

Appendix R

Landscape History

1. Sherwood
2. Mid Nottinghamshire Farmlands
3. Trent Washlands
4. East Nottinghamshire Sandlands
5. South Nottinghamshire Farmlands

1. Sherwood

- 1 The present landscape of the Sherwood region is dominated by the artefacts of aristocratic estates and agricultural reform, largely laid down in the 18th and early 19th centuries, and by those of late 19th and 20th century industry, particularly coal mining. This has been an area in which changes in land use, however long they took to effect, have been radical and clear cut, in contrast to the piecemeal evolution evident in other regions in Nottinghamshire. Underlying the long history of the Sherwood region, and a key determinant in the pattern of stability and change within it, is the essential character of its geology and resulting soils. The porosity of the Sherwood Sandstones and consequent fragility of the soils in general have placed limits upon the sustainability of farming here. Advances in agricultural methods from the 18th century until today may appear to have pushed out those limits but the qualities of the land continue to present agricultural challenges which can be overcome only at a cost, financial and environmental. It remains to be seen if this cost can be both supported and mitigated or if within the vastly complex modern economic structures there will be a reversion to land uses which respect the basic qualities of this region.
- 2 Traditionally, the Sherwood region has been regarded as an area where settlement and land use were restricted by poor soils, woodland and forest law. While these restraints must be acknowledged, this is anything but the full story which is far more interesting and complex.
- 3 As in the rest of Nottinghamshire, a forest landscape will have developed here after the end of the Ice Ages. There is as yet scant direct evidence for the composition of this primeval forest but it may be surmised, on the basis of later millennia, to have been mixed birch and oak with a greater variety of species in the river valleys and on the less arid soils of its margins. The presence of early prehistoric hunter-gatherer groups is demonstrated by the occasional finding of stone tools on the surface of ploughed fields. There is no evidence of the funerary and other ritual monuments which characterise the Neolithic and Bronze Age landscapes elsewhere. Again, occasional finds of objects, such as Beaker pottery at Thoresby, or of stone tools and stone axeheads, the latter being interestingly high in frequency in this region, testify to a continuing but sparse human presence, perhaps focused on the river valleys. Even this, however, could have had some locally substantial effect upon the woodland cover, through slash and burn agriculture and more particularly the grazing of domestic animals, to produce thinnings and clearings and the establishment of pieces of heath.
- 4 Whilst clearance of woodland and the development of agriculture and settlement proceeded apace elsewhere, the Sherwood region appears to have been relatively unoccupied during most of the late prehistoric period. Indeed, it is possible that it constituted a border zone between the political, social and economic organisation of tribes. This does not mean that it was untouched, however. As woodland diminished elsewhere, its timber resource may have become more attractive, and its use as a source for animal fodder and for grazing, perhaps involving transhumance as place names hint in the post-Roman period, is likely to have increased with resulting local, and perhaps not so local, changes in woodland composition and extending clearance. As earlier, settlement in the river valleys should not be discounted.
- 5 Woodland survival, in the Roman period, may have been somewhat greater in the more southerly areas of the Sherwood region within Newark and Sherwood district boundary where the Roman cropmarks become more disjointed possibly reflecting a difference in the intensity of Roman settlement and land use between the north (now Bassetlaw) and south.
- 6 The end of the Roman period was marked by another great turning of the landscape, in which the Sherwood region became again relatively unpopulated and the Roman field systems largely abandoned. The date of this change and the reasons and processes involved are as

yet unclear. General population decline and changes in social organisation and economy beginning in the later Roman period and continuing and developing in the 5th and 6th centuries are perhaps explanation enough. Soil exhaustion and erosion may also have played a part. In all events the early Roman level of settlement and land use clearly became unsustainable. Settlement moved out of the region, probably relocating on the more fertile soils on its margins and beyond, and otherwise contracted to favourable sites in the river valleys. In consequence, woodland regenerated by expanding out from existing pockets and by establishing itself anew. Apart from such farms as may have continued or developed in river valley locations, the communities around the region's margins used it as a grazing resource in balance with their arable on the clays and other soils of adjacent regions. This use explains the siting of many communities around the margins of the region where settlement is poised between the differing agricultural resources of contrasting geologies.

- 7 Following the end of the Roman period, the landscape developed into what is now thought of as characteristically Sherwood Forest. Low in population, with space enough to attract Scandinavian settlement in the late 9th and early 10th centuries, identifiable by place names ending in 'by', this was a countryside of large and smaller areas of dense and not so dense oak and birch wood and of large and small tracts of sandland heath with gorse, ferns and grass. The woods served as game reserves, sources of timber and smallwood, and as fodder and grazing, and were in smaller or greater part managed to these ends. Much of the heath originated in areas of Roman woodland clearance, particularly around the southern margins of the region, was kept open by grazing and temporary small areas of cultivation.
- 8 It was to the landscape, south of the Meden, that the term Sherwood was applied. Assuming the "shire" of "Shire-wood" to equate with Nottinghamshire, this name can be little or no older than its first written appearance in the 10th century, when Nottinghamshire was first created. The meaning of this name remains uncertain. It may mean no more than the woodland on the border of the Shire. Alternatively, it may refer to much more ancient rights, to woodland resources held by the king, nobility, or communities within Nottinghamshire.
- 9 In 1086, the Sherwood region was the most sparsely settled area of Nottinghamshire, low in arable, with much woodland almost wholly recorded as wood pasture, exploited by larger settlements around its rim and fewer smaller ones within it. Such was its emptiness that Norman kings soon brought it under Forest Law, probably consolidating existing royal rights, to maintain its stocks of deer and other game. Under Henry II, Forest Law was extended across all of north Nottinghamshire, but this was cut back by Henry III to embrace only the countryside of woods and heaths on the Magnesian Limestone and the Sherwood Sandstones south of the Meden. However, extensive royal woods and game preserves north of the Meden and elsewhere remained subject to the Forest officials, effectively maintaining Forest Law over most of the region throughout the Middle Ages and later.
- 10 Henry III's redefinition and reaffirmation of the traditional Forest was in part a response to the effects of rising population in generating new settlement and expanding arable agriculture. Initially, the emptiness of the Magnesian Limestone and Sherwood Sandstones and the low value of the profits there, made these suitable areas for the creation of hunting parks and to be donated for the establishment of monasteries. Of the twelve monasteries and nunneries founded in Nottinghamshire, eight were within or immediately adjacent to this area, where sufficient unencumbered land was available to endow them without significant damage to the financial interest of their benefactors. Considerable blocks of land in the Sherwood region thus passed into monastic control. The 12th and 13th centuries also saw the expansion of existing settlements and the creation of new ones. By 1300, while the region remained thinly settled and more apparently untamed than the rest of the district, there was little land which

was not locked into the economies of royal or monastic estates or of local manors and communities.

- 11 Indeed, however it may appear to modern communities, this was a highly managed environment in which the central dynamic was the sustainability of one economic regime, the maintenance of the traditional woodland and heathland resource, against the pressures of another, demanding land to till and grazing for animals. Royal and aristocratic parks encompassed a number of functions and land managements. There was woodland for timber and game, heath and grassland for grazing stock and deer, and rabbit warrens and arable fields for foodstuffs and fodder. Resources and activities which might be scattered through widely separated estates elsewhere were brought together in one locality created out of a single area of royal woodland and heath and held in balance by management. Even with positive management, much less without it, the woodland could not be maintained against the economic pressures towards clearance by felling, tillage and grazing.
- 12 Despite recovering from an apparent failure to replace trees felled in the 12th century, which led to a dearth of timber dating to the 14th century in buildings, and despite strict control of felling in the Royal woods of Birklands and Bilhaugh, royal interest in the maintenance of woods and heaths of the region was spasmodic. It was at best undermined by the private interests of the local nobility, who supplied the principal officials of the Forest, or by the ancient rights of communities to common pasture, and at worst negated by royal indifference or distraction by other concerns. Royal woods and lands were leased out or granted away, and the application of Forest Law became more a process of raising rents on lands long cleared by individuals and communities than a means of habitat conservation. Throughout the later 12th, 13th and 14th centuries, documentary references paint a picture of continual piecemeal enclosure, assarting and illegal encroachment by the great and the small, individuals and whole communities. Tree by tree almost, the woodland was gradually eroded. By the 16th century virtually only the core woods of the surviving royal estates and parks, Birklands, Bilhaugh, a few others on monastic estates and elsewhere, remained. By the later 17th century, when royal rights in the Forest had been largely appropriated by the great landowners and after the best trees on the royal estates had been sold off by the Commonwealth, it was difficult to find useful timber in the surviving woods.
- 13 With so few settlements and so little permanent arable lying within the region, there is little trace of the social and economic changes of the period 1350 to 1600. The area did not remain untouched, however. It may be that the reduced demand for tillage from the reduced population in the 15th and early 16th centuries slowed the degradation of the woods by increasing grazing land outside the area and by decreasing any pressure to change the traditional land uses within it. Equally, the growing importance of animal husbandry in this period could well have been met by the traditional common pasturage owned by communities within and adjacent to the region. Further, animal husbandry, particularly sheep raising, was already well established as a major enterprise on some monastic estates.
- 14 Common pasture meant there was no need to enclose for animal husbandry, but the region shared in the trend towards farm engrossment and piecemeal enclosures nevertheless. Traditional agricultural practice had long involved supplementing the sometimes small areas of permanent arable, the infield, with temporary enclosures in the Forest. Within these, cultivation was allowed for a limited number of years after which the enclosure was thrown down, the fields levelled and the exhausted soil allowed to revert to scrub, heath and grass. This "Breck" system was to continue unchanged until formal enclosures arrived in the 18th and 19th centuries. For now, portions or all of the permanent arable were enclosed, primarily to allow for improved crop rotation and closer stock management. This produced the pattern of relatively small, hedged fields found close into villages bordering the region, particularly on

the east, where enclosure was limited. Within the region, however, all or most of the comparatively small open arable fields might be enclosed. The region was not isolated from, nor unaffected by, the economic trends and changing agricultural practices of the day, therefore. Rather, both traditional land uses and an ability to adapt predisposed it to meet the changing economic order, when social organisation, agricultural knowledge and techniques developed so as to overcome the inherent difficulties presented by the land.

- 15 The foundation for economic growth and changes in the landscape was the dissolution of the monasteries. Grants or sales of the monastic sites and estates to leading members of the aristocracy and gentry gave power and influence in the region to a handful of families. For some 200 years these concentrated on converting or replacing monastic buildings, building and rebuilding, to produce great country houses and developing extensive parklands around them for ornament, sport and animal husbandry. They invested in the development of agriculture on the sandlands, building upon the mixed farming regimes and diversification of crops, particularly root crops which had been introduced into the area by the beginning of the 17th century, and experimenting with fertilisers and crop rotations and encouraged their tenant farmers to follow.
- 16 The result was the enclosure, through a succession of private Acts of Parliament, of most of the open heath and commons in the region and the creation of new farms outside the villages. With few existing land divisions to consider, much of this enclosure was geometrically laid out in field sizes considerably larger than those of earlier enclosed areas. Defined by fences or hedges, dominated by “quickset” hawthorn, this new “surveyor’s” landscape is still a striking feature of the region, on the map and on the ground.
- 17 The region thus underwent a veritable “Agrarian Revolution” in the later 18th century. This was based on the intensification of animal husbandry, particularly sheep rearing, which was sustained by the cultivation of root crops and rotational grass, the fertility of the land being maintained by manure and early artificial fertilisers.
- 18 The physical framework of this region’s landscape, established at the end of the 18th century and the beginning of the 19th, has been essentially maintained through today along with the added impact of deep mining which commenced in the 1850s. Throughout the later 19th and 20th centuries coal mines were sunk progressively eastwards across the region, introducing often lofty pithead buildings and structures, and large-scale waste heaps, into the landscape. To house the miners and those who serviced them new villages were built and new estates which have virtually swallowed the original villages to which they were appended. Infrastructure was developed, initially railways and more latterly roads.
- 19 In parallel with industrial development, the agricultural countryside remained relatively prosperous, responding to economic circumstances by changing balances in production. The basic reliance on animal husbandry saw the area through the 19th century. The First World War put emphasis on corn growing and potatoes, followed by a reversion to livestock after the War. From the 1920s sugar beet began to replace turnips; by 1950 these had all but disappeared from the rotational repertoire. The Second World War again returned the emphasis to corn growing, but this time there was no substantial return to livestock. Government and European policies and the introduction of modern fertilisers have maintained the region’s farmlands almost wholly under arable since. In many places this has brought alterations to the enclosed landscape through the demolition of hedgerows and boundaries to create wide open spaces suited to manoeuvring large machinery.
- 20 The industrial development and agricultural changes of the last 125 years are the latest additions to a long history of landscapes in this area. The combination of these with the

landscapes created in the 18th and early 19th centuries, the parks, the woods, the Forestry Commission plantations and the enclosure fields, leaves a distinct impression on the modern visitor.

2. Mid Nottinghamshire Farmlands

1. Little can be said about the early history of the landscape of the Mid-Nottinghamshire Farmlands. The clay soils of the Mercia Mudstones are not on the whole sympathetic to the production of cropmarks, the results of differential crop growth over buried ditches, pits and other features which have revolutionised our understanding of the prehistoric and Roman periods in other regions such as the Trent Washlands and Sherwood. The rural character and remoteness of much of this region has also contributed to a lack of study and survey. In consequence, the archaeology of the Mid-Nottinghamshire Farmlands depends almost entirely upon objects recovered from the surface of ploughed fields and earthworks, which have to be interpreted against the wider background of landscape history deduced from evidence elsewhere.
2. The presence of people during prehistory is witnessed by stone tools, manufacturing debris and metal objects occasionally recovered after ploughing. It is reasonable to assume that the Mid-Nottinghamshire Farmlands will have been no less attractive to hunter-gathering groups and early farmers than other regions in Bassetlaw, and that these will have had a comparable effect upon the woodland which developed after the end of the Ice Age. The composition of that woodland may be assumed to have varied with local soils and topography and to have been dominated by a mixture of oak, lime, ash and hazel. As areas of human settlement consolidated and expanded, this woodland will have been increasingly cleared and its composition altered.
3. By the Roman period it is likely that most of the woodland will have been cleared and evidence of the Trent Valley and the Sherwood Sandstones points; indeed it might be thought that the development of the Roman landscape on the relatively infertile soils of the Sherwood Sandstones is indicative that the better lands of the Mid-Nottinghamshire Farmlands had already been taken. It may be significant also that the Roman landscapes of the Sherwood Sandstones and the Trent Valley, on either side of the Mid-Nottinghamshire Farmlands, share characteristics indicating large-scale planning. In both, crop marks reveal blocks of rectangular fields, enclosures and trackways, and, in both, these are orientated in much the same way. It might not be unreasonable to assume, therefore, that these field systems were part of one landscape, stretching across the Sherwood Sandstone, the Mercia Mudstones and the gravels of the Trent Valley. That we know about this landscape on the Sherwood Sandstone and in the Trent Valley only, and are largely ignorant of the details of the Mid-Nottinghamshire Farmlands in the Roman period, may be attributed to the limitations on the discovery of evidence which have prevailed on the clays of the Mercia Mudstones. Where evidence is available it is striking. In Laxton, Roman material has come from no fewer than seven locations within the parish, indicating a number of farms and at least one villa. If the density of settlement implied by the evidence from Laxton, in the heart of the highest clay lands, is any guide then there is no reason to believe other than that the Mid-Nottinghamshire Farmlands was as well populated and its landscape as well developed as anywhere else during the Roman period.
4. It is clear that the end of the Roman period brought great change, but we know little to provide detail of how this came about. Population decline and changes in social organisation, beginning in the Roman period and continuing into the 5th and 6th centuries, led to a retraction in cultivation and a refocusing of settlement towards the more easily worked land. The woodland regenerated on a large scale. Although there are a few objects of early Anglo-Saxon date from the region, there is at present little to suggest that the immigrants coming into South Nottinghamshire and the Trent Valley were initially interested in moving into the interior of the Mercia Mudstones. However, there is no evidence that this was a period of collapse and abandonment; on the contrary there are hints that Roman structures and settlement patterns endured.

5. The changes to the landscape of the Mid-Nottinghamshire Farmlands were probably piecemeal and gradual. A number of place names refer to woodland but other activities are reflected on occasion, for example, "Farnsfield" implies the presence of ferny open land. The woodland which developed in the immediately post-Roman period is unlikely to have been left to nature. It will have been a valuable source for common grazing, gathering food, timber and wood. It will have been managed to one degree or another.
6. Current models of Early and Middle Saxon settlement patterns are of dispersed farms and some larger settlements, not dissimilar to the basic pattern of later prehistory and the Roman period. By the 9th century, and more particularly from the 10th century, under the pressures of a rising population and the growing powers of local landlords this dispersed pattern began to be replaced by one of nucleated villages, with people grouping together around the farm of the local lord or in other geographically favoured locations. Whether as a result of this process or as a product of earlier loss of population and reorganisation, the Mid-Nottinghamshire Farmlands developed a settlement pattern which was particularly geared to the use of local resources. Most of the settlements exploiting the region in fact lay on its fringes or even outside it. On the south and east, the villages lay on the gravels of the Trent Washlands where the best soils for cultivation were and where there was easy access to the meadows and pastures of the Trent flood plain. On the west, villages were frequently sited at the junction of the Mercia Mudstones and the Sherwood Sandstones, where the mixture of clay and sand in the soils again provided better tillage and the heaths of the sandstone provided open pastures. Although not insignificant in number, comparatively few communities occupied the heart of the clay land, often choosing sites in valleys, beside watercourses where soils on slopes were better drained. The territories of the peripheral communities ran back up onto the clays, to include the woodland resources here, while those within the core of the Mercia Mudstones developed more or less concentric patterns of land use, with the fields closest to the village, pastures beyond the fields and then woodland. The landscape of the Mid-Nottinghamshire Farmlands in the Later Saxon and Early Mediaeval periods, then, was one of communities and farmland separated by blocks and ribbons of woodland. In many instances, as later documentary references and the intricacy of boundary lines show, this woodland served the communities on either side of it as common grazing.
7. This is the picture of the Mid-Nottinghamshire Farmlands which can be seen in Domesday Book, a mixture of large and small communities with arable to match, much woodland and very little meadow. Most of the woodland was recorded as wood pasture, although there was a significant group of underwood (coppiced woods) in the north of the region. Domesday Book also shows that expansion of settlement into the woodlands was well under way due the recording of place names.
8. With rising population, this expansion continued in the 12th and 13th centuries. Villages grew and new settlements appeared. Arable fields were expanded at the expense of the woodland, which was further degraded by grazing. In common with the other wooded regions of the district, parks were enclosed to conserve game and provide sport for the king and nobility. Indeed, for several generations the whole of the Mid-Nottinghamshire Farmlands was included under Forest Law, until it was deforested by Henry III in 1286. As their names often indicate, particularly in the Mid-Nottinghamshire Farmlands, parks usually took in an area of woodland, but usually this was soon modified by clearances for grazing and even cultivation. This was the seed of the common fate of many parks in the later Middle Ages, to be converted into farmland.
9. The Mid-Nottinghamshire Farmlands has the distinction of being home to the archetype of midland mediaeval villages, at Laxton. The famous map of the parish, drawn up in 1635, gives a strong idea of the landscape here during the Middle Ages. There, on the slope above the

stream, was the village, dominated by the castle which stood immediately behind it to the north. North and west of the castle was a small park with an orchard, fishponds, and horse and hay paddocks, more for exercise and pleasure than hunting, which will have taken place in East Park Wood along the north east of the parish continuous with Egmonton Wood, and in Hartshorn, a large block of wood pasture on the southern side of the community. East, west, south west and south of the village were the open fields. The East Field and the one to the south west, Mill Field, are likely to have been the original arable, to be joined by the West Field possibly during the 12th century. The South Field was the last to be created early in the 13th century. Along the stream as it ran across the top of the South Field were the principal meadows of the community, with other areas of meadow on the sykes, unploughed strips alongside the other arms of the Radbeck and more minor streams running through the open fields. Unploughed wide verges beside the trackways through the parish were also managed as meadow. Beyond the fields there was in 1635 a zone of enclosed fields, then under grass. The names of these closes clearly indicate, as much as their position, that they were cut out of the woodland, probably in the piecemeal process of clearance known as assarting. Whether these assarts were originally intended for arable or pasture cannot be ascertained. Either would have been appropriate, although some theories about land organisation might suggest pasture. One area of pasture was the common, on the north-western tip of the parish. This too was originally woodland, as its name "Westwood Common" implies, part of a substantial wood contiguous with that of Wellow and Ompton. Hartshorn also was probably grazed. At the opposite, north-eastern, end of the parish was a separate, off-shoot community, Laxton Moorhouse. This settlement developed its own set of open fields, but some of its occupants farmed strips in the South Field also. Finally, as will have been apparent already, the margins of Laxton were substantially wooded with Westwood, Hartshorn, woodland between Laxton and Moorhouse north of the meadows, and East Park Wood all in the vicinity.

10. By 1300 plough lands in the Mid-Nottinghamshire Farmlands were at their maximum extent. Under pressure from a high population almost any land that could produce a crop was cultivated. In Laxton, poorer, wetter land normally used for meadow, including sykes, was ploughed. But the climate was deteriorating and in 1349 the Black Death arrived, ushering in a period of protracted difficulty. The Black Death and repeated visitations of plague during the 14th century reduced the national population by over one third, and it appears that the Mid-Nottinghamshire Farmlands bore its share of this loss. With reduced population and social change, there was a turning away from arable production. Marginal plough lands and pastures were restored to grassland, leaving ridge and furrow on the sykes at Laxton, and open field rotations were reorganised to allow for larger fallows, temporary grass and the creation of closes of more permanent grass. Vacant tenancies were engrossed into occupied farms, creating more differential between large and small farms. With land exchanges, the tendency for larger farms to be made up of consolidated blocks of land within the open fields grew. Overall, the 15th and 16th centuries saw the establishment of convertible husbandry, with a more balanced, mixed farming regime.
11. Some communities were so weakened by the difficulties of the later 14th and early 15th centuries that their viability was completely undermined. The Mid-Nottinghamshire Farmlands saw a number of villages either completely or virtually disappear, in the course of the later 15th and 16th centuries. Some of these were settlements of considerable antiquity. A number were the more marginal communities developed in the centuries of expansion from the 10th century on. Although at least 13 communities failed in this period and many other villages shrank in size, the majority survived. The open field system was inherently flexible and could be readily adapted to changes in economic need, with areas being taken in and out of cultivation according to market demands. The economy of the Mid-Nottinghamshire Farmlands thus remained one of mixed farming, still with quantities of arable, until well into the 20th century.

12. However, doubtless because of the resilience of the open field system and the swings in demand and profitability, which never quite made one agricultural strategy preferable to another, and made landowners think twice about the expense of enclosure, society here was inclined to be conservative. This is illustrated by the long endurance of bare fallows. The land itself also imposed certain restrictions on development. With the onset of colder, wetter conditions in the later 13th century the clay soils of the Mercia Mudstones had become that much more difficult to work and crop yields had declined. This was probably a significant factor in the demise of some communities in the 15th and 16th centuries and remained a problem until the 19th century.
13. Although there was an amount of piecemeal enclosure, the Mid-Nottinghamshire Farmlands were not generally enclosed until the later 18th and 19th centuries. This was the age of agricultural improvement, when open fields were seen as anachronistic and an impediment to progress, and enclosure was promoted through Acts of Parliament to overcome any objectors. Laid out by surveyors, the field systems created through Parliamentary enclosure tend to be larger and more regular than those of preceding centuries, although in these clay lands the long-established physical frameworks of the open fields had to be taken into account. Nevertheless, it was still an expensive business and took time to become general. At Laxton enclosure has never been completed. Behind this pattern lies the fact that at the end of the 18th century the Mid-Nottinghamshire Farmlands was regarded as backward in agricultural terms and farming was less profitable than in other regions.
14. The retraction of arable in the 15th and 16th centuries undoubtedly saw an expansion of woodland particularly in the southern half of the region. To this was added the planting associated with the parks and gardens around the houses of the nobility and gentry laid out during the succeeding centuries. During the 19th century plantations were added throughout the region both for timber and as game coverts, particularly in peripheral areas of parishes. During the 18th and 19th centuries also, the villages were rebuilt in brick. Beginning in earlier centuries with the houses of the nobility and gentry, it became usual for the humblest of dwellings to be built in brick by the end of the 18th century. Gradually over the course of these two centuries the old style timber frame buildings of mud and stud construction and thatched roofs were replaced or encased in brick with tile roofs. Local clay pits were often the source of the bricks. The new farms of the enclosed landscapes created in the late 18th and 19th centuries, standing apart from the old villages, were built in brick. Since they were newly established at a time when agriculture was making new strides they often replicate the "model farm" concept with outbuildings and farmhouse convenient to one another around a quadrangle.
15. The advent of piped under-soil drainage during the mid-19th century and enclosure brought improvements to the region. The farming regime remained mixed, however, with extensive crop rotation on a field-by-field basis. Some new crops were tried, hops being a big business in the late 18th century, but in the main it was the traditional arable-livestock balance that prevailed. With the collapse of grain prices caused by foreign importation in the late 19th century, this balance swung towards animal husbandry, with more grassland and feed crops. Apart from a temporary swing towards arable during the First World War, this remained the situation until the 1940s. Post-war government and EEC agricultural policies then placed emphasis on arable, resulting in a marked decline in livestock. This has produced considerable landscape change as many 18th and 19th century enclosure hedges and many earlier ones have been uprooted to enable the use of large machinery.
16. While it would be easy to believe that the modern landscape of the Mid-Nottinghamshire Farmlands is the product of the last few hundred years, this would be a complete misreading of what it has to tell us. It is not only at Laxton that a long history may be seen in the village, its

fields and its woods, and a comparable longevity in the shapes and features of the countryside is apparent throughout the region. Even the relative openness of the landscape in the north of the district is an ancient characteristic.

3. Trent Washlands

This is the region with the most dynamic and complex environment in Nottinghamshire, where both human and natural activities have interacted not just to create successions of landscapes, but to change the actual form of the land. The region contains a rich resource of archaeological remains, many of which are visible on the surface as differential crop growth over buried ditches, pits and other infilled disturbances of the subsoil. The geology and soils of the region are particularly favourable to the development of these cropmarks, which have been recorded through aerial reconnaissance and photography. We now know that invisible archaeological remains also exist, buried in or beneath alluvium deposited by the Trent, and that organic remains which would normally decay may be preserved in the wet conditions of this burial. Such preservation is also a feature of ancient river channels which are to be found buried in many locations on the flood plain of the Trent. It is possible to deduce a great deal about past ecological circumstances and human land use from the tree trunks, brushwood, leaves, pollen, beetles, spiders, molluscs and other remains of flora and fauna found in the deposits filling these palaeochannels, or within flood deposits and archaeological remains. Much new evidence about the palaeoenvironments of the region has been gathered in recent years, giving new insight into the development of the river valley landscape. Research into the environmental and human history of the **Trent Washlands** continues. This brief overview of that history can not do justice to the detail of new evidence being revealed or to the studies involved, which are already considerable. But however much we know now, we have only made a beginning.

In the 6th millennium BC the Trent was a braided river, consisting of many channels with an unstable course, flowing between terraces of gravel laid down during the last phase of the Ice Ages through which it had subsequently cut. Towards the latter end of the millennium sea levels began to rise, altering the flow of the river and causing sediment to be deposited on the valley floor. This was the beginning of the process by which the modern **Trent Washlands** landscape was created, with the flood plain being filled with aggraded deposits of sands, gravels and alluvium as the river itself gradually changed into the essentially single channel, meandering Trent which we know today. This is a gross oversimplification of a complex process in which a powerful, active and unpredictable river repeatedly flooded, deposited alluvium, cut and changed course, eroded its banks and landsurfaces and built others anew, increasingly in reaction to human actions and their consequences. It is also a grossly simplified description of the modern river, which varies in character and detail throughout its length. Nevertheless, it must suffice for now.

The valley of this early river was well wooded with oak, elm, pine, willow and hazel. Around 5000 BC lime became a major component of the woods of the **Trent Washlands** and surrounding regions. About the same time, as pollen from Bole Ings indicates, alder swamps developed in many locations in the Trent flood plain. This river and woodland environment offered rich resources for early hunter-gathering groups of people, but their only witness is occasional finds of stone tools. Their impact on the environment will have been light overall, involving seasonal occupation of limited areas by groups from a very thin and scattered total population.

The earliest evidence of human impact on the environment of the **Trent Washlands** appears after 5000 BC, when the first agriculturalists had established themselves. These people made significant clearances in the woodland by the grazing of domesticated stock and the use of fire, creating fields for cultivation and semi open areas of pasture. Their impact was probably more widespread than their clearances, for they will have hunted and gathered in their surrounding woodland going regularly over the same ground from their settled base, with lasting effect on the local flora and fauna. It is to their activities nationally that a decline

in elm after 4000 BC is attributed. Locally what may be this phenomenon has been identified in the pollen record from a site in Collingham. This site also provides the first example of the appearance of agriculture in the **Trent Washlands**, for cereal pollen occurs in the record before the drop in the elm pollen.

By 2000 BC areas of clearance within the Trent Valley had become extensive. Some of these now contained ritual landscapes with funerary and religious monuments, particularly in the area of Holme Pierrepont and North and South Muskham. The ritual importance of the river and its corridor during the Neolithic and the Bronze Age can also be seen in the deposit of human remains, chiefly skulls, entrapped with animal remains, also mainly skulls, in a log jam within an ancient buried river channel at Langford Lowfields. These remains, discovered during quarrying in 1995, date to 2300-2000 BC and probably represent water burial in the river or funerary practices involving exposure of the dead on the river bank not far upstream. The occasional, but not infrequent, dredging up from the river of other skulls and prestigious metal objects shows that this association of the Trent with burial and offerings to the gods lasted into the Iron Age. Early settlement remains are rare, however, consisting of the occasional pit or buried soil encountered on sites of later date. A "Burnt Mound" on the bank of a major ancient river channel, discovered buried beneath alluvium at Girton, if not ritual in purpose may represent food processing in the Early Bronze Age. Most of the evidence for domestic or agricultural occupation in the **Trent Washlands** at this period, then, is the stone tools and much rarer pieces of pottery which have been picked up on the surfaces of ploughed fields and in older gravel workings or building sites.

The effect of expanding human land use both within and outside of this region, however, can be seen in a decline in lime and pine around 1600 BC and in deposits of colluvium in several sites on the valley side terraces and of alluvium within the flood plain. Some of this alluvium may be related to the clearance of woodland on the higher ground of the Trent catchment in the Peak District, which was very extensive by the later Bronze Age. The Middle and Late Bronze Age in the **Trent Washlands** appears to be marked by a number of floods, which were the product, in part at least, of the increasing opening-up of the landscape over a wide geographic area. This opening-up was less than total in the Trent, though.

Trunks of large forest oaks and other trees dating from the Neolithic and the Bronze Age in palaeochannels and river deposits at Colwick, Langford and Besthorpe indicate the presence of closed canopy woodland. In the main, these trees were washed into the river as it eroded its banks, although marks of human felling appear on some timber at Langford Lowfields. At Bole Ings the flood plain woodland and alder swamp appear to have remained largely untouched well into the 1st millennium BC, about which time also the Trent first became tidal.

It was during this last 1000 years BC that the landscape of the **Trent Washlands** can be seen to have been dramatically changed, either as the result of progressive woodland clearance by successions of earlier generations or because of widespread social change and population increase which intensified the density of settlement and land use in the Trent Valley and elsewhere. Whatever the reason, by the time of the Roman Conquest the region was one of farms and fields with negligible woodland. This basic landscape characteristic has endured through to the present day.

The late prehistoric and Roman settlement pattern was one of dispersed farms in what appears to have been an enclosed landscape. In the down stream sector, north of Fledborough, regularly laid out rectangular fields with trackways running through them are to be seen in the cropmarks. These are identical in character to those of the Roman landscape recorded from the air on the Sherwood Sandstones of North West Nottinghamshire. Upstream from this area, the valley side and flood plain terraces are more dissected and the

pattern of the cropmarks seems less coherent. However, the same elements of linear and rectangular land divisions can be seen in a number of locations in the more southerly sectors of the Trent Valley and have been noted in excavations. Another observable pattern in the cropmarks of this period in the **Trent Washlands** is a tendency for settlements to be positioned on or towards the edges of valley side and flood plain terraces. This suggests that their sites were selected in relation to the qualities and uses of the land in the river valley. We may anticipate that the free draining soils of the gravel terraces were put down to arable on one side of settlements, while the heavier, wetter alluvium was used as meadow and pasture on the other side of settlements. This pattern can be seen also in the siting of the later mediaeval and modern nucleated villages of the region.

To add to this pattern, in several locations Roman settlements have been recorded which were sufficiently large and nucleated to be described as hamlets or even villages, while high status villas are known from Cromwell and Holme Pierrepont. In truth, these latter did not stand alone. The villa at Barton in Fabis, although falling into the **South Nottinghamshire Farmlands**, really belongs to the Trent Valley, and no doubt the lands of its estate extended into the **Trent Washlands**, as will those of other villas in adjacent regions. Three, probably four, Roman "small towns" also had a role in this landscape. At Littleborough the town of Segelocum lay across Tillbridge Lane, the Roman road from Lincoln to Doncaster, and commanded the point where this crossed the Trent. At Ad Pontem, just north of East Stoke, the town lay across the Fosse Way (and the mapped boundary between the **Trent Washlands** and the **South Nottinghamshire Farmlands** at this point), and again commanded a principal river crossing. Margidunum, on the Fosse Way outside Bingham, lies on the Mercia Mudstones of the **South Nottinghamshire Farmlands** well above the Trent Valley floor, but nevertheless must have been involved with the settlements and land use of the flood plain and with the river crossing at Gunthorpe. Similarly, it is almost inconceivable that Crococolana, at Brough, again on the Fosse Way where it crosses into Lincolnshire, will not have had interests in the adjacent area of the **Trent Washlands**, not least because the Cromwell Villa appears to be one of a group focused on the town. There was also a substantial settlement at Newark, but its status remains unclear.

By the Roman Conquest, the Trent had developed the meandering single channel character with which we are familiar. It remained highly active, however, continuing to reshape its course and given to flood, sometimes violently. The late prehistoric final, complete clearance of woodland in the **Trent Washlands**, and extensive clearances in other regions and further afield, exposed more land to be eroded into the river system. The consequence was the continued deposition of alluvium and other materials in the Trent flood plain during the Iron Age and Roman periods. All along the Trent Valley examples are accumulating of late prehistoric and Roman ditches, pits and other remains buried beneath or within alluvium. In the Roman town of Segelocum at Littleborough, at least two phases of flooding and river deposition have been found, interleaved between phases of Roman building. Indeed the later Roman period appears to have been one of marked alluviation in the Trent Valley, probably reflecting the extent of woodland clearance in the Trent catchment and possibly the exhaustion of, and damage to, vulnerable soils like those in the **Sherwood** region, or perhaps the introduction of the heavy plough which was capable of more effectively breaking up the ground.

We are still uncertain about much that happened in the **Trent Washlands** at the end of the Roman period. The region experienced considerable social and economic change as the population dropped and Roman administrative structures degenerated or were transformed. The Roman towns withered away, the villas were abandoned, doubtless land holdings and land uses were reorganised. But there is no reason to believe in a wholesale change in the population and the landscape. On the contrary, such evidence as we have suggests that the region's natural resources gave its economy an enduring strength and vitality to continue,

along with much of Nottinghamshire south of the Trent, to be the most populous and extensively farmed area in what was to become the County.

This relative prosperity appears to have made the **Trent Washlands** and south Nottinghamshire attractive to incoming Anglo-Saxons seeking land, wealth and power. The distribution of known Anglo-Saxon cemeteries is almost wholly within this area, with four, Kingston on Soar, Millgate on the outskirts of Newark, Netherfield and Holme Pierrepont, lying on the edges of or within the **Trent Washlands**. Holme Pierrepont appears to have been a mixed rite cemetery containing both cremations and inhumations, while Kingston, Millgate and Netherfield were cremation cemeteries. Cremation is often considered to be an older Anglo-Saxon tradition than inhumation, and indeed the Millgate cemetery, which is the largest in the County, appears to have been established in the later 5th century AD. The objects found in most of Nottinghamshire's Anglo-Saxon cemeteries indicate that the greater part of the new settlement began somewhat later, during the first half of the 6th century, and that it came from the south east, in the direction of Cambridgeshire and East Anglia. A second route of immigration, via the Humber, may be indicated by a group of early place names such as Beckingham and Walkeringham. This group at the downstream end of the Trent Valley, seems to relate to similar place names on the other side of the river in Lincolnshire. In general, however, the distribution of such early place names is similar to that of the cemeteries, suggesting that the opportunities offered by the **Trent Washlands** acted as a breakwater to early immigration.

Although the occasional domestic object has been found, no structural remains of Anglo-Saxon settlement have been identified. Current models of Early and Middle Saxon settlement are of dispersed farms and some larger settlements, a pattern not dissimilar to that of late prehistory and the Roman period. By the 9th century, and more particularly in the 10th century, this pattern was changing. Under the pressures of a rising population and the growing powers of local landlords, dispersed settlement began to be replaced by nucleated villages, with people grouping together around the farm of the local lord or at other geographically favoured sites. This was probably accompanied by reorganisation of land holdings to create early forms of open fields, farmed in common. Thus the typical village pattern of the English Midlands and Nottinghamshire began to be created. It was a gradual process which took many generations to complete, but in the **Trent Washlands** most, if not all, villages were nucleated by 1086, when Domesday Book was drawn up.

In this region, nucleation was probably helped by an existing sense of traditional communities. In a well populated area such as this, in which land use was extensive and well established, it is to be expected that boundaries and social groupings will have been formalised long before. Indeed, there are hints in the cropmark evidence that some land divisions have origins in the Roman period or even prehistory, which again might not be so remarkable in view of the unbroken history of settlement on the **Trent Washlands**. By contrast the boundaries between these valley communities and those on the Mercia Mudstones often bear the hall marks of being the product of a late partition of pressurised woodland resources. Indeed, it should not be forgotten in any discussion of the **Trent Washlands** that most of its communities will have had interests in the woodland and soils of the **Mid-Nottinghamshire Farmlands** behind them, that their use of the river valley was in part conditioned by access to the resources of these clays, and that their territories frequently ran up onto the clays to include those resources.

That land use and the behaviour of the river were factors in the choice of nucleated sites is manifest from a glance at the geology maps of the Trent Valley. On these, villages can be seen to occupy positions on the edges of the gravel flood plain and valley side terraces, adjacent to areas of alluvium and just above the usual annual overbank flood level. Access to water and a dry site were obviously important considerations; more important probably

was ease of access to the arable on the gravels on one side and to the pastures on the alluvium on the other.

In 1086, Domesday Book shows the **Trent Washlands** to have been part of the most densely settled and highly cultivated areas of Nottinghamshire. Calculations of the areas of land use nominally represented in Domesday Book imply that in every community the land most suited to cultivation, and more, was ploughed. Many communities also possessed woodland. This may be surprising at first sight in view of the earlier history of the region, but this wood was almost certainly on the Mercia Mudstones into which the communities extended, as we have just seen above. Interestingly, some of these woods were recorded as underwood, that is coppiced woods. Underwood is a minority amongst the woodland recorded in Domesday Book, most of which is stated to be wood pasture, and some of those belonging to **Trent Washlands** communities were amongst the largest described. This may reflect the high degree of resource management necessary in this well populated region.

Another significant observation from Domesday Book is the amount of meadow recorded in the **Trent Washlands**. In 1086 the majority of the meadow in Nottinghamshire lay in this region and was more extensive than elsewhere. Clearly this reflects the low-lying nature of the flood plain and the annual overbank flooding by the river, which deposited nutrients in the form of silt and protected the ground from frost, thereby promoting early sweet grass growth. The quality of the Trent Valley grasslands is likely to have been a factor in the region's economy from an early date and, as we shall see below, was to be very important in more recent times. English place names such as Cotes or Cottam may suggest lowland feeding grounds in the **Trent Washlands** during the Saxon period. When placed in contrast to a name such as Somercotes, on higher ground just over the border with Derbyshire, these may also indicate the possibility of a form of transhumance.

The pattern of the landscape in Domesday Book was essentially that for the rest of the Middle Ages in the **Trent Washlands**. Continued population increase will have resulted in the expansion of fields wherever possible, ultimately at the expense of pasture land. This must be the explanation for areas of ridge and furrow visible in long established river bank grassland today which is, alas!, increasingly visible on aerial photographs only. Field systems and cropping regimes were intensified, some reorganisations perhaps being linked to the regular planned layouts of a number of villages in the region.

The Black Death of 1349 ushered in a protracted period of social and economic change. To what degree the **Trent Washlands** suffered through visitations of the plague is not clear. Nationally, as much as a third of the population was carried off. In Nottinghamshire it appears that outbreaks of disease were not consistent from one place to another; while one community might be struck badly, another might escape almost completely. There can be no doubt that the region did suffer, but, contrary to common belief, there is no evidence that any community disappeared as a direct consequence of the plague. Indeed the **Trent Washlands** appear to have adapted well to the changed circumstances of the 15th century and later. Less emphasis was now placed on arable, and animal husbandry assumed a greater importance. Marginal ploughlands and pastures were restored to grassland, leaving the traces of cultivation fossilised in ridge and furrow, and open field rotations were reorganised to allow for longer fallows, temporary grass and the creation of closes of permanent grass. Vacant tenancies were engrossed into occupied farms, creating more differential between large and small farms, and their occupiers. With land exchange, the tendency grew for larger farms to be made up of consolidated blocks of land and for the boundaries of these to become fixed. Overall, the 15th and 16th centuries saw the establishment of convertible husbandry, with a more balanced mixed farming regime.

Through internal reorganisation most of the communities of the **Trent Washlands** were able to not only survive but generally prosper. Grassland increased and larger numbers of livestock were carried on it, hedgerows probably increased in number also with piecemeal enclosures, particularly close to the villages. At places like Holme Pierrepont, one of the earliest enclosures in the County, a landlord might see economic advantage in wholesale enclosure and conversion to sheep pasture or, as at Langford, large blocks of land might be let out for cattle grazing, but on the whole large scale enclosure in the **Trent Washlands** was limited. Despite being accounted as an area of early enclosure, this region remained largely unenclosed until the 18th century.

The present landscape detail of the **Trent Washlands** then, derives from this 18th century enclosure. This was not the only change, however; indeed it might be thought to have been only a beginning. The growing importance of Nottingham and Newark, and of industrial development in west Nottinghamshire, increased the demand for the products of the **Trent Washlands**, particularly meat and milk, and required the development of the natural communication corridor along the Trent Valley.

Between 1750 and 1820, the process of enclosure was completed. Much of what was enclosed was arable but open common grassland was also involved. The "Holmes" near Sutton on Trent are comparatively limited survivals from this process. In a number of places new farms were built at a distance from the old village centre, surrounded by newly enclosed blocks of land. By the end of the 18th century the agricultural economy of the **Trent Washlands** was described as being a mixture of arable and grass, "though more of the latter, especially continuous to the river". Most of the grazing was put to fattening cattle, the island outside Newark being noted as "remarkably fine feeding land". In the Soar Valley and south west of Nottingham, however, there were considerable dairies, mainly producing cheese. A number of farmers in the region at this time were breeding improved types of both sheep and cattle, particularly at Holme Pierrepont, Clifton and Hoveringham.

Many of the Parliamentary Enclosure Awards in the **Trent Washlands** provide for the digging of drainage ditches in the flood plain and the construction of flood defences. This was not the beginning of river management in the Trent Valley, however. Throughout the Middle Ages, the Trent continued to move in detail through bank erosion and flood under the influence of both nature and human interference. The river was a principal route of communication and commerce, and a source of food and power. It was also variable in its character from location to location and from season to season. There were numerous shallows, where the summer depth of water was less than 18 inches and where the river might easily be forded. At the North Muskham - Holme crossing, for example, it was recorded in 1536 that four score horsemen might cross abreast. Equally there were areas of depth where strong currents would rapidly drag under and drown anyone who fell in. In winter, the river would be full and overbank flooding was frequent. At this season or any other time of heavy rainfall, the Trent can rise rapidly, with high energy water flows and volumes in spate floods. Such events could sweep away structures, erode banks and scour out new channels, to modify the river course. In 1315 one such flood destroyed all the bridges between Sawley and Gainsborough. Deposits of gravel laid down by the river during the Middle Ages, burying earlier landscape features, are known from a number of locations.

From the Middle Ages also we have clear evidence from physical features and documents of human management and exploitation of the Trent. Nottingham represented the effective upper limit of commercial navigation in the Middle Ages, with goods being brought up and down river to and from the Humber or inland trans-shipment points. In illustration of this, William Amyas, a principal merchant and civic dignitary in Nottingham, had warehouses at Adbolton in the 14th century, while in the 16th century coal from Wollaton was shipped down the Trent by barge. Bridges at Nottingham and Newark were the major crossing points, but

these were supplemented by ferries and in the summer by numerous regular and occasional fords. By 1086 numbers of fisheries and mills were recorded in Trent Valley communities. These frequently involved the construction of weirs and structures in the river to funnel fish into collection baskets and to divert and control water flow into the mill lakes and ponds. Bank revetments and “training weirs” were also installed as defences against the erosion of river banks. Complaints about obstructions to navigation and the poaching of river water out of the navigation channels were frequent throughout the Middle Ages. In 1378 the problems had become sufficiently great for a Royal Commission to be set up to survey and remove impediments to the passage of boats.

Human interference with water flows and forces of nature together combined to change the detail of the landscape of the flood plain. While the former was puny by comparison with the latter, each had its effect on the other. The largest of these in landscape terms was probably the mediaeval management of the Trent and Devon waters to drive the mills of Newark and the competing actions of the lords of the manor of Averham and Kelham to secure water to drive their mills, particularly at Kelham. The upshot of this was so to accentuate and modify natural processes as to make the Island, between the two arms of the Trent in front of Newark, a virtually artificial construction. The original Newark arm, the “Old Trent Dyke”, was cut off and silted up as the waters were diverted into the River Devon along the edge of the flood plain by a long bank, while the Kelham arm was deepened and developed, so accelerating a natural tendency that the construction of a weir was required to ensure Newark’s share of the water. In consequence, lands on the island belonging to Averham, Kelham and South Muskham became separated from the rest by a major river channel. Such movements of the river as a result of natural development or a combination of both natural and human causes can be seen in numerous locations along the Trent Valley in pieces of parishes which now lie on the opposite bank to their parent communities, or in abandoned channels and ditches which may bear the name “Old Trent”.

This process of river channel modification has been continual and still continues, although it is now less marked as human water management has become technically stronger and integrated for day to day situations. The flood defences and drainage ditches of the Enclosures, which enhanced the development of the agricultural economy of the **Trent Washlands**, were piecemeal measures within individual localities, building upon, strengthening or replacing earlier initiatives. Together, these measures eventually provided a more or less continuous chain to defend vulnerable settlements and countryside. It was not until 1930, however, that they came under the unified control of the River Trent Catchment Board.

Development of the river as a transportation route was equally fragmented. This focused on the sectors upstream of Newark where river depths were inconsistent. In the downstream, tidal zone the principal problems were to maintain an adequate depth of water and to improve on the circuit of near circular meanders at West Burton and Bole, which frustrated boatmen in the hours of work required for little linear progress. These were cut through in 1793 and 1797. Upstream, particularly from Newark, the river was improved piecemeal during the late 18th and 19th centuries to take ever larger ships. In this way the Trent gradually took on the face which we know today.

Agricultural improvement and investment in building also contributed to the gradual, but nearly wholesale, rebuilding of farms and cottages in brick. Holme Pierrepont Hall had been one of the first brick buildings in the County in the early 16th century. By the end of the 18th century brick was the building material of all classes, and before long most of the old timber framed or mud and stud houses of the **Trent Washlands** had been replaced or had been clad in red brick and the thatched roofs replaced with pantiles. Many of these bricks and pantiles were made locally from sands and clays available in the river valley and the

surrounding clay lands. Brick pits were already a notable feature on the Island between Kelham and Newark in the late 18th century. Kingston on Soar is a classic example of a purpose-built mid 19th century estate village and landscape.

In the period after 1700 many of the more important houses of the gentry and merchants were rebuilt or embellished, and others were built anew. These are to be found particularly around Nottingham and Newark and the sector of the Trent Valley between, drawn by the social and commercial magnetism which these two towns exercised from the 16th century onwards. Some had origins in the Middle Ages and were already set in parklands and gardens. These were now often redesigned or replanted, increasing the amount of woodland and the variety of species. Although far more modest in scale than the extensive estates of the Dukeries, these houses, parks and gardens made and still make significant contributions to the landscape of the **Trent Washlands**.

The Trent was the major means of transporting goods in and out of the County during the 18th and first half of the 19th centuries. During the later 18th century it became integrated in the network of waterways with the building of canals linking into it. The earliest of these was the Chesterfield Canal in 1776, linking at West Stockwith and superseding the Idle as the inland carriage route towards Derbyshire. The commercial importance of this route enabled West Stockwith to be developed as an inland port with its own particular character. Gainsborough, on the Lincolnshire bank, also expanded as an inland port. Upstream, the Nottingham, Beeston and Grantham Canals all linked into the Trent, the two former running along the margin of the **Trent Washlands** and contributing their features to its landscape. The Soar too was modified to improve navigation, as was the Trent on the piecemeal basis already discussed. Beginning in 1772 with a weir and lock at Newark which enabled shipping to use the Newark arm of the Trent, triggering rapid industrial development in the town, these improvements principally affected the river upstream from Newark and introduced overtly artificial waterway features such as locks.

By the mid 19th century, waterways were rapidly being overtaken by railways. The Nottingham to Leicester line following the Soar Valley was built in 1840, and the Nottingham to Lincoln line, following the Trent Valley via Newark, was opened in 1846. Such railways were a considerable addition to the landscape, with embankments, stations often outside villages, and major engineering works where the river was crossed. And, as urban populations grew and the commercial and service side of the towns, particularly Nottingham, developed, the railways made suburban living possible. By the end of the century the commuter had appeared in the villages of the **Trent Washlands** around Nottingham. These developments were concentrated in the Nottingham to Newark sector of the Trent Valley, leaving much of the region north of Newark as a relatively untouched agricultural area. Here, the most tangible signs of the Industrial Revolution were some rural warehouses, boat building and repair yards, the warehouse waterfront of Gainsborough on the Lincolnshire Bank and the passing of boats.

Despite the industrial and social developments of the 19th and early 20th centuries, and the new additions they brought into the landscape, the basic influence on the countryside continued to be agriculture. The growth of Nottingham and the mining villages and the development of the railway network all combined to reinforce the already established emphasis on grass and livestock. The region was noted for its feeding grounds at the end of the 19th century. Apart from a temporary extension of arable during the 1st World War, this remained the case until the 1940s. Cattle were not the only livestock, however; there were substantial flocks of sheep in the Trent Valley in the 1870s. Post-war farming policies however, have placed emphasis on arable and by mechanisation have resulted in many Enclosure and earlier hedgerows and boundaries being knocked down. With drainage and flood control, the qualities of the land have been modified, enabling arable to be extended

into areas not ploughed since the Middle Ages. The modern agricultural appearance of the **Trent Washlands** is thus quite different from that of even 100 years ago.

20th century development of the landscape in the **Trent Washlands** has been considerable in the Nottingham to Newark sectors. The advent of the motor car has made roads a dominant feature and brought an explosion of commuter development in many communities, transforming some villages, and vastly increasing the built-up areas. The mineral extraction industry has mechanised and dug up considerable areas to feed the demand for sand and gravel, often leaving large new bodies of water in the flood plain. Power stations have been built, contributing not just spectacular vertical masses to the landscape but often equally spectacular plumes of steam. To protect land, houses, animals, people and infrastructure from the power of the river, still frequently demonstrated and enhanced by runoff from the hard surfaces of modern buildings, pavements and roads, flood banks have been built and enhanced to often considerable dimensions. By contrast, the Trent Valley north of Newark has remained predominantly agricultural with a sense of isolated tranquillity which the high flood banks and power stations only seem to heighten.

The modern landscape of the **Trent Washlands** is the product of millennia of physical development and human activity. It is a very changed landscape, in which perhaps the most modern elements are the most obvious. Nevertheless, the whole of our history can be read in this region.

4 East Nottinghamshire Sandlands

- 1 The Landscape history of the East Nottinghamshire Sandlands is complex, being affected by the local variation in geology and soils. The parishes along the Trent share a history with the Trent Washlands, into which they extend, while those in the south follow the pattern of the South Nottinghamshire Farmlands. They also share to one degree or another in the landscapes of the clays and sands which characterise the eastern sides of the region. As an entity, the East Nottinghamshire Sandlands have been little studied from the viewpoint of land use in history and, as is so often the case in such situations in the County, the depth and complexity of that history have been underappreciated.

- 2 Early prehistoric activity is proven by the finding of stone tools and fabrication debris on the surfaces of ploughed fields. Mesolithic hunter-gatherer groups appear to have been attracted to the areas of blown sand and other raised sandy areas, perhaps because they were higher, drier and less densely wooded than the rest of the area. Settlement by Neolithic and Early Bronze Age farmers is also demonstrated by similar finds of stone tools. Neolithic flint sickles from Thorney and Harby suggest the likelihood of agriculture. The impact upon the woodland cover which these early farmers had is difficult to estimate but could have been considerable, more from the grazing of stock than from clearance for cultivation. This woodland will have been broadly mixed deciduous with some conifer composition, with local dominance according to variations in soil qualities. Nationally, a decline in elm after 4000 BC is attributed to the effects of Neolithic farming. More locally, a decline in lime and pine around 1600 BC in this region is likely to have had a similar human origin.

- 3 To what extent clearance was sustained through prehistory we do not know, but in all events the last millennium BC saw large scale diminution of woodland. By the time the Romans arrived, the East Nottinghamshire Sandlands was a fully used landscape. Differential crop growth over buried pits, ditches and other remains, recorded from the air, shows late prehistoric and Roman settlement and fields analogous to those on the terraces of the Trent Washlands. In the main, these cropmarks have been recorded in the Collingham area. However, objects from elsewhere, and discoveries such as the Iron Age pits and ditches encountered in water pipe laying at Harby, demonstrate that settlement was widespread at this date in the region. Equally significant is the large Iron Age settlement which is now recognised to have preceded the Roman small town of Crococolana at Brough. Similar settlements appear to have been ancestral to other Roman small towns at Margidunum, near Bingham, and Ad Pontem, near East Stoke, both in the South Nottinghamshire Farmlands. That these were of importance in the Roman period was in part at least because of their significance as focal settlements, centres for markets and ritual activities, and meeting places, before the Romans came. The large settlement at Brough, therefore, would not have existed as such if there had not been a well-occupied landscape around it.

- 4 The same, of course, is true for the Roman period, during which the existing landscape and land use were perpetuated and developed. At least two Roman villas, probably with associated estates of farms and fields, were established close to Crococolana, at Norton Disney across the border at Lincolnshire, and at Collingham. Other villas in the Trent Washlands are also likely to be related to Crococolana, which was no great distance away. The Fosse Way was built early, in the period of the Conquest, as part of a route which extended across England linking Lincoln to Exeter. In this area, the presence of the pre-Roman settlement of Brough suggests that there was already an existing route which the Romans formalised. Another roadside settlement appears to have grown up at Newark but the scale of this is still unclear. We may conceive, then, of a late prehistoric and Roman landscape which was one of scattered farms and fields for both arable and pasture, with at best small pockets of woodland in those locations where the soils were worst. Even here, though, whether the ground was wet or dry it was as likely as not to be used for grazing. It should not be forgotten, either, that those settlements close to rivers will have had an economy and land organisation which made use of the river valley resources in addition to those immediately around them. Along the west of the East Nottinghamshire Sandlands this will have meant intimate involvement with the Trent Washlands; indeed it is entirely likely that land in the region was used by, and belonged to, settlements in the Trent Washlands.

- 5 What happened at the end of the Roman period is uncertain. It does seem, however, that landscape change across the East Nottinghamshire Sandlands was not uniform. There was social and economic change everywhere as population declined and Roman administrative structures degenerated or were transformed. The villas were abandoned and Crococolana withered. Doubtless land holding and land use were reorganised. But alongside, and probably contributing to the economic, if not social, changes there may well have been changing environmental circumstances. Beginning in the late Roman period the climate may have become wetter, and the areas of poor drainage in the region may have become increasingly waterlogged. This, and later episodes of waterlogging, may explain the development of soils which overlie and conceal Iron Age ditches and pits at Harby and which, if more than locally extensive, may restrict the recognition of early settlement remains elsewhere in the region. At all events, it seems that at the end of the Roman period there was a withdrawal of settlement and changes in land use in those areas where soils were poor in quality or in drainage.

- 6 Other parts of the region remained prosperous, however. Those communities which shared in the Trent Washlands, or were on other better lands, will have retained their economic strength and appear to have belonged to that area of South Nottinghamshire which continued to be the most populous and extensively farmed. Certainly the region had qualities in common with the rest of South Nottinghamshire which attracted incoming Anglo Saxons. Indeed, some of the earliest settlement may have been in the East Nottinghamshire Sandlands, to judge from the date of brooches coming from Brough, which may point to a protracted decline for Crococolana, and from some of the pottery from the cremation cemetery at Newark, which is the largest known from the County. However, no structural remains of the Anglo-Saxon period are known from the region, so we are dependent upon place-names for clues about settlement and landscape. Amongst these, Collingham is a name of early origin, but the high proportion of names with Scandinavian elements, such as Harby or Barnby, or which include Thorpe, implying a secondary satellite community, such as Danethorpe or Besthorpe, is usually taken as indicating that there was much unoccupied, poorer land available for settlement in the late 9th and 10th centuries. This contributes to the interpretation of settlement retraction over much of the region, and the eastern side in particular, after the Roman period. This may be reinforced by some names which reflect landscape characteristics, such as Broadholme, part of the historic County of Nottinghamshire now alienated to Lincolnshire, where holme means island and implies surrounding wet ground, and Wigsley, where "ley" is derived from leah meaning a clearing and implies adjacent woodland or scrub. In fact, this part of the region was the western edge of a large area of ill drained moor and scrub which extended towards Lincoln. Although sparsely settled in parts such as this, the East Nottinghamshire Sandlands were nevertheless not wholly isolated and unvisited. On the contrary, the Fosse Way remained a principal route to and from Lincoln, and the precursor of the A1130 will have existed as a long distance routeway along the eastern side of the Trent. Indeed, the possibility that early versions of the Great North Road followed this route to cross the Trent somewhere in the Collingham or Langford area should not be discounted. Recent tree ring and radiocarbon dating of timbers from the bridge structure destroyed in building Cromwell Lock have shown that this was not Roman, as had been believed since its discovery in the late 19th century, but Middle Saxon belonging to the 8th century. This important piece of civil engineering must have been approached by a route of some significance. Possibly the principal route of the Great North Road did not pass through Newark until this town was founded in the period 924 - 954, to control this strategic zone of river, roads and river crossings.
- 7 By the 10th century other developments were also under way in the countryside of the East Nottinghamshire Sandlands. Under the pressures of a generally rising population and the growing power of local landlords, the pattern of dispersed farms and some larger settlements, which is believed to have been the earlier norm, was being replaced by one of nucleated villages. People began to group together around the farm of the local lord or in some other geographically favoured location. Evidence from elsewhere in Nottinghamshire suggests that the nucleation of some villages was not completed until well after the Norman Conquest, but it is nevertheless likely that most of the villages of the East Nottinghamshire Sandlands had come together by 1086. In the process, two separate but adjacent communities had formed in North and South Collingham, each with its own church, recorded together in Domesday Book. The same is probably true for North and South Clifton, where both were served by one church on the boundary between them. Again, Domesday Book does not distinguish between the communities but shows clearly that ownership of the church was already divided.

- 8 Compared with other parts of the County, Domesday Book is limited as a source of information about the early mediaeval landscape of this region. The Bishop of Lincoln owned many estates here, and their details were subsumed into the entries for his principal manor at Newark, from which they cannot be disentangled with confidence. Overall, however, it can be seen that it was the communities closest to the Trent which were the most populous and had the most extensive arable lands. This demonstrates the continuing affinity of these with the Trent Washlands. By contrast, the communities with place names suggesting late development appear to have been low in population and arable. This is true even of Besthorpe, situated on the side of the Trent Valley next to the floodplain, a mark perhaps of the poverty of its soils on the blown sands and illustrative of the variation from locality to locality which characterises this region. It might be expected that the areas of poor soils and low population would be well wooded. However this is not the picture which comes out of Domesday Book. Woodland is recorded in fewer than half of the communities, suggesting perhaps that uncultivated land was open heath and moor, used for grazing. The area around Harby was wooded, with some 360 acres recorded, which amounts to just over a quarter of the parish. Meadow was also present in all the communities of this region, with the largest amounts being in Collingham and Langford. Much of the meadow within these two communities was probably within the floodplain of the Trent Washlands. The extent of meadow in Barnby in the Willows, Danethorpe and Broadholme was also at the high end of the average for Nottinghamshire, indicating a response to the wetter or river bank land in these locations.

- 9 The pattern for the mediaeval landscape was set by 1086. In common with elsewhere, population even in this difficult area doubtless expanded, increasing pressure on the land for cultivation and grazing and reducing woodland. It appears, though, that the wetness of the land continued to be a dominating influence in some areas. As in Sherwood, the relative emptiness and lack of profit in the land made it suitable for donations to found a monastery, a double Premonstratensian house at Broadholme. The mill in Thorney, given to this monastery at its foundation, was described as being in the "Moore". Amongst the larger parishes, both Collingham and Langford extended from the banks of the Trent up onto the areas of moor in the east, giving them access to a range of resources which will have included the grazing on these moors. However Danethorpe, although situated wholly in an area of poorer land, also grew into quite a sizable community. This in part might have been due to the slightly better climatic situation reducing the height of the groundwater, the village site itself being on raised ground. Equally it might be because its agricultural regime may have been intimately bound up with that of Collingham.

- 10 The degree to which the East Nottinghamshire Sandlands were affected by the Black Death in 1349 and subsequent outbreaks of plague is not clear. There can be little doubt that the region did suffer, but contrary to common belief there is no evidence that any community disappeared as a direct consequence of plague. Indeed, its natural resources should have enabled the region to adapt to the changed social and economic circumstances of the 15th century and later. With a generally reduced population, less emphasis was placed on arable, and animal husbandry assumed a greater importance. Marginal ploughlands were restored to pasture, and open field rotations were reorganised to allow for larger fallows, temporary grass and the creation of closes. The large areas of moor, already extensively used as common grazing, will have been important in this increasingly pastoral farming regime. Differing types of land offered different resources of differing value. Something of these and an impression of the landscape can be seen in the 1567 description of the manor of Thorney, which also covered lands in Wigsley, Clifton and Spalford, as including 400 acres of (arable) land, 100 acres of meadow, 300 acres of pasture, 300 acres of wood, 40 acres of marsh, 1000 acres of moor, 60 acres of turbarry and 1000 acres of furze and heath. This description covers approximately 46% of the combined areas of these parishes.

- 11 Not all communities were able to adapt, however. Danethorpe disappeared entirely, probably after a protracted decline, as a result of population loss, conversion of better land elsewhere to pasture, and difficulties with a rising water table as the climate became colder and wetter from the late 13th century. Langford was also deserted. Again, the initial decline stemmed from the need to reorganise the farming regime with consequential beginnings of enclosure. 400 acres were let out here to Newark butchers in the late 16th century; most probably these were in the Trent Washlands floodplain. Ultimately, in the late 17th century, the village was moved by the lord of the manor in a dispute over tithes. It seems very likely, though, that the village had already reduced greatly in size.
- 12 The development of enclosure in the East Nottinghamshire Sandlands was variable, again seemingly determined by local circumstances. Much enclosure was not recorded. That which was recorded dates to the late 18th and early 19th centuries. It is clear from the amounts involved at this time that there had been much earlier enclosure in some communities. This piecemeal reorganisation and enclosure took place over the later 16th, 17th and early 18th centuries. At Barnby in the Willows, farms were being enclosed 1608. Some communities were well advanced by the later 18th century, others such as Coddington or North and South Clifton were virtually untouched. In the main, though, the unenclosed areas were the “wastes”, the moors and heath, and meadows in the Trent floodplain. In 1790, for example, some 1590 acres of North Collingham’s cow pasture remained to be enclosed.
- 13 The effects of this late enclosure on the landscapes of this region can be seen graphically in the description given in 1798 of changes in Thorney. From having been largely “low moors, much flooded by rains”, some 200 acres of woodland had been planted and a further 700 acres enclosed out of “the best sort of common ling moorland”. This land had been divided into five small farms, each with brick and tiled houses and outbuildings, and hedges set out with hawthorn and birch. In this way, across the East Nottinghamshire Sandlands the characteristic landscape of villages and isolated farms was created. By the later 18th century it was normal to build new houses of whatever status in brick, and earlier houses with timber frames and thatched roofs were being replaced or clad in brick with tiled roofs. Local clay pits were the sources of these materials. The medium to large regular field layouts, often defined by deep drainage ditches, and the long straight roads of some localities, all speak of this opening up of the “wastes”.
- 14 Enclosure, drainage by means of ditch digging and underground piping, new farms and building in brick transformed the landscape of the East Nottinghamshire Sandlands by the mid 19th century. The farming regime was mixed convertible arable and animal husbandry in character, reminiscent of that of the Sherwood region. Grass was a rotational crop, with root crops to provide animal fodder and to market, and animal grazing with sheep on the better drained land, and cattle on the lush grasses of the river valleys and low lying areas. New landscape features appeared, principally small blocks of woodland plantation, often on the

- 15 periphery of communities on the most difficult land, and country houses at Langford, Thorney and Winthorpe, the parks and gardens of which also contributed oases of trees and greenery. The development of wooded hedgerows also added to this. The 19th century also saw gentlemen's houses such as Beaconfield Hall at Coddington being ornamented with gardens and planting. In 1846 the Nottingham to Lincoln railway line was laid down through the region, adding railway stations, level crossings and signal boxes to the countryside. Industrial development was essentially rural, with occasional small-scale sand and gravel pits, and, in the southwest around Balderton, gypsum quarries. A number of villages also had maltings, with no fewer than three at North Collingham.

- 16 The 20th century has made its own additions, notably to meet the needs of motorists, with development of the Great North Road to a near motorway standard and upgrading of the carriageways and kerbing of other roads. The relatively flat open countryside of moorland origin was well suited to the development of World War II airfields, the legacy of which has remained in the hedgerows, treelines, roads and buildings of particular localities, irrespective of the use to which these air bases have since been put. Agriculturally, the farming regimes of the region were able to adapt to the changes in economic conditions in the later 19th and 20th centuries, although the difficulties of the periods of recession in farming were no less than in other areas of Nottinghamshire where soils were difficult. As elsewhere, governmental farming policies since 1945, and the development of modern fertilisers, have canted agriculture towards arable, although pasture is still a significant minority land use.

- 17 As with other regions of the County, the landscape of the East Nottinghamshire Sandlands has all too often been described in terms of its later history. However, this is but one stage in a human and environmental continuum which, in this region, merits much closer study.

5 South Nottinghamshire Farmlands

1. The landscape of the South Nottinghamshire **South Nottinghamshire Farmlands** is superficially a creation of the enclosure movement of the 16th, 17th and 18th centuries, modified to meet the needs of the post-1945 economy and modern farming techniques. Behind this, however, stands over 2,000 years of settlement and land use which have influenced over successive generations the development of today's countryside. Together with the Trent Valley, this region was consistently the most densely settled and economically strong area of pre-industrial Nottinghamshire, from late prehistory to the end of the 18th century.
2. Early prehistoric activity throughout the region is demonstrated by the frequent finding of flint tools and fabrication debris on the surface of ploughed fields, and by the remains of funerary and ritual monuments. Studies are insufficiently advanced at present to permit meaningful estimates of the effect of this activity upon the forest landscape which developed after the end of the Ice Ages, although the grazing of domesticated livestock and cultivation will have affected the flora of the woodland and produced localised thinning and clearings. This appears to be a major factor in the national diminution of elm after 4000 BC and an increase in hazel. Locally, the composition of the woodland will have varied with the soil conditions, being largely oak, lime, and alder dominated.
3. The 1st millennium BC and the early centuries AD saw large-scale landscape change. During late prehistory the **South Nottinghamshire Farmlands** became extensively settled, with farms and associated field systems becoming ubiquitous throughout the region. Occasional larger settlements, probably serving some sort of market and religious functions adjacent to important crossroads and river crossings, developed near Bingham and probably East Stoke. When the Romans arrived in the middle of the 1st century AD, they found an already densely settled and well-developed landscape. In the initial conquest period the Fosse Way was built through the new Roman province as a principal route, which in this region almost certainly followed an existing line of communication above the Trent Valley. Military forts were established at Margidunum, outside Bingham, and Ad Pontem, at East Stoke. These commanded the existing larger settlements and their important communications. The forts had a relatively short life as the focus of military and political activity moved north, but the importance of the larger settlements remained. They became small towns, centres for markets, tax collection (especially of the corn tribute), and local administration. Settlement and agricultural exploitation in the region remained extensive.
4. The result of this history was the clearance of the natural woodland and the development of an agricultural landscape of arable and pasture fields. Grain and seeds from a Roman site at Bunny indicate the cultivation of wheat and other arable crops, together with the presence of grassland and possibly hedgerows, while bones demonstrate the keeping of sheep and some pigs. At Margidunum, animal bones found in excavations largely represent stock brought in from the surrounding area, covering both part of this region and the Trent Valley. From these it appears that sheep were important in the early Roman phases, but after the last quarter of the 1st century AD cattle predominated. Putting this evidence together with our knowledge of the late prehistoric and Roman economy, it would not be unreasonable to envisage much of the clays being given over to corn production with pasture and meadows along the ~~Smite and~~ Devon Valleys, beside streams and in other lower damp areas. The marshlands mentioned above will have served also for grazing and wild fowling.
5. What happened at the end of the Roman period is not clear. Doubtless the region shared in the general decline in population during the 4th and 5th centuries and saw its share of social and economic change as Roman institutions and organisation withered. The early date of some place names and the general distribution of Anglo-Saxon cemeteries, together with the

social and economic arrangements suggested by later documents, particularly Domesday Book, suggest that the **South Nottinghamshire Farmlands** substantially retained their population and economic vitality and were in consequence attractive to Anglo-Saxon incomers seeking wealth and power. Current models of Early and Middle Saxon settlement patterns are of dispersed farms and some larger settlements, not dissimilar to the basic pattern of later prehistory and the Roman period. The landscape of this region during the period up to the later 8th or 9th centuries, then, is likely to have been little different from that of these earlier periods, although it is possible that woodland may have temporarily increased somewhat and that some arable had been converted to pasture as former pressures on land use diminished.

6. By the 9th century and more particularly from the 10th century, after the Scandinavian invasions and settlement of the East Midlands, substantial changes in the countryside appeared. Under the growing pressures of a rising population and the growing powers of local landlords, the dispersed settlement pattern began to be replaced by one of nucleated villages with people grouping together around the farm of the local lord, or at other geographically favoured locations. This was probably accompanied by reorganisation of landholdings to create early forms of open fields, farmed in common. Thus the typical village pattern of the English Midlands and Nottinghamshire began to be created. It was a gradual process, however, and took many generations to create: there is evidence that the nucleation of some Nottinghamshire villages was still in progress in the 12th century. In the **South Nottinghamshire Farmlands**, however, it is likely that village formation was well advanced when Domesday Book was drawn up in 1086. The foundation of the modern landscape of the region then, was substantially laid by the end of the 11th century.
7. By 1086, as Domesday Book shows, this region was part of the most densely settled and cultivated areas of Nottinghamshire. Indeed, the area around Bingham supported the highest population and the greatest number of plough teams of the whole County. Calculations of the areas of land use nominally represented in Domesday Book imply that in every community the land was totally taken up in farming. Arable cultivation predominated everywhere and in many, but not all, communities meadow was recorded, often in small amounts. Woodland was rare, being recorded in only 6 communities and usually of small extent. The impression is strongly of a long-established, extensively cultivated countryside.
8. This was the pattern for the early Middle Ages. Continuing population growth saw most villages expand in size and the continuing development in field organisation to create a landscape of open fields, cropped on a 3 or 4 course rotation, with meadow and grazing in valley bottoms, along the Smite/Devon Valley, in the marshlands and on other pockets of land unsuitable for tillage, and some, comparatively few, hedgerows around villages, along lanes and between the open fields. By the late 13th century, when the mediaeval population reached its height, the agricultural regime had become heavily weighted towards arable production and cultivation extended into pastures and marginal land.
9. The development of the modern **South Nottinghamshire Farmlands** landscape has its origins in the 14th century. The Black Death in 1349 and repeated subsequent visitations of plague reduced the national population by over one third. The documentary record is insufficient to permit an accurate estimate of the effect of these epidemics in this region, but there is no reason to believe that it suffered any less than elsewhere. However, in Nottinghamshire it appears that outbreaks of disease were not consistent from one place to another; while one community might be struck badly, another might escape almost completely. Contrary to common belief, there is no evidence that any community in this region disappeared as a direct consequence of the plague. The 14th century epidemics, however, did usher in a period of protracted change in society and economy, which had its effect on the countryside. With reduced population and social change, there was a swing away from arable

production. Marginal ploughlands and pastures were restored to grassland and open field rotations reorganised to allow for longer fallows, temporary grass, and the creation of closes of permanent grass. Vacant tenancies were engrossed into occupied farms, creating more differential between large and small farms. With land exchanges the tendency grew for the larger farms to be made up of consolidated blocks of land within the open fields, and for boundaries of these to become fixed. Overall, the 15th and 16th centuries saw the establishment of convertible husbandry, with a more balanced, mixed farming regime.

10. Not all communities prospered in these changed social and economic circumstances. By the late 15th century, some were so weakened and the incomes so reduced that some landlords and tenants saw enclosure and conversion to grazing as their most profitable option. The **South Nottinghamshire Farmlands** and the Trent Valley led the way in this movement, with some of the enclosures, such as at Hawton and Cotham, resulting in the virtually complete depopulation. However this was usually less drastic than it appears because the communities were already in decline. During the 16th and 17th centuries virtually two thirds of the parishes in the **South Nottinghamshire Farmlands** were enclosed in whole or part, for permanent or temporary grass. This does not take account of much of the small-scale piecemeal enclosures by which closes and small fields were, or had already been, created immediately adjacent to most villages and which are recognisable today by their irregularity and species-rich hedges with mature trees.
11. Enclosure of the remainder of the region came in the second half of the 18th and early decades of the 19th centuries. This was the age of agricultural improvement, when open fields were seen as anachronistic and an impediment to progress and enclosure was promoted through Acts of Parliament to overcome objectors. Laid out by surveyors, the field systems created through parliamentary enclosure tend to be larger and more regular than those of the preceding centuries. They were also intended for arable and crop rotation rather than long-term or permanent pasture. With enclosure came new developments, both in qualities of livestock and in the improvement of the land.
12. Enclosure, and the move towards more grassland, also brought the opportunity for the owners of country houses to embellish them with parks serving both pleasure and husbandry, laid out to be ornamental and provide grazing for sheep and cattle. Any large house of high social standing might be expected to have at least large ornamental gardens. Over a dozen of such parks and gardens are known in this region and contributed, indeed still contribute, oases of trees and greenery to the agricultural landscape. More important to the general character of this countryside, however, was the rebuilding of villages in brick. Beginning with the houses of the nobility and gentry. Gradually, during the 18th and 19th centuries, the old style of buildings with timber frames or of mud-and-stud construction and thatched roofs were replaced, or encased, in brick with pantile and some plain tile roofs. Local clay pits and brick kilns were often the source of the bricks.
13. The pattern of convertible husbandry established in between the 15th and 17th centuries continued throughout the 19th and early 20th centuries, within the landscape created by the two main episodes of enclosure. Despite fluctuations in demand and the effects of the importation of foodstuffs, it was not until the effects of the post World War II farming policies were felt that there was substantial change in this countryside. This change has seen the modification of the enclosure landscape by the removal of hedges and ditches so that fields might be amalgamated and modern large machinery be deployed, and the ploughing up of much grassland, some untouched since the 16th century, as production swung back to a preponderance of arable.

14. Many of the modern features of the countryside of the **South Nottinghamshire Farmlands** are relatively recent in its long history. The red brick character of its villages is the product of the 18th and 19th centuries, while the enclosure pattern of its field systems was laid out between 1500 and 1820. The current manifestation of the tradition of arable farming, with much of the openness of the alluvial flats, is due to boundary clearance and virtual monoculture over the last 50 years. On the other hand, the fundamental characteristics of the region are a continuity of land use and settlement pattern going back to Late Saxon times, and earlier. The agricultural vitality of the region, high population, extensive cultivation and lack of woodland are dominant themes which were established early and have influenced its landscape in every generation of its history.