Economic and Social Change in the Forest of Arden, 1530–1649

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I

IN her survey of farming regions for *The Agrarian History of England and Wales, 1500–1640*,[1] Dr Joan Thirsk remarks that no study of Arden Warwickshire has yet been made for the period concerned: the present essay is an attempt to fill this gap. Some reference will be made to Rowington, a parish of 3,217 acres lying 7 miles SSE. of Solihull.[2] Otherwise attention is concentrated on a compact block of five parishes—Elmdon (1,127 acres), Sheldon (2,500 acres), Bickenhill (3,771 acres), Yardley (7,590 acres), and Solihull (11,296 acres)—which lie close to the ancient heart of the forest, in territory representing the fringe of pre-Conquest agrarian development.[3]

The primary settlement pattern consisted of small hamlets, some originating as Saxon vills, others as colonies founded in the post-Domesday period. By the time detailed documentation becomes available each hamlet is associated with an area of open- or common-field land, as also is the planted borough of Solihull, founded from the Domesday Ulverlei (Olton) in the late twelfth century.[4]

The Warwick–Birmingham road, however, marks the limit of nucleated settlement and of common-field agriculture in northern Arden. South of this, extensive areas of Yardley and Solihull were cleared by private enterprise in the twelfth and thirteenth centuries, and so came to be characterized by private

[1] p. 97.

[2] I am indebted to Mrs J. A. Woodall for making the Rowington material available.

[3] The initial researches into these parishes were carried out by a series of Birmingham University extra-mural classes under the author's direction, as follows: Sheldon, 1957–60 (see V. H. T. Skipp, *Discovering Sheldon*, 1960); Bickenhill, 1960–3 (see V. H. T. Skipp and R. P. Hastings, *Discovering Bickenhill*, 1963); Elmdon, 1960; Yardley, 1960–7 (see V. H. T. Skipp, *Medieval Yardley*, 1970); Solihull, 1960–7.

The collation of parochial data is being undertaken by a further extra-mural class, which has been meeting at Solihull, under the author and Dr D. E. Gray, since 1967. Statistics in the present article which are derived from probate inventories are mainly the work of Mr H. Austin, Mr T. England, Mr R. A. McMillan, and Mr A. J. Stubbs. Population statistics have been produced by Miss A. D. Harris, with the help of Mr G. Harris, Miss K. Proctor, Miss E. Sherwood, and Mrs M. Stephenson. Others who have rendered substantial help include Mr G. L. Bishop, Mr E. B. Lascelles, Mr E. Owen, Mrs B. Shackley, Mrs E. M. Varley, Mrs K. Weller, Mrs J. A. Woodall, Mr G. J. Wright.

[4] In this article it is proposed to use the term 'common field'. B. K. Roberts (in 'A Study of Medieval Colonization in the Forest of Arden, Warwickshire', A.H.R., 16, p. 102) points out that "it is difficult to prove that all four necessary conditions" required by Dr Thirsk's definition of 'common field' "were present in the Middle Ages," but adds "The author is of the view that they were. . ." This is the present writer's position, arrived at quite independently. In any case, several of the field systems can be shown to have fulfilled Dr Thirsk's conditions subsequently.

assarts in severalty. This meant that these two parishes had a greater proportion of enclosed land than the others; and, since severalties were held on free tenure, they also had a much higher proportion of freeholders.[1]

Keuper marl, a heavy reddish clay, is the basic soil of the area, but overlying this at many points are glacial deposits of sand, gravel, and mixed drift. The founders of the hamlets, both in pre- and post-Conquest times, showed preference for the lighter soils, making their clearances either on small isolated drift patches, as at Mackadown (Sheldon) and Marston Culy; or on the edges of larger ones, as at Hill Bickenhill, Longdon, and Greet. In general, therefore, common-field land utilized relatively shallow drift areas, while severalties were situated either on marl, or else on the larger expanses of drift. The most barren glacial stretches, however, such as Yardley Wood, Solihull Wood, and Bickenhill Heath, served exclusively as waste.

Many of the common-field hamlets developed independent manorial structures. The small parish of Bickenhill eventually comprised seven manors: Church Bickenhill, Middle Bickenhill, Hill Bickenhill, Wavers Marston, Marston Culy, Lyndon, and Kineton. In other cases a series of hamlets was contained within the same manor and parish, as at Yardley, which, apart from the parent settlement, encompassed Lea, Tenchlee (later Acock's Green), and Greet. Longdon was unusual in that it had divided loyalties: although in Solihull parish, from about 1270 onwards it was attached to the neighbouring manor of Knowle.

As might be expected the peak of medieval agrarian and demographic development occurred in the late thirteenth century, when the population density at Yardley was in the region of 1 person to 10 acres.[2] Though the fourteenth-century contraction must have been sharp enough, there are reasons for thinking that the 'depression' of the later middle ages was less harmful and prolonged than it is reputed to have been elsewhere. Certainly, by 1524 local populations had recovered to something approaching their 1300 level, with an estimated 1 person to 12 or 13 acres.[3]

But if Tudor numbers were not so very different from those of the late thirteenth century, there was a marked contrast in social structure. In the early middle ages peasant wealth seems to have been fairly evenly distributed. At Yardley in 1275 only 3·7 per cent of the taxpayers had been assessed on

[1] In early fourteenth-century Yardley free tenants probably outnumbered customary by 2:1; at Solihull, with its burgage tenures, the proportion was even higher. By 1632 there were only 5 copyhold and 9 leasehold tenures in the latter manor, as against 75 free tenancies.

[2] This figure is based on the subsidy roll for *c.* 1275 (*Worcestershire Historical Society*, I, 1893), but allowance has been made for exemptions and evasions. It was assumed that the average household numbered 5 persons.

[3] Based on the 1524 subsidy rolls for Bickenhill, Solihull (P.R.O. E 179/192/139), and Yardley (Birmingham Reference Library 392220, III, fol. 182).

movable goods worth more than twice the average amount, and these leading peasants paid only 9 per cent of the total tax. By 1524 8·6 per cent had a personal estate above the twice average mark, and they contributed 25·6 per cent of the parish quota. At Solihull in the same year Rycharde Gryswolds paid £2 (on land), which represented 26 per cent of the sum levied; 10 out of the 129 remaining taxpayers found a further 25 per cent between them. Such families were by no means of great wealth, but they probably exercised considerable social influence: the more so since local manors generally lacked a resident squire. At one time several fees had been in royal hands or attached to a great baronial estate, but from the reign of Elizabeth there was a tendency for them to be acquired by nearby knightly families, who often let the demesnes to local yeomen or gentry.[1]

Instances of piecemeal consolidation and enclosure of common-field selions are found from the late fourteenth century. Nevertheless, *c.* 1550 about 11 per cent of the land was still common field, and 1·5 per cent common meadow; common pasture accounted for perhaps 9 per cent. As already suggested, though, there were significant variations from parish to parish (TABLE I); and even more, between individual manors.[2]

II

Much of the discussion which follows derives from the analysis of 217 probate inventories made between 1530 and 1649.[3] For the purpose of assessing agrarian developments these were divided into four categories, according to the value of the farm—i.e., crops and stock—as follows: (1) above twice the average farm value, (2) between average and twice average, (3) between half average and average, (4) below half average.[4] (Smallholders adjudged to farm less than 5 acres were excluded.)

In the mid-sixteenth century the agrarian economy of Arden was predominantly pastoral, the main emphasis being on cattle. Seventy farmers who died between 1530 and 1569 left 989 head of cattle between them, a mean of 14·1

[1] During the late sixteenth century Sheldon and Marston Culy passed to the Digbys of Coleshill; Church, Hill, and Middle Bickenhills to the Fishers of Great Packington; and Lyndon to the Devereuxs of Castle Bromwich. Solihull was with the Throckmortons of Coughton throughout the sixteenth century, but in 1629 was conveyed to Sir Richard Grevis of Moseley, who in the same year also purchased Yardley.

[2] Sixteenth-century Kineton, as far as is known, had no common-field land, while at Church Bickenhill the proportion was as high as 64 per cent. Church Bickenhill, on the other hand, was virtually devoid of common pasture, though its inhabitants had the ancient right of grazing their "horsses, beasse, Cattell and sheepe" on "Bicknell heathe", which was located in Hill Bickenhill and Wavers Marston.—Skipp and Hastings, *op. cit.*, p. 22.

[3] These consist of 81 Yardley inventories, 10 Rowington (Diocesan Record Office, Worcester); 25 Bickenhill, 50 Sheldon, 51 Solihull (Joint Record Office, Lichfield).

[4] Although the analyses which follow are by 40-year periods, average values were worked out on a 20-year basis, i.e., 1530–49, 1550–69, etc. A mid-point average $\frac{\text{Mean} + \text{Median}}{2}$ was used.

TABLE I

ESTIMATED SEVERALTY AND COMMON LAND, *c.* 1550

Parish	*Common field*		*Common meadow*		*Common waste*		*Severalty land*
	Estimated acreage	*% of parish*	*Estimated acreage*	*% of parish*	*Estimated acreage*	*% of parish*	*% of parish**
Bickenhill (3,771 acres)	1,380	36·6	195	5·2	520	13·8	40·0
Elmdon (1,127 acres)			Not known				
Sheldon (2,500 acres)	640	25·6	80	3·2	150	6·0	61·0
Solihull (11,296 acres)	300	2·7	40	0·4	640	5·6	87·0
Yardley (7,590 acres)	500	6·7	80	1·0	950	12·5	75·0

* An allowance of about 5 per cent has been made for roads, watercourses, etc.

each. Big farmers averaged 33·0, substantial 17·0, middling husbandmen 10·9, and lesser husbandmen 4·0 (TABLE II). The larger parishes, with their higher proportion of land in severalty, tended to support more cattle. Over the period 1530–1649, forty-three Sheldon and Bickenhill farmers averaged 10·7 cattle; eighty-three at Solihull and Yardley averaged 13·6.

It is usually said that Arden was concentrating mainly on meat production at this time,[1] but in these parishes the keeping of kine and the breeding of calves seem to have been no less important. Oxen are encountered on only nineteen of the seventy farms and were kept chiefly for draught purposes. Five farmers carried 8–10, six 2–5, while eight had teams (?) of 6. Steers were being fattened for beef on two of the big farms: Richard Brokes of Solihull (1547) had 15 steers, as well as 6 oxen. But usually they occur in small numbers on holdings lacking oxen, and so presumably served at the plough in their stead.

Eight of the nine big farmers, thirteen of the nineteen substantial, and fifteen of the twenty-nine middling husbandmen had mixed (beast/kine) herds. However, in all three categories kine outnumbered beasts by almost 2 to 1 (TABLE II). Five substantial and four middling farmers had kine, calves, and sometimes heifers, plus draught animals. One substantial and four middling husbandmen kept kine, heifers, and/or calves exclusively, as did all but two of the thirteen lesser husbandmen.

[1] *The Agrarian History of England and Wales*, ed. Joan Thirsk, IV, 1967, p. 94.

Actual evidence for dairying is relatively slight. One man has a "deyhouse," two a "Mylkehowse." Although there are ample "loomys," "payls," "kymnels," etc., "mylke panns" and "mylkpotts" receive only isolated references. Four inventories list "a churne," and three (butter) "stenns." Nine of the seventy peasants have "Whytmeate," "Cheysses," or "hard cheses," ranging in value from 10d. to 23s. 10d., and seven others left "chesfatts," a "chese presse," or "cheese cratche."

TABLE II

MEAN AVERAGE NUMBER OF LIVESTOCK PER FARM, 1530–1649

	Oxen	*Steers*	*Beasts**	*Bulls*	*Calves*	*Heifers*	*Kine*	*All Cattle*	*Horses*	*Sheep*	*Swine*
(a) 1530–69											
Large farms (above twice average) 9	5·6	2·2	6·7	0·2	5·1	1·1	12·1	33·0	4·7	17·6	5·3
Substantial farms (between average and twice average) 19	2·3	0·8	3·3	0·3	3·3	1·1	5·8	17·0	2·7	14·6	5·4
Middling farms (between half average and average) 29	0·7	0·8	2·1	—	2·0	1·0	4·4	10·9	2·4	7·4	4·1
Small farms (below half average) 13	—	0·2	0·2	—	0·7	0·5	2·5	4·0	0·5	1·7	1·4
All farms 70	1·6	0·9	2·6	0·1	2·5	0·9	5·5	14·1	2·5	9·6	4·1
(b) 1570–1609											
All farms 34	0·4	0·3	1·8	0·2	2·1	1·3	4·5	10·4	1·7	11·6	2·8
(c) 1610–49											
All farms 68	0·6	0·2	1·2	0·1	1·5	1·0	4·0	8·6	1·6	11·4	1·5

* Including bullocks, twinters, and yearling beasts.

Winter herds (October–March) were smaller than their summer counterparts by 35·5 per cent. Numbers of kine, heifers, and calves are 26·2 per cent lower; of oxen, steers, beasts 45·6 per cent less. Seven of the ten peasants whose estates were appraised between October and December had hay, the mean value being 22s. 4d.—an inventory of 1557 reckons hay at 3s. 4d. per load. Between January and March six out of ten had supplies and their average remained as high as 19s. 5d. In ten out of eleven April inventories, on the other hand, stocks were exhausted.

Though big farmers sometimes kept large numbers of sheep,[1] in this sample only two flocks exceeded 40 (48, 46). Rich farmers averaged 17·6 sheep and lambs, substantial 14·6, middling husbandmen 7·4, and lesser husbandmen 1·7. Pigs were less numerous than might have been expected, ranging from a mean of 5·3 on large farms to 1·4 on small; the corresponding averages for horses were 4·7 and 0·5.

Using the twenty-two summer inventories which give details of growing crops, as well as livestock, it is possible to form some idea of what might be called the 'model' farm economy (TABLE III).

TABLE III

MODEL FARM ECONOMY, 1530–1649

(based on summer inventories)

	1530–69 *22 inventories*	*1570–1609* *13 inventories*	*1610–49* *19 inventories*
Mean acreage of winter corn per farm	3·2	1·5	3·3
,, ,, ,, spring corn per farm	2·8	1·8	5·5
,, ,, ,, unspecified corn per farm	0·5	2·7	2·4
Mean sown acreage per farm	6·6	6·0	11·2
Estimated fallow acreage per farm	3·3	3·0	5·6
Mean total arable acreage per farm	9·9	9·0	16·8
Mean number of cattle per farm	18·1	14·3	12·2
,, ,, ,, horses per farm	2·5	1·6	2·0
,, ,, ,, sheep per farm	10·6	15·0	20·6
,, ,, ,, pigs per farm	5·1	4·9	2·3
Estimated grass acreage per farm	22·7	18·9	18·3
Estimated mean total acreage per farm	32·6	27·9	35·1

The average number of cattle on these farms is 18·1, of horses 2·5, of sheep 10·6. It is difficult to know what acreage to allow per head of livestock. But, bearing in mind fallow grazing and common pasture rights, and also the fact that the forest acre was equivalent to about 1·5 statute acres, we shall probably not be far wrong if we reckon cattle and horses at one acre of enclosed land each, and sheep at five to the acre.[2] Our 'model' holding would then have about 23

[1] Two Rowington farmers (not included in this analysis) had particularly large flocks. John Jenetts, gentleman (1559) had 280 sheep, as well as 108 cattle; Roger Oldnale (1563) 640 sheep and 45 cattle.

[2] At Solihull in 1789 all types of land were apparently still being reckoned in forest acres. The tithe survey of that year totals 7,323 acres. If we multiply this figure by 1·5 we arrive at 10,985 acres,

acres of grass, against which the arable allocation works out at about 10 acres—i.e., 6·6 acres sown, plus an assumed 3·3 fallow. So the mean farm of this sample is 33 acres, of which rather under a third was arable, and over two-thirds pasture and meadow.

TABLE IV gives a breakdown of estimated farm sizes—on the same conjectural reckoning. Taking the period 1530–1649 as a whole, over a third of the holdings fall into the half to one virgate range, while another third were between 30 and 79 acres. Tenures larger than this were uncommon. The Knowle survey of 1605[1], and the Rowington survey of 1606,[2] have a higher proportion of 5–14 acre holdings, but otherwise broadly confirm the inventory findings.

TABLE IV

ESTIMATED FARM SIZES, 1530–1649

	Farm size in acres					*Mean farm size in acres*
	5–14	15–29	30–49	50–79	80+	
1530–69 (22 summer inventories)	3	8	7	3	1	32·6
1570–1609 (13 summer inventories)	3	6	3	—	1	27·9
1610–49 (19 summer inventories)	4	7	3	4	1	35·1
Totals 1530–1649 (54 summer inventories)	10	21	13	7	3	32·3
Knowle survey, 1605 (74 holdings)	27	31	5	5	6	29·0
Rowington survey, 1606 (63 holdings)	19	18	14	10	2	—

The majority of farmers sowed winter and spring crops on a roughly fifty-fifty basis. For the former, three pinned their faith exclusively in wheat (10 acres); seven cultivated "rye and wheat" (37½ acres); two muncorn (4 acres);

which—allowing for 400–500 acres of common waste—is very close to the modern reckoning of 11,296 statute acres.

The ratio "5 sheep : 1 horse or cow" is suggested by the 1740 Bylaws of Sheldon (Parish Chest), where stinting is on the basis of "One Horse or Mare for a Day work of Land, One Cow for a Day Work, or ffive sheep for a Day Work."

[1] P.R.O., LR 2. 228. 548. Transcribed by Mr G. L. Bishop.

[2] P.R.O., LR 2. 228. 577. Transcribed by Mrs J. A. Woodall and Mr G. L. Bishop.

twelve preferred rye on its own (36½ acres).[1] As "Lent tilth" eight cultivated oats (19 acres); one barley (½ acre); one "barley and oats" (2 acres). The rest favoured a combination of corn and peas, three growing "oats and peas" (16 acres); one "barley, oats, and peas" (3 acres); one "oats, peas, and drage" (12 acres).[2]

Although there are exceptions—John Blacknall (1533) of common-field Sheldon had 30 acres of arable—most farmers were producing corn on a purely subsistence basis. Indeed, thirteen out of the seventy (19 per cent) appear to have eschewed arable cultivation altogether. One winter and three summer inventories of large or substantial farmers lack sown arable; while one substantial, four middling, and four lesser husbandmen have no corn, either growing or garnered.

III

The period so far discussed coincides with Leland's journey through Arden and confirms his report of it, about 1540, as being "muche enclosyd, plentifull of gres, but no great plenty of corne."[3] By the end of the seventeenth century Camden's continuator, Edmund Gibson, is presenting a very different picture: "the Inhabitants," he says, "have turn'd so much of Wood- and Heath-land into Tillage and Pasture, that they produce corn, cattle, cheese, and butter enough, not only for their own use, but also to furnish other Counties; whereas, within the memory of man, they were supply'd with Corn, &c. from the *Feldon*." Indeed, according to Gibson, "the great progress the *Woodlanders* have made in Agriculture" meant that the "County began to want Pasture."[4]

By means of the inventories it is possible to trace something of the chronology and manner of this progress. During the period 1570–1609 cattle are rather less numerous than before, the average dropping from 18·1 to 14·3 on summer farms (TABLE III), and from 14·1 to 10·4 over all inventories (TABLE II). To some extent this must be due to the fact that rich farmers are inadequately represented in this small sample of thirty-four. However, that can hardly be the whole explanation, for sheep are more numerous, the mean rising from 10·6 to 15·0 in summer inventories, and from 9·6 to 11·6 generally. It should also be noted that the big drop as far as cattle are concerned is with oxen, steers, and beasts: from 5·1 over all inventories in the 1530–69 period to 2·5 in the period 1570–1609. Against this, the numbers of kine, heifers, and calves decline only marginally, from 8·9 to 7·9. Moreover, evidence of dairying is increasing. Dairy utensils, including "pottes for butter" and "cream pottes," are

[1] Seven winter inventories are used in this sample, as well as the 22 summer ones. However, 5 inventories simply speak of (winter) corn.

[2] In 6 instances the crop is unnamed, while 1 farmer grew only winter corn.

[3] *The Itinerary of John Leland in or about the Years 1535–1543*, ed. L. T. Smith, 1964, II, p. 47.

[4] *Camden's Britannia, Newly Translated into English: with large Additions & Improvements*, ed. Edmund Gibson, 1695, p. 510.

now frequently encountered; and every other peasant is involved in cheese-making. But, despite such adjustments, Gibson's radical agrarian change does not apparently belong to the reign of Elizabeth: for the proportion of sown arable to estimated grass remains virtually the same as before (24:76, as against 23:77—TABLE V (*a*)); as does the ratio of crop to stock values (TABLE V (*b*)).

TABLE V

ARABLE/PASTURE AND CROP/STOCK RATIOS, 1530–1649

	(*a*) *Ratio of sown arable to estimated pasture in summer inventories*		(*b*) *Ratio of crop to stock values—all inventories*	
	Number of inventories	*Arable/Pasture ratio*	*Number of inventories*	*Crop/Stock ratio*
1530–69	22	23:77	70	17:83
1570–1609	13	24:76	34	18:82
1610–49	19	38:62	65*	31:69

* The discrepancy between the number of inventories used here and in TABLE II is due to the fact that in three instances crop and stock values cannot be clearly established.

During the next forty years, 1610–49, the trend towards fewer cattle and more sheep continues (TABLES II and III). So does the growth of dairying. One out of every six farmsteads (11:68) by this time has a dairy or milkhouse; forty-one of the sixty-eight inventories list cheeses, and fourteen others cheese-making equipment. Luke Rider of Solihull (1630) has "Cheese in the house . . . £10;" Robert Harrison of Sheldon (1645) "one hundred weight of cheese." In twelve additional cases the "small," "greate," or "softe" cheeses (sometimes coupled with butter) are valued at £1 or over. Warwickshire already looks well on the way to becoming one of Defoe's three principal cheese-producing counties.[1]

But an even more significant development of this early Stuart period is the sudden advance of cereal production. Over the previous eighty years crops had accounted for only 17 or 18 per cent of the total farm produce; now there is a rise to 31 per cent. Similarly, the proportion of sown arable goes up sharply from 24 to 38 per cent (TABLE V).

Our 'model' summer farm, 1610–49, has an estimated 18·3 acres under grass. Against this, 11·2 acres are sown with crops. Allowing one-third for fallow as before, this suggests an average arable area of almost 17 acres per farm.

[1] Daniel Defoe, *A Tour through England and Wales*, Everyman edn, 1959, II, p. 131.

Supplementary indications of the swing to arable are not wanting. In the period 1530–69, 32 per cent of the fully inventoried farmsteads had barns. By the 1610–49 period the corresponding figure was 76 per cent. Numbers of ploughs, harrows, carts, and wains also increased appreciably (TABLE VI).

TABLE VI

AVERAGE NUMBER OF PLOUGHS, HARROWS, CARTS, AND WAINS, 1530–1649

	Number of (summer) inventories	*Mean average per inventory*		
		Ploughs	*Harrows*	*Carts & Wains*
1530–69	22	0·2	0·7	0·5
1610–49	19	0·8	1·1	1·9

Much of the additional arable was used for spring corn. At 3·3, the mean winter-corn acreage is virtually identical with that for the mid-Tudor period (TABLE III). Some of the unspecified corn (2·4 acres per farm) may have been winter-sown, but hardly enough to challenge the ascendancy of declared 'Lenten tilth' at 5·5 acres.[1]

Rye was still the chief winter crop, being cultivated by four farmers (33¾ acres); while five opted for "rye and wheat" (15 acres).[2] Oats, too, persisted as the principal spring grain (29½ acres), though barley (21½ acres) was in greater prominence than in earlier samples. Peas claimed 13 acres, "barley & oats" 12, flax and hemp 2¾.[3]

TABLE VII shows that the mounting interest in arable cultivation was shared by all categories of farmer, from the 60–100 acre man, down to the lesser husbandman with 10–15 acres. At the same time, it is the big farmer who is most strongly committed to the new trend, his crop value advancing from 16·8 per cent of the appraised farm produce to 37·4 per cent, as compared with the small peasant's movement from 14·2 to 23·3 per cent.

Perhaps the wealthy Solihull severalty farmer, Robert Palmer, who died in June 1649, best epitomizes 'the wind of change'. His farm must have comprised about 80 acres. Apart from one mare and the plough-team of six oxen (£39), he had a moderate-sized herd of "eight Cowes and one Bull," "five two year old heifers," "six weaning calves," valued collectively at £48. The farmstead had a "day house," equipped with "a Churne," "a skimmer," "a cheese presse;" and a chamber in the house contained "Certaine cheese" worth about £2. Palmer's

[1] In any case, 11 winter inventories produce a corn average of only 3·7 acres.

[2] Of the 30 winter and summer inventories available for this sample, 21 refer only to (winter) corn.

[3] One inventory lists "barley, oats and peas" (10 acres); two "oats and peas" (9 acres); one "barley and peas" (½ acre); 6½ acres were unspecified.

other livestock consisted of "Tenne sheepe and six lambs" (£5 5s.), "one store Swine and A gilt with piggs" (£2 6s. 8d.). Bearing in mind common grazing rights, it is likely that he would have needed about 30 acres of grass. His growing corn occupied 34 acres: namely, "eight dayes works of wheate and Ry" (£18), "eight dayes worke of Barley" (£10 13s. 4d.), "sixteene dayes work of oats and

TABLE VII

MEAN AVERAGE CROP AND STOCK VALUES, 1530–69 AND 1610–49

	Number of inventories	*Crop Value* £ s. d.	*% of farm produce*	*Stock Value* £ s. d.	*% of farm produce*	*Crop + Stock Value* £ s. d.
(a) 1530–69						
Large farms	9	11 1 10	16·8	57 8 3	83·8	68 10 1
Substantial farms	19	3 0 9	16·4	15 11 7	83·6	18 12 4
Middling farms	29	1 5 10	12·0	9 7 10	88·0	10 13 8
Small farms	13	13 6	14·2	4 1 6	85·8	4 15 0
All farms	70	2 17 9	15·2	16 2 8	84·8	19 0 5
(b) 1610–49						
Large farms	9	39 2 2	37·4	65 8 4	62·6	104 10 6
Substantial farms	18	15 1 1	27·6	39 9 1	72·4	54 10 2
Middling farms	13	6 6 8	25·5	18 9 6	74·5	24 16 2
Small farms	25	2 6 3	23·3	7 12 0	76·7	9 18 3
All farms	65	13 10 1	31·2	29 15 1	68·8	43 5 2

two dayes work of pease" (£21 6s. 8d.). Including "Corne in the Barne unthresht" from the previous year (£6 6s. 8d.), the total crop value comes to £56 6s. 8d. This has to be compared with the £39 invested in draught animals, and £55 12s. in other livestock. "In the fold yarde" Palmer had "One weane body two payre of wheeles two payre of Tumbrill Draughts two Tumbrill Skirts two plowes one great harrow two little harrows and yokes and Tewes and all other tooles belonging to Husbandry" valued at £5.

IV

Apart from reporting the fact of agrarian change in seventeenth-century Arden, Edmund Gibson provides valuable contemporary clues as to how it was accomplished. In the first place, he says "the Iron-works in the Counties round, destroy'd such prodigious quantities of wood, that they quickly lay the Country a little open, and by degrees made room for the plough."[1]

During the period 1570–1609 eighteen out of seventy inventories record

[1] Gibson, *op. cit.*, p. 510.

substantial timber, either "on the ground" or "about the house," the value adding up to £101. At Knowle in 1605 there were 7,000 oaks and 100 ash trees "growing in the woods of the demesne and in the waste of the . . . manor," of which 2,000 oaks were reserved "for timbering." Roger Bestwick was renting the right to "All the Lopps and Shreds of Oak . . . in Knoll Common . . . and other waste land," though there was a proviso that he should replace trees "that shall die through lopping." John Cope, Esq., however, had "thrown to the ground forty better oaks," and Fulk Grevill had cut down others, "by what right" the jurors did not know. John Hugford in the same year had 300 oak trees on his farm, including 6 which had been cut for timber. There were also 8 (felled?) ash trees, plus 152 cartloads of firewood.[1] Rychard Prettyes of Solihull (1571) left "the tymber in Norton Wood" £2; "hewen tymber" £9; "sawed tymber" £1 6s. 8d.; and "Fyer wood" £6 14s. 4d.

Such men may, or may not, have been sending their "Fyer wood" to "the Iron-works in the Counties round." In any case, local metal-workers, cowpers, carpenters, wheelwrights, tanners, and tile-makers must have consumed considerable quantities of timber. Thomas Lynescombe, Tylemaker of Yardley (1598), had "Wood & tymber att the house & in the grounds," £5 16s. 8d.; and Thomas Walton (1554) "At Nether Tylehowse . . . wood & kyddes" 50s. od., and "At ye over tile howse . . . woodes" 26s. 8d.

It is perhaps significant that by the period 1610–49 the value of timber in sixty-eight inventories has fallen to under £40. Moreover, this is the time when "Coles" begin to supplement firewood, at least for domestic purposes.[2] In 1632, when asked about woods in Solihull manor, the jurors reply: "Woods they find, but to a very small valew."[3]

However, if the country was being laid "a little open," this process was not accompanied by any dramatic extension of the cultivated area. Part of Bickenhill Heath was enclosed in 1612 (see page 97), and in 1605 a Knowle farmer held "five closes called le Waste."[4] Eleven people are known to have established small encroachments on the Solihull commons between 1612 and 1632, varying in size from a quarter to one acre.[5] But in the latter year, ten others were fined 6d. and ordered to "throw open their enclosure before Michaelmas on pain of 10s."[6] The fact that Arden had seen intensive colonization in the thirteenth century, and relatively little long-term contraction thereafter, meant that un-

[1] Knowle survey, 1605, *loc. cit.*

[2] The decline in the number of pigs, from a mean of 4·1 (1530–69) to 1·5 (1610–49) may be another pointer, suggesting as it does a reduction in the supply of pannage. On the other hand, one would have expected the advance of dairying to counteract this, for whey could be fed to the pigs.

[3] Survey of the Manor of Solihull, 1632.—Warwick Record Office, Greswold of Malvern Deeds (uncatalogued), Box 24.

[4] Knowle survey, 1605, *loc. cit.*

[5] Solihull survey, 1632, *loc. cit.*

[6] Court Roll, 6 April 1632.—British Museum, Additional Rolls 17772.

appropriated land was less plentiful than in other woodland areas where early development had been inhibited by forest law. By the seventeenth century, indeed, common pasture was in sufficiently short supply to be stinted at Solihull, Yardley, and Rowington—and pretty certainly at Bickenhill, Elmdon, and Sheldon—though not at Knowle.

The second reason Gibson suggests for Arden's progress is "the assistance of *Marle*." In fact, marling had been consistently practised here from early medieval times, even continuing during the fifteenth century, when it is often said to have passed out of vogue:[1] four Solihull peasants were fined in 1421 because they "dug clay from the soil of the Lord King."[2] All the same, references to marling are particularly numerous during early Stuart times. By now freeholders of Solihull, though not cottagers, were entitled to excavate marl on the lord's waste, provided "they shall either raile or hedge the . . . pitt sufficiently for the safeguard of cattell." In 1631 we hear of such "a marle pit lately digged upon the common." Three years later "John Thorne, Richard Powell, and John Withies dug marl in the common way," while others "dug clay . . . on the way next to Garretts Green, and George Slowe received it, making contempt of court by receiving the marl, & thus the common way was destroyed." In 1667 Richard Bache of Solihull had "One load of Lyme and earth meaned together to lay on for barley."

Apart from tree-clearance and marling, Gibson speaks of "other useful contrivances;" and there can be little doubt that foremost among these was the development of convertible or 'up-and-down' husbandry: whereby, to quote from the well-known 1649 survey of the neighbouring manor of Hampton-in-Arden, it was "a usual course with the inhabitants to plow their ground which they doe call pasture for twoe or three yeares together, and then to lett it lye for pasture fifteene or twenty yeares and then plowe it againe, and this they doe with a greate parte of their pasture ground."[3]

Early seventeenth-century deeds frequently speak of what was presumably 'up-and-down' land as "a close of arable or pasture," the first noted examples of this usage occurring in the early 1600's. Similarly, there are many instances of the division of closes into parts, so that the new temporary tillages could be rotated. At Yardley in 1603 we hear of "two Closes . . . now in three partes divided adjoining together . . . whereof the one ys called hilbury fyelde and the other known as Longe burryfyelds;" and in 1641 of "one other Close of pasture called Nether Hurst now in two parts divided."[4] The Knowle survey (1605) mentions "Two closes of pasture now divided into three, near Bentley Heath;"

[1] Sir William Ashley, *The Bread of Our Forefathers*, 1928, p. 138.

[2] British Museum, Additional Rolls 17759–88. Other quotations from the Solihull court rolls in this paragraph derive from the same source.

[3] Birmingham Reference Library, 511984.

[4] *Ibid.*, 371529; 427783.

the Solihull survey (1632) "a parcel of land . . . late William Collmores . . . now into two parts divided," "Broome Close now into two partes divided," etc. At Church Bickenhill in 1649 "one close of pasture ground called the Castle Hills" was "devided into seaven parts, whereof some parte thereof is att present plowed, it being the usuall course thereabouts soe to doe."[1]

Convertible husbandry in its fully developed form involved not only the ploughing up of pasture, but the laying down of arable to temporary leys. Although such a procedure was far from impossible on the common fields, enclosed arable was obviously more amenable to it. This—plus the general zeal for improvement—may in large measure account for the period's unusually intensive enclosure activity.

At Bickenhill in 1614 a tripartite indenture was made between Sir Clement and Sir Robert ffysher; Thomas Wall, yeoman; and Hugh Large, husbandman. The parties, we learn from the preamble, "by agreement between them have lately . . . enclosed divers of theire landes and groundes lying within the Common ffyeldes of Hill and Myddle Bicknell . . . by layinge theire landes there convenyentlye together and inclosinge thereof in severall." The purpose of the indenture was to confirm and legalize this exchange. In all, the area involved was probably about 300 acres, the Fisher's allotment including "parte of . . . Bicknell heathe nowe layed or sett out by stakes postes and rayles."[2] By 1677, 137 out of 322 acres belonging to the Fisher and Cousens families in the common fields of Church Bickenhill were enclosed.[3] Although direct information is lacking, considerable areas of Wavers Marston and Elmdon are suspected of passing into severalty during the late sixteenth and the first half of the seventeenth century, the movement perhaps reaching its peak between 1620 and 1660.[4] At Sheldon part of the field called Monland had become "one separate close called Little Monland" by 1601, and in 1661 we hear of "the severall ffeild called great Monlande."[5]

Less evidence of enclosure is forthcoming from the larger parishes, with their smaller proportion of common field; but even here a certain amount can be discovered. At Yardley in 1642 William Marston has "fourteen lands . . . lately inclosed and lying together . . . in the common field called Heynefield." But there is still "one land or selion of the customary land of John Flynt . . . lying amongst them." In order to complete his severalty Marston is prepared to grant "two other lands or selions within the said field called Heynefield . . . for and in lieu of the said selion of John Flynt lying among the said fourteen lands."[6]

[1] *Ibid.*, 511984. [2] Skipp and Hastings, *op. cit.*, 1963, pp. 23–4. [3] *Ibid.*, p. 25.

[4] *Ibid.*, pp. 52–3. This conclusion is based on the comparison of fieldnames with the first and last appearance of matching surnames in the parish registers.

[5] Skipp, *Discovering Sheldon*, 1960, p. 18.

[6] Deeds of Pinfold Farm, Yardley.—In the householder's possession.

Much of the irregularity between tenant holdings in different fields, which Gray noted in the Jacobean terriers of Arden,[1] was undoubtedly due to the practice of gradual consolidation. At Church Bickenhill William Brook in 1677 had 7 acres of arable in Water Sheepe field, $4\frac{1}{2}$ acres in Little field, but none at all in the third field, Troughmore. Thomas Hanch had 7 acres in Troughmore, only 5 butts (1 acre) in Water Sheepe, and no land in Little field.[2]

With such methods predominating, it need not be assumed that seventeenth-century enclosure involved a great deal of engrossing. Although a question-mark must hang over Elmdon and Wavers Marston, elsewhere the first clear evidence for the amalgamation of tenancies is not found until the 1670's.[3]

V

The widespread adoption of convertible husbandry, with its ploughing up of immemorial pastures, must go a long way by itself towards explaining the increased arable acreages found in inventories. But, aside from their partiality for this more efficient method of cultivation, farmers may also have been tempted to extend their arable by the relative profitability of cereal production over livestock husbandry at this time.

Work on cattle and crop values shows that Arden prices moved roughly in accord with national index figures. The average value of one acre of sown arable in the period 1530–59 was 6s. 1d.; by the period 1620–49 this had increased to £1 2s. 8d. Between 1530 and 1549 cattle and oxen averaged 10s. 6d.; between 1630 and 1649, £2 0s. $1\frac{1}{2}$d. This means that corn and cattle prices advanced at approximately the same rate (373:382). However, we know that nationally the prices of meat and dairy produce did not keep abreast of livestock values; in fact, they little more than doubled between the mid-sixteenth and the mid-seventeenth centuries.[4] Assuming the same locally, the marketing of corn should have been to the husbandman's advantage. It may also be reasonably surmised that the district's expanding population (see below) would have created a growing demand for cereals, particularly since the Feldon was producing less than formerly.

Little is available regarding the disposal of produce. Gibson speaks of the furnishing of "other Counties," while in the early eighteenth century Defoe reports that Warwickshire men regularly sent their cheeses to London, Hull, and to "Sturbridge Fair" at Cambridge.[5] Locally, Birmingham—already by 1640 a manufacturing town of over 5,000—was probably the main outlet.

[1] H. L. Gray, *English Field Systems*, p. 86.
[2] Skipp and Hastings, *op. cit.*, p. 26.
[3] *Ibid.*, pp. 27–8.
[4] *The Agrarian History of England and Wales*, ed. Joan Thirsk, IV, p. 603.
[5] Defoe, *op. cit.*, pp. 131, 141.

Solihull itself, despite an ancient market charter, may be discounted. The jurors of 1632 reported "that there is & hath been time out of mind, they beleeve, a faire kept every yeare ye first day of August, being Lammas day, and they have heard that there is or ought to be a Market kept every Wednesday weekly in ye Borough of Solihull aforesaid, but ye same is now little frequented."

The shift from a predominantly grass economy to one based on "keeping the land in grass and corn alternately" proved to be a permanent change of direction in Arden agriculture. The ratio of sown arable to estimated pasture in ten summer inventories for the period 1680–1709 is 40:60. At Solihull in 1789 32·6 per cent of the land (2,390 acres) was carrying arable crops; 11·4 per cent (831 acres) lay fallow. Seeds and seed clover accounted for 13·4 per cent (981 acres); mowing grass and mowing clover for 23·9 per cent (1,752 acres). Permanent pasture (1,369 acres) stood at 18·7 per cent.[1] In his 1794 report to the Board of Agriculture, John Wedge describes the area as "mostly in tillage."[2]

VI

For the purpose of assessing social developments inventories were sorted into new categories based on (1) the net estate, and (2) the total value of all goods and chattels.[3] It was also decided to introduce a fifth economic grade—below quarter average—a grade which was unnecessary before, because of the exclusion of smallholders and the landless. TABLE VIII sets out the numbers in the various wealth groups period by period, arranging them as far as possible in accordance with occupation and status.

The terms 'yeoman' and 'husbandman' are rarely found in inventories until Stuart times. By then both terms occur in all economic groups, including below quarter average; though, except for two husbandmen and one yeoman, these last lack their farm, their household, or both, and are therefore presumed to have died in retirement. Such people aside, 6 of the 18 practising yeomen have estates worth more than twice average, and 8 come into the between average and twice-average category. Husbandmen, as one would expect, tend to be one notch down, with 5 out of 10 in the second economic group. Of the

[1] Tithe survey of Solihull, 1789, Birmingham Reference Library, 433099.

[2] W. Marshall, *The Review and Abstract of the County Reports to the Board of Agriculture*, IV, 1815, p. 284.

[3] In the statistical work on social status, wealth categories were based on the net estate. For house size, value of furnishings, etc., it was decided to base calculations on the total of goods and chattels. This last indicates the *actual* standard of living of the person concerned; whereas the net estate tells us only the degree to which that standard was, or was not, justified. William Hill, yeoman, of Yardley (1611), had goods and chattels worth £53 17s. 6d., but owed debts of £76 6s. 0d. Technically he was bankrupt; nevertheless he was living in a six-roomed house and enjoying standards of comfort which were appropriate to his yeoman status.

TABLE VIII

OCCUPATION AND STATUS BY WEALTH CATEGORIES, 1530–1649

Columns *I–V* represent the following wealth categories: *I* above twice the net average estate; *II* between average and twice average; *III* between half average and average; *IV* between quarter and half average; *V* below quarter average. A mid-point average was used.

Status and/or Occupation	*1530–69*					*1570–1609*					*1610–49*				
	I	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*	*I*	*II*	*III*	*IV*	*V*
Parson, without farm	1	1													
Priest/chaplain, without farm	1		1											1	
Parson, with farm											2				
Gentleman, without farm											1				
Gentleman, with farm	1	1_1	1			1					1				
Yeoman farmer	1		1								6_{2}	8_1	2_1	1	1^1
Yeoman, retired							1								2
Husbandman farmer							1	2_1			1_1	5_1	1	1	2^1
Husbandman, retired							1							1_1	3
Farmer (no status given)	7	13_1	21	10		1	6_1	4	6		2_1	5	3_1	3	1^1
Male, retired (no status given)							1_1	1			1		1_1	1	
Widow farmer		2	3	1			2	1	1		1_1	1_1	3_1	2	
Widow, without farm							1					1_1			1
Farmer-craftsman	2	4	1	1		2	3	3	1^1		2_2	4	3	4_1	1^1
Craftsman, without farm			1	2				1						3	2^{11}
Smallholder (no status given)								2_2	4					1	
Labourer, with smallholding								1						3	1
Labourer, without land															2
Spinster														1	1
Category totals—net estate	13	21	29	14	—	4	16	15	12	—	17	24	13	22	17
Category totals—goods and chattels	13	19	31	14	—	4	14	15	14	—	9	27	15	29	13

Inferior figures denote the number of instances in which the goods and chattels estate (i.e., the net estate after discounting debts and/or leases) is one wealth category lower than the net estate. Inferior *italic* figures denote the number of cases where the goods and chattels estate is two categories lower; inferior **bold** figures the number of cases where the goods and chattels estate is three categories lower.

Superior figures indicate the number of instances where the goods and chattels estate is one, two (*italic*), or three (**bold**) categories higher than the net estate.

6 labourers named in the 1610–49 period, 3 had estates below half-average, and 3 below a quarter average. Craftsmen were of two distinct kinds. Those without land generally had below average estates. Farmer-craftsmen, by contrast, feature prominently in the above average groups.

Looked at from the point of view of wealth, we may say that the above average class consisted of gentlemen, parsons, prosperous yeomen, and prosperous farmer-craftsmen. The average to twice average group was dominated by substantial yeomen, substantial farmer-craftsmen, and prosperous husbandmen; the below average by poorer yeomen, middling husbandmen, middling farmer-craftsmen, together with the better-off specialist craftsmen. Finally, in the below half and below quarter average categories we find lesser husbandmen, smallholders, most of the landless craftsmen, labourers, and retired people of various kinds.

In the agrarian sphere the period 1570–1609 was considered to be one of relatively little change. On the social front it brought important developments, and in particular the first phase of the 'housing revolution'.[1] For the forty years 1530–69 the average house size among inventories which give the necessary details was 4·9 rooms (TABLE IX). However, almost two-thirds of the inventoried houses are left undescribed, and the bulk of these must have been of 1, 2, or 3 rooms. Means based on the lower and upper reckonings are provided in the table, but if for the purposes of discussion we take the middle figure, then the estimated house size for the early Tudor period works out at 3·0 rooms. The corresponding mean for the next forty years, 1570–1609, is 4·6, representing an increase of 1·6 rooms. The period 1610–49, which may be taken as roughly coinciding with Phase 2 of the housing revolution, brought a further increase of 1·4, to give an average house size by mid-Stuart times of 6·0 rooms.[2]

Phase 1 of the 'rebuilding' was characterized mainly by ground-floor expansion, peasants adding a kitchen, a second bed-chamber, or, where means permitted, both.[3] Fieldwork reveals a significant scatter of more important houses that were newly built, or extensively enlarged, during this period—e.g., Solihull's Hillfield Hall and Witley Farm; Yardley's Blakesley Hall and Swanshurst Farm. But, as far as inventories are concerned, it is not until Phase 2 that we

[1] See M. W. Barley, *The English Farmhouse and Cottage*, 1961. Barley dates the first phase of the housing revolution 1575–1615; the second phase 1615–1642.

[2] Inventories of lodgers, and those which clearly refer to only part of a house, have been excluded from the analyses. All service rooms which have chambers over them in some inventories, and are known therefore often to have been part of the house (e.g., dairy, milkhouse, boulting house, backhouse, shop, tavern) were included in the figures, but not purely agricultural or industrial premises (e.g., barn, cowhouse, mill, tilehouse, etc.).

[3] At this time some of the kitchens were separate buildings, rather than an integral part of the house: in the 1605 Knowle survey James Geires's farmstead is described as "One dwelling house of three bays, one barn of three bays, one kitchen of one bay."

TABLE IX

AVERAGE HOUSE SIZE BY WEALTH CATEGORIES, 1530–1649

Wealth categories are here based on the mid-point average of goods and chattels as follows: *I* above twice average; *II* between average and twice average; *III* between half average and average; *IV* between quarter and half average; *V* below quarter average.

	1530–69					*All categories*	*1570–1609*					*All categories*	*1610–49*					*All categories*
	I	*II*	*III*	*IV*	*V*		*I*	*II*	*III*	*IV*	*V*		*I*	*II*	*III*	*IV*	*V*	
Number of inventories specifying rooms	9	6	7	3	–	25	4	11	8	10	–	33	9	26	11	17	6	69
Mean average number of rooms in above	7·0	4·6	3·1	3·0	–	4·9	8·8	6·9	4·1	3·7	–	5·5	11·0	6·5	7·7	5·2	4·0	6·7
Number of inventories not specifying rooms (excluding those of apparent lodgers)	4	13	23	9	–	49	–	3	4	3	–	10	–	1	2	5	4	12
Average house size assuming undescribed houses to have been of:																		
one room	5·2	2·2	1·5	1·5	–	2·3	8·8	5·6	3·1	3·1	–	4·4	11·0	6·3	6·7	4·2	2·8	5·9
two rooms	5·5	2·9	2·3	2·3	–	3·0	8·8	5·8	3·4	3·3	–	4·6	11·0	6·3	6·8	4·5	3·2	6·0
three rooms	5·8	3·5	3·0	3·0	–	3·6	8·8	6·1	3·7	3·5	–	4·8	11·0	6·4	7·0	4·7	3·6	6·1

find the widespread chambering over of halls, parlours, etc.; or, alternatively, the erection of a new two-storied house.[1]

TABLE IX suggests that all wealth categories, at least down to the below half average, improved their accommodation more or less equally, each about doubling its house size over the eighty years concerned.[2]

Meanwhile, parallel advances were occurring in domestic comfort. When investments in hard and soft furniture, kitchen and tableware, are added up, we find that the average for the 1530–69 period is £6 17s. 4d., representing 20·5 per cent of the value of all goods and chatells (TABLE X). By Elizabethan times the mean has risen to £10 10s. 4d. (30·2 per cent); and in the early Stuart period it stands at £17 4s. 9d.[3] (26·9 per cent).

Again, the less prosperous peasants showed improvements which were comparable with those obtained by their richer neighbours. As between the first and last periods, the value of household goods in the homes of the wealthy and substantial increased by 289 per cent and 275 per cent respectively; the furnishings of middling and lesser peasants increased by 310 and 247[4] per cent.

VII

Though the chief explanation for the sharp climb in estate values between 1530 and 1649 (TABLE XII) must be the declining value of money, the housing and furnishing revolutions provide indisputable evidence of greater peasant wealth; as do the increasing numbers of inventories specifying ready cash, and debts due to, or from, the testator (TABLE XI).

It will be noted, moreover, that changes in the agrarian structure came much too late to be in any way responsible. Not only is this implied by TABLE XII; it is confirmed by the fact that Phase 1 of the housing revolution preceded the agricultural changes, while Phase 2 accompanied them.

In Arden, as elsewhere, the crucial consideration in accounting for this sudden spurt of prosperity must be the pronounced gap which opened out during the mid-sixteenth century between the peasant's relatively stable outgoings, on the one hand, and the ever-rising prices he could command for his surplus farm produce, on the other.

Particularly fortunate in this respect were the forest's innumerable freeholders. At Solihull in 1632 the chief rents of seventy-five free tenants—including all the big severalty farmers—add up to only £14 16s. 10d.—the value of a

[1] The Knowle survey of 1605 specifies 6 out of 158 houses as being "newly built", while in the Rowington survey of 1606 only 1 out of 80 houses is so described.

[2] By the 1610-49 period named gentlemen and parsons (4) average 13 rooms per house; named yeomen (20) 7·7 rooms; named farmer-craftsmen (14) 7·5 rooms; named husbandmen (10) 3·3 rooms.

[3] This figure excludes estates below quarter average, which do not occur in the preceding periods. The corresponding figure in TABLE X, however, is that for all inventories.

[4] Again, this figure ignores estates below quarter average.

plough-team. At Knowle in 1605, 937 acres of specified freehold land yielded an average of 1·8d. per acre. Charles Waringe, gent., held "one Capital Messuage called Burye Hall . . . and certain lands in Longdon End" amounting to 225 acres for a rent of 8s. 11d.; plus lands called Williamsons (68½ acres) for a further 12½d.[1]

TABLE X

MEAN AVERAGE VALUE OF FURNITURE, GOLD & SILVER, AND APPAREL, BY WEALTH CATEGORIES, 1530–1649

Wealth categories * are based on the mid-point average of goods and chattels as follows: Column *I* above twice average; *II* average to twice average; *III* half average to average; *IV* quarter average to half average; *V* below quarter average; *VI* all categories. Amounts to nearest shilling.

		I	*II*	*III*	*IV*	*V*	*VI*
Number of inventories	1530–69	13	19	30	12	—	74
	1570–1609	4	12	14	13	—	43
	1610–49	9	27	12	22	10	80
		£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Hard furniture	1530–69	1 18	0 14	0 9	0 5	—	0 15
	1570–1609	4 15	1 18	1 3	0 13	—	1 6
	1610–49	9 13	3 15	2 19	1 8	0 17	3 6
Soft furniture	1530–69	8 12	3 3	2 7	1 10	—	3 10
	1570–1609	14 2	8 10	3 12	2 8	—	5 10
	1610–49	22 17	8 3	6 18	3 10	1 17	7 11
Kitchen and tableware	1530–69	5 18	2 7	1 18	1 4	—	2 12
	1570–1609	14 3	4 3	2 12	1 11	—	3 14
	1610–49	12 16	5 5	4 14	2 8	1 4	4 15
All furniture	1530–69	16 8	6 4	4 14	2 19	—	6 17
	1570–1609	33 0	14 11	7 7	4 12	—	10 10
	1610–49	45 6	17 3	14 11	7 6	3 18	15 12
Gold & silver	1530–69	1 14	2 1	—	—	—	0 16
	1570–1609	3 5	0 3	0 7	0 4	—	0 10
	1610–49	1 13	0 4	—	—	—	5 1
Apparel	1530–69	2 7	0 18	0 18	0 10	—	1 1
	1570–1609	3 13	1 4	1 2	0 13	—	1 4
	1610–49	5 9	1 15	2 1	1 3	0 16	1 18

* Discrepancies between the 'Category totals—goods and chattels' given in TABLE VIII and the number of inventories used here are due to the fact that in some instances the value of items cannot be accurately established.

[1] Reliefs at Yardley and Solihull were half the chief rent. Between a third and a half of Yardley's freeholds were non-heriotable, the others yielding "the best goods or Cattells;" at Solihull heriot was the best weapon.

TABLE XI

MEAN AVERAGE OF READY CASH, DEBTS, AND LEASE VALUES, 1530–1649

Averages have been calculated on the total number of inventories used for each period.

Period	*1530–69*	*1570–1609*	*1610–49*
Number of inventories	74	43	80
READY CASH			
Number of inventories specifying cash	9	4	24
Percentage	12·2%	9·3%	30·0%
Mean average amount (to nearest shilling)	£1 2s.	£0 11s.	£2 6s.
DEBTS DUE TO TESTATOR			
Number of inventories specifying debts due	4	13	24
Percentage	5·4%	30·2%	30·0%
Mean average amount (to nearest shilling)	£0 6s.	£3 17s.	£5 19s.
DEBTS OWED BY TESTATOR			
Number of inventories specifying debts owed by testator	8	4	11
Percentage	10·9%	9·3%	13·8%
Mean average amount (to nearest shilling)	£1 15s.	£0 18s.	£2 18s.
LEASES			
Number of inventories specifying leases	3	8	18
Percentage	4·1%	18·6%	22·5%
Mean average amount (to nearest shilling)	£0 6s.	£1 8s.	£5 18s.

TABLE XII

AVERAGE NET PERSONAL ESTATE VALUES, 1530–1649

Period	*Number of inventories*	*Mean average* £ *s.* *d.*	*Median average* £ *s.* *d.*	*Mid-point average* £ *s.* *d.*	*1530–69 mid-point average adjusted to Phelps Brown Index** £ *s.* *d.*
1530–49	23	17 5 1	13 4 10	15 5 0	15 5 0
1550–69	54	33 11 0	22 16 0	28 3 6	22 8 0
1570–89	27	34 10 2	31 9 4	32 19 9	28 5 0
1590–1609	20	49 11 8	35 4 6	42 8 1	38 7 0
1610–29	51	58 14 0	29 11 8	44 2 10	46 5 0
1630–49	42	69 7 0	52 8 1	60 17 7	54 7 0

* E. M. Carus-Wilson, ed., *Essays in Economic History*, II, 1966, p. 195.

Rather higher sums were often due from customary tenants. The Knowle survey particularizes 1,127 acres of copyhold land. About 30 per cent of this (332 acres) was rented at from 1d. to 3¾d. per acre; 47 per cent (533 acres) at between 4d. and 7¾d.; 22 per cent (247 acres) between 8d. and 1s. 3d.; and 1 per cent (15 acres) at over 1s. 3d. But at a time when the sown acre was valued at £1 2s., even the top rate of 3s. 7½d. must have offered reasonable prospects.

At Knowle in 1635 entry fines had recently been increased: "It was the Ancient Custom of this Manor to admit an Heir for one Penny and a purchaser was admitted paying one Years Chief Rent for a fine, but now the Lords . . . take a year and a half's Rent upon the Admittance of an Heir, and 2 Years Rent upon the admittance of a Purchaser." Heriot (due only from tenants dying seized) was "the best Horse Ox or Cow . . . Otherwise the best Good or Chattell."[1] The Yardley copyholder (in 1609) owed a similar heriot, but paid "noe Fyne for his admittance."[2]

Leasehold tenure was becoming increasingly common in late Tudor and early Stuart times. Only three out of seventy-four inventories (4·1 per cent) dated 1530–1569 specify unexpired leases, their total value amounting to £22 10s. (TABLE XI). In the 1570–1609 period eight out of forty-three inventories (18·6 per cent) list them, and the sum involved increases to £60 10s. By the 1610–49 period leases occur in eighteen out of eighty inventories (22·5 per cent) and account for £473 6s. The short lease, however, though encountered, was still unusual, the majority being for ninety-nine years, like the five particularized in the 1632 Solihull survey.

Rents featuring in manorial documents were not always those paid by the actual cultivator of the soil. About 26 per cent of the freehold land at Knowle was sublet in 1605, doubtless at considerably higher charges than those due from the freeholders. In any case, commercial lettings are not impossible to find—even in the mid-sixteenth century. The holdings of Studley priory at Greet, which were acquired by Clement Throckmorton and Sir Alexander Avenon in 1545, had been valued in the *Valor Ecclesiasticus* at £10. A survey of 1562 shows that the 467 acres were then yielding £50 0s. 8d. annually—i.e., a mean of 2·1s. per acre.[3]

Before 1600 the Greswolds of Solihull were in possession of the Greet rental: an acquisition which, together with their existing holdings, enabled the senior branch of the family more or less to withdraw from direct farming and enter

[1] Custom of the Manor of Knowle, 1635.—Birmingham Reference Library, 379610. In general customary inheritance was by primogeniture. But at Knowle, Borough English obtained, though "Any Copyholder . . . may intail his land as he or she shall think Proper, by Surrender without the Licence of the Lord."

[2] Presentment made at Manor Court, 11 April, 1609.—Birmingham Reference Library, 392222.

[3] Terrier of the Manor of Greete, 1562.—Warwick Record Office, Greswold of Malvern Deeds (uncatalogued), Box 10.

the ranks of the rentier gentry. The Hugfords of Solihull, who obtained the site and Longdon lands of Henwood priory immediately on its dissolution, did almost as well. But, in the main, this was not a period when the gentry and wealthy yeomen were adding greatly to their estates: certainly not to the extent their predecessors had done in the later middle ages. Too many small and middling farmers were clinging to their land—and enjoying the bonanza. Thus, as far as the landed peasantry is concerned, relatively little change seems to have occurred in social structure and the distribution of wealth between the 1524 subsidy and the hearth taxes of the late seventeenth century. However, there was an ever-increasing number of inhabitants who did not belong to the landed peasantry.

VIII

Arden populations show a persistent upward tendency throughout the period which concerns us. Between 1540 and 1569, at Elmdon, Solihull, and Yardley, there were 403 more baptisms than burials, giving a natural increase rate of 24·6 per cent. In the 1570–1609 period the excess of baptisms, for all parishes, was 891; and in the next forty years 1,030: the rates of natural increase being 29·7 and 28·3 per cent respectively.

Fertility was not particularly high in late Tudor and early Stuart times, but rose during the second quarter of the seventeenth century.[1] At Sheldon, Solihull, and Yardley, the mean birth interval, 1575–1624, was 28·6 months, and the mean closed family size 3·2 children. In the next twenty-five years the birth interval shortened to 27·3 months, while the size of closed families increased to 3·6 children.[2]

Immigration was subject to the usual discouragements. In 1632 an enactment of the Solihull court leet forbade anyone to "receive into his house any person other than a child or children;" and John Miles forfeited 39s. "because he received one William Lea . . . without giving security that the parish would be in no way burdened."[3] Three others were fined 30s. each in 1634 on a similar charge. Nevertheless, families of strangers—along with native ones—were constantly contriving to erect cottages on the Solihull commons. Six erections

[1] Age-specific marital fertility (children born per thousand woman-years lived) at Sheldon, Solihull, and Yardley, 1575–1624, was 405 for women in the 20–4 age-group; 371 for the 25–9 age-group; 328 for the 30–4 age-group; and 214 for the 35–9 age-group. The corresponding figures, 1625–49, were 432, 459, 377, 258. At Colyton, Devon, by contrast, age-specific marital fertility was high between 1560 and 1629 (467, 403, 369, 302), but declined in the period 1630–46 (378, 382, 298, 234).—E. A. Wrigley, 'Family Limitation in Pre-Industrial England', *Econ. Hist. Rev.*, Second Series, XIX, 1966, p. 89.

[2] Mean birth intervals are based on births 1–4. See Wrigley, *op. cit.*, p. 93. Over the 75 years, 1575–1649, age at first marriage stayed fairly static, men marrying at an average of about 29 years, women at 26.

[3] This, and other quotations from the Solihull court rolls in the present paragraph, come from British Museum, Additional Rolls 17771–82.

are noted in the 1632 survey, while Edward Betterton is presented to the court leet in the same year for building "a cottage at Dickens Heath . . . which did not have four acres of land according to the law." In 1647 seven people are charged with erecting cottages "on the lord's waste" in Olton End "without apportioning 4 acres of land apiece to them in accordance with Statute." "They should forfeit £10 each," we are told, "but by grace forfeit 10s." Such cases suggest that manorial authorities may have been less efficient at preventing squatter settlement than in exacting a fine for it.[1] In any event, the parish registers provide ample confirmation of a steady procession of newcomers. Only 257 different surnames are found among Solihull and Yardley baptisms during the 1550's; by the 1600's there are 357 different surnames, and in the 1640's 331.

But people were constantly moving out of these parishes, as well as entering them. A study of the life-histories of 166 individuals born into sixty-six Solihull families between 1601 and 1625 revealed that less than one in three were represented by descendants at Solihull in the next generation. Forty-one (24·6 per cent) died in infancy or childhood;[2] a further seventy-three (44 per cent) left the parish without producing recorded offspring. Indeed, on balance, more individuals seem to have emigrated than immigrated. While natural increase between 1570 and 1649 should have produced a growth of 1,921 for the five parishes, the actual population rise was not much more than half of this: from perhaps 2,150 to 3,200.[3] However, with the estimated population density reaching a record figure of 1 person to 8·5 acres by the time of the hearth tax returns, this was doubtless enough.

A combined analysis of the hearth-tax returns for Sheldon (1674), Bickenhill (1663), and Solihull (1663)[4] shows that twenty-eight out of 439 households (6·3 per cent) had 4 or more hearths. This group, which included a knight and ten of the thirteen named gentlemen, may perhaps be regarded as approximating to the wealthy (i.e., above twice average) group in our earlier inventory analyses. Below these, seventy-six substantial or middling peasants (17·3 per cent) had 2 or 3 hearths. Lesser husbandmen and craftsmen, labourers, etc., paying on 1 hearth, and roughly comparable with the below half and below quarter-average estate values, numbered 156 (35·7 per cent). But beneath these

[1] There are three enclosures of about 4 acres in the middle of what was, until the nineteenth-century enclosure, Shirley Heath. Nevertheless, it seems extremely unlikely that there was any long-term intention of encouraging squatters to take in this amount of land. Had anyone done so—at any rate by the seventeenth century—he would almost certainly have been dealt with under the alternative charge of making an encroachment.

[2] The infant mortality rate at Yardley, 1571–1600, was 158 per 1,000; at Solihull and Yardley, 1601–25, 148 per 1,000; and 1626–45, 157 per 1,000.

[3] These figures are based on the Cox estimate, with a 5 per cent allowance for under registration. Family reconstitution suggests that down to the 1640's the parish registers of Sheldon, Solihull, and Yardley (the only parishes reconstituted) provide a reasonably satisfactory record of events.

[4] Warwick Record Office, QS 11/7, QS 11/5.

again was the group whose members were exempt from paying the hearth tax on grounds of poverty, and may be assumed to have left no will. They number 179, accounting for 40·8 per cent of the total households.

As early as 1605, 21 per cent (30 out of 143) of the holdings at Knowle were without land: apart, that is, from a yard, backside, garden, or orchard.[1] Using the hearth tax exemptions as a pointer, it seems safe to assume that by the mid-seventeenth century the proportion of the landless had risen to at least 40 per cent, and probably considerably more. Nor, except at Knowle, where all residents could "put any Beast, Sheep, or any other Cattle"[2] on the common, had the landless any grazing rights.

The increase in arable cultivation may have helped marginally towards providing employment for this growing body of landless cottagers—at least in the harvest months. But the majority must have relied on the pursuit of one of the local crafts.

Woodland by-employments—carpentry, coopery, tanning, weaving, and a certain amount of general smithery—had been present in the area from early medieval times. By the opening years of the fifteenth century tile-making was developing as a major manufacturing activity at Yardley, while a century later specialist metal craftsmen were spreading throughout the Birmingham district. In 1507/8 we come across Nicholas Coterel of Yardley, "Flecher," and Thomas Pratty, "wheeler" (wire-drawer); in the 1530's another wheeler and a scythe-smith are recorded for the same parish.[3] Certain industries, such as tanning and tile-making, tended to be monopolized by farmer-craftsmen, but others—and particularly some of the metal trades—required little in the way of work premises or capital outlay, and were therefore suited to the cottager.

Symon Rotton of Yardley, cutler, who died in 1634, had £2 3s. out of his total estate of £9 7s. 10d. tied up in the equipment of his "shoppe," which included "one paire of bellowes, one handfeld, one glasier, one iron vise, three hammers, fyve paire of tongues, one Cutlers sawe, one iron grate, one fyle and one draweing knyffe." In his hall were a "greate wheele & two little wheeles," which suggest that the regular spinning of wool, hemp, and flax also aided the family budget. Rotton was landless and had no cattle. Yet his house had four rooms, and although he slept on a "chaffebedde," at least there was a "feather boulster" and "feather pyllowe."

Among the smaller craftsmen known to have been operating at Yardley during the first half of the seventeenth century were 6 weavers, a tailor, a capper, a shoemaker; woodworkers included a sawyer, a carpenter, and 2 turners; the metal trades 1 striker, 2 cutlers, 3 nailers, 3 whirlers, and 8 smiths. At Solihull those receiving "Mr Wheatly's dole for decayed tradesmen" (1651–1718) in-

[1] Knowle survey, 1605, *loc. cit.* [2] The Custom of the Manor of Knowle, 1635, *loc. cit.*
[3] Birmingham Reference Library, 392220, I, fols. 9, 10; II, fol. 83.

cluded 2 cutlers, 2 whirlers, 2 whitesmiths, 4 glovers, 4 masons, 4 sawyers, 7 blacksmiths, 7 tanners, 9 carpenters, 10 turners, 15 shoemakers, 16 tailors, 17 weavers, and 26 nailers.[1]

Without the opportunities provided by these industrial by-employments it is difficult to see how Arden parishes could possibly have supported their seventeenth-century populations. As it was, 179 out of 795 people buried at Solihull between 1597 and 1624—or 22·5 per cent—are described as paupers. The figure for Bickenhill between 1630 and 1649, on the other hand, was as low as 4·2 per cent.

In 1649–50, which was a dearth year when poor law cases were extremely high throughout Warwickshire, £32 16s. 6d. was disbursed by the Yardley overseers. Two-thirds of this sum went on regular pay for 13 persons. Five widows and 2 other females received between 1s. and 4s. 8d. per month; 6 males had between 1s. and 1s. 4d. Twenty-four parishioners had occasional relief, the highest sum of 18s. going to "William Howler and his wyfe in theire necessitie."[2] How far this comparatively modest disbursement represented a genuine lack of distress among the 40 per cent of local populations who—on the hearth tax evidence—were below the poverty line is another matter.

IX

The period 1530–1649 in Arden, then, was one of considerable agrarian advance: bringing, as it did, a change from the traditional pastoral economy to one based on mixed farming and convertible husbandry. For all sections of the landed peasantry, too, it saw an unprecedented—and remarkably homogeneous—rise in the standard of living, with improvements in accommodation, domestic comfort, and—no doubt—diet.

But at the lower end of the social scale, population pressure was creating a large 'landless' class, many of whose members—despite the expansion of industrial activities—may have been prone to greater economic hardships than were their counterparts a few generations before.

Yet craftsmen like Symon Rotton, given good health and reasonable harvests, could manage to make a living. Nor was the lot of the landless labourer necessarily one of unrelieved penury. Among the smallest inventoried estates of the early Stuart period was that of William Bane, labourer, of Yardley, who died in 1614, worth £8 19s. 4d. Bane must have been a bachelor or widower, for he was lodging in somebody else's house, probably his master's. Nevertheless, he had his own "two small coffers," and slept on his own "Course Chaffe bedd," with "the Course furniture to the same belongeinge." "Money found in his coffer" came to 14s. And this was scarcely a tithe of his savings: he

[1] Parish Bailiffs' Accounts, 1525–1813, Solihull Parish Chest.
[2] Birmingham Reference Library, 272091.

also left "money in the keeping of John Marston . . . £6," and "in the keeping of Richard Brown . . . 8s. 2d." Finally, in his room, alongside the tools of his calling—"one hoke," "one old litell Bill," and "other od Implementes"—the appraisers came across "Sertayne small bookes," valued at 10s., and "one penne and inke horne."