

**TREES IN THE
NORFOLK FENS:**

A BRIEF HISTORY

Trees in the Norfolk Fens: a brief history.

Introduction

The Fenlands, a level area of drained wetland which extends across western Norfolk, north western Suffolk, Cambridgeshire and Lincolnshire – is a landscape which is today characterised by extensive arable fields, bordered by drainage dykes, with relatively few farmland trees, away from the immediate vicinity of farms and villages. This paucity of trees is usually taken to be part of the area's 'traditional' landscape character, at least in the period since it was drained, and reclaimed as farmland. So deeply entrenched is this widely-held view that large-scale tree-planting in the area is sometimes considered to be out of place, a violation of its essential character. The purpose of this brief report is to show that this view is, in part, misleading, and that until the twentieth century much of this area had large numbers of farmland trees.

The Landscape Context: the Draining of the Fens.

Before addressing this issue it is important to explain some aspects of the wider landscape history of 'Fenland', and in particular to emphasise that it comprises not one landscape, but two. The northern section, close to the wash, consists of silts and estuarine clays.¹ It was settled in Roman times but subsequently abandoned, due to changes in relative land/sea levels. By Middle Saxon times settlement had returned – in the form of isolated ranches and salt-working sites – and in the late Saxon period a number of small villages emerged here. They were associated with a pattern of small, irregularly-shaped fields, protected from the sea by embankments.² The wealth and population of 'Marshland', as the area came to be known, grew rapidly in the course of the twelfth and thirteenth centuries, as expansion occurred inland onto the lower silt ground. The new fields were protected by further 'walls' or banks and took the form of bundles of long parallel strips, seldom more than twenty metres in width yet in some cases as much as two kilometres long. Subsequent piecemeal amalgamation has reduced the density of dykes, but the old pattern is still recognisable in many places (Figure 2). The strips were orientated with the original, almost imperceptible gradient of the silt surface, running southwards towards the lower peat ground, or else in the direction of some lost natural watercourses which did so. Most if not all were under the plough but they differed in a number of respects from the strips in 'upland' open fields. They were wider, and only limited rights of common grazing, and few communal controls, were usually imposed upon them.³ More importantly, their size meant that farmers generally held only a few strips rather than, as in conventional open fields, large numbers, extensively scattered and intermingled with the property of others. This remarkable field pattern resembled, very closely, those created by eleventh, twelfth and thirteenth-century reclamation on the peat lands of Holland, especially North Holland. How far this was the consequence of parallel development, how far the large landowners – especially monasteries – which directed much of the reclamation work actually brought in Dutch specialists, is unclear. Either way, the spread of fields onto the lower silt grounds was accompanied by an expansion of settlement: archaeological fieldwork has revealed a

¹ Rippon, S. 1999. 'Medieval Reclamation of Marsh and Fen', in Cook, H and Williamson, T (eds) *Water Management in the English Landscape: Field, Marsh and Meadow*. Edinburgh: Edinburgh University Press, 122-140.

² Silvester, R. 1988. *The Fenland Project, No.3: Norfolk Survey, Marshland and the Nar Valley*. *East Anglian Archaeology* 45, 160.

³ Hall, D. 1999. 'The Drainage of Arable Land in Medieval England', in Cook and Williamson (eds) *Water Management in the English Landscape*, 28-40: 40.

massive increase in the number of farms and cottages here during later twelfth and thirteenth centuries. In typical East Anglian fashion, farms clustered along the edges of small commons and greens, and in particular beside the long, wide drove ways which ran through the fields, southwards, to the great peat common of Smeeth Fen.

Medieval Marshland was thus, in essence, an arable landscape. In post-medieval times, in contrast, the relative extent of grazing and arable fluctuated in accordance with market conditions but pasture generally predominated, perhaps reaching its greatest extent during the late seventeenth and early eighteenth-century agricultural depression, when population growth was sluggish and cereal prices relatively low. Thomas Cox in 1700 thought that the farms of the district 'turn to more Profit by Grazing than Ploughing', and tithe books and similar documents suggest that virtually all the silt soils were under grass.⁴ Cattle were fattened here, but also large numbers of sheep, supplying much of the wool for the Norfolk textile industry. The pattern of medieval strips was gradually consolidated, to create the pattern of narrow, strip-like fields, defined by dykes, which characterised the area by the early nineteenth century (but which has been much simplified in the course of the nineteenth and twentieth centuries) (Figure 2).

The area to the south, further from the Wash, comprises the Fens proper – extensive deposits of peat, overlying silts and marine clays. Until post-medieval times this was indeed a wet land, largely devoid of settlement. It comprised a vast damp common which was exploited by the communities living around its margins, or on islands of older rock within it. For some of the year the land was grazed, but large areas were mown for rough marsh hay or litter, while the most waterlogged areas were principally cut for thatching materials, both reeds and sedge.⁵ Many areas were cut for peat, which was used to provide domestic fuel, while the reserves of fish and wildfowl were systematically exploited. This was the district which was the principal target of agricultural 'improvers' in the seventeenth, eighteenth and nineteenth century.

That story need not be told in any detail here. Suffice it to say that, following small-scale attempts at reclamation, a comprehensive plan for draining the whole of the southern Fens proposed in 1629 by a group of wealthy businessmen, led by the Earl of Bedford. They employed the Dutch engineer Cornelius Vermuyden to formulate a comprehensive scheme for draining the 'Great Level'.⁶ The principal idea was to speed up the flow of the main watercourses flowing across the Fens, from the Midlands and East Anglia, by scouring their outfalls, straightening their courses, and embanking them, in order to prevent inundation of the surrounding land during winter spate. The most striking achievement was the construction of the Old and New Bedford Rivers, running ruler-straight for over twenty miles (32 kilometres) from Earith in Huntingdonshire to Denver in Norfolk. The project, begun in 1631, was only finally completed in 1652 and met with considerable local opposition from commoners who feared the destruction of their traditional way of life. But opposition was eventually defeated, the reclaimed lands

⁴ Darby, H. C. 1983. *The Changing Fenland*. Cambridge: Cambridge University Press, 138.

⁵ Darby, H.C. 1966. *The Draining of the Fens*, 2nd edn. Cambridge: Cambridge University Press.
James, N. 2000. 'The Transformation of the Fens'. In: T.Kirby and S.Oosthuizen (eds) *An Atlas of Cambridgeshire and Huntingdonshire History*. Cambridge: Anglia Polytechnic University, 47.

⁶ Darby, H.C. *The Changing Fenland*. Taylor, C. 1973. *The Cambridgeshire Landscape*. London: Hodder and Stoughton, 188-205. Taylor, C. 1999. 'Post-medieval drainage of marsh and fen'. In: H.Cook and T.Williamson (eds) *Water Management in the English Landscape: field, marsh and meadow*. Edinburgh: Edinburgh University Press, 146-9.

divided, and the 'adventurers' (investors) and 'undertakers' (contractors) were rewarded, as agreed, with allotments of land.⁷

The more optimistic improvers had anticipated that the drained land would be ploughed, and produce good crops of grain; and within the various private allotments there was initially some change in land use. Walter Blith in 1652 described the practice of 'denshiring', that is, ploughing off the turf with a light plough, burning it in heaps and spreading the ashes across the land surface, in order to neutralise the natural acidity of the peat.⁸ The land was then usually cropped for a few years before being returned to grass, under a form of convertible husbandry. But most of the enclosed land was too wet to be successfully cultivated and it remained under permanent grass, although the quality of the sward was improved by the installation of drainage dykes, connected to the new arterial drainage channels.

The great endeavours of the seventeenth century are sometimes described as the 'draining of the fens', but the achievement of Vermyden and his contemporaries is often exaggerated. Only a relatively small proportion of the peat fens were actually *enclosed* at this time - those portions allotted to the undertakers and adventurers and to a few leading landowners, or divided into 'severals' by the agreement of the commoners. The majority remained as open common grazing, although now often allocated to specific parishes rather than being shared between many and, as a result of the improvements to the arterial drainage system, less liable to serious inundation than before. Moreover, many areas lay entirely unreclaimed and, as Dugdale emphasised in 1662, 'there are many great meres and lakes still continuing'.⁹ Most importantly, towards the end of the seventeenth century the condition of the reclaimed lands deteriorated. The drainers and 'adventurers' had not fully anticipated the extent to which, once water was removed from the absorbent peat, it shrank steadily. Moreover, where the land was ploughed and burnt the peat blew away, and the surface was degraded by microbial action. The land surface began to fall below that of the principal rivers.¹⁰ Windpumps were soon being erected on some scale, to lift water from field drains, over embankments, and into the principal water courses. Unfortunately, as the peat surface continued to fall these proved insufficient to the task, even though several might be linked in sequence. In part this was because drainage schemes were generally uncoordinated, so that water was removed from one portion of fen often inundated others.

Some improvements in the condition of the reclaimed lands were made in the course of the eighteenth century but the real reclamation of the Fens only occurred in the nineteenth century, and was the consequence of a number of interrelated factors.¹¹ The fen commons, like most of those remaining elsewhere in England, were largely eradicated in a great wave of parliamentary enclosure, peaking during the Napoleonic War years, and by the 1830s the district lay almost entirely in severalty. Equally significant were major changes made to the arterial drainage channels, including the construction of the Eau Brink Cut in 1821, the Ouse cut between Ely and Littleport in 1827, the North Level Main Drain between 1831 and 1834 and the new outfall to the

⁷ Taylor, 'Post-medieval drainage', 147.

⁸ Darby, *Changing Fenland*, 92.

⁹ Dugdale, W. 1662. *History of Imbanking and Draining*. London, 267.

¹⁰ Darby, *Changing Fenland*, 106-119.

¹¹ Williamson, T. 2002 *The Transformation of Rural England: farming and the landscape 1700-1870*. Exeter: Exeter University Press, .

Nene in the late 1820s.¹² But above all, drainage was radically improved through the employment of steam pumps in place of wooden drainage mills.

The use of steam drainage had been mooted by the engineer John Rennie as early as 1803 but scepticism about the new technology, as well as the high cost of coal, ensured that the first engine was only erected in 1817, at Sutton St Edmund in Lincolnshire. Others soon followed: at Ten Mile Bank, three miles south of Denver Sluice, in 1819; at Borough Fen in the North Level in 1820; and at Upware in 1821.¹³ The new machines were a great improvement on windmills, lifting more water through a greater vertical distance. They were also more reliable, for they continued to operate whatever the wind conditions. The overall condition of drainage improved still further in the course of the nineteenth century by refinements in drainage technology: the adoption of light 'grasshopper' steam engines, and (from the 1850s) of the centrifugal or turbine pump developed by Appold. The last meres were drained: the Fens were finally reclaimed.

These improvements in drainage were associated with changes in land use. By 1804, even before the adoption of steam pumping, Arthur Young noted that the area under arable was expanding throughout the Fens. And as steam drainage became established, the arable acreage grew dramatically. The 'soak' of acid water could now be permanently kept down to a level which would not injure the growing crops. A shift to arable was also helped in many areas by the fact that the continued wastage of the upper levels of the peat - resulting both from desiccation, and from the wind erosion consequent on paring, burning and ploughing - was on such a scale that the underlying clay could now be excavated with relative ease, and mixed with the surface peat. Better drainage allowed this to be carried out without the creation of permanently flooded trenches. James Caird discussed the procedure in some detail in 1852. It involved

Digging trenches into the clay, and throwing it over the surface. A trench two feet deep and two feet wide is made along the field, and the clay which is taken out of it is laid four yards over the surface on either side of the trench. The same process is repeated throughout the field, a new trench being opened eight yards apart from the last.¹⁴

The clay acted not merely to neutralise acidity. It also helped to stabilise the peat, reducing the speed with which it degraded and blew away. The land was very intensively cropped, often with numerous courses of wheat interspersed with crops of oats, beans, cole seed, and roots.¹⁵ By 1836, according to the documents called the tithe files, around 55% of both peat and silt Fens was already in tilth and witnesses to a parliamentary commission in the following year were unanimous in their belief that the area of ploughland had greatly expanded throughout the fens over the previous decades, and that wheat rather than oats was now the main crop.¹⁶ Indeed, George Calthrop - a corn merchant from Spalding - believed that the price of wheat in England was being adversely effected by the 'immense tracts of land brought into

¹² Hills, R.L. 1967. *Machines, Mills and Uncountable Costly Necessities*. Norwich: Goose and Son, 60-72.

¹³ Hills, *Machines*, 75-8.

¹⁴ Caird, J. 1852. *English Agriculture 1851-2*. London, 181.

¹⁵ Clarke, 'Great Level'.

¹⁶ Williamson, *Transformation*, 112.

cultivation in the fens of Lincolnshire, Cambridgeshire and Norfolk'.¹⁷ By the 1870s, with further improvements in drainage, around 75% of both peat and silt soils were under the plough, and potatoes as well as wheat were produced in ever larger quantities.

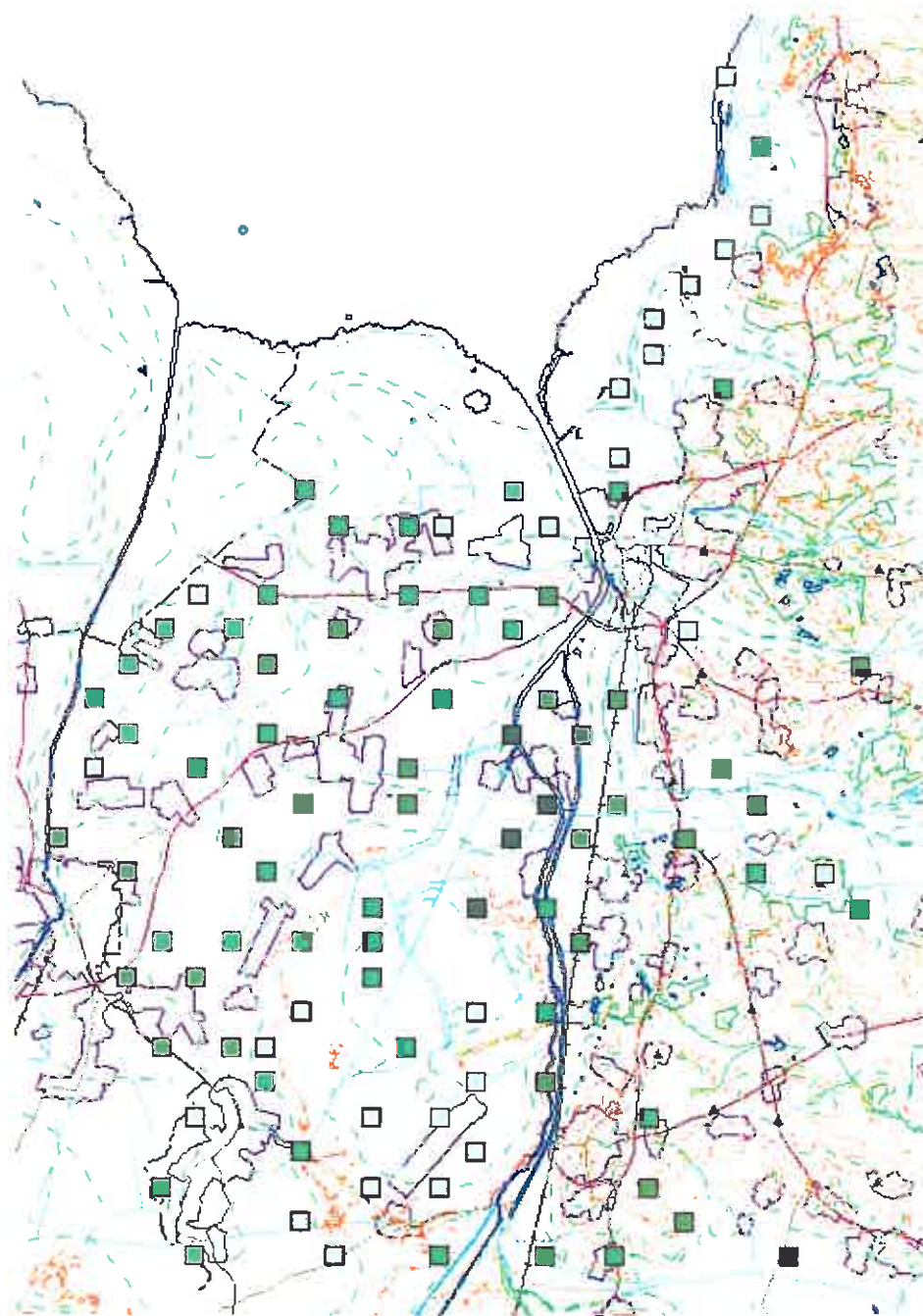


Figure 1: number of recorded trees per square kilometre (randomly selected) in the Norfolk Fenland, 1880s.

- -251+
- -101- 250
- -11-100
- - 0-10

¹⁷ British Parliamentary Papers 1836. Vol. VIII, 1, 236.

Trees in the Fens: the late nineteenth century

The First Edition 6" (1:10,560) Ordnance Survey maps, surveyed in the 1880s show, in theory, the location of all hedgerow trees of any size. In reality, these maps did not record *every* farmland tree - partly because the scale of the maps precluded the depiction of more than one specimen per fifteen metres or so of hedge line, partly because the instructions given to the surveyors meant that trees with girths of less than c.0.6 metres were omitted anyway. But the maps do provide a good indication of the numbers of trees in the farmed landscape: and what they reveal about the Fenlands in the late nineteenth century is remarkable.

As Figure 1 shows clearly, trees were at this time a common feature of the fens, with many of the randomly-selected kilometre grid square containing in excess of 250. They were not, however, equally common everywhere: they were strongly concentrated on the anciently-drained silt soils of Marshland, and largely absent from the more recently drained peat soils. Where the two landscapes abutted on each other directly, the contrast was usually strong (Figure 2): trees were abundant where the field pattern was sinuous and strip-like, sparse or absent where it was more rectilinear.



Figure 2: the junction of anciently-drained fen (left), with characteristic sinuous dyke pattern; and more recently enclosed, and more rectilinear, fen (right).

Although most trees recorded on the OS 1:10560 were growing on the sides of drainage dykes, occasional parcels of well-timbered pasture are also shown, as for example at Wiggshall St Mary Magdalen - ensuring that this particular grid square has the highest recorded density of trees in the Norfolk fens - a total of 441 trees. By 1946, only around fifty trees of any size remained within this same area: today there are fewer than twenty, mostly relatively recent planting.



Figure 3: ancient dyke pattern, and abundant trees, shown at Wigenhall St Mary Magdalen on the OS 6" First Edition.

The changes in the number of trees in this particular place since the late nineteenth century is clear from Figures 4 - 6, which shows the central area in the 1880s, 1946 and today.

In the silt fens as a whole, the drainage dykes defining the fields are still today occasionally accompanied by hedges, and these may have been more common in the past. A small number of boundary trees can also be found – mainly oaks and ashes of no great antiquity. Only a small number of older trees remain. These consist of a scatter of outgrown stools of ash and maple – perhaps the remains of hedges – and, more importantly, substantial white willow pollards with girths of between 5 and 6 metres. It is probable that the majority of the trees shown by the OS were of this species, although some were ash and perhaps oak, to judge from isolated examples of old pollards with girths reaching 4.7 and 4.25 metres respectively.



Figure 4: Area in Wigenhall St Mary Magdalen in 1888.



Figure 5: the same area in 1946



Figure 6: - and today.

In short, the OS First Edition maps indicate that the peat fens, relatively recently enclosed, were fairly poorly treed in the later nineteenth century, often with less than ten trees recorded per square kilometre; but on the silt fens, reclaimed and farmed since medieval times, the density of farmland trees was in many places well in excess of 250 per square kilometre. Trees have been lost from this area at a catastrophic rate since the late nineteenth century.

Earlier evidence.

Although a number of eighteenth and seventeenth-century maps of the Fen survive, few show any free-standing trees. The exceptions suggest that this was because cartographers or their patrons took them for granted, and were not interested in them: the maps were concerned with drainage rights and property. An undated eighteenth-century map covering the parishes of Clenchwarton, South Lynn, West Lynn, Wigenhall St Mary, St Germans and St Peters thus shows only a single line of trees, but this is almost certainly because at this point the associated dyke had been filled in and the ancient division between what had originally been two plots was by this stage only marked in this way (Figure 7). Other trees, in the area, growing beside dykes and larger watercourses, were of no interest to the surveyor and thus omitted. On a few other maps trees are shown but only where they formed clumps or bands wide enough

to form a measurable plot of land, as on a map of Tilney All Saints, surveyed in 1790 (Figure 8).



Figure 7: line of trees at Wiggerhal St Germans, shown on An undated eighteenth-century map (NRO NRS 21375).



Figure 8: strips of trees shown on a map of: Tilney All Saints Surveyed in 1790 (NRO B.L.6/13).

Artists and writers generally avoided the Fens in the period before the late nineteenth century. The landscape was generally held to be unappealing and the district unhealthy, because of the prevalence of malaria. However, a mid-nineteenth century artist made a sketch of Sedge Fen Bridge, Hilgay, which (although admittedly on the edge of the Fens) suggests a well-treed landscape (Figure 9).

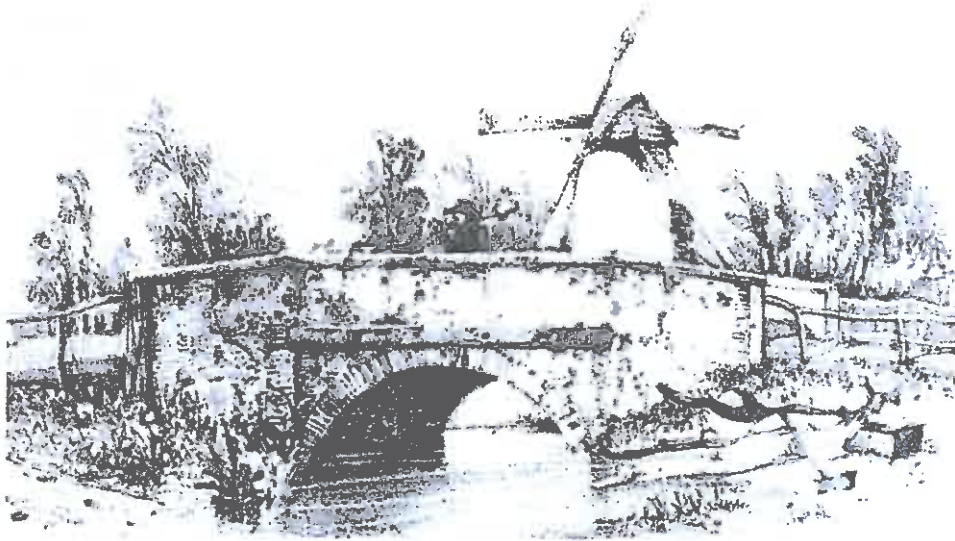


Figure 9: Hilgay, Sedge Bridge.

Williams Gilpin, the 'picturesque' writer, crossed the nearby Cambridgeshire Fens in the late eighteenth century described:

'Rows of pollards with slime hanging from their branches, marked the limits of hedges, which emerged, as the waters drained off.'¹⁸

Although there is thus little evidence regarding the density of farmland trees in the Fens in the period before the late nineteenth century, it is extremely hard to believe that the numerous examples depicted on the First Edition OS 6" had been recently planted. In particular, the fact that a marked contrast existed in this respect between the anciently settled lands of Marshland, and the more recently drained and enclosed peat Fens, strongly suggest that trees were an ancient feature of the former landscape, probably already in some decay by the 1880s.

Explaining Tree Loss.

The drastic reduction in the numbers of Fenland trees between the 1880s and 1946 needs to be seen in a rather wider context, of more general changes in the density of farmland trees in East Anglia during the early years of the twentieth century. In the 1880s the density of farmland trees across the region as a whole displayed much variation, largely a consequence of earlier landscape history. The greatest densities were to be found on the level clay plateau, on the Beccles Association soils of north east Suffolk and central and southern Norfolk: here there were invariably more than 250 farmland trees recorded by the OS per square kilometre, mostly but not

¹⁸ Gilpin, W., 1809. *Observations on Several Parts of the Counties of Cambridge, Norfolk, Suffolk and Essex*. London, 27.

exclusively in hedgerows; often over 300; and in some place more than 400. This was in spite of the fact that these soils also carried significant amounts of ancient woodland (reducing the area occupied by farmland, and thus the average hedge length). This was an area of small, anciently-enclosed fields, in which pasture farming rather than arable had always, at least in the period up to the early nineteenth century, played a major part in the economy. Away from the heaviest clays, the density of farmland trees was generally lower. Where the clay plateau was more dissected, especially in west Suffolk; and on the more fertile loams, as in north east Norfolk; there were normally between 200 and 250 trees per square kilometre. These were again for the most part districts of early enclosure, with many small proprietors, but here arable farming had always been of more significance than cattle rearing or dairying, and thus the tolerance of hedge timber over the centuries had presumably been less.

The lowest densities of farmland trees were to be found on the lighter soils, generally enclosed from open fields and heaths in the later eighteenth and early nineteenth centuries. This was partly because there were fewer trees in the hedges, but partly because, as the fields produced by late enclosures were generally larger than those in areas anciently enclosed, there were fewer hedges anyway. The lowest densities per square kilometre were on the very poorest of these soils, the former heaths to the north of Norwich, and in Breckland. The figures from these areas are to some extent misleading because of the extent of plantations and shelter belts. But they also were low on the better, more calcareous soils of the Breck edge, and northern and north-west Norfolk, where there were generally between 100 and 200 trees per acre. The density of farmland trees in the silt fens, in other words, was well up to that found on the light lands lying immediately to the west.

In spite of difficulties of interpretation and comparison, the 1946 aerial photographs confirm the impression of numerous contemporary commentators like Lilius Rider Haggard: the density of farmland trees, principally growing in hedgerows, declined considerably during the late nineteenth and early twentieth centuries, although again with marked variations from district to district. On the claylands, the decrease varied in sample kilometre squares from 5% to as much as 50%, averaging around 30%. On the light lands the average was about the same, but there was more variation from place to place, with some areas experiencing virtually no change in the number of trees, others seeing a decline of more than 70%: as far as the evidence goes, the loss appears to have been less where large estates remained intact. On the more fertile loams, especially in the north east and east of Norfolk, the density fell from anything between 25% and 70%, averaging 50%. The decline in the number of trees in the Fens, in other words, was not a unique phenomenon, but an extreme version of a much wider pattern.

The general decline in the density of hedgerow timber in this period is superficially surprising for, as Rackham has put it:

The period 1750-1870 was, on the whole, an age of agricultural prosperity in which hedgerow timber almost certainly decreased. The period 1870-1951 was, on the whole, an age of agricultural adversity, in which there was less

money to spend on either maintaining or destroying hedges. Neglect gave innumerable saplings an opportunity to grow into trees.¹⁹

But in reality many forces worked in the opposite direction. When large landowners fell into financial difficulties, which they often did as rental incomes fell in this period of depression in farming, timber was often felled to boost their fortunes. Lilius Rider Haggard described in the 1930s how 'the wholesale cutting of timber all over the country is a sad sight, but often the owner's last desperate bid to enable him to cling to the family acres...', noting elsewhere:

The other day, going past a well-known and well-loved place, I was hit like a blow in the face by a scene of complete desolation – every tree gone.²⁰

Moreover, when declining estates were eventually sold and broken up, the former tenants who generally bought the lots also often cut down much timber, to help recoup the purchase price. In addition to all this, timber was the landowner's property, not the tenant's, and in these changed times, when there were often problems in finding tenants for farms, landlords were more sensitive than they had formerly been to complaints concerning the shade which mature trees cast over the adjacent fields. Lilius Rider Haggard typically described:

A consultation about the always difficult question of tree cutting on the farm. This particularly affects the arable fields, where the farming tenant has cause for some complaint. Decided somewhat sadly that some dozen small oaks must come out before the sap rises, or next autumn when the crops are off.²¹

The Fens were not, however, an area characterised by large estates so these kinds of explanation are perhaps not as relevant here as in other parts of Norfolk and Suffolk. Of more importance were environmental changes. As already noted, the trees depicted on the 1880s Ordnance Survey maps (and occasionally still surviving in the modern landscape) were mostly willows. The majority had probably been planted in the period before the early nineteenth century, at a time when most of the area was under grass and used for grazing livestock. As already noted, improvements in drainage technology after 1800, especially the adoption of large steam pumps, allowed the water-table to be lowered, and most of the land was then cultivated as arable: by the 1880s probably three quarters or more was in tilth. Many of the trees growing beside drainage dykes may have been removed when the adjacent land was ploughed up; any which died subsequently will certainly not have been replaced by local landowners, for – especially given the small size of many of the fields in the nineteenth century – they would have got in the way of agricultural operations, as well as casting shade which would have been injurious to crop growth. But more importantly, loss of willows may have been accelerated by the lowering of the water table, leaving many with their root systems well above the level of the waterlogged soil.

In this context, it is important to emphasise that the water-filled ditches or 'dykes' which criss-cross areas of marshland in England are not only intended to drain the land. They also act as barriers to the movement of livestock – they represent 'watery

¹⁹ Rackham, O. 1986. *The History of the Countryside*. London: Dent, 223.

²⁰ Rider Haggard, L. and Williamson, H. 1943. *A Norfolk Notebook*. London: Faber, 97.

²¹ Haggard, L. 1946. *Norfolk Life*. London: Faber, 73.

fences' – as well as providing them with drinking water. When drained marshes are under pasture the 'freeboard' – the height of the water in the marsh dykes – is thus kept artificially high during the summer months, and at all times is almost at the same level as the adjacent land. As a result, the margins of the dykes are generally very damp, and the water table on the adjacent land comparatively high. When marshes are ploughed, in contrast, water levels are kept rather lower. Indeed, on the peat fens particular efforts are made to keep the 'soak' (the local water table) well below rooting level, because the acidity of the standing water adversely affects the growth of crops – something which was much easier to achieve after the widespread adoption of steam pumps. In consequence, Fenland ditches following conversion to arable marshes would have had different profiles to those in grazing marshes – more 'v' shaped, and with steeper sides – and the water level within them would have been much lower.

Both here, however - and in north east Norfolk, where catastrophic levels of tree loss also occurred in the period between c.1880 and 1946 – the fact that most of the land was in the hands of small proprietors, and cultivated intensively on small farms and smallholdings, may have accentuated rates of loss, and would certainly have worked to prevent the establishment of new trees. Small farmers were notorious in this period for their antagonism to trees: in Bell's words, smallholders were 'the only real enemies of trees'.²² Small producers on narrow margins could not afford the luxury of farmland trees, especially at a time when any economic benefits which these may once have provided, as a source of fuel, fencing etc, were rapidly disappearing.

Conclusion

Although the southern section of the Norfolk Fens has probably always been sparsely treed, at least since drainage and enclosure, the northern silt Fens of Marshland seem to have been very different, with densities of farmland trees comparable to those found in the 'upland' areas of the county. The popular assumption that the present, largely treeless appearance of this district is part of its traditional 'landscape character' is, to say the least, questionable. On aesthetic, environmental and historic grounds, serious attempts should be made to restore some of this lost tree cover, by planting white willows and, to a lesser extent, other trees beside dykes and roadsides.

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²² Bell, A. 1931. *Corduroy*. London: Bodley Head, 39.