal communication with Dr Thirsk.

⁴ W. G. Hoskins, 'Provincial Towns', *loc. cit.*, pp. 13-15; *Idem*, 'An Elizabethan Butcher in Leicester', *Essays in Leicestershire History*, 1950, p. 114; *Register of the Freemen of Leicester, 1196-1739*, ed. H. Hartopp, 1927, *passim*; *V.C.H. Leicester*, IV, pp. 76, 78, 158. See also Professor Hoskins's review of R. Trow-Smith, *A History of British Livestock Husbandry to 1700*, London, 1957, in *Econ. Hist. Rev.*, 2nd series, x, 1958, pp. 480-2.

ing to the subsidy of 1524 shoemaking was already the leading industrial occupation of the town, but there is no other supporting evidence to suggest that the craft was particularly important before the 1640's. However, by the late seventeenth century the town had become renowned for its footwear; and Fuller commented that "the town of Northampton may be said to stand chiefly on other men's legs; where (if not the best) the most and cheapest boots and stockings are bought in England."¹

The explanation of this development was not economic, but military and even religious. The town had a long history of puritanism, it occupied a strategic position commanding the land routes between north and south, and between east and west, and it became a vital garrison town for the parliamentary cause in the Civil War. It also possessed shoemakers adequately supplied with local leather. It was natural, therefore, that the shoemakers of the town should receive orders to supply boots and shoes for the New Model Army. Later in the seventeenth century, the town continued to receive military orders to supply the army in Ireland with boots and shoes, for the town was on the direct road route between London and Chester.²

The other leather crafts such as tanning and leather-dressing flourished in Northampton and the town contained some fairly wealthy tanners and leather-dressers in the sixteenth and seventeenth centuries. Hides and skins came from the "mani notable sheep pastures and rich feedings for cattle . . .," and oak bark was also found locally. The many tanners and leather-dressers in the town constituted a threat to public health, and throughout the sixteenth and seventeenth centuries the local authorities waged war on leather manufacturers who polluted water supplies and left carcasses about in public places. Markets for Northampton leather were found at places as far afield as Stourbridge Fair near Cambridge, and in London.³

¹ I am grateful to Dr A. Everitt for providing me with information about Northampton; Hoskins, 'Provincial Towns', *op. cit.*, p. 13; Inventory evidence; *V.C.H. Northants.*, II, p. 318; *Fuller's Worthies of England*, ed. P. A. Nuttall, 1840, II, p. 498.

² For examples of these orders see *Records of the Borough of Northampton*, ed. J. C. Cox, 1898, II, pp. 294-5; *Cal. S.P.D. 1689*, pp. 276, 300.

³ Information from Dr Everitt, based upon probate inventories; 'The Diary of the Rev. J. Ward, 1648-79', quoted by G. E. Fussell, 'Farming Methods in the Early Stuart Period', *Jnl of Mod. Hist.*, III, no. 1, p. 15; *V.C.H. Northants.*, II, p. 310. In the early seventeenth century the sale of oak bark provided part of the annual revenue from the woodlands on the estates of Lord Brudenell in Northamptonshire and elsewhere.—M. E. Finch, *The Wealth of Five Northamptonshire Families, 1540-1640*, Northants. Rec. Soc. Publications, XIX, 1956, p. 163, n. 4; *Northampton Records*, II, pp. 217, 262, 264, 289, 297-8; P.R.O. Exchequer Memoranda Rolls, E. 159:360, membrane 6. The London trade was of long standing, going back to the fourteenth century. See G. Unwin, *Industrial Organization in the Sixteenth and Seventeenth Centuries*, 1904, p. 19.

In the north Midlands, tanning was a considerable industry at Nottingham in the seventeenth century. There were 47 tanneries by the river Leen in 1667 (compared with 80 in Bermondsey and Southwark a little later), but only 21 in 1707. There was obviously substance in Throsby's comment made in 1790 that "the tanning business was carried on here formerly also, with great advantage to the place; but now in a comparative point of view, that business is of little importance." As in Leicester, Northampton and other Midland towns, the number of butchers in Nottingham was high in relation to the population and there were no difficulties in obtaining hides. Cattle were grazed in pastures near the town and enclosure may have helped to increase the supply of cattle. There was at least one case of a tanner enclosing land for grazing purposes. In the nearby town of Newark, too, tanning was an important occupation in the sixteenth century as a consequence of the prevalence of cattle-grazing in the neighbouring fields.¹

Turning to the south of England, there is some evidence for believing that the Weald of Kent and Sussex, another well-populated wood-pasture region, was also a leather-manufacturing district. Local grazing provided hides and skins, and supplies were supplemented by occasional shipments from London into Rochester and Maidstone. In addition, there was plenty of oak bark available from the local iron masters, although on occasions tanners became worried that the iron masters might fell oaks too rapidly and so threaten future supplies of bark. Sussex bark was especially suitable for tanning since it had a rather higher tanning content than usual. Leather manufacture seems to have been widely scattered throughout the east Sussex district. A good deal of leather and the leather goods made in this area was exported from Rye and other east Sussex ports, and in the late sixteenth and early seventeenth centuries the Privy Council was frequently occupied with the problem of leather being smuggled from east Sussex ports by tanners. Leather was also taken overland to markets as far distant as Reading.²

¹ *V.C.H. Notts.*, II, p. 328; *Thoroton's History of Nottinghamshire* (republished with additions by J. Throsby, 1790), II, p. 131. A similar picture was provided by another local historian, Deering. See J. D. Chambers, *Nottinghamshire in the Eighteenth Century*, 1932, pp. 83-4, 152-3; M. W. Beresford, *The Lost Villages of England*, 1954, p. 189; C. Brown, *History of Newark*, 1904, I, p. 190.

² P.R.O. E. 190:2:3; 6:6; 9:1; 48:1; 51:5; 53:2; *Hist. MSS. Comm.*, *Hatfield MSS.*, XIII, p. 24; F. N. Howes, *Vegetable Tanning Materials*, 1953, pp. 85-6; *V.C.H. Sussex*, II, pp. 259-60, lists the chief tanning centres as Henfield, Hurstpierpoint, Cuckfield, Lewes, Barcombe, Mayfield, and Winchelsea. In 1698 the east Sussex leather workers combined to protest against the leather duty of the previous year.—*Commons' Journals*, XII, p. 96. For leather working in Kent see *V.C.H. Kent*, III, p. 375; Willan, *Elizabethan Trade*, p. 77; *Cal. S.P.D.*, 1593-4, pp. 372, 385, 388, 393, 490, 491; P.R.O. P.C. 2:40, fos. 243, 542, 551; *Records of the Borough of Reading*, III, p. 105.

In north-east Kent leather was produced for the London market and raw hides were brought from London for tanning. During the sixteenth and seventeenth centuries there was a fairly regular trade between London and Faversham, raw hides being brought into Faversham and tanned hides and calf skins being sent to the metropolis (see Table I). Unfortunately, there is no evidence to show what happened to the hides once they reached Faversham. Conceivably they were carried into the eastern Weald some fifteen miles distant. More likely they were tanned in the Faversham district, which had easy access to supplies of oak bark from the Blean Forest and other woodlands on the Downs. The Faversham region was devoted to corn- and fruit-growing and may not have produced sufficient hides to keep local tanners at work. There can be little doubt that hides were being sent to this region because of a shortage of bark in the metropolitan area. Possibly London tanners were putting work out to the tanners of north-east Kent on a commission

TABLE I¹

<i>Year</i>	<i>Tanned leather from Faversham to London</i>	<i>Tanned calf skins from Kent ports to London</i>	<i>Raw hides from London to Faversham</i>
	<i>Tanned hides and pieces</i>	<i>Dozens</i>	<i>Hides</i>
Michaelmas 1566-7	—	—	—
„ 1569-70	50	84	—
„ 1573-4	—	—	—
„ 1577-8	710	14	198
„ 1579-80	237	30	549
„ 1582-3	270	7	112
„ 1591-2	—	—	728
„ 1597-8	32	—	—
Christmas 1605-6	—	—	248
„ 1620-1	—	—	350
„ 1636-7	152	—	—
„ 1638-9	252	80	—
„ 1661-2	55	—	382
„ 1665-6	256	—	—
„ 1671-2	59	72	338
„ 1676-7	111	10	330
„ 1680-1	20	43	409
„ 1694-5	31	8½	—

¹ P.R.O. Port Books, E. 190:2:3; 4:3; 6:2; 6:5; 6:6; 7:4; 9:1; 10:6; 13:2; 25:8; 41:2; 42:5; 48:1; 51:5; 53:2; 67:1; 95:10; 151:8.

basis, a type of arrangement that certainly existed in the eighteenth century.¹

The areas discussed so far do not exhaust those places where the leather crafts figured prominently in the local economy. For example, in Kendal in north-western England six of the twelve gilds in the sixteenth century were directly associated with leather working, and the town was an important regional market for hides and leather.² In Durham, to the north-east, four of the town's twelve gilds in the early seventeenth century represented leather workers. Nearby Barnard Castle boasted a considerable manufacture of horse harnesses. There was a double connection with horse-breeding in the district, for as well as manufacturing harnesses, local tanners also worked with horse hides.³ In Northumberland, the leather crafts were numerous in the seventeenth century at Hexham and a leather market was established in the town in 1662.⁴ The basis of the industry was cattle-raising in the pastures of the surrounding countryside. Turning to southern England, Reading was a flourishing manufacturing and trading centre, local supplies of skins being supplemented by supplies bought from London.⁵ In south-west England there is reason for believing that the leather crafts played an important part in the local economy and the region would repay detailed examination.⁶ In fact, there seems little doubt that a study of several other parts of the country would reveal further the widespread importance of the leather industry in the sixteenth and seventeenth centuries.

Despite the superficial and incomplete nature of this survey, a number of conclusions may be stated. It is obvious that the leather industry was much more important in the economy of Tudor and Stuart England than has generally been supposed. Wherever any kind of statistical examination has been possible the leather crafts—including tanning, leather-dressing, shoemak-

¹ Information from Dr Everitt. Symptomatic of the difficulties of obtaining bark in the London area was the development of specialized bark dealers in the later seventeenth century, collecting bark from the outlying districts. See P.R.O. Chancery Masters' Exhibits, C. 107:110; *V.C.H. Surrey*, II, p. 337.

² *Hist. MSS. Com.*, 10th Report, Appendix 4, p. 302; 'A Boke of Recorde of the Burgh of Kirkby Kendal', *Westmorland Antiq. and Arch. Society*, Extra Series 7, 1892, p. 145.

³ *Durham Civic Memorials*, ed. C. E. Whiting, Surtees Society, 1945, pp. xiv-xv. According to a writer in the *V.C.H. Durham*, II, p. 276, Durham had a "world wide" reputation in leather at the beginning of the nineteenth century; Defoe, *Tours*, II, pp. 223-4.

⁴ A. B. Hinds, 'Hexhamshire, pt. i', *A History of Northumberland*, III, 1896, pp. 268-70.

⁵ P.R.O. Early Chancery Proceedings, C. 1:1059:70; *Records of the Borough of Reading*, II, pp. 173, 439; III, pp. 35-6. In 1623-8 27 per cent of the new freemen of Reading were leather workers; in 1630-7, 13 per cent.—*Ibid.*, II, pp. 422-32; III, pp. 372-81.

⁶ *V.C.H. Wiltshire*, IV, pp. 233-6. In Exeter leather workers formed 8 per cent of the new admissions to the freedom of the city between 1620 and 1640. They were the third largest industrial group after textile workers and building workers, but trading was much more important than industry.—W. T. MacCaffrey, *Exeter 1540-1640*, 1958, p. 163.

ing, currying, glove-making, saddle- and harness-making—appear to have employed not less than about 8–10 per cent of the working population of urban centres; and in some places the proportion was considerably higher and the leather crafts were supplying a national market. The more important leather-manufacturing towns were normally located in stock-producing areas, such as Chester, Leicester, and Northampton. But we also find towns, such as York, located in general agricultural regions, where the leather crafts assumed a large importance in the absence of any other dominant industrial activity. Other towns like London, Norwich, Sheffield, and Coventry contained large numbers of leather craftsmen, but they did not form a particularly large proportion of the work force because of the presence of other industrial and commercial activities.¹ In addition to urban centres, there were some regions where the leather crafts were numerous in the countryside. These included grazing districts in western England, High Suffolk, parts of Lincolnshire, and the Midlands, where hides and skins were freely available. There were obvious advantages in treating hides and skins where they became available, for leather was more durable and lighter than the raw hides and skins from which it was manufactured. There were, in addition, other regions where the location of the leather crafts was determined not merely by the ease of obtaining hides and skins, but also by the supply of oak bark. The leather industry in north-east Kent and the West Riding seems to have been based on this factor, and it may have influenced its location in parts of western England too. It is also possible that the quality of water supplies may have influenced the location of tanning and leather-dressing in one or two places.²

The growth of areas specializing in the production of leather or leather goods for a national market cannot be accounted for solely in economic or geographic terms. The growth of shoemaking in Northampton was due more to military and religious factors than anything else. The development of glove-making in western England certainly owed something to the fact that

¹ For Coventry see Hoskins, 'Provincial Towns', pp. 13–14. Despite the relatively minor rôle of the leather crafts in the town, Coventry tanners conducted a trade with London. See P.R.O. Exchequer Memoranda Rolls E. 159:418, membrane 97.

² The case of Oxford has been mentioned above. Tanning was said to be absent from the south-east portion of Worcestershire because the water was too hard for leather manufacture. See K. McP. Buchanan, 'Studies in the Localisation of Seventeenth Century Worcestershire Industries, 1600–1650', *Trans. Worcs. Arch. Soc.*, xvii, pp. 42–8. But the evidence is ambiguous. In 1575 it was remarked that "the Chalkie waters of the Chilton hills hath no fellowe [for tanning]."—B.M. Lans. MS. 20, fo. 10. In any case the basic operations for tanning could be modified to suit local water supplies. See J. A. Wilson, *Modern Practice in Leather Manufacture*, 1941, p. 142.

there were plentiful supplies of skins, but it also grew out of the social structure of the region. This was only one pastoral district possessing leather crafts supplying a wide market. In at least two others a similar situation obtained; the wood-pasture district of Suffolk supplied London with tanned leather, and the Weald of east Sussex and west Kent produced leather for export. The evidence, as far as it goes, supports Dr Thirsk's recent thesis on the location of industries in the countryside. However, only detailed local research can adequately reveal the full importance of the leather crafts and explain their location.

One problem that local research might illuminate is whether the importance of the leather industry in the economy waned in the late seventeenth century. This was the case, for example, in Leicester, Chester, and Nottingham, and Macpherson commented on a relative decline in the late eighteenth century. If this decline was general as far back as the late seventeenth century, it possibly reflected a faster growth of other occupations, a precursor, perhaps, of the quickening pace of economic development in the eighteenth century. Certainly as the industrial revolution gained momentum the leather industry gradually slipped from its leading place in the economy. Not only did new and expanding industries eventually produce substitutes for leather for some purposes but the industry did not benefit from new methods of production until after the Napoleonic wars.¹ Even so, the relative decline was slow, and in the early nineteenth century the industry was on the verge of profound changes in organization and techniques.² But this is beyond the period of this study. In the 'pre-industrial' England of the sixteenth and seventeenth centuries, the manufacture of leather and leather goods provided employment for large numbers of people and satisfied the demand for a wide range of clothing, household, farm, and industrial goods. The industry relied heavily on English agriculture for its raw materials and was a vital industry in the economy.

¹ Notably rubber in the nineteenth century, but also cheap glass for bottles, and clay for pipes etc. The development of precision engineering also obviated the need to use leather as washers and sleeves in pistons, etc.

² See, for example, W. G. Rimmer, 'Leeds Leather Industry in the Nineteenth Century', *Publications of the Thoresby Society*, XLVI, Part 2, no. 108 (*Miscellany*, no. 13, part 2), 1961, pp. 119-22.

A South Yorkshire Estate in the Late Nineteenth Century

By T. W. BEASTALL

AN examination of Lord Scarbrough's estate on the borders of Yorkshire and Nottinghamshire is perhaps helpful in throwing light on the hazards of estate management and farming in the late nineteenth century. Here was an estate of 5,866 acres in 1862, some 18 miles from Sheffield and 10 miles from Doncaster and Rotherham, situated on magnesium limestone in a region of temperate climate. The principal holdings, 21 in number in 1862, were of medium size, the largest 400 acres, the smallest 100 acres. Yorkshire tenant-right customs were observed and the principal occupiers, who paid tithe and rate charges, followed a four-course rotation under the terms of their annual leases. The two landlords of the period, the ninth earl and the tenth earl, who inherited the property in 1884, were resident, improving landlords whose concern for the welfare of the tenantry was unmistakable. If the advantages enjoyed by Lancashire dairy farmers, situated near a railway to a growing industrial town, were absent on this estate, yet so were the disadvantages of the Lincolnshire tenants of the Earls of Scarbrough who, as wheat growers, had to contend with heavy clay soils. The Yorkshire property seems remarkable for its lack of special advantages or difficulties. Perhaps its fortunes suggest what may have been happening on hitherto uninvestigated estates of similar size, location, and structure.¹

The reaction to prevailing trends in agriculture can be examined in a number of ways, but three methods are especially helpful. Changes in the total acreage of the estate can be traced, together with changes in farm size, field layouts, and land utilization. Then movements of rents and arrears can be investigated. Finally, activity which affects 'in hand' acreages, building, draining, and repair can be examined.

Recommendations made by a land valuer who surveyed the estate in 1862 led

¹ The estate records of the Earls of Scarbrough for the late nineteenth century are in the Muniment Room at Sandbeck Park, near Rotherham, Yorkshire. The principal records used in this article were (i) Surveys of the estate: Gee E.M.S. 37, 1813; Downes E.M.S. 41, 1, 1845; Vessey E.M.S. 45, 1862; S. C. Jones E.M.S. 47, 1896; (ii) Farm rentals, 1860-1900: E.M.R. 32-40, 2; (iii) Farm agreements, tenant-right awards, and the farm applications book, 1862-1889; (iv) Estate account books: E.M.A. 85-92; (v) Improvement accounts: E.M.B.A. 2, 2; (vi) Draining accounts: E.M.A. 78; (vii) Land Improvement Company Works: E.M.A. 83, 1-17; (viii) Letter Books, 1860-1900.

to the buying up of the "inlying" fields of other landowners to add to the "compactness" of the estate and to allow rationalized field layouts. The acreages acquired for these reasons were small; less than 300 acres were added before 1872, but the timing of the purchases and the tone of the negotiations leading up to them suggest a desire to increase the acreage, to consolidate the property, and to add to rural amenities by protecting shooting rights. This was succeeded by a definite disinclination to buy land from about 1872 until 1899 when a mining lease was being discussed with a local iron and coal company. From 1862 to 1872 Lord Scarbrough's agent, realizing the competition for land in the district, advised offers in 1868 of £70 an acre for good agricultural land on the limestone. Exchanges of land were a feature of these years. In 1868 Lord Scarbrough was willing to sacrifice 15 acres in an exchange involving 700 acres with two other owners in order to establish two ring-fence farms where previously there had been an area of confused field boundaries separating the property of three owners and five occupiers. This useful reorganization produced a 10 per cent increase of rent from the area affected by the exchange. It was during this period of enterprise that the principal holdings were reduced in number from 21 to 17 and their average field sizes raised from 11 to 14 acres. Attempts were made to enclose and drain the 78 swampy acres of Maltby Common in order to add to the "compactness" of the estate, but the scheme was lost in 1879 largely through the opposition of Rotherham and Sheffield. This was one of the last signs of a desire to increase the acreage for its agricultural worth. After 1872 a number of small local landowners, not owner-occupiers, approached Lord Scarbrough to buy their land. Their offers were invariably declined. In 1884, for example, 465 acres including a house and farm buildings lying close to the estate were offered, but the agent commented "... there are so many difficulties now in letting land at a fair rent that Lord Scarbrough does not feel inclined at present to increase his acreage." After 1900, however, until the signing of the mining lease in 1904, the agent began to make approaches to neighbouring proprietors to sell. In some cases they were willing to do so and the land thus added was sometimes at a distance from the estate, of doubtful agricultural value, and had to be let as "separate takes" to the sitting tenants at a very low return. It was estimated, by the agent, that land whose agricultural value was £24 per acre would fetch £100 per acre once knowledge of the mining lease became general. Subsequent land auctions in the district support this estimate. There was little chance of integrating these newly acquired acreages with the rest of the estate, and their purchase reversed the policy of consolidation which had been pursued from 1862 to 1872. By 1900, it seems, the claims of agriculture could not expect to come first on this estate. After all,

as the agent had written in 1892 when 24 acres were being offered to Lord Scarbrough, if purchase were made then the price would have to be "... very low—landed property at the present being a most unprofitable investment."

Was agriculture "a most unprofitable investment" for the tenant farmers? Judging by the fluctuations in rents and arrears, the tenants' views on farming seem to have corresponded with those of their landlord on landowning. From 1860 to 1875 there was a tendency for rents to rise as farm layouts were made more rational and as drainage schemes were completed. Rarely did rents stand at more than 10 per cent in arrears after either of the bi-annual rent days in May and November. In 1878, however, 25 per cent of the total was outstanding when the accounts were drawn up. At the next rent day, in 1879, 30 per cent of the rental was unpaid while at the second rent-day in that year 50 per cent was still outstanding and the first rent day of 1880 saw 67 per cent of the rental unpaid. This was the highest level touched by arrears since 1822. These arrears were not caused by the failure of a few leading tenants to pay on time; they resulted from most tenants paying off only a small proportion of the rent due from them. As rents were paid at a rent-day dinner and the agent usually noted down reactions at these meetings, we are provided with something amounting to a report on what was in effect a conference between management and tenantry. From 1875 the tenants had been expressing anxiety about their prospects, but it was not until 1878 and 1879 that they fell into serious arrears of rent. In 1879 a return of 10 per cent of the half-year's rent was made to the tenants, and later in that year permanent rent reductions amounting to 13 per cent of the rental were made. In 1885 a return of 33 per cent was made on the half-year's rent, probably to mark the succession of the tenth Earl in 1884, but from then on selective rent reductions were made to encourage those tenants with capital and skill to retain their holdings. Tenants whose management was faulty were refused reductions. Arrears fell to 10 per cent of the rental and fluctuated about this figure for the rest of the century. Between 1862 and 1900, the annual value per acre of holdings in the 300-400-acre group fell by 6s. 1d. per acre. Holdings in the 200-300-acre group lost on average 4s. 1d. per acre and those between 100 and 200 acres lost only 1s. 2d. per acre. Two holdings of 288 and 211 acres respectively, situated on the estate's heaviest land where clay overlaid the limestone, lost 8s. 6d. per acre in value in this period. Perhaps the most striking indication of difficulty in these years is the apparent breakdown of continuity of occupation by the leading tenant families. Tenancies were annual and could be terminated each Candlemas. Between 1862 and 1905 on the 17 principal holdings there were 57 changes of occupation. On average, each farm changed hands three times in a period of 43 years. In only four

cases did sons take over from their fathers, and none of them remained longer than ten years after doing so. This failure to maintain continuity of occupation is in contrast to the preceding 40 years and to the succeeding 60, for between 1900 and 1914 a number of families moved on to the estate and "put their roots down." Many of them were still there in 1965. Not one of the occupying families of a principal holding in 1862 occupied the same farm in 1905. The reasons for these changes were not clear in many cases, but there is no evidence to suggest that they were the work of evicting landlords; on the contrary, changes of tenancy were strenuously resisted where the agent and the landlord felt the occupier had the ability to make the farm pay. In 28 out of the 57 changes, debt, bad management, and strained relations with the landlord led to the end of the tenancy. In 11 cases death ended the tenancy, retirement accounted for four changes, and in one case emigration to Tasmania ended the occupation. Where a tenant left in debt, the landlord could recoup his arrears from the outgoer's tenant-right award. It is possible that the prevailing "heavy" Yorkshire tenant-right custom, which favoured the outgoer, encouraged tenants to leave in search of smaller farms. Perhaps they preferred to leave with their substantial award rather than remain and fall into serious debt. The custom does seem to have deterred applicants for farms after about 1875 when the landlord had to take in hand two farms for a few years until tenants were found and when he had to give financial help to two incoming tenants with their farm valuations.

Bad seasons and low prices were blamed by the agent for the difficulty in securing good tenants, not the heavy tenant-right custom, for this had not proved an obstacle to incomers in the 1850's and 1860's when there had been usually three or four applicants for the larger holdings. In 1876 the agent wrote "... this season will give farmers a severe shaking throughout the country ... and it will be very desirable to prevent changes." In 1879, when urging the need to make a 10 per cent rent return, he observed, "I am quite sure something ought to be done to create confidence or we shall have a lot of bad farms thrown on our hands which will not let." To support his suggestion he pointed out that two local landlords were making 10 per cent returns and two reputable Lincolnshire land agents had informed him that "... every large landowner in Lincolnshire is returning 10 per cent and in some cases more." In 1880, however, the agent was optimistic enough to write "I have great hopes now that the bad times are over. ..." Rent reductions to some tenants were still necessary, though only the more deserving received them. One occupier was refused help because his management was bad and his land was "full of twitch and altogether unfit to grow anything." The nine occupiers who were assisted in 1885 were told "... it must be

clearly understood . . . that this abatement is made to meet the present depressed state of agricultural matters and must be discontinued in the event of a general improvement taking place." By 1892 the agent reported "All paid up and there was no feeling expressed asking for a reduction of rent—the general impression was that Your Lordship had met them fair as to rent and they must look to some other source to improve matters."

There was little evidence of any change in farming practice to meet the difficulties. Piecemeal conversion of arable to pasture went on between 1886 and 1894, but the total area tackled over the whole estate was only 325 acres. The "in hand" acreage varied as two occupations were farmed by the landlord to restore them to good heart in the 1880's. Even then they were impossible to let without help to the incomer with the valuation for unexhausted improvements. In 1887 the Home Farm was split up between two occupiers who were willing to accept more land. The pattern of expenditure on draining shows that a high proportion was spent on parkland and the Home Farm between 1868 and 1875, while from 1875 to 1880 a renewed effort was made and this time tenanted land received most attention. From 1880 to 1884 about 90 acres a year were tackled for the most part on farms where the limestone was overlaid with clay and where cutting was expensive at the rate of £10 an acre. As with draining, the expenditure on buildings was greatest between 1862 and 1875. During these years the Hall at Sandbeck was enlarged, a chapel was built, new Home Farm buildings were finished, a vicarage was provided in the parish of Maltby, improvements to farmhouses were made, and cottages were built for estate workers and farm labourers. Much of this activity was to make good past neglect, but by comparison with the years 1875–1900 this was a period if not of enterprise then at least of energetic restoration of the fabric of the estate. After 1875 little was attempted in the way of building and nothing more spectacular was undertaken than the laying of water supplies to the farms from the springs on the estate.

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Landownership and the Crofting System in Sutherland since 1800

By P. T. WHEELER

THE seven crofting counties of Argyll, Inverness, Ross and Cromarty, Sutherland, Caithness, Orkney, and Shetland together cover 14,051 square miles, or 47·2 per cent of the surface of Scotland. They are part of Highland Britain, an area of natural difficulty and isolation, and are united on the legal basis of the Crofting Laws. Outside the few small towns of the area, the greater part of the population of 277,716 in 1961, 177,292 of whom lived in the "landward" or rural districts, was either directly or indirectly connected with the system of small-holding known as crofting.¹ This has been the object of much attention, official and private, especially since it was realized that a great part of any solution to the problem of a declining population in this rural area must be found in an equitable and efficient form of land tenure. Yet in spite of the great amount of material published, it is surprisingly difficult to obtain precise, factual information.² Thus it is hoped that the compilation of certain facts about one of the crofting counties—Sutherland—and their presentation in chronological order will have a positive value.³

PROPRIETORS AND TENANTS

As a result of the destruction of the clan system after 1745, and the subsequent introduction of large-scale stock farming, there were widespread evictions of small tenants from their ancient areas of settlement in the Highlands. These evictions are popularly known as the 'Clearances'. The first recorded for Sutherland took place about 1760, and the last in 1872, but the period of the great 'Sutherland Clearances' should really be counted as 1806–1820.

The initial effect of these clearances in Sutherland was to depress still further the already low position of the small tenants, who, from having been largely subservient to the tacksmen, were now overshadowed by the farmers and sheep-farmers of the county. Yet in the nineteenth century, as in the eighteenth, most of the inhabitants of Sutherland must have been of small tenant class. Table I shows the state of landownership immediately before the major clearances. In the whole county there were only thirteen proprietors sufficiently substantial to be mentioned in the list, of whom only three were permanently

¹ Although ultimately derived from the ancient Highland smallholding system, the modern crofting system is defined by a relatively recent body of legislation passed since the first Crofters Act in 1886. Nowadays a croft, broadly speaking, is a tenant holding within the seven crofting counties, of less than 50 acres arable and/or £50 annual rent, that has been declared to be of crofting status. Its tenant, all things being equal, has security of tenure, an adjudicated Fair Rent, the right to compensation for improvements upon removal, and the right to nominate a successor subject to the approval of the Crofters Commission. The earlier term for 'crofter' was usually 'small tenant', and this is still worth using in a historical context, especially where a variety of types of tenure is subsumed.

² Because official reports usually need considerable processing before their data can be used, and because the unfortunate history of the modern crofting system, embittered by memories of the Clearances, of the Potato Famine, and of emigration, in a society which remembers and values the past, has tended to produce polemical works of doubtful value as sources of factual data.

³ This information was largely obtained by the writer in the course of research on the Sutherland crofting system undertaken while reading for a Ph.D. in London University. The first really full and dependable published information available for Sutherland is contained in the parish descriptions of the *First Statistical Account of Scotland* (1792–9), closely followed by the *General View of the Agriculture of Sutherland* (1812). It is therefore convenient to begin at the turn of the eighteenth century.

resident. There was an intermediate class of tacksmen and wadsetters and a very few belonging to the professional and trading classes, but these amounted to an extremely small proportion of the total population.

TABLE I
ESTATES IN SUTHERLAND IN 1808

Estate	Valuation (£ Scots)		
	£	s.	d.
1. The estate or Lordship of Sutherland	16,554	6	1
2. Lord Reay's estate	3,647	13	4
3. The estate of Skibo	1,974	11	6
4. The estate of Bighouse	900	0	0
5. The estate of Strathy	564	0	0
6. Rosehall	400	0	0
7. Part of the Pointzfield estate	466	13	4
8. Part of the Balnagown estate	431	18	0
9. Part of the Cadboll estate	354	0	0
10. The estate of Embo	346	0	8
11. Ospisdale and Ardeans*	253	6	8
12. Creich*	200	0	0
13. Achany*	100	0	0
Total†	26,192	9	7½

* Resident proprietors.

† Total as given by Henderson.

‡ Equal to £2,182 15s. 9½d. sterling, of which the estate of Sutherland accounts for 63 per cent in value. Taken from Henderson, *A General View of the Agriculture of the County of Sutherland*, London, 1812. p. 40.

In 1808, therefore, the estate of Sutherland¹ stood out as by far the most important in the county, followed after a long interval by the Reay and Skibo estates. The other estates (not counting further properties held by their owners elsewhere) were often but 'bonnet lairdships'. During the nineteenth century the predominance of one proprietor became even more overwhelming. By 1872,

when the consolidation of the estate of Sutherland was complete and before the subsequent sales had begun, the total holding of the Dukes of Sutherland had increased from 63 to 79 per cent of the recalculated valuation of the whole county and covered 90 per cent of its total area. In all, there were 433 landowners in Sutherland, 348 of whom were householders with less than an acre of ground. Only 85 proprietors held more than one acre: excluding the Sutherland Railway Company, six of these had land to a gross annual value of over £500, but only three exceeded £1,000, the Duke having much the largest share with property worth £56,936.²

Nineteenth-century estate management in Sutherland initially favoured the setting up of great sheep farms. The first big lease of lands of the estate of Sutherland, other than for agricultural or pastoral purposes, did not occur till 1866 when Earl Grosvenor (later first Duke of Westminster) took a lease of Reay Forest; this may be said to have inaugurated the deer forest phase in the county. By 1911-12, the peak year, deer forests totalled 436,323 acres in Sutherland. Very soon afterwards the fifth Duke of Sutherland decided to break up his estate, and a series of big sales were held.³ In the first instance many of these sales were to sitting tenants, some of whom had held their leases for many years. The most important among these was undoubtedly the Duke of Westminster, the lessee of Reay Forest. As a result of re-sales and government action, the Westminster estate, the Department of Agriculture for Scotland, and the Forestry Commission are now the largest landholders in the county.

On the whole, the small tenants were little affected by the various changes of ownership. The sheep-farmers were most closely concerned in the conversion of former sheep farms to deer forests, and since in the agri-

¹ Then held by the Marchioness of Stafford, Countess of Sutherland in her own right, whose husband was created first Duke of Sutherland in 1833.

² *Scotland: Owners of Land and Heritages, 1872-3*, Cd. 899, Edinburgh, 1874, pp. 204, 205.

³ George Granville Sutherland Leveson-Gower, fifth Duke of Sutherland, *Looking Back*, London, 1957, p. 86. The first big sale of part of the estate of Sutherland took place in 1899.—Evander Maciver, *Memoirs of a Highland Gentleman*, Edinburgh, 1905, p. 148. Subsequent sales have reduced the estate of Sutherland to a small remnant of its former extent—Dunrobin, Uppat, and part of Tongue.

TABLE II
SUTHERLAND DEER FORESTS

Year	Acres	Source
1883	144,771	H.M.S.O., <i>Deer Forests, Highland Crofting Counties . . . for the Years 1883, 1898, 1904, and 1908</i> , Glasgow, 1908, pp. 4-5.
1898	381,363	
1904	418,191	
1908	427,548	
1911-12	436,323	
1920	380,044	H.M.S.O., <i>Deer Forests and Sporting Lands (Scotland) . . . according to the Valuation Roll for the Year 1911-12</i> , London, 1913, p. 538. H.M.S.O., <i>Report of the Departmental Commission on Lands in Scotland used as Deer Forests</i> , Cd. 1636, Edinburgh, 1922, App. ix.
1950	241,036	Annual 4 June <i>Agricultural Returns</i> .
1951	291,526	
1957	348,956	

The largest acreage of deer forests in Sutherland ever given was 998,571 acres on forty-six forests in 1905, but this included lands which had not been cleared of sheep.—D. McLean, *Sutherland Deer Forests*, 1905, Sutherland Estates office, Golspie, 1905.

cultural depression of the late nineteenth century the rents of sheep farms had to be reduced by about half between 1875 and 1895, while costs of rates and labour had increased heavily, it may be surmised that in practice the sheep-farmers were not too hostile to the change. To the proprietors the deer forests, shootings, and anglings became the main, if not the only, source of profit from Highland estates. However, changes in social structure and the control of wealth since 1918 have caused the decline of the Victorian-Edwardian sporting estate. Nowadays, largely owing to the rating regulations which favour their use for agricultural as against sporting purposes, the purely sporting properties are

much reduced: in fact, the remaining deer-forest land is generally that which is of little use for any other purpose.¹

SMALL TENANTS

Since published statistics rarely distinguish between tenants of crofting and of other holdings, it is generally difficult to estimate the exact numbers and importance of the small tenants.² However, for 1853 there is a firm figure of 2,680 'crofters' occupying 10,277 acres inbye and 96,587 acres hill land.³ The next figures available are those for 1883, when 2,350 'crofters' held land on the estate of Sutherland,⁴ and (since it is known that numbers had changed little in the preceding thirty

¹ Of the 348,956 acres of deer forest returned in 1957, only 9,710 acres were given as carrying sheep.

² See note 1, p. 45. 'Cottar'—here taken as meaning an occupant of a non-crofting, non-feued house situated on the township inbye, who may or may not use land or graze animals, and who may or may not pay rent to the proprietor. 'Squatter'—the same out on the common grazings. N.B. The census definition of 'crofter' is by occupation, and therefore bears no definable relation to the number of legal crofts or other croft-type holdings.

³ 'Abstract of the Crops and Stock of 2,680 Crofts in the County of Sutherland, on the 20th June 1853', *Trans. Highland and Agricultural Society*, New Series, xiv, 1853, p. 211. These figures are claimed to "exhibit the details of every tenant of land in the county." They are not above criticism, but must be accepted in default of anything better. The upper size limit for 'crofter' at that time was £20 rent per annum.—'Agricultural Statistics 1854', *Ibid.*, p. 485.

⁴ MS. Return to the *Royal Commission of Enquiry into the Condition of the Crofters and Cottars of the Highlands and Islands of Scotland* (the Napier Commission) on the crofters and cottars on the estate of Sutherland as at 1 January 1883, preserved in Register House, Edinburgh. In the light of these figures, Macdonald's total figure of 2,338 holdings of less than 100 acres would seem to be an underestimate, though his assertion that there were but sixty-six holdings of over 100 acres, two-thirds of which averaged "close on 27,000 acres each," may be accepted. John Macdonald, 'On the Agriculture of the County of Sutherland', *Trans. Highland and Agric. Soc.*, Fourth Series, xii, 1880, pp. 49-50.

years¹) it may be assumed that about 330 more 'crofters' were resident upon estates belonging to other proprietors. These figures correspond remarkably closely to that of 2,687 first applications to fix Fair Rent received by the Crofters Commission between 1886 and 1912, by which time all the county had been assessed.²

The most recent estimate of the number of crofts in Sutherland shows a considerable decrease to 2,101.³ This is due to a number of causes. Firstly, this is the number of crofts on the Register of Crofts, which may not be quite complete. Secondly, it refers to legal crofts only, and therefore does not include other croft-like properties, such as owner-occupied holdings, which do not enjoy legal crofting status (owner-occupiers do not form a large class in Sutherland, perhaps less than thirty in all). Thirdly, in spite of the formation of new townships since 1913 at Borgie, Shiness, Achnabourin, and Rhifail, and of a number of new crofts elsewhere, the effective amalgamation of holdings has proceeded apace in the last fifty years. In round figures, there are probably fewer than 2,250 crofts or holdings of croft type in Sutherland at the present day.

The number of cottars and squatters is rather obscure, for whatever definition of status be adopted, the actual numbers permitted or even noted depended to a large extent upon the policy of management of the individual proprietor or factor. However, if an adjustment is made to the returns of the estate of Sutherland in 1883 to allow for the other estates in the county, an approximate total of 73 cottars and 180 squatters may be arrived at for that year. Unfortunately there are no later, dependable estimates of the numbers of cottars and squatters in Sutherland,

land,⁴ but it is known that the total has continued to decline as pressure on the crofting system as a whole has declined, as the inclination of proprietors to upgrade substantial cottars and squatters to crofting status decreased after 1886, and as the more recent tendency to feu (i.e. lease in perpetuity for a fixed ground-rent) house-sites has grown. However, the total of cottars and squatters in the county is unlikely at present to exceed 50, and is probably nearer 20.

HOLDINGS OF SMALL TENANTS

The area of land occupied by small tenants has tended to increase as their numbers have decreased. The 1853 returns gave a total of 10,277 acres inbye and 96,587 acres outrun, or an average of about 4 acres inbye and 36 acres hill land per holding. In all, this was approximately 7.9 per cent of the total area of the county, and represented fairly exactly the share of land received by the small tenants in the Clearance settlement. On the other hand, this inbye represented almost half (46.7 per cent) of the contemporary arable estimated for the county.

Between the 1853 figures and those for 1883 come some interesting data for 1870.⁵ It was estimated in that year that 95 per cent of the tenants in Sutherland had less than 20 acres inbye each, while 98 per cent, with less than 100 acres each, occupied not more than 20,000 acres, leaving the remaining forty-four holdings of over 100 acres each occupying together over 1,187,000 acres. In fact, thirty tenants held an average of 36,000 acres each, covering nine-tenths of the county.

In the 1870's and 1880's a number of small additions of land were given to the crofters. Thus, in 1883, the crofters upon the estate of Sutherland were credited with 24,444 acres

¹ Macdonald, *op. cit.*, p. 87.

² Crofters Commission, *Annual Report*, 1912, Cd. 6788, Edinburgh, 1913, pp. 218, 219. It is clear from surviving rentals examined by kind permission of the fifth Duke of Sutherland that some holdings had been amalgamated or abandoned during this period.

³ Private communication from the Crofters Commission, Inverness, 9 May 1963.

⁴ The annual 4 June *Agricultural Returns* have at various times had entries which might be equated with cottars and/or squatters, but never precisely so. It is, however, quite clear after 1886 that they were not significant either for cultivation or for stock compared with crofters proper.

⁵ Macdonald, *op. cit.*, pp. 49, 50.

inbye. In 1912, with more accurate measurement and after considerable enlargement of the crofting lands, particularly outrun, the Crofters Commission gave a fairly exhaustive estimate of 23,700 acres in individual occupation, and 204,736 acres common pasture, or 17 per cent of the area of the county. The area of land under crofting tenure¹ has since been very substantially increased, so that the latest estimate available suggests that the area of inbye and regulated grazing in crofting occupation is at least 292,683 acres, or 22·5 per cent of the surface area of the county. In other words, if allowance is made for unregulated grazings, sheep club lands, etc., it may be said that the crofters now occupy about a quarter of Sutherland, which is probably the highest proportion they have ever achieved.²

STOCK NUMBERS

The Highlands were and still are primarily a stock-rearing area. Examination of surviving data shows, however, that there has been considerable variation in the amount of stock kept in Sutherland. In 1798 the total stock in

the county equalled 204,393 sheep units:³ by 1808 this had declined to 199,353 sheep units, largely due to losses of horses, cattle, and goats not wholly compensated for by an increase in the number of sheep consequent upon the introduction of sheep-farming to Sutherland.⁴ By 1853, in spite of the disappearance of goats and the marked decline in the numbers of horses and cattle, sheep-farming had forced the stock figure up to 240,890 sheep units.

The recorded stock in Sutherland was at its nineteenth-century maximum in 1876. Obvious causes of the subsequent decline seem to have been the agricultural crash of the 1870's, the conversion of much land to deer forest, and a gradual loss in the carrying power of the cleared lands.⁵ The lowest level in this century appears to have been reached just before the Second World War, after a long period of slump. Recovery during the war (partly a purely statistical feature⁶) appears to have been followed by a decline and then a recovery in the past decade, largely due to governmental encouragement of farm-

¹ By definition inclusive of the area of land occupied by the small number of surviving cottars and squatters.

Many enlargements were granted to individual crofts and to separate common grazings under post-1886 legislation, and numbers of new crofts have been set up. The new townships established have been Strath Naver (Syre; 1901), Sheigra (1912), Borgie (1916), Shiness with West Shiness and Achnairn (1920), South Achnabourin or Achagary (1923), Rhifail (1927), and Scibberscross (1931). Except for Sheigra, all these were "Part II Schemes"—that is, the original subjects were acquired by the Congested Districts Board or the Board (later the Department) of Agriculture for Scotland for the establishment of crofts, and the land is still owned by the state and administered by the Department. Sheigra remained in private ownership and is therefore a "Part I Scheme."

² This estimate agrees closely with one of 24·5 per cent arrived at by adding the area of inbye of all holdings of less than 50 acres crops and grass (15,899 acres) and of 'Common Grazings' (228,418 acres: figures for 1959 and 1960 kindly supplied by courtesy of the Department of Agriculture for Scotland), to an estimated area for the sheep-stock clubs in the county, not all of which make returns (88,856 acres), giving a total crofting area of 333,173 acres. This in its turn compares closely with the total land area held by 'part-time' and 'other' farms in 1956 (332,635 acres; unpublished data kindly given by the Department of Agriculture for Scotland).

³ John Henderson, *A General View of the Agriculture of the County of Sutherland*, London, 1812, p. 180. For the purpose of arriving at a total stocking figure for the whole county, all types of animal have been reduced to sheep units. Pigs are traditionally unsoumed, and have not been included.

⁴ The decline was at least partly due to the bad year 1807-8. It should be remembered that the old unimproved stock was by no means the equal in value or feed-consumption of the later animals. To this extent it is misleading to construct figures such as Fig. II without introducing a compensating factor. This, however, is a counsel of perfection.

⁵ First evident on the older farms about 1850, but amounting to about 25 per cent of the stock carried over the next thirty years.—C. G. Roberts, 'Sutherland Reclamations', *Jour. R. Agric. Soc.*, Second Series, xv, 1879, p. 446. See also A. J. S. Watson, 'The Rise and Development of the Sheep Industry in the Highlands and North of Scotland', *Trans. Highland and Agric. Soc.*, Fifth Series, XLIV, 1932, p. 15.

⁶ Caused by the necessity to make stock returns in order to get feed rations.

ing, of hill-sheep farming, and of crofting.

So far as the individual types of animal are concerned, it will be observed that sheep numbers in particular have fluctuated. To some extent this reflects the bad seasons such as the winter of 1940-1. Cattle numbers showed a characteristic and steady decline from 1876 to 1939, but thereafter appear to have recovered somewhat. The numbers of horses decline steadily.

It may be taken that formerly the greater part of the stock in the county belonged to small tenants, but the Clearances altered this completely. Most of the old Kerry sheep and goats of Sutherland were killed off by the bad winter of 1807-8 and by an epidemic of scab and rot, so that a large proportion of the 94,570 sheep recorded in 1808 must have been Blackface (with some Cheviots) owned by sheep farmers. By 1853 it was possible to be more specific, for the crofters were said to hold 26.7 per cent of the stock of Sutherland—most of the horses and (except in the east) cattle, though their holdings of sheep were small, especially in the east of the county. There were no pigs in the west, but elsewhere the crofters held a substantial proportion of the total.¹

The 1883 *Return* gave the crofters only 49,200 sheep units, or 16.8 per cent of the stock; the balance of stock kept shows that sheep still occupied a lesser place in the economy with 46 per cent of the stock held.²

¹ This corresponds on the one hand to the demands of subsistence agriculture, with cattle for milk and sale, sheep for wool and occasional slaughter, and pigs for meat, and on the other to the predominance of small crofts with large areas of hill in the north and west, and the presence of larger crofts but with outrun much limited by farms in the east.

² It is rather surprising, in view of the political pressure at that time to improve the lot of the crofters and to extend their lands, to find that they held but 55.9 per cent of their permitted soum or stint. The horse and cattle soums were usually completely taken up, in contrast to the sheep soum of which just over a third was taken up, making 46 per cent of the stock actually held (cf. *Return* in note 4 on p. 47). This assumes that the factors who made the return held an accurate knowledge of the tenants' stock, and that soums were related to actual carrying power of hill pastures.

³ See note 2, p. 49. If the 'part-time' and 'other' farms are reckoned to be the equivalent of the crofts in 1956, one can, however, suggest that the crofters held 97,543 sheep units (of which 83.4 per cent were sheep), out of 271,539 sheep units in the county (of which 84.5 per cent were sheep), or 35.9 per cent of the total stock. The drop in the crofters' share in the total stock is to be accounted for by the fact that whereas in 1883 the other farmers held a stock probably not so very different from the present and certainly composed mainly of sheep, the crofters have much reduced their cattle without (in the circumstances of the decline of the crofting economy) increasing their sheep sufficiently to compensate. Both crofters and farmers have greatly reduced their stock of horses.

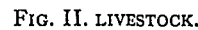
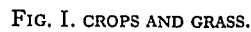
⁴ John Henderson, *op. cit.*, 2nd edition, 1814, p. 190.

It is extremely unfortunate that after 1883 there are no figures of stock from which it is possible to extract the small tenants' holdings: only field work can give this information now. Certain broad trends are generally acknowledged: the number of horses kept by crofters has fallen, though rather more slowly than in the farming community; the number of cattle has fallen with the change from subsistence agriculture on the crofts, though it has been affected in recent years by the hill cattle subsidies; the number of sheep has increased out of all proportion and is responsible for both the over-grazing and the ill-balanced grazing of many common pastures. However, some estimates for the post-war period will be made on the basis of various official statistics.³

CULTIVATED LAND

The cultivated area in Sutherland in 1808 was 18,125 acres, including 479 acres of rotation grass, plus a further 1,250 acres of natural meadow.⁴ Since this was virtually pre-Clearance it is certain that a large part of the cultivation must have been in the hands of small tenants, though probably all the rotation grass was on the east-coast farms. The Clearances undoubtedly changed this. In 1853 there were 22,022 acres arable (4,978 acres under "alternate grasses") in the county, while 1,799 acres comprised improved enclosures under permanent grass. Allowing for

The 1853 material allows an exact calcula-



¹ C. G. Roberts, *op. cit.*, pp. 397 ff.

tion to be made of the share of the small tenants in the cultivation of the period.¹ They had 11,527 acres inbye, or 40.5 per cent of the total area of inbye, 46.7 per cent of the arable land of the county, with 23 per cent of the rotation grass and 53.6 per cent of the land under crop and fallow. On the other hand, they had but 14.9 per cent of the improved pasture. This is what would be expected, allowing for the emphasis in the mid-nineteenth-century croft economy on cultivation of every feasible portion of inbye. In 1883 most of the newly reclaimed land was still in cultivation and therefore the crofters' share in the county totals was proportionately reduced to about 27,870 acres inbye, or 69.2 per cent of the total arable and grass.² The last official estimate of the crofters' inbye was that of the Crofters Commission for 1911, when it was given as 23,700 acres, or 75.8 per cent of the total area of crops, grass, and fallow.³

Even if it is impossible to state accurately the share of the crofters in the cultivation of the county, it is still possible to state generally accepted trends. It is certain that during this century much croft inbye land has gone back to permanent grass and to rough grazing. The cultivation is much less intensive than it used to be in the days of subsistence farming, and crops for human consumption are now almost entirely limited to potatoes and vegetables. In recent years there has been a slight increase in cultivation in connection with the administration of cropping grants and subsidies (and perhaps with the temporary elimination of rabbits), but it has not yet made any significant difference.

AGRICULTURE SINCE 1945

Broadly speaking, the improved inbye oc-

cupied by the small tenants was in full cultivation until 1914, which in many districts is said to have been the decisive date in the breakdown of crofting practice. The Second World War also struck hard at crofting agriculture: land which had been used again after 1918 was sometimes abandoned and sometimes worked at lower intensity thereafter. Lack of labour prevented an intensification of farming such as took place in the more important arable areas, while the peculiarities of the Highland environment and system made it not worth the government's while to enforce such intensification. Thus, while the level of activity on the arable farms of the county rose during the war, that on the crofts tended to decline.

Until recently the collection of purely crofting data has been much hampered by uncertainty about legal crofting status:⁴ statistics—e.g. those for 1946–7⁵—have tended to be arranged according to other criteria such as the amount of labour demanded by the holding. Thus, in the late forties, the main types of full-time⁶ holdings in Sutherland were 'hill sheep farms', 'stock rearing with crop sales unimportant', and 'stock rearing with crop sales relatively unimportant'. This reveals the very heavy dependence upon stock in one form or another, but the fact that these are 'full-time holdings' means that the number of crofts included is limited, a fact confirmed by local knowledge. It is tempting, therefore, though probably misleading in detail, to equate the two remaining classes of holding—'part-time' and 'spare-time' holdings—with holdings of a croft type. However, one may point out that though these two classes amounted to 71 per cent of the total operating farm units in the Highlands, they covered only 23 per cent of the total agricul-

¹ 'Abstract of the Returns of the Crops and Stock in the Counties of Roxburgh, Haddington, and Sutherland, on 20th May, 1853', *Trans. Highland and Agric. Soc.*, New Series, xiv, 1853, p. 209.

² Returns for the estate of Sutherland, weighted for the whole county.

³ Crofters Commission, *Annual Report*, 1912, *op. cit.*, pp. 218, 219.

⁴ Presently being resolved by the compilation of a register of crofts by the Crofters Commission.

⁵ Department of Agriculture for Scotland, *Types of Farming in Scotland*, Edinburgh, 1952. The following unpublished data have been extracted by courtesy of the Department.

⁶ *Ibid.*, p. 9: 'full-time holding'—demanding over 1,800 hours' work per annum. See also maps 6, 9, 10, pp. 26, 34, 35.

tural area. It is thus clear that though numerically predominant and politically influential they were likely to be less so in regard to agricultural output than the full-time units. This is confirmed by field investigation. One may add, however, that hill sheep, largely on the common grazings, are evidently the main interest of the Highland croft,¹ and that other stock, though possibly demanding more labour, are in total less significant.² The relatively small labour requirement for sheep, together with their relatively high financial return, is, of course, one of the main reasons for their spread and preponderance in the present crofting system, where a change from a subsistence farming economy has been accompanied by an ageing of the population and a diminution of labour supply. Also, sheep fit in well with the institution of the crofting township with its common grazing. Since the 1940's these characteristics have been emphasized in Sutherland, at least, by the decline in the number of cows kept for domestic milk supply and the spread of consumer milk sales networks.

Unpublished data for 1956 were processed in a somewhat different fashion, and here it does seem likely that the classifications of 'part-time' and 'other' holdings may give approximately the number and cropping and stocking of those farm units occupied by crofters on which something like continued farming is practised, though the number of these, for obvious reasons, is not likely to be the same as the number of separate crofts or of persons describing themselves as crofters.³ On this basis 8.8 per cent of Sutherland farms were full-time, non-crofting subjects, 63.9 per cent were part-time, and 27.3 per cent were other holdings—roughly 91.2 per cent (1,882) of holdings, therefore, may have been

of crofting type. The complementary distribution of farms and crofts is sufficiently indicated in Fig. VI—the predominance of crofts in the west and north, the mixture of crofts and farms in the east and south-east, and the predominance of farms elsewhere. This also by implication brings out the contrast between farms with much arable in the east and with very little arable in other parts of the county, though frequently an east-coast farm is run in conjunction with hill grazings. In 1956 the full-time farms predominated in respect of tillage and rotation grass—the only single crop in which croft-type holdings predominated being potatoes, which are largely grown for human consumption. Similarly, the full-time holdings predominate in the total stock carried. This confirms the earlier remarks on the relative economic subordination of croft-type holdings.

The 'part-time' and 'other' holdings have the majority of working horses of the county: mechanization on the smaller crofting units is less complete than on the bigger farms. On the other hand, they had fewer cattle, sheep, or pigs. The full-time holdings included proper hill-sheep farms and stock-rearing farms, which hold much larger numbers of stock than the average croft. Similarly, pig-keeping is almost entirely restricted to the eastern farms: it is only with poultry that the 'part-time' and 'other' holdings are more important than full-time farms. The average stock carried on the latter is 100.1 livestock units compared with 8.2 units on the former.⁴ Sheep and cattle are far the most important stock. The cattle held by farms tend to fall fairly clearly into either dairy cattle (it is the east-coast farms which are the most important source of milk for the county) or hill cattle, but on the crofts there is a tendency to have

¹ In 1958-9 the stock in sheep units kept by 364 crofting units in Sutherland averaged 80.6 per cent sheep.

² *Types of Farming in Scotland*, *op. cit.*, p. 71. For Sutherland it was calculated that out of an average total labour requirement of 1,150 hours per annum per holding, 23 per cent was for crops and grass, 40 per cent for cattle, 25 per cent for sheep, 8 per cent for poultry, and 4 per cent for horses.

³ Made available by courtesy of the Department of Agriculture for Scotland. The category 'other holdings' was not further broken down, and is somewhat distorted by the inclusion of very large areas of hill belonging to the relatively few deer forests.

⁴ Livestock units calculated on the basis indicated in *Types of Farming in Scotland*, *op. cit.*, p. 101.

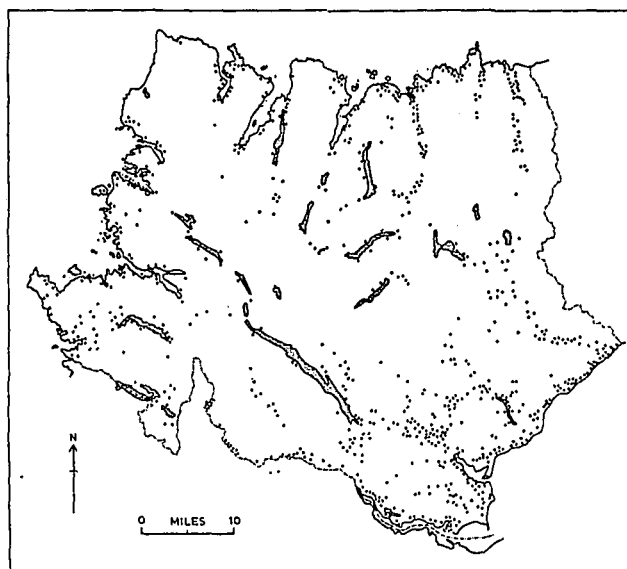


FIG. IV

PRE-CLEARANCE SETTLEMENTS
IN SUTHERLAND.

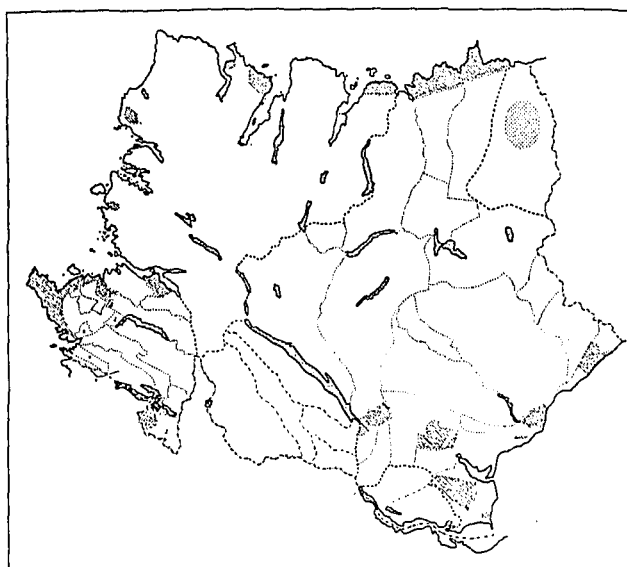
Based on Roy's map of the Highlands 1747-55 (British Museum Catalogue: MS. maps and charts XLVIII 25); other maps (British Museum Catalogue 7330: 45, 50, 54, 57, 59); First Edition Ordnance Survey maps; MS. maps in the archives of the late Duke of Sutherland; various literary sources.

- identified settlement.

FIG. V

THE CLEARANCE SETTLEMENT
OF SUTHERLAND.

Estate boundaries from the 'Sketch of the late Arrangements adopted in the County of Sutherland', in James Loch, *An Account of the Improvements on the Estates of the Marquis of Stafford*, London, 1820. Boundaries of sheep farms in the main body of the estate of Sutherland from Loch, *op. cit.*, but for Assynt see W. Young, 'Report on Assynt, etc.', MS. dated 13 August 1811 in the archives of the late Duke of Sutherland.



 areas reserved for small tenants according to Loch (obviously an underestimate for the shores of Loch Inchar and for Scourie, probably due to the deficiencies of contemporary maps).

 areas reserved for small tenants according to Young.

 area known to have been reserved for small tenants on the Bighouse estate.

--- boundaries of the estate of Sutherland 1820.

.... boundaries of sheep farms within the estate of Sutherland.

— boundaries of other lesser estates 1820.

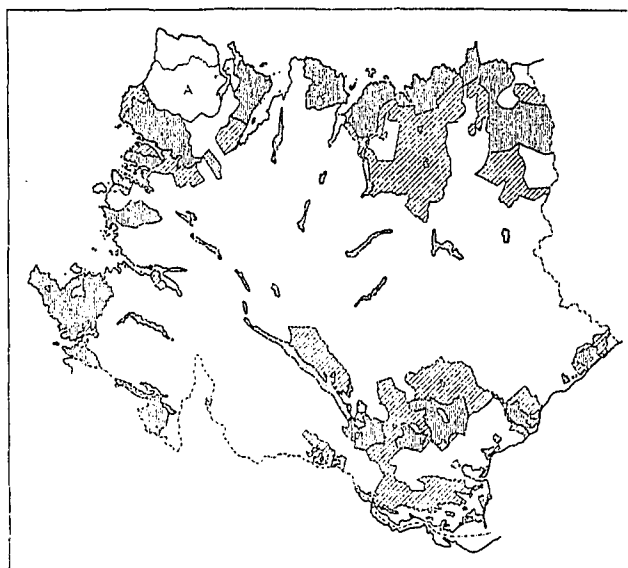


FIG. VI

LAND OCCUPIED BY SUTHERLAND
CROFTERS 1892-1960

Crofting lands for 1892 taken from *Report of the Royal Commission (Highlands and Islands 1892)*, Cd. 7681, Edinburgh 1895, Part II, maps CI-CIX, CXIII-CXV (data deficient for Creich, Dornoch, and Golspie). Additional lands occupied by crofters in 1960, including Club Stock lands, compiled from data kindly supplied by the Crofters Commission, the Department of Agriculture for Scotland, the Scottish Land Court, and from field work.

||||| existing crofting lands in 1892 (data deficient for Creich, Dornoch, and Golspie).

||||| other lands occupied by crofters in 1960.

A Keoldale Club Farm.

a cross-bred cow capable of producing milk, and to raise calves from a beef-breed bull (generally Aberdeen Angus), which will qualify for the hill-cattle grant. Formerly, the cows were the only source of domestic milk supply, but there is an increasing tendency to buy milk and to allow the cows to suckle their calves till they are sold off at any age between six and eighteen months. In any case, cattle, unless of a pure hill breed such as Highland or Galloway (neither of which are common in the county), need a good deal of winter feeding, and therefore demand the growth of fodder crops.

Sheep, by contrast, can usually get by with very little hand feeding. This leads to a sharp division of practice between farmers and crofters. Sheep farmers in Sutherland generally look after their flocks with considerable

care, and in spite of the rising difficulty in getting shepherds, manage to move the flocks from the more exposed lands in severe weather and to distribute feed whenever necessary. In fact, many of the lower farms have sheep runs attached or are run in conjunction with a sheep farm. The crofters—though many individuals take very considerable trouble over their sheep—tend to be much less professional in their standards (often almost necessarily so, considering the difficulties of stock-holding on common grazings where the communal system is not properly developed), and almost universally condemn the practice of hand feeding except in the most severe conditions. It would be interesting were it possible to compare farm and croft lambing percentages: they would almost certainly be lower in the latter.¹

¹ In this connection it is worth examining briefly some data collected by the writer in 1958-9. These show that for 364 crofting units analysed there was an average official soum or stint of 50.2 sheep units (a crofting unit is the total unit, inclusive of any amalgamation, sub-letting, etc., which is worked as one croft-type holding: it is clearly not necessarily the same as a single croft). 116 crofting units had less than half their total soum of stock, and could hardly be counted as efficient pastoral units, though 166 had more than their official soums—in most cases because of overstocking with sheep. The average proportion of the soum in sheep units actually taken up was 99.7 per cent of which 80.6 per cent consisted of sheep. Similarly, 575 crofting units with an average inbye area of 18.5 acres, 54 per cent of which was assessed

SUTHERLAND SINCE 1800: EPILOGUE

It has been possible to trace the rise of the great consolidated estate of Sutherland during the nineteenth century, as it absorbed almost all the other estates in the county. Great measures of reorganization early in the century involved clearance of the interior and the establishment of belts of dense coastal settlements of crofter-fishermen, the construction of roads and harbours, and the re-allocation of the cleared lands to alternative uses—the first, most important, and longest lasting of which was sheep farming. In this century economic and social changes have led to the break-up of the estate of Sutherland and to the diminution of the sporting interest. Sheep farming still continues after various vicissitudes, but on an area of land significantly reduced by the demands of forestry and crofting—though the latter itself has come to depend largely on sheep.

The small tenants, indeed, have greatly increased their share of the total land surface; their influence was probably at a minimum immediately after the Clearances, but in the second half of the nineteenth century, with the reduction of congestion, and especially with the passing of the 1886 Crofters Act and the electoral reform of 1884, their influence and security increased, as did their share of the land of the county. Unfortunately, improvement of the crofters' position has been accompanied by the decay of the crofting sys-

tem: the loss of population, which in the mid-nineteenth century was of assistance in relieving congestion, has gone so far and continues so rapidly that now doubts may be entertained about the continued viability of the county as a unit of local government.

The modern crofting system is the result partly of historical influences and partly of a relatively modern body of legislation. In many respects it is an anachronistic type of system in this country, but it is very heavily protected and change is largely inhibited. In spite of this, the continued loss of population proves that the system is unsatisfactory demographically, while deficiencies such as those indicated above prove that it is unsatisfactory even as an agricultural system. A very great deal will have to be done if it is decided to resuscitate the Highland areas: changes as radical as those of the early nineteenth century might well be involved, and investment on a comparable scale—though without the social injustice. Certainly, a consistent and forceful policy would have to be undertaken and applied firmly. Those with a real interest in the progress of the Highlands, not only as an individual region but also as an example of the contact of a region of geographical difficulty and economic backwardness with a more advanced and richer economy, may hope that such a policy will be formulated quickly, before its opportunities of success have been lost.

as arable, cultivated a mean of half their assessed arable area, 342 of them cultivating less than half their assessed arable. On this basis it is easy to see that a significant proportion of crofts is inefficient by the arbitrary standards of cultivation (50 per cent) or of animal husbandry (31 per cent). It is thus fair to say that the crofting system in Sutherland at least is working at much less than capacity in spite of its protected position.

List of Books and Articles on Agrarian History issued since September 1964¹

Compiled by H. A. BEECHAM

BOOKS AND PAMPHLETS

- ADAMS, L. P. *Agricultural Depression and Farm Relief in England, 1813-1852*. Cass.
- AIRNE, C. W. *The Story of the Isle of Man, vol. II: 1406 to Modern Times*. Norris Modern Press, Douglas (Isle of Man), 1964.
- ANDERSON, A. *The Story of Bromborough*. Anne Anderson, 17 The Rake, Bromborough, Wirral, Cheshire. 1964.
- EVERY, D. *The irregular Common Fields of Edmonton*. Edmonton Hundred Historical Soc., Occasional Papers, new series, no. 9.
- BAGLEY, J. J. *A History of Lancashire, with maps and pictures*. 3rd ed. Darwen Finlayson. 1964.
- BAGLEY, J. J. *Historical Interpretation: Sources of English Medieval History, 1066-1540*. Penguin Books.
- BARBER, W. *The Chronicles of Canal Street: from B.C. (before Christys) to 1868*. Christy, Stockport, Cheshire.
- BARRETT, W. H. *A Fenman's Story*. Routledge.
- BEVAN-EVANS, M. *Farmhouses and Cottages: an Introduction to Vernacular Architecture in Flintshire*. Flintshire Record Office, Old Rectory, Hawarden, Flintshire. 1964.
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NOTES ON CONTRIBUTORS

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Book Reviews

C. W. CHALKLIN, *Seventeenth Century Kent: a Social and Economic History*. Longmans, 1965. xv+294 pp. 35s.

This volume is a very competent addition to the gradually growing library of local studies on agrarian and economic topics. Mr Chalklin, who is now a lecturer at Reading University, has had the advantage of working for several years on the staff of the Kent Archives Office. Few local repositories are richer in sources or better organized, and the author has exploited these facilities with admirable thoroughness. The volume is based partly on his own researches, and partly on several unpublished theses, whose conclusions he has sometimes been able to substantiate with a wealth of further detail. As is fitting in a county still predominantly agricultural outside its commuter belt and its seaside resorts, the greater part of the book is devoted to Kentish farming and rural society. Its four parts describe 'The setting and its Inhabitants', 'Farming', 'Industry and Trade', and 'Society'. Numerous other topics—for example the history of disease (pp. 38-41)—are suggestively touched on, and show how many major fields of local history, even in so well-trodden a county, remain virtually unexplored. Manufactures, such as the Wealden iron industry, are not neglected, but are given a secondary place. Though in several parishes they employed a large part of the population and enriched a few minor gentry like the Streatfeilds and Horsmondens, they were not of comparable importance to the iron industry in Sussex, on which the fortunes of knightly and even noble families, such as the Ashburnhams, were sometimes based. Mr Chalklin's account of Kentish agriculture does not produce any novel or startling conclusions, but it patiently and convincingly traces the modern agricultural pattern of the county back to its Tudor and Stuart origins. My only small amendment would be that hops seem to have been grown extensively around Canterbury rather earlier than he suggests: by

Charles I's reign, at least, according to a contemporary dispute in Chancery.

The author's description of Kentish society is perhaps the most interesting section of the book. The effects of partible inheritance in Kent, and of patriarchal forms of life, are strikingly illustrated in some of his examples of family history. The account of the rise of the Childrens of Hildenborough, from obscure medieval beginnings, until they unobtrusively graduated into gentility under Charles II, is the perfect success-story of a yeoman line unencumbered in any generation by a superfluity of sons and daughters (pp. 234-6). Their head, George Children, became sheriff of Kent in 1698. The old family-home, however, though added to bit by bit till it had become a small mansion, apparently still remained, like those of hundreds of other Kentish gentry, essentially a farmhouse, where farm labourers and servants lived under the same roof-tree as the local squire. The other side of the yeoman's story is told in the record of the Rucke family of Boughton-under-Blean (pp. 232-3). Their roots in the local countryside were similar to the Childrens', but owing to successive partitions of their small patrimony among a numerous progeny, no member of the family owned enough land, by 1670, to support his dependants. Each retained a few acres; but one of them had perforce become a maltster at Boughton; another was a cordwainer at Molash, over the Downs; and a third rented a 100-acre farm in Lynsted, while he and his brother leased their own joint holding of 13 acres to a local tailor. Although by this date the landed estates of the Kentish gentry were rarely subject to the vagaries of partible inheritance, their former history ran to much the same pattern of rise or decline. As yet there was no very sharp distinction between their lower ranks and the yeomanry; their origins in small medieval freeholders were often identical; they still mixed with each other, and they usually attended the same

local schools (p. 209). Until Hasted's time, and after, it was still true that the intermingling of the estates of yeomen and gentlemen "brought them together to solve the common problems of neighbouring landlords, and taught the gentry to treat the farmer with respect and civility" (p. 231).

Mr Chalklin's account of town life in Kent also contains much of interest, and makes one look forward to the publication of his further researches in this field in other counties. With regard to his remark that the urban proportion of the Kentish population was nearly double that of the average county, one wonders whether a possible *caveat* should not be entered (p. 32). I may be misunderstanding him, but apparently this calculation includes the suburbs along the Thames, which, though geographically in Kent, were obviously oriented towards London, not towards county affairs. This raises the question of how far the county is a justifiable unit in dealing with economic history: a point which will be referred to later in this review. More important, it is not clear whether the total always excludes the non-urban population of those town parishes where many families lived in rural hamlets apart from the urban settlement itself. At Sevenoaks, the rural population is properly excluded. From Gregory King's special survey of the parish, cited by Mr Chalklin, it is clear that at most only 57 per cent of the 1,572 persons in the parish actually lived in the town; the rest were country folk pure and simple, living two or three miles away at least, in the hamlets of Riverhead and Sevenoaks Weald. In a county of dispersed settlement, this population pattern must have been frequent: even more so, probably, than these figures suggest, since there were in reality more than three separate settlements in the parish of Sevenoaks, though all were grouped in one of the three 'boroughs' of Sevenoaks—Town or Upland, Riverhead, and Sevenoaks Weald—which were administrative divisions. In small market centres, moreover, like West Malling and Westerham, and in some of the larger ones no doubt, probably many of the 'townsmen' were themselves

farmers rather than tradesmen. Apart from the obvious cases of Canterbury, Rochester, Maidstone, Sandwich, and Dover, one wonders indeed how many of the numerous market centres of the county were strictly urban settlements. The problem of definition in such comparisons is more than an academic one.

In a book of this kind, the problem always arises of reconciling the claims of analysis and description, of facts and the problems underlying them, of the procrustean basis of provincial life and the form and shape of society moulded by it. Some readers may feel that Mr Chalklin has decided a little too much in favour of factual relation. There is much to be said for what has been called the "excellent low voice" of local study; but what does all the evidence, so interesting in its detail to the native, really mean? Mr Chalklin would have been justified, from the plentiful evidence he has marshalled, in sometimes drawing his conclusions more boldly. For example, he shows unmistakably the extent of woodland in Kent (p. 76), alludes to the last stages in its colonization (pp. 11–12), mentions the importance of heath, wood, and wasteland to the poor (p. 22), and the dependence of the iron industry on Wealden fuel. But the predominant place of woodland in the Kentish economy as a whole, which these fragmented facts suggest, does not emerge as clearly as the sources warrant. In the hand-made world of the Stuart era, wood was by far the most important raw material, not only for fuel but for building ships, houses, coaches, and wagons, and for manufacturing almost every kind of implement and utensil used by the farmer and the housewife. In densely peopled and well-wooded areas like the Weald, the whole way of life of many hundreds of craftsmen and husbandmen depended upon it, directly or indirectly, for daily work and seasonal by-employments.

Another problem arises in connection with Mr Chalklin's remark that the number of nonconformists in the diocese of Canterbury in 1676 was higher than in any other diocese in the province (p. 227). If this is correct,

without qualification, it poses a number of far-reaching questions. To some extent the figures are distorted by the quite exceptional foreign congregations of Canterbury (numbering 900 members in the 1630's), and of Maidstone, Sandwich, and Dover. But there is surely an important problem underlying the author's statement, especially when it is realized that in the Civil War puritans were relatively quiescent and few in numbers in Kent, in comparison with such counties as Suffolk and Northamptonshire. Where did they all come from? Or is the Compton Census wholly unreliable? The answer is in part connected with the distribution of nonconformity in the county, primarily in Canterbury itself, in the London suburbs, and in the clothing villages of the Weald (though not all of these were in the diocese of Canterbury). The Wealden area, in fact, had every predisposition in favour of nonconformity. Some of the parishes were enormous by southern standards; many inhabitants lived miles from their parish church; in winter they were sometimes isolated for months by impassable roads; and there were very few dependant chapels in outlying hamlets in the Weald, as there were in parts of the Pennines. In such circumstances there was every temptation to ignore the local vicar and listen to the itinerant ministers who preached in neighbouring barns and cottages, particularly after the Great Ejection of 1662. Like forest parishes elsewhere, moreover, those in the Weald were extremely populous, no doubt often with many new or migrant families in them, usually without any single dominant squire to control them, and often-times distinctly unruly. Based on the scattered and isolated hall-houses of farmers and clothiers, the social structure of the area bred a vigorous but insular and independent family life, closely integrated in structure, with sons, daughters, and servants lodged under the same roof as the family head and master. Finally, as Mr Chalklin interestingly suggests, the frequent journeys of the clothiers to the London cloth market, where they heard the city ministers, and in their inns met puritan traders from other counties, no doubt facili-

tated the dissemination of nonconformist ideas: just as the growing tribe of wayfaring merchants in general in this period encouraged the spread of puritanism in Northamptonshire and other forest areas. In short, it seems an over-simplification to think of nonconformity as a prominent native feature of the county as a whole. The truth is more complex, and more interesting.

Everyone who reads this book will hope that comparable studies of other regions may be undertaken. Many aspects of the social and agrarian pattern elsewhere have been analysed by Professor Hoskins, Dr Thirsk, Dr Kerridge, and others, and further surveys and monographs will help to highlight some of the comments in this book, and put others into perspective. One of the most pressing economic problems of English history is the force, extent, and effect of metropolitan influence in the provinces. In describing the attractive power of the London market, Mr Chalklin has of course relied heavily on Professor Fisher's work. The subject forms one of his two main themes and is obviously of great importance (p. 4). What we really need to know, however, is not simply the absolute figures of London's imports from Kent, which Professor Fisher and others have given us, but the *proportion* of London's supplies that came from Kent, and the *proportion* of the county's output sent to London. The latter figure can never be known exactly, but it was clearly sizeable in the rich cornlands of north-east Kent, though always subject to violent annual fluctuations and the vagaries of the local climate. Elsewhere, however, in the Weald, the chartland, and the downland, metropolitan demand can only have been marginal, save in certain isolated tracts of countryside, such as the hopfields around Maidstone. Poor or difficult soils, inadequate transport, and the small family-farm characteristic of much of the area did not encourage commercial exploitation. As for the proportion of London's imports that came from Kent, it is necessary to remember also the great seaborne corn-trade from King's Lynn and the Essex ports, the important overland

corn-trade, primarily from Hertfordshire, and, above all, the river traffic down the Thames from Oxfordshire, Buckinghamshire, and Berkshire. Mr McGrath has suggested that the corn-trade by road and river was probably six times that of the whole coasting trade.¹ In 1573-4, admittedly an exceptional year, Henley-on-Thames alone sent three times as much corn to London as the whole county of Kent. By 1700, other inland shires had also become strong competitors: Northamptonshire, for example, was now regarded by some observers as the premier grain county in England, apparently shipping its corn crop principally down the River Nene from Peterborough.

These facts should make historians wary of attributing economic change in the southern counties exclusively to London. Even the demands of a town of half a million people were not inexhaustible. Though incomparably larger than other towns, London was, after all, no more populous than modern Sheffield or Dublin. For every person within it, there were ten or a dozen in the provinces to be clothed and fed. Though Mr Chalklin mentions that much Kentish produce was consumed locally, occasionally he seems to me to exaggerate the city's impact upon the county. For example, if the chief reason for the decline of the Wealden cloth trade was the high cost of labour, and if this was really due to competition from London (pp. 115, 122), why did the industry continue to flourish, and indeed expand, in areas equally subject to such influences, such as the borders of Essex? Why, moreover, were labour costs high in this area of the county where, from the remarkable density of the population, one would rather expect a surplus labour pool to develop? And why, if wages were so high in Kent due to metropolitan competition in the seventeenth century, were they so inadequate in the early nineteenth century as to cause some of the worst agrarian disturbances in England? The simple fact is that metropolitan influence varied greatly from place to place, within

quite narrow areas of countryside. This was inevitable in a country so intensely local in form as Stuart England. It was conditioned not simply by proximity to the city but by purely local factors of soil, climate, transport, social structure, rural economy, and village custom. In certain districts the force of metropolitan demand was all-pervasive. These areas were usually surrounded, however, by whole tracts of land where it was relatively weak and sometimes negligible. It was not felt equally all over the county of Kent because it operated within a society largely shaped by conditions of terrain, transport, and tradition unconnected with the capital: a society so shaped, so integrated, and so intractable as to respond only parochially and partially to the stimulus of metropolitan demand.

It would be quite wrong to suggest that Mr Chalklin ignores these problems. The regional variety within the county is evident in virtually every chapter of his book. But one puts the book down with the reluctant feeling that in economic matters the county by itself is not an altogether satisfactory unit of study. It is apt to be too diverse, too amorphous to hang together. Except among the administrative and political orders of society, it rarely developed an overriding sense of community except in time of crisis. This was less true of Kent than of some counties, for example in the Midlands. Amongst the upper levels of society, the shire had unquestionably come to form, by this period, a distinct community in its own right. Nor was the sense of county allegiance absent from the ranks of the poor: at times, in the Civil War for instance, it was intense. But the conclusion is inescapable that it was the village, hamlet, or town that formed the dominant social and economic entity in the minds of most ordinary folk, apart from the gentry. The inhabitants of Greenwich partook much more of London's way of thinking than of the outlook of Canterbury or the county of Kent generally. The basic fact that local historians have to work

¹ P. V. McGrath, *The Marketing of Food, Fodder, and Livestock in the London Market area in the Seventeenth Century* . . . , London M.A. thesis, 1948, p. 119.

on in this period is that English provincial society consisted of four distinct types of community: the village, the town, the county, and the society of wayfarers. Their task is to trace the origin, evolution, and interaction of these kinds of community upon each other. In Kent it is particularly necessary to recognize the variety of parish life within the pattern of the county community: just as it is imperative to realize the variety of what Namier once called these 'county commonwealths' within the community of the realm. For at the end of the eighteenth century, before the transport revolution had broken down the seclusion of local life, Hasted remarked, with characteristic native observation, that the soil of Kent "is so different in almost every parish that it is not possible to give any regular description of it": the variety of ground "is so great that it may almost be called from thence an epitome of the whole kingdom."¹

ALAN EVERITT

Ceres en Clio. Zeven Variaties op het Thema Landbouwgeschiedenis. [Ceres and Clio. Seven essays on Agricultural History. Written to mark the twenty-fifth Anniversary of the Studiekring voor de Geschiedenis van de Landbouw. (Study Circle for Agricultural History)]. Agronomisch-Historische Bijdragen, Vol. VI. H. Veenan & Zonen N.V., Wageningen, 1964. 235 pp.

It is extraordinarily difficult to write a review of a collection of essays such as is here presented without going to inordinate lengths. These seven essays deal with subjects widely separated in time, and their chronological diffusion is complicated by the fact that they also deal with different geographical areas of the Netherlands. Each is provided with a brief summary in English. The first essay by N. G. Addens deals with the shortlived 'General Royal Agricultural Society, 1856-63.' It was founded by royal mandate, and its purpose was to try to co-ordinate the work of the numerous local societies which had been formed with the object of persuading the

farmers to adopt better methods. At first the local societies joined the General Society, but after a while their enthusiasm waned, and they dropped out. This was quite a different idea from that which inspired the Royal Agricultural Society of England, a society founded by landowners and farmers and given the royal cachet later. The Dutch Royal Society only made a small direct contribution to farming progress by arranging trials, etc., in much the same way as other similar institutions. It does not seem very clear why it finally expired of inanition, but perhaps the attempt to synthesize the work of a large number of local societies of one kind and another was doomed to failure from the start. It is almost impossible to unify such disparate elements.

S. J. Fockema Andreae follows with an essay having a title which I would translate as 'Landowners and Land Use in a Dutch village', but of which the summary is headed 'Soil property, and exploitation in a Dutch village'. Possibly my choice of wording is the result of an incomplete appreciation of the nuances of the language, but the essay is an examination of the terriers relating to part of the village of Wassenaar between Leyden and the Hague. These are very voluminous, beginning in the sixteenth century and continuing to the nineteenth. The essay is illuminated by two short extracts, and indicates some of the changes in ownership and land-use described in the documents.

'Farm Bookkeeping in the Netherlands before 1900' is discussed in some detail by J. A. Kuperus. The technicalities of the different forms of farm account-keeping escape me, so I can say nothing about the merits of one system as compared with another. Here the practice as it fluctuated, the adoption of the system recommended by Albrecht Thaer in 1806, and its practice by van der Bosch in 1813, as well as the teaching of farm book-keeping from 1860 onwards are described, and a short list of various categories of accounts that have survived is added.

J. F. Niermeyer examines three charters of

¹ Edward Hasted, *The History and Topographical Survey of the County of Kent*, 2nd edn, I, 1797, p. 266.

the twelfth and thirteenth centuries, which are in the archives of the Praemonstratensian abbey of Berne in the Meierij, North Brabant, under the title 'Agricultural activities of the . . . abbey . . .' at the head of the summary. The charters seem to be in some disagreement about the legal status of the land, which appears to have been translated from a private estate to a monastic grange. This essay is completed by three transcripts.

J. M. G. van der Poel contributes an essay on 'The Cultivation of Madder', an important dye plant cultivated by the Zealand peasants. The article discusses the methods of cultivation, fertilizing, and harvesting of the crop. The tools and implements used are described, and some illustrations are provided. The crop, which had been a mainstay of the peasants from the Middle Ages, only fell into disuse with the coming of synthetic dyes in the mid-nineteenth century.

The accepted pattern of the medieval manor must be well known to all readers of this Review. Many scholars have devoted their time to the study of this subject during a long period of years, but there are still some open questions. Among these are the spread of the system, its adoption, and its variations in different areas. These are the questions that Slicher van Bath has tried to answer in relation to one small area of the Netherlands, the title of his paper being 'Manors in the Veluwe.' From the first recorded manor in A.D. 838 the system slowly developed its full dress order, but some of the estates described in the documents never functioned as manors of that kind. The essay is illustrated with sketch maps showing those which became fully-developed manors working on the well-known lines, and those which did not reach this standard, or rather developed in other ways.

The series of essays is completed by A. Verhulst on 'Sources and Problems of Flemish Agrarian History in the later Middle Ages.' This is of considerable value to scholars concerned with the general development of agriculture in West European countries, because it was in Flanders and in Northern

Italy that the cultivation of the fodder crops known to the Greeks, Romans, and Arabs, was introduced, and so laid the foundation for increased production. Other well known and widely-discussed problems are involved, and these are treated with careful reference to the rather massive modern literature bearing on them.

I fear that this is quite inadequate as a review of the publication, but too much space would have been occupied had I attempted a critical evaluation of each of these seven essays. *In fine* the *Studiekring* has produced, with the help of seven distinguished Dutch historians, a worthy memorial of its first twenty-five years of life.

G. E. FUSSELL

CARLO PONI, *Gli Aratri e l'Economia Agraria nel Bolognese dal XVII al XIX Secolo*. Zanichelli, Bologna, 1963. viii + 274 pp. L 4,000;

CARLO PONI. 'Ricerche sugli inventori Bolognesi della macchina seminatrice alla fine del secolo XVI', *Revista Storica Italiana*, Anno LXXVI, pt. ii. 1964.

Bologna has a distinguished heritage of didactic treatises on farming beginning in the thirteenth century when Petrus Crescentius produced his *Liber Ruralium Commodorum*, an attempt to put before the agriculturists of his time the precepts of the classical writers, together with additions made by Arab scholars who had preserved their writings. This he did with rather more elaboration than Walter of Henley, his contemporary. Carlo Poni is not, of course, writing a textbook of farming: but it must be emphasized that he has a complete understanding of the technical processes he discusses, and their relation to the social organization that perhaps derived from them or perhaps dictated them. His knowledge of the contemporary sources, textbooks, and periodicals as well as of documents, seems impeccable. With such a background he makes an attempt to connect the social and technical developments in a combination which the Americans call technology and culture. It is something I have often been pressed to

attempt, but have found impossible because of the vastness of the task and the shortness of life. Signor Poni is not deterred by such considerations. In the very first sentence of his preface, he states categorically a fact that needs little emphasis for Italy, or indeed for other countries. The history of the technology of production has few students in Italy, he says, and indeed it is only in very recent times that this aspect of living has been studied by other peoples. Historians are apt to concentrate on the history of inventions, and to omit the economic and social results, except perhaps in connection with the industrial revolution. This was an obstacle to Poni's own work.

Something that emerges very clearly from this work is that Italian farming in Bologna was very different from the English practice, and, indeed, from that of Germany and the northern half of France. Two patterns of plough were used in the Bolognese plain in the seventeenth century. Both were very ancient. The *pio* had only one mouldboard, and oddly enough, according to the illustrations, this was often fixed on the left side so that it turned the furrow to the left, and not to the right as in this country. It was used for making the seedbed. The *ara*—"aratro a due orecchi per seminare"—was a double mouldboard plough used for covering the seed. It was the veritable plough of classical times with *duas aures*. Apart from the difference in the size of ears, it was what is known as a ridging plough. Both types were fitted with wheels and were hauled by two or more oxen. A great deal of cultivation was also spade work. But the *ara* was sometimes used for preparing the seedbed, and a controversy raged about the relative merits of the two types until well into the nineteenth century.

The system of tenure was share-cropping, and the *mezzadri* and *padroni* were often at odds about the methods of seedbed-preparation and cultivation generally. The peasants wanted to reduce the hard manual labour, and the landlords wanted the biggest return, which they insisted was obtained by spade

culture, especially for the main cash crop, hemp. The advantages and disadvantages were discussed at length in the contemporary literature from the seventeenth century on. Signor Poni examines the sources closely, and describes in detail the different systems of working with the two sorts of plough, and the modifications introduced as time passed. He does not indicate what crop rotations were followed, placing far more weight upon the effect of introducing better implements, which was a very slow process. Steam cultivation does not appear to have been widely used after its introduction, mainly, I suppose, because of the small size of the holdings. An odd use of balance ploughs hauled by oxen through a system of cables and anchors—similar to the so-called roundabout method of steam cultivation—was adopted by some peasants. This was certainly an ingenious adaptation, which probably added to the haulage power of the oxen. Comparative trials of various kinds of ploughs were made in the nineteenth century, and eventually led to the introduction, at least on some farms, of modern patterns. Steam cultivation was tested on the vast Torloni estates.

A special adaptation was made to some ploughs which made it possible to carry out a sort of trench-ploughing, and so did away with the necessity for spade work. It is estimated to have reduced the hard work by one-third. The area under hemp was very largely increased. Some modification in the relation between landowner and peasant must have resulted. The technical advances were accepted because their use, as in other places and for other crops, made for better yields and higher money returns.

In his researches into the invention of a seed drill by Bolognese inventors of the sixteenth century, Signor Poni has cleared up a problem that has existed for a long time. Tarello had apparently been granted a patent by the Venetian Senate in 1566, though some doubt may be felt about whether his proposed machine was actually produced. Cavallini's invention was described by Canon Segni in 1602. By a close study of Venetian archives

and those of Modena, as well as of the secondary sources, Signor Poni has been able to describe Cavallini's struggles for recognition and the claims of Fieno to have produced a similar machine. But, alas, all that is known of the second inventor's production is that it was proposed to use oxen to haul it. There were insuperable social and economic obstacles to the adoption of the machine. The main difficulty was the share-cropping system (*mezzadria*) on which so much Italian farming was based. The peasants were too ignorant to follow the progress of technical development, and, I suspect, too poor to buy the things if they were not. There were also some faults in the designs as there are so often in the initial pattern of any machine. It can, however, readily be allowed, as Signor Poni argues, that the seed drills of Cavallini and perhaps that of Fieno, must have had some influence on the researches and experiments made in the following century by Locatelli, Worlidge, and Tull.

In Italy some efforts were made in the second half of the eighteenth century to design a seed drill after the Tull pattern, known through the works of Duhamel. Some gentlemen experimented with this method of sowing seed, but though they tried hard, and had introduced some interesting modifications of the Tull-Duhamel design, they did not achieve the desired result, for which they once again blamed the stupor of the peasants. Signor Poni argues that the invention of Cavallini's machine was an indication of the tendency in sixteenth century Italy to develop mechanical aids in order to reduce the demand for severe manual labour. However this may be, his claim for Italian priority in the invention of the seed drill can hardly be disputed.

G. E. FUSSELL

MICHAEL CONFINO, *Domaines et Seigneurs en Russie vers la Fin du XVIII^e Siècle*. Collection Historique de l'Institut d'Etudes Slaves, XVIII, Paris, 1963. 311 pp., illus. In 1765 the Free Economic Society of St Petersburg was founded. Professor Confino has used the seventy-two volumes of the

Works issued by the Society between its foundation and 1820 as the basis for this impressive study in which he concerns himself, according to his subtitle, with agrarian structure and economic views. He starts by touching on the history of the Society, and describing the contents of, and contributors to, the *Works* which aimed to encourage farming and economy in Russia. The circulation of the periodical was never impressive. Confino estimates the number of copies distributed, including many free copies, at about 1,100 per issue. It would seem worthwhile to relate this figure to that of the number of gentry and other estate-holders in Russia in the late eighteenth century, probably at least a quarter of a million. Moreover, of the 246 contributors of material to the *Works* in the half-century under review, 42 wrote more than half the articles. Is such a group of gentry and bailiffs not likely to be a non-random sample, and how can one make allowance for this bias?

Nevertheless, ignoring such difficulties, we have here a very good description of the almost military organization, at least on paper, of the various ranks of estate administration, down to the level of the nominally elected peasant overseers. This hierarchical bureaucracy ensured close control of the enserfed peasantry on the estates, and was a means for continually mulcting the peasants, quite apart from the usual obligations of quit rent or labour rent. But, while stressing that eighteenth-century Russian landlords should not be accused of mental if not physical absenteeism, because the bailiffs took over when the landlord was absent, Confino does not seem adequately to deal with the 76 per cent of estates with less than 60 serfs in 1777. At this date 32 per cent of estates had less than 10 serfs; did the same sort of bureaucratic structure apply to these estates, or are they perhaps inadequately represented in the *Works*? Again, in giving reasons for the survival of peasant characteristics and values Confino mentions as the first factor, though he does not say it is the most important one, the size of the estate bureaucracy. As size in-

creased, more peasants had to be brought into the administration and, applying customary law, they mitigated the severity of the landlords' written administrative directives. This could scarcely apply to the third of estates with less than ten serfs.

Confino rightly stresses that large acreages, or large numbers of 'souls', did not necessarily mean large-scale production. The small-scale peasant unit was the basis of even large estates which remained in large part natural economies, not closely geared to the market. When landlords became aware of the possibility of increased income from marketing, in part due to a change in the general economic situation in the late eighteenth century, one result was a revival of labour rents. This curious phenomenon is excellently dealt with. The economic calculation of the contributors to the *Works* compared the virtually net income from quit-rents with the gross product obtained by labour rents even as late as 1810. Serf labour was treated as if it had no price; no overheads or capital expenditures were taken into account. But can one then go on to label this as "peasant accounting writ large" (p. 265)? It is no doubt true that the peasant also used no such economic categories, but even in a largely natural economy the aims of estate management can hardly have been the same as those on a peasant family farm. We would need to know a lot more about peasant economic concepts to be sure that they were in fact like this.

The great discussion of the late eighteenth and early nineteenth centuries about the relative value to the landlord (and, hence, to the state) of quit rents or labour service was thus vitiated by this comparison of incomparables. It was also, as Confino points out, artificial; while landlords in their theoretical arguments always favoured labour services, in practice they instituted quit rents when the situation demanded it, and estates with both labour services and quit rents were common.

Professor Confino has raised many interesting problems in this carefully documented and detailed study and we must be particular-

ly grateful to have such a work available in a West European language. Oreshkin's little book, *The Free Economic Society in Russia, 1767-1917*, also published in 1963, is broader in scope, but it is in Russian only. At times, however, Professor Confino forgets that his readers may not know Russian and, quite apart from spattering his text with Russian terms, he sometimes transliterates, but fails to translate (e.g. pp. 74, 97, 98, 116, 175, etc.). This, of course, makes the book less easily understood by the non-specialist than it might have been. At the same time the sector of society dealt with may be somewhat narrower than the book's title and sub-title might be taken to imply. Nevertheless, this is an illuminating account of how certain estate-owners and administrators in eighteenth-century Russia viewed their world. It also provides insights into some aspects of the mental outlooks displayed in the early nineteenth-century discussion in Russia on whether serf or free labour was to be preferred.

R. E. F. SMITH

F. W. MAITLAND, *Township and Borough*. Cambridge University Press, 1964. x+220 pp., illus. 35s.

Students of agrarian as well as urban history have reason to be grateful to the Cambridge Press for this reprint. *Township and Borough* has a good claim to be regarded as Maitland's most brilliant work. It is based on the Ford lectures which he delivered at Oxford in 1897, fourteen years after the publication of Seebohm's *English Village Community*, a book which Maitland justly described as epoch-making. Seebohm had riveted the attention of historians on the old common fields and their social implications, and Maitland perceived the relevance of these to an inquiry into borough origins. He stated roundly that those who would study the early history of our towns have fields and pastures on their hands. Acting on this principle himself, he dealt at some length with the unenclosed town fields which formerly adjoined so many boroughs, adducing much interesting infor-

mation about those of Cambridge in particular. He believed that the transition from rural to urban habits, and the evolution of corporate personality among the townsmen, should be studied as two phases of one process; and in this book he showed future historians how to do it.

The publisher's note on the jacket refers to the author as "Sir William Maitland." It would have been pleasant to hear Maitland's own comment on this imaginary knighthood.

H. P. R. FINBERG

C. R. ELINGTON (ed.), *A History of the County of Gloucester*, Vol. VI. O.U.P., 1965. xxii+274 pp. £7 7s.

This is the first volume of *V.C.H. Gloucestershire* to appear since 1907. It covers the history of thirty parishes in the north Cotswolds, only two of which are not predominantly rural. Stow-on-the-Wold, which acquired a market in 1107, became in practice self-governing, and in 1604 secured a charter of incorporation. Moreton-in-Marsh, a later starter, had burgage-holders, a market, a port-moot, and a functionary styled a catchpole, but there its burgality ceased. Outside these two small market-towns, arable and pastoral husbandry have always been the principal source of livelihood. One parish, Westcote, still retains a partial survival of its old open-field system, in dramatic proximity to the airfield at Little Rissington.

The volume conforms to the familiar pattern of the Victoria County Histories. The feature of that pattern which finds least favour with historians nowadays is the division of the subject-matter into separate compartments: Topography, Manors, Markets and Fairs, Economic History, Local Government, Church, Nonconformity, Schools, and Charities. This makes it far from easy to extract a coherent picture; in reading of such a place as Stow-on-the-Wold one has constantly to refer from one section to another to make sense of the abundant information provided. It is of course much easier to assemble factual data than to construct an ordered narrative, and if the editorial plan were revised with

such a narrative in view we might have to wait much longer for each volume to appear. As it is, *V.C.H.* falls rather uneasily between two categories: it is much more than a work of reference, but something less than a finished history.

It is a pity that this volume went to press before the English Place-Name Society published its four volumes on the place-names of the county. They would have precluded such unlucky suggestions as that 'Æeoport' could have been Eyford (p. 74), and that the 'Hereforda' of a ninth-century charter was Harford in Naunton (p. 80). Here the author has relied on Dugdale, misquoting the place-name and supplying an erroneous date; the true date is 814, and the place is really Harvington in Worcestershire. He quite rightly takes the St Edward to whom Stow church is dedicated to be Edward the Martyr, not Edward the Confessor, but omits to quote the passage in Domesday Book which proves the point by its mention of a gift made by the Martyr's brother Ethelred II to this same church.

An interesting word which this reviewer has not met elsewhere is 'berridale', meaning a strip or strips in the common arable field, once part of the lord's demesne but now in the hands of a villager. This compound reflects a late use of *burh* in the sense of 'manor', which is well attested elsewhere, though not much noticed by lexicographers.

H. P. R. FINBERG

A. JEWELL (compiler), *Crafts, Trades, and Industries, A Book List for Local Historians*. Standing Conference for Local History (National Council of Social Service), 1963. 24 pp. 2s. 6d.

It is an encouraging sign that a book list of crafts, trades, and industries should now be published "for local historians" by the enterprise of the Standing Conference for Local History. It is noteworthy, too, that the compiler is the Keeper of the Museum of English Rural Life, an indication of the increasing part museums are beginning to play in the recording, interpretation, and even teaching of local history. The fashion for family and

institutional history that for long dominated local history studies has inhibited research into basic parochial economics and the workings of everyday existence. A bibliography like this means that the local historian now has conveniently at hand a carefully chosen, discriminating list of books capable of giving a broader understanding of the occupations on which the economy and social structure of his area is based. Its use in conjunction with a detailed scrutiny of purely local information such as documentary sources and collections in museums should materially assist authors in producing better-balanced local histories, in which every walk and condition of life is given its due emphasis.

The list is arranged under 17 main headings, for example basketry, charcoal-burning, glass-working, rope-making, textile crafts. Some sections are rather thin, usually because books do not exist, but others could be strengthened. Thus, to the section on enamelling, with one entry, might be added H. Maryon, *Metalwork and Enamelling* (London, 1954). Coverage is good for England and Wales, poor for Scotland (omissions are, e.g. J. A. Fleming, *Scottish Pottery* (Glasgow, 1923); J. Smith, *Old Scottish Clockmakers* (Edinburgh, 1921)), and non-existent for Ireland. In addition to the main headings there is a good index of over 120 occupations touched on by the books in the bibliography, including flint-knapping, coracle-making, intarsia, and par-getting.

Although Mr Jewell has been primarily concerned with books of general application, it would have been helpful if reference had been made, possibly in the foreword, to some of the periodical literature. The Irish lacuna could have been partly filled, for instance, by mentioning a journal like *Ulster Folk Life*, with its articles on straw-plaiting, rope-making, thatching, and smithing. Localized studies such as these also have a general value. The foreword rightly puts emphasis on a knowledge of craft terms and the dictionaries it mentions will normally lead the researcher to such glossaries and lists of technical terms as exist for his own district.

Crafts, trades, and industries do not by any means exhaust the subjects that ought to be included in local history studies, and one might express the hope that the Standing Conference for Local History will think of following up this excellent list by others of similar merit on, for example, fishing, farming, and vernacular architecture.

A. FENTON

R. J. FORBES, *Notes on the History of Ancient Roads and their Construction*. Adolf M. Hakkert, Amsterdam, second unrevised edition, 1964. xii+182 pp.

This book is a reprint of a work which first appeared in 1934, but which the author has not found it necessary to revise, for, he says, "no essential new research on the techniques of ancient road-building was published after the original edition." Its interest to the readers of this review lies in directing attention once again to the neglected question of the origin and use of roads which linked farm with farm and farm with market. The feet of millions of men and beasts have worn some of them into deep lanes, yet one can comb a hundred documents without finding a scrap of information on the making of roads or the size or kind of burdens they carried.

Mr Forbes's book explores the technical aspects of his subject, and sets out all that is known so far about the materials and methods of road construction in prehistoric Europe, Malta, and Crete, in ancient Egypt, Palestine, and Mesopotamia, India, Greece, and the Roman Empire. Separate sections deal in turn with major traffic routes, processional ways, and city streets, and a bibliography accompanies each chapter. The author broaches some of the historical problems concerned with the origin, the upkeep, and the transformation of some roads from one use to another—from cattle tracks to pedestrian thoroughfares, from tribal paths to sacred ways which were later Christianized and placed under the truce of God—but he does no more than scratch the surface. Perhaps one day a historian will probe these questions more deeply and, while exploiting the valuable informa-

tion assembled by Mr Forbes on the materials and techniques of road-building, shed light

as well on the structure of the societies which built them.

JOAN THIRSK

NOTES AND COMMENTS (*continued from p. 24*)

or on the administrative records of large estates.

In this situation the University of Reading's Museum of English Rural Life believes that if research into this branch of farm economics is to be encouraged a central collection of historical farm records is essential, and it is now actively engaged in establishing a manuscript and microfilm collection of pre-1940 material, to be geographically representative of all farming regions. In addition, the Museum hopes to publish a special catalogue to include not only the items in its own collection, but also detailed information about relevant farm records in other repositories.

VETERINARY HISTORY

The Veterinary History Society was founded in October 1962, with the object of promoting interest in veterinary history by all suitable means, such as the sponsoring of meetings, publications, and exhibitions. From the outset the Society has been an integral part of the Faculty of the History of Medicine and Pharmacy and the Worshipful Society of Apothecaries of London. Membership of the Society is open to any person with an interest in veterinary history and forms of application for membership may be obtained from the Secretary, 32 Belgrave Square, London,

S.W.1. There is a single enrolment fee of three guineas payable to the Faculty and an annual subscription of 10s. 6d. payable to the Society.

GARDEN HISTORY

A Garden History Society was founded at a meeting held in London on 24 November 1965. Its purpose is to promote the study and the preservation of landscaped gardens, and its work will be directed towards compiling and maintaining an index of historic or notable gardens in this country (later to include those of other countries), encouraging study and research into horticultural history and publishing the results of such research in a quarterly newsletter and a *Garden History Review*, encouraging the formation of local study groups, and building up a library of photographs and slides of historic gardens. Mr H. F. Clarke of Edinburgh University, past president of the Institute of Landscape Architects, was elected president, and Mrs K. N. Sanecki (6 Cangles Close, Boxmoor, Hemel Hempstead, Herts.) honorary secretary. A leaflet about the society is in preparation and will be obtainable from the secretary, to whom anyone interested in joining the society should write for further particulars. The annual subscription is 2 guineas.

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VOLUME XIV 1966

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in Medieval England
by ROSAMOND JANE FAITH

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by J. M. MARTIN

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The Agricultural Revolution on the English Clays
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Peasant Families and Inheritance Customs in Medieval England¹

By ROSAMOND JANE FAITH

I

TO the medieval peasant his family and his land must have been of supreme importance. Attitudes to these two constants in rural society are vividly reflected in the varied and changing customs governing the descent of villein holdings. Evidence on the subject is plentiful in the form of legal doctrine, manorial customs, and above all in the thousands of cases relating to the inheritance of peasants' land in the manorial court rolls, but it has not often been interpreted in terms of the social attitudes it embodies. There have been excellent regional studies showing something of the distribution of various inheritance customs, how they worked in practice, and how they made their mark on local field systems. There have been two analyses of Anglo-Saxon attitudes to kinship, both by anthropologists, not historians. The only general work on the subject drawing on the rich supply of medieval evidence, again not by a historian, but by a sociologist, appeared twenty-five years ago, and few of the lines of enquiry it initiated were followed up.² Homans' *English Villagers of the Thirteenth Century*, whatever its deficiencies, was an important book in two respects. Homans assembled a mass of information illustrating the thirteenth century peasantry as a whole culture, not merely an economic class, and he interpreted this information in a way which shed a good deal of light on medieval social structure: on the interrelation of field systems, village types and sizes, family organization, and social attitudes, in a period for which historians have mostly concentrated on economic factors and tenurial relationships. Methodologically, his book is also interesting, for Homans' technique in the central, and most important, section, was to use a chronologically and geographically scattered collection of evidence—customals, surveys, and court rolls—to build up a model, in the sociological sense, of what he considered to be the two main types of peasant family organization in thirteenth-century England and their

¹ Based on a paper read at the Conference of the British Agricultural History Society, April 1965.

² L. Lancaster, 'Kinship in Anglo-Saxon Society', *British Journal of Sociology*, no. 9, 1958; B. S. Phillpotts, *Kindred and Clan in the Middle Ages and After*, Cambridge, 1913; G. C. Homans, *English Villagers of the Thirteenth Century*, New York, 1960; A. R. H. Baker, 'Open Fields and Partible Inheritance on a Kent Manor', *Econ. Hist. Rev.*, no. 1, xvii, 1964.

geographical distribution. He has summarized this argument as follows:

"Central England is marked by large and compact villages whose fields are managed by customary rules binding on all the villagers—one or another variation of the so-called open-field system or champion husbandry. In these fields the villager's holding lies in strips. . . The holdings tend to be equal, class by class. . . A holding in villeinage or socage is commonly held by one man, and descends to one of his sons. . .

"Arrangements in Kent and East Anglia differ at almost every point from those just described. . . Kent is marked by settlements smaller than open-field villages. . . The holding does not originally consist of scattered strips. The earlier the date, the more often does it appear as a compact body of land. The holding is managed as an independent farming unit, not subject to many communal rules, . . . [and] tends to be in the hands of a body of men often called *participes*, sometimes called *heredes*, and it is often clear that these men are patrilineal kinsmen. Land descends to a number of heirs jointly. . . It looks as though we had to do with joint-family communities. . . The customs of East Anglia . . . are mixed, but in many places identical with Kent. The fact of gavelkind inheritance is certainly common, though not the name."¹ Under the 'Kentish' system, Homans concludes, the joint-family, in which all a man's sons inherited his land jointly and farmed it together, was the typical unit; and in the open-field system, the 'stem' or nuclear family.

Homans himself was concerned by the problems of origin raised by the existence of two such radically different social systems side by side in medieval England. Jutish origins could explain gavelkind in Kent and in outlying patches such as the rape of Hastings and southern Hampshire, but would not account for its existence in East Anglia and scattered villages in Cambridgeshire and Essex. He solved the problem by concluding that "England was invaded by two sorts of Germans—Anglo-Saxons and Friso-Jutes—whose areas of settlement were not quite those assigned to them at present. In short, East Anglia and Kent were invaded by the same kinds of people."

This argument firmly puts the origins of the two different systems back to the time of the Anglo-Saxon conquest. Now, although it may very well be true to say that East Anglia and Kent were invaded by the same kinds of people—Frisian influence in East Anglia is well established²—this explanation leaves us with another problem. As far as one can make out from Anglo-Saxon sources and the extremely sparse references to the subject by Anglo-

¹ G. C. Homans, 'The Rural Sociology of Medieval England', *Past and Present*, no. 4, 1953.

² G. C. Homans, 'The Frisians in East Anglia', *Econ. Hist. Rev.*, 2nd ser., x, 1957-8.

Saxon scholars, partible inheritance was very probably the general peasant practice *throughout* Anglo-Saxon England, and not merely in the Kentish-East Anglian area. Although very little has been written about the subject since, this was apparently a common assumption among nineteenth-century historians. Elton, in his *Tenures of Kent*, published in 1867, speaks of "a remark commonly made" that "all lands were gavelkind before the conquest" and quotes Blackstone to the effect that gavelkind was "the old Saxon tenure." (It would be interesting to know whether this view of the Anglo-Saxons formed part of the theory of the 'Norman Yoke'.) Stenton, one of the few modern historians of the period to mention the subject at all, concluded that "medieval practice suggests very strongly that the holding of the pre-Conquest ceorl had been partible among his sons, or among his daughters if he had no sons."¹

It does not seem very satisfactory to argue back from medieval practice to Anglo-Saxon practice, nor to take those Domesday holdings '*in paragio*' as a parallel to peasant family arrangement. But other evidence on the subject is sparse indeed, and none of it is direct. The primary difficulty is that the only clear references to inheritance customs in the surviving Anglo-Saxon laws are concerned with 'bookland'—land conveyed by charter. It is unlikely that very much land held by peasants came into this category. Nevertheless, a few of these references do enable us to find out something about the essential characteristics of the inheritance of bookland, and thence to argue back to what the essential characteristics of 'un-booked' land may have been.

Chapter 70 of Cnut's laws seems to indicate a partible system in the case of a man dying intestate: "Let the property be distributed very justly to his wife and children and relations, to everyone according to the proportion that is his due." Chapter 41 of Alfred's code states that "the man who has bookland left to him by his family must not let it go out of the family if the original owners made express provision against this"—the kind of express provision that Alfred himself made in his own will.²

Both these laws seem to show that only in special circumstances could the family exercise any effective claims over the disposition of bookland: in cases of intestacy, or as the result of a particular kind of bequest. So one of the attractions of bookland in normal circumstances may have been precisely that it avoided these family claims: the holder of bookland could use his testamentary powers to circumvent the joint claims of his family in favour

¹ C. I. Elton, *The Tenures of Kent*, London, 1867, p. 57; F. M. Stenton, *Anglo-Saxon England*, 2nd edn, Oxford, 1947, pp. 313-14.

² II Cnut. 70 & 70.1.—*English Historical Documents*, I, ed. D. Whitelock, London, 1955, p. 428; Alfred 41.—*E.H.D.*, I, p. 379.

of a chosen heir, which might be the church or might be one of his children.

Eric John, in his recent book on *Land Tenure in Early England*, has disputed this interpretation on the grounds that bookland cannot have conveyed this testamentary freedom, this "virtual dispensation from folk custom," to its holders. If it had done so, they would have used it to establish primogeniture and keep the family holding together. This would have meant "a revolution in English landowning" and no such revolution took place. King Alfred's will shows that even "the West Saxon royal family finds it difficult to avoid the division of family property even when such avoidance is a matter of prudence and public interest."¹

But it is not at all certain that primogeniture was as important and desirable a concept to Anglo-Saxon landowners—or to the West Saxon royal house—as it was later to become to the English aristocracy. Nor was primogeniture the only way of keeping the family holding together as the history of many tenements in gavelkind shows. It is true that if a holding is physically divided partible inheritance has a built-in tendency to fragment it, but it also has built-in checks and balances, some of them demographic, which counteract this tendency.

King Alfred's will² shows that the heritability of bookland, even on royal estates, could be used not to take land out of the family, nor to establish primogeniture, but to ensure that land descended within the family but still according to the wishes of the donor. The complicated transactions which Alfred's will records show two distinct tendencies at work. There is division—when Ethelwulf bequeathed his kingdom to his three sons, and when Alfred himself divided his property among eight of his kinsmen. Then there is an equally pronounced tendency towards consolidation in the arrangements which Alfred made with his brothers, which eventually resulted in all the royal estates coming together in his hands. At this point there is no sign that Alfred "found it difficult to avoid the division of family property" because there is no sign that he wanted to avoid such a division. His councillors advised him that he could dispose of his estates as he wished, so he divided them up among chosen kinsmen and made careful provision that the land should remain in the family and descend in the male line.

If this was the attitude of the most powerful landowner in Wessex, it enables us to go a little further in answering the question of why the ordinary layman wanted bookright. Surely he wanted it because he wanted the power to bequeath such-and-such an estate to such-and-such a man, or to the church, and to know that his will would stand. To say that he must

¹ E. John, *Land Tenure in Early England*, Leicester University Press, 1960.

² Printed in *E.H.D.*, I, p. 492.

have wanted it in order to establish primogeniture, or in order to bequeath his land out of the family altogether, is to import anachronisms into an Anglo-Saxon context. What he wanted to avoid were precisely those "very just" distributions of his land among the family, according to time-honoured rules, which Cnut's law describes. This family-dominated equitable division—one form or another of partible inheritance—remained as the principle governing the descent of the great bulk of land, whose holders had not managed to acquire testamentary freedom through the book.

If the normal inheritance practice on such land, which must have included the bulk of land held by peasants, was partible inheritance, it still remains to be explained why it survived in one region and gave way to primogeniture, or to ultimogeniture, in another. But before considering why partibility survived, it may be as well to consider a little more closely where it survived. The mapping and recording of inheritance customs is still at a very rudimentary stage as far as England is concerned. Much of the following evidence is drawn, not from medieval sources, but from legal works of the seventeenth, eighteenth, and nineteenth centuries—a period when legal and antiquarian interest was often focused on manorial custom and its local variations. Such evidence has of course many deficiencies: we obviously cannot assume that a manor whose tenants practised primogeniture at these late dates had had the same custom in the Middle Ages, but it is a fairly safe assumption to make about manors where the custom was partibility or Borough English. There are a great many examples of manorial custom evolving towards primogeniture, but extremely few of custom changing from primogeniture into another form.

With these limitations of the evidence in mind, we can look at Homans' argument again and ask: Can England really be divided into impartible, open-field, Central England, and partible, non-open-field Kent and East Anglia? It does not seem to be true that areas of partibility and open-field farming are incompatible, nor that partibility is confined to Kent and East Anglia.¹ True, those are the areas of its greatest concentration. Kent, of course, was almost entirely partible, and partibility was widespread in Norfolk and Suffolk, in several of the great sokes of the Danelaw (the soke of Rothley in Leicestershire, for example), and Oswaldbeck soke in Nottinghamshire. But it is also found in varying degrees of concentration elsewhere: in Middlesex, for instance, there was a cluster of manors in partible inheritance to the north and north-east of London. The custom in Highbury and Islington was described as gavelkind by two seventeenth-century writers. Hornsey and Kentish Town tenements were partible in the nineteenth century, and the

¹ See Appendix I for a list of manors in which some form of partible inheritance was practised.

name of Kentish Town has been attributed to its 'Kentish' tenure. Stepney and Hackney too were partible in the nineteenth century, and at Hackney the custom had been confirmed by private Act of Parliament under James I. Homans found partibility in Essex in the Middle Ages, at Hatfield Broad Oak, at Waltham, and at Stevenage in Hertfordshire. There was partibility in Sussex and in Northamptonshire in the thirteenth century, according to *Bracton's Note Book*. "There is much gavelkind in Shropshire," wrote Robinson in his work on gavelkind, first published in 1822. In the west odd patches of it are found: at Cheltenham, and at Wareham in Dorset in the seventeenth century where "lands are partible between males and females"—an extreme form. Bracton records a claim made in Ash Reigney that land there was partible 'sicut gavelkynde'. Partibility lasted in Exeter until abolished by statute under Elizabeth, and in the north and on the Border in many places until the sixteenth century. Mrs Thirsk, in a recent article, has pointed out that "partible inheritance was still the custom of the manor in the sixteenth century in many of the less densely settled pastoral areas of the north—Furness, Rossendale, highland Northumberland and the west and north Yorkshire Dales."¹ Tawney recorded how the tenants of the Lancashire manor of High Furness modified the partible system there under Elizabeth. Without any doubt there must be many more examples, from both these counties and elsewhere. It is to be hoped that the collation of the known evidence of inheritance customs will soon be undertaken on a systematic basis. The ones I have just quoted are only the result of a preliminary search.

The distribution of manors where the custom was Borough English—inheritance by the youngest child, generally the youngest son—also tends to spill over the boundaries sketched out by Homans.² It is found in greatest concentration in Surrey and Sussex. Twenty-eight Surrey manors are reported to have retained the custom into the nineteenth century. In very many cases it must have given place to primogeniture long before: we know that the tenants of the Surrey manors of Chertsey Abbey petitioned the Abbot to make just such a change in the 1340's. In several Surrey manors just south of London the custom took a slightly unusual form: the line of inheritance extended to females, and in Dorking, Milton, and Westcott descent was to the tenant's youngest brother if he had no sons. In Sussex the custom was even more common: so much so that Bracton seems to imply that it was a regional, rather than a manorial, practice. Of a case in 1225 he notes that the youngest son in the manor in question always has his father's land, as do the

¹ J. Thirsk, 'The Common Fields', *Past and Present*, no. 29, December 1964, p. 13.

² See Appendix II for a list of manors in which some form of the custom of Borough English was practised.

other villeins *de patria*.¹ There were still 134 manors in Sussex practising Borough English in the nineteenth century. It is found in Hampshire, on some of the Hampshire manors of the Bishop of Winchester: at Fareham, Waltham, Droxford, Bitterne, and Crawley. It is of this whole Surrey-Hampshire-Sussex belt that Jolliffe wrote: "Borough English blends imperceptibly into gavelkind towards Kent and to the west into the freer peasant tenures of the southern Hampshire manors . . . a gradual diminuendo in which Jutish tenure loses its primitive qualities as it passes away from Kent and draws towards the earliest sources of Saxon influence: first the partible tenure of the Hastings, which is gavelkind in all but name, then Borough English, with vestiges of gavelkind privilege and terminology, finally, in the west, Borough English in its simplest form."² Much the same distribution is found in Suffolk and Middlesex—both counties with a mixture of partibility, primogeniture, and Borough English.

Whether or not we accept Jolliffe's emphasis on racial factors, this passage concisely describes the way in which Borough English and partibility are related, both in distribution and in character. They seem, at first sight, to be radically different. Borough English looks simply like a rather peculiar form of primogeniture stood on its head. Homans firmly considered it to be that. But if we turn from the purely legal side of the tenure to the way it must actually have worked in practice, it looks rather different. Many youngest sons must have been well under age when their parents died or retired. Who worked the holding until they were old enough to take over? The most likely answer seems to be that their elder brothers did—Homans quotes a case of this happening. This working arrangement, different from the official granting of custody of the heir and his land which the court rolls often record—must have been very like joint, although not partible, tenure in practice.

There is another, much stronger, link between Borough English and partible inheritance, and that is the rule in gavelkind which reserves the central part of the house, the 'covering of the hearth', to the youngest son. The 'Customal of Kent' states "let the messuage be departed between them, but the hearth for the fire shall remain to the youngest son."³ This special provision for the 'fireside child' is even found on two manors where primogeniture was practised. At Cookham and Bray, two ancient demesne manors in Berkshire, "if any tenant has three or four daughters and all of them are married outside their father's tenement save one who remains at the hearth,

¹ *Bracton's Note Book*, III, no. 1062.

² J. E. A. Jolliffe, *Pre-Feudal England: The Jutes*, Oxford, 1933, pp. 79–80.

³ The 'Customal of Kent' is printed in Robinson, *The Common Law of Kent or the Customs of Gavelkind*, 3rd edn, London, 1822, p. 364.

she who remains at the hearth shall have the whole land of her father."¹ Without feeling the necessity to see in this practice, as Maitland did, "the trace of an ancient religion of which the hearth was the centre," we can guess that ancient custom, while sharing land among all a man's sons, may have made special provision for the youngest, the one "most likely to be found in the house at his father's death." In some communities this was the one element which survived the general decline of partible inheritance to be preserved in the 'fossilized' form of Borough English.

We have, then, a fairly solid block of seven or eight counties: Kent, Norfolk, Suffolk, Surrey, Sussex, Hampshire, and probably Essex and Middlesex, where Borough English and partible inheritance were particularly important, with scattered examples of both these customs in the Midlands, the West, and the Highland zone. But these scattered examples, however few, are important, for they show that we cannot relate differences in inheritance custom at all reliably to racial origins. Kent and East Anglia may indeed have been settled, as Homans argued, by much the same kind of people practising the same kind of inheritance custom, but I do not think it has ever been argued that these Friso-Jutes reached Devon or Gloucestershire, Lincolnshire, Shropshire, or Herefordshire. However, although it seems that we cannot really accept Homans' tidy correlation of inheritance customs and field systems, there clearly is some connection between inheritance and other factors: notably density of population and the degree of manorialization. Professor Hallam has shown how partible inheritance kept men on the land and in the village, while Arensberg's study of *The Irish Countryman* showed how primogeniture, by excluding from inheritance all sons but the eldest, led to a drift from the land.² What we know from the poll tax returns of medieval population densities confirms that areas of partible inheritance and high population density *do* coincide, in, for instance, Norfolk and Kent. But this correlation, although interesting, is not an explanation of origins.

Partibility and primogeniture are also, of course, associated with a different degree of manorialization. As Homans demonstrated, primogeniture is *roughly* associated with large demesnes, heavy labour services, and an approximate equation of manor and vill, partibility with the opposite. Homans considered that this association could be traced back to a time when lordship was imposed on established free peasant communities, already practising different inheritance customs. "Let us assume that a man-of-war sometime in the Dark Ages wanted to secure from a body of husbandmen material

¹ Pollock & Maitland, *History of English Law*, I, p. 281.

² H. E. Hallam, 'Some Thirteenth Century Censuses', *Econ. Hist. Rev.*, 2nd ser., x; C. M. Arensberg, *The Irish Countryman*, London, 1937.

sustenance for himself and his retainers." Such lords, he argued, found it easy to impose their authority on villages where primogeniture was the rule, family organization was weak, and communal organization strong: in such cases they simply stepped into the shoes of the "village chieftain." But in areas of partibility, with their strong families and weak communal organization, they found no such ready-made basis for their power: "the manor could be strong only where the village community was strong."¹ Without going into the question of the origin of the manor, I think we can say briefly that this account of it fits none of the place-name or legal evidence.² Nor is it at all clear who Homans' 'man-of-war' is, Norman, Dane, or Saxon: he has a mythical ring.

Still, there obviously is a connection between strong lordship and weak kinship, and vice versa. We find many examples of partibility in the weakly manorialized areas of the Danelaw. In Bracton socage and partibility are closely associated. We also find it in Kent and in the areas of primary Anglo-Saxon settlement. We might say that the Anglo-Saxon invaders, ethnically mixed before the Conquest, established much the same kind of inheritance system—some form of partibility—wherever they settled. It is, after all, a system very suitable for a period of conquest and settlement, offering as it does incentives to all the able-bodied males in the family. Primogeniture, the system most favourable to seigneurial interests, developed, probably under seigneurial pressure, where lordship was strong and when demesne farming became important. This development was arrested in the Danelaw where lordship was weakened by the fragmentation caused by the Danish settlement, and where, too, the Danes had no incentive to alter a system so akin to that of their homeland. This would fit in with Lennard's conclusion that "Danish influence . . . checked manorialization . . . and preserved . . . the social conditions of an earlier age from such transformations as appeared elsewhere."³ The trend towards primogeniture made little headway, for some reason, in Kent and Sussex, and in the West and North where in so many other ways "the social conditions of an earlier age" were preserved.

Of course, it would be wrong to draw too hard and fast a line between the two systems. Miss Dodwell, in a recent paper to the British Agricultural History Society demonstrated how on partible holdings in Norfolk elder sons often bought out their younger brothers' shares and thus became the sole heirs. Fathers in areas of primogeniture very commonly provided for

¹ Homans, 'The Rural Sociology of Medieval England', *Past and Present*, no. 4, pp. 40-1.

² See T. H. Aston, 'The Origins of the Manor in England', *Trans. Roy. Hist. Soc.*, 5th ser., VIII, 1958.

³ R. G. Lennard, *Rural England, 1086-1135*, App. III, p. 395.

children or relatives other than their eldest sons, sometimes by settling land on them before death but very often by use of the will. Many peasant wills are concerned precisely with this motive of providing for those members of the family who were not to inherit the holding, as are the St Albans wills printed by Miss Levett in her *Studies in Manorial History*.¹ A custom which operated on some of Crowland Abbey's Cambridgeshire manors, described by Miss Page, shows another link between the two systems. Here the eldest son inherited by right, but was obliged to set aside a certain amount of land for each of his brothers.² This custom, which combined the legal doctrine of primogeniture with the practice of partibility, may well represent one stage in the evolution from one system to another in that particular area—an evolution which was completed on these manors during the latter part of the fourteenth century.

II

However much peasant inheritance customs varied by the thirteenth century they shared one basic principle. They placed great importance on the concept of "keeping the name on the land." "... An established holding ought to descend in the blood of the men who had held it of old." And despite the freedom of alienation which was one of the distinctive features of gavelkind, the emphasis on family landholding is as strong in areas of partibility as elsewhere. When a tenant died, in gavelkind Kent or primogeniture Oxfordshire, the first consideration was the same: to keep his land in the family. Whether it went to the eldest son or the youngest, or was shared, is less important than the fact that the claims of "strangers to the land" were not even considered. (This is not to say that peasant land was not bought and sold. On the contrary, there is ample evidence of an active peasant land market in the thirteenth century and it was no doubt endemic in peasant society. But the court roll evidence for this period shows that these peasant land transactions were preponderantly small-scale, involving odd acres and plots, a process which only marginally affected the ownership and structure of the basic family holdings.)

The idea that land "ought to descend in the blood of the men who had held it of old" is of course common in many peasant societies. One would guess that it was common, although tacitly so, in English rural districts at least until the time of the enclosure movement. But there does seem to have been a period in English history—roughly that of the fourteenth and fif-

¹ A. E. Levett, 'Wills of Villeins and Copyholders', *Studies in Manorial History*, 2nd edn, London, 1963, pp. 208–34.

² F. Page, 'The Customary Poor Law of Three Cambridgeshire Manors', *Cambridge Historical Journal*, III, 1930.

teenth centuries—when in many rural communities this fundamental idea was in practice abandoned. Family claims to land were disregarded, or seldom pressed, and in place of the strict and elaborate arrangements which had previously governed the descent of land, there came to be no laws but those of supply and demand. It is this period which I should like to turn to now.

The evidence I have used is geographically limited, being drawn mostly from the south-east, and it is mostly confined to manors in which primogeniture was the custom. The main source is the court rolls and court books, some from manors belonging to the great ecclesiastical estates of Ramsey, Battle, St Albans, Chertsey, and St Swithuns, Winchester, some from manors in lay hands. We may start with St Albans, as Homans drew on the thirteenth-century material from St Albans, and a comparison with later conditions on the same manors is possible.¹

If we open the St Albans court book for the Hertfordshire manor of Croxley at the beginning, at the court proceedings for the reign of Henry III, we see family inheritance, and the attitudes that accompanied it, still firmly established. Hugh Bailly comes and pays for seisin of land he has just inherited; Ellen de la Forde pays for licence to marry off her daughter and places herself and her land in her son-in-law's custody until her son and heir is old enough to inherit; the widow of John Crobbe demands her "reasonable dower;" Roger son of Eustace gets seisin of his dead brother's land; Richard Culledonne marries a rich widow; Richard Kete pays relief for his brother's land, Richard atte Forde for his father's, and Geoffrey atte Fuller's widow for her husband's; Henry atte Hulle's daughter comes into her inheritance and is promptly married. In all these transactions the claims of the family predominate. Land does not always descend from father to son, it is true, but it always goes from one member of the family to another, and the two marriages just quoted were doubtless made with this fact in mind. There are exceptions: a few short-term leases, an exchange of holdings, a surrender of land; once a tenant is brought in from "outside" when no heir can be found; but in general by far the majority of permanent transfers of peasant holdings are between members of the same family. These court roll entries show too how closely inheritance was linked with marriage: entries of "X came and paid for his father's land and for licence to marry" are very common. The rights of heirs who are minors are carefully protected, the dead tenant's widow, or occasionally another tenant, being given the wardship with careful provision against "wasting" the holding.

Another St Albans manor, Park, shows much the same situation in the

¹ B.M. Add. MS. 6057 (St Albans: Croxley Court Book); B.M. Add. MS. 40625 (Park Court Book).

thirteenth century. In spite of a brisk land market in odd acres and single messuages, family inheritance, and the expectation of it, dominated the transfer of holdings. Land did not always descend by strict primogeniture: in two cases a sister seems to have had a better right than her brother, and in a few cases the holding went to a collateral before the son. Fathers frequently passed on their land on retirement rather than on death. In 1248 for instance a father surrendered his holding to his son and placed himself in his care. The son agreed to provide him with food and drink, a tunic worth 2s. 6d. each year, and 6d. a year for shoe-repairs. It was not apparently expected that they would share a house, as was often the arrangement in such cases, for a clause in the agreement states that if the father did not wish to stay with his son he was entitled to a grain allowance as well as the tunic and money.

The same attitudes can be found in the thirteenth-century court rolls of many estates, not simply as isolated examples but dominating the transfer of land. It would be impossible to give the evidence for this in detail here, but I have attempted a very rough-and-ready summary of it by dividing the land transactions in the court rolls into 'family' transactions—those which involved two tenants belonging to the same family or related by marriage—and 'non-family' transactions.

To take three manors on the Battle Abbey estates:¹ 60 out of the first 69 permanent land transfers recorded at Battle were family transactions; at Brightwaltham, on the Berkshire Downs, these comprised 56 per cent of the total number of transactions between 1280 and 1300; at Bromham, in Wiltshire, the rolls for the reign of Edward I seem to show family inheritance firmly established.

On three manors belonging to St Swithun's, Winchester:² at Chilbolton between 1267 and 1371, only 29 out of 70 land-fines were paid by tenants taking up family land, but by far the majority of the non-family fines were paid during the last half of the period. At Houghton between 1267 and 1325, 29 out of 45 land-fines were for family land. At Woolstone, also on the Berkshire Downs, *all* the customary tenants whose deaths are recorded in the court rolls between 1308 and 1348 were succeeded by an heir from their immediate family, and two out of three of the recorded land sales during the same period were between related tenants.

¹ Transcript of Battle Court Book, Huntington Library, California, kindly lent by T. H. Aston; P.R.O., SC2, 153/67-73 (Brightwaltham Court Rolls); E315, vol. 57, ff. 37-41 (printed in Scargill-Bird, ed., *Customs of Battle Abbey*, Camden Soc., 1887); E315, vol. 56, ff. 89-90; SC2, 208/15 (Bromham Court Rolls).

² For Chilbolton and Houghton see J. S. Drew, Typescript of materials relating to manors of St Swithun's Winchester, Institute of Historical Research, London University; for Woolstone, see P.R.O., SC2, 154/77-83.

When we turn to the court rolls of the fourteenth and fifteenth centuries we see a radically different situation in these villages. The figures suggest that the old patterns of inheritance had been abandoned. To go back to the St Albans' manor of Croxley, for instance: when a Croxley man died in the fifteenth century he was still almost as likely to be succeeded by an heir from his immediate family as he had been in the thirteenth. But the land which his son or daughter or widow inherited was no longer likely to be the traditional family holding, but land which had passed through the hands of several different families quite recently. The language of the court rolls emphasizes this, and shows how unstable the tenurial situation had become. In the thirteenth century the court rolls had simply spoken of a man taking "his father's land"; now they find it necessary to describe it in terms of its previous tenants, and these men generally turn out to be quite unconnected by blood. The entry will run as follows: "Roger Whytman came and took a holding once Simon Brokeman's, lately John Harpeden's." When one William Spycer died in 1427, for instance, he left his widow some land which had been William Besouthe's, which before had been Alexander Osemunde's, some land from the demesne and "various other lands and tenements." William Spycer had himself inherited the land from his mother some six years before this, but the Spycer family had acquired the whole lot comparatively recently, and by purchase not by inheritance.

This illustrates a kind of half-way stage between the strict observance of inheritance customs and their complete abandonment. Peasants still apparently want to pass on land to their children, but it no longer matters that it should be traditionally "family land." Professor W. M. Williams, in a study of a present-day West Country village found exactly the same attitude. There "family farming has probably persisted from one generation to another, but in conditions where families die out, split up, move from one farm to another" . . . the land "is of great emotional and social importance to farmers, but it represents to them a generalized relationship, rather than a profound attachment to a single holding."¹ Williams found "very little continuity" of ownership in his village: since 1900 about 50 per cent of the holdings had changed hands two or three times, about 27 per cent four or five times, and about 10 per cent seven or more times. But what seems to a modern observer "very little continuity" might have looked like comparative stability by the standards of some fifteenth-century villages.

On some of the manors that I have already mentioned, for instance, inheritance had declined much further than it had at Croxley. At Bright-

¹ W. M. Williams, *Ashworthy: A West Country Village*, Dartington Hall Studies in Rural Sociology, London, 1963.

waltham family transactions dropped from 56 per cent of the total in 1300 to around 35 per cent throughout most of the fourteenth century and fell very sharply to 13 per cent after 1400. The history of individual peasant families shows this in detail. Of the 49 peasant families whose names appear in the custumal of 1284, many can be traced as landowners through part of the fourteenth century, but only three can be found in an early fifteenth-century Brightwaltham rental. Some changes of tenancy can be accounted for by the remarriage of widows, whose second husbands then took over their land. But in those cases where male tenants held, other factors, of which the failure of male heirs is one, must have accounted for the disappearance of so many family names. For example, one family, named in 1284, disappears from the court rolls after 1297, one after 1294, one after 1334, one after losing its land in a law suit in 1331, one after 1384, one after 1399, one after 1303, one after 1301, one after the tenant left the manor in 1387, another after a similar emigration in 1402. Moreover, several of the late thirteenth-century tenants do not appear in the court rolls at all. It is noteworthy that quite a few holdings followed the same pattern: they descended regularly by inheritance within one family until sometime in the fourteenth century and were then 'lost' to another family. For instance, Ralph Faber's land descended within his family until 1340 when John Faber, "being poor," surrendered most of it to two other tenants; the de Cruce land passed twice by inheritance in the fourteenth century after which some was lost by forfeiture, some by alienation; some of the land of the Bisothewode family went out of their hands in the 1290's, the rest descended by inheritance within the family until 1367. Then some was lost by the marriage of a Bisothewode widow and the rest was sold or surrendered early in the fifteenth century.

Such cases—and there are many more like them—lie behind the figures for the decline of inheritance at Brightwaltham which I have already quoted. The cumulative effect was that by 1426 by far the greater part of the villein land there was held by new men. Very much the same kinds of family histories—and the same effect—were found by Miss Davenport on the Norfolk manor of Forncett.¹

On the Saint Swithun's manor of Woolstone, the Black Death seems to have produced a sudden decline of inheritance. Here there were practically no 'non-family' transfers between 1308 and 1349, and practically no family ones after 1349. At Coleshill, another Berkshire manor, owned by Edington Priory, the court rolls from 1377 to 1520 record only five cases of family inheritance altogether. On other Berkshire manors we find a similar situation.

¹ F. G. Davenport, *The Economic Development of a Norfolk Manor, 1086-1565*, Cambridge, 1906.

At South Moreton, for instance, between 1322 and 1456 there were 4 'family' to 18 'non-family' transactions recorded. At Sotwell Stonor, between 1322 and 1434 the ratio was 3 to 15, at Englefield 4 to 12.¹

Although I have not yet compared it with earlier Ramsey material, the fourteenth century Ramsey Court Book shows much the same situation on the Ramsey manors. In 1400, 87 per cent of the total recorded land transactions were 'non-family', in 1414, over 70 per cent, and in 1456, 83 per cent.²

This apparent breakdown in family inheritance customs was not of course total. There was one class of tenant in particular whose family rights over land do not seem to have been affected: widows. Widows' rights seem to have been by far the most durable and firmly established of all inheritance customs. Custom of course varied in the amount of land it allowed to the widow as 'free bench'; she might hold all, half, or a third of her late husband's land, generally, but not always, without payment of fine for it. She might hold it until she remarried and then forfeit it, or retain it on payment of a fine. She might have custody of her late husband's land for life, for a term of years, or until the heir was of age. She might be dispossessed by the heir who then supported her or provided for her. Whatever the particular local custom was, it does not seem to have been subject to the same erosion that affected the rest of family inheritance practices: widows' rights seem to have been as strong in the late Middle Ages as they had been in the thirteenth century. Local variations in custom or widows' rights must have had considerable social effects—particularly in influencing the age of marriage of expectant heirs. Clearly the details of local custom must have affected this. The motive for marriage with widows must have been much stronger in places where widows were full heirs to their late husband's land and could transmit rights of inheritance than in places where they held it only conditionally, or where the heirs of their second husbands were barred from inheriting their land, as happened on some of the Winchester manors. Incidentally, the material I have looked at bears out Dr Titow's conclusion in a recent article that the rate of marriage with widows was high where the supply of land was low:³ widow-marriages seem to have decreased when pressure on land slackened off in the fourteenth and fifteenth centuries.

The case of widows is not the only exception to the general decline of family inheritance customs that has been sketched. There seems to have

¹ P.R.O., SC2, 154/1-4; SC2, 208/40, 41, 43 (Coleshill Court Rolls); SC2, 154/43-46 (South Moreton); SC2, 154/61-65 (Sotwell Stonor); SC2, 154/23-26 (Englefield).

² B.M. Harl. MS. 445 (Ramsey 'Court Book').

³ J. Z. Titow, 'Some Differences between manors and their effects on the condition of the Peasant in the Thirteenth Century', *Agric. Hist. Rev.*, x, 1962.

been a tendency among tenants of some manors to try and reinforce by other means some of the family rights which these customs had embodied. Such an attempt lies behind the many cases in which customary villein tenures 'at will' were exchanged, often at a high price, for tenures for two or three lives. These tenures were intended to secure the succession for the tenant's wife and child, generally a particular child who is named in the agreement. Such agreements, which gave the tenant's wife an equal 'estate' in the holding with her husband may lie behind the continuation of inheritance by widows. They are certainly a good illustration of just how weak traditional inheritance customs had become: they show that the peasantry had passed from a period when family inheritance was the rule to a period when it had become an exception, and an expensive one at that.

It is not, perhaps, difficult to account for this change: the economic factors underlying it are fairly clear. Most important is the greater availability of land to the smaller rural population of the fourteenth and fifteenth centuries, and the decline in demesne farming. During the comparative land hunger of the thirteenth century, villeins assiduously preserved inheritance customs, for the family holding was generally the only land available to them. The lord, too, in a period of 'high farming' was interested in the preservation of tenements and in a constant and self-supporting labour supply. So custom was carefully recorded—the thirteenth century was a great age of custumal-making—and traditional inheritance patterns were adhered to. Again, in the sixteenth century, when land once more became scarce we find another period of great attention to family rights, of litigation, and again, of custumal-making. But between the two periods there was a time when much more land was available to the peasantry. Sons no longer had to wait to step into their father's shoes: there were vacant tenements or odd pieces of demesne land available to them. As Professor Postan has pointed out, this was the time when cottagers could move up into the ranks of the virgaters and half-virgaters.¹ The elaborate provisions for the support of landless members of the family, such as those on the Crowland manors, fell into disuse, for they were no longer needed. Land changed hands rapidly and on a large scale, with considerable repercussions on the class structure of the countryside. The chief function of the manorial court began to be that of land-registry for the virtually free market in peasant holdings that had come into being. The idea of "keeping the name on the land" may still have been important, as an idea—perhaps an aspiration—but it no longer reflected what was happening in the village.

¹ M. M. Postan, 'Some Economic Evidence of Declining Population in the Later Middle Ages', *Econ. Hist. Rev.*, 2nd ser., II, no. 3, 1950.

APPENDIX I

PLACES FOR WHICH THERE IS EVIDENCE FOR THE PRACTICE OF
SOME FORM OF PARTIBLE INHERITANCE

<i>Cambridgeshire</i>	
Tydd	G. C. Homans, <i>English Villagers of the Thirteenth Century</i> , New York, 1960.
Wisbech	<i>Ibid.</i>
<i>Devon</i>	
Ash Reigney	<i>Bracton's Note Book</i> , ed. F. W. Maitland, 1887, III, no. 1779.
Exeter	T. Robinson, <i>The Common Law of Kent or the Customs of Gavelkind</i> , 3rd edn, London, 1822, p. 174.
<i>Dorset</i>	
Wareham	T. Blount, <i>Tenures of Land and Customs of Manors</i> , ed. W. Hazlitt, London, 1874, p. 355. (Originally published in 1679 as <i>Fragmenta Antiquitatis, Ancient Tenures of Land and Jocular Customs of some Manors . . .</i>)
<i>Essex</i>	
Hatfield Broad Oak	Homans, <i>op. cit.</i> , p. 428.
Waltham	<i>Ibid.</i>
Thorpe-le-Soken	Robinson, <i>op. cit.</i> , p. 46.
<i>Herefordshire</i>	
Irchenfield (Hundred)	Blount, <i>op. cit.</i> , p. 174.
<i>Hertfordshire</i>	
Stevenage	Homans, <i>loc. cit.</i>
<i>Kent</i>	Robinson, <i>op. cit.</i> , <i>passim</i> .
<i>Lancashire</i>	
High Furness	R. H. Tawney, <i>The Agrarian Problem in the Sixteenth Century</i> , London, 1912, p. 101.
<i>Leicestershire</i>	
Soke of Rothley	G. T. Clark, 'The Customary of the Manor and Soke of Rothley, in the County of Leicester,' <i>Archaeologia</i> , XLVII, pp. 89-130.
<i>Middlesex</i>	
Hackney	C. I. Elton, <i>Tenures of Kent</i> , London, 1867, p. 54. (The custom was confirmed by private Act of Parliament, 21 Jas. I.)
Highbury	Blount, <i>op. cit.</i> , p. 159.
Hornsey	Robinson, <i>op. cit.</i> , p. 44.
Islington	J. Kitchin, <i>Jurisdictions</i> , London, 1675, p. 203.
Kentish Town	Robinson, <i>op. cit.</i> , p. 43.
Stepney	Sir F. Pollock & F. W. Maitland, <i>History of English Law</i> , 2nd edn, II, p. 280.
<i>Norfolk</i>	Pollock & Maitland, <i>op. cit.</i> ; Homans, <i>op. cit.</i> , chapter VIII; 'Partible inheritance of Villagers' Holdings', <i>Econ. Hist. Rev.</i> , VIII, 1937; B. Dodwell, ed., <i>Feet of Fines for the County of Norfolk, 1198-1202</i> , Pipe Roll Soc., N.S., XXVII.
<i>Northamptonshire</i>	
Ilpen	<i>Bracton's Note Book</i> , III, no. 1565.

Nottinghamshire

Askham

Robinson, *op. cit.*, p. 44.

Laneham

Ibid.

Oswaldbeck Soke

Blount, *op. cit.*, p. 236.

Sutton-cum-Lound

Robinson, *op. cit.*, p. 44.*Suffolk*Pollock & Maitland, *op. cit.*; Homans, *op. cit.**Sussex*

Rye

Robinson, *op. cit.*, p. 43.

APPENDIX II

PLACES FOR WHICH THERE IS EVIDENCE FOR THE PRACTICE OF
SOME FORM OF INHERITANCE BY THE CUSTOM OF BOROUGH ENGLISH*Berkshire*

Garford

Bracton's Note Book, II, no. 609.*Essex*

Boxted Hall

Robinson, *op. cit.*, p. 392.*Gloucestershire*

Cheltenham

Pollock & Maitland, *op. cit.*, p. 28.*Hampshire*

Bitterne (some lands)

Crawley

Droxford

Fareham

Waltham (some lands)

Hants. R.O., MS. 415,808. ("Book of Customs" of the estates of the Bishop of Winchester, 1617.) I owe this reference to Dr J. Z. Titow.

Hertfordshire

Much Hadham

Robinson, *op. cit.*, p. 394.*Huntingdonshire*

Alconbury with Weston

Robinson, *op. cit.*, p. 392.

Somersham (copyhold lands)

*Ibid.**Leicestershire*

Borough of Leicester

Pollock & Maitland, *op. cit.*, p. 282.*Middlesex*

Acton

Robinson, *op. cit.*, p. 393.

Ealing

Ibid.

Edmonton

Ibid.

Fulham

Ibid.

Isleworth

Blount, *op. cit.*, p. 176.

Islington (manors of

Robinson, *op. cit.*, p. 391.

St John of Jerusalem)

Syon

Ibid., p. 393.

Sutton Court

Ibid., p. 391.

Tottenham

Blount, *op. cit.*, p. 324.*Northamptonshire*

Brigstock

Blount, *op. cit.*, p. 39.

Nottinghamshire

Borough of Nottingham Pollock & Maitland, *op. cit.*, II, p. 279.

Southwell Blount, *op. cit.*, p. 289.

See also Felix Oswald, 'Borough English in Nottinghamshire', *Trans. Thoroton Soc.*, XLVIII, 1944.

Staffordshire

Sedgley Blount, *op. cit.*, p. 272.

Suffolk See G. R. Corner, 'On the Custom of Borough English', *Suffolk Inst. Arch.*, II.

Surrey

Manors of Chertsey Abbey *Chertsey Abbey Court Rolls Abstracts*, ed. E. Toms, Surrey Record Society, XXXVIII, 1937.

Abinger Robinson, *op. cit.*, p. 391-2.

Battersea Blount, *op. cit.*, p. 17.

Brockham Robinson, *loc. cit.*

Bookham, Little *Ibid.*

Cranleigh *Ibid.*

Compton Westbury *Ibid.*

Dunsfold *Ibid.*

Gomshall Towerhill *Ibid.*

Gomshall Netley *Ibid.*

Kennington Blount, *op. cit.*, p. 177.

Paddington Robinson, *loc. cit.*

Paddington Pembroke *Ibid.*

Shere Vachery *Ibid.*

Vauxhall Blount, *op. cit.*, p. 350.

Weston Gomshall Robinson, *loc. cit.*

Wimbledon Blount, *op. cit.*, p. 372.

Wotton Robinson, *loc. cit.*

Variations of the custom (e.g. descent to younger brothers, to females as well as males) are found at:

Barnes Robinson, *op. cit.*, p. 393.

Battersea *Ibid.*

Dorking *Ibid.*

Downe *Ibid.*

Milton *Ibid.*

Richmond *Ibid.*

Westcote *Ibid.*

Wimbledon *Ibid.*

See also G. R. Corner, 'On the Custom of Borough English', *Sussex Archaeolog. Coll.*, VI.

Sussex

Framfield Pollock & Maitland, *op. cit.*, p. 280.

Mayfield Robinson, *op. cit.*, p. 392.

Robertsbridge Blount, *op. cit.*, p. 350.

Wadhurst Blount, *op. cit.*, p. 350.

See also G. R. Corner, *art. cit.*

Warwickshire

Balsall Blount, *op. cit.*, p. 14.

Landownership and the Land Tax Returns

By J. M. MARTIN

FOR many years now, certainly since A. H. Johnson's Ford Lectures of 1909,¹ the land tax assessments have formed a major source for the investigation of changes in landed society during the period of the Industrial Revolution. Nevertheless, students of the land tax have not been unaware of serious difficulties in their use. Up to very recently these were not, however, considered to be insurmountable, and a number of detailed investigations of different classes of landowner have been made on the strength of land tax returns.²

Now, however, two recent articles have introduced new criticisms of the land tax as a source for agrarian history. If upheld in entirety, they must invalidate any but the most vague and general conclusions drawn from them about the state of landownership in rural England at this time.³ They would further compel the conclusion that investigation of land tax assessments in any detail is simply not worth while.⁴

Criticism of the land tax returns as a source for the study of landownership falls into two parts. A number of problems listed by Mingay are familiar and can be smoothed out once the user has a knowledge of the manner in which the return was drawn up, and of the different items commonly included therein. Thus the frequent inclusion of some names two or three times in the same return because an owner was paying separately for individual parcels of land,⁵ and the fact that returns may have been made yearly, or half-yearly,

¹ A. H. Johnson, *The Disappearance of the Small Landowner*, Oxford, 1909. New edition with Introduction by Joan Thirsk, 1963.

² For example, E. Davies's well known article 'The Small Landowner, 1780-1832, in the Light of the Land Tax Assessments', *Econ. Hist. Rev.*, I, 1927, pp. 87-113; also more recently J. D. Chambers, 'Enclosure and the Small Landowner', *Econ. Hist. Rev.*, x, 1940; H. G. Hunt, 'Landownership and Enclosure, 1750-1830', *Econ. Hist. Rev.*, 2nd ser., xi, 1957-9, pp. 497-505.

³ The most detailed criticism of the land tax as a source is contained in an article by G. E. Mingay, 'The Land Tax Assessments and the Small Landowner', *Econ. Hist. Rev.*, 2nd series, xvii, no. 2, December 1964, pp. 381-8. One of Mingay's main lines of criticisms was foreshadowed in an article by D. B. Grigg, 'The Land Tax Returns', *Agric. Hist. Rev.*, xi, 1963, pp. 83-8.

⁴ The conclusion arrived at by Mingay, *op. cit.*, p. 388.

⁵ Mingay, *op. cit.*, p. 388, for this and following problems connected with use of the land tax returns.

are problems which can easily be coped with, once the student is aware of the dangers. The difficulty of dealing with small cottagers who suddenly made their appearance after an enclosure, and just as abruptly disappeared following the legislation of 1798, is well known, and is commonly taken into account by students.

Other familiar problems can be effectively dealt with if the student of the returns already possesses a thorough knowledge of the social and agrarian structure of the locality with which he is dealing. Thus land tax returns are best used in conjunction with enclosure awards, parliamentary poll lists, and manorial and other landowning records.

This precaution enables the student to go a long way in solving the problems of distinguishing landowners from leaseholders in those few cases where this is not clear, and of classifying landowners socially. Furthermore, he will have a good idea when a payment is being made on woods or industrial property, on tithe, or a piece of land granted in compensation for its loss. It should be added, however, that in Warwickshire, at least, payment on such items is usually distinguished by the assessor. In any case the land tax returns are of most value in describing entirely rural localities; in areas where industry was emerging on a significant scale in the later eighteenth century, the problems of interpretation prohibit their use.

It will be clear that, in handling land tax assessments, the familiar problems mentioned so far are by no means impossible to overcome. Nor does Mingay disagree.¹ There are, however, some new and far graver objections made to the use of land tax returns in constructing a detailed picture of landownership. At the base of calculations founded on land tax returns are two fundamental assumptions. One is that the return is a fairly complete record of all landowners and occupiers in a given parish, at a given point of time. The other is that there is some measurable relationship between the tax paid and the land on which the money was due. Mingay claims that both of these assumptions are false. He considers, in the first place, that the list of owners and occupiers is incomplete, for three main reasons: a number of owner-occupiers avoided paying tax, so that changes in their numbers may be due to nothing more than variations in the comprehensiveness of the returns; large owners in some cases paid no tax at all; and most important of all, voluntary redemption of the tax introduced in 1798 drastically affected the accuracy of the returns.

How do these claims size up with the evidence of the Warwickshire assessments? Were it true that owner-occupiers occasionally avoided the payment of tax, then this would surely show up in the form of discrepancies in the

¹ Mingay, *op. cit.*, p. 384.

returns made by parishes at various dates. A comparison of tax payments made by various categories of owner in groups of parishes in the 1780's and in 1825 reveals no such discrepancies, as we see from the following table of payments made by 34 Warwickshire villages.

Date	Total Villages	Total Contribution Made by Owners Paying	Over £25	£25-£10	£10-£5	£5-4s.	Total Net Payment
			£	£	£	£	£
1780	34		1,570	1,126	693	958	4,377
1825	34		1,861	1,076	668	770	4,375

Furthermore, this writer, in a scrutiny of most surviving Warwickshire assessments, has met with no instances of big landowners who avoided making a contribution to the land tax, or who secured a reduction in their assessment between 1780 and 1825. Such cases would be very quickly detected by users who take the precaution of calculating the acreage equivalent for each parish examined.¹ Finally, although it is true that redemption of the tax was as widespread in Warwickshire, as elsewhere, after 1798, this involves no problem since assessors continued to record all landowners and occupiers as meticulously as before redemption; invariably two separate lists were made, headed "redeemed" and "unredeemed" assessments. Thus, so far as Warwickshire is concerned, there is no reason to think that the list of owners and occupiers is in any way incomplete between 1780 and 1825.

Mingay's final objection to the use of the land tax as a source for estimating landownership structure was that it was not equitably distributed even *within* individual parishes. He goes further and claims that "the old inequalities (in the assessment to the land tax) had been considerably aggravated, in all probability by the reassessments which were made in parishes where much land was enclosed or otherwise improved, while the assessments in other parishes remained undisturbed."²

However, looking again at the evidence of the Warwickshire returns, all the indications are that reassessments during the course of the later eighteenth century were very rare. For example, there survives a land tax assess-

¹ As a further safeguard it is as well to ensure that total individual contributions correspond to the total sum given at the end of the assessment.

² Mingay claims that "reassessments of the tax to allow for changes in the area and *value* of holdings . . . appear to have become established practice where parishes were enclosed by Act of Parliament."—*Op. cit.*, p. 386.

ment for the parish of Avon Dassett dated 1747, in which the total tax collected was £91 4s. 9d.¹ It remained unchanged in 1800 and 1825, despite the parliamentary enclosure of the whole parish in 1780. This brings us to another point. Mingay seems quite wrong in thinking that enclosure, even where this involved the whole parish area, prompted revaluation and re-assessment of landowners' property to the land tax. The present writer has found no instance of reassessment following enclosure, either of parish totals or of individual contributions. A few random illustrations of this point are given below:

<i>Parish</i>	<i>Enclosure Date</i>	<i>Landowner</i>	<i>Contribution 1780</i>	<i>Contribution 1825</i>
Oxhill	1792	W. Bromley, Esq.	£ s. d. 32 7 0	£ s. d. 32 7 0
Burton Dassett	1792	J. Blencom, Esq.	34 19 8	35 1 3
		R. Ladbroke, Esq.	21 17 3	21 17 3
Shuttington	1804	T. Burditt, Esq.	100 0 0	102 8 0
		Earl of Essex	42 0 0	41 12 0

Enclosure would certainly affect the relationship between the tax assessment and the *true* value of the land, but would leave that between the former and the acreage unchanged (except in so far as it was slightly affected by the intake of common or exclusion of land granted in lieu of tithe).²

Let us turn now to the final objection raised against the use of the land tax as a source, that there was no constant relationship between tax and acreage within a parish. It can be readily conceded that there could be no precise relationship. However, while we agree with Mingay that it is difficult to discover from other sources (for the purpose of comparison with estimates based on the land tax) the actual acreage in the possession of landowners,³ we feel it is essential to go much further than he did in establishing how significant was this inconsistency between tax and acreage, and in particular to measure the likely error in estimating the size of holdings from land tax returns.

It is possible to compare the size of estates allotted in enclosure awards

¹ Contained in Parish Register 1772-9, deposited in Warwickshire County Record Office, Ref. D.R.O. 66, Vol. 2.

² Small differences can be accounted for by the addition of common or subtraction of land in lieu of tithe.

³ Mingay, *op. cit.*, p. 385.

In this way a sample has been made of 63 estates covering 6,738 acres in five parishes. They are representative of different rural economies within the county: three were east Felden pasture parishes;¹ two were Avon and Stour Valley arable parishes; and in addition we have an estate survey of the old-enclosed parish of Claverdon, situated north of the Avon. In each case an acreage equivalent was established for individual parishes, and then an estimated acreage calculated for each holding, based on the land tax contribution.² The results obtained were as follows:

[illegible]

Nevertheless despite errors in assessing the size of individual estates, when the total acreage represented by different categories was calculated, the error was strikingly small, as we see below:

<i>Actual Total Acreage</i>	<i>Estimated</i>	<i>Error</i>
(Based on Enclosure Awards)	(Land-Tax)	
6,738 acres	6,934 acres	196 acres or 3%

<i>Actual Acreage</i>	<i>Estimated Acreage</i>	<i>Error Involved</i>
1,902 acres	2,007 acres	105 acres or 5.5%

² For details of these calculations, see tables on pp. 102-3.

19 ESTATES OF OVER 100 ACRES IN EXTENT

<i>Actual Acreage</i>	<i>Estimated Acreage</i>	<i>Error Involved</i>
4,836 acres	4,927 acres	91 acres or 1·9%

Of the 44 small landowners in possession of under 100 acres, only three marginal landowners would have been classified in the wrong category, i.e. placed with landowners in possession of 1-200 acres.

A survey of the old-enclosed manor of Claverdon¹ covering the whole parish indicates that here the margin of error in estimating the size of estates from the land tax would be even smaller than in the parishes noted above. The acreage represented by the 4s. tax on the eight estates comprising the manorial lands varied only between 2·5 and 3·7 acres, as follows:

SURVEY OF MANOR OF CLAVERDON, 1792

		Paid £22	Land Tax	2·5 Acres rep. by 4s. tax
The Lodge Farm	268 acres			
Claverdon Park Farm	272 "	" £18.10	" "	2·8 " " "
Ganaway Farm	135 "	" £8.7.6	" "	3·0 " " "
Morrison Farm	94 "	" £5.2.0	" "	3·7 " " "
Kemps Farm	36 "	" £3.1.0	" "	2·4 " " "
Readings Farm	142 "	" £8.7.6	" "	3·3 " " "
The Breach Farm	141 "	" £8.7.6	" "	3·3 " " "
Upper Hercules Farm	48 "	" £2.11.3	" "	3·7 " " "

This variable was smaller than in three out of the five parishes described above. We can thus say, in conclusion, that in certain parishes where contrasting soil and cultivation make it impossible to arrive at an accurate acreage equivalent to represent the whole parish, or where urban or industrial property abound, calculations on the basis of the land tax assessments are probably exposed to a measure of error, which make their use impracticable. But, on the strength of the evidence of assessments relating to rural Warwickshire, the record of owners and occupiers is a complete one, and, furthermore, if an acreage equivalent is worked out separately for each parish, it is possible, in most rural villages, to use the land tax returns to build up a picture of the structure of landownership with an acceptable degree of accuracy.

¹ Survey of Manor, 1792, in Warwick County Record Office, Ref. H.R./93.

THE AGRICULTURAL HISTORY REVIEW

A COMPARISON OF THE ENCLOSURE AWARD AND LAND TAX ASSESSMENT
IN TWO WARWICKSHIRE PARISHES

CUBBINGTON (FELDEN: AVON VALLEY ARABLE)

<i>Holdings in Award 1768 Landowner</i>	<i>Acreage</i>	<i>Land Tax Payment 1781 £ s. d.</i>	<i>Estimated Acreage</i>	<i>% Error</i>	<i>Tax per Acre</i>	<i>Acreage Rep. by 4s. tax</i>
Lord Leigh	374	14 13 0	366	Negligible	0·8s.	5·0
J. Dodson (Vicar)	121	4 4 0	105	13	0·7s.	5·7 Variable
J. Blissett	168	6 10 8	163	Negligible	0·8s.	5·0 from
E. Wise	386	15 10 0	387	None	0·8s.	5·0 3·6
T. W. Knightley	96	4 9 8	111	15	0·9s.	4·4 to
Wm Murcott	197	9 11 2	238	20	1·0s.	4·0 6·6
M. Ambers	16	9 0	11	31	0·6s.	6·6 acres
S. Elkington	21	1 3 4	28	33	1·1s.	3·6
<i>Total Parish Acreage</i>	2,112	<i>Enclosure Award Acreage</i> 1,894	<i>Total Land Tax Paid 1781</i> £87 17s. 0d.		<i>Tax per Acre for Parish</i> 0·8s.	

HARBURY (FELDEN: PASTURE)

<i>Holdings in Award 1780 Landowner</i>	<i>Acreage</i>	<i>Land Tax Payment 1781 £ s. d.</i>	<i>Estimated Acreage</i>	<i>% Error</i>	<i>Tax per Acre</i>	<i>Acreage Rep. by 4s. tax</i>
A. Classon	382	21 14 6	394	Negligible	1·1s.	3·6
T. Abbots	164	9 7 6	170	„	1·1s.	3·6
R. Champion	56	2 7 3	44	21	1·0s.	4·0
R. Childs	94	5 2 1	93	Negligible	1·1s.	3·6
B. Grimes	182	10 5 6	186	„	1·1s.	3·6
T. Mann	196	10 11 9	192	„	1·1s.	3·6
T. Thompson	41	1 18 9	36	12	1·0s.	4·0
Ed. Mann, Sn.	40	2 4 8	41	Negligible	1·1s.	3·6
C. Palmer, Esq.	48	2 17 0	52	„	1·1s.	3·6
T. Sabin	59	2 5 9	42	27	0·8s.	5·0
E. Sabin	76	3 19 3	72	Negligible	1·1s.	3·6 Variable
W. Palmer	34	2 3 0	39	14	1·2s.	3·3 from
R. Watts	28	1 4 5	22	21	0·9s.	4·4 2·7
H. G. Lewis	113	7 5 11	131	15	1·3s.	3·1 to
P. Newcomb	56	2 5 0	41	26	0·8s.	5·0 5·0

HARBURY (FELDEN: PASTURE)—continued.

<i>Holdings in Award 1780</i>		<i>Land Tax Payment 1781</i>	<i>Estimated Acreage</i>	<i>% Error</i>	<i>Tax per Acre</i>	<i>Acreage Rep. by 4s. tax</i>
<i>Landowner</i>	<i>Acreage</i>	<i>£ s. d.</i>				
T. Cattell	18	1 7 0	24	33	1.5s.	2.7 acres
J. Coates	22	15 2	14	36	0.8s.	5.0
J. Butterfield	40	2 6 4	41	Negligible	1.1s.	3.6
R. Cole	22	1 7 0	24	„	1.1s.	3.6
T. Horley	20	1 5 3	22	„	1.1s.	3.6
H. Jenhcott	21	1 8 8	25	19	1.3s.	3.1
W. Radford	13	14 2	13	Negligible	1.1s.	3.6
J. Mann	45	2 19 0	53	17	1.3s.	3.1
E. Mann, Jr	50	3 8 4	61	22	1.3s.	3.1
J. Flecknoe	19	18 6	17	Negligible	1.1s.	3.6
J. Biddle	10	10 1	9	„	1.1s.	3.6
<i>Total Parish Acreage 3,397</i>		<i>Enclosure Award Acreage 3,180</i>	<i>Total Land Tax Paid 1781 £167 17s. 0d.</i>		<i>Tax per Acre for Parish 1.1s.</i>	

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The Agricultural Revolution on the English Clays

By R. W. STURGESS

THE term 'Agricultural Revolution' has usually been associated with the turnip husbandry of the late eighteenth century which permitted the intensive arable cultivation of light soils on enclosed farms.¹ The term has sometimes been extended to cover the heavy lands of the country, and improvements in drainage in the mid-nineteenth century have been seen as the clayland counterpart to the turnip on the light soils.² But no attempt has so far been made to show in what this latter Revolution consisted in terms of changes in the structure and output of farming. In concentrating attention on eighteenth-century changes on the light soils, moreover, no account is taken of the fact that as late as the eighteen-thirties contemporaries generally agreed that half of all cultivated land in England was heavy land, and possibly a quarter was cold clay.³

The turnip or Norfolk husbandry was essentially an arable system. Manure from the folded sheep flock and the beasts stalled in the winter was returned to the arable in preparation for the wheat or barley crop, and the corn harvest was considered the fulcrum. But the traditional corn lands of the country were the clays, and after the Napoleonic wars observers were deeply conscious of the failure of farmers on the enclosed clays to increase production and reduce costs to overcome the severe fall in corn prices. The dependence of most heavy-land farmers on the corn crop as their main form of revenue was unquestioned, and in the eighteen-twenties and -thirties committees viewed with resignation the plight of the clayland corn farmer. After the widespread adoption of improved drainage techniques and the increased use of oilcake and artificial manures in the 'fifties and 'sixties, however, agricultural reporters acknowledged a significant increase in produc-

¹ Lord Ernle, *English Farming Past & Present*, 6th edn, 1961, chaps. VIII-XIII; R. A. C. Parker, 'Coke of Norfolk and the Agricultural Revolution', *Econ. Hist. Rev.*, VIII, 1955, pp. 156-66; G. E. Mingay, 'The Agricultural Revolution in English History: a reconsideration', *Agricultural History*, xxxvii, 1963, pp. 123-33; J. D. Chambers & G. E. Mingay, *The Agricultural Revolution, 1750-1880*, 1966, introduction and chaps. II and III.

² C. S. Orwin & E. H. Whetham, *History of British Agriculture, 1846-1914*, 1965, pp. 4-5; Chambers & Mingay, *op. cit.*, pp. 57, 174-6.

³ *House of Lords Select Committee on Agricultural Distress*, V of 1837, Q.3125 (G. Trumper); Q.3564-5 (E. S. Cayley).

tion from clayland farms. But the balance of this expansion was in livestock, in dairy produce, pigs, and beef stock. This paper is concerned to show the problems of increasing production on the clays before the introduction of pipe drainage, oilcake, and bones, and the controversy which raged over the objectives of clayland farming in the first half of the nineteenth century.

I

The revolutionary effects of the introduction of the turnip husbandry into general culture during the eighteenth century were restricted to the light soils. On the clays, the problem of increasing production remained as intractable after enclosure as before. The fallow persisted on enclosed farms as an indispensable means of cleaning and resting the soil after grain crops. Heavy land is a term covering a wide range of soils from the retentive Gault and Kimmeridge clays to the more friable Lias of Leicestershire and Northamptonshire. The feature which distinguishes it from sand, chalk, and limestone soils is the difficulty of obtaining a fine seedbed necessary for roots on clays that are wet or frozen in the spring and of carting the crop off the field in the autumn without damage to the soil structure caused by the treading of horses' hooves. This effectively precluded the introduction of the turnip husbandry.

Farming the clays is fraught with uncertainty because of the lateness of the seasons, the likelihood of the complete loss of a crop in a wet harvest time, and the high costs of production which persistently press up against fluctuating revenues. The Select Committees of the eighteen-twenties and -thirties are replete with accounts of the high cost of growing a corn crop on soils where ploughing could not be done with less than three horses. Probably the most eloquent account of the vicious circle of fluctuating yields and high costs and the oppressive dominance of the weather over all farm operations in the first half of the century is contained in Wren Hoskyns' *Chronicle of a Clay Farm*. An old farmer in the eighteen-forties ruminated about farming the clays, "We know nothing about them, almost *absolutely* nothing! We know that they are stiff to the plough and sticky to the flock; positive to the Bean, and negative to the Barley; costly to drain, and, without it, profitless to farm. We blunder on with just these two or three negative dogmas on our tongues, and are satisfied to think them knowledge enough. The truth is we have everything to learn about them. I say again we haven't *begun* with 'em."¹

¹ C. Wren Hoskyns, *Talpa or the Chronicle of a Clay Farm*, 1852, p. 189.

II

After the Napoleonic wars a deterioration was observed in the physical condition of the heavy lands as a result of the pernicious system of wartime cropping. Clayland cultivation during the wars was of two types. On the fertile clays of south Leicestershire and the Vale of Aylesbury, the fattening of cattle on summer grass was acclaimed. But on the second class clays, which predominated in the country, the prevailing husbandry was one in which a wheat crop and then oats or beans were obtained before the tired soil was either left to tumble down to grass for two or more years or was immediately fallowed in preparation for the next wheat crop.¹ The permanent pasture and meadow were strictly demarcated and were not subject to the plough. Because of the poorer sward these soils produced compared with the fertile clays and their wartime conversion to corn land in response to high corn prices, wheat was accepted as the main cash crop and the system on the farm geared to its production. Because no arable land could be spared for other than the exhausting wheat crop, winter fodder for livestock was obtained from the meadow. All farmyard manure was transferred to the arable in preparation for wheat sowing. But as the manure produced on the farm was inadequate to replace the soil nutrients carried away in the grain and hay,² and as the range of purchased manures locally available to most farmers was small, both corn and hay yields were low. The exhausted grassland could carry only a small head of stock which produced little manure for the arable, whilst the need to rest the arable and remove the weeds which flourished on the undrained corn land and tumbledown leys meant that a fallow year was indispensable before wheat could be sown. In the Vale of Thame the wheat fallow received all the manure from the stalls, and beef and dairy stock were wintered on hay and straw alone.³ In the Kentish Weald, hops replaced wheat as the main cash crop and monopolized the supply of dung,⁴ but, in the Sussex Weald, the practice "familiar to the

¹ H. E. Strickland, *A General View of the Agriculture of the East Riding of Yorkshire*, 1812, p. 118; A. Young, *A General View of the Agriculture of the County of Sussex*, 1808, p. 70; C. Vancouver, *A General View of the Agriculture of Essex*, 1795, p. 107; W. Pitt, *A General View of the Agriculture of the County of Leicester*, 1809, p. 506; A. Young, *A General View of the County of Oxford*, 1809, p. 408; J. White, *A General View of the Agriculture of the County of Lincoln*, 1794, p. 85.

² One chemist considered that on most clay farms in the 'forties the wheat crop annually took away the equivalent of $\frac{1}{2}$ cwt. of bones per acre.—J. E. W. Johnstone, *Lectures on Agricultural Chemistry and Geology*, 2nd edn, 1847, p. 408.

³ C. S. Read, 'On the Farming of Oxfordshire', *Journal of the Royal Agricultural Society*, xv, 1855, p. 244 (hereafter *J.R.A.S.*).

⁴ Viscount Torrington, *On Farm Buildings with a few observations on the State of Agriculture in the County of Kent*, 1845, p. 69.

Roman husbandmen and practised in Virgil's time" of taking two corn crops after a fallow was followed, and the few cattle were fed mainly on straw with hay as a supplement.¹ In Essex, beans were grown after wheat, but were mainly consumed by horses.²

On improving estates where attempts were made to reduce the corn acreage and expand stock farming, the inability to grow fodder on the arable imposed a limitation on the clayland farmer. Because the grassland was forced to provide both winter provender and summer grazing for stock, a constant clash arose over the use to which the grassland should be put. If the same head of stock was to be carried throughout the year, a large part of the grass acreage was locked up as meadowland during the summer, which was the period of greatest activity in grassland livestock farming, with spring calving, summer milk from the dairy herd, and summer fattening off grass. The Leicestershire graziers had long accepted the low profit per animal involved in buying in the spring and selling in the autumn as the price of carrying large numbers of stock on the summer pastures.³ But Gloucestershire farmers were forced to keep small dairy herds throughout the year because of their small hay supplies and the low yield of their pastures.⁴

The older grasslands experienced a decline of yields. In the Trent valley and on the Cheshire clays, years of depasturing the grasslands with cows in summer on farms where milk and calves were sold each year, although little manure was returned, had resulted in phosphate-deficiency of the soils. Authors of Prize Essays of the Royal Agricultural Society were impressed by the exhausted state of the cow pastures in Nottinghamshire and Derbyshire in the 'forties and 'fifties, as was Palin by the Cheshire pastures in the 'forties.⁵

III

Various attempts were made on improving estates to overcome the lack of fodder either by growing beans on the fallows or by controlling the management of grassland in an attempt to maintain yields. In 1813 James Loch entered the agency of the estates of the Marquess of Stafford, later Duke of Sutherland. He found that most of the estates in Staffordshire and Shropshire were on heavy land and the property was in a deteriorated condition. Although Loch's ideas were founded in Lothian and Northumberland sheep and corn husbandry, his energies were directed to the improvement of English clayland farming. He knew his mission: in 1818 his sub-

¹ Young, *Sussex*, p. 70.

² R. Baker, 'On the Farming of Essex', *J.R.A.S.*, v, 1845, p. 34.

³ Pitt, *op. cit.*, pp. 153-4.

⁴ J. Caird, *English Agriculture in 1850-1*, 1852, pp. 42-4.

⁵ W. Palin, 'The Agriculture of Cheshire', *J.R.A.S.*, v, 1845, p. 63.

agent informed a tenant, "Mr. Loch's duty requires him by all the means in his power to introduce as good a system of farming upon the stiff lands of the country as exists upon the light and turnip soils."¹ He considered that the arable acreage on the clays was excessive, and that the dominance of corn had caused exhaustion of the soil.² No cropping covenants existed in leases before 1813, but, as leases fell in, covenants were inserted restricting the acreage under corn on each farm. Change was also obtained by a more selective choice of tenants and exhortations to adopt a recuperative rotation. Loch's main criticism was the failure to obtain a fodder crop in the fallow year, and he believed that beans could fill the rôle. But he believed that the bad husbandry of local farmers thwarted his efforts. The risk attending the growing of beans, because of the loss of value as fodder unless harvested at exactly the right time, deterred the tenants from adopting them.³ The acreage under beans on the Trentham estate rose only from 1 per cent of total acreage in 1820-1 to 2 per cent in 1850-1.⁴ The failure of farmers to grow beans as a fallow crop on the heavy lands because of the risk of mildew in a moist climate was also observed in Shropshire and Durham,⁵ and in the 'fifties bean growing was believed to have declined because of the risk of disease.⁶ In contrast, beans were a common break in Essex because of careful and expensive management and a drier climate.⁷

Because of the growing awareness by agents of the strain imposed on the meadows, protection was given in leases. Although restriction on the mowing of unmanured meadows more than once a year was mentioned as important in Cornwall, Lancashire, Westmorland, and Sussex in the late 'twenties,⁸ it was also mentioned in Gloucestershire, Essex, and Northumberland by the 'sixties.⁹ Conservation of meadow was carried to its height in Cheshire where leases generally stipulated that all the dung was to be applied to the meadow and manure required for the arable was to be pur-

¹ C. Lewis, Memorandum on New Lodge Farm, Lilleshall, 1818. Staffordshire Record Office, D.593. Documents not catalogued individually at time of use.

² J. Loch, *A Survey of the Improvements on the Estates of the Marquess of Stafford*, 1820, pp. 173-9.

³ Report on the State of the English Estates, 1817. Staffordshire Record Office, D.593.

⁴ Trentham cropping books, 1820-1851, *ibid.*

⁵ H. Tanner, 'The Agriculture of Shropshire', *J.R.A.S.*, xix, 1858, p. 17; Johnstone, *op. cit.*, p. 407.

⁶ R. Vallentine, 'On the Cultivation of Beans and Peas', *J.R.A.S.*, xv, 1855, p. 479.

⁷ Baker, *op. cit.*, p. 34.

⁸ L. Kennedy & T. B. Grainger, *The Present State of the Tenancy of Land in Great Britain* 1828, pp. 177, 256, 334, 346.

⁹ C. Cadle, 'Farm covenants in England & Wales'. *J.R.A.S.*, xv, 2nd ser., 1868, pp 50-86.

chased.¹ Manuring of the grassland was of limited extent and success before the 'forties. Liming was a long-established method of fining and restoring meadow, and it was particularly of value on badly drained sour soils. But it did nothing to restore phosphates in over-grazed or excessively mowed grasslands, and cost of transport restricted its use to within some eight miles of a quarry or a canal. The success of boning of turf and meadow in Cheshire was famous at this time, and was evident on many exhausted pastures from the eighteen-twenties.² Soil scientists considered that the acute phosphate-deficiency of Cheshire soils and high rainfall were the main factors in its physical effect.³

Grain feeding was of local importance before the middle of the century. The feeding of tail corn to calves and heifers from March until grass day was a common practice amongst the better farmers on Cheshire and Staffordshire farms.⁴ Within a radius of ten miles around Burton-on-Trent the feeding of cattle on brewers' grains in winter had greatly reduced the meadow acreage.⁵ But the brewing season was in summer and storage of the grains until winter was a problem even within the vicinity of Burton, many farmers being unwilling to experiment with grain feeding.

IV

Over the four decades after 1815 worn out arable was converted to grass in the north and west of the country, although land under the plough increased in the east. On two Staffordshire estates totalling 9,000 acres, where cropping can be calculated, the grass land increased from 52 per cent of the total acreage to 64 per cent,⁶ whilst after the enclosure of 20,000 acres of the Forest of Exmoor, land was quickly laid down to grass after a few years of corn production.⁷ In Warwickshire the proportion remained between one-third and a half.⁸ But during the French wars farms in the Vale of York were generally "two-thirds in grass;" over the following five decades they were converted piecemeal into tillage.⁹ The expansion of grass acreage possibly

¹ J. Caird, *English Agriculture in 1850 & 1851*, 1852, p. 253.

² C. Davis, *The Agricultural History of Cheshire, 1750-1850*, 1960, p. 60.

³ Johnstone, *op. cit.*, p. 791; C. W. Johnson, *On Fertilizers*, 1839, p. 58.

⁴ Caird, *op. cit.*, p. 258; Palin, *op. cit.*, p. 70.

⁵ J. J. Rowley, 'Farming of Derbyshire', *J.R.A.S.*, xiv, 1853, p. 60.

⁶ Leicester Borough Record Office, 26D53/1990, 1997; Ranton Estate Office, Chebsey surveys.

⁷ T. Bedford Franklin, *British Grasslands*, 1953, p. 102.

⁸ J. Wedge, *A General View of the Agriculture of the County of Warwick*, 1794, p. 11; H. Evershed, 'Farming of Warwickshire', *J.R.A.S.*, xv, 1856, pp. 481-2.

⁹ J. Tuke, *A General View of the Agriculture of the North Riding of Yorkshire*, 1794, p. 32; M. M. Milburn, 'Agriculture of the North Riding of Yorkshire', *J.R.A.S.*, ix, 1849, p. 512.

involved an increase of meadow because of falling meadow yields which were inadequate to provide for an extension of dairying. After James Loch's entry to the Sutherland agency, the number of farms called 'dairying' or 'mixed' on the Staffordshire and Shropshire estates rose from 14 to 19, and those called 'arable' fell from 45 to 40.¹

Thus the dilemma facing the clayland farmer on improving estates was that, whilst pursuing a system of farming in which the importance of corn was declining and livestock becoming financially more important, his inability to grow fodder crops on the arable forced him to observe a ceiling to the expansion of his more profitable enterprise. The release from this dilemma constituted the Agricultural Revolution on the clays.

V

By the middle of the century the failure of attempts to grow fodder crops on the arable and thus break the vicious circle of low productivity was accepted by observers. But during the 'fifties and 'sixties hay was widely supplemented by oilcake brought on to the farm and pipe drainage was introduced under the supervision of government inspectors. The increased yield of the grasslands and the growing of vetches and mangolds that this made possible permitted an extension of grazing land at the expense of meadow and the carrying of larger dairy herds and fattening stock on summer pastures.

In Somerset the consumption of oilcake and the increase of grazing land was estimated to have increased the average number of milk cows per 100 cultivated acres from some 20 to 33 over the 'fifties.² On the very high yielding grasslands of the county, farmers kept the whole of their farms in pasture and sold most of their cows in the autumn, the increased supply of summer milk being considered sufficient to compensate for the high price paid for in-calf heifers in the spring.³ In Cumberland before the 'forties, "many farmers depended exclusively upon the production of grain in order to meet their rent, rates, and taxes. Now [in 1874] they generally rely upon corn growing and meat making concurrently; sometimes upon the latter alone, the produce of meat having within a few years become a striking feature in the agriculture of the county."⁴ On the Wheatlands of Shropshire wheat was "almost the only produce sold in the market" in the 'twenties and 'thirties,⁵

¹ Loch, *op. cit.*, pp. 69-112.

² J. Harding, 'Recent Improvements in Dairy Practice', *J.R.A.S.*, xxi, 1860, p. 83.

³ *Ibid.*

⁴ T. Farrell, 'A Report on the Agriculture of Cumberland chiefly with regard to the Production of Meat', *J.R.A.S.*, x, 2nd ser., 1874, p. 402.

⁵ Tanner, *op. cit.*, p. 16.

but by the late 'fifties, "the spirit of enterprise has found its way here, and a better system of tillage has resulted whereby a considerable quantity of spring corn and meat finds its way to market as well as wheat."¹ Damage to the soil caused by the treading of horses' hooves caused many farmers to grow vetches or to fallow instead of attempting to grow turnips. Few farmers, however, were using purchased grain as feed and, because the grasslands had deteriorated, peas and, to a lesser extent, beans provided additional fodder.

In the dairying areas of north and south-west Leicestershire, allegations were made of a decline in cheese production in favour of fattening because of the difficulty of obtaining dairy maids,² but on grazing farms an increased head of stock was carried through the winter by the consumption on the farm of all the grain produced on the small arable acreages.³ The increased yield from Cheshire pastures following the application of bones both before and after the introduction of pipe drainage in the 'forties and 'fifties was believed almost to have doubled the number of dairy cows in the county in the thirty years after 1830.⁴ In the 'fifties the wheat crop was "the main object of the Wealden farmer."⁵ Because of the infertility of the soils and low rainfall in the Weald, seeding down to permanent pasture was a risky and expensive venture and in the 'seventies farmers were fattening additional stock in the winter on grain and larger acreages of vetches and mangolds.⁶ The general shift from corn to stock output within mixed farming systems over these years has been discussed by Dr E. L. Jones.⁷

The feeding of grains and increased hay yields from highly manured meadows permitted an increase in milk yields per cow in dairy areas. The wide-spread change from cheesemaking on farms to the sale of liquid milk into towns over the 'seventies and 'eighties required a year-round production from dairy herds. Although the sale of liquid milk by farmers on the fringe of towns was common in the first half of the century, the reduction by a third in the number of cows kept in London dairies during the cattle

¹ *Ibid.*

² 'The Production of English Cheese', *Farmers' Magazine*, xxviii, 3rd ser., 1865, p. 371; 'Leicestershire Farming', *ibid.*, xxxiv, 3rd ser., 1868, p. 198.

³ W. S. Moscrop, 'A Report on the Farming of Leicestershire', *J.R.A.S.*, II, 2nd ser., 1866, pp. 321, 328.

⁴ J. Dixon, 'Manuring Grasslands', *J.R.A.S.*, xix, 1858, p. 207.

⁵ J. Hawes, 'Notes on the Wealden Clay of Sussex and its Cultivation', *J.R.A.S.*, xv, 1858, p. 181.

⁶ H. Evershed, 'Early Fattening of Cattle in the Counties of Surrey and Sussex', *J.R.A.S.*, xiv, 1878, pp. 152-3.

⁷ E. L. Jones, 'The Changing Basis of English Agricultural Prosperity, 1853-73', *Agric. Hist. Rev.*, x, 1962, pp. 102-19.

plague in 1865-6 forced London dealers to range the traditional cheese producing areas of the country in search of supplies.¹ Dealers usually stipulated that supplies of milk be sent in winter at about a third of the summer level, and higher prices were given in winter as an inducement to produce outside the summer when cheap milk could be obtained off grass.² By 1888 cheese-making was considered important in the Trent valley only when the milk trade was temporarily oversupplied, whilst the Vale of Gloucester and north Wiltshire were milk-producing areas by the early 'eighties.³

In 1841 a farmers' club in the Trent valley debated "whether it is better to keep dairy cows on strong food and prolong the flow of milk or to give them a less expensive diet and let them dry earlier."⁴ This debate had point because it was a common practice to feed cows on straw alone in the winter and to cease milking them for three to five months. Increased hay supplies from boned meadows were claimed to have increased the average milk yield of cows in Cheshire by a half over the 'sixties and early 'seventies.⁵

Improvement in clayland farming was not uniform: on the most infertile clays in the dry east and south of the country permanent pasture was a precarious crop and arable farming continued. The length of time and risk involved in obtaining a good turf deterred most farmers from seeding down whilst the poorer soils were not considered worth the cost of draining. The ease and speed with which grass grew on the fertile clays in the wet north and west had long been observed, where a thick sward capable of feeding an ox was produced twelve months after harvesting the corn crop.⁶ In the 'sixties it was believed that Cheshire and Staffordshire farmers could obtain an acceptable grazing turf in one year at a cost of up to £3 per acre, although on the Weald and Essex clays up to ten years was required and £10 per acre was the average cost.⁷ In the 'seventies an Essex farmer questioned Joseph

¹ 'Country' supplies were initially obtained from the Home and eastern counties. A third of the average annual 6.4 million gallons going to London by rail in the three years after 1864 went along the Great Eastern and London & Brighton lines. By 1890 80 per cent of the 40 million gallons came along the Great Northern, Midland, Great Western, London and N. Western, and London and S. Western lines.—J. C. Morton, 'Town Milk', *J.R.A.S.*, IV, 2nd ser., 1868, p. 95; R. H. Rew, 'An Enquiry into the Statistics of Production and Consumption of Milk and Milk Products in Great Britain', *Journal of the Royal Statistical Society*, LV, 1892, pp. 264-5.

² E. A. Pratt, *Transition in Agriculture*, 1906, p. 13.

³ *Staffordshire Advertiser*, 15 August, 1888; Pratt, *op. cit.*

⁴ *Farmers' Magazine*, xv, 2nd ser., 1847, p. 10.

⁵ 'Dairy Farming in Cheshire', *Agricultural Gazette*, IV, N.S., 1876, p. 238.

⁶ W. Cobbett, *Rural Rides*, Everyman edn, 1957, II, pp. 279-81.

⁷ H. Evershed, 'Early Fattening of Cattle in the Counties of Surrey and Sussex', *J.R.A.S.*, x, 2nd ser., 1878, pp. 167-8.

Mechi's call for further draining in that county, believing that all the land worth draining had been drained. On the less fertile soils of the east and south the perennial cropping of farms in an attempt to maintain income, and the existence of the bare fallow on the stiffest soils, could be excused because of the difficulty of growing grass.¹

Because farmers could not afford to pay for the seeding down of their land and at the same time to have land out of production for a year, landlords frequently paid for seeding down of land to permanent pasture on their estates. Over the 'fifties and 'sixties Lord Ferrers seeded down 327 acres of his Chartley estate² whilst Ralph Sneyd spent £914 on seeds for his tenants.³ Cheshire landlords frequently contributed to the cost of grassing down arable and stipulated that no such grass should be broken up.⁴

The capital requirements of farmers entering heavily stocked dairy farms were greater than for those entering arable farms over the third quarter of the century, and landlords were particularly desirous of obtaining tenants with adequate capital. In Warwickshire the capital value of stock on clay farms was an average £5-£6 per acre and was the same as for highly farmed light land farms in the 'fifties.⁵ Caird believed that Northamptonshire stock farmers needed to have greater financial resources than arable farmers in the early 'fifties.⁶ With the increasing intensity of stocking and rise in value of stock, these requirements were increasing. By the late 'seventies a Nottinghamshire agent believed that most stock farms on the clays required double the working capital of sheep and corn farmers.⁷

The expansion of stock farming on the clays, in which the feeding of farm-produced grain and purchased oilcake played so large a part, enabled farmers more easily to expand production in response to changing prices in the second half of the century than in the first half when supply was inelastic. The buoyancy of stock farmers who benefited from falling prices of purchased grain feed in the Great Depression has been described by Mr T. W. Fletcher.⁸ T. Carrington Smith, a Trent valley dairy farmer and agricultural writer, wrote of the Midlands in the late 'eighties that, "taking the whole

¹ *Agricultural Gazette*, VI, N.S., 1877, p. 52.

² Leicester Borough Record Office, 26D53/1996-2003.

³ Sneyd Papers, O.S. 4 & 5, University of Keele Library.

⁴ Palin, *op. cit.*, p. 86.

⁵ C. Wratlaw, 'The Amount of Capital required for the Profitable Occupation of a Mixed Arable and Pasture Farm in a Midland County', *J.R.A.S.*, XXII, 2nd ser., 1861, pp. 177-8.

⁶ Caird, *op. cit.*, p. 414.

⁷ *Royal Commission on Agricultural Interests*, xv of 1881, Q.6176 (J. Coleman).

⁸ T. W. Fletcher, 'The Great Depression in English Agriculture, 1873-1896', *Econ. Hist. Rev.*, XIII, 2nd ser., 1961, pp. 417-31.

situation of dairying all round, and including the adjuncts of pigs and poultry it will be safe to conclude that the general output is greater than it was in the days when corn was dear."¹ In 1886 he could conjecture, "If it should turn out that the jubilee year of 1887 shall, like the Exhibition year of 1851, be coincidental with a revival of trade and agriculture, we shall find that we have less leeway to make up. The tide of disaster and ruin has not swept us so far out to sea as it had done before 1851."² The increased production of the clays over the 'fifties and 'sixties was acknowledged by observers. But why were earlier attempts unsuccessful?

VI

The failure of farmers on the clays to combat the falling price of wheat after the Napoleonic wars was viewed with mixed sympathy and scorn. Dependence on the corn crop was unquestioned by observers and farmers, and salvation was seen in a reduction in the cost of obtaining it. The Select Committee investigating petitions of distress in the wet harvest year of 1821 accepted that little prospect existed of a rise in the wheat price to the level of the war years and, recognizing the changing national outlook, could not recommend protection beyond the 1815 Corn Law.³ After singling out the corn farmer as the main victim of price changes, it recognized his helpless position and was only able to offer the advice of using more manure and fewer horses. The Select Committee of 1833 was appointed to investigate the distress of both corn and livestock farmers after the wet years of the late 'twenties and early 'thirties and it remarked upon the distress on the clays where output of corn and stock was greatly reduced although increased production from light land farms prevented a rise in corn prices.⁴ The commission of 1836 was appointed after a sharp fall in the corn price from 1833 to a trough in 1835. It singled out the small corn farmer on the clays as one of the greatest sufferers in these years because of his inability to increase production, but could offer no solution.⁵ The paradox of dependence on the wheat harvest as the chief source of revenue and continuing failure to move away from this in a time of falling prices seemed beyond legislative solution.

The wheat crop traditionally paid the rent on arable clayland farms and the dependence on corn for a livelihood was particularly a problem for the small farmer. Whilst observing the distress of farmers on the clays the 1833

¹ Farming Reports, *Agricultural Gazette*, N.S., XXVII, 1888, p. 494.

² *Ibid.*, XXVI, 1868, p. 577.

³ *Select Committee on Agricultural Distress*, x of 1821, pp. 13-23.

⁴ *Select Committee on Agriculture*, v of 1833, p. iv.

⁵ *Select Committee on Agricultural Distress*, VIII of 1836, Part II, Appendix.

Committee noticed that these areas were largely old corn land which it believed had been under the plough since time immemorial.¹ The main demand for farms after 1815 was claimed to be for light land sheep and corn farms or dairy and stock farms on the more fertile clays.² Agents found a slack demand for heavy land farms which had been exhausted by the taking of successive corn harvests, and were forced to accept tenants whose small means obliged them to perpetuate the system. James Loch observed on the Sutherland estates, "Upon the heavy lands they are certainly deficient farmers and it will require some pains to make them better. This sort of land has hitherto been abandoned to the least skilful and the poorest of the tenantry and until men of capital and skill can be induced to take it and cultivate it as it ought to be little improvement can be expected. To accomplish this is ever uppermost in my mind."³ On the Durham clays a recommendation that a fallow be substituted for the second of two consecutive corn crops was unacceptable because "the farmers generally were so poor and obliged to sail so near to the wind that they would not afford to lose a crop."⁴ Wren Hoskyns, a discerning lawyer who had experienced the frustrations of farming the clays, expressed the disdain which improving farmers held for the large number of heavy-land farmers who ploughed their arable land to a standstill and carried both grain and straw to market.⁵ In 1847 an observer remarked upon the need for the small farmer on the clays to grow less wheat, but admitted "His corn pays his rent—his corn feeds his family—his corn pays his interest—his corn is his mainstay."⁶

The object of agents on progressive estates was to amalgamate farms and so permit a more balanced husbandry with a smaller dependence on corn. James Loch informed the Duke of Sutherland in 1820 that when the existing long leases fell in, farms were amalgamated, "the arrangement which was adopted for the improvement of this property was laying the land together in farms of considerable extent."⁷ A new agent for Earl Ferrers's estates in the Trent Valley remarked, "The exchanges with neighbouring owners have tended greatly to the advantages of the estate and whereas many of the smaller farms not exceeding 150 acres extended over a distance of three miles,

¹ *Ibid.*, v of 1833, p. iv.

² *Ibid.*, Q.8621 (J. Buckley), Q.12194 (S. Woolley); W. Donaldson, *Clay Lands and Loamy Soils*, 1852, *passim*.

³ Report on the State of the English Estates, 1817.

⁴ 'Newcastle Farmers' Club', *Farmers' Magazine*, xx, 2nd ser., 1850, p. 198.

⁵ Hoskyns, *op. cit.*, p. 154.

⁶ M. M. Milburn, 'On the Improvement of Cold Clays', *Farmers' Magazine*, xv, 1847, p. 119.

⁷ Loch, *op. cit.*, p. 178.

the farms have now been laid together and are tenanted by substantial working tenants."¹ The process of amalgamation seemed to have progressed by the middle of the century and the decline of holdings between 50 and 200 acres from 1851 to 1861 was attributed by one observer to a reduction in the number of small corn farmers.²

VII

The increasing attention given to the problems of the clayland farmer in the 'twenties and 'thirties was directed to the unprofitability of corn production in comparison with that on the light lands. This low profitability was considered to lie in the high and fixed level of costs involved in getting the crop from the ground, and the large number of horses required to plough the fallow was cited as the main cost. Witnesses before the Select Committees of the 'twenties and 'thirties accepted that the number to a plough was never less than three,³ whilst on the Essex, Oxford, and Leicestershire clays five healthy horses were necessary to pull a plough.⁴ Five ploughings of the fallow were common in Northumberland and Durham, and six were the minimum in Essex.⁵ Horses could be employed continuously in summer but the peak demand for ploughing occurred in the autumn before wheat sowing, and because of the uncertainty of the weather and the sodden or frozen state of the soil ploughing might have to be concentrated into less than a month. The employment of six horses on farms of two hundred acres, of which only a half was arable, was common in the Midlands.⁶ If these horses were kept throughout the year they could consume the produce of some fifteen acres of meadow and oats in addition to their summer grazing. Mechi could claim that a quarter of the land on clay farms was tied up in feeding horses before the eighteen-forties.⁷

Cultivation of the fallow was accepted as a cost of the wheat crop. The cost of purchased manure and ploughing was expected to be covered by receipts from wheat. Farmyard dung, the main form of manure, was not charged as a cost to the enterprise. In Holderness the income from wheat only just covered the cost of ploughing and purchased lime in the early 'twenties as it did in Durham in the late 'forties.⁸ Most farmers were probably like the

¹ Report on the Estates of the Rt Hon. Earl Ferrers, 1867 (Leicester Borough Record Office, 25D60/74).

² J. D. Dent, 'Agricultural Notes on the Census of 1861', *J.R.A.S.*, xxv, 1864, p. 324.

³ E.g., ix of 1821, p. 1545 (W. Stickney).

⁴ Caird, *op. cit.*, pp. 19, 215; Read, *op. cit.*, p. 238.

⁵ Baker, *op. cit.*, p. 34; Caird, *op. cit.*, p. 340.

⁶ Wratislaw, *op. cit.*, p. 170.

⁷ J. J. Mechi, *Agricultural Improvement*, 1845, p. 77.

⁸ *Select Committee*, ix of 1821, p. 1545; Caird, *op. cit.*, p. 340.

clayland farmers of Northumberland, and made no attempt to work out the actual costs of the fallow for the wheat crop.¹ In that county the estimated cost of an acre of fallow was £4 12s. excluding purchased manure, £1 15s. of which was for five ploughings.² In Essex six ploughings alone cost from £3 to £3 12s. an acre at a time when income per acre was about £3 10s.³ But accounts of farming which professed to show the unprofitability of corn growing on the clays in terms of the cost of ploughing and purchased manure only considered the cost to the arable side of the farm of growing the corn crop; they took no account of the cost to the farm as a whole. This cost included the supply of hay from the meadows to stalled cattle during the winter and the diversion of the resulting manure to the arable. The true cost of deference to the wheat crop showed itself in the large acreage of impoverished meadows and the small head of stock carried on the summer pastures.

VIII

By the late 'thirties exhaustion of the grass lands on the clays provoked widespread criticism of the dependence on hay as the main form of stock feed. The expense of a system in which a large part of the grassland was tied up as meadow to provide manure for the arable was openly questioned. A Gloucestershire observer considered that at least three acres were needed to keep a cow in that county,⁴ whilst a Staffordshire farmer considered that the hay crops did not produce a third of what they should.⁵ Despite the wide use of bones, a large proportion of Cheshire meadows was still in a deteriorated condition in the early 'forties.⁶ Because of the supremacy of corn and the dependence of the arable on the meadow for manure, authorities disagreed over the practice of ploughing old pastures in an attempt to restore fertility.⁷ In the late 'thirties an attack was made on the restrictions in leases upon the ploughing of pasture in the belief that this was the only way to regain its yields.⁸

The high cost of hay in relation to other forms of feed was criticized. In 1839, a commentator remarked that "if we believe that produce or crops of any kind require encouragement for their growth, our practice is very contrary in respect of grasses, for lands are purposely exhausted by corn crops, filled with weeds, and then grasses are expected to grow, and we are very

¹ 'Newcastle Farmers' Club', *Farmers' Magazine*, xx, 2nd ser., 1850, p. 198.

² *Ibid.*

³ Baker, *op. cit.*, p. 34.

⁴ Caird, *op. cit.*, p. 44.

⁵ 'Burton on Trent Farmers' Club', *Farmers' Magazine*, xv, 1847, p. 248.

⁶ Palin, *op. cit.*, p. 67.

⁷ J. Dickson, *Principles of Agriculture*, 1845; J. C. Loudon, *An Encyclopaedia of Agriculture*, 1825; *British Husbandry*, 3 vols., 1833-40.

⁸ J.D., 'On the Unprofitability of Old Pastures', *Farmers' Magazine*, III, 1839, p. 15.

gravely told the system pays best."¹ In 1847, Staffordshire farmers were exhorted "instead of providing a large supply of hay which, except in the case of water meadow, is the most expensive of all kinds of winter provision for stock, [to] lay in a quantity of linseed cake . . .,"² and in 1851 the agent for a Trent Valley estate stated, "All strongland farmers will be driven to adopt the green crop system or the pulse system or part of each as a substitute for an unproductive year. The old system has been protected by prices but it must now fall."³

As the feeding of grain and oilcake became more general, farmers were assiduous in finding substitutes for hay. The movement for repeal of the malt tax, which before the mid-'forties was concerned primarily with the reduced supply of beer for farm labourers, took a new direction. In 1848 a national association stressed the value to farmers of malt for stock fattening.⁴ In 1853 a Derbyshire farmer remarked upon the increasing practice of grain feeding in that county. "Those farmers who have been in the habit of using grains are anxious for malt tax repeal. They agree, if the malt tax was repealed, they could increase their dairy cows and reduce the growth of hay."⁵

Evidence of a changing pasture acreage, as tired arable was converted to grass and meadow land was released by grain feeding, is not substantial but suggests an increase. In Staffordshire in the late 'sixties "the increasing profit of dairy farming as compared with arable cultivation on strong land has occasioned a great portion of such land to be laid down as permanent pasture during the last few years."⁶ On the Leicestershire lias conversion occurred in both directions. In the dairying areas the poorest turf was ploughed and sown with oats or beans to provide straw and feed as a supplement to meal in a grassland area where these had previously been lacking.⁷ On the more fertile clays an increase in grass acreage for grazing occurred. Whichever change was made, "speaking of the county as a whole, more furrows are turned up every year, but more with a view to the meat market than to Mark Lane."⁸ Rising wages for the large labour force necessary to work the arable clays and the rising price of stock were claimed to be the reasons for the

¹ J.D., 'On the Unprofitability of Old Pastures', *Farmers' Magazine*, III, 1839, p. 15.

² Anon., *How is the Farmer to Live?*, 1846, p. 5.

³ H. Wyatt, 'The Management of a Heavy Land Farm', *Catalogue of the North Staffordshire Agricultural Society Show*, 1851, p. 25.

⁴ 'Repeal of the Malt Tax', *Farmers' Magazine*, xvii, 2nd ser., 1848, p. 308.

⁵ Adding "The practice had much reduced the growth of hay. More cows are kept and more land is under pasture."—J. J. Rowley, 'Farming of Derbyshire', *J.R.A.S.*, xiv, 1853, p. 60 and n. 1.

⁶ H. Evershed, 'Agriculture of Staffordshire', *J.R.A.S.*, v, 3rd ser., 1869, p. 268.

⁷ 'Leicestershire Farming', *Farmers' Magazine*, *op. cit.*, p. 106. ⁸ *Ibid.*

extension of permanent pasture in Warwickshire and Worcestershire over the 'sixties and early 'seventies.¹ In contrast, the low rainfall of the Weald made the seeding down of tired arable a risky and expensive venture, and the acreage of grass extended little.² Even to an enterprising farmer the trouble involved in conversion to grassland was a deterrent. Carrington Smith seeded down some of his farm in the 'sixties, but admitted, "It was even under the hard discipline of the wet season of 1861 a rare thing for anyone to suggest that the royal road leading to the recovery of fertility was to be found in rest from the plough."³

IX

Whilst farmers were experimenting with grain feeding and on the improving estates extending their dairy enterprises and moving away from corn, the belief that the clays were the natural home of wheat farming still held sway in the national debate. The debate over the prospects of farming on the clays in the 'fifties and 'sixties resolved itself into a clash over the function of livestock, whether merely as providers of manure for the arable or as earners of revenue in their own right. The critics of the hay-feeding system hoped that drainage would permit the adoption of turnip husbandry on the clays and that the increased winter feed and manure would permit an extension of corn farming. After criticizing the state of meadows on heavy land in 1840, M. Milburn, a Holderness farmer, conjectured hopefully whether drainage would extend the cultivation of turnips.⁴ Even Philip Pusey could remark in the same year, "To whatever extent the Deanston system might be found applicable to the claylands of England, a revolution will at the same time be effected by the introduction of the turnip upon them."⁵ The revival of the orthodoxy of corn farming on the clays found its priest in Joseph Mechi. His advocacy of corn and root farming on the clays left no room for grass and assumed that the large cost involved in growing roots would be offset by the increased return of dung from a doubling of

¹ 'Report on Laying Down Land to Permanent Pasture', *J.R.A.S.*, xi, 2nd ser., 1875, pp. 490, 493.

² H. Evershed, 'Early Fattening of Cattle in the Counties of Surrey and Sussex', *J.R.A.S.*, xiv, 2nd ser., 1878, p. 167.

³ T. Carrington Smith, *The Story of a Staffordshire Farm*, 1906, p. 9.

⁴ M. Milburn, *op. cit.*, p. 119.

⁵ P. Pusey, 'Some Introductory Remarks on the Present State of Agriculture as a Science in England', *J.R.A.S.*, i, 1840, p. 6. As late as 1860 it could be remarked, "Drainage had been the great improvement of modern days, and had worked the most striking alterations in the strong lands, rendering turnip culture and sheep farming possible where bare fallows before were the rule."—J. D. Dent, 'The Present State of Agriculture in England', *Farmers' Magazine*, xvii, 3rd ser., 1860, p. 22.

stock carried per acre.¹ He believed that roots could be grown on any land, and objected "*in toto* to permanent pasture as a positive individual and national loss."² Cattle were to be considered "our manufacturers of manure, as the Lincolnshire farmers call them, and if they occasionally pay for their feed or a profit so much the better."³ Even Wren Hoskyns believed the clays were the source of future corn supply because wheat occurred more frequently in the old clayland three-course of two crops and a fallow than on the light lands. "It seems obvious that the improvement of the clay soils to their utmost extent is the special, I should almost say the only, means left to us for operating in any degree to maintain the produce of wheat in proportion to our increasing numbers."⁴ In the middle years of the century Caird and John Morton were solitary voices suggesting that the future of the heavy soils lay in stock farming.⁵ In 1850 Caird recommended an extension of grass as the salvation of the clay farmer. But by the 'eighties stock farming on the clays was accepted as a main form of livelihood and corn farming was considered exceptional.⁶

X

The revolutionary effects of the introduction of the turnip husbandry in the late eighteenth century were not felt on the heavy lands. Clayland farmers on all but the most fertile soils depended on the wheat crop for the payment of rent, and suffered after the Napoleonic wars because of their inability to increase production. The deterioration of both grassland and arable caused by a system in which the meagre supply of manure was monopolized by the cornland and the unmanured meadows were the main source of winter fodder, made a shift from the system impossible for most farmers. Attempts by improving landlords and farmers to increase the supply of provender from the arable and to expand the livestock sides of their farms failed because of the difficulty of growing fodder crops on undrained clays, although the successful application of bones to exhausted grassland in Cheshire permitted an early intensification of dairying. The increased supply of oilcake and widespread use of bones and chemical fertilizers from the late 'forties released meadowland for summer grazing, and an expansion of stock farming occurred on clayland farms, differing from the direction anticipated by agricultural authorities. These changes occurred at a time when agents and farmers were increasingly aware of a divergence in the profitability of stock

¹ Mechi, *op. cit.*, p. 15.

² *Ibid.*

³ *Ibid.*

⁴ C. Wren Hoskyns, 'The Progress of English Agriculture in the last fifteen years', *Farmers' Magazine*, ix, 3rd ser., 1856, p. 349.

⁵ Caird, *op. cit.*, pp. 485-6; J. Morton, *On Soils*, 1853, pp. 147-8.

⁶ *Royal Commission on Agricultural Interests*, xv of 1881, Q.8841, Q.9361.

and corn farming, and improvement was directed to an expansion of dairying and grazing on land where grass was a natural crop. The later Revolution on the clays and change to stock farming using grain as feed thus meant that clayland farmers were in a better position to face the price fluctuations of the last third of the century than their predecessors had been fifty years before.

Letter to the Editor

MADAM,—Dr Everitt's remarks on the distribution of nonconformity in his review of Mr Chalklin's *Seventeenth Century Kent*, and the latter's suggestion that clothiers coming from London may have helped to spread nonconformity in the county, receive some support from a manuscript (Add. 3117) in Cambridge University Library. This opens as the account book of John and Robert Saxby as executors of John Scotchford of Brenchley, a substantial husbandman (his stock included 9 horses, 38 head of cattle, 25 sheep, and 7 swine) who died in 1600. The executors' accounts occupy a few pages only, and later Robert Saxby appropriated the book to his own use, copying out pious discourses, chapters of scripture, etc.

After coming (as he tells us) to London in the summer of 1629, Saxby proceeded over the next five years to fill up the remaining pages with abstracts of nearly 200 sermons heard in City churches or at Paul's Cross. Many are by Thomas Westfield, later Bishop of Bristol, in whose parish of St Bartholomew, Smithfield, Saxby perhaps resided. Among other preachers who can be identified, Saxby displays a clear liking for such puritans as Dr William Gouge and his son Thomas ("young

Mr. Gudge"), William Bray (later chaplain to Laud, but then a puritan), and John Downham, from whose *Christian Warfare* he made long extracts. Three sermons in Kent are included; and the preacher of one at Brenchley, "Mr. Edwards . . . he lectures without Allgat upon the Tusdayes," is certainly Thomas Edwards, author of *Gangraena*, a noted puritan controversialist who preached frequently outside London.

The only hint that Robert Saxby was himself a clothier is his note of "The first clothes that I mad at Brenchly in the yere 1622." But a family connection with the trade is certain: the debts of his kinsman Scotchford, paid by the executors, included £16, £14, and £10 for purchases of wool in Kent and Surrey, £20 16s. to a London grocer for "dinge stoffe" (dyestuff), 7s. to "Cunstabell of Horsmanden" for grinding "brasell" (brazilwood for dye), and 17s. 10d. to Richard Styther for "canslinge" and dressing cloth. Certainly as a link between London and the Weald of Kent Saxby deserves further study.

Yours faithfully,

A. E. B. OWEN

UNIVERSITY LIBRARY,
CAMBRIDGE.

Seaweed and its Use in Jersey

Agriculture

By BRIAN J. R. BLENCH

ONE of the most interesting and important features of the agriculture of the Channel Islands, and particularly of the agriculture of Jersey before 1900 was the use of seaweed as a fertilizer. An habitual feature of the agricultural scene, seaweed was the cause of much litigation and legislation in Jersey, largely as a result of its supreme value when applied to the sandy soils which cover most of the island. One nineteenth-century writer commented as follows: "Besides his own estate or domain, in the shape of *terra firma*, every islander has a common right of great value, lying on the shore of the barren sea, and belonging to the sea itself. It is true that neither ox nor horse can browse on it, and yet it supplies provender for ox and horse as truly as if it were a field of clover or oats."¹ Though its efficacy was accepted and the benefits derived from its use widely enjoyed, it was not till the end of the nineteenth century that any serious scientific study of the types of seaweed and their chemistry was made.

'Vraic' or 'wrack', the Jersey terms, were used by many writers to cover all types of seaweed but especially those used for agricultural purposes. The derivation of the terms is obscure, probably being either a corruption of the French 'varech', or of the Old English 'wræc'.

Seaweed has been used for agricultural purposes in Jersey at least since the twelfth century but there are no detailed records which give any details of its application. A case referred to by de Gruchy² illustrates its

importance. A group of seigneurs tried to claim that all vraic washed onto the shore was "wreck of the sea" and therefore legally belonged to them; a judgment in their favour would have meant that all users would then have had to buy vraic from them. Fortunately for the medieval farmers, and probably for later generations as well, the case was dismissed and vraic remained a common right.

Camden found the use of seaweed one of the few features of the island worthy of record. Heylyn visited the island in 1629 and in his account, published twenty-seven years later, he mentions it as an outstanding feature of the agriculture of the island. However, it is Poingdestre who gives us the first detailed description of the collection and application of seaweed.³

After first noting its luxuriant growth in many parts of the island, especially in areas "environ'd with rocks, some flatt, others steepe and pointed, some hid at high water, others allways above water both farre and neere the shore . . .", he divides the seaweeds into those obtained by cutting and those thrown onto the shore by the sea. It was this latter type which he stated was so important to the people of St Ouen for "every one of them (had) enough to lay it upon their grounds as thick as ye spade or plough can turne and cover with conveniency." This, he claims, was the reason why "that Canton Otherwise barren produceth more plenty and better Corne than the best grounds in other parts of ye Island."

The division of vraic amongst the farmers

¹ D. T. Ansted in D. T. Ansted and R. G. Latham, *The Channel Islands*, 1893, p. 396.

² G. F. B. de Gruchy, *Medieval Land Tenures in Jersey*, 1958.

³ W. Camden, *Britannia*, 1586; P. Heylyn, *Full Relation of Two Journeys . . . to France and the Adjacent Islands*, Book 6, 1641; J. Poingdestre, *Caesarea, Island of Jersey*, 1682. B.M. Harleian MS 5417, published as Société Jersiaise Publication, no. 10, 1889.

was closely supervised by two "sworn officers", who ensured that each person received his due amount. These amounts, according to the *Code of Laws*¹ published in 1771, are set out in Table I. The "Act Concerning Vraic" of 1866,² though making changes in other aspects of the law, left these amounts unaltered. In 1771, all men resident in the parish who had no claim as a result of land ownership were allowed one lot, while this was limited, in 1866, to heads of families only.

TABLE I. THE DIVISION OF VRAIC

<i>Amount of workable land owned (including banks and ditches)</i>	<i>Number of lots of vraic</i>
Over 60 vergées	6
45-60	5
30-45	4
18-30	3
8-18	2
3- 8	1½

Cut vraic and vraic venant (a term used later to describe the vraic brought to the beach by wave action) were regarded differently, both with respect to the laws governing their collection and also their treatment and use by the islanders. Poingdestre describes these differences in detail. Vraic cast up by the sea was considered best both for fuel and for manure. This type could be collected at any time during the year. However, any gathered in May or June and later was dried, put into stacks, and left till ploughing time when it was spread and ploughed in only after the dew had moistened it slightly. Any remaining vraic was taken home to be used in conjunction with fern, furze, or brake as domestic fuel. This practice tended to die out in the nineteenth century with the rise in imports and increased availability of coal for heating purposes. The parish of St Ouen is again cited as an example of the efficacy of this treatment:

"There are many fields which . . . have been (by ye help of this manure) plowed every

yeare constantly, for soe many generations past, that there is none living that can say he ever sawe them rest one yeare only. And it is supposed that the plenty of ye sayd dung is ye cause that the Turnops which the sayd Parish affoards in great quantity have ye reputation to be ye best, ye sweetest & dryest in all ye Island."³ Even allowing for some patriotic exaggeration, this is an impressive tribute to the value of seaweed as a fertilizer.

Cut vraic Poingdestre divides into two main types—a round-leafed and a flat-leafed variety. The former was found to be drier and used more often as a substitute for wood as a firing material, but the ashes were preserved either for making soap or for spreading on the land shortly before Christmas. This type was cut about midsummer: "about the Terms end, and before Hay-harvest the people are generally permitted by the Court to attend that occupation; which before they may not do, without danger of a fine. A fortnight the permission continueth." The second variety was found to be wetter and, rotting more easily, was merely strewn over the fields, allowed to rot, and then dug in. This type was used more on fields being prepared for grain crops than the round-leafed variety which was used largely on those being prepared for pasture. Again there was a limited cutting season—from February to St George's Day (23 April). Poingdestre notes that during this period "there is a perfect Truce from Ordinary Lawesuits, but not from those quarells which the communion of that weede produceth."

"We doe therefore order, that the saide Bayliffe and Justices only being in our opinions men of the best understanding and experience to deal in a matter of that nature, which soe much concerneth the common good, shall, from henceforth, as formerly they have done yearly, and at all times needful make and sett downe all orders whatsoever, they finde to be most convenient both for the places where, the times and seasons when, the

¹ Code of Laws of the Island of Jersey, 1771.

² Ordre . . . touchant la coupe, la pêche, et le partage du vraic, 1866.

³ J. Poingdestre, *op. cit.*, p. 19.

saide vracke shall be gathered, and for the manner how the inhabitants shall performe the same."¹

Poingdestre's differentiation of the different types of vraic on the basis of shape, though only partially correct, is the earliest 'scientific' distinction made in the accounts of the use of seaweed in Jersey (see below p. 126).

Dumaresq, writing in 1685, merely alludes to the use of vraic, noting that with its aid the soil "produces very good." Falle, in his history of the island, though less detailed than Poingdestre, is no less fulsome: "'tis incredible how with its fat unctuous substance it meliorates and fertilizes the Earth, imbibing itself into it, softening the Clod and keeping the Root of the Corn moist during the most parching Heats of Summer."²

Little further information relating to seaweed is found in the eighteenth century till Col. Rudolph Bentinck was sworn as Lieutenant Governor and Commander-in-Chief of the Island and appointed by Special Commission to enquire into the laws of the island. Jersey law was mainly Norman in derivation and entirely customary in operation, but one of Bentinck's first actions was to order the publication of the *Code of Laws*—the first time that Jersey laws had been printed (1771). It is from this publication that we can derive further details relating to the collection of seaweed. It is important to remember that this was not a new set of laws but a codification of existing practices and so gives an accurate picture of 'vraicking' activities before 1771 as well as after that date.

Of the twenty-seven articles in the Act, seven are concerned with the division of the seaweed (see above, Table I). This applied to the inhabitants of St Ouen, St Peter, St Brelade, St Lawrence, St John, and St Mary. In addition to these standard amounts the poor and widows of St Ouen, St Peter, and St Brelade, who were unable to collect the seaweed, whether because of infirmity or illness, could apply to the Constable of the Parish for

a share, which was not to exceed two dry cart-loads. It is probable that this provision was only possible in these three parishes because of the enormous amount of seaweed washed up onto the beach of St Ouen's Bay.

Strict supervision of the foreshore was enjoined. It was illegal to move any stones or rocks from the areas where seaweed was growing while certain areas were out of bounds to all collectors: these areas were at the extreme northern and southern ends of St Ouen's Bay, from Petit Etaquerel to Les Laveurs in the north, and between La Pulente and La Corbière in the south. This restriction appears to have been limited to the immediate inshore area. Times for collecting seaweed were also limited. None was to be collected before sunrise or after sunset—probably to give inland farmers an opportunity to obtain some or to ensure that supervision of all collecting activities was possible. Collecting from different parts of the coast during any one period was forbidden, as was the use of boats in areas where carts could be used. The dates for cutting of seaweed were the same as those given by Poingdestre, but another article states that cutting on the east coast was to last for only one tide (marée). On no account was vraic to be torn from the rocks as this was considered injurious to the plants and impaired later growth.

The last major group of articles was concerned with the supervision and administration of the law. The Constables and Centeniers of the parishes were to be general overseers, being available in their parishes particularly in January and February to see that the regulations were properly observed. The "sworn officers" were to abide by the decision of the Constables and for their work were to receive one lot more than their entitlement by virtue of land held.

Each of the inhabitants of St Ouen and St Peter who had the right to collect vraic was required, when asked by the Constable, to help to repair the cart tracks among the rocks.

¹ Gardiner and Hussey quoted in P. Falle, *History of the Island of Jersey*, ed. Durell, 1835, pp. 366–7.

² P. Dumaresq, *Survey of the Island of Jersey*, 1685. MS. reprinted in *Bulletin of the Société Jersiaise*, no. 60, XII, Pt 4, pp. 413–46; P. Falle, *Caesarea, or an account of Jersey*, 2nd edn, 1734, p. 149.

If a personal appearance was not possible a proxy might be sent. The inhabitants of St Brelade were exempt from this service. Announcements of this and all other regulations were to be made in the churchyards of each parish.

Fines were levied for contravention of each article. Usually they were of 10 livres of which 5 went to the Crown and the other 5 to the poor of the parish. However, for contravention of the first article, relating to the movement of rocks on the foreshore, the same fine was divided equally between the Crown, the poor, and the informer.

At the beginning of the nineteenth century the first substitutes for seaweed were being introduced to Jersey. 'Plymouth limestone', previously used only in the brick kilns, was being used at this time as a substitute before the sowing of wheat and the laying down of clover. Sea-shells, collected from the eastern end of St Aubin's Bay had also been tried in an attempt to raise the calcium content of the soils but they were difficult to collect and expensive to cart—80 bushels per vergée being required before any improvement was noticeable.

Quayle,¹ in his account of the agriculture of the Channel Islands, published in 1815, devotes almost a whole chapter to the value and use of seaweed. He shows that it was still the most important fertilizing agent in use: "the supply of vraic ashes is not equal to the demand; and on these, in the opinion of many, the agriculture of the Island depends for support." After summarizing most of the regulations printed in 1771, he adds one or two further points of interest. Inland farmers were allowed a portion of 'mielles' (sand dune areas) for drying of vraic. Another feature first mentioned by him is that many people living near the bays kept a horse and cart so that they could collect seaweed, not for their own use, but for sale—a cartload (wet), the

result of two hours work with an iron-pronged vraic rake, was sold for 2 livres. Four wet loads were equal to one dry load. Further confirmation of the general price of vraic is provided by Col. Le Couteur,² writing twenty-seven years later, who stated that about this time he had been advised by a local farmer to put 2 livres 5 shillings worth of ashes per acre on wheat land, i.e. about one cartload, and to let it lie on the surface for a month before ploughing it in and that the result would be better quality grain and 3 or 4 livres more profit.

From the rest of Quayle's account we have some measure of the general application of vraic and its use in the Jersey rotations. It was invariably used before wheat, being spread on the land in the form of ashes prior to the November–December ploughing. This process was repeated with other grain crops: barley was planted earlier or later in the spring depending on the supply of seaweed. Rye was found to benefit greatly and Quayle mentions a case of a field producing rye for 40 years without fallow. Parsnips and other root crops as well as cabbages were found to benefit, but Durell³ in 1835 showed that in the short space of twenty years the use of vraic was becoming slightly more limited:

"The ashes of the summer vraic are particularly valuable for the cultivation of wheat, and there are many poor people along the coast of Island, who get their livelihood by collecting drift vraic and burning it into ashes, which they sell [to] the farmers usually at the rate of one quarter of ashes for one cabot of wheat. . . Vraic is now plowed in mostly for the raising of barley and potatoes. Its manuring effects in the ground are not supposed to last more than one season, and though it increases the crop of potatoes, it is said to make them grow knotty and of an inferior quality. When spread out on grass, its effects will depend on the season: if the weather is moist,

¹ T. Quayle, *General View of the Agriculture . . . of the Islands on the Coast of Normandy*, Board of Agriculture, 1815, p. 148.

² Col. J. Le Couteur, 'On the Use of the Great or Jersey Trench-plough', *Jnl Roy. Agric. Soc. Eng.*, III, i, 1842, pp. 1–11.

³ Durell, in Falle, *op. cit.*, 1835, p. 367.

and with gentle showers, the vraic soon gets decomposed, and will produce abundant crops of hay; but if there is a drought, it is shrivelled up, and becomes totally useless." Quayle notes that 1 ton of vraic per vergée was the normal application in February and March to meadowland.

Opinion varied as to the use of seaweed in orchards—apples and cider being an important part of the Jersey economy at this time. Practice seems to have differed from that in Normandy inasmuch as vraic was not usually placed nearer than 4 feet from the base of the tree. Fr Le Couteur,¹ the leading authority in the island on cider and orchards, stated that if placed any closer the vraic had a tendency to rot the bark of the trees. He does, however, recommend its use for young transplanted trees. "A composition of cow-dung, clay and wood, or seaweed ashes, in the proportions of weight of 3, 2, and 1 . . . being diluted with urine and soap-suds, and applied in a rope of twisted hay round the young plants, nourishes them, and protects them against field mice and rabbits, and guards them against the effects of frost. . ."

In 1844 guano made its first appearance in the agriculture of the island particularly for potato land but vraic seems, at the same time, to have regained its place as the most general fertilizer in use. Its main function was still as a manure for wheat land though the wheat seed was now sometimes sown on the surface of the vraic before Christmas and then ploughed in to a depth of about 5 inches. If, however, sowing was postponed till January, the seed was sown after the ploughing in of the vraic. The same applied to barley and all root crops except carrots and on occasion mangolds. The disagreeable taste that it imparted to potatoes still prevented its widespread use on potato land. With these crops a good dressing of fresh vraic was used and ploughed in to about 2 or 3 inches. The land

was then left till the end of February or even later. Parsnips usually followed turnips and it was found that this method increased crop returns considerably. Le Cornu² states that, during a tour of the island in 1858, he saw only one turnip field free from blight—it had been sown much later than usual, and manured with a seaweed known locally as "vraic-de-mai". It seems more probable that the late sowing and not the seaweed was the cause of the freedom from blight. He describes the variety of seaweed as follows:

"... this seaweed is different from all other varieties,—it is of the colour of yellow-ochre, and is washed on the beach at one particular season only, which appears to be its flowering season, for masses resembling flowers come in with it, no other variety is more prized for its ashes than this." This is probably a reference to *Laminaria saccharina*.

Dally,³ writing in 1860, again emphasizes the value of vraic and gives some details of the varieties of *Algae* used. He divides them into two main groups, those types which were hand-cut (vraic scié), and those which were collected from the shore after being thrown up by the waves (vraic venant). He classes them all as *Fucaceae* but in Table II I have attempted to identify them and to list the modern names, in brackets.

It is interesting to note that this division is similar to the 'round'- and 'flat'-leafed division of Poingdestre: the Wrack family having a morphological tendency to roundness in comparison with the flat form of the *Laminaria* and associated species.⁴

The two types may also be differentiated on the basis of habitat. The cut vraics are found higher on the beach. *Pelvetia canaliculata* (Channelled Wrack) is found near high-water mark, often remaining exposed for many days. Below this are found the bands of *Asco-phyllum nodosum* (Knotted Wrack), *Fucus serratus* (Toothed Wrack), and *Fucus vesicu-*

¹ Fr Le Couteur, *Aperçu sur la culture des pommiers*, 1806. Translated and printed in Pitt, *Survey of the Agriculture of Worcestershire*, Board of Agriculture, p. 352.

² C. P. Le Cornu, "The Agriculture of the Islands of Jersey, Guernsey, Alderney, and Sark", *Jnl Roy. Agric. Soc. Eng.*, xx, 1859, pp. 32-67.

³ F. F. Dally, *An Essay on the Agriculture of the Channel Islands*, 1860.

⁴ C. J. Dickinson, *British Seaweeds*, 1963.

TABLE II. VARIETIES OF ALGAE USED IN JERSEY (AFTER DALLY)

<i>Vraic scié</i>	<i>Vraic venant</i>
<i>Fucus nodosus</i> (<i>Ascophyllum nodosum</i>)	<i>F. lareus</i> (? <i>Himanthalia elongata</i>)
<i>F. vesiculosus</i> (same)	<i>F. saccharinus</i> (<i>Laminaria saccharina</i>)
<i>F. Canaliculatus</i> (<i>Pelvetis canaliculata</i>)	<i>F. digitatus</i> (<i>L. digitata</i>)
<i>F. serratus</i> (same)	<i>F. palmatus</i> (<i>Rhodomenia palmata</i>)

losus (Bladder Wrack), all of which plants require a fairly sheltered beach. The essential feature of the Wrack family is their tendency to rejuvenate vegetatively if damaged or cut—a fact which has given rise to the strict supervision of the cutting. They are “short-lived perennials, and in fact, it has been estimated that winter storms take toll of more than 50 per cent of the plants before they are three years old.”

Below the Wracks, and usually found among rocks or in deep pools, were the types of seaweed which, though valuable, could not be cut. Here the farmers were forced to rely on the action of the sea, increased at storm times, to bring to shore the old growths after they had broken away in the late spring, subsequent to the establishment of the new growths. *Laminaria saccharina* (Sea-Belt), one of the most valuable of this group is found in a wide zone from low-water mark to a depth of several fathoms; *Laminaria digitata* (Tangle) is found about low-water mark along with *Rhodomenia palmata* (Dulse) which often occurs as an epiphyte in this region. *Himanthalia elongata* (Sea Thong) is found just below the *F. serratus* belt in dense colonies occupying deep pools.

Though Le Cornu had used the work of Baron Justus Liebig in explaining the value of seaweed on the Jersey soils, it was F. W. Toms¹ who first applied chemical analysis to the seaweeds to determine the chemistry behind their usefulness. The major disadvantage of vraic had always been the high water content and thus the great cost of cartage. Toms showed that 1 ton of vraic contained 75 per cent water, 20 per cent organic matter, and only 5 per cent or 1 cwt. of “ash”

—that is mineral constituents of direct value to the soil. Further analysis showed that this cwt. included 8–14 lb. nitrogen (producing 10–17 lb. ammonia), 15–20 lb. potash, 10–12 lb. lime, 2–6 lb. phosphoric acid, and 30–40 lb. common salt. The higher soda compounds were found especially in the shoreweeds while the potash, extremely valuable for stimulating clover, pasture, tomato, or potato land, was found to be highest in Tangle, Toothed Wrack, and Knotted Wrack, in that order. A further, more detailed analysis of the seaweeds given by Toms is reproduced, with some omissions, in Table III.

Toms also noted that the time of year was important for cutting: a slight decline in the potash content of *Fucus* was noted later in the year, while percentages of included minerals, except phosphoric acid, were highest in Tangle that was obtained in May. (See Table IV.)

Though of a late date, Toms's study of the chemistry of the seaweeds used by Jersey farmers helps to explain the value that previous generations had placed on it. The collection and use of vraic have been an essential part of the Jersey agrarian economy at least since medieval times, providing, as Toms showed, many of the minerals which were lacking in the Jersey soils. With the introduction of guano in the middle of the last century and the more recent development of artificial manures and fertilizers with a more stable and reliable composition, the position of vraic as the foremost fertilizer has declined. Some farmers still use vraic, and will probably continue to do so, as its cost is now far lower than that of manufactured articles, but it can no longer be regarded as it used to be as Jersey's most valuable natural resource.

¹ F. W. Toms, *Notes on Farm Chemistry in Jersey*, 1905.

TABLE III. TABLE OF CONSTITUENTS OF SELECTED SEAWEEDS (AFTER TOMS)

	<i>Ascophyllum Nodosum</i>	<i>Laminaria Digitata</i>	<i>Fucus Serratus</i>	<i>Fucus Vesiculosus</i>
<i>FRESH</i>				
Moisture	75.0	80.3	77.6	77.6
Organic Matter	20.9	14.9	18.2	17.8
Ash	4.1	4.8	4.2	4.6
<i>% of ASH</i>				
Potash	13.2	22.8	15.8	16.0
Soda	24.8	18.3	23.3	27.6
Lime	6.0	6.8	9.7	6.5
Chlorine	15.0	28.1	26.6	18.5
Sulphuric Acid	24.0	11.8	17.0	19.5
Magnesia	6.4	2.3	3.5	3.2
Iron Oxide	6.3	6.5	2.8	2.6
Rest	4.3	3.4	1.3	6.1

TABLE IV. PERCENTAGE COMPOSITION OF WRACK AND COLLEY¹

	<i>Organic Matter</i>		<i>"Ash"</i>		<i>Nitrogen</i>		<i>Potash</i>		<i>Lime</i>	
	<i>Wrack</i>	<i>Colley</i>	<i>Wrack</i>	<i>Colley</i>	<i>Wrack</i>	<i>Colley</i>	<i>Wrack</i>	<i>Colley</i>	<i>Wrack</i>	<i>Colley</i>
March	81.4	65.0	18.6	35.0	1.91	3.45	2.62	3.45	1.30	1.96
May	79.5	74.0	20.5	26.0	1.98	1.94	2.26	3.93	2.10	1.70
October	79.3	81.7	20.7	19.3	1.16	0.96	2.00	2.34	1.30	1.65

¹ The first two columns represent the percentage composition of the seaweed when dried at 212°F. The last three columns are selected figures showing the percentage of "ash" of three of the most important minerals from the agricultural viewpoint (after Toms).

Book Reviews

SIR JOSEPH HUTCHINSON (ed.), *Essays on Crop Plant Evolution*. Cambridge University Press, 1965. 240 pp. 50s.

The eight essays presented here under the editorship of Sir Joseph Hutchinson are an adaptation of a course of lectures on the evolution of crop plants given in Cambridge in 1962. The lectures were planned to provide an opportunity to compare the evolutionary histories of a selected group of crop plants from both the Old World and the New. Each was given by a recognized authority in this branch of study and the series was introduced by an account of the beginnings of agriculture in north-west Europe. In the conversion from the lecture to the essay form, the personal nature of the individual communications has been successfully retained and one is grateful that by this means these scholarly lectures have reached a wider audience.

The researches described are primarily botanical, but ever since the publication in 1884 of de Candolle's classic work *The Origin of Cultivated Plants* it has been realized that the problems of crop plant evolution could not be solved without the aid of investigators in other fields, particularly those of archaeology and history. It is for this reason that the book under review will appeal to the agricultural historian. Strange to him, however, might be the use of experimental techniques to test the validity of evolutionary (and therefore basically historical) hypotheses.

De Candolle's study of the origin of cultivated plants covered more than three hundred species. In these essays, only a small selection of crop plants has been considered, and of them, all but the potato and the forage legumes are gramineous. There are a number of reasons for this. The grass family is an exceedingly successful one, the result of its great ecological adaptability and the efficiency of its reproductive mechanisms. Its growth habit in which the growing point is at, or just below, the surface of the soil, enables its perennial members to survive the effects of burning, inundation, drought, mowing, graz-

ing, and trampling. The large grains of the ancestral forms of the annual cereal grasses, in which carbohydrates and proteins are stored in the endosperm, must have been the original reason for their introduction into cultivation. The genetic flexibility of the family, including the tendency towards polyploidy (multiplication of the basic chromosome number) in many of its constituent genera, has provided the variation over which selection could act. It is not surprising, therefore, that grasses have been exploited by man for upwards of ten thousand years and that the great civilizations of the world have been founded upon them. It is natural, too, that pioneer studies of the origin of cultivated plants should largely be concerned with the Gramineae and the emphasis in the present collection of essays reflects this fact.

In the first article of the series, Harry Godwin, of the Botany School, Cambridge, describes the methods by which it has been possible not only to detect changes in the agricultural practices of the early cultivators in north-west Europe but also to establish that plant husbandry in the Old World began in northern Iraq and neighbouring territories some ten thousand years ago. Amongst the techniques which he describes is that of pollen analysis. Since the post-glacial period (*circa* 8000 B.C.) organic sediment incorporating airborne pollen has been steadily accumulating over vast areas in Europe. As pollen grains are virtually indestructible and as they can be identified with a high degree of accuracy, the analysis of such deposits provides a means of tracing vegetational changes over long periods of time. Godwin discusses the application of this method to the reconstruction of the vegetational history of north-west Europe, including Britain; a study to which he, himself, has made most valuable contributions.

To the historian, the essay by Paul C. Mangelsdorf of Harvard University will probably be of greatest interest. In it, he brilliantly unravels the problem of the origin

of maize (*Zea mays*) and describes how he is putting to experimental test theories which were the result of archaeological discovery and botanical investigation. In the course of evolution maize has completely lost the ability to survive in the wild and can only continue its existence with the aid of man. The nature of the original wild form has long been the subject of speculation but as the result of Mangelsdorf's imaginative researches it now seems likely that the ancestral type was a wild maize bearing tiny cobs morphologically similar to those recovered from the occupational debris of the Coxcatlán Cave in Mexico (radio carbon dating 5000 B.C.) and the Bat Cave, New Mexico. By a skilful piece of botanical synthesis, Mangelsdorf and his co-workers have successfully reconstructed such primitive forms. If the field tests now in progress show that these are capable of surviving competition then it has been possible to retrace experimentally the evolutionary history of one of the world's most important crop plants.

H. Doggett of the East African Agricultural Research Organization has assembled in an easily accessible form the greater part of the available information concerning the classification and geographical distribution of the genus *Sorghum*. To this he has added the results of his own observations in the field, experiments in hybridization, and examination of herbarium specimens. The data are as yet incomplete but, even so, the author has been able to give a valuable preliminary account of the early history and evolution of the sorghum crop. There is as yet no archaeological evidence to pin-point the time and place of the original domestication or to indicate the morphology of the wild prototypes. One can only surmise that the sorghums were first cultivated in north-east Africa by a people familiar with cereal wheat and barley.

In two consecutive contributions, each a perfect example of the lucid presentation of extremely complex topics, G. D. H. Bell and R. Riley, both of the Plant Breeding Institute, Cambridge, discuss the phylogeny of the temperate cereals, wheat (*Triticum*), rye

(*Secale*), barley (*Hordeum*), and oats (*Avena*). Polyploidy has played an important part in the evolution of the grasses and as each of the genera considered here presents a different picture as regards the rôle of polyploidy in its evolution, their study is particularly rewarding. The evolutionary prospects of a polyploid depend entirely on its genetic stability and degree of fertility. The demonstration by Riley and Chapman of the "diploidizing" mechanism in the polyploid wheats which rendered them both stable and fertile is of extreme significance. Had this not arisen during the evolution of the genus *Triticum* it could never have supplied the world's greatest cereal crop.

Taxonomically, the genus *Solanum*, to which the potato belongs, is of great complexity, and one is indebted to K. S. Dodds of the John Innes Institute for the masterly fashion in which he outlines those features of the classification which are necessary for the understanding of the possible modes of evolution of the cultivated forms. Various wild species have been named as putative progenitors of the domestic potato usually on the evidence of very vague morphological similarities. As Dodds points out, there is a complete lack of cytological confirmation and the difficulties in the way of obtaining this are enormous. Progress can only be made as the result of continued research in the field into the distribution, ecology, and genetic variability of the wild tuber-bearing species. At the same time relationships between species must be established by the methods of comparative taxonomy and experimental hybridizations.

It is fitting that the author of the essay on the evolution of the forage grasses and legumes, J. P. Cooper, should be a member of the staff of the Welsh Plant Breeding Station, for it was this institution which pioneered the study of the genetics and ecology of forage crops. These crops are almost entirely members of the families Gramineae (grasses) and Leguminosae (legumes) and as their introduction into cultivation took place comparatively recently they provide excellent material for

the investigation of changes which take place during the early stages of plant domestication. It is in this direction that Cooper's own researches are bent. Furthermore, for many important species, e.g. lucerne (*Medicago sativa*), red clover (*Trifolium pratense*), Italian rye-grass (*Lolium multiflorum*), there is documentary evidence for their selection and spread from the time of their first introduction into cultivation.

In the final essay of the series, the editor, Sir Joseph Hutchinson, discusses the principles which have governed the development and improvement of the world's crop plants and in so doing justifies his opening statement "that in the study of evolution this small group of plants provides one of the most rewarding fields of enquiry." Such plants include not only ancient forms with perhaps more than nine thousand years of cultivation behind them, but also recently domesticated species which still maintain genetic contact with their wild progenitors. As a result of domestication many crops such as the temperate cereals, the potato, and cotton (*Gossypium*) have greatly increased their geographical range. The ease with which they are able to adapt to new environmental conditions is an indication of the existence of a pool of genetical diversity within them out of which new genotypes can emerge when different selective influences are encountered. It is this flexibility which man successfully exploits.

The publication of these stimulating essays once again emphasizes the need for a comprehensive account of the origin, evolution, and taxonomy of the world's crop plants. Enough is now known to make the integration of knowledge culled from all sources worth while and one awaits the emergence of a second de Candolle.

HELENA H. CLARK

P. D. A. HARVEY, *A Medieval Oxfordshire Village: Cuxham, 1240-1400*. Oxford Historical Series. Oxford University Press, 1965. x+194 pp. 30s.

The collection of documents belonging to

Merton College relating to the College's manor of Cuxham forms an outstanding source for medieval manorial history. Thorold Rogers, who used the Cuxham account rolls in his *History of Agriculture and Prices*, said of them: "Of the many thousand accounts which I have investigated, none equal those of Cuxham for intelligence, accuracy, and order." And, he might have added, for quantity, for there survives an almost complete run of accounts from 1288 to 1359, and a long series of court rolls from 1294 to 1509, complete except for a few short gaps (one of which, regrettably, is for the years immediately after the Black Death, as is so often the case). Further valuable source material is provided by the Merton documents relating to the College's administration of its estates. These comprise a large collection of deeds, terriers, and rentals, a custumal of 1295, and tax assessments of 1295 and 1304. As it is seldom possible to collate manorial and governmental documents relating to the same village the survival of these last is particularly fortunate. In the case of Cuxham, manor, parish, and village were identical—a fact which, whatever its wider historical significance, is always a decided advantage to the local historian.

Altogether, this is a remarkable wealth of material and in Dr Harvey it has a historian worthy of it. He has used a wide range of sources to build up a notably coherent and detailed picture of the working of this small village from the thirteenth to the fifteenth century. He describes it as an agricultural community in its own right, as part of the Merton College estates, and, what is more unusual, as a physical settlement, for he has been able to work out the layout of the village giving the location of all the individual tenements, and has provided a fascinating plan of the *curia*. Seigneurial policy was at its most effective in the thirteenth century when the demesne arable was consolidated into compact blocks under the rigorous landlordship of Ralph Chenduit. The College ran Cuxham mainly as a wheat-producing manor with great effectiveness, and with a careful eye to

keeping up standards and yields. Wheat yields, although they showed a long-term decline, were remarkably high, even topping the ambitious targets of the anonymous *Husbandry*. Although the manor was linked loosely with other nearby Merton manors, primarily to supplement its supplies of wood and rough grazing, it was essentially managed as an independent unit. "The economic life of Cuxham was tied far more closely to the surrounding region than to the Merton College estates." These regional trade connections are usefully mapped. The College employed a mixed labour force on the demesne, of six to nine *famuli*, customary tenants, and hired hands and Dr Harvey shows the varying importance and cost (although not on a comparative basis) of each type of labour, and the difficulties attendant upon each. Even at the period of maximum exploitation of customary labour it only accounted for about a third of the total requirement (the shortage of this type of labour was often felt by lords of small manors), it was cumbersome to administer, and it virtually ceased after the Black Death. The number of *famuli* remained virtually static, but these skilled and specialized labourers became difficult to recruit after the Black Death when unskilled daily wage labour became a much more attractive proposition for the working man and the College's wage bill for hired labour rose to six times its previous level.

Did the College make a profit out of Cuxham? And did it know whether it did or not? Some of the account rolls have a *profectus* entry which probably took into account the value of the considerable amount of produce delivered to headquarters. The College's administrators would have been able to learn from these figures that the Black Death brought about a steep fall in the productive value of the manor (from between £20 and £60 to about £10). In leasing the demesne in 1361 for £20 p.a., therefore, Merton struck a good bargain, for like so many other landlords it had reached a period when high overheads and declining yields made demesne farming unprofitable.

Of necessity the chapters on the inhabitants of Cuxham deal with them rather as tenants of the College than as villagers, for such a bias is implicit in most of the available documentary evidence. The village population was small—23 heads of households in the Hundred Rolls—and was hit hard by the Black Death. The same forceful seigneurial policy which brought about the consolidation of the demesne in the thirteenth century did so at the expense of the amount of land let to the tenants and was accompanied by the conversion of some free tenures into villeinage.

The cottagers, less involved with the system of labour rent and thus with the record-keeping of the manorial administration, are generally the least well documented section of the manorial population. Dr Harvey demonstrates their function at Cuxham as a distinct class, clearly differentiated from the villeins not only by the nature of their tenure (by money rent rather than labour service) and their customs of inheritance but also by geography and origin. The cottage tenements lay in a separate area of the village from that of the villein holdings, which represent an earlier settlement. Cottagers could, and did, move up into the class of half-virgaters, but in general they "seem to have been worse off than the villeins but to have had greater personal independence."

The inheritance of villein tenements followed traditional lines until the Black Death. Inheritance was by one son—probably but not certainly the eldest—with careful provision made for the rights of widows and equally careful curtailment of those of second husbands. With such a small, self-contained village population a good deal of reliable and interesting information on peasant surnames emerges: Cuxham had a tradition by which a man who acquired a holding by marrying a widow normally assumed the surname of her late husband. One wonders whether this practice was an attempt to continue the tradition of associating surnames with tenement-names; a tradition which was dying out by the fourteenth century. (One would like to

know more, too, about these peasant marriages and inheritances; to learn, for instance, how often the members of such a small community inter-married with those of neighbouring villages.) This tradition-bound peasant society was considerably changed by the impact of the plague. With the steep fall in population the old rigidity of inheritance and tenemental structure broke up: short-term demesne leases and peasant sub-letting became common and, as elsewhere, conditions became favourable for the emergence of a group of prosperous peasants, some of them sheep-farmers.

Is Cuxham "a perfect example of the classical manor" as Dr Harvey claims? Certainly in its demesne policy and the fortunes of its tenantry, it shows many "classical" features and in his analysis of one particular aspect—the effects of the Black Death—he has done much to rehabilitate the "classical" view. Whether or not the classical manor has any real existence outside the textbook is another question. One thing is certain: this is a work of classical manorial history.

ROSAMOND JANE FAITH

FRANCES M. PAGE (ed.), *Wellingborough Manorial Accounts, 1258–1323, from the Account Rolls of Crowland Abbey, with a note on the dating of the rolls by T. H. Aston*. Northamptonshire Record Society, Vol. VIII, 1936, reprinted 1965. xlii+144 pp. 50s.

Dr F. M. Page's book, *The Estates of Crowland Abbey*, was one of those studies based on the documents of a monastic estate which before the war greatly advanced our understanding of the economic and social diversity of medieval England. The publication by the Northamptonshire Record Society of her edition of the early account rolls of Crowland Abbey's Nene valley manor of Wellingborough made it possible for students to get an idea of this immensely valuable class of agrarian record. There are not all that many account rolls as early as 1258 even in manuscript, so it was particularly useful to have a reeve's account for that date in print. This

and the succeeding accounts (by 1289, divided between reeve and rent collector) are very detailed both on the cash and on the stock and grange sides, giving considerable insight into many aspects of manorial production, labour organization, purchases and sales, and transfers of cash and kind to the estate centre in Crowland. Miss Page's introduction in which she described the different aspects of manorial organization, like other pioneer works, is now outdated. An attempt has been made by Mr T. H. Aston to correct Miss Page's dating of the rolls in an inserted note. He also points out a few of her mistakes, though his implication (p. xxxix, n. 2) that she was unaware of manorial liveries in kind to Crowland is not correct. She shows that she was fully aware of those liveries (p. xxx), though she did not apparently convert them into cash values when working out the manorial finances. However meritorious it is for local record societies to publish records of this type (and not a few account rolls have since been published by other societies), one wonders whether reprints serve much purpose. Local, and in particular agrarian, history has developed considerably since 1935, and there are certainly other Northamptonshire records still in manuscript which would be worth printing in up-to-date editions.

R. H. HILTON

F. G. EMMISON, *Some Types of Common-field Parish*. Standing Conference for Local History (National Council of Social Service), 1965. 16 pp., with maps. 3s. 6d.; DOROTHY CROMARTY, *The Fields of Saffron Walden in 1400*. Essex Record Office Publications, No. 43. Chelmsford, 1966. 19 pp., with maps. 5s. (6s. 6d. post free); WARREN O. AULT, *Open-field Husbandry and the Village Community*. Transactions of the Series, vol. 55, pt. 7. Philadelphia, 1965. 102 pp. \$2.50.

Discussion of the evolution of English field systems has recently entered upon a new phase, with the views of Gray and the Orwins coming under radical examination by Dr

Joan Thirsk, whose opinions in turn have not gone unchallenged. Studies of English field systems have frequently been confused by the use of an imprecise terminology and muddled by an erroneous assumption that similar forms within rural landscapes necessarily have similar origins. Each of the three works under review makes a distinctive and valuable contribution to the current debate.

The reprinting of F. G. Emmison's pamphlet *Types of Open-field Parishes in the Midlands*, originally published by the Historical Association in 1937, reflects the course of this debate. On the suggestion of Dr Thirsk, the publications committee of the Standing Conference for Local History have re-titled this reprint *Some Types of Common-field Parish*, although the term *open-field* has been retained in the text. Apart from this significant alteration and a few insubstantial changes in the footnotes, the reprint retains its original form, providing brief descriptions and sketches of field patterns in six Bedfordshire parishes and a lengthier account and more detailed map of field patterns within a seventh parish. Using principally pre-enclosure, enclosure, and tithe maps, it illustrates the diversity of field patterns among common-field parishes, ranging from the simple three open-fields grouped around homestead closes at Fardish to the complex multiple open-fields and groups of closes at Colmworth.

Descriptions of field patterns are most precise when based on cartographic evidence, but for explanations of their origins and development it is necessary to turn to more ambiguous verbal sources. Understanding of medieval field systems is likely to be much enhanced if, from manorial documents, diagrammatic pictures can be reconstructed of the layout of fields and of properties within individual townships.

Dorothy Cromarty has successfully carried out such a reconstruction in Saffron Walden, making an adroit analysis of a detailed land and rent survey of 1400. An abundance of later surveys and a set of estate maps of 1758 have enabled Mrs Cromarty to locate most fields named in the 1400 survey and so to

reconstruct cartographically certain aspects of Saffron Walden's field system at that date. Two of her maps (Maps 1 and 2) illustrate a close relationship between fields and topography, with names of fields and of furlongs changing with slope. More importantly, another map (Map 5) showing the distribution of most field names and the cropping season under which they lay in 1400 indicates that the three components of the rotation (fallow, winter-sown grain, spring-sown crops) did not lie in homogeneous blocks but were scattered irregularly over the cultivated area (the furlong being the unit of cultivation). This irregularity is, however, only apparent for a further map (Map 3) portraying boundaries of sheep folds in relation to cropping seasons reveals that within the fixed limits of sheep folds there was some land under each cropping season, ensuring foldage for flocks within each fold during each season of the year. This pattern, Mrs Cromarty suggests, may have evolved in response to the disposition of individual tenement lands, for the evidence (some of it presented in Map 4) suggests that strips of an individual holding, although not concentrated in compact blocks, tended to lie in those fields nearest to the hamlet in which the capital messuage was situated. This painstaking reconstruction, so closely linking history to the ground, clearly demonstrates the existence at Saffron Walden in 1400 of several agriculturally independent groups of open-fields, a multiple open-field system which is assumed to have developed as a product of gradual assarting and settlement expansion.

A sedulous attention to detail is less evident in Professor Ault's study of open-field farming as revealed in medieval agrarian by-laws. This important work is unfortunately marred by a slipshod presentation. Footnotes are often defective: n. 238, p. 25, refers to "Titow, *loc. cit.*, p. 386," but there has been no earlier reference to any work by Titow; n. 66, p. 17, refers vaguely to "*History of Tatenhill* 2: pp. 31, 39," a reference which could be traced only with difficulty by anyone not familiar with this work. Places are

sometimes incorrectly identified and inadequately indexed: Morden, Surrey, is given (p. 38) as Mordon and does not appear in the index in either its correct or incorrect form; Wimbledon is wrongly located (p. 26) in Middlesex instead of Surrey. Other authors are occasionally misquoted: Dr Thirsk is erroneously and carelessly said (p. 10) to have asserted that in Suffolk, Kent, Surrey, and Sussex fields had all but disappeared in 1500. Despite these failings and despite the ill-digested account of English field systems which forms his introduction, Professor Ault's study is of considerable interest.

In addition to an extensive and well exemplified text, 223 transcripts of by-laws representative of various phases of open-field husbandry on 37 manors in 11 counties are printed in an appendix. The resulting picture of the organization of open-field farming is both commendably detailed and inevitably incomplete. It illustrates well the diversity of open-field farming both from place to place at the same time and from time to time at the same place. Numerous examples show how farming communities regulated harvesting, dealt with the problem of theft from open-fields, maintained enclosures and boundaries, and managed a multitude of day-by-day, season-by-season, activities. It demonstrates clearly that open-field farming was an evolving system. This is seen, for example, in relation to the changing provisions made for the pasturing of the stubble after harvest. A typical sequence of by-laws was that at Newton Longville, in Buckinghamshire, where in 1290 it was provided that no one could pasture his beasts in any *cultura* until the grain of one acre adjacent had been wholly removed; in 1331 it was declared that no one shall cause his beasts to pasture next to rye, mixed corn, or oats before a space two acres wide had been cleared of grain; in 1387 the space to be cleared was ten acres; in 1608 "the beasts shall not be kept upon any furlong of stubble untill all the corne of the same furlong be all carried from the same furlong." If common-field husbandry was to work well, or at all, such rules of customary procedure had to be

established. Professor Ault's volume is the fruit of a prolonged search of a great body of manorial court rolls. From them he draws a vivid picture of medieval agrarian activity. Yet the picture can never be complete, for it is his opinion that most rules of procedure, as "ancient custom," went unrecorded.

ALAN R. H. BAKER

J. D. CHAMBERS, *Laxton. The Last English Open Field Village*. H.M.S.O., 1964. 44 pp. 3s. 6d.

All agricultural historians, making their solemn pilgrimage to Laxton, will welcome this new and handy guide, written with authority, spirit, and enthusiasm by Professor Chambers. The village and its lands were put up for sale in 1951 on the death of Lord Manvers, and for one brief moment an idea was entertained that the University of Nottingham should buy it. In the event the purchaser was the Ministry of Agriculture, and clearly this was much the better solution. The estate was in need of modernization and in the first ten years of its administration the Agricultural Land Commission invested £24,000 in it. One suspects, however, that even now Professor Chambers feels himself cheated of the chance to spend his retirement tilling the selions. But had he done so, he would almost certainly have had no time to write this essay. And it would have been a great pity. He has succeeded in this short booklet in providing the visitor to Laxton with a most readable and lively introduction. The layout of the fields in the seventeenth century is illustrated with the aid of the map of 1653, first published by Mr and Mrs Orwin, and the later history is based upon estate, manorial, and parish records. In the 1860's, we learn, Laxton was on the brink of enclosure, and an enclosure award was drawn up. In 1904 another drastic reorganization took place when strips were consolidated and common rights over some of the fields were extinguished. But still enclosure did not follow. And now the village and its open fields are to be preserved "for the instruction and delight of its friends and admirers." How

long this will be practicable remains to be seen. As Professor Chambers admits with engaging bluntness, "there are twenty-two farmers making a modest living from a system of farming that is utterly obsolete." But he does not discuss the implications of this unreal situation.

It is to be hoped that this booklet will find a ready sale for it is attractively produced and illustrated and very modestly priced. It demonstrates one of the many ways in which the Ministry of Agriculture is discharging with imagination and generosity its responsibility towards the village and to agricultural history, and the venture deserves every encouragement and support.

JOAN THIRSK

L. W. HANSON, *Contemporary Printed Sources for British and Irish Economic History, 1701-50*. Cambridge University Press, 1963. xxiv+978 pp. £10 10s.

The period 1700-50 is among the most obscure and difficult in the history of British agriculture, and all agricultural historians will therefore welcome the appearance of this valuable bibliography. Over sixty of the most important libraries in Britain (including Ireland) and one or two in the U.S. and Canada have been searched for material, and the bibliography covers all works published for the first time between 1701 and 1750. Economic history, of course, is a subject without any very precise frontiers, and on its boundaries the author's selection is necessarily subjective. Economic includes social history; newspapers and all periodicals not dealing exclusively with economic affairs are excluded, as are all public acts. Private enclosure acts and all bills are included, but these are a somewhat random collection since the holdings in local record offices, where the most complete lists are kept, have not been searched. For the local historian, then, this bibliography is not the complete guide, and, indeed, it is not really designed to cater for his needs: the general index which lists enclosure acts under each village does not indicate the county in which they are situated. On the

other hand, he will doubtless find in this work many precious items that have previously escaped his attention: is the existence of a table of yearly charges for the poor of Norwich, 1620-1720, in the Goldsmith's Library, University of London (no. 2869) generally known? For the agricultural historian it is at first disconcerting to find that the section headed *Agriculture* includes mining as well as fisheries, with the result that in some years none of the publications under this heading have anything to do with agriculture. In a few cases the titles do not reveal whether the subject is agriculture, fisheries, or mines (nos. 3824-8, for example), and a brief indication would have been helpful. The subject classification is sometimes a little erratic: cattle-droving in item no. 46 comes under the heading of commerce (and, incidentally, does not appear in the General Index under droving) while two other items on droving (nos. 3998-9) find a place under the heading of Transport. These, however, are small quibbles. To prepare a bibliography with nearly 6,500 items and over 250 pages of index is like wrestling with a mammoth, and it is inevitable that some inconsistencies should occur. Mr Hanson deserves the deepest gratitude from all economic historians for his labours. A bibliography is not usually recommended for continuous reading, but, in fact, great profit is to be derived from such an exercise, for the multitude of items on some subjects and the absence of others provoke a host of questions. We may hope that the result of this publication will be a more vigorous attack on the agricultural history of the first half of the eighteenth century.

JOAN THIRSK

JÜRGEN HOHNHOLZ, *Der englische Park als landschaftliche Erscheinung*. Tübinger Geographische Studien, Heft 15. Tübingen, 1964. 91 pp., maps and illustrations.

This dissertation on the English park is both easy and pleasant to read. A planimetric measurement of the parks encircling the 7,000 or more great houses of England shows that they cover 3 per cent of its area, and in-

clude almost half the woodland of the country. The author has been able to show where, here and there, the Ordnance Survey has erred in using the sign for a park. He traces the consolidation of the medieval demesne, and the development of a convenient large house to the point where, at the end of the sixteenth century, Bacon was ready to prescribe the gardens to go with it. Later the geometrical French style came into vogue, but the Romantic movement foreshadowed early in the eighteenth century the characteristic English style, and this was exploited by the professional park-makers, Brown, Repton, and others, who created the studied 'natural' park. He says that a standard park may contain within its wall a series of zones round the great house, consisting of parterres, lawns, park gardens, meadows with clumps of trees, a girdle of forest, and woods with crop land. It becomes more artificial and formal as it approaches the house. He evaluates the position of the home farm which in places is swept out of view. He quotes many Northamptonshire examples, using clear maps to show their development, and nowhere trying to compel instances into a strict scheme. Some useful detail is provided in the list of trees growing in Stourhead, and in frequent quotation from those poets and writers who reflected the trends which the gentry were to follow. He shows how nowadays the park of a nobleman or industrialist may pass to the National Trust, or be used for housing, public parks, pleasure grounds, or a zoo. The writer succeeds in understanding the special English way of looking at things, a notably difficult feat. Though the subject of the book is the English park, and the author refers, in passing, to some of the gardens in Germany called 'englische Gärten', one would have welcomed a more detailed comparison.

D. J. DAVIS

TERENCE ARMSTRONG, *Russian Settlement in the North*. Cambridge University Press, 1965. xii+224 pp. 50s.

This is a clearly presented and well documented survey of the Russian advance into

the north, here taken to mean north of the Arctic Circle in European Russia and latitude 60° in Siberia, but modified at the extremes to include the Kola Peninsula and Kamchatka. The main focus of interest is on the history of man's relation to his environment and Dr Armstrong has done well to give so illuminating an account from sources which are for the most part not primarily concerned with problems of settlement. The period dealt with extends from the first appearance of Russians in the north to 1959. Material from the 1959 census is included and indicates that the total population of native peoples in the area has remained almost at the 1926 level and, indeed, has increased relatively little, less than 10 per cent, above the 1897 level: in the first half of this century the population of the area which is now the USSR roughly doubled; since 1926, the Slav population in the north has increased by roughly 50 per cent. This is but the latest wave of Russian settlement in the area, though it differs from earlier efforts in that its basis has been the rapid industrialization of the country, the need to exploit the mineral resources, and the use, in part, of labour camps as a means. One of the most interesting parts of the book deals with the viability of settlement in the north of both the Soviet Union and North America. In such severe environmental conditions labour turnover is high, but high rates of pay are likely to attract the short-term worker. Attention should, therefore, be paid to Soviet attempts to develop secondary industries and improve living conditions, rather than raise pay.

The earlier settlement of the area by Slavs was fundamentally a movement of peasants. Even in the seventeenth century, crops, mainly rye, were being grown north of latitude 60° in a few areas. Dr Armstrong also makes the point that the Russians lost Alaska because there was no peasant settlement of the area. At the same time he stresses the importance of the Cossack freebooters and fur-hunters in the acquisition of Siberia. "The motive for its acquisition was the same as that which impelled the western European powers

to go overseas—the search for wealth. Fur replaced precious metals.” But, even allowing for a concentration of interest on an area north of the main centres of peasant settlement in Siberia, this is something of an exaggeration. The impact on the Russian economy of the acquisition of furs, which long preceded Russian penetration into Siberia, was scarcely comparable with the impact of bullion from the New World upon western Europe. In a few other instances, generally, where Dr Armstrong ventures opinions about the Soviet system, rather than about the Soviet north, it seems possible to question his judgements. For example, the Soviet system is not “well known for its proliferous bureaucracy.” Like the tsarist system, it seems rather to suffer from inefficiency as a result of shortages in this respect.

Dr Armstrong ends his book with a plea to the Soviet Union to “open its northern gates, so that the rest of us may see, admire, and learn.” To this I can only add a desire to see Russian books with maps and illustrations

as clear and helpful as those in this volume.

R. E. F. SMITH

HAROLD BONNETT, *Saga of the Steam Plough*.

George Allen & Unwin, 1965. 208 pp. 42s. Mr Bonnett knows about steam engines. He has a special affection for “the beautiful balance of round shapes in boiler, smoke box, chimney, cylinders, rope, drum, flywheel and road wheels” of the ploughing engines and tackle which, in their heyday, drew the crowds at the Royal Shows. Much of the book is devoted to the technical problems and achievements of that brief period from the 1860's when steam cultivation seemed to promise so much, particularly to the farmers on the heavier soils. It would be unfair to have expected any detailed discussion of the economics of steam cultivation in this book, but for those who may pursue that aspect of agricultural history, Mr Bonnett has provided a useful background account of the first phase in power farming which is both readable and well illustrated.

ANDREW JEWELL

Notes and Comments

THE SOCIETY'S FIRST PRESIDENT

Members of the B.A.H.S. will have learned with regret of the death on 5 August 1966 of Sir James Scott Watson. He was Professor of Rural Economy at Edinburgh and Oxford, and from 1948 Chief Scientific and Agricultural Adviser to the Ministry of Agriculture. But members of this society will remember him most gratefully as their first President.

THE ANNUAL GENERAL MEETING

The fourteenth general meeting of the British Agricultural History Society was held at University College, Gower Street, London, W.C.1, on Saturday, 16 April 1966 at 11 a.m., with Dr W. H. Chaloner in the Chair. Professor H. P. R. Finberg was re-elected Presi-

dent of the Society, Mr C. A. Jewell was re-elected Treasurer, and Mr M. A. Havinden was elected Secretary. Mr G. B. Bisset, Professor W. E. Minchinton, and Miss E. H. Whetham retired from the executive committee. Professor Minchinton was re-elected, and Mr E. J. Collins and Dr G. E. Mingay were elected to the vacancies.

Dr W. H. Chaloner presented the report of the executive committee and expressed the committee's regret that Mr T. W. Fletcher had been forced to give up the Secretaryship owing to ill health, and that it had been necessary to postpone the Dublin conference until 1967. After a slight setback last year membership had risen again from 646 to 665.

The Treasurer reported that the cost of

producing the REVIEW had risen from £596 in 1963 to £869 in 1966 and was likely to continue to increase still further. He was therefore obliged with regret to sponsor the amendment to Clause 4 of the Constitution raising the annual subscription to two guineas.

The Meeting carried unanimously the following amendments to the Constitution: in Clause 4 in the sentence reading "the annual subscription shall be one guinea due on 1 February", the words "one guinea" were replaced by "two guineas;" in Clause 8, in the sentences reading "The President, Treasurer, and Secretary, and one quarter of the ordinary members of the Executive Committee shall retire at each Annual General Meeting. The retiring ordinary members shall not be eligible for immediate re-election," the last sentence was deleted; in Clause 10, in the sentences reading "The Annual General Meeting shall be held as near as possible to 1 February. At least twenty-one and not more than twenty-eight days' notice of the Annual General Meeting shall be sent to members of the Society," the words "and not more than twenty-eight" were deleted.

A leaflet setting out the new Constitution is inserted in this issue of the REVIEW.

FUTURE CONFERENCES

The December conference of the Society will be held jointly with the Association of Agriculture on Saturday, 3 December 1966, at the Institute of Education, Malet Street, London, W.C.1. The subject will be 'Agrarian Unrest in England'. Dr E. J. Hobsbawm will read a paper on unrest in the 1830's and '40's, and Mr J. P. D. Dunbabin on agricultural unionism in the 1870's and its sequels. Mr Rex Russell will take the Chair. Members who wish to attend are asked to fill in the enclosed registration form. It is hoped to be able to circulate summaries of the papers before the conference.

The 1967 spring conference and annual general meeting will be held in Dublin from Monday, 3 April, to Thursday, 6 April, following the meeting of the Economic History

Society in Belfast. The conference will be devoted to the history of Irish agriculture from the earliest times. Papers will be read by Professor D. A. Binchy on 'Agricultural Evidence from the Old-Irish Law Tracts', Professor E. Estyn Evans on 'The Survival of Ancient Agricultural Practices in Ireland', Mr Patrick Lynch on 'The Rôle of the Guinness Brewery in Irish Agricultural Development', Mr R. A. Butlin on 'Agriculture in County Dublin in the Eighteenth Century', and Mr John O'Loan on 'Farming in Ireland under the Union, 1800-1920'. The Directors of the Guinness Brewery have very kindly invited members to lunch and a tour of the Brewery, and it is hoped to organize another excursion in the countryside around Dublin. Details of accommodation have not been finally settled, but it would be helpful if members who are interested would return the enclosed slip.

UNIVERSITY OF READING FARM RECORDS COLLECTION

Reading University has recently acquired on long-term loan the Rothamsted Experimental Station's manuscript collection of historical farm and agricultural records as described in the Station's *Library Catalogue of Printed Books and Pamphlets on Agriculture* (1926 and 1940). The University Library now has a substantial accumulation of farm records for the period 1700 to 1940, relating to over 200 farms situated mainly in southern and eastern England. A more geographically representative sample should be achieved within the next year. The collection is now available for research purposes and the University Archivist welcomes inquiries. The University expects to publish a detailed catalogue of accessions in mid-1967.

INHERITANCE CUSTOMS

Considerable attention is being directed nowadays to the effects of inheritance customs on farm size and social structure, and it is clear that an index and map of such customs in England and Wales is urgently needed. The appendix to Dr Rosamond Faith's article in

this issue makes a good starting point for such a compilation. The editor of the REVIEW is willing to act as storekeeper of such information, and invites anyone who has documentary evidence of inheritance customs in any part of England and Wales to send her a note, giving details of the manor or village, class of tenant, date and type of evidence, and the system of inheritance. It is hoped that in time enough material will be collected to justify the publication of a map or catalogue or both.

ORIGINS OF THE EUROPEAN RURAL LANDSCAPE

A Symposium on *Die Genese der Siedlungs- und Agrarlandschaften in Europa* was held at the Geographical Institute of the University of Würzburg from 4 to 6 July 1966. This was a continuation of the series of conferences on European rural settlement which was initiated at the *Colloque International de Géographie et d'Histoire Agraire* held at Nancy in 1957. Some of the papers delivered at Würzburg were concerned essentially with types of settlement: G. Enequist discussed the distribution of nucleated and dispersed settlements in Sweden during the seventeenth century; C. Christians examined the importance of isolated farmsteads in the agrarian landscape of the Walloon part of Belgium; and X. de Planhol analysed the northern extensions of those settlement features which are characteristic of Lorraine villages. Other studies were concerned with changing field and rural settlement patterns during the Middle Ages: they included papers by A. Verhulst on Flanders, by A. R. H. Baker on Kent, by H. Grees on the influence of settlement desertions on surviving villages in southern Germany, and by B. K. Roberts on assarting in the Forest of Arden. S. Gissel dealt with the three-field system in Zealand before 1700. Further papers dealt with various aspects of agrarian landscapes in later periods: they included a paper by F. Gay

examining the relationship between rural economies and settlement patterns in Berry; by P. Brunet, discussing the impact of agricultural changes on the *bocages* of lower Normandy; and by J. Peltre, reporting on the influence on field and parcel patterns in Lorraine of improved surveying techniques from the sixteenth to the eighteenth century. It is proposed to publish the papers read at the symposium.

The symposium in Würzburg had been preceded by a three-day field excursion, led by W. Müller-Wille in the Westphalian Basin, by H. Jäger in parts of the uplands of Lower Saxony and Hesse, and by H. Uhlig and A. Krenzlin in the Vogelsberg and Rhön.

GEOGRAPHICAL TERMINOLOGY OF THE AGRICULTURAL LANDSCAPE

A meeting of the international working group which is seeking to promote work on a glossary of terms relating to the agricultural landscape was held in Würzburg on 7 and 8 July. Discussion centred mainly on problems of organization and of equating terms used in different countries. This meeting demonstrated that there is a real need for such work, and that successful implementation of the aims of the group can be achieved only by the willing co-operation of individual scholars. At present, the British contribution inadequately represents the amount of work done in the field of agrarian studies, and many more offers of assistance are needed. Contributions take the form of suggested definitions and discussions of various terms by means of the circulation of a number of working papers.

The main centre for the glossary is the University of Giessen, but persons who are willing to help in this work are requested to contact Mr R. A. Butlin (Department of Geography, University College, Dublin, 2), who is acting as secretary of the British group. He will be pleased to provide further information and literature.

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