Reports on the study areas

Cambridgeshire – Prickwillow

Landscape and agriculture

The fen landscape in this area (Fig. 3) is one of flat peatland, its pattern dictated by drainage (Fig. 4). Series of parallel dykes once divided the landscape into an interlocking layout of rather narrow strips. When crops were in full growth this geometry was not always visually obvious, although rows of pollarded willows that were traditionally grown along the dykes gave a clue to their locations. Water from the dyke system is pumped into the rivers which, as the peat has wasted and the level of the fen has dropped, have become the highest features in the landscape, made more prominent by the flood control banks that run parallel on each side to contain the flows. The rivers are often straight but sometimes meander through the rigid geometry of the dyked fenland. The roads are also on embankments and they tend to have long, straight, quite bumpy stretches interrupted by sharp bends. Most houses sited on the fen itself are huddled on the silt deposits along the river courses – both natural and man-made – where their foundations are more stable and thus less susceptible to subsidence caused by peat wastage. The older small houses built along the drove roads in the fen usually show structural damage due to subsidence.

Figure 3: Black corrugated buildings characteristically dot the fenland landscape and vertical features (poplars and pylons) are prominent.

2005

Surrounding the fen and forming a few islands within it are the 'upland' areas. Water draining off these areas is intercepted by catchwater drains and directed to the river by gravity flow rather than allowing it to flow down into the fen, where it would add to the cost of pumping up into the rivers. These drains were once tree-lined, often on the upland side with huge elms and on the fenland side with characteristic pollarded willows. The upland areas were generally well treed with mostly elm and oak and contrasted strikingly with the relative treeless fen. Here too were located larger villages and towns, and many farmers lived on the uplands and commuted to the fen to work for the day.

The situation in 1972

The peat soils are ideal for high-value labour-intensive crops such as celery and carrots, and farmers used to be able to make a living from as little as 8 or 12 hectares. Although there were some large farms in 1972, smallholdings were still common and average farm size was

Figure 4: 2005 Map of the Cambridgeshire study area and surrounds. The geometric pattern of the dykes can rarely be appreciated from ground level.

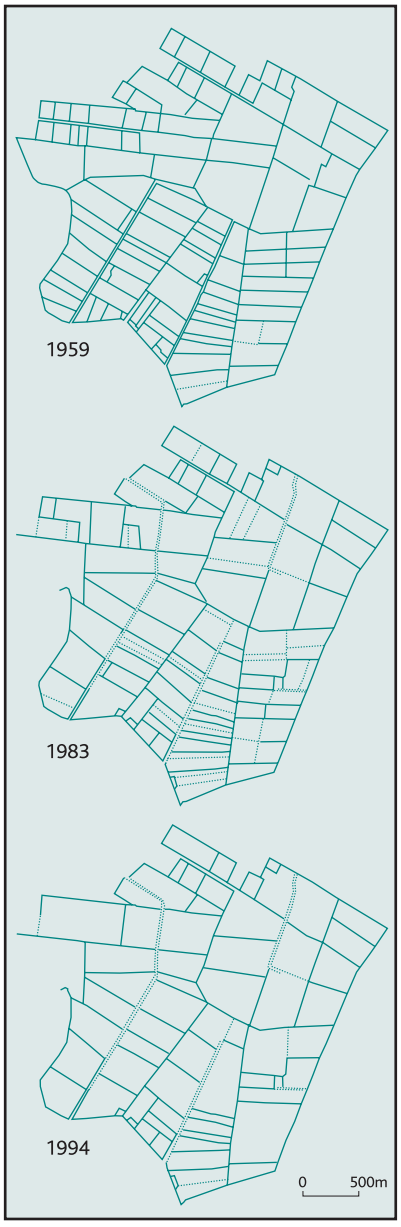
about 40 hectares. An array of small machinery along the drove roads and small wooden and corrugated sheds painted with black pitch were scattered over the fen together with piles of crates, irrigation equipment and other paraphernalia. Some of the smallholdings were owned by the council, which in the 1970s built new bungalows for the tenants. The contrast between the larger land holdings and the smallholdings provided clear evidence of the effects of field amalgamations on the landscape, with the loss of dykes and drove roads and the construction of large buildings. On the small farms drainage was provide by the dyke system, separating long narrow fields, but clay-tile underdrainage was installed on most large farms. Wheat, potatoes and sugar beet accounted for over 80 per cent of the crops grown.

The landscape was flat and open with very long-distance views – over 50 per cent of one's view was to a distance greater than one mile. The only significant vertical obstruction to distant views was provided by bare ground (mainly riverside and roadside banks) which accounted for 20 per cent of the final horizon; and by buildings, which accounted for 17 per cent of the horizon. Although it is widely understood that there were never any trees on the fens, this is erroneous. The 1887 OS map marked individual trees, and this allowed the calculation that by 1972 there had been an 80 per cent reduction in tree numbers since that map was produced, mostly of pollarded dykeside willows.

Some of these would have been lost as a result of the loss of dykes. A total of 38 per cent of the dykes present in 1945 had been filled by 1972, increasing average field size by 65 per cent, an increase second only to the Huntingdonshire study area. There were few woods and spinneys, and no poplar shelterbelts within the study area, though a few further afield. Droves had also been lost to a considerable degree. These unsurfaced tracks had been needed for multiple access to land in different tenures, and as land was amalgamated into single holdings were no longer necessary. All the rivers were embanked with the fen drainage water collected by systems of dykes and pumped up into the rivers, which stand well above the level of the surrounding land. The banks and flood plains within them were generally treeless and grassy, sometimes grazed and sometimes not grazed, depending on local demand for the grass.

Farm buildings on the small farms were generally small wooden-framed sheds clad with tarred corrugated sheeting. The larger farms had large modern buildings, usually clad with the ubiquitous pale asbestos cement corrugated sheeting.

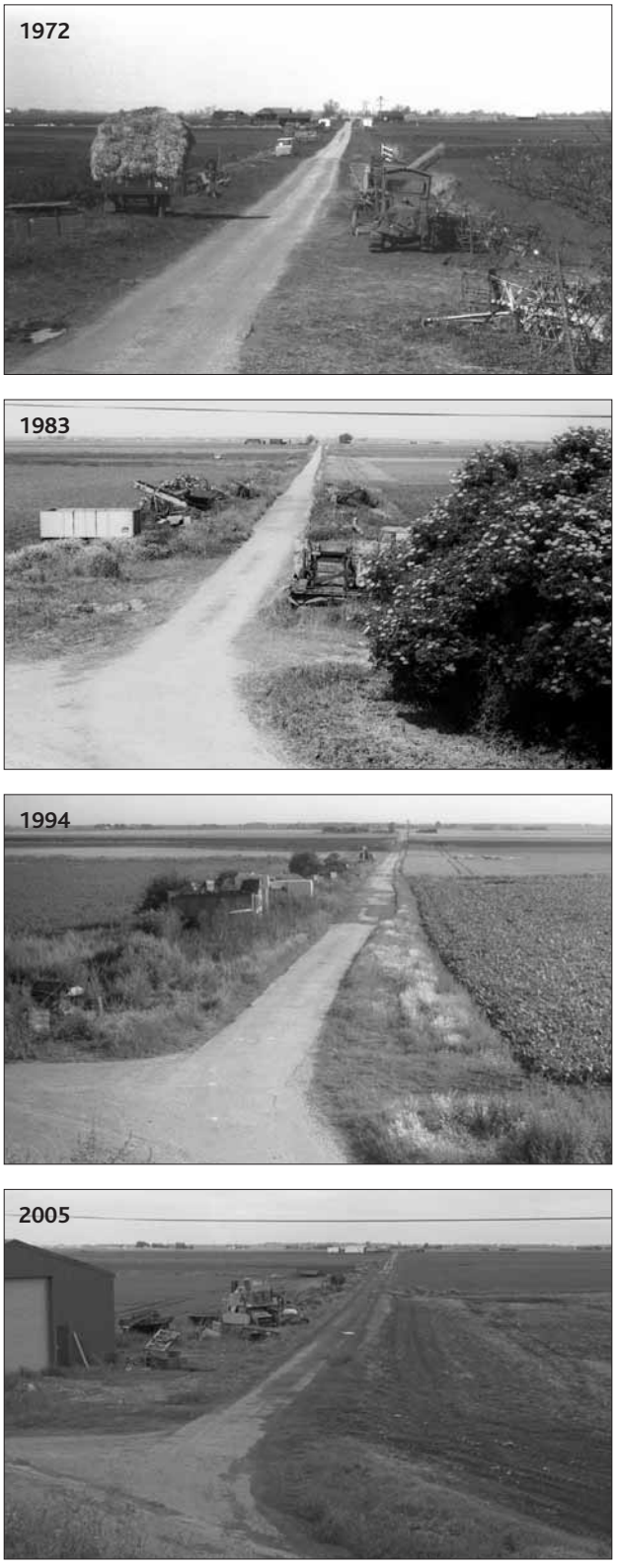
Figure 5: The loss of dykes and some drove roads has resulted in much larger fields.



Our predictions

In 1972 we predicted that as a result of field and farm amalgamations there would be further losses of dykes and small traditional buildings, together with the disappearance of single trees still growing on the fen and groups of trees around farmsteads – these last through old age,

Figure 6: This sequence shows that by 1994 the dyke adjacent to the drove road had been filled and the broad verge with the characteristic clutter of machinery amalgamated into the adjacent field. A new machinery shed has been constructed at the left in the past decade.



disease and removal to allow larger new buildings to be constructed at the farmstead.

Change 1972–1994

By 1994 nearly 55 per cent of the 1945 dykes had been lost as a result of further farm and field amalgamations, about the same percentage loss as of hedges in Huntingdonshire and far more than any of the other study areas (Fig. 5). There had been a serious loss of droves by incorporation into the adjacent fields (Fig. 6). Field sizes had increased by 20 per cent compared with 1972, and average farm size had nearly doubled. Individual trees – mainly around farmsteads and dwellings – had reduced in numbers very slightly, but lines and avenues of poplars had been planted on one farm within the study area and on another in the locality and now formed the final horizon over significant parts of the study area. Pollarded willows on dykes had almost disappeared. A quarter-acre copse had been planted, failed, removed and about an acre of copse planted. A duck pond had been dug and poplars planted round it.

Seven farms had new storage buildings erected, and old-fashioned dwellings were demolished and replacements built on three of the farms. A derelict house was demolished without replacement on another farm. Several buildings had been re-clad. Some of these changes had incorporated tree-planting and coloured cladding.

Change 1994–2005

The major changes noticed since 1994 have been the increase in size of the lines of poplars along dykes and droves and of the young trees planted around farmsteads (Fig. 7); the increase in the production of intensive horticultural crops (lettuce, French beans) now seen on a wide scale but only on a very small scale in this area in 1994; increased horse-keeping, and some sheep being kept at grass; reduced grazing of river banks by cattle; the loss of older tarred buildings; diversification of farm building uses (Fig. 8); the introduction of new farm buildings (Fig. 6); and the construction of an earth-banked reservoir on the fen (Fig. 9).

Figure 7: By 1994 this fen farmstead was partially screened by a hedge, but by 2005 was totally obscured by a new copse planted in the foreground.

Figure 8: There are no new buildings in this sequence but only a few of the existing ones appear to be still in agricultural use. In 1972, a stack of potato chitting trays was being thatched until they were needed the following year.

Commentary

Most of the changes over the last 33 years of the study have been driven by the gradual increase in farm size, both directly and indirectly. The larger farms have increased in size because small farms have been unable to make a living, and dyke and drove loss has inevitably followed from the consequent amalgamation of land holdings. In addition, the large farmers are the ones that have been able to justify constructing the large buildings necessary for their increased scales of operation, and who have introduced the specialist intensive vegetable crops seen in the area. They are also the ones who have been able to consider and undertake the planting of the poplars visible over such distances in the area.

In 1972 it was suggested that drove-side poplar plantings would greatly improve the visual appearance of the fen landscape, mostly by reducing the visual 'clutter' of small horticultural holdings, power lines and other utility poles, and by giving the fenland some spatial definition and comprehensibility. The example was cited of one of the very few fairly mature poplar plantings that had been carried out in the wider area (see top image of Fig. 14) with young poplars planted by another large farmer in the locality (Fig. 10). The enormous change effected by 11 and 22 years' further growth can be seen in Fig. 11.

Figure 9: By 2005, earth-banked reservoirs were appearing in the fen. In such a flat landscape even these low structures can be quite prominent.

Figure 10: In 1972 poplars had been planted along dykes by only one fenland farmer near our study area.

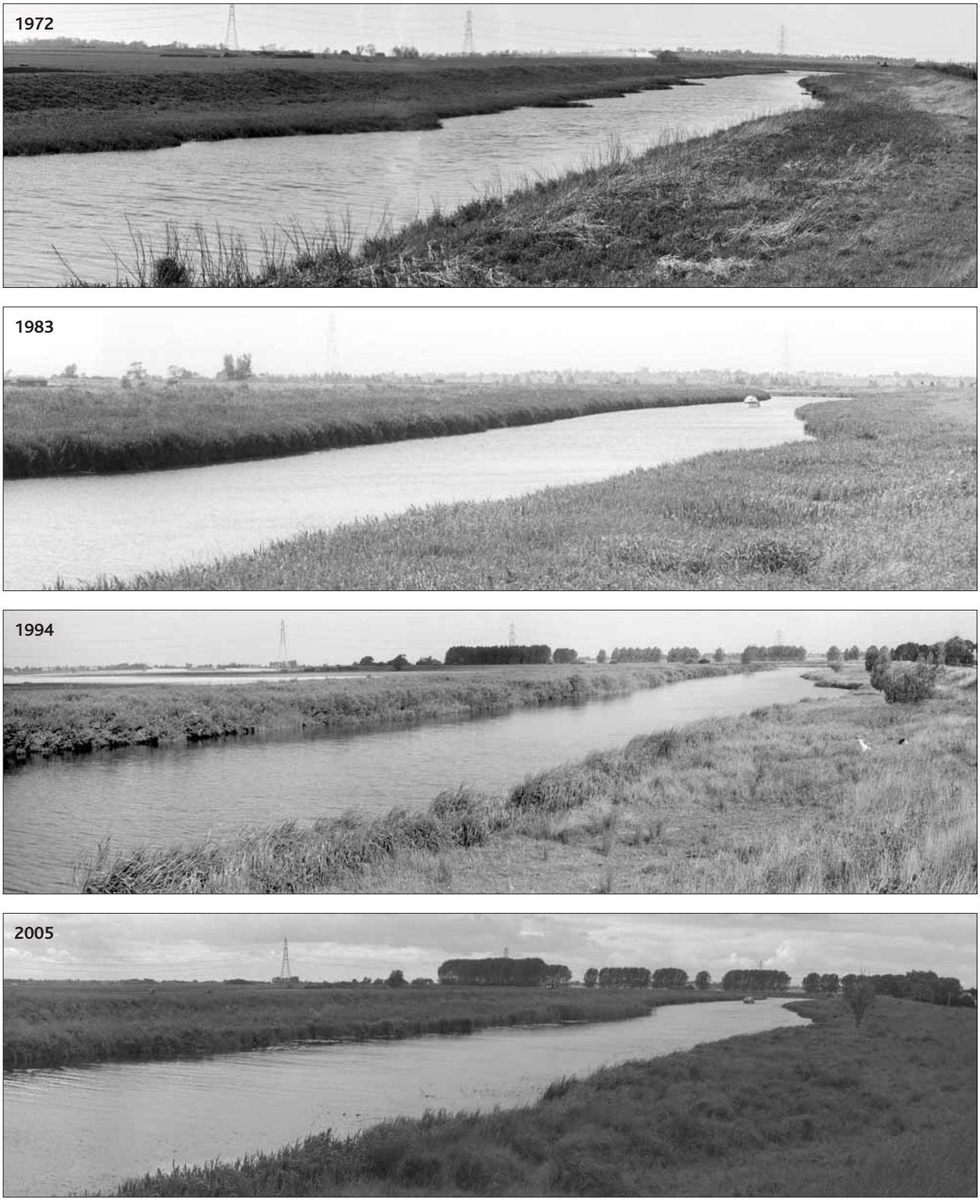
The extent of new plantings was not anticipated, but it is clear that although many more than foreseen have been planted, they are confined to a very few individual large farming businesses and therefore do not give the fen a distinct and recognisable visual pattern that is a feature of most traditional farming landscapes. At one time poplars had a prospect of being marketed for match production, and Bryant & May had several plantations in the fens for use in the manufacture of safety matches, but that outlet is no longer available. Furthermore, rather than reducing the problem of wind erosion on the very susceptible peat soils, they may accentuate it by causing wind speed to accelerate beneath the crowns and round the ends of the rows. One farmer who bought a farm that had poplars planted by the previous owner has not removed them, but has planted mountain ash beside them, a species totally unknown in the wild in this landscape. Discussing poplar plantings with farmers, it is clear that their drawbacks – harbouring pests and weeds, interfering with drains, requiring special management – are still well-recognised and provide a disincentive for planting replacements.

Figure 11: This sequence shows the increasing prominence of a double row of poplars in the fen.

The loss of dykes represents a serious loss of habitat but, visually, has not been dramatic. Historically dykes were lined with pollarded willows but the majority of these had already been lost from the fen by 1972. However, the combined loss of the willows and dykes has resulted in the disappearance of much of the visible drainage pattern which shaped the fen landscape and has not been replaced by a comparable feature. The 1994 report regretted the loss of dykes along drove roads as it resulted in the drastic narrowing of the former broad grass drove verges. This trend has continued (Fig. 6). The assortment of machinery, once parked all along these verges, is much less noticeable. Machinery is much larger, fewer in numbers and more valuable, and tends to be protected in large sheds or – other than on the larger farms – provided by contractors.

The riverbanks are still prominent topographical features and they continue to form the horizon from many viewpoints in the fen. Even when rows of poplars block the views of riverbanks early in their growth, the banks soon emerge again below the poplar canopy. Stock-proof wire fences along the outside edges are more common than they used to

Figure 12: This 33-year sequence shows that the river banks have been grazed but not consistently. The most striking visual change has been the poplars on the skyline.

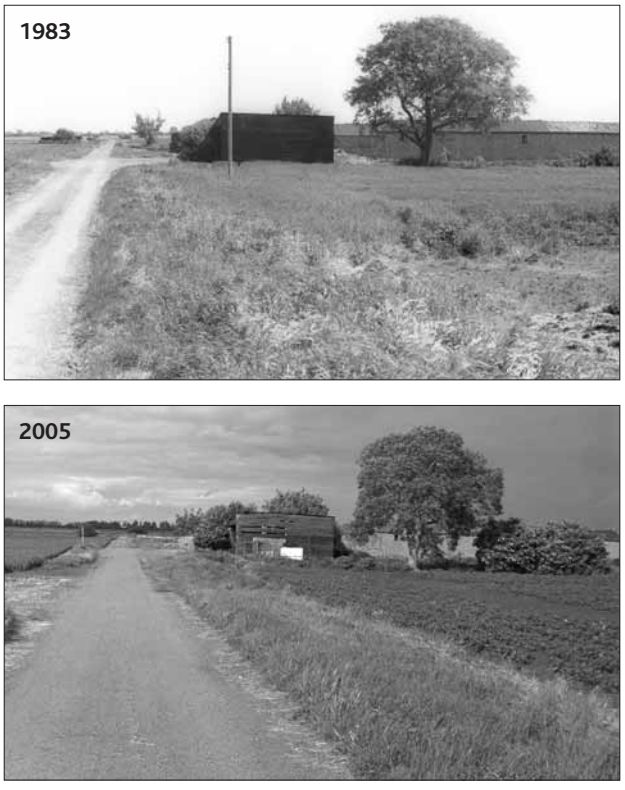


be and some of the riverbanks seem to have been grazed regularly throughout the period, while some others which were unfenced initially have subsequently been fenced – at considerable cost – and grazed (Fig. 12). Some of these latter are now ungrazed again, undoubtedly representing a poor return on the capital cost of the fencing. Whether grazing is, on balance, a benefit for wildlife generally is not clear. The riverbanks have recently been joined by a similar topographical feature, that of an embankment around an irrigation reservoir (Fig. 9). Although irrigation water can be abstracted from the rivers, in a year of severe drought the Environment Agency may withdraw the right to abstract water, which could mean the ruin of large areas of drought-sensitive crops. The reservoir therefore serves as an insurance to provide security of water use under the driest circumstances.

The increase in modern dwellings on the fen has been perhaps one of the most surprising changes, though generally very local in impact. The small, often dilapidated, dwellings along some drove roads were once likely to be demolished as their structural soundness was threatened by subsidence caused by peat wasting, and few people wanted to live on a fen drove (Fig. 13). However, rural residential planning permission has become valuable, so that these small drove-side houses are being sold and re-built, sometimes as rather large, often ostentatious new homes. Unfortunately they are sometimes then surrounded by a dense planting of exotic foliage, the effect of which is a major discordant feature in the understated simplicity of the fen landscape. There have also been planning permissions for new farmsteads, sometimes with similar results. The inappropriate architecture of the typical bungalow and farmstead built in the 70s and 80s is now screened by planting, but sometimes the planting features species such as *Cupressocyparis leylandii*, and is as foreign to the fen landscape as the dwellings themselves.

The catchwater drains have often largely or completely lost their trees to elm disease followed by the inevitable tidying-up and, as a result, no longer define the edge of the fen so precisely and satisfactorily for the viewer; and although the uplands are still quite discernable, they have lost their distinctive edge. Village infill at Prickwillow and in villages on the uplands has also occurred quite extensively but is generally quite acceptable.

Figure 13: Buildings founded on peat are susceptible to subsidence as the peat wastes. Many drove-side buildings are in poor condition. The same tree is seen in 1994 and 2005, but the traditional black building is falling into disrepair.



The present and future

If trends continue as they are, we can anticipate a continued loss of dykes and small farm buildings and a few more large sheds for crop storage and packing and the storage of machinery and equipment. More reservoirs seem likely to be built to provide security of irrigation capability as more intensively irrigated crops are grown by the expanding successful farm businesses. Since reservoirs require planning permission it will be open to the planning authorities to require appropriate landscaping schemes to be included as part of the development, which could lead to more groups of trees around – or to screen at a distance – the new earthworks.

It now seems unlikely that further existing old houses along droves or elsewhere in the fen will necessarily disappear. As small farmers are bought out, farm houses will be sold for non-farm, residential use and unless the county planning department place some controls on the architecture and landscape design, the results will further change the traditional character of the fen landscape. Some of the new (or refurbished old) houses are likely to be associated with the creation of 'farmlets' devoted to horse-keeping or other easily-managed livestock enterprises, either as *bona fide* businesses, largely leisure interests or as a way of obtaining some significant extent of private land around the dwelling.

The future of poplar planting is impossible to predict until a study of farmers' attitudes to them has been undertaken, as planned for the second stage of the NAL05 work which is due to report in 2007. It was interesting to find that the large poplars that were featured in NAL72 had been felled and, on one side of the drove, their stumps killed (Fig. 14), but they were being replanted despite the identifiable drawbacks, and despite the loss of the market for manufacturing safety matches. Casual conversation with other farmers suggested that this would not be a universal outcome. The impact of the new Single Payment Scheme is impossible to predict in an area of specialised intensive farming as exists here.

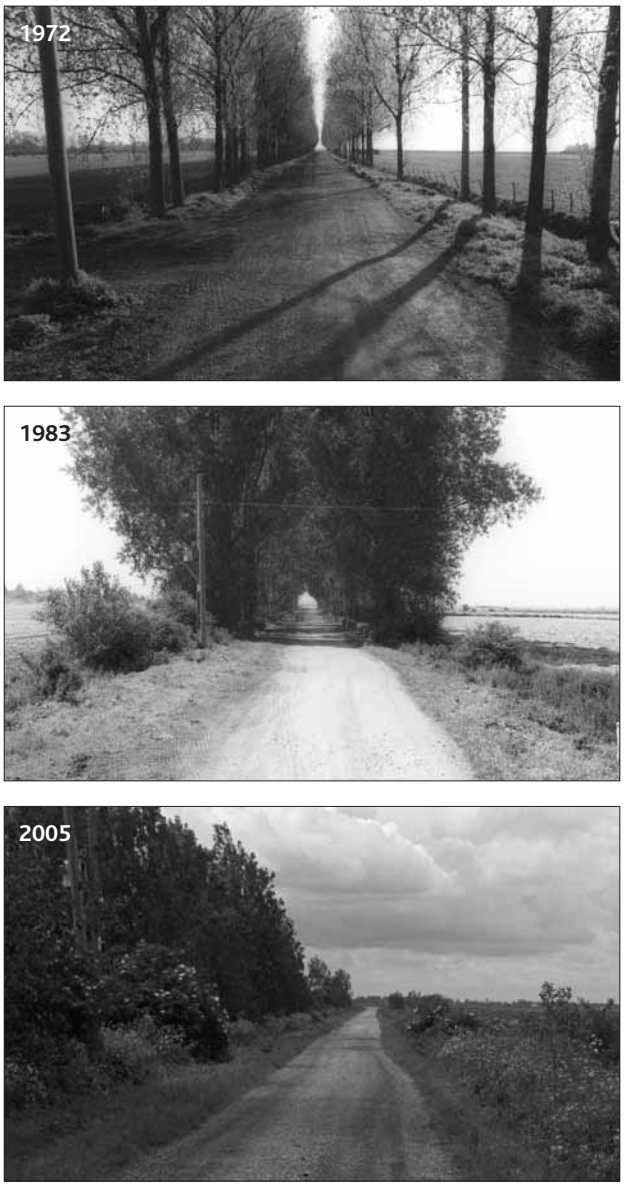


Figure 14: The lifespan of poplars is short and their future uncertain. This sequence shows young poplars in 1972, semi-mature in 1983, felled by 2005 and replanted despite the loss of a local market for poplar and drawbacks for farming.

Huntingdonshire – Leighton Bromswold

Landscape and agriculture

This study area, centred on the parish of Leighton Bromswold, was chosen as typical of the '*rolling topography and heavy soils of large tracts of the East Midlands and East Anglia where there has been a major intensification of arable farming in recent years*' (NAL72 p. 15) (Figs. 15 and 16). In this part of England, many of the villages are tightly clustered on the ridges of the rolling landscape and some of the roads also tend to run along the ridges. (By way of contrast, the villages in the rolling Dorset downland landscape are exclusively in the valley bottoms). As in Dorset, some of the farmsteads were located in, and on the edge of, the village, and most farm workers also lived in these settlements. Hence there are not many farm cottages and only a few large farmsteads in the wider landscape.

The situation in 1972

The average field size in the study area in 1945 was about 7.5 hectares and had increased to over 18 hectares by 1972, an increase of 144 per cent, almost double the average field size in the Cambridgeshire study area at that time and more than double the size in any other study area. This change had been effected by the removal of 38 per cent of the 1945 stock of hedges (Fig. 17). Over 90 per cent of the land was in arable cropping, with cereals amounting for two-thirds of that. Peas and beans were grown as break crops, as were potatoes and sugar beet – surprising on this heavy land inherently unsuited to root crops. Most of the land was tile-drained with outfalls to ditches. Although the average holding size in the study area was 128 hectares, many of the farmers held more than one holding and on average cropped in excess of 400 hectares. Most of the farmers in the study area were tenants of institutions such as university colleges.

The loss of hedges and their associated trees had produced a landscape where the rolling topography had become much more visible, and the ridge-top villages and the churches around which they clustered far more prominent. The landscape had changed from one of

Figure 15: Until WW2 this landscape was dominated by small fields and huge hedgerow elms, but more powerful machinery made specialised cereal production possible and resulted in this broad rolling landscape.

2005

considerable structural and species diversity, intimate spaces, and short views dominated by small fields and hedgerows, to a landscape of simplicity and wide open spaces (Fig. 18). The few hedgerows that remained tended to be on ownership boundaries, which fortunately frequently included the historically and ecologically important parish boundary hedges. Riparian vegetation, where it still existed, became more apparent visually, as did the more densely treed areas around the villages. However, much riparian vegetation had been removed as part of the land drainage improvement schemes which had been carried out to facilitate arable cropping.

Our predictions

In NAL72 we noted that the landscape had already changed so much that there was little left to change in order to improve farming efficiency. We considered that there would be some improvement of

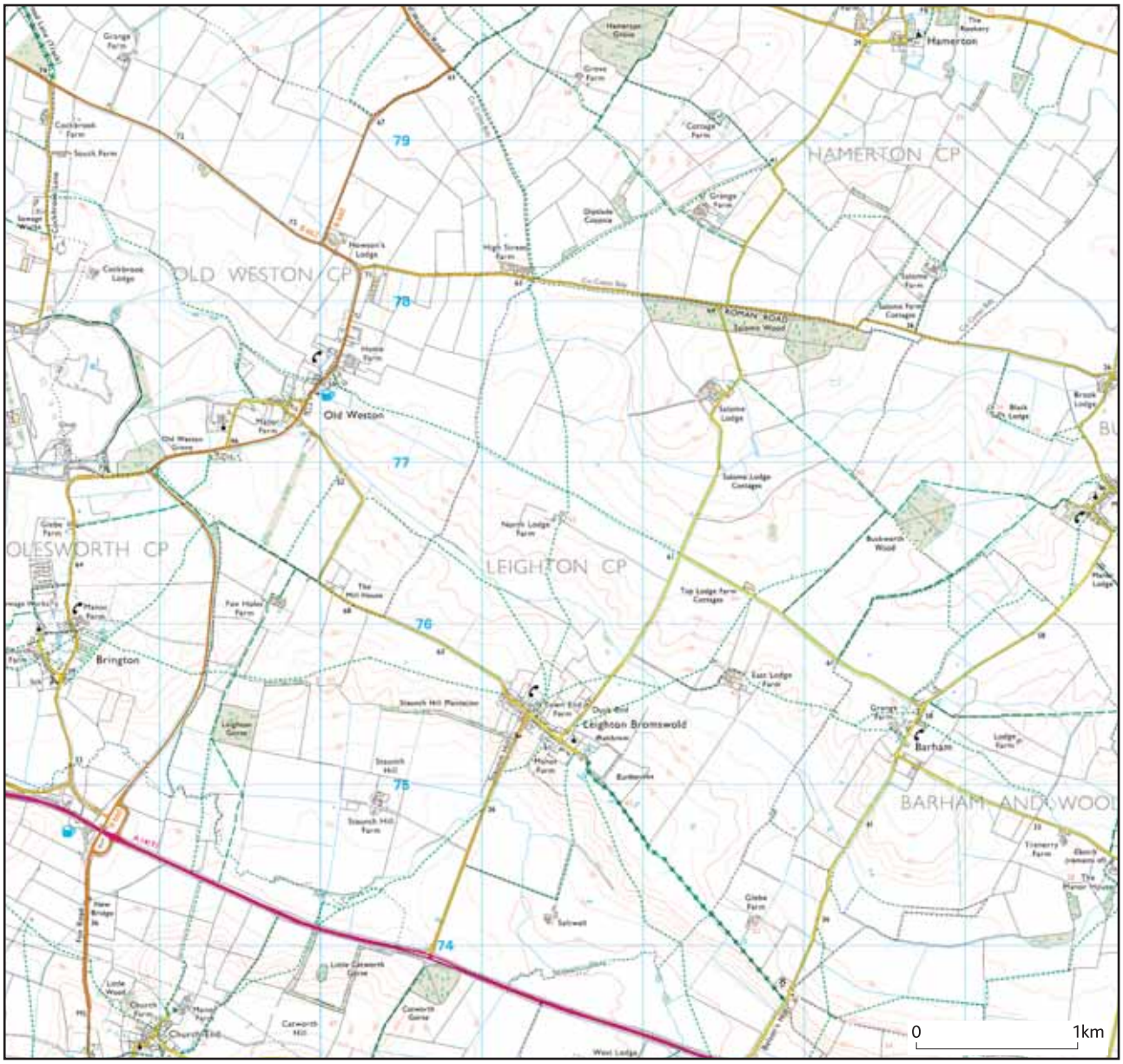


Figure 16: Map of the Huntingdonshire study area and surrounds. The remnants of the small field pattern can be seen in the immediate vicinity of some villages.

Figure 17: Most hedgerow removal took place before 1972 when this study began. By 1983, almost all hedges had gone except some along roadsides and ownership boundaries. The resulting 22-hectare average field size was by far the largest of any study area.

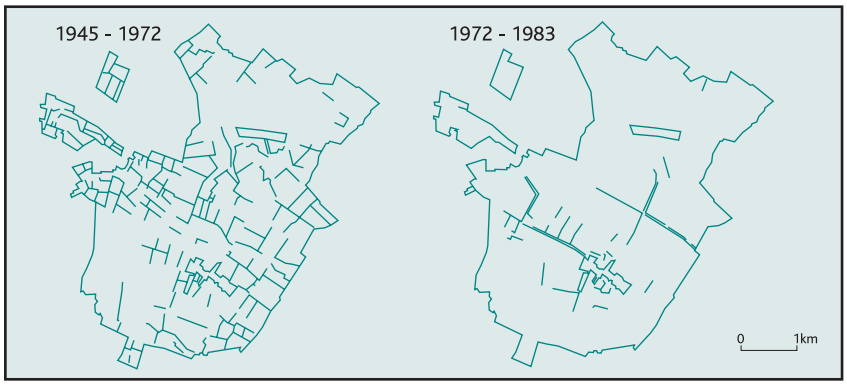


Figure 18: A sequence of photographs from Belton's Hill shows that by 1972 most hedgerows had already been removed. By 2005 the few remaining hedges have grown and some new hedges and hedgerow trees have been planted.

landscape quality by the removal of the skeletons of old trees and that a few new large grain stores and machinery sheds might be erected. In the event, the problem of skeleton trees was subsequently greatly exacerbated by Dutch elm disease in the 1972–83 period.

Change 1972–1994

By 1994 wheat had become the dominant crop in the rotation at the expense of spring barley. Farmers had ceased to grow sugar beet and only a very small area of potatoes remained, their place in the rotation taken by the 'new' break crop, oilseed rape. A slight increase in the area of grassland supported many more sheep. The number of holdings had reduced and average holding size had increased to 178 hectares.

Hedge removal continued throughout the 1970s and to a small degree in the 1980s, partly as a result of elm removal, partly a consequence of over-enthusiastic trimming, and partly due to stubble burning getting out of control. As a consequence of this removal, field sizes increased to 22 hectares, by far the largest of any study area.

The biggest change over the period of the study, on a whole-landscape scale, was the effect of the Dutch elm disease which killed most of the elms in the

Figure 19: Elms in the hedgerows that still remained in the 1970s were killed by the Dutch elm disease which gave the landscape a desolate appearance.

Figure 20: By 1972, few hedgerow trees remained, but by 1983 only one hedgerow elm and a spreading oak in the field survived.

area between 1972–83: over the 11-year period tree numbers were halved. Throughout the 70s and 80s the dead and dying trees gave the area a desolate appearance (Fig. 19) that gradually improved as the dead trees were removed, but also resulted in further hedge removal, from an already-low base. Hedgerow trees that did survive (mostly ash) tended to have been competing with elm and were, in any event, often in very poor condition, and several of those have disappeared over the intervening years (Fig. 20). Unusually, a few elms survive to this day around the village, providing a reminder of so much of the traditional landscape of large parts of the country (Fig. 21).

Farmers who were already growing arable crops became even more specialized by growing only the crops that could be harvested by combine; and, within this category, predominantly wheat. Increased yields of crops led to a need for new storage buildings – always away from the villages (Fig. 22) and more central to the farming operations, and the old small structures became redundant.

Tree planting had occurred throughout the study period, often of spaced trees along roadside verges and former hedge-lines, and initially with an extraordinarily wide range of species and poor establishment rate. More recent plantings had been better in both respects. Willows planted along the major stream helped to re-define its significance. Sporting interest is high in the area – often the case on tenanted farms where the owner can let or use the shooting afforded by the tenants – and between 1972 and 1994 several new plantations were established, particularly concentrated on one farm, clearly to provide cover for pheasants. In total some 20 hectares of woodland were planted over the

Figure 21: A few elms in this area have survived the elm disease but individuals continue to die. These elms are surrounding a small enclosure that was the Leighton Bromswold cricket field.

Figure 22: A large new storage building for cereal production in the open countryside. Many small livestock buildings were traditionally located in and around the villages.

period, increasing the proportion from 1.7 per cent to 2.7 per cent of the study area.

Buildings were erected on several farms, including a tower silo and cubicles for a dairy herd, which quickly became redundant; a large new grain store on a skyline site; two new multi-purpose storage buildings; and new grain silos. An intensive poultry unit nearby was demolished and rebuilt, complete with new dwellings (Fig. 23). A storage building was removed on one farm. An old building on the edge of a village was converted to a dwelling and an old village dwelling had been refurbished. An old bridge balustrade was replaced by a modern mass-produced version as part of a bridge-strengthening programme.

Figure 23: In 1972 there were no intensive livestock units in the area. This sequence shows a new unit in 1983 that had been modified and rebuilt, with new dwellings, by 1994.

Change 1994–2005

Apart from the growth of trees seen in previous years, the only significant changes in the broader landscape noted since 1994 have been the removal of the tower silo on a farm that had previously maintained a dairy herd, a consequence of ceasing to produce milk many years ago, plus additions to a grain building (Fig. 24); and a considerable amount of roadside hedge planting, with spaced standard trees (Fig. 25). In fact, this area was the only one of the seven study areas where a significant amount of new hedge planting was seen. There has also been the construction and renovation of further dwellings in village-edge locations, with the removal of redundant farm buildings (Fig. 26).

Commentary

The major factor that has both made these changes possible and dictated them has been the greatly increased power of farm tractors and size of farm machinery, which allowed economies of scale. In addition, the application of scientific findings to agricultural production systems allowed specialization in the narrow range of crops to which the climate and soils are best suited. These factors led to the evolution of farms growing almost entirely crops which can be harvested with the combine harvester, with all the cultural operations susceptible to lower unit costs of production by the use of larger machinery. The hedgerow elms, previously a very prominent feature of the landscape, historically had been an important part of the farm economy in providing farmers with a source of farm timber that was extremely resistant to rot in wet conditions and was therefore ideal for fence and gate construction,

weatherboards and many other farm uses. After farmers switched to cereal production the elms lost their utilitarian value and were regarded as a liability by farmers, especially when they shaded cereal crops and lost their limbs into them, leading to damage to machinery, and when their shallow roots damaged cultivation equipment. Dutch elm disease subsequently also played its part by killing many of those remaining.

As cereal production has become more intensive and hedges and trees have disappeared from the landscape, tramlines in the cereal crops and an astonishing level of weed control emphasize the extreme simplicity of the landscape and the precision of modern arable agriculture. These characteristics give the landscape a simple beauty which is very striking but which unfortunately represents change to a very top-heavy species distribution and loss of structural diversity in the landscape.

Prior to 1994 all of the planting effort was concentrated on trees, but recently many new hedgerows with hedgerow trees have been planted and some of these are already having a visual impact. Almost all these are roadside plantings, which of course reduce any adverse effects of shading of crops. Several farmers have apparently participated, most likely using a grant programme. If all farmers could be persuaded to participate the result would greatly improve the overall consistency and legibility of the landscape.

A mixture of tree species has been planted including oak, ash, lime and horse chestnut. Oak seems likely to gradually become the best-represented species in the area, which will be entirely acceptable, although it is important to avoid reliance on only one species (especially one with such a low genetic diversity as English elm). However, as a disease-resistant strain of English elm

Figure 24: This sequence shows that between 1972 and 1994 the dairy operation on this farm expanded with new cubicles and a tower silo. But by 2005, the farm is in mainly cereal production, the silo has gone and additional buildings have been added for the grain.

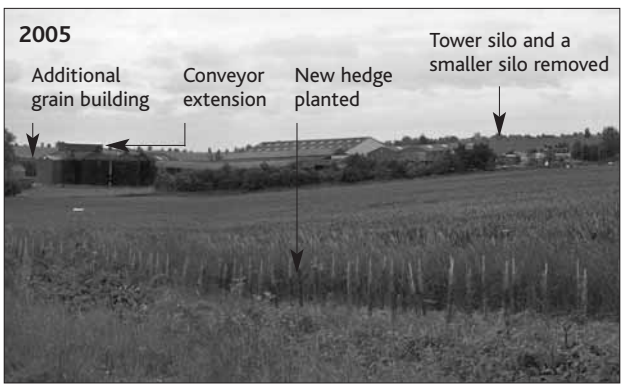


Figure 25: A newly planted roadside hedge with regularly spaced standard trees, mostly oak.

is developed it would be ideal if some could be planted, particularly around villages.

New woodland planting has been particularly concentrated on one farm and was expressly to improve the shooting. Even farmers who did not themselves shoot probably value their shooting rights, and those who were tenants are probably obliged by their landlords to maintain their value. To illustrate the visual impact that sporting interests can have, the landscape on a neighbouring estate had been created by planting triangular fox coverts in almost every field corner, but this unusual characteristic disappeared with the elms (Fig. 27). Any move to ban shooting would be likely to have a considerable negative effect on farmers' attitudes to landscape conservation.

One result of the huge loss of hedgerows that has occurred is that many footpaths that previously followed hedgerows now cut across open fields of arable crops. In some cases a reorganization of footpaths would benefit farmers at least.

Figure 26: This sequence shows new residential development at the edge of Leighton Bromswold and the removal of redundant farm buildings.

The present and future

The farmers of the area have planted spaced trees throughout the whole period of the study, which may have been in response to the amount of criticism levelled at the cereal growers for the radical changes made to the landscape. It was then possible for them and their leaders to argue that there was a positive counterbalance to the perceived wholly negative aspect of modern farm practice, and that farmers were still exercising their custodial role in a responsible way. The outcome has certainly been the creation of a new agricultural landscape that suits the farmers' modern needs. Had the earlier efforts been better planned and managed, many more trees would by now be gaining prominence in the landscape.

As with all areas, it is uncertain how the new Single Payment Scheme will influence landscape development. However, the growers of cereals in the large fields of East Anglia should presumably continue to make profits from their farming efforts, and thus continue to find it worthwhile actually growing crops. Therefore, any additional income that they can achieve by making use of the provisions of the conservation-linked payments under the new scheme should be an incentive for action, provided that the additional costs and restrictions imposed on the farming operations are less than the value of the payments.

The present landscape structure is suited to the current farming operations, and the likelihood is that any additional planting of either hedges or trees will be based on this structure rather than introducing new elements which reduce the benefits of scale. Therefore it is unlikely that new hedges or trees will be planted to sub-divide the existing large fields. Instead, they are likely to be concentrated along existing field boundaries – roadsides, streams, farm access tracks, ownership boundaries and the like. Where shooting is an important consideration, new woodland is likely to be planted in small blocks which 'square off' fields and provide good drives.

Huge increases in the value of residential planning permissions will probably result in any remaining suitable disused farm building within the villages being converted to domestic use.

The small paddocks close to the villages that were not joined to large adjacent fields are often used for grazing ponies. It may be that infill residential development is permitted in the paddocks, which could in turn lead to a demand for specialized equestrian facilities in the open countryside on a previously-agricultural farm. The increasing popularity of riding among newcomers to the countryside may also result in an increase in the demand for, and use of, bridle trails.

Figure 27 : In 1972 triangular fox coverts of elms in field corners made this landscape quite distinctive. By 2005 however these features had disappeared and it is hardly recognisable as the same landscape.

Dorset – Piddlehinton

Landscape and agriculture

This study area was chosen to represent chalk downland which, '*despite its traditionally open and treeless character, is a landscape type valued by many*' (NAL72, p.19)(Fig. 28). This has for many centuries been a large-scale, exposed and exhilarating landscape with few individual trees on the open downs, contrasting strongly with the well-treed and sheltered valley bottoms . Geomorphologically, the area has a very low surface-water drainage density and the large, bold, rolling landforms are divided by deeply incised valleys, sometimes with very steep slopes on one or both sides (Fig. 29). The villages are tightly clustered along the streams, connected by roads which run along the bottom of the valley and only occasionally strike out 'over the top'. Some of these were wide drove roads, a few of which still survive. Today, there are a few large farmsteads on the open downland but traditionally farmers and farm workers all lived in the villages.

The situation in 1972

When sheep and dairy farming were the basis of the local farm economy, much of the land would have been in botanically rich permanent grass with the landscape showing a clear distinction between the small hedged fields in the valley bottoms, and the corrugated pattern of sheep and cattle tracks on the steep valley sides (Fig. 30). The downland fields on the tops would have been a mixture of downland grazing and arable, with the sheep shepherded across the downland pastures during the day and folded on the arable areas by night, thus manuring them for the next arable crop. In 1940 only 20 per cent of the land in the study area was in cereals with 70 per cent of it in grass, half of that being permanent pasture and 22 per cent being rough grazing. There were nearly four times as many sheep as cattle.

By 1972 the study area had already experienced a considerable swing away from the traditional sheep economy of downland areas,

Figure 28: Although this downland landscape is now dominated by cereal production it has traditionally been large scale and rolling, with most trees confined to the deeply incised valleys.

2005

with dairy farming extending away from its historic location in the valley bottoms and up onto the downs, mixed with extensive cereal production in the broad fields of the downs. The proportion of cereals had increased to about 50 per cent and of grass had fallen to 45 per cent, with the proportion of permanent pasture halved and virtually no rough grazing. Cattle numbers had doubled and sheep numbers fallen dramatically. Agricultural research had proved the value of phosphate fertilizers placed with the cereal seed on these chalk soils: and Arthur Hosier in Wiltshire had proved that dairy cattle could be kept successfully on the chalk downs. Farmers adopted these findings with alacrity.

Average field size was already over 7 hectares in 1945 (the second-highest after Huntingdonshire) and increased to only 8.5 hectares by 1972, the consequence of the lowest loss of hedge per acre of all the study areas. The average holding size was 113 hectares, but excluding the small units of less than 8 hectares – and thus better representing the farming of most of the area – was about 162 hectares. About 50 per cent of the land was tenanted.

Both in 1972 and today the distinction is between the mixture of arable and improved grassland on the tops, grazed improved grassland in the valleys and unimproved – or only partially improved – land on the steep slopes. The land on the steep slopes is sometimes free of scrub, sometimes scrubby, and sometimes wooded. (The term 'improved' is used in the agricultural sense.)

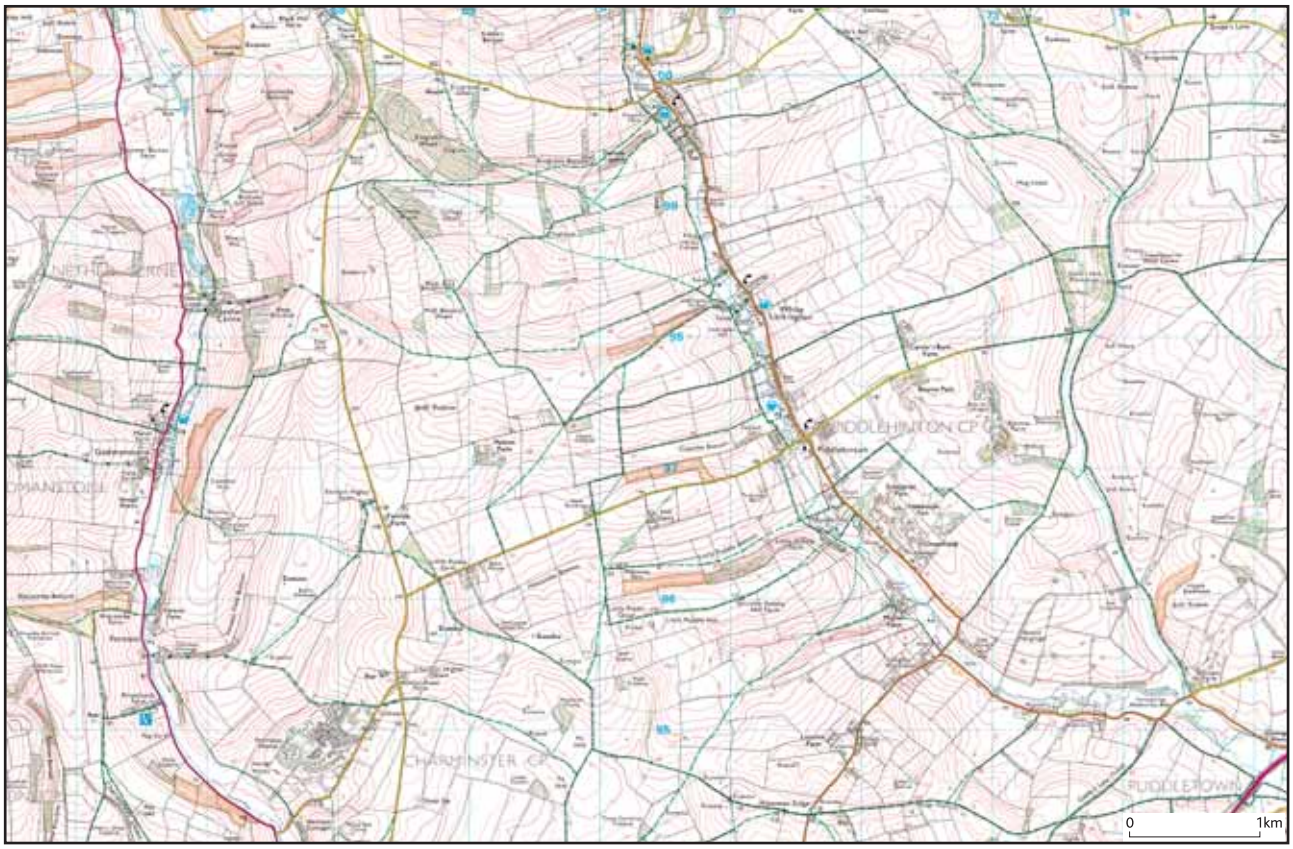


Figure 29: Map of the Dorset study area and surrounds. Villages are clustered in the valley bottoms.

Figure 30: Corrugation caused by grazing animals on the steep valley sides was once a distinctive feature of steep grassland in the area but is now less commonly seen.

Our predictions

In 1972 we predicted that there would probably be little change in the trends already underway but that physical changes would not be extensive and would be unlikely to have a negative impact on the landscape. This view was carried forward into NAL83 and NAL94. The only two significant concerns were that poorly-sited buildings might intrude adversely, and that scrub invasion of the remnants of steep chalk grassland might occur, to the detriment of its ecological value.

Change 1972–1994

Allowing for some very limited planting as a result of boundary adjustment, a further 10 per cent of the1945 stock of hedges had been removed, increasing average field size from 8.5 to 11.3 hectares, about the same as in the Cambridgeshire study area and half that of Huntingdonshire. This amount of removal was equal to that removed in Warwickshire, and only Herefordshire had a lower total removal per acre. Hedge quality generally was thought to have deteriorated slightly.

The dead elms, killed by Dutch elm disease by 1984, all in the valley bottoms, had entirely disappeared, other than the regrowth of occasional saplings which grow successfully for a few years then succumb. Trees above the 400' contour had decreased by about one third due to the death of mature trees, which had not been replaced. However, overall tree numbers in the valley had increased considerably, with many willow and poplar near the stream.

Figure 31: The woodland shown here was predominantly coniferous in 1972 but by 1994 was in mixed hardwoods.

Moreover, over 13 hectares of woodland had been planted, an increase of about 20 per cent in the stock, mainly related to improving conditions for shooting. Over 4 hectares of existing woodland had been replanted also: this area was originally coniferous and was replanted with mainly broadleaves (Fig. 31).

There had been some limited conversion to arable cropping of small scrub areas, originally possibly dell holes or disturbed land, chalk or flint pits (Fig. 32). Some steep grassland had converted to shrubs and trees, seemingly by natural regeneration, and some had been cultivated and reseeded to grass. There had been several major farm building projects, including a completely new pig unit and a new dairy unit, and a gravel track had been concreted.

Change 1994–2005

The major change seen between the last two surveys is the growth of the new plantations noted in both 1983 and 1994. These are now making significant features in the broad landscape (Fig. 33), and similar plantations are seen locally but outside the study area. One hedge on another farm in the area is no longer to be seen and has presumably been removed. Some hedges are more prominent in the landscape than previously, some less so, suggesting variable intensity of trimming over the years. One intensive pig unit seems to be no longer in production, and the pile of flints seen at the farm suggests that these are being harvested for building construction as a diversified enterprise. The present and future uses of the pig buildings are not clear.

Figure 33: The visual prominence of new plantations, mostly cover for game birds, is apparent in this sequence.

Figure 32: This sequence shows an area of scrub in the middle distance that has been brought into cereal production although part of the cleared area, probably an old pit, is not being cropped.

One large and steeply sloping field, originally permanent grass in 1972 but arable by 1983 and in 1994, has now been laid down to what appeared to be permanent grass, presumably because it was no longer profitable to grow cereal crops on such a steeply sloping chalk bank (Fig. 34). There has been a similar cessation of cultivation on another farm, though limited to a small area of steep land between two clumps of trees; and on a third farm where valley-bottom arable land has been converted to pasture, possibly to incorporate an area of steep banks into a single management unit (Fig. 35).

There has been new housing development in one of the villages. Village trees are more numerous and larger, with greater screening effect (Fig. 36). No new agricultural buildings were identified, and an isolated storage barn on the downland has been burned down and removed, leaving no trace of its former presence.

Figure 34: This sequence shows a steeply sloping field in the foreground which was in permanent grass in 1972, in cereal production in 1983, but back in permanent grass by 2005.

Commentary

The effect of the swing towards arable cereal production was fully apparent by 1972. Unlike the Huntingdonshire study area, where the switch to arable production involved the removal of a dense network of hedgerows, relatively few hedges have

Figure 35: A change from cereal production to grazing between 1972 and 2005 has necessitated a new roadside fence but generally this landscape is remarkably unchanged over 33 years.

been grubbed in this area. Already the downland fields were of reasonable size and the hedgerows presented relatively little loss of efficiency for high-speed field operations. The average field size in 1945 was over 7 hectares and had increased to 11.3 hectares by 1994, the second-smallest increase in field size (55 per cent) found in our seven study areas (the smallest being Herefordshire): this average includes the many small valley-bottom fields and supports the suggestion that field size was already satisfactory for arable cropping.

A further reason for the lack of removal is evident by comparing the relative climates of Dorset and Huntingdonshire. In the latter the growth of grass is reliably poor in summer due to the dry climate, and the land is too heavy for successful outwintering, so farmers adopted wholly-arable systems. In Dorset, on the other hand, summer grass growth is sustained by the greater rainfall and the land is sufficiently free-draining to allow outwintering, at least for part of the winter, so farmers have tended to keep grazing livestock in their rotations. Hedge removal is not so clear an advantage in this situation, as many would then have to be replaced by wire fences of high quality for efficient control of grazing, so keeping the hedge has been a reasonably logical approach. However, removal had not totally ceased between 1994 and 2005.

Structurally, therefore, the landscape has changed very little since 1945. It remains a landscape of extreme simplicity and beauty. However, the predominance of wheat and barley crops, with their geometric pattern of parallel tramlines, results in a landscape which also now displays the precision of modern agriculture (Fig. 37). When the fields are cultivated the soil patterns are themselves fascinating, with intricate variations created by the combination of the variable geology and the depth and nature of the topsoil, itself reflecting the surface land

Figure 36: The greater number and growth of trees within villages is apparent in this sequence despite the loss of some elms during the 1970s.

form, with variation from dirty white through assorted browns to nearly black. Our view is that these are much more interesting visually than the uniform brown of many cultivated arable fields throughout the country, but others may disagree.

Hedgerow trees were never a feature of the downland landscape. In fact our 1972 survey showed that the density of hedgerow trees on the downland (that is, excluding the valley bottoms) was less even than in the fens of Cambridgeshire. Nor would the loss of trees in the valleys have represented a significant impact on the landscape had it not been for Dutch elm disease. Elms were quite common in the valley bottom on the deeper soils and the dead trees were depressingly prominent at the time of our 1983 survey. Now, however, these reminders are gone except for the few volunteer saplings that keep trying to re-establish themselves only to die after a few years. There has been a considerable amount of tree planting in the valley including specimen trees such as beech (copper beech in particular appearing to be very popular), some small poplar plantations and some new plantations mostly around new housing developments at the edges of villages. Plenty of exotic species of trees and shrubs have also been planted in the valley bottom, mainly around new homes, many of which are infilling the small paddocks in, and at the edges of, the villages.

With the increase in cereal production on the downland, the farmsteads in the valley were replaced by larger farmsteads on the tops: the cereals that needed storage were produced on the downland, so storing them there in large purpose-built sheds was entirely logical, and kept farm traffic and the noise of grain drying and handling out of the villages. Some of these have no farmhouse and the farmer still resides in the old farmhouse in the valley. Dairy farms can also be 'bad neighbours' when within a village, and in our study area these too have relocated onto the downland. Most of the farmsteads that were once within the village have long ceased to be used for farm purposes and by 1994 many had been converted for residential use.

Some farmers have also built intensive livestock units – for pigs in this case – which again are better sited on the downs than close to villages. One of these has seemingly ceased to operate, possibly a result of the poor profitability of pig-keeping, especially following the various scares over the safety of meat. The keeping of outdoor pigs, though not

Figure 37: The pattern of parallel tramlines in cereal and rape crops adds to the image of precision farming.

seen in the study area this year, has also become a common enterprise throughout the chalkland of Dorset, made attractive by the relatively low rainfall and, in particular, the free-draining nature of the soils, allowing good tractor access throughout winter. Outdoor pigs have the advantage that they move on, but while present they bring a large amount of 'clutter' to the scene, bringing visual disturbance to the landscape. The isolated barn on the top land, used for straw storage, which burned down since our 1994 survey, was presumably a victim of the arson that too-commonly occurs at isolated storage barns.

Sporting interests have always been strong in the area. Fox-hunting was probably chief among these interests when the area had many sheep flocks, but as cereal production became more important the suitability of the area for pheasants increased. The well drained soil together with a good mix of arable and grass crops encourage the survival of wild birds. By 1994 there were several new plantations to provide cover for pheasants, mostly on one large estate and in mainly narrow belts running along existing field boundaries parallel to the contours. These new plantations are now beginning to have a significant visual impact on the landscape. As with the tramlines in the cereal crops, they emphasize the geometry of modern farming, although the criteria which dictate their location and design are determined by the needs of game birds and how to set them up to challenge the guns.

The present and future

Throughout the 33 years of this study the area has changed visually less than any other. The change from sheep to arable production, and the move of dairy farming out of the villages and onto the downland, had already largely taken place by 1972, and its impact has been more profound on the ecology than on the visual structure. The post-war changes have resulted in the loss of most characteristic chalk grassland species from most of the land in the area, these now being confined to the few remaining areas of chalk grassland still managed in a reasonably traditional way, and some drove roads. But from a broader aesthetic point of view, the precision, simplicity and uniformity of modern arable agriculture have given the landscape a very different atmosphere.

Assuming the sport is not banned, a change that is likely to occur in the future is the gradual emergence of more woodland belts designed to improve shooting. The greatest danger may be the planting of cover on the now-scarce steep chalk grassland on the valley sides, where it has great potential to produce the high birds for standing guns in the valley bottom

The effect of the planting of woodland and copses will be to create a much more ordered landscape in which the strong chalk landform will gradually become less important and give way to a geometry of woodland belts on the contours and parallel tramlines in the sweeping swathes of cereal crops. For many people, the emerging landscape

might be as beautiful as the one it has replaced but its ecological impact on wildlife habitat could be far-reaching.

Since 1994 the grassing-down of field margins under the Countryside Stewardship Scheme has become more popular among farmers and the effect of the headlands outlining the hedgerow and woodlands is quite striking. This practice will become widespread, albeit probably with narrower grass strips (2m from the centre of the hedge or ditch, rather than the 6m seen either side of the hedge in the centre right foreground of Fig. 28) as required under the Single Payment Scheme. In one case the close proximity of two clumps of woodland has resulted in the headlands joining and forming a corridor linking the two so that now the clumps are no longer 'islands', a change that should have benefits for wildlife.

It is unlikely that there will be any further significant loss of hedges. Despite the variation from hedge to hedge and year to year these have generally improved in quality in recent years, possibly in part by allowing them to grow larger for game cover. The parish boundary hedges still remain on the whole.

As previously noted, hedgerow trees were never a traditional feature of the downland landscape and were generally confined to the valley bottoms. Here the tree canopy has gradually expanded since the loss of the elms and will probably continue to do so. In 1994 it was noted that changes along the stream banks had led to deterioration in riparian habitat and this may continue as homeowners garden along the streamside. The sheltered paddocks in the valley bottom, once used for lambing and dairying, are today in great demand for both the grazing of horses and ponies and for infilling with new houses. This has occurred at a time when the demand for grazing ponies is apparently increasing. It could in turn lead to a demand for specialized equestrian facilities in the open countryside – on the downland in this case.

The openness of the downland landscape makes it particularly vulnerable to the visual intrusion of radio transmission towers and the like. Although we saw no examples in the study area they were apparent nearby and as we traveled through the countryside. Other than this, and in view of the usual planning controls that already exist, we consider that the *laissez faire* attitude is likely to continue to produce a landscape of high visual quality.

Somerset – Crewkerne

Landscape and agriculture

The study area is located to the south of Crewkerne and includes the valley of the River Axe, a small stream at this point (Figs. 38 and 39). The soils of the district are very variable, often resulting in springs and boggy places on the slopes. This is a small-scale landscape '*with a strong sense of visual enclosure provided by hedges and landforms. The diversity of the soils and topography is also reflected in the landscape; small copses and woods appear at first to be randomly distributed but are in fact located on less productive areas, such as wet patches and steep slopes. The deep narrow lanes obscure much of the view for the casual observer*' (NAL72, p.24). The farmsteads in the area were not located in or at the edges of villages (as they tended to be in Huntingdonshire and Dorset), but scattered throughout the countryside, as were a few farm cottages.

The situation in 1972

Almost 90 per cent of the land was grass, and dairy farming was the major farming type, with heifer rearing, sheep and beef production on the non-dairying farms. Less than 10 per cent of the land grew cereals, concentrated on one farm, and other crops were negligible. Average farm size was 40 hectares and 60 per cent of the land was owner-occupied. This was a typical West Country small dairy farming area.

For the driver, the landscape consisted generally of high roadside hedges on tall banks, creating an open-topped tunnel. From time to time a snatched view could be obtained through a field gate, or straight ahead if the road fell away sharply in front. The view on these occasions was generally of thickly-hedged grass fields with many hedgerow trees and small woods and copses.

Since 1945 there had been major hedge removal on one particular farm, with 4km of hedge removed from 38 hectares, increasing average field size from 3.6 to 17.5 hectares, though most of the new 'fields' were then in fact bounded by wire fences rather than hedges. (A similar radical change was seen on another Somerset dairy farm some miles away from the study area.) However, across the study area as a whole hedge removal had been relatively modest, with 13 per cent loss, increasing average field size from 3.5 to 5.5 hectares, the smallest of all

Figure 38: This is an intricate landscape of small fields, substantial hedgerows and scattered villages.

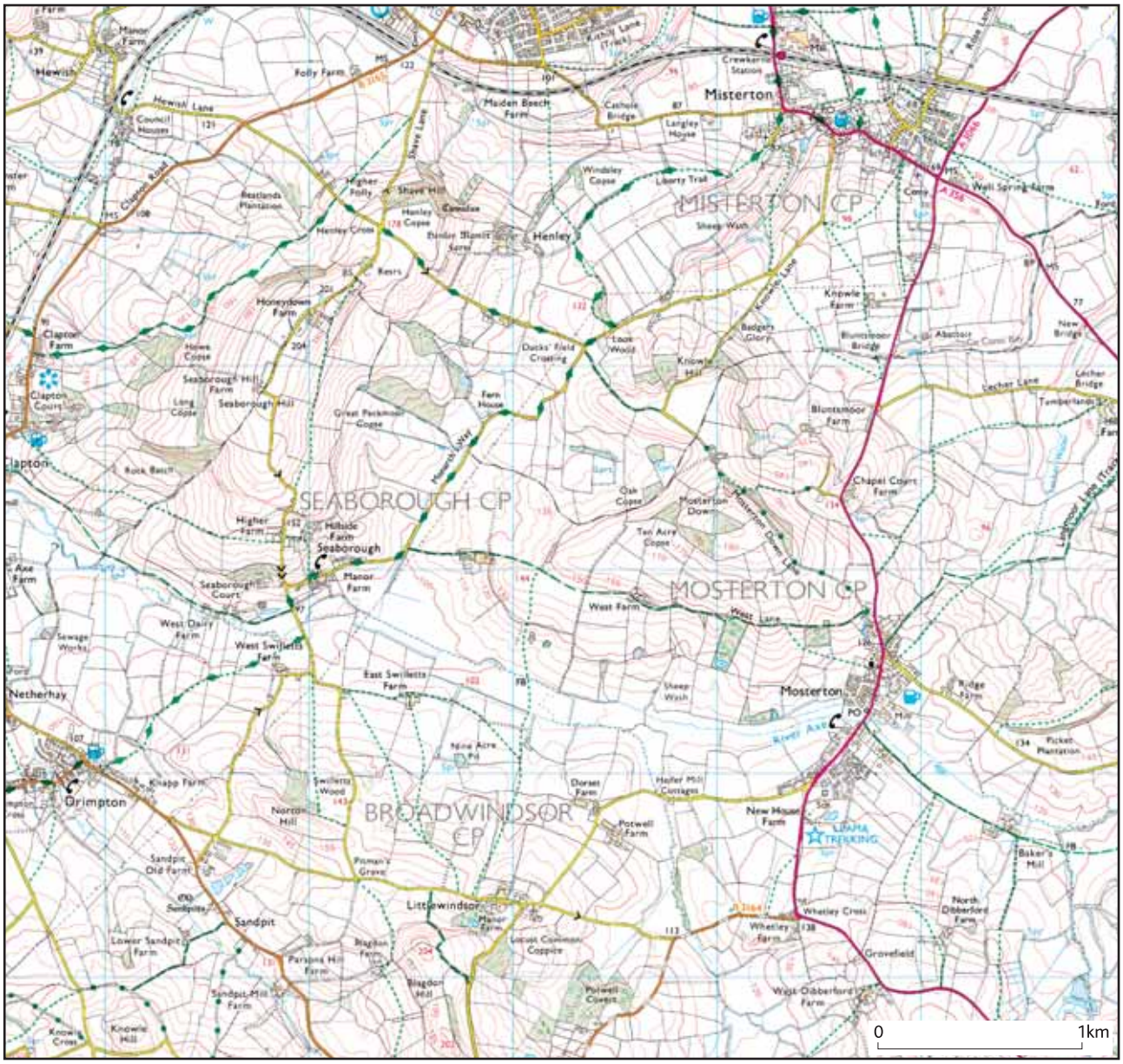
2005

the study areas at this stage. The remaining hedges had the best quality of all the study areas.

Surprisingly, the area had lost 70 per cent of its hedgerow trees between 1945 and 1972, a greater proportional loss than any area except Huntingdonshire. The density of hedgerow trees was greater along the roadside hedges than along other hedges. Only eight of the 15 copses present in 1945 remained, the land having been taken back into farming use.

The relatively high density of farms, coupled with the need for cattle housing, fodder and bedding storage, produced many farmsteads with significant groups of buildings. However, the high hedges and tree numbers, plus the large amount of dead ground, tended to screen these from view. The damp climate also assisted with rapid weathering of surfaces.

Figure 39: Map of the Somerset study area and surrounds. Complex topography, highly variable soils, intricate field pattern, scattered woods and narrow lanes characterise this landscape.



The landscape implications of the changes which had taken place were probably largely masked by the complexity of the landform, the paucity of wide views and the size of the remaining hedges and trees. But the farm which had undergone major change stood out as inconsistent with the rest of the thickly-hedged landscape. This prominence was heightened by the extra visibility of the buildings and utility poles which hedge removal had exposed to full view.

Our predictions

In 1972 the agriculture in this study area was based almost entirely on dairy farming, an enterprise we predicted was likely to be intensified. Based on changes that had already been made on one study area farm in the area and on another some distance away, we thought this intensification might involve large-scale hedge removal to allow farmers to adopt intensive rotational grazing practices or even zero grazing. In fact, although intensification has occurred, it has been carried out without such major change to the basic structure of the landscape.

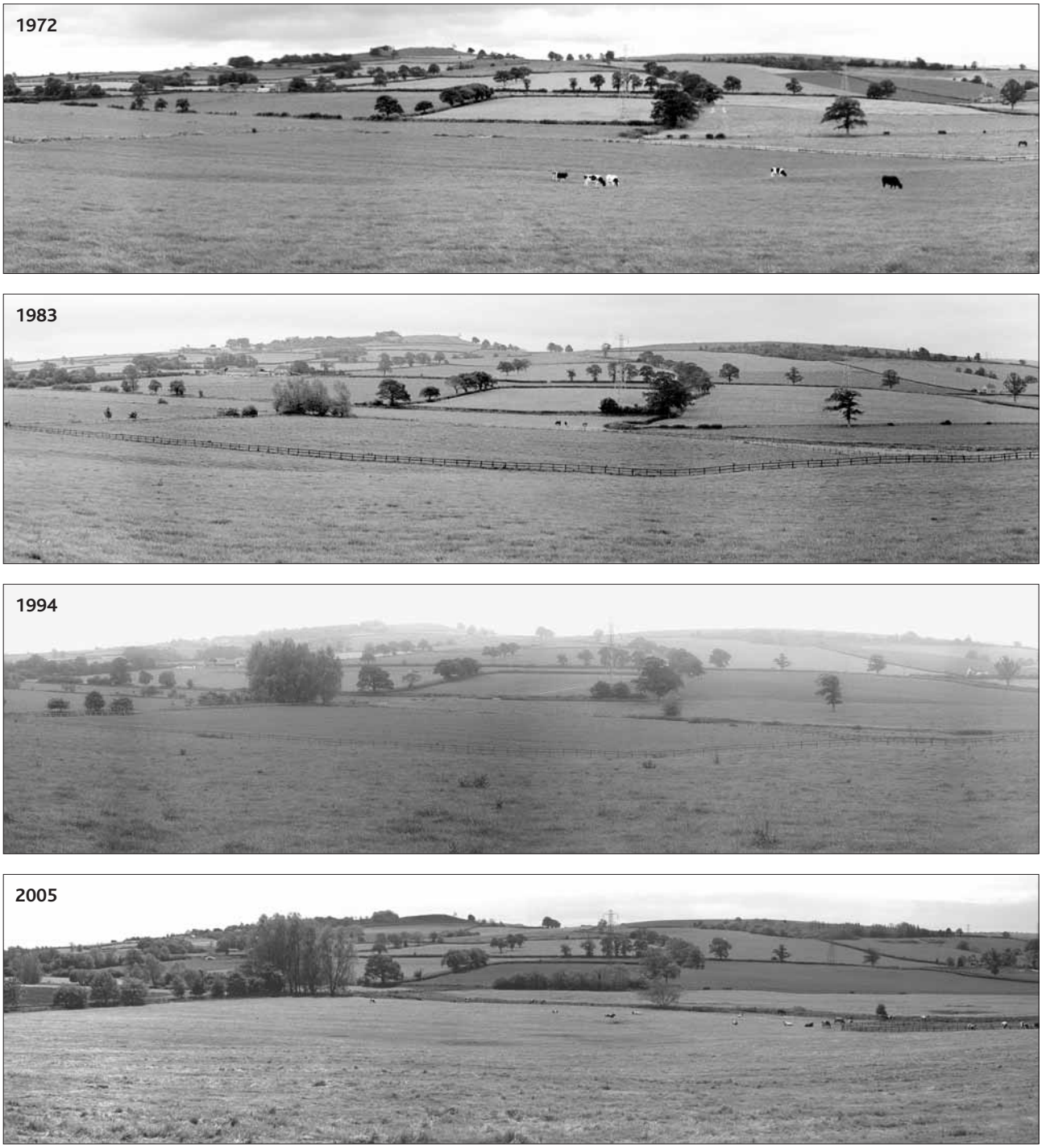
Changes 1972–1994

The period between 1972 and 1994 saw few changes in terms of cropping and stocking. Grass remained at about 90 per cent of the farmed land, with a slight reduction in the proportion of cereal crops and the introduction of forage maize for silage. The grass was being reseeded less frequently, possibly a result of research showing that permanent grass could be as profitable as temporary grass. Milk quotas had reduced the number of dairy cows and sheep numbers had expanded to fill the gap. Holding numbers had decreased slightly with 45 per cent classed as part-time on account of their small size and low intensity of farming. The average farm size had increased from 16 to 19 hectares and 85 per cent of land was now owner-occupied, so several farmers had been able to purchase land from earlier owners. The landscape implications of these changes were very small, with the introduction of forage maize possibly the most significant, bringing with it a completely new crop and all the operations of its production: the noise and vehicles on the road at harvest would effectively bring another bout of silage making to add to the usual early summer peak of operations.

There had been considerable hedge removal on one farm in particular, and then again by the same farmer on nearby farms purchased after 1972. Otherwise, removal of hedges has been highly selective and the structure of the landscape remains remarkably unchanged (Fig. 40). Across the study area, average field size increased from 5.5 to 7.5 hectares. Hedge quality had been judged the best of the study areas in 1972 and was still the best, having dipped in quality in the interim, and many hedges were being allowed to grow larger.

There had been considerable planting of saplings between 1972 and 1983, with the consequence that tree numbers had increased by nearly 100 per cent by 1994. Though oak remained dominant, ash had increased considerably, the result of volunteers growing up in the hedges. There were also fewer dead and dying trees than in any other study area. Furthermore, 7.4 hectares of new copses had been planted in many small parcels, an increase of nearly 50 per cent over the 1972 area. About half of this increase was on a single farm where a new duck pond was also dug (see 1994 image in Fig. 42), and another new pond was created on a different farm.

Figure 40: Hedgerow removal has occurred over the 33 years of this study, but has generally been selective and has not changed the visual structure of the landscape.



There had been several major farm building projects, two resulting in significant visual intrusion. Two new farm roads had been constructed to help to remove farm traffic from a village, and a point-to-point course established. A new farmhouse had also been built.

Change 1994–2005

Many hedges appear to be more prominent in the view than previously (Fig. 41), and no removals could be identified. A farmhouse had been greatly extended. A farm had been sold and subdivided between purchasers, with a major equestrian business including a large manège established on one part, surrounded by a large tree belt, and new farm buildings on another part (Fig. 42). A major research farm had closed and its farmyard developed for residential uses. Two farmhouses, both relatively new, are advertising bed and breakfast (Fig. 43). An all-weather gallop, surfaced with wood chips but wholly inconspicuous in the view, is established on another farm. A set of traditional farm buildings has been converted to residential accommodation (Fig. 44), and new dwellings, with the appearance of social housing, have been built in one village (Fig. 45).

Commentary

At the time of the first survey in 1972 the average field size in this study area was 5.6 hectares, the smallest of all the study areas. By 1994 it had increased to 7.7 hectares, with only the Herefordshire area having a smaller size and showing a smaller percentage increase. However, this average was skewed by a few farms in the area which had undergone major change, as described above. The net removal was only exceeded by Warwickshire and Huntingdonshire, but the length remaining was still greater than in Herefordshire or Warwickshire.

Figure 41: Hedgerows are even more prominent in 2005 than in 1994. Growth of a massive roadside hedge has almost obscured a substantial new wing on this farmhouse.

In 1972 we wrote, '*It is often thought that hedges in livestock farming areas are not vulnerable to removal. This is still true on traditional farms, particularly if field shapes and sizes facilitate subdivision into paddocks, but the more business-minded farmer may see no functional advantage in hedges and many disadvantages*'. In the event, we have seen no other farmers in the immediate locality following this example, and the only major hedge removal over the period has been by the same owner on newly-bought nearby farms – though not nearly to the same degree as before (Fig. 40).

This less rigorous approach may be explained by the lack of dairy units on the new land, dairy herds being most likely to justify such measures due to their inherent responsiveness to intensive grassland management. The use of the newly acquired land for

Figure 42: This sequence shows a pond that a farmer had dug recently in 1994, now obscured by young trees; in 2005 an extensive new equestrian centre can be seen in the distance. The utility pole visible in 1972 and 1983 is part of an overhead line that has been relocated to the roadside.

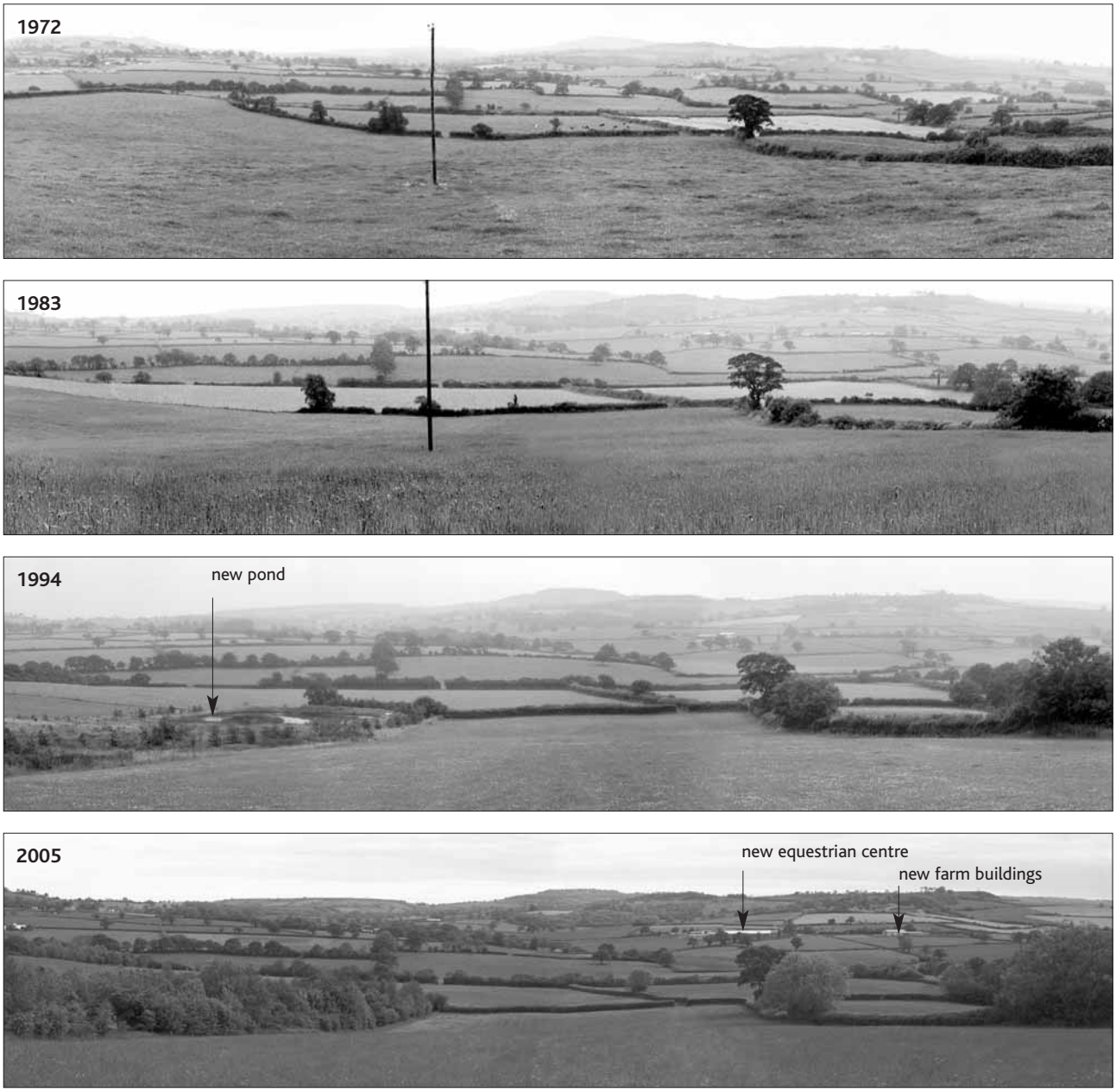


Figure 43: A farmhouse of above average design, recently built in 1994, now offering bed and breakfast accommodation and a Caravan Club Certificated site.

heifer rearing and dry cow grazing would have meant less pressure for intensive grassland management. In addition, research over the period suggested that permanent pasture could be much closer to new leys, in terms of yields, than had previously been thought.

Other farmers in the area appear to have had a more conservative approach to the needs of grassland management, with relatively little hedge removal. Indeed, it is almost possible to determine the boundaries of individual farms simply by viewing their landscapes. In the period between 1983 and 1994 we recorded a slight increase in the quality of hedges, having deteriorated in the previous eleven years. Today the impression is of a very clear improvement in the quality.

In 1994 it was noted that total cattle numbers had reduced while sheep numbers had doubled, and it seemed as if this trend was continuing. Indeed, one farm which had been bought as a specialist dairy unit and equipped with a new slurry store by 1994 had gone out of dairying completely by 1995, concentrating mainly on sheep. This might well reflect the recent relative unprofitability of milk production. Other units noted previously as dairy farms were seemingly still producing milk, but that might well reflect the lack of any profitable alternative on relatively small grassland farms.

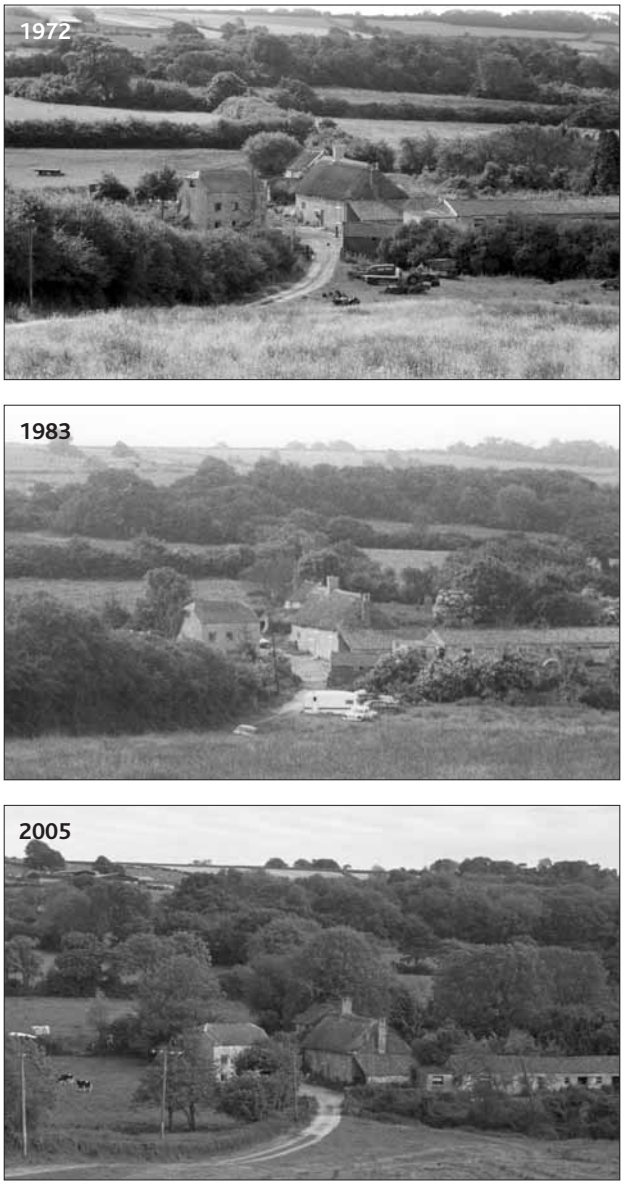
The area had about 50 hedgerow trees per 40 hectares in 1947 but by the time of our first survey in 1972 this had fallen to only 15, a greater loss than in any area except Huntingdonshire. Fortunately Dutch elm disease did not affect the area as badly as others and the number of hedgerow trees seems to have recovered to nearly 30 per 40 hectares by 1994. It was noted in 1994 that farmers appeared to be more willing

Figure 44: These redundant farm buildings have recently (2005) been converted for residential use. Young saplings have been planted in the grass field in the foreground.

Figure 45: New housing on the village edge in Mosterton, looking towards Mosterton Down.

than in other areas to allow volunteer saplings to develop into hedgerow trees, and many had actively planted saplings into their hedges, but our impression is that this is no longer so popular, though they do seem inclined to tolerate existing semi-mature and mature trees in their hedgerows. A new belt of trees has been planted around a new equestrian centre: this may have been in compliance with a condition attached to the planning permission for the very large manège and other horse-related development. Several small copses have also been planted and some of these have become significant in the landscape (Fig. 42). The course of the river draining the valley is not well defined by trees; additional planting would help the legibility of the landscape (Fig. 40). It is also worth noting that some areas show so little change that they seemed to belong to another farming age (Fig. 46): it would be interesting to learn the practical and financial circumstances that have allowed this situation to continue.

Figure 46: This 33-year sequence of a mill near Mosterton shows time standing still.



Thus the landscape of most of the area appears to have changed relatively little over the years of the study, with a mosaic of generally small fields surrounded by large hedges with many trees and viewed as occasional glimpses through gaps in the large roadside hedges. Although there has been local major loss of hedges, this affects only a small part of the overall view and has not been widely copied.

The present and future

For many years dairy farming has been the only reliable way to earn a reasonable living from mainstream farming enterprises on small west-country grassland farms, but the recession in the dairy industry in recent years has removed this certainty. Sheep and beef farming have always been the poor relations by comparison to milk production, and with the change to the Single Farm Payment system of subsidies the future has become even more uncertain. Various ways to seek to survive can be seen in this study area: farm expansion, bed and breakfast, horse-related business and the selling of redundant farm buildings for residential development can all be seen within a small area.

Farm expansion is only feasible for the fortunate few who can spread the cost of the new purchase over a large existing acreage to justify the borrowing, or who can use a windfall – not common circumstances among small West Country livestock farmers. Bed and breakfast does not yield a large income. Horse-related activities are of limited

viability in relation to a finite market, and the hunting ban seems likely to have a negative impact on the opportunities available for this. Selling redundant assets is usually a one-off opportunity. The most likely future for many small grassland farms is as 'hobby-farming' by non-farmers buying them for their residential value, keeping a horse paddock or two, then letting other local farmers carry on the serious business of farming on a short-term tenancy. Alternatively, existing farmers within sight of retirement may choose to sell their livestock and retire, either keeping their land tidy by mowing it or by letting it to the relatively few farmers committed to staying in commercial production for profit. This could then trigger a decision to seek alternative uses for the buildings at the farmstead, which would be largely redundant in agricultural terms.

The impact on the landscape is unpredictable. Given the wide range of possible scenarios for the small farm families in this area, we might expect change to occur variably and on a farm-to-farm basis. This has been the case in the past and is likely to continue. It does seem likely that the future of this area of the English countryside will depend more on tax and farm support policies than any real connection with commercial agricultural practices.