

Introduction

Essex is an 'Ancient Countryside' county (Rackham 1976); lacking a strong tradition of open-field agriculture, its landscape has been formed, not by sudden reorganization through Enclosure Acts, but by the gradual simplification of a medieval landscape which has lost some of its hedges, woods, and roads and nearly all its heathland. It is particularly rich in pre-1500 features which are still in use. It has few deserted villages—for villages in general have been few and mostly large—but many deserted farmsteads and moats.

The small towns, hamlets, greens and tyes, and isolated farms, the winding lanes and hollow-ways suddenly narrowing where houses have been built into them, the mixed hedges, and the woods are all abundantly mentioned in medieval court rolls and surveys. A stage in their simplification is recorded by 16th century maps (Emmison 1947) such as that of Earl's Colne in 1598 (ERO D/Dsm P1)* which show nearly all the hedges, woods, and lanes now existing, plus many that have disappeared since 1600, plus the remains of some that had already gone before 1600. A later stage is shown in less detail by Chapman and André (1777), a map of the whole county at a time when over half the heathland still survived. Destruction has greatly increased since 1945 and is abundantly recorded in Ordnance maps and aerial photographs.

Trees and woods, and the coastal marshes, are the most stable part of the countryside; through them we come nearest to seeing what the medieval landscape looked like in use. Trees form part of four separate and independent traditions of land-use, the first three of which go back at least to Anglo-Saxon times (Rackham 1976).

1 *Woods*: Woods have been most commonly managed by *coppicing*. The majority of the trees, called the *underwood*, are cut down every few years and grow again from the stumps or stools to yield a permanent succession of crops of poles or *wood*, used for fuel and many domestic and agricultural purposes. Scattered among the underwood are *standard* or *timber* trees, left to stand for several rotations and eventually felled to produce *timber* suitable for structural uses. Coppicing uses the property that most native trees have of growing again after felling without artificial replanting. Coppice woods have to be protected from grazing animals which would eat the regrowth.

2 *Wood-pasture*: the art of growing trees in the presence of cattle, sheep, or deer; the traditional land-use of Royal Forests, deer-parks, and many commons.

3 *Non-woodland*: trees in hedges and fields and around farms and settlements. Many of these are *pollards*, trees cut like coppice stools to yield successive crops of wood, but at a height of from 6 to 15 ft above ground so that livestock cannot reach the young shoots.

4 *Plantations*: These differ from woods in that the trees are established by planting, are all of the same age and usually the same species, and are intended to die after felling and to be replaced by a new plantation.

This paper is based partly on documentation and, because of the scarcity of earlier records, deals chiefly with the period 1220-1500. The last section reviews the evidence on how the landscape of this period came into being.

Farmland, hedges, and non-woodland trees

By 1250 at latest most of Essex was agricultural land. In the north-west there were classic open-field systems (eg at Saffron Walden (Cromarty 1966)), whose eventual enclosure produced the geometrical network of flimsy hawthorn hedges familiar in the enclosure-act country of the Midlands. In the rest of the county medieval records occasionally mention or imply small areas of common arable, but these had faded away almost entirely by 1500.

Hedged fields are often mentioned in surveys, as at Leaden Roding in 1439 (ERO D/DHf M19), where almost the entire parish consisted of fields 'enclosed with hedges and ditches'. Hedges and hedgerow trees appear in 14th and 15th century court rolls in connection with disputes between neighbours, obstruction of the highway, and unauthorized felling by tenants of the landlord's timber: examples include Hatfield Broadoak (ERO D/DK M1), Great Canfield (Eland 1949), the Donylands (ERO D/DHt M145), and Woodford (ERO D/DCy M1). The hedges were mixed-at Hatfield a hedge containing 'oak, ash, maple, white thorn & black' was cut down in 1443—with numerous pollards and other hedgerow trees.

The many surviving medieval (or earlier) hedges in Essex are usually sinuous rather than straight, forming an irregular pattern not greatly dependent on drainage or other apparent practical considerations. Alongside roads they wander to and fro leaving a verge of varying width. Typically they are composed of a mixture of shrubs. The observation that the number of woody species in a 30 yard length equals the age of the hedge in centuries (Pollard *et al* 1974) has not been widely tested in Essex, but in general seems to be successful in distinguishing medieval from later hedges. Hedgerow counts at Debden (Essex County Council 1976), varying from one to twelve species, agree well with what is known of the agricultural history. Whether the rule can be extended beyond the medieval period is not known. Peculiarities of vegetation ought to be looked for in the regular grids of hedged fields in the Dengie peninsula, the Orsett-Ockendon area, and south of Braintree which are widely supposed to be of Roman origin. A frequent complication is the invasion of hedges by suckering elms, which can displace the other species and can convert a known medieval hedge into a hedge of pure elm (Rackham 1976).

The farmland trees most often documented are oak, elm, poplar, and willow. Sometimes they were not in hedges but in the middle of fields; a very few such, especially ancient oaks, survive. Poplars were the black poplar, *Populus nigra*, a very large and—then as now—always a non-woodland tree (Rackham 1976). It appears in the 14th and 15th centuries at Colchester (Moore 1897), Great Canfield (Eland 1949), Felsted (ERO D/DSp M37), Writtle (ERO D/DP M201), etc. This very distinctive and once familiar poplar is now

* ERO = Essex Record Office

perpetuated by only a few individuals chiefly in the Hedingham area.

The elms of Essex are of particular historical interest. This most variable genus of trees reproduces chiefly by suckers; once introduced to a site a particular variety of elm maintains itself indefinitely without further human intervention. Richens (1967) classifies the village elms of Essex into nineteen groups of populations; he interprets their distribution patterns as the result of a series of fashions in elms, for planting round houses, beginning in the Iron Age. It would be rewarding to extend this study to the elms of other kinds of settlements, of deserted settlements, and of hedges of different ages.

Meadows—permanent grassland cut for hay, and sometimes divided into strips like open-field arable—occupied the floors of even the smallest valleys. This aspect of medieval Essex has almost entirely vanished; of recent years meadows have been ploughed, fertilized, neglected, or planted with cricket-bat willows, and their characteristic vegetation has disappeared. Only a handful of sites still have *Orchis morio*, *Dactylorhiza incarnata*, and other plants of old mown grassland.

Woods

Detailed systematic records of woods go back to the 13th century (eg the Ely Coucher Book of 1251 (Brit Mus Cott Claud C xi; Ely Diocesan Register (in Cambridge Univ Library) G3/2/27) which mentions Hadstock Wood). Woods were private property, with definite names and acreages, and were treated as a permanent resource. Coppicing was taken for granted: it was already a fully-developed art and changed little down the centuries, so that many woods in the early 20th century, and some even today, differ only in detail from what they were in the 13th. In medieval Essex, woods were coppiced, on average, every six to ten years; thereafter the interval between fellings gradually lengthened (Rackham 1980a). In Essex most large estates had a wood, but there were exceptions, and transport both of timber and underwood—specially to London (Rackham 1978)—was an important part of the economy.

Medieval woods are still fairly numerous; large examples are Quendon Wood, Dunmow High Wood, and Chalkney Wood (Earl Colne). They can be the most persistent of all antiquities: in the 'lunar landscape' of the Grays Thurrock pits there are no less than seventeen groves which are shown on pre-1650 maps and which remain where almost all else has been dug away or built upon (Rackham 1980b).

Medieval woods usually have irregular sinuous or zigzag outlines, often with a change of level where the boundary crosses a slope. They are surrounded by strong rounded banks and ditches, typically 30 ft in total width and often bearing Pollard trees, by means of which alterations to the boundaries can be detected. The timber trees are rarely of great age but the coppice stools are often very large and old, up to 18 ft in diameter, the result of centuries of felling and regrowth of the same individual tree. Certain plants are strongly associated with ancient woodland, for instance oxlip (*Primula elatior*), woodland hawthorn (*Crataegus laevigata*), and wild service (*Sorbus torminalis*) (Rackham 1976; 1980a).

Essex has a great variety of native woodland, the commonest types being the ash-maple-hazel woods of the north-west, the hornbeam woods of the south, and the lime and elm woods of the mid-north. These can be shown to have independent histories going back at least to the Middle Ages. They have changed little in distribution except for a

gradual increase of elm and more recently of birch (Rackham 1980a). Sweet-chestnut, common in east Essex, is a 'quasi-native' tree introduced probably by the Romans and persisting in some places into the Middle Ages: early Essex records include one of 1471 at Little Bentley (ERO D/DB M122) and an already ancient tree noted at Frating in 1706 (Evelyn 1706,223).

Oaks have formed the majority of timber trees in all kinds of woodland; genuine oakwoods, in which oak forms the underwood as well as the timber, are very local in Essex.

The most distinctive Essex woods are the lime-woods—of the small-leaved lime or pry tree, *Tilia cordata*—which are relicts from the wildwood of late Mesolithic times when this was probably the commonest tree (Birks *et al* 1975; Rackham 1976; 1980a). Pry is still abundant in the Sudbury-Leaden Roding-Colchester triangle; it is almost confined to ancient woods and does not spread into recent woodland. Place-names (eg *Lindsell*, from Anglo-Saxon *linde*) and documents show that this distribution has altered little in the last thousand years; there are some notable examples of long-term persistence in particular woods (Rackham 1980a).

Post-medieval woods can be of archaeological interest. Groves often cover moated sites, and if the grove is of elm it may be derived by suckering from elms planted by the inhabitants of the moat. An Essex speciality are the *plotland* woods of Laindon, Thundersley, etc, on land where 19th century urbanization has receded, where street after street of bungalows has rotted back into the ground and woods have sprung up on the site. These are an instructive parallel to the fate of deserted settlements in previous historical periods.

Essex possesses what may be, by at least 250 years, the earliest known artificial wood in England: Soane *alias* Bullock Wood near Colchester, which—on the medieval interpretation of its name as *boscus seminatus*, 'sown wood'—could have been deliberately established by the monks of St John's Abbey at some time before 1242 (Fisher 1951; Rackham 1980a). This doubtful exception apart, plantations are a post-1600 development which in Essex had little effect until the 20th century.

Something like half the medieval woods of Essex survived until 1945. In the last thirty years, about 30% by area has been destroyed, mainly by being converted to plantations or to arable land. Around Saffron Walden nearly all the ancient woods have been coniferized; losses have been much less in south Essex.

Wood-pasture

Trees and livestock can be combined in two classes of ways. *Compartmented* wood-pastures were coppiced in the ordinary way, but were subdivided by temporary fences so that the animals should not get at the young regrowth. In *uncompartmented* wood-pastures the animals had access at all times but the wood-producing trees were pollarded, not coppiced; the timber trees, being more difficult to replace, were felled less often than in woods.

Wood-pastures are less distinctive in their flowering plants than ancient woods, but have many trees more than 300 years old and can be a particular habitat of certain lichens and invertebrate animals which specialize in ancient trees.

Forests

Of the six Royal Forests of Essex, Writtle is obliquely mentioned in Domesday Book, while Epping, Hainault, Wintry, Hatfield Broadoak, and Kingswood (Colchester) were probably established in the early 12th century by

introducing fallow deer to what had previously been ordinary wood-pasture commons (Rackham 1978). We are here concerned with the physical Forests as recognizable on the ground; the Forest administration extended over a large and fluctuating part of the county, but left no archaeology and is not relevant to this paper.

A Forest usually provided: grazing for the king's deer; pasture for cattle, sheep, pigs, etc; wood; and timber. The structure, the social organization, and the relative importance of the four products varied widely from Forest to Forest.

Hatfield Forest (Rackham 1976) is the least altered medieval Forest in England. All the elements of its land-use survive, most of them in working order. Contemporary descriptions show that it has changed very little for at least 350 years. It is compartmented into coppices (originally seventeen, of which twelve are extant) and *plains* of grassland. The coppices were supposed to be fenced against livestock for the first half of the eighteen-year felling cycle. The plains were accessible to stock at all times and contain pollarded trees—some of great age—and tracts of scrub. Among the many other antiquities are a 17th century lodge and a rabbit-warren adapted from some earlier earthwork. The Forest has suffered many vicissitudes particularly in the last 60 years, but little of its fabric has been destroyed; the grazing is kept up and the coppicing has recently been revived.

In Writtle Forest a compartmentation system like that of Hatfield has been transferred to the very different soils and woodlands of south Essex. Most of this Forest also survives, though is not so well preserved as Hatfield; little remains of the plains. A lonely cottage still occupies the site of a hermitage founded by King Stephen, and is surrounded by the assart given to the hermit for his support.

Epping Forest (Rackham 1978) is possibly still the best-preserved non-compartmented Forest in England. It has changed little in area for several centuries, and the northern half has a characteristic wood-pasture shape—a straggling concave outline funnelling out into roads—almost unaltered for at least 400 years. It was divided into plains and tree-covered areas, but the boundaries of the plains were gradual and undefined. Pollarding was the almost universal tree management. The system was remarkably stable from at least the 12th to the 19th centuries. After the Epping Forest Act of 1878 the wood-cutting was terminated and the grazing has declined; the increasing shade resulting from these changes has proved very harmful to the Forest's vegetation and antiquities. The pollards have decreased in numbers; many plains have become overgrown; heather and small trees such as crabapple, both of them important in the Forest's history, are severely reduced.

Wintry Forest is a small satellite detached from Epping probably in the 13th century and similar in history to the main Forest.

Hainault Forest was largely destroyed under an enclosure act in 1851. It was un-compartmented and the surviving fragments are better preserved than Epping.

Kingswood Forest was apparently compartmented, producing timber—some of it exported to Dover—and some wood. Some fragments probably survive in the woods north of Colchester.

Wooded commons

This form of wood-pasture was very widespread in medieval Essex. The largest and most highly organized example was the multi-parochial Tiptree Heath, partly compartmented and with elaborate byelaws governing

woodcutting (Morant 1768, 2, 141)—like a Forest without deer. Most wooded commons were un-compartmented, with grassland and Pollard trees.

Like all Essex commons, these were greatly diminished by late enclosure. The best surviving is probably Childerditch Common, preserved by being incorporated in the 18th century into Thorndon Park and latterly into the modern Thorndon Country Park. It has many surviving medieval trees including oaks of awesome size. Other examples are Gernon Bushes by Wintry Forest, quite recently still pollarded; Woodham Walter and Little Baddow Commons in the Danbury area, much overgrown but still recognizable; and Woodside Green by Hatfield Forest.

Parks

A park had much the same land-uses as a Forest but differed in having a perimeter fence to retain the deer and in being private land whose trees and grazing belonged (with rare exceptions) wholly to one owner.

At least 160 parks are recorded in Essex between 1086 and 1530 (this provisional total includes the records which Professor L M Cantor, Mr W H Liddell, Mr J Hatherly, and Mr J Hunter have kindly sent me). Compared with other counties this is a remarkably high density of parks, which is only partly explicable by the greater attention which Essex has received or by the more complete recording of Essex parks in royal archives because of their potential conflict with Forest Law. The heyday of emparking was between 1250 and 1330, at which time—assuming an average 200 acres per park—roughly 3% of the county was parks, a proportion which has never been exceeded since.

Parks usually contained at least some woodland. They could be compartmented, like the parks at Thaxted in 1393 with their named 'hewets' or coppices (Newton 1960), or un-compartmented, like those at Writtle in the 1390s with their Pollard beeches (ERO D/DP M200-1).

Surprisingly little is left of all these parks. Some reverted to being woodland, often named Park Wood. Norsey Wood (Billericay), for instance, is surrounded by an earthwork called the Deerbank which originated as a medieval park bank with its internal ditch designed (in contrast to a wood-bank) to make it more difficult for animals to get out (Rackham 1976, fig 20). Medieval parks sometimes remain as parks or (as at Skreens and Writtle) have only recently been destroyed. They should be looked for in the 18th and 19th century landscape parks, although re-emparking was often on a different site.

Until about 1950 there survived considerable remains of what was probably the earliest recognizable park in England, Ongar Great Park; it can be traced back to 1045 (Reaney 1935), a time when only red deer were available. The vast perimeter, about 2 x 1 miles, was a rectangle with rounded corners for economy in fencing; it interrupted the Roman road from London to Dunmow. It was apparently compartmented and contained several woods.

Heathland

Heathland (Latin *bruerium*) was much more important in medieval Essex than the exiguous surviving remains would suggest. It goes back well into Anglo-Saxon times, as shown by place-names such as *Hatfield* (heath-field). Heaths were used as pasture; heather and furze were cut for fuel. Most heaths were common-land.

Many medieval heaths survived to be mapped by Chapman and André (1777)—a source which is more reliable for common-land than for woods. Together with heaths such as

that of Navestock which had already disappeared, they formed a vast network, interspersed with wood-pasture, which ramified almost continuously across Essex from Wanstead Flats in the extreme south-west to Dedham Heath in the extreme north-east. They formed a considerable part of the Forests; the heaths of Epping Forest, for instance, are documented back to the 17th century (Rackham 1978).

Late enclosure destroyed the Essex heaths with singular thoroughness. Such fragments as were overlooked, eg Shenfield Common, fell into neglect and tumbled down to woodland. Even the heaths of Epping Forest, which are supposed to be protected by law, have largely disappeared. Almost all that remain are a scrap of Tiptree Heath and of Galleywood Common (Great Baddow), bits of the Danbury commons, and partly restored heathland in Hainault Forest.

Coastal marshes

Throughout the Middle Ages the Essex marshes were important as pasture for sheep and later for cattle, and from the 15th century in places as arable (Smith 1970). To protect them from rising sea-level they were gradually surrounded with earthen walls; the origins of this process are unknown, but the state had an increasing hand in it from 1280 onwards. Most of the enwalling, including about four-fifths of Foulness Island, had been completed by 1500; after the Middle Ages there were few large successful schemes other than that for Canvey Island in the 1620s (Cracknell 1959).

Parts of the Essex marshes are still unploughed and preserve a medieval landscape of sea-walls, access roads, ditches, and creeks, complete with the vegetation of old grassland and salt-marsh (Hunter *et al* 1974). Medieval marshland engineering—even immense works like the 'Roman Bank' round the Wash (Taylor & Hall 1977)—has attracted less attention than that of later centuries because of the lack of easily accessible documents. The successive walls that compartment Foulness Island have been mapped by Smith (1970); those elsewhere in Essex might repay study.

The making of the medieval landscape

Recent discoveries go far to discredit the traditional belief that much of Essex was wildwood, little touched by the hand of man, until well into the Middle Ages. Dr Rodwell and Mr Drury demonstrate clearly in this volume the great extent of Romano-British settlement, and presumably agriculture, in Essex, and the new evidence that much of the countryside, including even field boundaries, passed from Roman into Anglo-Saxon administration with little discontinuity.

Domesday Book

Domesday portrays Essex as a county about average for England in density of population and agriculture. In 1066 there were about 4000 ploughs (Darby 1971), which at the rough-and-ready rate of 120 acres to the plough would mean that half of the county was arable. The coastal marshes are referred to as pasture for many thousands of sheep, and there was also considerable inland meadow. Inland pasture is not recorded but may be inferred from the many thousands of livestock enumerated.

Unfortunately the woodland of Essex is recorded mainly in terms of feeding a specified number of swine. Of the recorded settlements, 76% possessed woodland. 635 woods were supposed to fatten a total of 94,000 pigs; only 23 woods were recorded by area. These figures cannot be

made to yield a precise acreage, but, making the best of them, I argue (Rackham 1980a) that roughly 20% of Essex was then woodland. (The figure for Domesday England as a whole, based mainly on more explicit evidence, is 15%.) This leaves 30% for the proportion of Essex which was pasture, meadow, heath, gardens, and coastal marshes in 1086.

Anglo-Saxon evidence

The early charters of Essex are numerous but topographically disappointing. Perambulations of East or West Ham, dated 958 (Birch 1893, no 1037), and of Littlebury, dated 1004 (Blake 1962), tell us little about the Essex countryside, although they mention isolated thorn-trees and the Littlebury charter refers to an 'old hedge' (*ealdan gehæge*). The charters date the salt-marsh economy well back into the Anglo-Saxon period (Hart 1957).

The most characteristic element in Essex place-names is *-feld* (eg *Bardfield*, *Finchingfield*); in early names this appears to mean an open place in sight of woodland with which to contrast it: Names referring to clearings in woodland (*-ley*, *-hurst*, *-ridding*) are widely scattered but are few in comparison to Derbyshire or the Weald (Rackham 1980a). They give the impression that the Anglo-Saxon landscape was not, save in small areas round Thundersley and the Bromleys, formed by Saxons *ab initio* by making clearings in the wildwood; the *-leys* were an extension of a *feld* landscape that had already been cleared by someone else.

Conclusions

Documentary and field evidence, working backward from the 13th century, are now beginning to be linked up with excavation evidence working forward from Roman times. The number of known Roman villas and towns and Romano-British settlements, and the probability that many others are undiscovered, suggest—considering that an establishment such as the Rivenhall villa could hardly have been supported by less than 2000 acres of agriculture—that at least half of late Roman Essex was farmland. Settlements are known from nearly all soil types and were not confined to the better soils. Woods were almost certainly already named and managed; indeed the names *Chatham* and *Chatley* near Little Leighs, derived from Celtic *coit* = wood, commemorate actual woods of that period. The *-feld* names were probably given by the Saxons to the larger areas of Roman farmland. Already we can dimly see an arrangement of tracts of farmland separated by irregular ribbons of woodland and wood-pasture, of which traces can still be discerned in Chapman and André and whose last survivor in one piece is Epping Forest.

The Saxons soon overflowed the Roman farmland and, over many centuries, carved out *-ley* settlements in the wooded ribbons. By 1086 much of the Essex landscape as we know it had already taken shape, the chief differences being that there was considerably more wood-pasture than there was in the 13th century. Some of this wood-pasture may have been destroyed by the formation of further *leys*, as in the vicinity of Epping Forest (Rackham 1978). Some of it probably succumbed to excessive grazing, so that the wooded ribbons became the later heathland ribbons; names like Parslow Wood Common and Nazeing Wood Common appear to commemorate such a process.

The remains of the medieval landscape of Essex are the product of a complex evolution starting long before the Middle Ages. Hedges, for instance, include Roman or even, as Mr Drury proposes in this volume, Iron Age—field boundaries; successive enlargements of Anglo-Saxon

leys or medieval assarts; early enclosures of open-field arable; the perimeters or compartments of former parks; or late enclosures of heathland.

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