

**The Durham Landscape**

Physical influences

Human influences

The modern landscape

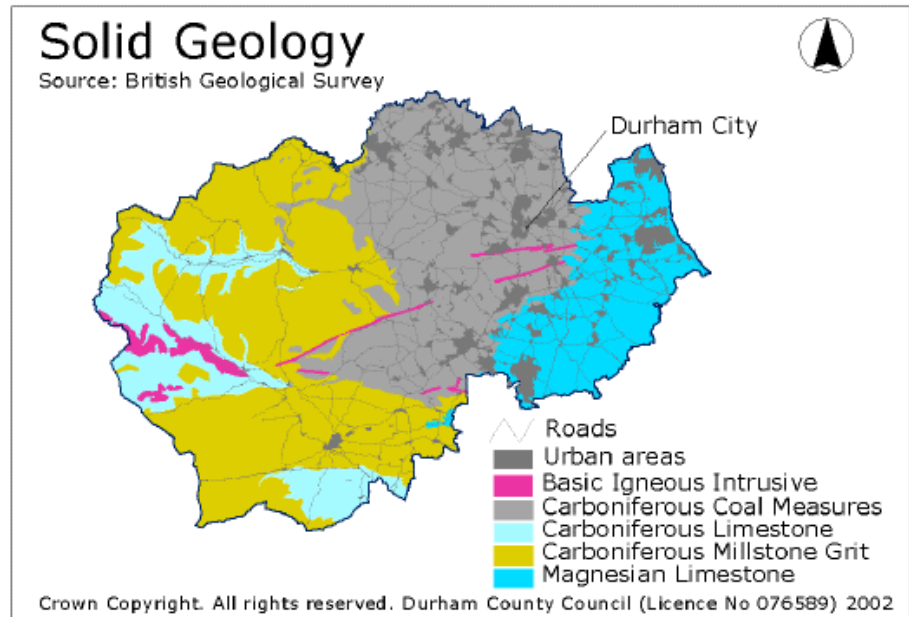
Perceptions of the landscape

Designated landscapes

## Physical influences

The Durham landscape is heavily influenced by the character of its underlying rocks, by the effects of erosion and deposition in the last glacial period, and by the soils that have developed on the post-glacial terrain under the influence of the climatic conditions that have prevailed since then.

### Geology



The geology of the county is made up of gently folded Carboniferous rocks dipping towards the east where they are overlain by younger Permian rocks. In the west, thinly bedded sandstones, mudstones and limestones of the Carboniferous Limestone series (Dinantian period) outcrop in the upper dales and are overlain by similar rocks of the Millstone Grit series (Namurian period), which form most of the upland fells. The alternating strata of harder and softer rocks give a stepped profile to many dale sides and distinctive flat-topped summits to the higher fells.

Older Ordovician rocks, largely made up of pale grey mudstones or slates showing a degree of metamorphism, occur in a small inlier in upper Teesdale.

The rocks of the Millstone Grit series are overlain in the north by the Lower and Middle Coal Measures (Westphalian period) which fall from the upland fringes to the lowlands of the Wear and dip under the Permian Limestone in the east. The soft and thinly bedded strata of coal, sandstone and mudstone have been eroded to form gently sloping valley sides where occasional steeper bluffs mark thicker beds of harder sandstones.



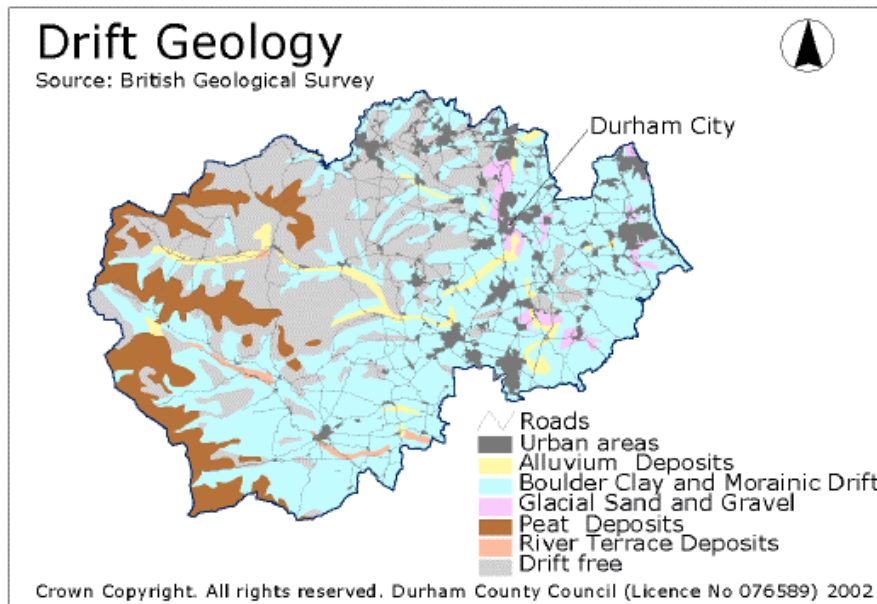
*Magnesian Limestone Quarry  
at Cornforth*

The Magnesian Limestone forms a low plateau in the east of the county which dips gradually from a prominent escarpment along its western edge towards the north sea, where it is deeply incised by coastal dunes and exposed in coastal cliffs and marine platforms. The soft and easily weathered dolomitic limestone gives a gentle profile to the topography of the escarpment.

Igneous intrusions of hard dolerites of the Great Whin Sill form a series of striking outcrops and waterfalls (including High Force, England's largest waterfall) along the southern flanks of Teesdale in an area defined to the north and south by the Teesdale and Lunedale faults. The Little Whin Sill outcrops locally in Weardale, and similar rocks can be found in linear dykes elsewhere. These only affect the landscape where they have been quarried.

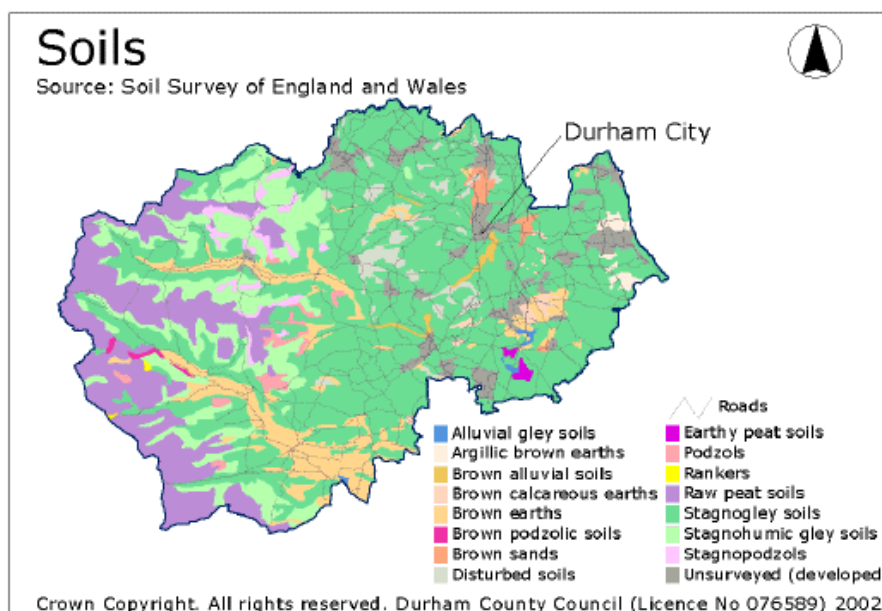


*The Great Whin Sill at High Force*



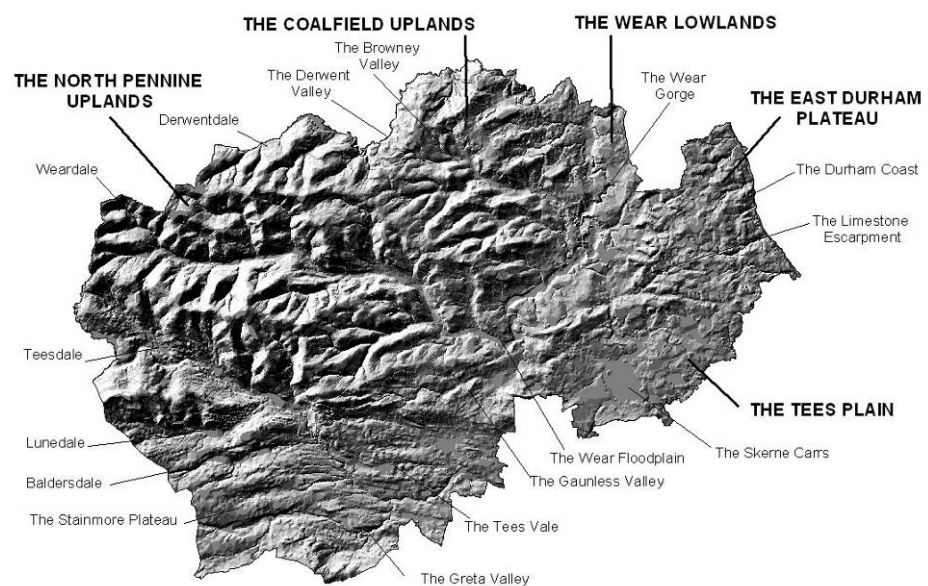
Much of the solid geology of the county is covered by a thick mantle of glacial drift, made up largely of boulder clay, with pockets of fluvio-glacial sands and gravels, morainic drift and lacustrine clays. Alluvial and river terrace sand and gravel deposits are found in the corridors of major rivers. Thick deposits of blanket peat cover the higher upland fells.

## Soils



Soils over most of the county are heavy, poorly drained gleys derived from glacial boulder clays with pockets of lighter soils associated with glacial sands and gravels. Brown earths and alluvial soils occur along the main river valleys. Calcareous brown earths are found on limestone outcrops along the escarpment and coast. In the west the combination of elevation, poor drainage and severe climate has led to the development of extensive blanket bog of deep peat giving way on the drier eastern moors to thinner peats, humic gleys and podzols. Smaller pockets of earthy peats are found in the flat carrs of the Tees Plain. Substantial areas of land in the coalfield have been disturbed by opencast coal mining or the reclamation of derelict land and have either restored natural soils or rudimentary soils derived from shales and clays.

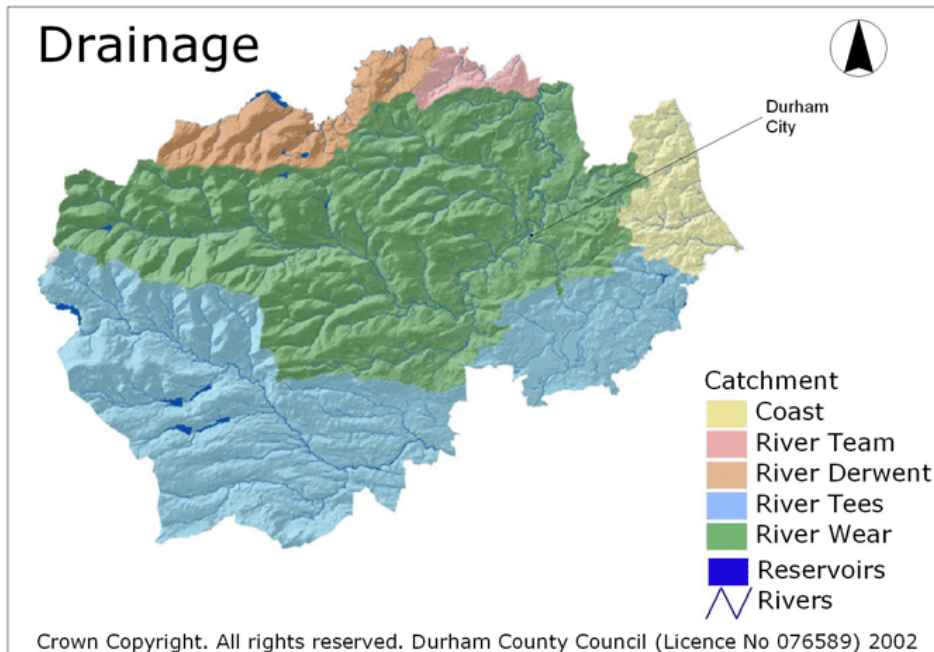
### Topography and Drainage



The high summit ridge of the North Pennines lies largely outside of the County to the west. Mickel Fell is its southernmost outpost and at 790m is the highest point in the county. High dissected ridges separated by broad dales spread out from the summit ridge. To the south the broad plateau of the Stainmore Gap falls to the broad vale of the Tees. The lower uplands of the Pennine fringe fall gradually eastwards to the lowlands of the Wear Valley and the Tees Plain. Divided by rivers and streams flowing generally west to east they form a strongly rolling landform of sequential ridges and valleys.

The valley of the Tees in the south opens out into a broad, gently undulating plain. To the north the River Wear carves an incised course in a broad valley which lies between the spurs of the Pennine fringe ridges and the escarpment of the limestone plateau to the east. Across these valley landscapes, rivers and streams cut down through glacial sediments to form steep sided denes and bluffs beside intermittent narrow floodplains. In the east, a low upland of Magnesian Limestone falls from a prominent escarpment in the west towards the coast where it is incised by steep denes such as Castle Eden Dene.

The coast itself is made up of alternating sandy bays and rocky headlands backed by low cliffs of soft Magnesian Limestone topped by steep slopes of boulder clay. To the south the cliffs disappear and are replaced by sand dunes.



The valleys of western and central Durham are drained by the Wear and the Tees and their many tributaries. In the north the Derwent and the Team flow northwards to the Tyne. The undulating plain of the Tees contains poorly drained flats and carrs drained by wandering, slow moving tributaries like the River Skerne. East of the limestone escarpment the plateau is drained by minor streams flowing eastwards through the coastal denes to the North Sea.

## Climate

The county lies largely in the rain shadow of the Pennines and the eastern lowlands are among the driest areas in England. It is also relatively cold; its mean annual temperature of 8.3C reflecting its northerly latitude, the cooling effect of the North Sea to the east and the lower temperatures of higher ground in the west.

Both rainfall and temperature vary considerably with altitude and there is a pronounced climatic gradient from west to east. The higher fells of the west of the county have a severe climate of high rainfall (>1200mm) and low temperatures. The lowlands are drier (<650mm) and milder although the coastal strip is affected by the cooling influence of the sea and subject to regular mists or fogs.

Average wind speeds are relatively high, and some coastal and upland locations suffer from severe exposure. Away from the warming influence of the sea in winter along the coast, frosts occur between September and May in most years.

More detailed information on the geology of County Durham can be found in the County Durham Geodiversity Audit available from Durham County Council.



## Human influences

Few landscapes in the county are truly natural, although the highest ridges and summits of the Pennines have a near wilderness quality in places which owes little to human activity. Much of the landscape has been heavily influenced by man and has evolved gradually over time with each generation adding to the legacy of those who came before. Some landscapes, like the remoter upland moors, have changed little over the last two thousand years. Others, like the settled coalfields, have been subject to enormous changes in the last two centuries. In places the landscape owes much to one particular period in its history but for the most part it has great 'time depth' with features surviving from many periods.



*Cup and ring marked stone*

### Prehistoric ( to 70AD)

After the retreat of the glaciers at the end of the last ice age, the glacial tundra was gradually colonised by woodland made up of pioneer species like Birch, Juniper and Willow. In the period of relatively stable and warmer climate which followed a mosaic of woodland covered all but the highest Pennine summits, dominated in most areas by Oak, Elm and Hazel, with Ash on limestones, Pine and Birch on acidic soils and Alder and Willow on wetter ground.

The onset of the wetter Atlantic climate at around 5000 BC saw blanket peat spreading across the higher moorland ridges and summits displacing woodland. This process was fuelled from around 3000 BC as woodland began to be cleared on a small scale by Neolithic farmers. The progressive clearance of woodland continued throughout the Bronze and Iron Ages and by the time of the Roman invasion much of lowland Durham would have been covered by a network of small 'Celtic fields' surrounding small family farmsteads. Extensive tracts of blanket bog, rough grazing and open woodland remained on the high ridges of the uplands.

Little survives from this period in the modern landscape. Some features of Bronze Age ritual and domestic landscapes – stone circles, cup and ring marked stones and cairnfields – can be found in the upland moors. The most notable examples are on Barningham and Ravock moors. The field systems and cultivation terraces of early farms are visible as earthworks where they have escaped deep ploughing. Elsewhere they persist only as crop marks. Remains of the hearths of early iron workers are scattered across high ground exposed to the prevailing winds.



*Rey Cross Camp*

### Roman (AD70 – C5)

The agricultural landscape probably changed little during the Roman occupation. Having conquered the native Brigantes around 80 AD, the Romans built Dere Street as their supply route from York to the Firth of Forth. The road remained in continuous use throughout the Roman period and, as Durham was then a frontier territory, a number of forts were built along its length. Around 120 AD, having failed to subdue the inhabitants further north, they built Hadrian's Wall stretching 117 km (73 miles) from the mouth of the River Tyne in the east to the Solway Firth in the west. Having established this frontier, the more fertile terrain of mid Durham to the south became important for provisioning and leisure, and the mining of coal and metal ores.

The principal impact of the Romans on the landscape of the County lies in the great roads like Dere Street and Cades Road, many of which are still in use today, and in the settlements that developed from their camps including Ebchester, and Lanchester and Rey Cross. Notable physical remains include the fort and bath house at Binchester and the forts at Lanchester and Rey Cross on the A68

### Early Medieval (C5-1066)

Angles, Saxons and Jutes from Denmark and northern Germany settled on the Durham Coast during the 5th Century displacing or assimilating the native Britons. By the end of the 6th Century the eastern lowlands of the county were densely settled. Most of the villages in these areas today have the names of Anglian villages and farms; -tun, -ham, -wick, and -worth. The uplands and fringes of the Pennines were less densely populated with scattered villages and seasonal stock farms separated by extensive tracts of open moor and woodland. Place names here refer to woodlands and clearings; -ley, -hyrst, -rydding and -wudu.

The area fell within the Anglian kingdom of Northumbria and much of the land came under the control of the monastic community of St Cuthbert. The Saxon legacy is often buried deep in the landscape as many of its features - villages, roads and territorial boundaries - have remained in continuous use to the present day. Of the few surviving Saxon buildings in the region, Escomb Church, is one of the finest examples of early Christian architecture in Northern Europe.

### Late Medieval (1066-1540)

The village system established during the Saxon period became more highly developed in the Middle Ages. Many villages appear to have been re-structured during the late 11th and 12th centuries, particularly those under monastic control, and show a typically regular layout of tofts or house plots arranged around a central green. The land was divided administratively into townships in which large arable fields, usually three in number, were cultivated in strips with one field lying fallow each year. Also included in the township land would be meadows, pastures, woodland and wastes or 'moors' of rough grassland or heath.

The period also saw an expansion of settlement in the uplands. Scattered villages surrounded by their open fields occupied ridge top sites in the upland fringes, and sheltered valley floors in the dales. Between them lay extensive wastes of common grazing. Some of the land was worked from seasonal livestock farms or sheilings, which later developed into permanent farms. New farms and estates were enclosed from the waste, often centred on fortified or moated halls. The medieval landscape also contained a number of deer parks, particularly in the Pennine fringe, and parts of the dales were forested. Forests were areas of open grassland, moor and woodland managed for the hunting of deer but containing some enclosed meadows or friths for gathering winter fodder.

The area formed part of the Palatinate of Durham where the Bishops enjoyed royal privileges and owned substantial estates including townships, demesne farms, deer parks, quarries and lead, silver, iron and coal mines. The ecclesiastical and political centre of the County was Durham with its Norman castle and Cathedral.



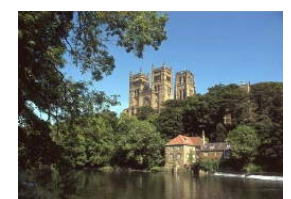
*Escomb Church*



*Rigg and furrow*



*Bowes Castle*



*Durham Cathedral*



*Egglestone Abbey*

The Cathedral housed the shrine of St Cuthbert and was an important pilgrimage site. Many other great buildings were developed during the period including abbeys at Egglestone and Finchale and castles at Auckland, Raby and Barnard Castle.

While the most conspicuous remains of the medieval period are the great castles and abbeys, many other relics survive in the modern landscape - which in places owes much of its structure to the villages and roads established in this period. The remains of medieval rigg and furrow can be found in older pastures around villages across the county and its curving pattern is preserved by countless hedges and walls. The ancient boundaries of parishes and old town fields can often be traced through later field systems.

### Post Medieval (1541-1899)

The exploitation of coal for domestic markets intensified in the 16<sup>th</sup> century with larger collieries developing along the Tyne exporting coal to the south of England and to Europe. Networks of waggonways spread south and west from the Tyne and the Wear as new collieries opened up across the northern coalfield. The lead mining industry began to emerge during the same period and by the C19th the North Pennines had become the world's leading lead ore field.



*Killhope Lead Mine*

The growth of industrial populations fuelled changes in the agricultural economy, stimulating enclosure of the common town fields, which were largely enclosed in the 17th century by private agreement, and the more extensive common wastes, which were enclosed under private Acts of Parliament in the 18th century. In the dales the dual economy of mining and farming saw the new farms of miner-smallholders established in the moorland fringe and new intakes from the moor.



*Early townfield  
Enclosures*

The town field enclosure brought hedges and trees and new farmsteads to the open farmland of the village town fields. The enclosure of the wastes introduced large rectangular fields bounded by thorn hedges and dry stone walls, new farms and plantations, and a new network of straight roads with broad verges. These later agricultural improvements, together with the development of country houses and ornamental parklands, were stimulated in part by the prosperity and modernising culture of colliery owners and industrialists.



*Parliamentary enclosures*

The coal industry expanded rapidly in the 19<sup>th</sup> century when the development of the steam engine and the railway opened up new markets, allowed deeper mines to be drained and coal to be hauled greater distances. The Durham Coalfield played an important role in the early history of the railways with engineers like George Stephenson and Timothy Hackworth and entrepreneurs like Joseph Pease combining to develop some of the earliest railway lines.



*Causey Arch*

New colliery towns and pit villages of terraced housing sprang up across the coalfield along with iron and steel and engineering works exploiting cheap coal and nearby reserves of iron ore and limestone in the North Pennines to the west. Heavy engineering associated with mining and railways developed closer to the eastern transport corridor in the south and along the major river valleys.



The population of the area increased dramatically with immigrants from rural Durham and Northumberland as well as from elsewhere in the British Isles and particularly from Ireland.

Many of the familiar features of the Durham landscape - hedgerows and dry stone walls, hedgerow trees, roads, railway lines, viaducts and mining settlements - date from this period. The physical remains of the coal mining industry were largely removed by the land reclamation programme of the late 20<sup>th</sup> century. The remains of the lead mining and quarrying industries are more conspicuous in the uplands where hushes and quarries scar the hillsides and isolated mine buildings, smelter flues and washing floors are scattered across the moors.

## The 20th Century

The coal and steel industries of the area began to decline in the 1930's and continued to do so into the 1980's which saw the last of the major collieries and steel works close. Their legacy of physical dereliction and social deprivation was addressed by a succession of reclamation and infrastructure projects which saw substantial areas of derelict land reclaimed to new housing and industry or agriculture and forestry. Some elements of the industrial landscape survive and are preserved as part of the county's industrial heritage. Many abandoned railway lines and tramways have been converted into cycleways and recreational trails.

Since 1945 opencast coal mining has had a significant impact on the landscape with extensive areas worked and restored, often to rather featureless agricultural land. Quarrying for whinstone, dolomite and limestone also increased in scale over the century creating many large quarries, many of which now lie abandoned, on the limestone escarpment and in the Pennine dales.

Mining towns and villages continued to grow throughout the C20th century with large new public housing estates built in the interwar and post-war period. Some smaller mining villages were demolished or reduced in size through a policy of consolidation in the 1970's. New Towns were built at Newton Aycliffe and Peterlee. As the economy restructured, new industries were accommodated in urban fringe industrial estates around larger towns and villages and new and improved highways were developed to serve them.

Changing agricultural practices in the latter part of the century brought considerable change to parts of the countryside. A renewed emphasis on arable farming in eastern and central areas led to increases in field sizes, removal of hedgerows, hedgerow trees and wetlands and the introduction of new crops like oilseed rape. In pastoral areas changes in grassland management, improvement of old pastures and meadows and a move from hay cropping to silage production have created more uniform and productive grasslands. Employment in agriculture declined significantly over the century bringing a shift from agricultural to residential occupancy in farms and villages across the county, and changing working and commuting patterns in rural areas. The C20th also saw the introduction of many new features into the landscape including overhead power lines, telecommunication masts and, most recently, wind turbines.



*Dean and Chapter Colliery*



*Sherburn Hill Colliery*

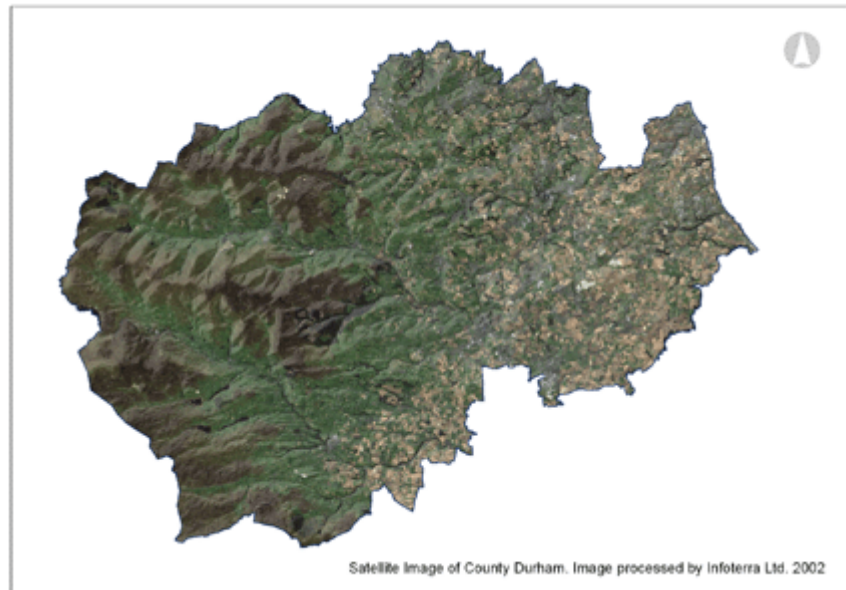
*Before and after  
reclamation*



*Wind Turbines*

*Tow Law*

## The modern landscape



The landscape of Durham is predominantly rural with arable and mixed farmland in the east giving way to pastoral farmland, and moorland in the west. Urban development is concentrated in the central and eastern coalfields. Woodland cover is relatively low and concentrated in the upland fringes and river valleys.

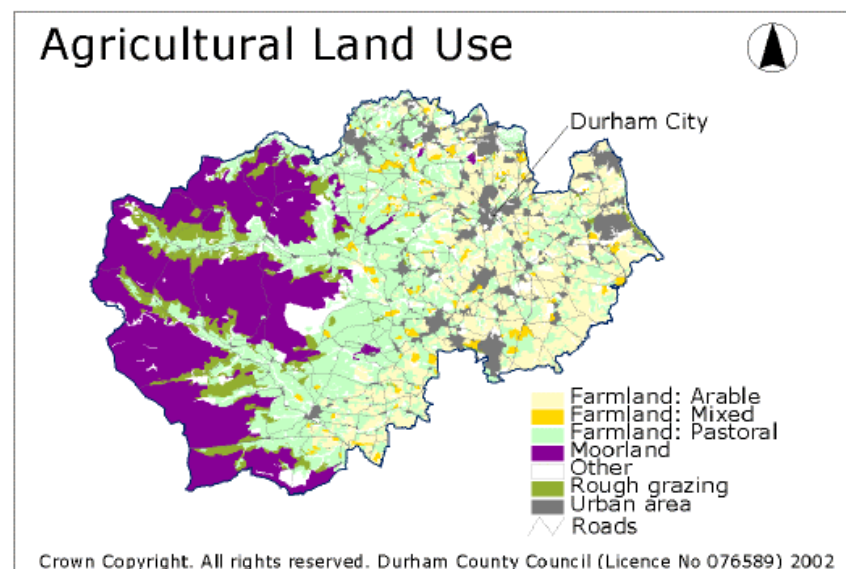
### Agriculture



*Arable farming in  
East Durham*



*Livestock farming in  
the uplands*



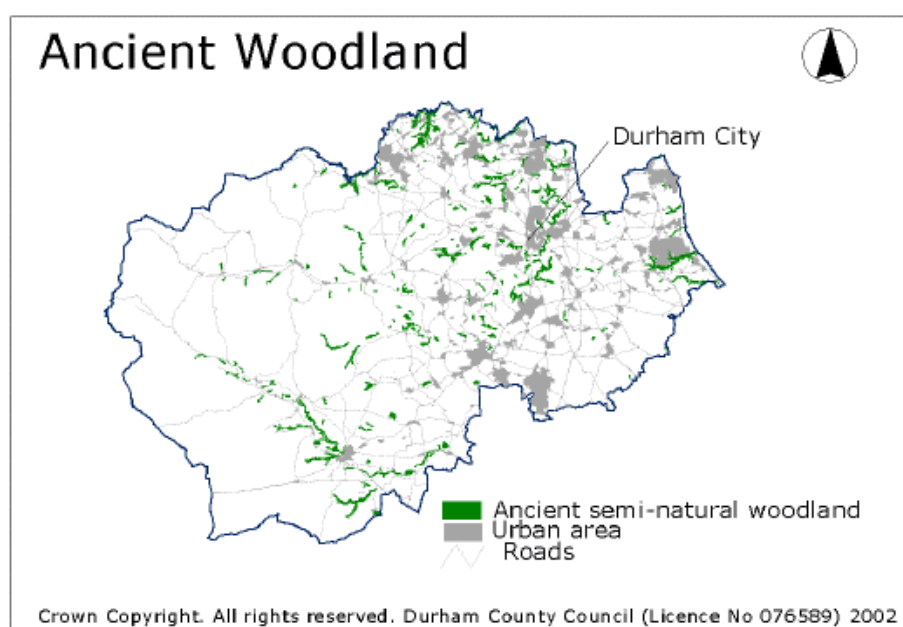
The more fertile lowland landscapes of the eastern and central parts of the county have long supported arable or mixed farming. There is currently a strong emphasis on arable cropping predominantly of cereals (wheat and barley) and oil seed rape, combined in places with the fattening of beef cattle or sheep. The pastoral uplands of the west of the county support livestock farming, principally of beef or dairy cattle and hardy hill sheep, like Swaledales and Scottish Black-face, which graze extensive moors of grass and heather. Much of the upland area of the county is designated as a Less Favoured Area (LFA).

The upper dales of Weardale, Rookhope, Teesdale, Baldersdale and Lunedale form part of the Pennine Dales Environmentally Sensitive area where flower rich upland hay meadows and pastures are managed traditionally to maintain their wildlife and landscape value

## Woodlands and Forestry

The distribution of woodland in the county reflects thousands of years of human activity in woodland clearance and planting. Woodland cover is relatively low, around 6% compared to the national average of 9% and the average for England of 7.5%. Woodlands are absent from the upland moors. Heavily wooded landscapes occur locally elsewhere and particularly in the main river valleys.

Ancient semi-natural woods occupy around 1.3% of the County. Most ancient woods lie on land unsuitable for agriculture on steep valley sides and ravines along rivers and streams.



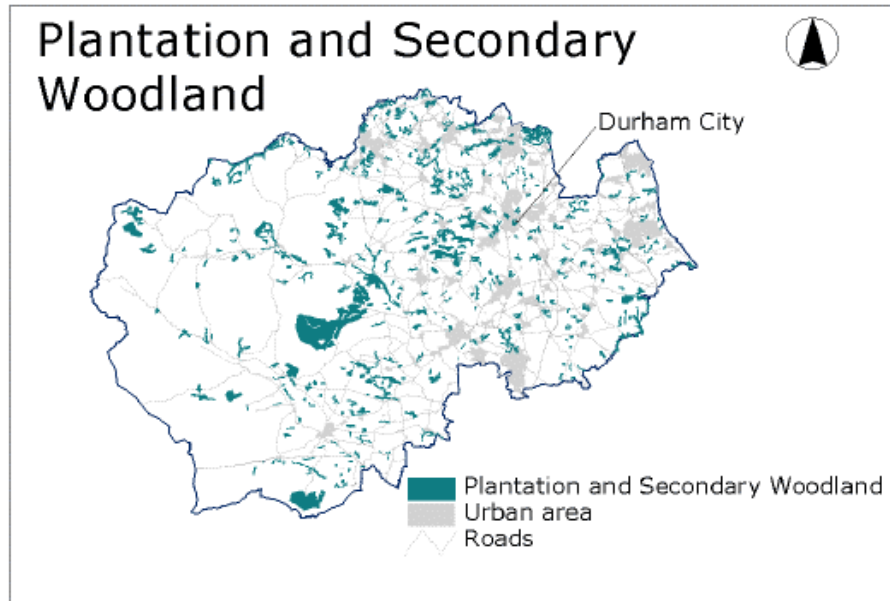
*Riverside Woods  
Teesdale*

Oak and Oak-birch woodlands are typical of the acidic and neutral soils that cover much of the county. Ash woodlands are found on the limestones of upland gills and ravines and coastal denes. Fragments of Juniper woodland survive in the moorland margins, including one of the largest stands of Juniper in Britain in the Moor House - Upper Teesdale National Nature Reserve. Alder woodlands occur locally on wetter ground.

The majority of woodlands in the county are plantations, established for timber, landscape, amenity, shelter and game. Many older woods were planted with natives or introduced broadleaves like beech and sycamore. The planting of conifers such as Scots Pine and Larch – often with local markets for pit-wood in mind - became widespread in the C19th.



*Juniper woods  
Moorhouse  
Teesdale*



*Hamsterley Forest*



This continued into the C20th with the development of large Forestry Commission forest including Hamsterley Forest and The Stang in the upland fringes where Sitka Spruce is an important commercial species. Around a third of the County's woodlands are in public ownership, with the Forestry Commission owning the greater part of this. The County Council owns and manages around 1000 hectares of woodland, much of this on reclaimed former colliery land.

The Great North Forest, established in 1990, is one of twelve Community Forests being created across England to regenerate the countryside around major towns and cities. The Great North Forest was established in 1990 and now covers approximately 250 square kilometres of urban fringe countryside across Tyne and Wear and north-east Durham

### Field Boundaries

Field boundaries in the County date from many periods and include both ancient and modern features. Many survive from the medieval landscape, and some perhaps from its Saxon roots, but the landscape is dominated by hedgerows and walls established in successive periods of enclosure between the 16th and 19th centuries.



*Old roadside hedge*



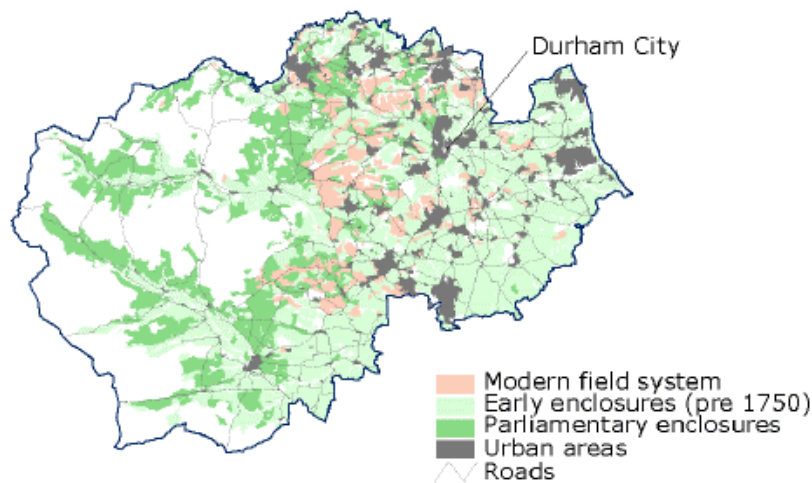
*Dry stone wall*

Ancient hedges are found along old parish and township boundaries and along old roads and lanes. Early town field enclosures - often irregular in pattern or following the curved alignment of arable strips - are a feature of the lowlands and land close to upland villages. Parliamentary enclosures - with regular grids of thorn hedges or walls - are found in the former wastes of the upland fringes.

Hedgerows are characteristic of the lowlands and walls of the uplands with a mixture of boundaries in the upland fringes. Wet ditches are used as field boundaries in the lowland carrs. Hedges in the County are generally species poor and dominated by Hawthorn - though Holly and Blackthorn are also common. Older hedges are more diverse and often distinguished by the presence of Hazel.

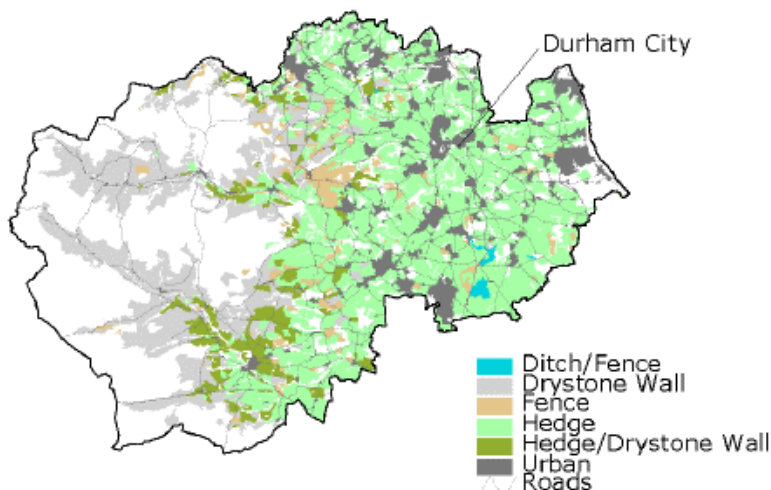


## Enclosure Period



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## Field Boundaries



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Tree cover varies considerably with abundant trees in the older field systems of the lower dales and pastoral upland fringe valleys. In the arable landscapes of the lowlands of the Tees and the Wear, and the open farmland of the limestone plateau in the east hedgerow trees are scarce. Ash is the commonest hedgerow tree across the county, having been favoured for farm timber. Oak and Sycamore are also common

## Moors and Heaths

Much of the west of the county is covered by moorland. Blanket bog of heather, cotton grass, and Sphagnum mosses dominates the higher ridges, summits and plateaux. This gives way to heath of heather and bilberry and acid grassland on drier ridges in the east.



*Newly laid hedge*



*Hedgerow trees*

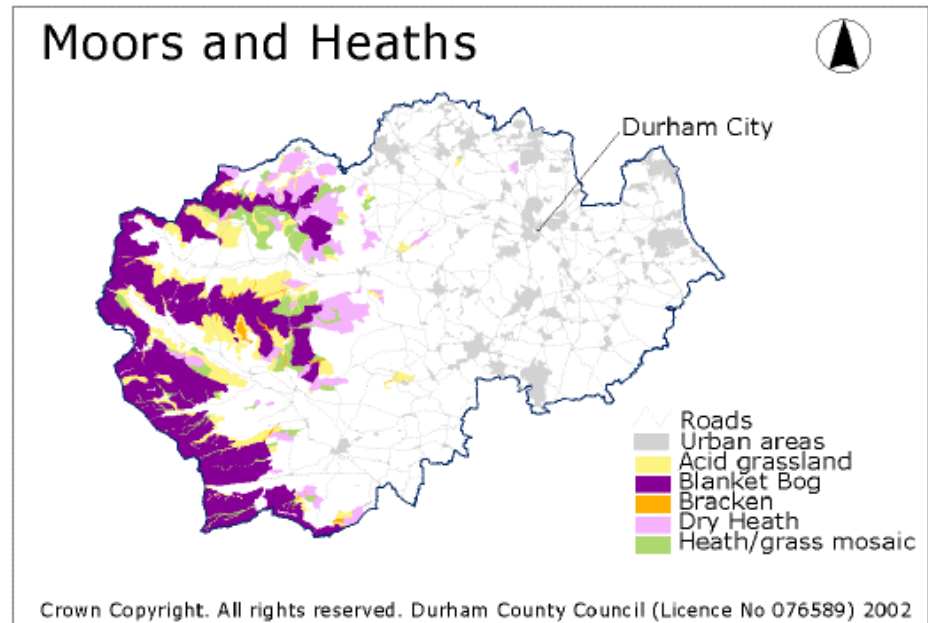


*North Pennine Moors*



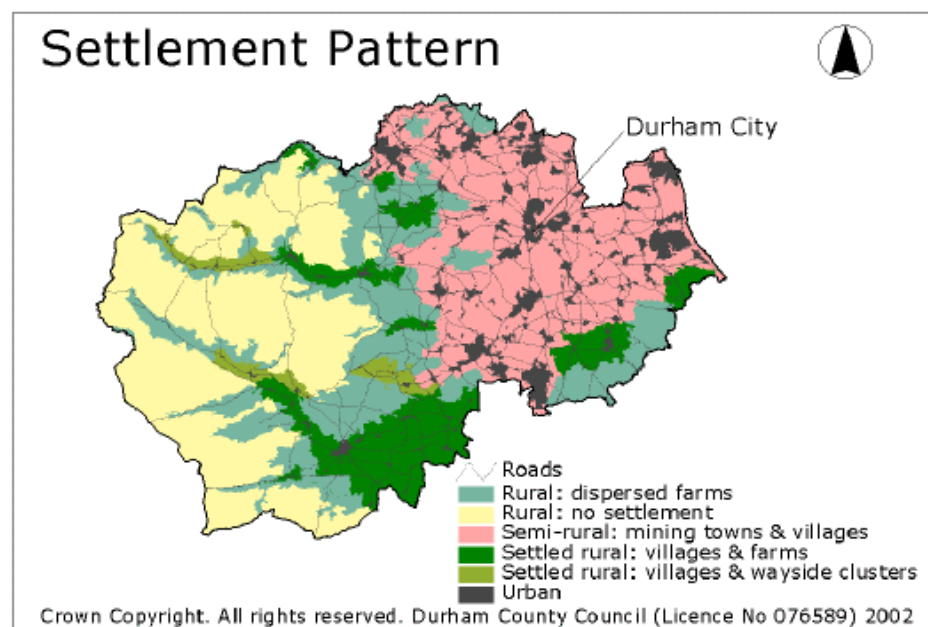


Lowland Heath  
Waldrige Fell



The North Pennine Moors are notable for their populations of birds such as red grouse, black grouse, merlin, peregrine and golden plover and large areas are designated as a Special Protection Area. Large tracts of open moorland are designated as Common Land. Fragments of lowland heath survive in the lowlands and upland fringes of the coal measures of thin acidic soils

### Buildings and Settlement



Over much of lowland Durham mining towns and villages dominate the settlement pattern. They vary in scale from small hamlets to large towns and are scattered across the limestone plateau and the valleys of the exposed coal measures, giving parts of the landscape a densely settled or 'semi-rural' character.

This C19th and C20th industrial settlement pattern overlies and largely obscures an older nucleated settlement pattern of small 'green' villages of medieval origins which survives in the less industrialised lowlands and upland fringes and in the lower dales. Associated with this long established agricultural settlement pattern are larger market towns like Barnard Castle. In parts of the rural Tees Lowlands there are few villages today, but there are numerous shrunken or deserted village sites which belong to this older pattern.

The higher uplands remain largely free of settlement, fringed by areas of dispersed farms on land enclosed from the wastes in the C18th and early C19th century. Building clusters and the scattered farms of miner-smallholders are particularly characteristic of the middle and upper dales and some of the more remote parts of the coalfield.

Older villages often have a relatively regular layout with buildings set around a central village green. Buildings are of local stone with roofs of stone flag or welsh slate in the uplands and upland fringes, and slate or red pan tile on the lowland clays. In the Pennine Dales many old agricultural villages of their vernacular upland character. Market towns and some of the larger older villages like Sedgfield and Lanchester have developed outwards from their older core and contain buildings from many different periods.

Mining and industrial towns and villages vary in character. Most contain Victorian terraces of brick or stone and areas of C20th public estate housing. Some are built around the core of an older agricultural village.

## Mining and Quarrying

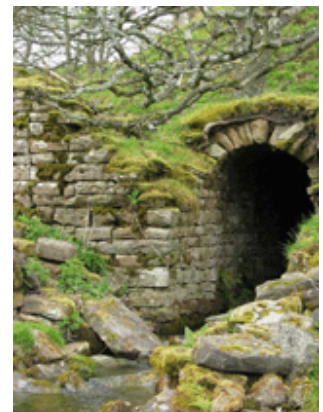
The county is rich in minerals which have been exploited for centuries. The bole hearths of early metal workers from the Iron Age can still be found on the upland moors and survive in place names like 'Baal Hill'. The working of minerals probably supported a dual economy of mining and farming even in this period, allowing settlement of the less fertile uplands.

The North Pennines, where mineral veins were worked for lead and other metals, and more recently fluorspar, were the world's leading ore field in the C19th. The legacy of lead mining remains in the prominent 'hushes' which scar the dale sides in places, old mine buildings, and the patterns of building clusters and isolated farms which housed the 'miner-smallholders' who pushed the limits of agriculture well beyond the old moor wall.

The Durham Coalfield, which covers the ridges and valleys of the west Durham Coalfield and the Wear Lowlands and extends beneath the limestone of the East Durham Plateau and out under the North Sea, was of great economic importance. Iron and steel making flourished at the interface between the coal measures and the Pennines, in places like Consett, Tow Law and Wolsingham, due to the availability of coal, limestone, and local ironstones. There are now no working collieries or steelworks. The legacy of the industry remains in the dense settlement pattern of the coalfield, the old railways and waggonways, and scattered mining remains.



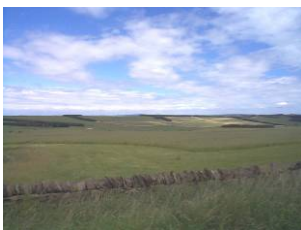
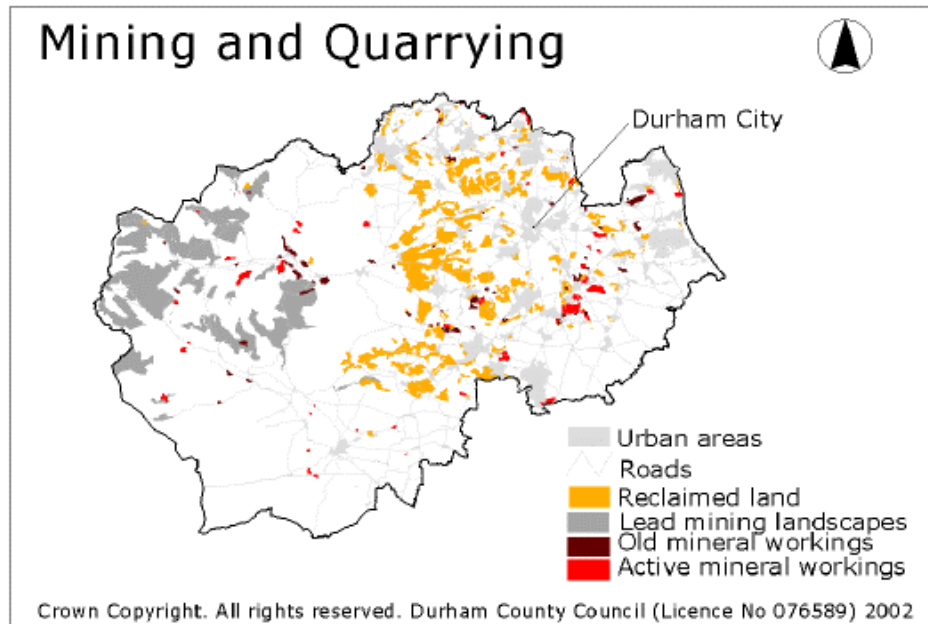
*Village green  
Staindrop*



*Slit Lead Mine  
Westgate*



*Old Coke ovens at  
Inkerman*



*Restored opencast land  
Deerness Valley*



*Carboniferous Limestone  
Quarry: Hulands*



*Whinstone Quarry  
Forcegarth*

Opencast coal mining has had a major impact on the landscape since 1945. Extensive areas of the exposed coal measures – around 120 square kilometres – have been opencast and restored to agriculture and forestry.

The Carboniferous and Permian limestones of the North Pennines and the East Durham Limestone Plateau have been worked since medieval times for agricultural and building limes, and more recently for refractory products and road stone. Old abandoned quarries are a feature of both landscapes, and large modern quarries continue to work the Limestone Escarpment and the Great Limestone of the dales.

Carboniferous sandstones, and to a lesser extent the Permian limestone, have provided a source of building, roofing and road stone for centuries. A number of small dimension-stone quarries can be found in the North Pennines and the Dales Fringe.

Whinstone has been quarried in Teesdale for masonry, sea defences and most recently, for road stone. Old quarries line the southern flanks of Teesdale; the columnar structure of their whinstone faces blending with the natural crags of Holwick Scar. A single active quarry remains at Forcegarth in Teesdale.

The glacial clays of the lowlands, and the brick shales and seat-earths of the coal measures have been exploited for brick making. Grey seat-earth or fireclay bricks, and rich red clay bricks are a feature of many colliery villages. There are active brickworks at Eldon and Todhills. Sands and gravels in glacial deposits and along the floodplain of the Wear have been worked for aggregates leaving scattered small sand pits and flooded gravel workings along the river.

## Perceptions of the landscape

### Early accounts

Many of the earliest writings describing the landscapes of County Durham tended to focus on the productivity or otherwise of its agriculture rather than its scenic value. John Leland, the King's Antiquary, on his extensive travels through England in the mid C16th described the Bishop of Durham's deer park as "...rudely enclosed with stone..." and commented on the fertility of Weardale, noting that "...though the upper part of Weardale be not very fertile of corn, yet is there very fine grass in the dale itself where the river passeth".

William Cobbett visited the county in 1832, recording in his Rural Rides that Durham was "...a country of pasture and not a country of the plough...", and noting "...the absence of homesteads, the absence of barns and of labourers' cottages..." in the mixed farmland of the lowland landscapes he passed through.

### Scenic landscapes

Interest in the landscape for its own sake amongst English painters and writers developed from the mid eighteenth century onwards. The dramatic scenic landscapes of Teesdale and the imposing views of Durham Cathedral and castle attracted many landscape painters including George Lambert, John Sell Cotman and JMW Turner. Some of Cotman's finest watercolours are of Durham City and the River Greta near Rokeby.

Turner had a long association with Rokeby and stayed there repeatedly to paint some notable images of the dale, including the great waterfalls of High Force and Cauldron Snout, and the ruins of Egglestone Abbey and Barnard Castle. One of his most well known paintings 'The Meeting of the Waters' depicts the confluence of the Tees and Greta at Rokeby. His images of Durham Cathedral remain amongst the most powerful and popular of its portrayals.

The reputation of Teesdale as a scenic landscape inspired a spate of Victorian writing about the dales which appealed to the romantic taste for wild moors, dramatic crags and waterfalls. Sir Walter Scott was a regular visitor to the area, which inspired his long poem 'Rokeby'

"When Denmark's raven soared on high,  
Triumphant through Northumbrian sky,  
Till, hovering near, her fatal croak  
Bade Reged's Britons dread the yoke;  
And the broad shadow of her wing  
Blackened each cataract and spring,  
Where Tees in tumult leaves his source,  
Thundering o'er Caldron and High Force.



*Greta Bridge 1807*  
*John Sell Cotman*  
*British Museum*

Charles Dickens visited Teesdale in 1832 to carry out research for his novel *Nicholas Nickleby* and found a great deal of material in the village of Bowes. Dotheby's Hall, the boy's school portrayed in the novel, was based on the Bowes Boys Academy.

The Victorian passion for science also meant that the flora of the area attracted attention, as did the geological, social and economic aspects of lead mining. Sir Richard Garland, in describing his guided tour of Teesdale in 1804, writes of the 'strikingly bold and broken' scenery, the 'carpets of gay flowers', the 'boldness and irregularity of the majestic cliffs' of Cronkley Scar and the 'awe striking beauty of the temple' of High Force. Other parts of the county were largely ignored by artists, probably because of the industrial nature of much of the landscape, and particularly the busy ore fields of parts of the North Pennines and the rapidly industrialising coalfield.

The special qualities of the North Pennines, 'England's Last Wilderness', were given national recognition in 1981 with its designation as an Area of Outstanding Beauty. As biodiversity has become an increasingly important part of the appreciation and understanding of landscape, the designation of large areas of the North Pennines as Special Protection Areas for birds and Special Areas for Conservation under European legislation, or as an international Biosphere Reserve, has underlined its importance. The scenic landscapes of the valleys of the River Wear and its tributaries are now designated as Areas of High Landscape Value in development plans. Durham Castle and Cathedral has been designated as a World Heritage Site by UNESCO.

### Industrial legacies and landscape renewal



Mining and industry have had a substantial impact on the character of parts of the Durham landscape and the way it has been perceived. The most abiding images of the County are as an industrial landscape of coal mining, lead mining, steel making and railways, at the heart of the industrial revolution. The industrial landscapes and communities of the coalfield have inspired many local artists and writers. In the mid twentieth century painters like Norman Cornish and writers like Sid Chaplin, themselves working miners, captured the unique sense of place and spirit of community in their work.

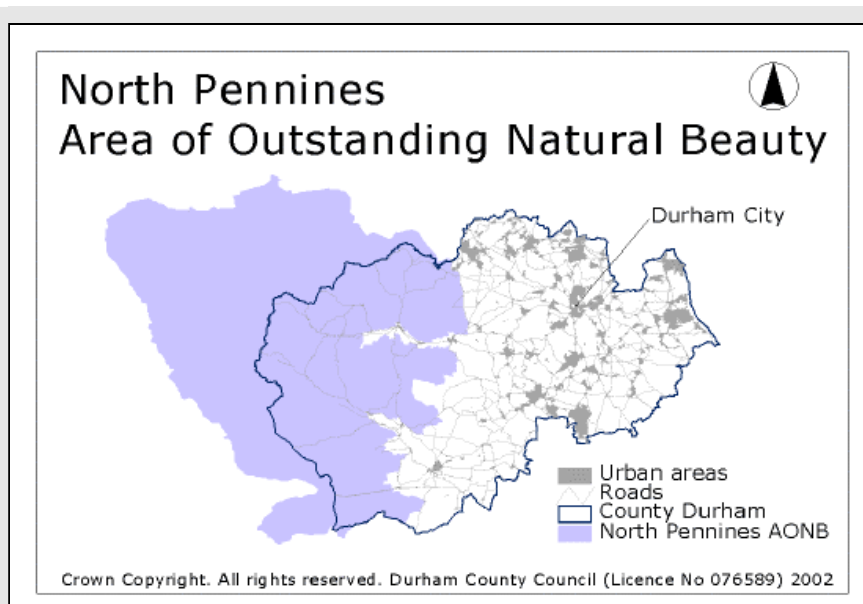
With the decline of traditional industries perceptions of the landscape have slowly changed. The scars of lead mining and quarrying in the North Pennines have become accepted and valued as part of its cultural heritage. Killhope: The North Of England Lead Mining Museum in upper Weardale is now a popular tourist destination.

The legacies of coal mining have been seen as more problematic, as the widespread dereliction left by the industry affected the quality of the landscape, the health of the environment, and the image of the county to those outside of it. A major reclamation programme lead by Durham County Council has been operating since the early sixties to considerable effect, and has reclaimed over 44 square miles of derelict land.



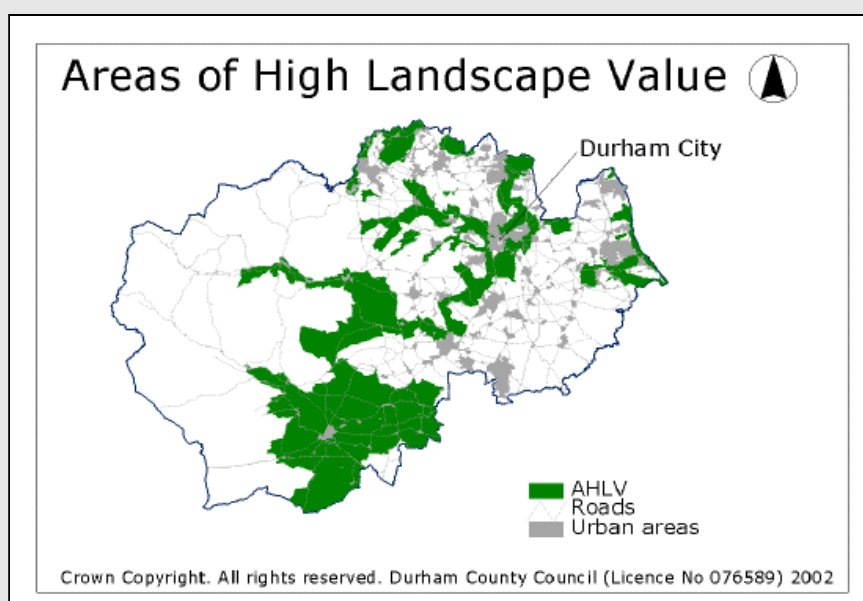
Over much of the coalfield it is now hard to find evidence of coalmining. Those features which survive – old waggonways, viaducts & coke ovens – are now valued as part of the area's mining heritage. Coalfield communities have always had strong ties with the surrounding rural landscape and this remains conspicuous in the pony paddocks, allotment gardens and pigeon lofts which fringe most mining villages.

This is reinforced by the accessibility of the landscape with its dense network of footpaths - many originating in paths to former collieries -and numerous railway lines reclaimed as cycleways. The coalfield is now generally seen as a predominantly rural landscape with a rich industrial heritage, which is preserved and celebrated in The North of England Open Air Museum at Beamish and the Timothy Hackworth Victorian and Railway Museum at Shildon. The Durham Coast, at one time one of the most despoiled in Europe, has been the subject of a major reclamation initiative in the Turning the Tide project and much of it is now designated as a Heritage Coast



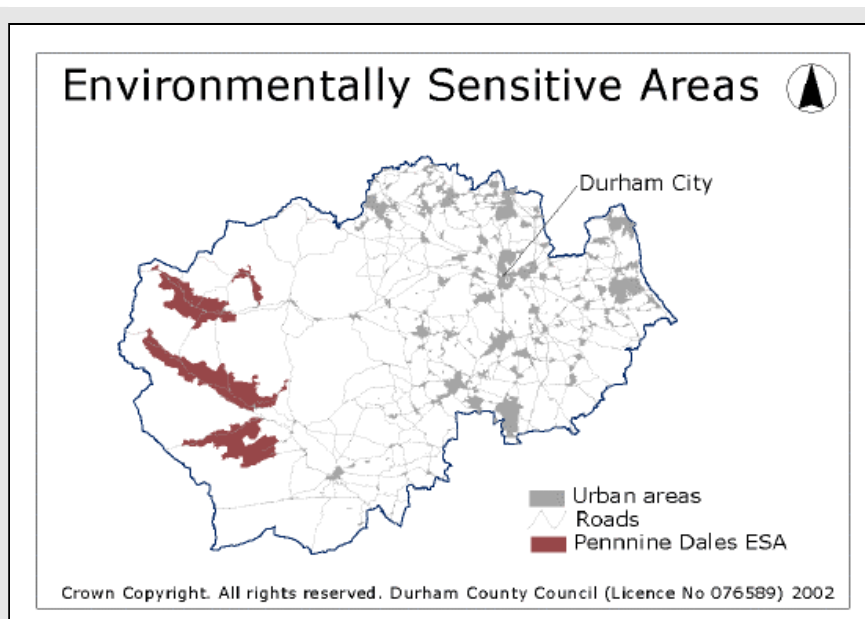
### The North Pennines Area of Outstanding Natural Beauty

The North Pennines AONB, *England's Last Wilderness*, covers much of the west of the county together with parts of Northumberland and Cumbria. Its landscape is one of settled pastoral dales and large tracts of open moorland which, at its most remote, has a near wilderness quality. The main objective of the AONB designation is "the conservation of the natural beauty of the landscape." In addition to its landscape value the area is important for its cultural heritage and biodiversity, and was designated as the first European Geopark by UNESCO in 2003.



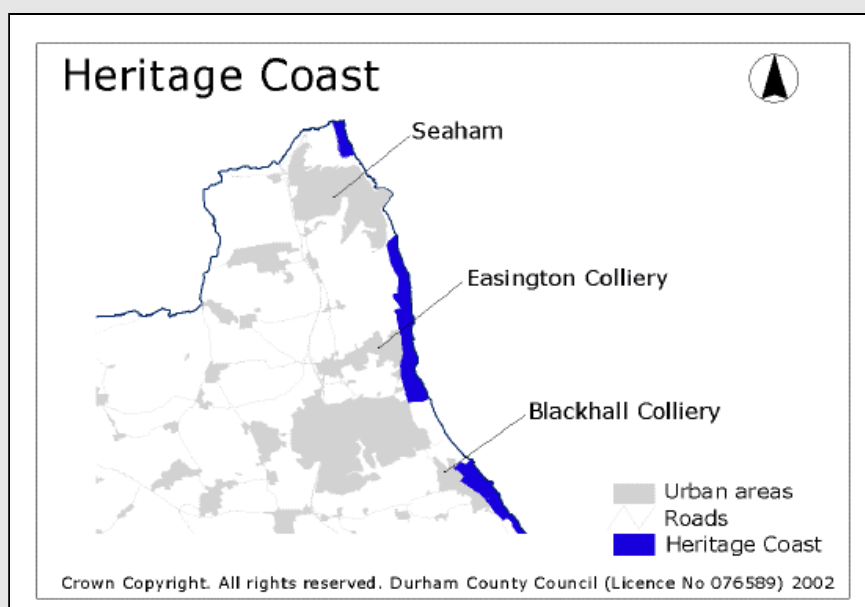
### Areas of High Landscape Value

Outside of the North Pennines Area of Outstanding Natural Beauty there are a number of areas which are designated in Local Plans as Areas of High Landscape Value (AHLV). These include attractive, mature and undeveloped landscapes within the major river valleys of the Tees, Wear, Browney, Derwent and Team together with much of the Durham coast and a number of coastal denes. Development plans contain policies for the protection of the special character and quality of AHLVs.



### Environmentally Sensitive Areas

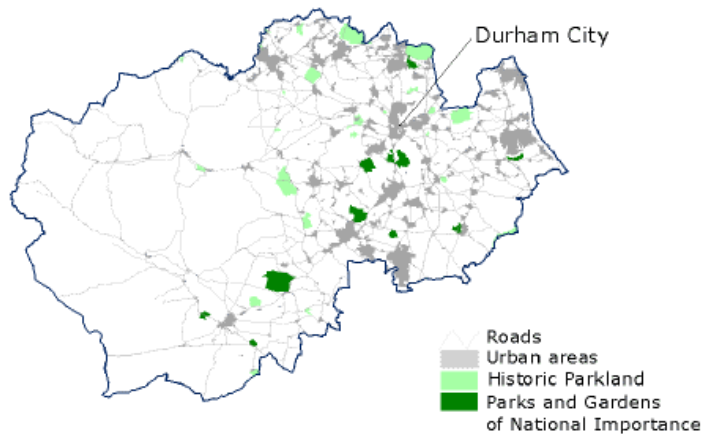
The Pennine Dales ESA covers a number of upper dales in Durham. Their value lies in their old hay meadows and pastures, stone walls, field barns, small woods and field trees. They contain valuable wildlife habitats, a rich archaeological resource and a landscape of strong character, all dependent in some degree on traditional farming practices. The ESA scheme is administered by the Department of Environment, Food and Rural Affairs (DEFRA) which offers incentives to adopt agricultural practices which safeguard and enhance the rural environment and to improve public access.



### Heritage Coast

After years of environmental damage from the tipping of colliery wastes, the Durham Coast has begun to recover its natural qualities, assisted by the recent Turning the Tide project. Parts of the coast where low cliffs of Magnesian Limestone fall to sand and shingle beaches have now been designated as Heritage Coast.

## Historic Parklands

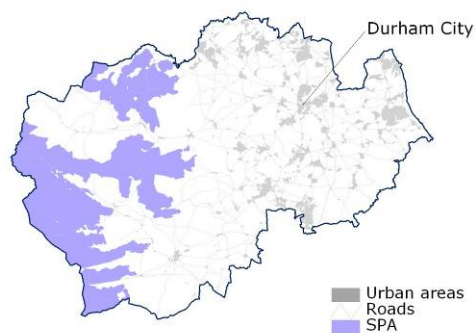


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### Historic Parklands

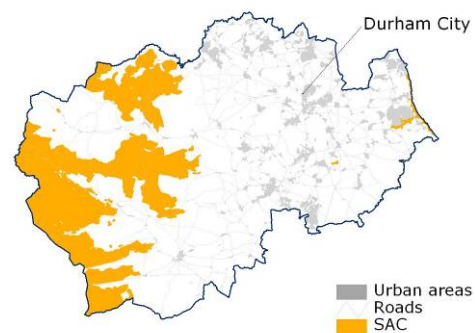
The County is rich in historic parklands, and particularly along the wooded valley of the River Wear and in the upland fringes. Some parks are of medieval origins, others surround country houses of C19th industrial entrepreneurs. Historic parks are of great scenic value and are a living record of the evolving aesthetics of English landscape design. English Heritage has compiled a Register of Parks and Gardens of Special Historic Interest, 13 of which are in County Durham. Development plans contain policies for the protection of the historic interest and special character of parks and gardens and a number are also designated as Conservation Areas. The register is currently subject to review and further sites within the county may be included in future. Further information on the register can be found on the English Heritage website.

## Special Protection Areas



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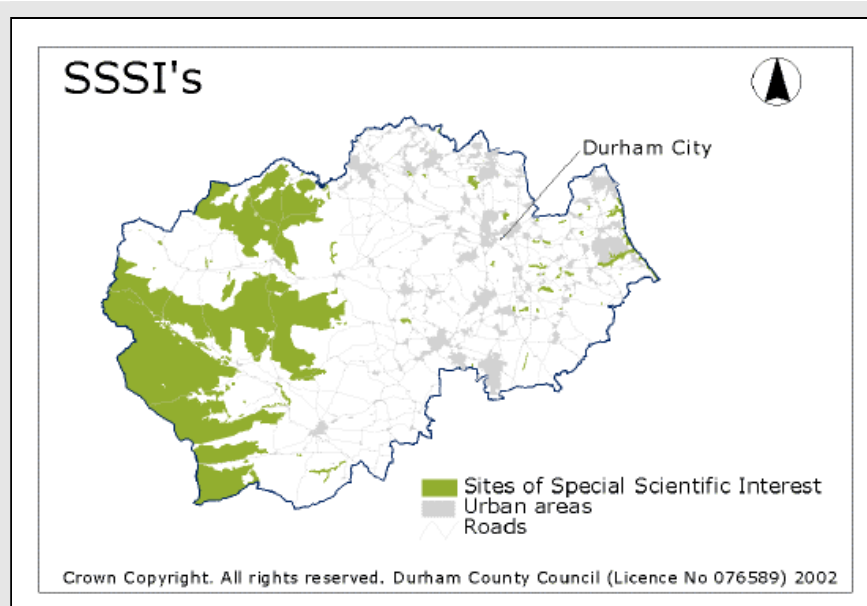
## Special Areas of Conservation



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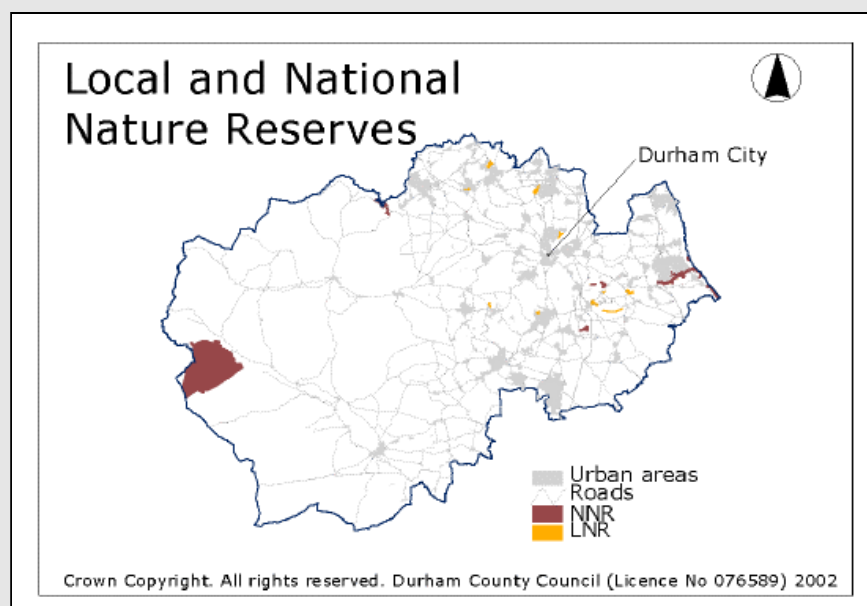
### Special Areas of Conservation and Special Protection Areas

Substantial tracts of land in the county are designated as Special Areas of Conservation (SAC) and Special Protection Areas (SPA) under the EU Habitats Directive and the EU Birds Directive respectively. Together these make up a network of areas known as Natura 2000 Sites. The Moor House and Upper Teesdale National Nature Reserve SAC is also designated as an International Biosphere Reserve by UNESCO (United Nations Educational, Scientific and Cultural Organisation). All SACs and SPAs have already been notified as Sites of Special Scientific Interest. The sections of the Durham coast which are designated as SPAs are also Ramsar sites - wetlands of international importance designated under the Ramsar Convention.



### Sites of Special Scientific Interest

Sites of Special Scientific Interest (SSSIs) are the best examples of our national heritage of wildlife habitats, geological features and landforms and are notified under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) by Natural England. There are 91 SSSI wholly or partly in County Durham. The County Council owns several SSSIs that are managed for nature conservation including Wingate Quarry Local Nature Reserve, Waldrige Fell Country Park, Pow Hill Country Park and land on the coast.

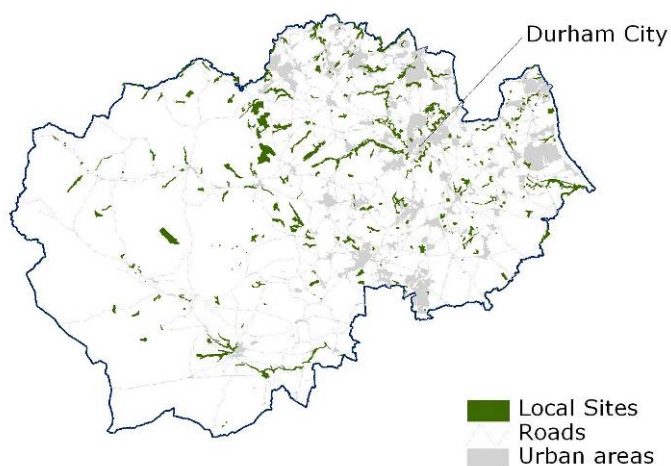


### National and Local Nature reserves (NNR and LNR)

National Nature Reserves were established to protect the most important areas of wildlife habitat and geological formations in Britain, and as places for scientific research. They are either owned or controlled by English Nature or held by approved bodies such as Wildlife Trusts. There are 6 National Nature Reserves within County Durham of which five are managed by English Nature. Local Nature Reserves are established by local authorities. There are ten LNRs in County Durham which are owned and managed by Durham County Council. In addition, Cow Plantation is owned and managed as a Local Nature Reserve by Spennymoor Town Council, Willington North Dene by Wear Valley and Coxhoe Hall Wood by Durham City Council.



## Local Sites

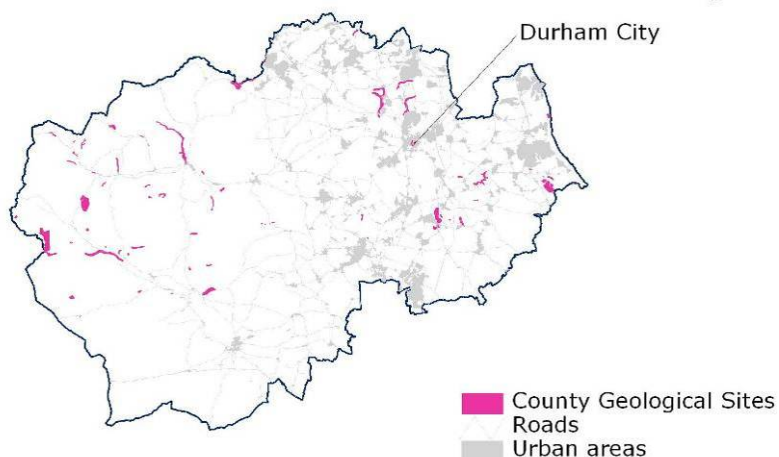


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### Local Sites

Local Sites (formerly known as County Wildlife Sites) are sites of nature conservation value, which are designated by the County Council in consultation with English Nature and other conservation bodies. There are 300 Local Sites in County Durham. Local Sites do not have the same statutory protection as Sites of Special Scientific Interest (SSSIs). Local Development Plans contain policies for their conservation, for example, by not permitting development to take place that would damage their wildlife value.

## County Geological Sites



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### County Geological Sites (CGS)

The county contains a large number of sites designated as County Geological/Geomorphological Sites (CGS). These range from old mines and quarries to glacial features including drumlins and melt water channels. Moking Hurth Cave is designated as a Regionally Important Geological Site (RIGS). County Geological Sites do not have the same statutory protection as Sites of Special Scientific Interest (SSSIs). Local Development Plans contain policies for their conservation, for example, by not permitting development to take place that would damage their geodiversity interest.

## World Heritage Site



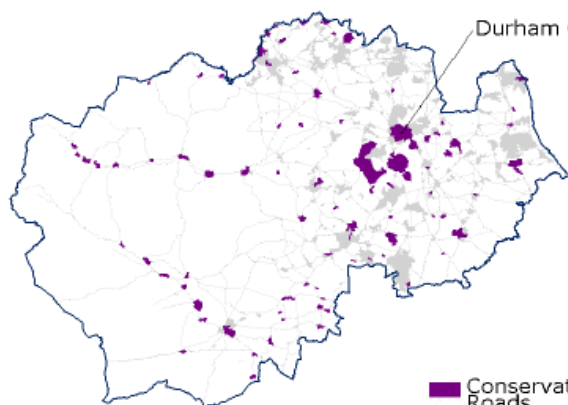
World Heritage Site

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### World Heritage Site

Durham Cathedral and Castle were designated as a World Heritage Site by UNESCO in 1986. World Heritage sites are given international recognition and protection on the basis of their outstanding natural, environmental or cultural importance.

## Conservation Areas



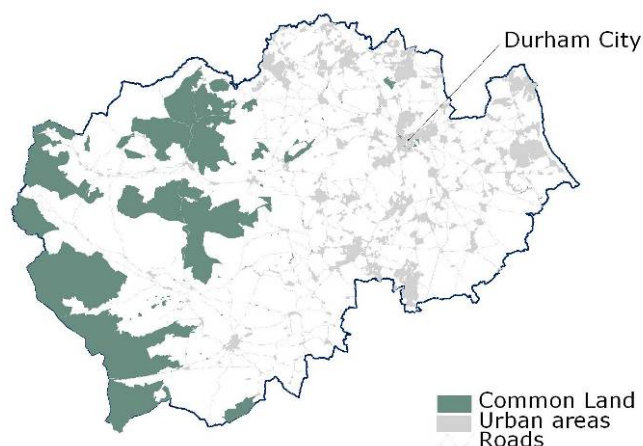
Conservation Areas  
Roads  
Urban areas

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### Conservation Areas

Conservation Areas are areas of special architectural or historical interest that are designated by local authorities to preserve or enhance their character and appearance. There are 94 Conservation Areas in County Durham, ranging from urban market places and village greens to loose-knit dales villages, areas of well-preserved terraced housing, and historic parklands.

## Common Land

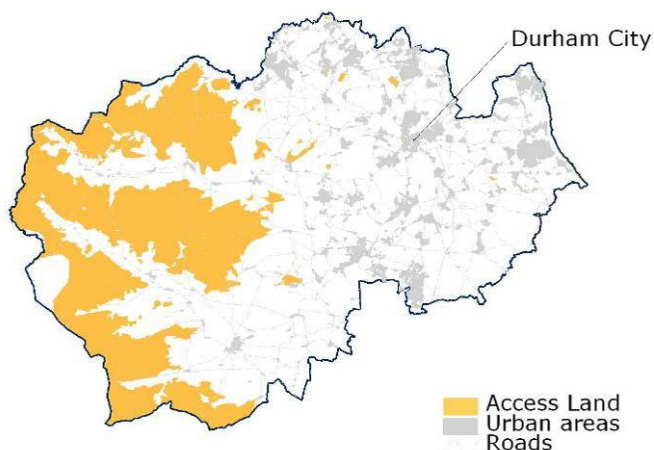


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### Common Land

There are large areas of Common Land in County Durham ranging from extensive tracts of open moorland to small village greens. Common land is usually land in private ownership over which some individuals (commoners) have rights in common. These rights might include the right to graze livestock or take peat or turf for fuel. All Common Land in the county has now been designated as Access Land.

## Access Land



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### Access Land

Extensive tracts of land in the county are designated as open access land. They include areas of common land, land in the ownership of the Forestry Commission, and areas of mountain, moor and heath. Access restriction may be in place at certain times of year, for example to protect ground-nesting birds. To view the boundaries of access land, and any restrictions that might be in force visit [www.openaccess.gov.uk](http://www.openaccess.gov.uk)