

Nottinghamshire, Derbyshire & Yorkshire Coalfield

Character Area

38



Key Characteristics

- Widespread evidence of industrial activity including mine buildings, former spoil tips and iron and steel plants.
- Complex mix of built-up areas, industrial land, dereliction and farmed open country.
- Many areas affected by urban fringe pressures creating fragmented and downgraded landscapes.
- Substantial areas of intact agricultural land in both arable and pastoral use.
- Small, fragmented remnants of pre-industrial landscape and semi-natural vegetation, including many areas of woodland, river valley habitats, subsidence flashes and other relict habitats.
- Ever-present urban influences from major cities, smaller industrial towns and mining villages.
- Widespread influence of transport routes, including canal, road (M1, M62) and rail, with ribbon developments emphasising the urban influence in the landscape.
- Rolling landforms with hills, escarpments and broad valleys.
- Local variation in landscape character reflecting variations in underlying geology.
- Strong cultural identity arising from history of coal mining and other heavy industry.

Landscape Character

This is a large landscape area which embraces the major industrial towns and cities as well as a substantial slice of countryside and the villages of the Nottinghamshire, Derbyshire and Yorkshire Coalfields. It is generally defined by shallow Coal Measures as the underlying bedrock and is bounded by the Peak District and the woollen towns of the Yorkshire Southern Pennine Fringe to the west, by the Pennine Dales Fringe to the north and by the Southern Magnesian Limestone escarpment to the east.



JOHN MORRISON/COUNTRYSIDE COMMISSION

As the coalfields adjust to the decline of traditional heavy industries, there is considerable demand for new industrial and commercial premises, such as these being built at Hanging Heaton. Good location and design of new buildings could make a positive contribution to enhancing the environment of the area.

The landscape is underpinned by generally low and undramatic but variable hills, escarpments and broad valleys. It is dominated everywhere by extensive urban influences and industry. There has been constant change and development since the era of the industrial revolution, when there was rapid expansion of housing, transport networks and industry of many types. The result is a complex intermingling of rural and urban areas and of modern commerce and industrial dereliction, the whole creating a mosaic of disparate land uses and land cover.

The landform is characterised by generally north-west/south-east ridges formed by the alternate banding of wet shales and dry sandstones, although locally this can be confused by faulting and folding. The different rates by which these bands weather away give rise to the undulating waves of the landform. The natural west to east flow of the rivers, from the Pennines to the North Sea, is almost at right angles to the ridges. In practice this creates a very characteristic pattern in the river valleys which flow north or south along the shale/mudstone troughs between the ridges until a weak spot in the softer sandstone is encountered, for example, at a fault. Here the stream or river will abruptly change course almost at



right angles to its previous course until it hits another ridge line. This characteristic step wise flow and valley/ridge structure results from the underlying Coal Measures geology. Towards the west of the area there is a distinct drop from the Pennine uplands to the lower-lying east. Further local variation in the topography arises from glacial deposits and alluvium or as the result of recent human activity in the form of subsidence flashes and reclaimed colliery spoil heaps.

Industrial activity has resulted in a diversity of building types and styles extending out from village centres. Many of the rural areas suffer from urban fringe problems around the main towns and some are fragmented and down-graded, creating a landscape of neglect. There are, however, stretches of relatively unspoilt agricultural land which give rise to some quite intact farmed landscapes, for example the area west of Barnsley and the Moss Valley between Sheffield and Chesterfield. Semi-natural habitats, including woodland and river valley habitats, are fragmented and scattered but they assume a greater significance, surrounded as they are by urbanisation and dereliction. In some areas the broadleaved woodlands form green, calm backdrops to the mix of uncoordinated development. In Derbyshire remnants of enclosure and other pre-industrial landscapes jostle cheek by jowl with the industrial heritage. The effect of ribbon development is such that it exacerbates the predominance of the urban influence. At the same time, extensive land renewal projects are creating new landscapes particularly along the river valleys.

Much of the landscape is dominated by the extensive urban areas and by industrial activity. Mills and factories tended to follow water courses along the valleys whilst the underlying coal gave rise to a very active mining industry. Many of the mines have now closed but the remains of collieries and extensive spoil tips are still clearly visible in many villages and small towns in the eastern half of the area. More recent developments for engineering, manufacturing and light industrial uses, as well as for commercial and retail development, have extended out from urban areas. They often follow the main road corridors adding ribbon development and its impact on the landscape to the complex mosaic of land uses. The ensuing dense network of roads, along with major transport routes such as the M1, M62 and the main railways, all compound the urbanisation of the area.

Several major rivers cross the area, including the Aire, Calder, Dearne, Rother, Don and Erewash, but their courses tend to be obscured by the industrial development that has grown up around them. Subsidence flashes and lagoons create valuable wildlife habitats in these valleys but they are often surrounded by mines, tips and industrial works. Often only the general valley form distinguishes these areas.



SIMON WARNER/COUNTRYSIDE COMMISSION

Many urban settlements of the coalfields are set within a rolling arable landscape. Settlement edges are often hard, with new housing and industrial development clearly visible over long distances. The landscape is quite open, tree cover is fairly sparse and hedges are cut low, are gappy and are often poorly maintained. The urban fringe of Wakefield is typical of many settlements in the coalfields.

Physical Influence

The area is underlain by Coal Measures which consist mainly of mudstone with beds of sandstone and many seams of coal. Like the Millstone Grit of the Pennine uplands to the west, the sandstones resist erosion and form a recurring pattern of escarpments that stand proud of shallow, mudstone-floored valleys. The sandstone beds of the Coal Measures are rather thinner than those of the Millstone Grit, however, and hence the escarpments they form are less dramatic, lower and more rounded. Major rivers crossing the area have carved broad valleys floored by fertile alluvial deposits and glaciation has contributed to the shaping of some valleys such as the Aire Valley near Leeds.

It is, however, the working of coal by deep mining and later by open-casting, together with resources of stone, fireclay, ironstone and soft water, which have had the greatest effect in shaping the landscape and which triggered the industrial growth which has been so dominant in its effect on the area.

Historical and Cultural Influences

The early history of the Nottinghamshire, Derbyshire & Yorkshire Coalfield landscape was similar to that of the surrounding areas. Clearance of the original forests eventually led, by medieval times, to a landscape of villages, hamlets and individual farms. Well-developed open field systems were common in the east but small, irregularly hedged and walled fields prevailed further west. Hunting forests and deer parks were established and the open fields and commons were gradually enclosed, privately initially, and then by Parliamentary Enclosure Acts.

The medieval manorial parks were mostly deer parks by the 17th century. These were often landscaped in the 18th century usually retaining their herds of deer. Holly trees were grown as winter fodder for deer, cattle and sheep, either within the remaining ancient broadleaved woods or as 'holly hags', ie separate holly wood enclosures. The presence today of holly as a major component in many of the older hedgerows may reflect this history.

Much of the evidence of activity by earlier generations has, however, been lost to the widespread urbanisation that took place from the 18th century onwards due to large-scale industrialisation and the rapid increase in population. The making of iron and steel is documented from the early part of the 17th century and local resources of iron ore resulted in the development of the iron and steel industry. A specialist cutlery industry developed around Sheffield. In the early part of the 17th century the industry would have relied on charcoal from local woods but this was subsequently replaced by coke. Rich local sources of coal meant that the conditions were right for a massive expansion into the large-scale steel industry, with the development of steam power, in the 18th and 19th centuries. The coal mining industry also developed dramatically, relying initially on canals and roads, and then on the expanding railway system for transport.

The landscape is rich in industrial archaeology, including features such as bell-pits, mills and goits, tips, old railways and tramways, canals and bridges. Many of the woodlands also have strong industrial links with oak having been managed for pit-props or bark for the tanning industry, and with sycamore to provide bobbins.

With the combination of natural resources and good quality agricultural land, wealth was rapidly accumulated from the 17th century onwards. Wealthy industrialists created a number of large country houses, parks and estates in the area in the 18th and 19th centuries, many of which still contribute to the character of the landscape today.



JOHN MORRISON/COUNTRYSIDE COMMISSION

The Coal Measures give rise mainly to poor soils, which have traditionally supported pasture. Today, however, the pattern is more variable with the balance shifting towards arable farming, as seen here near Jaw Hill.

Although coal mining, steel making and heavy manufacturing are now in decline, new industrial activity is evident with the expansion of light industry, technology and related industries such as ceramics and specialised engineering. The disturbed landscape of sprawling conurbations, with their intermingled housing, roads, railways, industrial buildings, dereliction, redevelopment and remnant rural areas, continues to evolve.

Buildings and Settlement

Older traditional villages in the Nottinghamshire, Derbyshire & Yorkshire Coalfield area were built of local stone, generally sandstones and Millstone Grit, and the core of these areas often survives today. The majority of settlements were, however, subject to rapid, industrial expansion in the 19th century and completely new mining villages were also built. Brick and slate, often transported by rail, quickly replaced stone as the local building material and many of the brick-built mining villages and towns built in that period still survive today. Expansion has continued and these settlements, with the remains of the mining industry, dominate the landscape over wide areas.

Many of the main cities and towns have striking urban centres, dominated by grandiose 19th century architecture, despite the high level of rebuilding in the 20th century. Industrial benefactors were responsible for many notable 19th century town and civic halls, schools, museums and art galleries in several town centres, all constructed from the Millstone Grit. Similarly the large gritstone factories and mills dominate the valleys to the west.

Sheffield developed as a major industrial conurbation because of the combined resources of fast-flowing water, coal and iron and was noted for its manufacture of items of high quality steel, in particular cutlery. Small-scale workshops gave way to enormous blank-faced steel rolling mills and forges. Although many of these are now being demolished, manufacturing is still an important industry especially in the Rother valley.

Historic buildings, especially old churches, country houses and follies associated with country estates are important features and landmarks. Wealthy industrialists built imposing country houses in the area, well away from the industrialised towns. These houses and their associated parks occur throughout the area and include the ring of parks around Leeds, notably Roundhay, and the large estates overlooking the Doe Lee in north Derbyshire, for example, Hardwick Hall, South Wingfield and Bolsover Castle.

Development continues throughout the area, with new housing, commerce and industry steadily encroaching into the remaining rural areas.

Land Cover

The Coal Measures give rise mainly to poor soils which have traditionally supported pasture. Today the pattern is more variable and the balance is shifting towards arable farming. To the east especially, and on lower ground, the land is of relatively good agricultural quality and is used for arable crops or improved grassland. Permanent pasture is dominant to the west, on higher ground with greater rainfall, and dairy farms generally predominate here. Vegetable growing is significant in some areas.

Tree cover is variable but generally low. In areas where the field pattern is intact there are sometimes thick hedgerows with oak and ash as hedgerow trees. Elsewhere this pattern has broken down and trees are sparse. Urban fringe influences are widespread, with small fields of often degraded pasture, vegetable crops and cereals, gappy low cut hedges, broken fences, horse grazing and varied urban fringe activities. Semi-natural habitats include open water, wetlands (including subsidence flashes), grassland, remnant heaths and woodland and these are all of great importance for nature conservation. Many occur within the urban areas or in green corridors leading into them. On poorer soils or steeper slopes there are pockets of broadleaved woodland which, together with the farmland, help to contain the urban development. Relatively low rainfall makes this an area of slow tree growth and so forestry has never been a feature. Nevertheless in some areas, such as west of Barnsley and the Moss Valley, there is a pleasing combination of farmland interspersed with small broadleaved and conifer plantations.

Field size and pattern is highly variable and field boundaries also vary. They range from thick, well-maintained hedges to close-cropped or neglected hawthorn hedges and also include post and wire or post and rail fences.

The Changing Countryside

- The decline of the deep coal-mining industry, and of other traditional heavy industries in the area, has left a legacy of dereliction. There has also been change through the removal of formerly widespread structures like pit-head winding gear. Mines continue to be pumped and in some areas provide important sources of drinking water and river compensating flow. Nevertheless there are still risks of pollution from closed mines and pressures for coal extraction by open-cast methods still continue along with the demand for after use of these sites for waste disposal.
- Large-scale programmes of reclamation of coal spoil heaps and other industrial dereliction has created a greener appearance and clear evidence of a new generation of reclaimed landscapes. Many areas of woodland have, for example, been planted in the past ten years. Through a heightened awareness of the value of woodlands in the

landscape and the commitment of Government and a wide range of groups and agencies, this trend is accelerating in areas such as the South Yorkshire Forest, between Sheffield, Rotherham and Barnsley, and the Greenwood Community Forest around Nottingham.



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Several major rivers cross the area, including the Aire, Dearne, Rother, Don, Erewash, and, as seen here, the Calder. Their courses are sometimes obscured by the industrial and housing development that has grown up around them, so that their presence in the landscape can be negligible. However, they can form important foci for environmental enhancement.

- As a densely settled landscape, including a number of major towns and cities, there are continuing pressures for development of housing, commerce and industry. The transport network has also been developed and improved over the years including the construction of several major motorways and trunk roads through the area. Improvements in transport networks continue and new or improved roads themselves generate further demand for development especially at main junctions. All the development has led to a significant loss of tranquillity throughout the area and the development pressure will undoubtedly continue.
- There are significant urban fringe pressures affecting the countryside around towns and cities. This, along with fragmentation of viable holdings, makes farming difficult and the pressures are evident in occasional poor standards of maintenance, for example of field boundaries, and poor quality pasture used for horse grazing. Demands for recreation and access are high which can create opportunities but may also bring additional problems for farmers. Some rural buildings are being sold off, usually for conversion to residential use, which results in a degree of suburbanisation of the countryside.

Shaping the Future

- Reclamation of derelict sites will continue and provides significant opportunities for enhancing or creating both landscape and wildlife habitats. Care is needed to ensure

that the wealth of natural regeneration that has spontaneously developed on many post-industrial sites, often over a varied topography of intimate scale and with rich historical associations, is fully appreciated and enhanced rather than erased by reclamation.

- The enormous potential for enhancing this landscape by, for example, significant woodland planting has already been recognised and there are established Community Forest initiatives near Sheffield and Nottingham and similar programmes around Leeds and in east Derbyshire and Sherwood. In the Community Forests a rich mosaic of land uses will be created, restoring dereliction and creating sites for sport and recreation, habitats for wildlife and opportunities for outdoor education to improve the quality of life for all. There may be opportunities for this sort of approach to be applied in other parts of the area.
- Recreation offers scope to enhance the landscape and to bring degraded land back into positive management. Creation of new, formal, access opportunities, nature-conservation features and facilities such as golf courses and other visitor attractions can assist in renewing the landscape in appropriate locations.
- A number of major initiatives are already underway in the Nottinghamshire, Derbyshire & Yorkshire Coalfield landscape aimed at environmental improvement and enhanced opportunities for enjoyment. These build on the environmental work of the local authorities over the past 20 years or so. In addition to the activity in the Community Forests referred to above, examples include Groundwork initiatives and the East Derbyshire Woodlands Project. Greater co-ordination between different schemes and the economic and social development process may assist the process of renewal in the future.
- Where hedges and hedgerow trees have declined, hedgerow restoration and replanting will improve wildlife habitats and strengthen landscape structure. In sustainable farming areas it may be appropriate to restore field patterns.

Selected References

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- Pevsner, N revised by Radcliffe, E (1967), *The Buildings of England: Yorkshire - The West Riding*, Penguin Books.
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- South Yorkshire Forest (1993) *Forest Plan - Consultation Draft Summary*. Countryside Commission.

Glossary

- flash*: a water body caused by mining subsidence
- goit*: local term for a mill-race



Tree cover is variable, but generally low. In areas where the field pattern is intact there are sometimes thick hedgerows with oak and ash as hedgerow trees. There are also areas of coniferous or mixed plantations such as here at Nether End. This is a landscape with considerable potential for enhancement through tree planting, as recognised by the presence of two Community Forests and several other woodland initiatives within the area.