

Key characteristics

- An upland landscape characterised by Carboniferous age Millstone Grit with isolated basins of Coal Measures, deeply dissected by streams and rivers, resulting in a ridge-and-valley landscape of distinctive pattern and character.
- Isolated gritstone ridges and tors provide a dramatic contrast to the upland landscape, such as at Ramshaw Rocks, The Roaches and Windgather Rocks.
- Moorland core with a mosaic of landform, vegetation and wooded cloughs.
- Enclosed farmed landscape with a pastoral character created by semi-improved grassland, hay meadows, rushy pastures, more productive farmland and small woodlands.
- Rivers Bollin, Churnet, Dane, Dean, Dove, Hamps, Goyt and Manifold, all with their sources in the upland core and some feeding reservoirs as they flow downstream.
- Extensive livestock farming (sheep and beef) and grouse shooting on the moorlands with some dairy farming in the valleys.
- Intricate and distinctive field boundary patterns often with historic associations; gritstone walls at higher elevations and hedgerows at lower elevations.
- Heritage assets from prehistory to the present, with features particularly from the medieval period and later.
- Robust architectural style built predominantly of local stone with stone slate or Staffordshire blue clay tiled roofs, reflecting local geology and history.
- Predominantly dispersed settlement across the area.
- Moorland area to the north of Leek used for military training; Ministry of Defence management and restricted access add to the isolated character.
- Tourism industry and outdoor recreation centred on honeypot sites including Tittesworth and Goyt Valley reservoirs, The Roaches, Ramshaw Rocks and the National Trust's Lyme Park.
- Dramatic series of gritstone edges and tors exposed by a combination of glacial and fluvial action provide distinctive landscape features and a major focus for rock climbing.
- Remote moorlands criss-crossed by historic pack-horse routes.
- Remains of former stone quarries and coal mining activities, particularly around Flash and Goyt's Moss.
- Long, uninterrupted views from margins to upland areas and vice versa, with contained and intimate views around the foothills and within the valleys. Views into Manchester, Wales, Shropshire, Staffordshire and over the Cheshire Plain are possible from the upland core, tors and ridges (Natural England, 2013).

Natural Heritage



Natural Heritage

The landscapes of the South West Peak support an array of priority habitats and species leading to several categories of conservation designation.

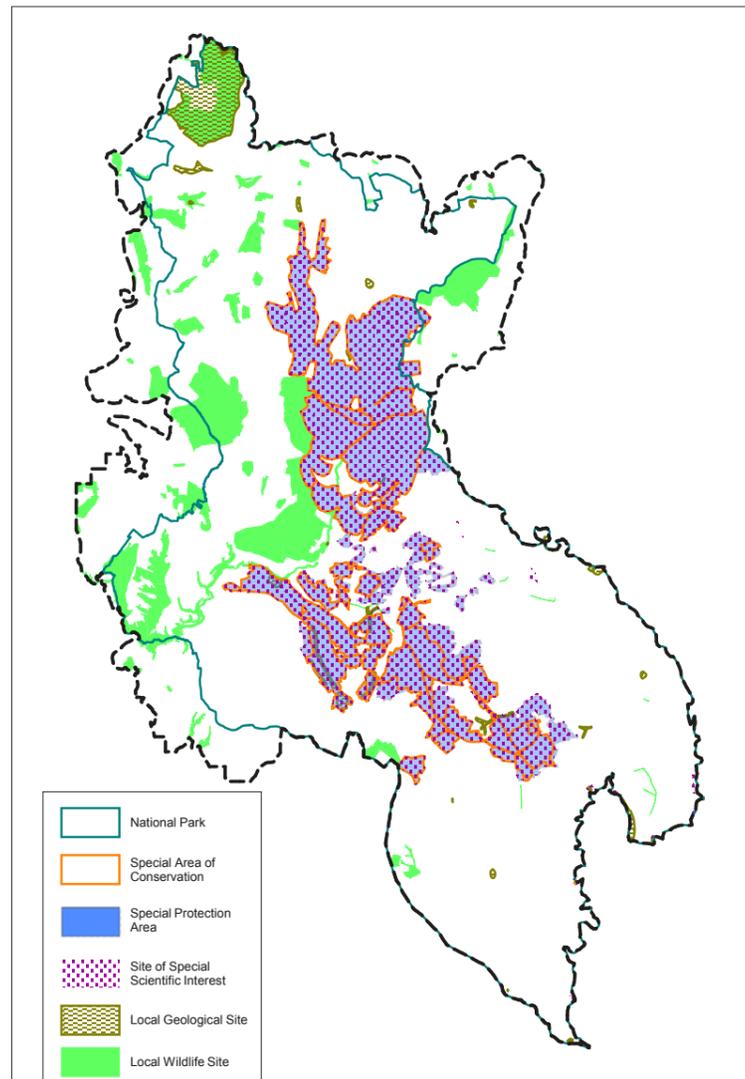
35,419 ha SWPLP area

- 4453 ha** South Pennine Moors Special Area of Conservation (SAC)
- 5302 ha** South Pennine Moors Specially Protected Area (SPA)
- 5351 ha** Sites of Special Scientific Interest (SSSI)
- 3008 ha** Local Wildlife Site (LWS)
- 696 ha** Local Geological Sites (LGS)

Geodiversity

The geology of the South West Peak is Carboniferous age Millstone Grit with isolated basins of Coal Measures (Natural England, 2013), creating a distinctly different geology from the neighbouring limestone of the White Peak. The gritstones and sandstones are largely free draining and provide the tors and exposed rock edges and faces, whilst springs and flushes occur where the grits and sandstones meet the shales. There are numerous exposures of all kinds of interest and value to the geologist demonstrating how the landscape has developed and formed over time. Examples include superimposed drainage visible at the top of the

Designated Sites



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River Manifold, where a stream cuts into previous geology before reaching its current position, and then manages to maintain its course in an improbable route; exposures rich in fossils along some of the small streams; and incredible cross bedding exposed in the sandstone rocks on the Roaches caused by the frequent shifting of the river channel into which the sediment flowed in an ancient estuary (Gannon, 2010).

Brownend Quarry and Ecton Copper Mines just on the edge of the area are SSSIs designated for their geological interest. There are 37 Local Geological Sites (all or part thereof) in the area including industrial sites such as former quarries, mine workings and railway cuttings; natural features like caves and rock escarpments; and in-stream rock exposures, some of which are noted as being sites of international significance. Some sites such as Bunsal Cob near Errwood reservoir and Orchard Common Stream at Quarnford are important for marine fossil assemblages.

'Chatsworth Grit', a coarse-grained sandstone, forms the pink-tinged gritstone edges at Windgather Rocks, a popular climbing site in Cheshire, and Gib Tor rocks in Staffordshire, while the purplish-tinged 'Roaches Grit' is exposed at other popular climbing sites The Roaches, Hen Cloud and Ramshaw Rocks. Climbing routes on the Roaches have weird and wonderful names such as 'Skin and Wishbones', 'Contrary Mary' and 'West's Wallaby' (a nod to the escaped wallabies which roamed the estate for some time) while a well-known rock formation at Ramshaw known as the Winking Man gives rise to a neighbouring pub name.



Winking Man © PDNPA

Former quarries such as that at Goytsclough are now recorded as Local Geological Sites due to the rock exposure showing detailed structural features like lamination. This site was one of several small quarries in the South West Peak worked for local building stone, the variation in rock colour and formation from one quarry to the next giving rise to clear vernacular differences from one village to the next. At Lyme Park, the National Trust estate in the far north of the area, a number of notable geological features are recorded: "Quarry and streamside exposures in country park. Shallowly dipping millstone grit and lower coal measure sandstones and shales showing sedimentary features and containing plant and both marine and non-marine bivalves. Fault. Geomorphological features include till, glacial erratics, overflow channels, terraces and cuesta topography" (Broadhurst, 1994).

This account demonstrates how varied and valued the local geodiversity of the South West Peak is and how it is the foundation for the iconic landscape features that attract so many of our visitors.



Discontinuities in the Goyt Valley © Penny Anderson

Biodiversity

South Pennine Moors SAC

Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive. The South Pennine Moors SAC covers a non-contiguous area of 65,024ha from Ilkley in the north to Warslow in the south. Habitats that are a primary reason for selection of this SAC are wet heath, dry heath, blanket bog and old sessile oak woods. Within the South West Peak the heath and bog habitats are found mainly in the central upland core while some oak woods fall outside of the SAC boundary.

Continuity

*Cotton grass blows on the moors,
Dandelions burn the fields yellow,
The last hay meadows fill with flowers,
With bees, with butterflies.
With the rain,
The fields slip into mud,
Water on shale soils puddles into,
A haven for rushes,
Always more to explore, here.*

*A picnic on the grass overlooking the valley,
Connects with other times, other picnics,
A pause in the cutting,
Hay banked up on Whitelaw meadow.
Laughter.
Children have run down to the river,
For centuries,
Families, friends,
On the grass overlooking the valley,
Again, and again,
A picnic down all these years,
A long living in these dales,
Under the moors and the bogs and the ridges.*

*Hen Cloud, Windgather, Goyt
There is always more to explore, here,
Pilbsury Castle in the moonlight,
Always more to hold us, here,
A barn owl flies in the dusk,
Little owls, deer
The secret lives of the moorlands.
Always more to love, here,
The warmth of a form where a hare was lying
And the voice of the curlew heralds the spring.*

MOORLAND STORIES

by participants at the “Deep Dales and Wild Places”
workshop with Gordon MacLellan from Creeping Toad
Flash Village Hall, 17/2/16

Peak District Moors SPA

Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds and for regularly occurring migratory species. The Peak District Moors (South Pennine Moors Phase 1) SPA is of European importance for several upland breeding species, including birds of prey and waders. The qualifying species here are: Golden Plover, Merlin, Short-eared Owl, and Dunlin.

Sites of Special Scientific Interest

The statutory nature conservation agencies have a duty under the Wildlife and Countryside Act 1981, as amended, to notify any area of land which in their opinion is ‘of special interest by reason of any of its flora, fauna, or geological or physiographical features’ (JNCC, 2016). Such areas are known as Sites of Special Scientific Interest (SSSIs). The following SSSIs lie wholly or partly within the South West Peak:

Leek Moors
Goyt Valley
Hamps & Manifold Valleys
Dove Valley & Biggin Dale
Ecton Copper Mines
Colshaw Pastures
Moss Carr
Brownend Quarry
Chrome & Parkhouse Hills
Toddbrook Reservoir

All but two (Brownend Quarry, Ecton Copper Mines) of these SSSIs are designated for their biological or mixed interest, predominantly upland vegetation and associated species assemblages.

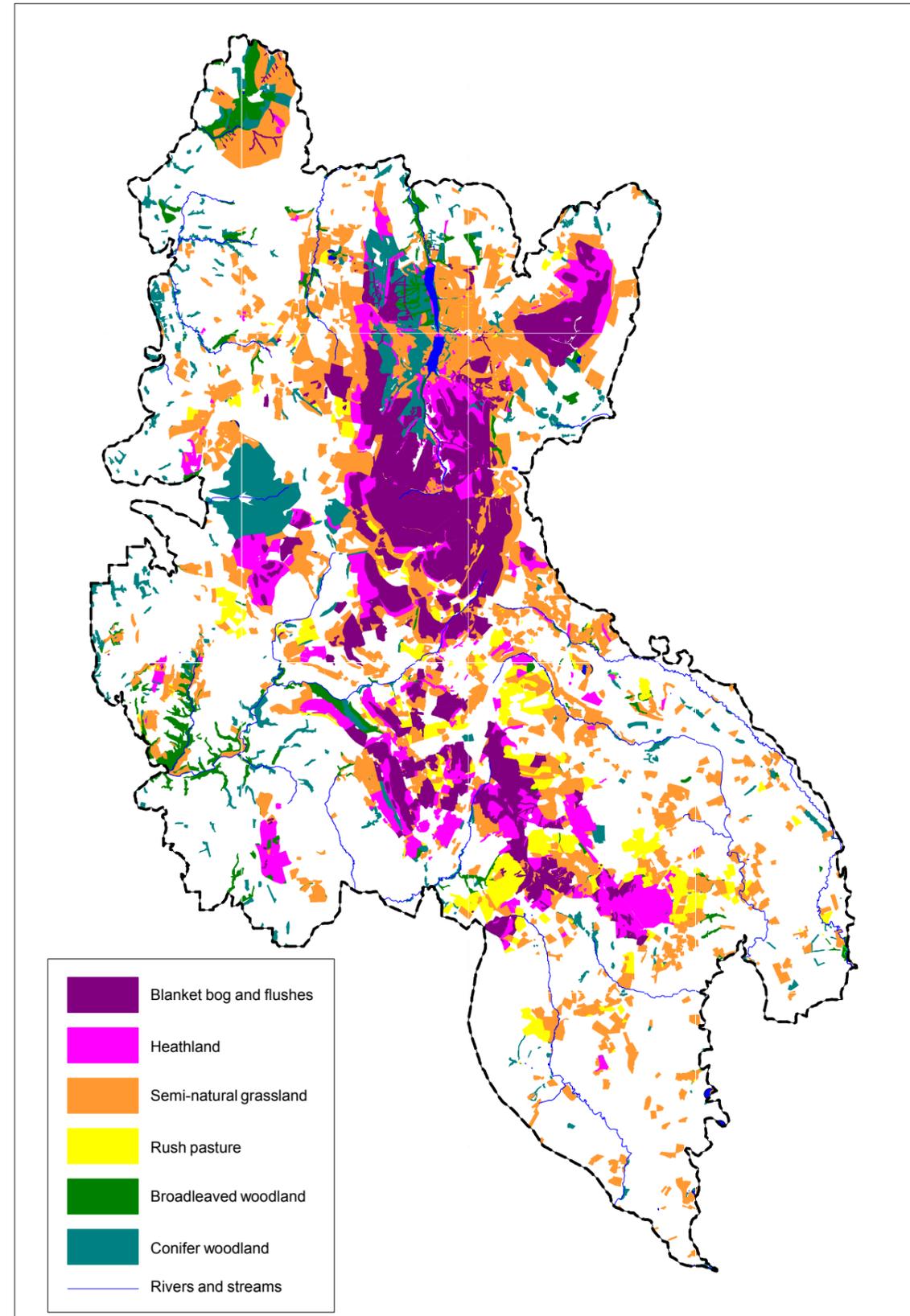
Leek Moors SSSI covers the largest proportion of the area, representing an extensive tract of semi-natural upland and upland fringe vegetation typical of the southern Pennines and supporting several plants and animals at the southern limits of their English distribution (such as cloudberry). Associated with this vegetation and the prevailing traditional livestock farming is an outstanding assemblage of upland breeding birds that includes curlew, snipe, short-eared owl, merlin, hen harrier and golden plover. Golden plover and snipe populations are also interest features in their own right.

Habitats

The South West Peak supports a range of habitats in an intimate mosaic, and whilst we do not have complete up-to-date information on the habitats of the whole area, work is ongoing to collate data from a variety of surveys. From the habitat opportunity mapping work completed in 2015 we can say that around 46% of the area is improved grassland, 26% is semi-natural grassland, 14% is heathland and blanket bog, 9% is woodland and scrub and 0.6% fresh water, with the remainder being built up land, infrastructure and so forth.

The largest expanses of blanket bog and upland heathland occur around the Goyt Valley and Axe Edge. To the south of Axe Edge the landscape comprises moorland on the hilltops and upper slopes in a mosaic with rush-pasture, hay meadows and more improved grasslands on the lower hillsides and valley bottoms. This pattern can be seen, for example, along the main ridges which dominate the area such as the Roaches, Morridge and Lum Edge. In some areas, particularly in the Cheshire parts, continuous grazing over many years has led to replacement of the hilltop moorland by rough acid grassland. Woodland is patchy with significant coniferous blocks at Macclesfield Forest and in the Goyt Valley, while remnants of broadleaved woodlands are still left in the lower valleys and small cloughs. While dry stone walls are the most common field boundary, particularly on higher ground, hedgerows can still be found in the more southern parts of the area. Streams criss-cross the land, rising high on the moorland core and broadening out towards the valleys, many of them feeding the drinking water reservoirs. Towards the eastern and western edges of the area the land is more intensively farmed. It is the intimate mosaic of habitats in particular which contribute to the character and wildlife interest of the area. Moorland edge species like curlew, dependent on both moorland and adjacent farmland, are particularly characteristic.

Broad Habitat Types



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Moorlands

The moorlands are generally lower lying than most of the Dark Peak moors, comprising smaller blocks of blanket bog and heathland. Areas of blanket bog and wet heath are characterised by the presence of cranberry, crowberry, cowberry, cross-leaved heath and hare's-tail cottongrass.

Bilberry is abundant on some moors and provides an important nectar source for the bilberry bumblebee which is dependent on a mosaic of moorland and flower-rich grasslands. The moorlands also provide some of the most southerly sites in Britain for Arctic or northern species such as cloudberry and the rare rove beetle *Atheta arctica*.

Rock outcrops include the dramatic crags of the Roaches and Ramshaw Rocks, and the Killarney fern, a species of global conservation concern, occurs at one site. Areas of wet heath can be found locally, particularly in lower-lying moorland basins. Such habitat, which is rare outside the UK, is the only remaining site in the Peak District for the delicate lesser butterfly orchid.

A wide range of moorland flushes (spring-fed wetlands) occur, supporting plants like marsh valerian, greater tussock sedge, marsh hawksbeard, bottle sedge and bog asphodel. Bog-rosemary, a declining plant with delicate pink flower bells and rosemary-like foliage, is only found on a few remaining sites such as Cut-thorn Hill, Axe Edge and near Derbyshire Bridge. Small areas of willow scrub are a particular feature of some moorlands and these can be rich in wetland plants.



Sphagnum on the Roaches © Karen Shelley-Jones

Grasslands

The enclosed grasslands of the South West Peak tend to be rather varied, with a concentration of rush pasture and hay meadows in particular. The rush pastures vary from species-poor soft rush dominated fields of particular importance for breeding wading birds such as snipe, curlew and lapwing, to more botanically diverse examples characterised by the presence of marsh arrowgrass, sneezewort, common spotted-orchid and marsh cinquefoil.

Springs and flush communities have a distinctive flora and occur in several locations at the junction between gritstones and shales. They are extremely botanically diverse and may contain locally rare and uncommon plants such as bog asphodel, common butterwort, marsh lousewort and sundew.

Hay meadows in the South West Peak are among the most diverse of the Peak District with the combination of acid and neutral, wet and dry soils and variable hydrology. Classic species-rich hay meadows of the area may contain devil's-bit scabious, common knapweed, ox-eye daisy, common bird's foot trefoil, tormentil, greater burnet and common spotted orchid. More uncommon species include field gentian, greater butterfly orchid, adder's tongue and moonwort, a nationally declining fern species.



Hayes meadow © Karen Shelley-Jones

Woodlands

The largest blocks of woodland in the area are the extensive plantations (mainly coniferous) around the Macclesfield Forest and Goyt Valley reservoirs. The former includes fragments of clough woodland with relic populations of bay willow, aspen and bird cherry.

Broadleaved ancient woodlands remain in small patches in the area, typically along cloughs (narrow stream valleys). A significant area of ancient woodland persists along the Dane

and Shell Brook Valleys near Wincle in the south-western part of the area. These ancient woodlands are characterised by oak, birch, rowan, holly, crab apple, hazel and alder trees with a ground flora including wood anemone, wood sorrel, bluebell, yellow archangel and greater woodrush, which are considered to be indicators of the ancient origin of the woods. Birds found in these woodlands include spotted flycatcher and pied flycatcher (both red-listed as birds of conservation concern), redstart and willow warbler (which are amber-listed).

Rivers and streams

The rivers Goyt, Dove, Manifold, Dane and Wye all rise in the South West Peak fed by an intricate network of streams. These water bodies range from the generally more acidic headwaters in the moorland core to neutral and alkaline streams in the lower parts. These provide an important habitat for aquatic and bankside invertebrates, whilst some of the reservoirs support nationally scarce mosses and local plants such as shoreweed on the drawdown zones.

A stream of some note is Kirksteads Brook, a small spring-fed base-rich stream featuring 'tufa' (a highly porous sedimentary limestone formed from calcium carbonate deposits) which supports a diverse community of freshwater invertebrates including the nationally scarce soldier fly *Oxycera pardalina*.



Tuferous rock © Nick Mott

Birds

The bird most commonly associated with the South West Peak and the Staffordshire Moorlands in particular is the curlew. The evocative, spine-tingling call of the curlew for many residents and visitors to the South West Peak signifies that spring is arriving. The curlew is part of an assemblage of wading birds including lapwing and snipe which breed in the South West Peak and take advantage of the extensive land management practices and combination of moorlands and wet grasslands for foraging and breeding.



Snipe © Paul Hobson



Spotted flycatcher © Paul Shaw

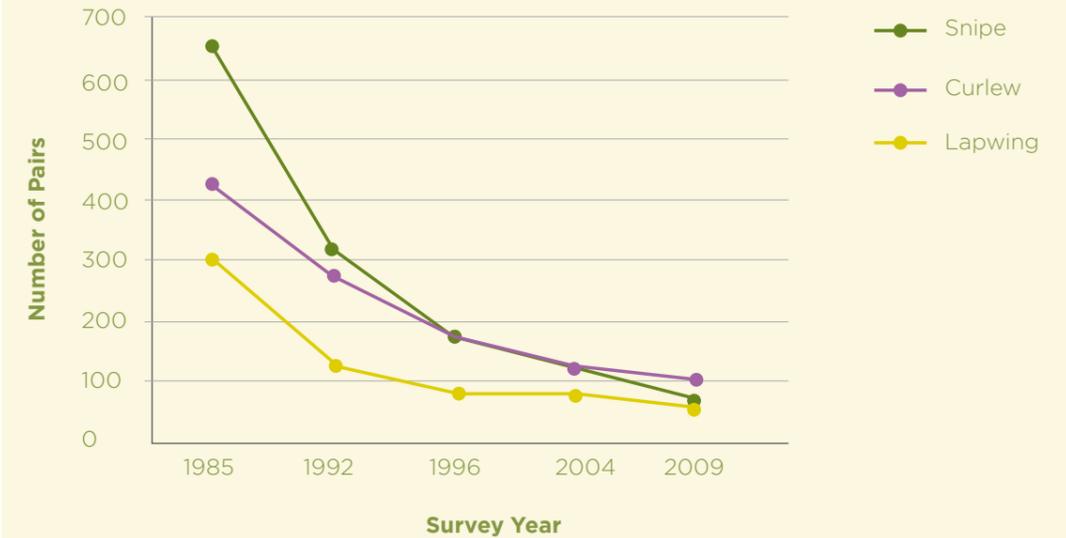
These species have experienced both short and long term population declines. Area-wide surveys have not been consistently conducted to give us the full picture of the whole South West Peak, but the evidence from targeted surveys is dramatic. The 2009 South West Peak breeding bird survey found population declines between 2004 and 2009 of -27% for lapwing, -40% for snipe and -17% for curlew. The long term trends for the three species in the North Staffordshire moorlands from 1985 are more severe, showing declines of -81% for lapwing, -89% for snipe and -75% for curlew (see graph).

From the earlier surveys a series of 'wader hotspots' were identified which contained strongholds of the three target species and enable conservation effort to be more closely targeted.

Birds of prey

Like much of the Peak District, birds of prey in the South West Peak have experienced mixed fortunes. Much of the focus in recent years has been on the Dark Peak and instances of birds disappearing or being persecuted.

North Staffordshire Moorlands breeding wader survey estimates



In parts of the South West Peak birds of prey are faring reasonably well, with peregrine falcon now breeding annually at the Roaches and Hen Cloud since their return in 2008 after a century-long absence. Here and nearby, peregrine, kestrel, buzzard, hobby, merlin and short-eared owl are regularly seen. The moorland blocks with heather at varying heights, in close proximity to rough grassland, provide good breeding and hunting grounds for the day-flying short-eared owl which feeds predominantly on voles.

Hen harriers fare less well, here and throughout the country; often seen gliding across the Goyt Valley they seldom manage to successfully breed. In 2015 the RSPB organised Hen Harrier Day in the Goyt Valley where nearly 500 people joined TV presenter Chris Packham to demonstrate their concern about the plight of the Hen Harrier in the UK.

Invertebrates

Lesser known species of note include the white-clawed crayfish, the UK's largest freshwater invertebrate and keystone species of rivers and streams. Once common across the country this native crayfish is now pushed to the brink from competition, predation and disease brought by the introduced North American signal crayfish and from changes to its habitat including the use of pesticides.

Formerly relatively widespread across the suitable watercourses of the South West Peak (being a crustacean, crayfish prefer neutral to alkaline waters) the white-clawed crayfish was thought to be locally extinct, due to outbreaks of crayfish plague in 2005 and 2008, until the chance discovery of a single native crayfish during a biodiversity day at Under Whittle Farm near Crowdecote in 2014. This rediscovery suggests that there is still potential for this species to persist in suitable conditions in the South West Peak, albeit in low numbers.



White-clawed crayfish © Karen Shelley-Jones

The bilberry bumblebee is sometimes called the 'mountain bumblebee' or the 'blaeberry bumblebee'. Typically found above 300m altitude, this small bumblebee with a distinctive orange-red abdomen was formerly quite widespread in the British Isles (although never in the South-East) but it is feared that its range may retreat to the north and west with the changing climate (Evans & Potts, 2013).

It is a cold-loving species of uplands, moorlands and moorland edges which typically feeds on bilberries and willows, bird's-foot trefoil, clovers and brambles. Queens emerge from hibernation in April and workers are present from May onwards. They tend to nest at the base of bilberry or heather plants (Moors for the Future, 2012). This reliance on a range of plants means that the bilberry bumblebee does not do well in moorland alone, needing access to nearby grassland habitats. The mosaic of habitats in the South West Peak provides a perfect combination for this little creature.



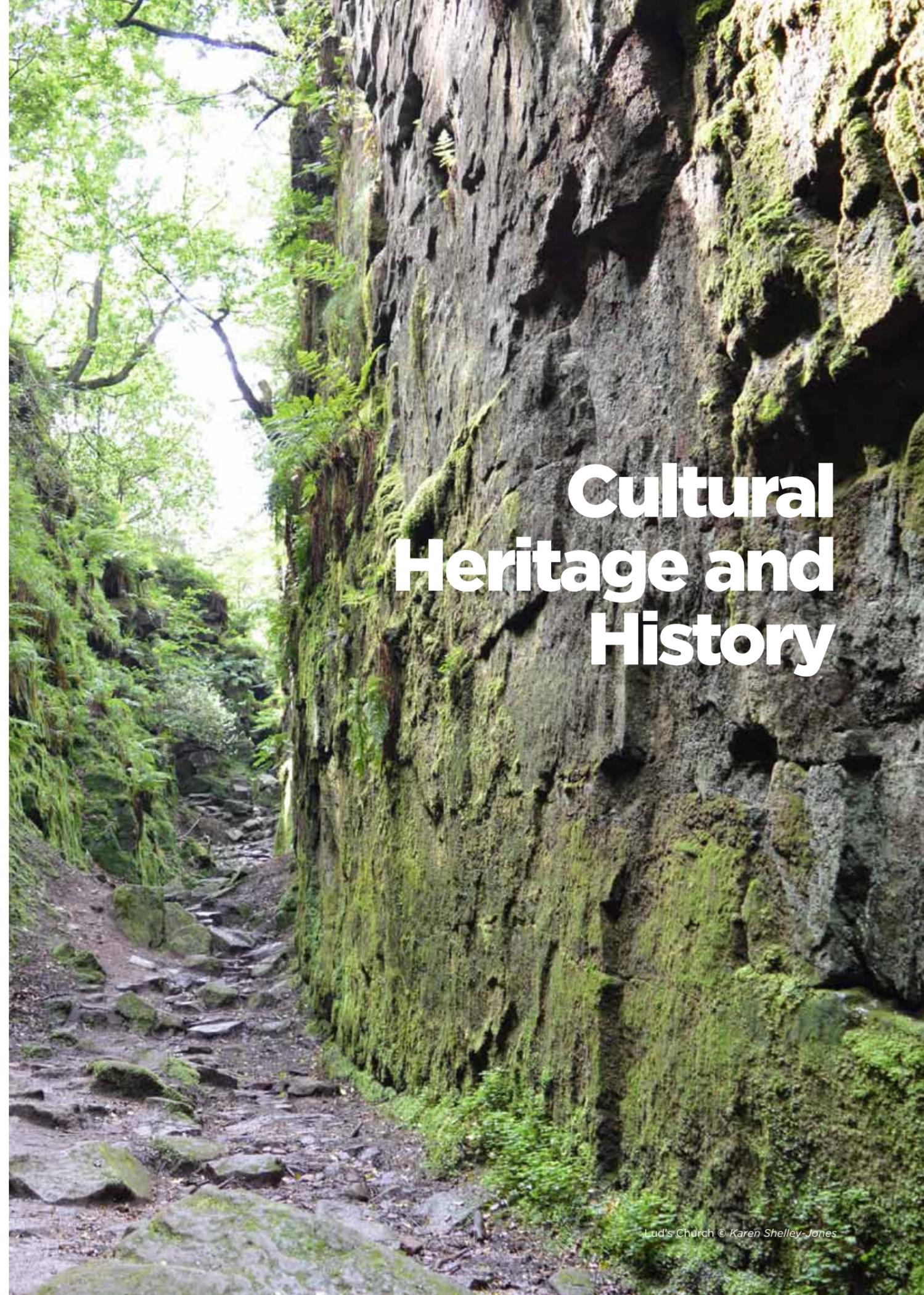
Bilberry bumblebee © Moors for the Future

Fungi

The traditionally managed grasslands of the South West Peak are particularly good for collections of grassland fungi; these grasslands are known as 'waxcap grasslands'. In order to assess the value of the site a so-called 'CHEG' profile is determined. CHEG stands for the four groups of fungi Clavariaceae (Fairy Clubs), Hygrocybe (Waxcaps), Entoloma (Pink Gills) and Geoglossaceae (Earth Tongues). The larger the number of species found within each group, the more important the site. Surveys of 25 waxcap grasslands in the area in recent years have found three internationally important sites, 11 nationally important sites, five regionally important sites and six locally important sites.



Waxcap fungi © Karen Shelley-Jones



Cultural Heritage and History

Lud's Church © Karen Shelley-Jones

Cultural Heritage and History

Archaeology

There are 57 scheduled monuments in the South West Peak, including Bronze Age barrows, a medieval motte and bailey castle, an Iron Age promontory fort on Combs Edge, and Goyt's Moss colliery dating from the early 17th century. Added to the scheduled monuments of national importance are a series of some 80 non-scheduled barrows, a host of medieval packhorse routes, field systems and settlements, post-medieval turnpike roads, gritstone quarries, coal mines, lime kilns and disused mills.

A site with evidence of a long period of occupation is Fox Hole Cave to the east of Longnor right on the edge of the South West Peak. Here, the skull of a brown bear was found, placed upside down and covered with flat slabs, an act attributed to Late Upper Palaeolithic or Mesolithic people – hunter/gatherers living 12,000 to 6,000 years ago (Cooper, 1999).

The first settlers in the area were Neolithic farmers; a settlement discovered to the west of Buxton in the 1980s revealed rare evidence of rectangular buildings with central hearths. Stone tools, pottery and traces of the settlers' crops and diet were radiocarbon dated to around 3,500 BC (Wood, 2007). Neolithic pottery was found in Fox Hole Cave which is thought to be related to the cave's use as an alternative to a long barrow for burials (Cooper, 1999).

Bronze Age burial mounds remain in a few locations on the summits of western-facing hills such as that on the highest point of the Roaches ridge. These are the principal physical reminder of prehistoric farming in the area (Wood, 2007).

The Iron Age hillfort of Castle Naze sits on a triangular promontory high above what is now the town of Chapel-en-le-Frith. It is thought that the fort was built in several phases, starting around 500 BC when the inner bank was constructed. The outer, higher, bank and ditch were constructed later to replace this (Cooper, 1999). To date, little other evidence of Iron Age activity has been found in the South West Peak; at this time the climate was becoming cooler and wetter and the nature of farming changed to more extensive, rather than intensive activities.

After the prehistoric period, the interdependence of upland grazing and lowland cultivation continued to develop. While there is some evidence for oval enclosures pre-dating the Roman period, the area's small-scale enclosures date from the medieval period at least. Evidence of more-typical medieval open field farming survives in small areas (for example, around Warslow and Butterton), where later boundaries perpetuate the broad outline of the long cultivation strips associated with such farming (Natural England, 2013).

The medieval Pilsbury Castle sits on a spur overlooking the River Dove a short distance south-east of Fox Hole Cave. The remains include a conical motte or castle mound and three baileys or courtyards enclosed by ramparts and ditches. The site utilises the steep natural slope on its north-west side as part of its defences (Historic England, 2016). Located in the valley, Pilsbury Castle monitored traffic along the valley-bottom road, a symbol and a demonstration of power and control.

In the northern half of the South West Peak were three medieval hunting forests: Macclesfield Forest in Cheshire, Malbanc Frith in Staffordshire and part of the Royal Forest of the Peak in Derbyshire; these will have inhibited further settlement until later medieval times. While field systems exist from medieval times or earlier, it is difficult to date individual farmsteads owing to a lack of historical records and later rebuilding. Settlement is typically dispersed, so nucleated villages are uncommon, with only the old market village of Longnor and the small settlement of Sheen to the south and a series of four larger villages further south at the edge of the limestone plateau. These villages tend to be on elevated land, located on springs. All but Sheen have medieval field patterns but each of these village areas also has outlying farmsteads of a variety of dates (Natural England, 2013).

Many farmsteads appeared during the 16th and 17th centuries, in tandem with the early development of field barns, and some rebuilding took place in the 17th to 19th centuries using local gritstone. Stone-slatted roofs often replaced earlier thatch. Staffordshire blue clay roofing tiles are an important roofing material in the more lowland landscapes to the south and west. The decades of

enclosure following the Parliamentary Enclosure Acts in the late 18th and 19th centuries increased the rate of enclosure and resulted in the current landscape of fields with walls and hedgerows on the lower slopes (Natural England, 2013).

Transport and travel

During medieval times there were no defined routes across the craggy moorland, high pastures and scattered settlements of the South West Peak. The land had not been enclosed and there were few landmarks. However, experienced traders were making long cross-country journeys using the most direct dry routes possible. Parts of these routes can still be seen as parallel hollow-ways. The major routes were the drovers' 'Great Road' from Congleton to Nottingham, the Manchester to Derby Roman road, the saltways from Cheshire to Chesterfield and Sheffield (Wood, 2007) and, later on, the silk route from Macclesfield to Nottingham.

Drovers' roads

The Great Road passes to the north of Leek over Gun Hill to Meerbrook and Upper Hulme, ascending again, leaving parallel lines of hollow-ways in places 100m wide, up to the Mermaid (inn) with a livestock watering point at the nearby Blake Mere. The route continues eastwards over Revidge, north of Warslow to Hulme End. From here the route leaves the South West Peak as it crosses the River Dove and continues east.

Packhorse routes

For several centuries pack mules and horses were the sole means of transporting goods; even in the mid-19th century strings of packhorses were still common in the Peak District, being able to travel over the moors more easily than heavy wagons (Dodd & Dodd, 1974). A popular breed of packhorse was the Galloway from Scotland or the German Jaeger-pony which is thought to have given rise to the term 'Jagger' for the man in charge of the packhorses (Dodd & Dodd, 1974). The name Jagger is still seen in many parts of the area, as in Jagers Clough, Jagers Bridge, Jagers Lane etc (Wood, 2007). The routes used by packhorses were often roughly paved, at least in part; these lengths over soft ground were known as 'causeways' and were usually quite narrow, making them cheaper to make and maintain. Where routes crossed rivers, packhorse bridges were built, often steeply humped to leave plenty of room for the river to rise when in flood. At Three Shire Heads, not only do the three counties of Staffordshire, Cheshire and Derbyshire meet, but four packhorse routes also converge.



Packhorse bridge Goyt Valley © PDNPA

A well-known packhorse route across the South West Peak was the one which carried copper ore from the Duke of Devonshire's mines at Ecton just across the Manifold Valley on the eastern side, to his smelting works at Whiston above the Churnet Valley to the west (Dodd & Dodd, 1974).

Until recent times the Goyt Valley too was an important trade route. Roman roads cross the area and the medieval tracks and hollow-ways in the valley were once important packhorse routes. It was from Goytsclough Quarry in the 17th century that Thomas Pickford of Cheshire set up a family business supplying stone to repair the roads around Manchester. It is thought, though it cannot be proved (Dodd & Dodd, 1974), that Thomas was the forebear of James Pickford, who originated the world famous removal and storage company (Discover Derbyshire and the Peak District, 2016).

The packhorse routes across the upper Goyt Valley were used to transport salt from Cheshire on a round trip into Derbyshire, Nottinghamshire, Yorkshire, Cumbria and Lancashire, which took between five and nine days (Wood, 2007). Evidence of the route remains in the place names along the way, such as Saltersgate, Saltersford, Saltersbridge and so on.

Packhorses were replaced when The Cromford and High Peak Railway was built in 1830, linking the Cromford and Peak Forest Canals at Whaley Bridge. In the middle, it rose to over 1000 feet at Ladmanlow, and was considered to be an engineering masterpiece. Stretching for 33 miles in length, the line was fully opened in 1831, when it was used to transport minerals, corn, coal and other commodities from one canal to the other. The Goyt section was closed in 1892 after a new link to Buxton was completed (Discover Derbyshire and the Peak District, 2016).

Industrial heritage

Within the South West Peak there are some 53 coal mines, 52 lime kilns, 106 quarries and at least 34 mills.

Coal mines

Coal seams formed on the western fringes of the Peak District during the Carboniferous period. The seams vary in thickness 'from a fraction of an inch to several feet' (Wood, 2007), so while the extent of the Coal Measures is considerable only a small proportion was workable. Digging for coal is recorded from 1401 near Goldstich Moss, an area of land between the Roaches and Gib Tor; small hollows colloquially known as 'bell-pits' are still visible today (Wood, 2007).



Goldstich Moss bell-pit pond © PDNPA

Perhaps the most significant area of coal mining was at Goyt's Moss and Axe Edge to the south-west of Buxton on land owned by the Duke of Devonshire. The workings covered a large area and comprised more than 350 shallow bellpits and shafts of various depths, with associated drainage soughs and access adits. These mines were some of the largest in Derbyshire, worked from before the 16th century, with production at its height in the 18th and 19th centuries (Barnatt, 2014). These mines provided coal for the domestic market and for the Duke's nearby lime kilns, where lime was produced to spread on newly-enclosed land to burn off rank vegetation and on the poorer soils to improve the land and increase yields.

A section of the colliery is designated as a Scheduled Monument and remains of shafts and bell pits, gin circles, access tracks and the adjacent turnpike roads can still be seen.



Danebower Colliery chimney © Karen Shelley-Jones

The 8m tall stone-built ventilation chimney of the nearby Danebower colliery on the Cheshire side of the valley (one of only nine surviving in England) is listed as a Scheduled Monument. The colliery, now disused, stood beside the River Dane 110m to the south-east of the chimney. The colliery was probably in use principally from 1780-1880 and was last worked in 1925. The furnace and chimney were constructed during the early 19th century, but only the chimney now remains (Historic England, 2016).

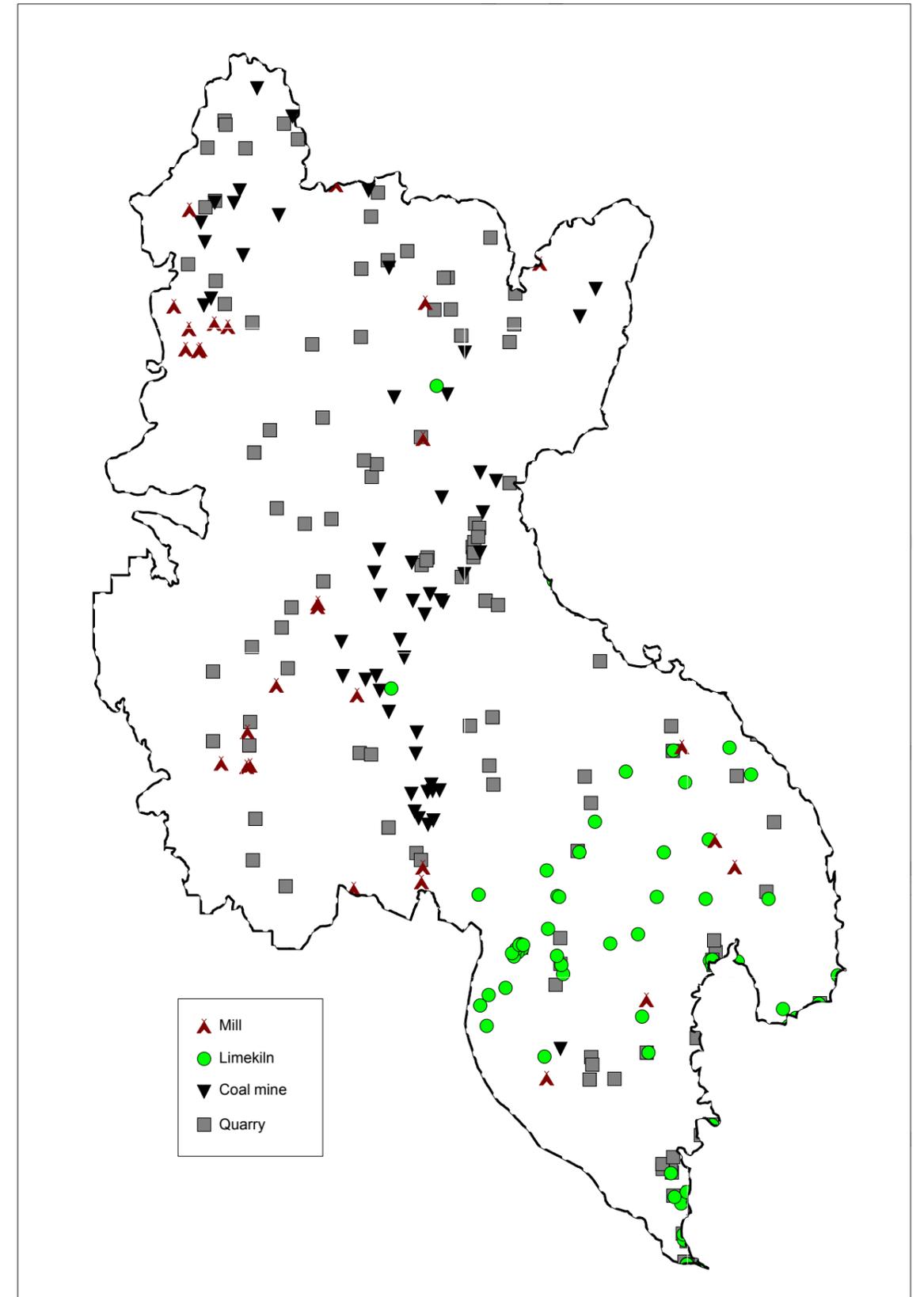


Goyt's Moss Colliery © Margaret Black

Lime kilns

The oldest exposed rock in the Peak District is limestone which gives the neighbouring White Peak its name. Limestone is a good building stone but also has uses, once roasted in kilns, for mortar and fertiliser. During the period of enclosures between the 17th and early 19th century lime was applied on newly-enclosed land, first to remove coarse vegetation and then to counter the natural acidity of the local soils, hence improving the

Industrial Heritage Sites



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grazing capacity (Wood, 2007). The stone-built kilns in which the lime was burned came in a variety of types and sizes. More common of course in the White Peak, a fair number of old kilns are still in evidence in the South West Peak, notably in the southern part with a few scattered exceptions elsewhere (see map on p.43). Solitary field kilns were associated with individual farms and built by farmers for their own use, the job of lime burning alternating with other farm work.

Many of the lime kilns are now either completely lost or in very poor condition with few intact. A recent survey of the limekilns in and near the South West Peak classified them thus:

- A = Sound and all features intact
- B = Main structure sound and features visible if not perfect
- C = Main structure sound though some features obscured or lost
- D = Tumbledown but recognisable
- E = Totally derelict
- F = Non-existent

Of 52 kilns surveyed, only nine were classified grade A to C; the remainder were largely grass-covered, with many of the stones having been taken and the 'pot' filled in with rubble. Of those in good condition, Goyt's Lane kiln (pictured) is well-preserved, standing almost to its original height of around 3m; the kiln is publicly accessible and offers a good opportunity to interpret this part of the area's industrial and land management history.



Goyt's Lane limekiln © Eric Wood

Gritstone quarries

Quarries for building stone and roofing slates are found throughout the area, often in remote moorland locations. Grey slates for roofing

were cut at a number of places including Flash, Goytscough, Macclesfield Common, Pott Shrigley, Wincle, Reeve Edge, Danebower, Blackclough and Rainow. 'Freestone' quarried at Danebridge, Forest Chapel and Kerridge was used locally for quoins, gateposts, lintels, sills and flags; further afield it was used for kerb stones and street paving. Huge amounts of stone were used by the railway companies in the construction of bridges, viaducts, station buildings and platforms (Wood, 2007).

The climate of the South West Peak, in common with the rest of upland Britain, imposed a reliance on oat (or barley) bread rather than the wheat bread consumed in the lowlands. In Derbyshire and North Staffordshire circular oat-cakes were a staple fare. A number of shale beds in the area were well known for producing smooth bakestones that were polished into a cooking surface for this local bread (Wood, 2007).

The wide variation in the colour and structure of stone across the area as a result of the varied geology is reflected in the vernacular architecture of the villages and hamlets. Many of the 22 Conservation Areas in the South West Peak are characterised by the use of locally-sourced building materials.

These industries shaped the patterns of settlement: the additional livelihoods from mining and quarrying allowed much denser settlement of agriculturally poor land than would otherwise have been the case, particularly in the area around Flash (Natural England, 2013).

Mills

The numerous fast flowing streams and rivers of the South West Peak lent themselves to the provision of water power for small-scale industry. A number of mills were active in the South West Peak during the 17th and 18th centuries, many of which, sadly, no longer remain. Well over 30 mills on the rivers Dane and Dean were used for a wide variety of purposes including smelting lead, milling corn, making paper, tanning leather, spinning silk or cotton and even producing gunpowder that was reputedly used by Sir Francis Drake in the defeat of the Spanish Armada (Discover Derbyshire and the Peak District, 2016). Many of the mills were reincarnated several times during their working lives; Longnor Mill started life as a corn mill and was later used for grinding bones; wooden hay racks were made in more recent years and the premises was also used as a saw mill by the Harpur Crewe estate; it is now being privately

restored. Wildboarclough Upper Mill buildings were formerly used for silk and later for carpet manufacture (Derbyshire Heritage, 2016).

Derbyshire's first application for a licence to make gunpowder came from Thomas Williamson of Shallcross in the hamlet of Fernilee in Hope Parish. Since the site was a safe 30 miles from any other gunpowder mill and 12 miles from Hope parish church, the licence was granted on 26th December 1800. One hundred men were employed in the mill in 1857 but it closed after World War I when the Goyt Valley was acquired by Stockport Corporation for the building of two reservoirs to meet the increasing demand for water in Stockport and Manchester (Discover Derbyshire and the Peak District, 2016).

Another unusual mill was the candle wick mill at Kettlethulme in the far north of the South West Peak. Formerly a cotton mill, Lumb Hole or Grove Mill dates from 1797 but was destroyed by fire in the 1820s. Rebuilt from local gritstone and Kerridge slate and now Grade 2 listed, the mill was re-equipped to manufacture candle wick, especially for miner's lamps, a trade which continued until its closure in 1937 (Furness Vale Local History Society, 2015). Originally lit by oil, the mill manufactured its own gas supply for lighting purposes until changing to water-generated electricity (Derbyshire Heritage, 2016).

Whitelee Mill on the Cheshire bank of the River Dane operated as a paper mill throughout the 18th century. In the early 19th century the Trent and Mersey Canal Company were proposing to build a water supply feeder from the River Dane to their reservoir known as Rudyard Lake. It was originally intended that the water should be diverted upstream from Whitelee Mill on the northern bank of the river. The leat would run past the mill, cross the river by means of an aqueduct before heading along the southern side of the valley to Rudyard reservoir to the south-west. However, the leat was started from a new weir downstream from the mill which was not successful as it was virtually level. Following a scathing report on the work an Act of Parliament in 1821 granted the necessary authority for remedial work. In 1824 the leat was extended upstream to the paper mill weir where it was allowed to collect any flood water over six inches above the normal weir height (Wincle, 2016).



Weir on the River Dane © Karen Shelley-Jones

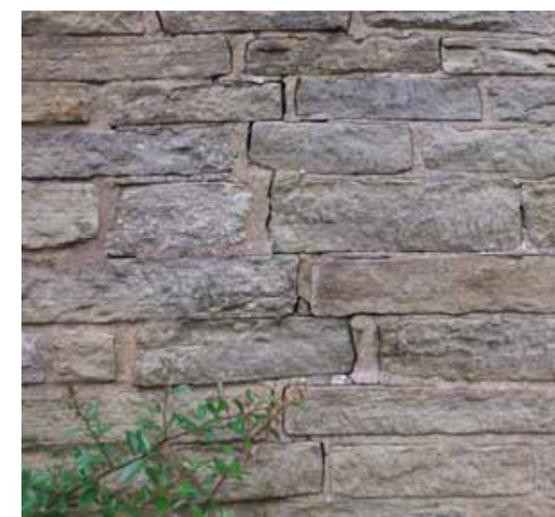
Other Built Heritage

Within the South West Peak LPS area there are 20 conservation areas, 463 listed buildings and three historic parks or gardens.

Conservation Areas

The 20 Conservation Areas can be roughly divided into northern, central and southern parts.

The northern Conservation Areas of Lyme Park, Kettlethulme, Pott Shrigley, Rainow and Forest Chapel typically make use of locally sourced buff or grey coloured Kerridge stone with Kerridge stone slate as the predominant roofing material. Forest Chapel in particular has a real coherence in the buildings, with coursed gritstone found throughout the hamlet where most buildings have retained their traditional stone-slate roof.



Kerridge stone © PDNPA

In the central part some variation can be seen: in Danebridge & Wincle the traditional buildings are constructed from the local reddish-buff sandstone or yellow sandstone, with sandstone dressings. The traditional roofing materials are Kerridge stone slate and blue slate. The gritstone of Flash is characteristic of the stone from the southern edges of the gritstone area known as millstone grit, where the quarried pieces are amorphous and dark in colour. The majority of traditional buildings are of coursed gritstone rubble some retain their traditional covering of Derbyshire Stone Slate. Blue slates and Staffordshire blue tiles have also been introduced.

The buildings of Hollinsclough nearly all have individual features or characteristics; gritstone for buildings is relatively thin and coursing is variable between buildings.

In Longnor, many of the older buildings in the Conservation Area are constructed from Longnor sandstones or Sheen sandstones, both from the Millstone Grit Group. The main outcrop of Longnor sandstones were quarried in and around the settlement. During the 19th century this particular stone type was mined at Daisy Knowl, to the north-west of the village (Derbyshire UK - <http://www.derbyshireuk.net/longnor.html>). This sandstone type often has an orange-pink colouration derived from its feldspar and iron content.



Buff and red sandstone © PDNPA

To the south, the proximity to the Staffordshire Potteries is evident in the widespread use of Staffordshire blue clay tiles. In Sheen and Brund, stone slate only survives on a minority of buildings. The local quarry supplied most of the gritstone found in Sheen's buildings.

Local gritstone is the main building material throughout Upper Elkstone, Brund, Warslow and Onecote. In the nearby hamlet of Wigginstall squared and coursed gritstone is the traditional building material varying in colour from honey tones through to pinks and reds.

In Upper Hulme and Meerbrook the local sandstone has a wide variety of colours from the buff of the coal measures through to pink tones. The walls that enclose the fields and roads are built of it as are the traditional domestic and agricultural buildings.

In Waterfall, at the southern tip of the South West Peak and close to the White Peak, the buildings are predominantly built of squared and coursed limestone. Roofs are covered with Staffordshire clay tiles. Waterfall's proximity to the Potteries is shown, not only by the clay tiles, but also by the use of brick in the village.

Listed structures

There are some 463 listed structures in the area; these are not just buildings but built structures or features including memorials, mileposts, crosses, boundary stones and bridges. In fact these 463 listed items comprise 23 barns, 31 farm buildings, 15 outbuildings, 6 stables, 19 walls, 1 hall, 23 commemorative monuments, 5 pubs, 2 shops, 224 domestic dwellings, 5 schools, 16 garden features, 1 industrial site, 3 watermills, 27 religious buildings, 1 hotel, 40 guideposts and mileposts, 3 items of street furniture, 16 bridges and 2 telephone boxes.

These features are well distributed across the area, with the greatest numbers to be found in the parishes of Longnor, Hartington Upper Quarter, Macclesfield Forest & Wildboarclough, Rainow and Sheen.

Historic parks & gardens

There are three registered historic parks and gardens in the South West Peak: Lyme Park at the northern tip, part of the Pavilion Gardens in Buxton and Mellor's Gardens near Bollington.

Lyme Park originated as a medieval deer park; the core of the grade 2 listed house was constructed in the 15th century with later additions to create the grand hall, today owned by the National Trust. The hall sits in 17 acres of formal gardens which contrast with the surrounding moorland parkland. The park, established by 1359, originally formed part of Macclesfield Forest, and the resident herd of red deer is thought to be descended from native forest deer (Historic England, 2016).

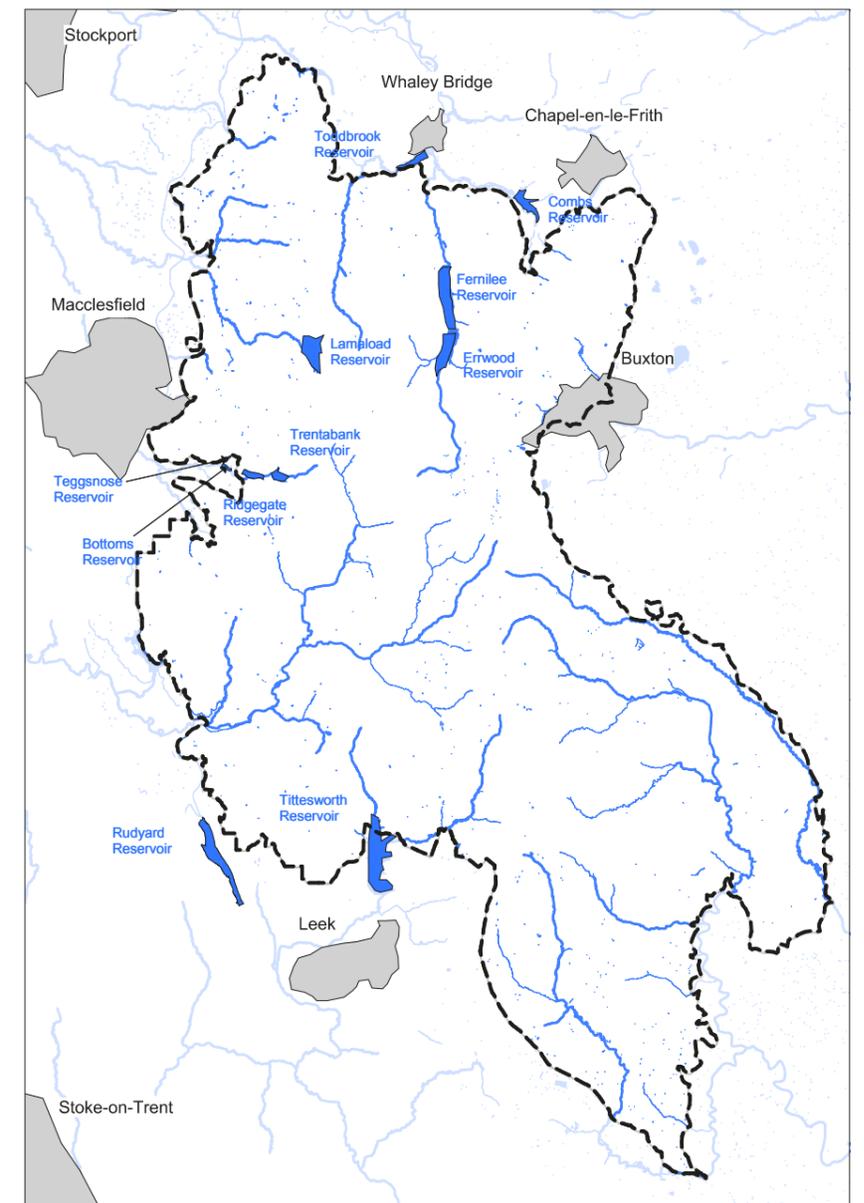
The Pavilion Gardens at Buxton is a grade 2 listed public park which was probably first developed as gardens for Buxton Hall in the 16th or 17th century. Improvements and planting in the area were part of the fifth Duke of Devonshire's plans to enhance the attractions of the spa town in the late 18th century. The area alongside the River Wye was improved and embellished by Joseph Paxton for the sixth Duke, probably in the 1830s. A continuous range of buildings beside the gardens comprise the pavilion (in use as a café and shops), an octagonal concert hall, swimming baths, playhouse, conservatory and opera house (Historic England, 2016).

Mellor's Gardens in the parish of Rainow comprise small privately owned pleasure grounds laid out in the mid-19th century to a design based on the journey of Christian in John Bunyan's Pilgrim's Progress, with features of the garden corresponding to the descriptions in the book. Hence there are areas called the 'Slough of Despond', 'Valley of Humiliation', 'Mouth of Hell', 'Plain of Ease', 'Howling House' and 'Dark River' (Historic England, 2016). Names not exactly befitting a 'pleasure ground'!

Reservoirs

Five reservoirs are located within the LPS area with a further seven on the periphery fed by its waters.

Rivers and Reservoirs



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Fernilee and Errwood are drinking water reservoirs in the Goyt Valley constructed by the Stockport Water Corporation in 1938 and 1967, at respective costs of £480,000 and £1.5 million. Now owned and operated by United Utilities, the twin reservoirs together hold 9,155 million litres of water which they provide to Stockport and the surrounding areas (Visit Peak District, 2016). That's equivalent to 9,155 Olympic sized swimming pools!

Lamaload Reservoir lies to the west of the Goyt Valley near Rainow. The reservoir is fed by the River Dean and provides water to the nearby town of Macclesfield. The reservoir was built between 1958 and 1964, approximately 308m above sea level. It has the distinction of being both the first concrete reservoir in England and having the highest constructed dam in England. The dam can contain 1,909 million litres of water (Cheshire Now, 2006).

Trentabank is the uppermost of four reservoirs within or near Macclesfield Forest which collect water from the hills at the head of the River Bollin. Water from Trentabank and Ridgeway reservoirs supplies Macclesfield with the town's drinking water. The other two reservoirs, just outside the LPS area are Bottoms and Teggs Nose Reservoirs.

The dam at Tittesworth was constructed across the River Churnet between 1959 and 1963, to provide for increasing water demand in Leek, Stoke-on-Trent and the surrounding area. It replaced a much smaller Victorian dam which had been built to supply the local dyeing industry in Leek. A new treatment plant was commissioned in the mid 1990s to supply up to 45 million litres of water a day (Peak District Information, 2015).

Intangible Cultural Heritage

The term 'cultural heritage' has changed substance considerably in recent decades; it does not end at monuments and collections of objects. It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts (UNESCO, 2016).

The importance of intangible cultural heritage comes from the wealth of knowledge and skills that is transmitted through it from one generation to the next.

Stories, myths and legends

A notable example of intangible cultural heritage in the area is that of stories, myths and legends. Stories abound of mermaids, bottomless pools, peculiar happenings and rituals. The website 'Myths and Curiosities from Cheshire, Derbyshire and Staffordshire' collates a host of tales (Mondrem, 2016). Many people in the Staffordshire Moorlands know one or other tale about Doxey Pool sitting atop the ridge path of the Roaches; the pool is said to be bottomless and house a malignant water spirit.

In 1949, Mrs Florence Pettit visited this pool one morning for a swim before lunch, in the company of a friend from Buxton. She wrote afterwards that just before she was to enter the water:

"...a great 'thing' rose up from the middle of the lake. It rose very quickly until it was 25 to 30 feet tall. Seeming to be part of the slimy weeds and the water, yet it had eyes, and those eyes were extremely malevolent. It pointed its long boney fingers menacingly at me so there was no mistaking its hostility. I stood staring at the undine, water spirit, naiad or whatever it was while my heart raced. Its feet just touched the surface of the water, the weeds and the air. When I dared to look again, the creature was dissolving back into the elements from which it had formed"

(CLARKE, 1991).

About 4 kilometres away from Doxey Pool is Blake Mere (or Black Mere) beside what was the Mermaid pub on a high area known as Morridge overlooking the Roaches. There are a variety of myths associated with Blake Mere: it contains a mermaid; it is the drowning place of an attractive young woman said to be a witch; no animals will drink from it; birds will not fly over it or land on it. Sifting fact from fiction, in reality, in 1679 a murder took place here. Andrew Simpson, who worked at the Red Lion pub at Leek, overheard a young woman speaking of how well she had done selling her lace, wool and thread. He followed her home across the moors and murdered her for her money. He threw the body into Blake Mere but the corpse was found and he was later hanged on the nearby Gun Hill (Raven, 2004).

John Higgins, in his book 'Leek and the Roaches' asserts that "both Blake Mere and Doxey Pool are connected underground by water-filled passageways fed from deep underground. The pressure from below acts a bit like a lavatory 'U' bend, each pool feeding off the other. Note the



Blake Mere © Nick Mott

depth of the valley in between and it is hard to imagine this to be so, but it is" (Higgins, 2001).

Perhaps it is such legends which inspired the recent piece of creative writing by Richard of Leek-based charity Borderland Voices:

Off Beat

"When the 118 bus to Buxton broke down in the South West Peak, in the middle of the long-propheesed zombie apocalypse, the passengers were acquainted with what Philip Larkin would call 'a special way of being afraid.' In the remote and rugged windswept vastness of Warslow and its environs, nobody can hear you scream...."

The story of the name of Folly Mill on the River Dane at Allgreave (see section on mills under industrial heritage) is less sinister. It is claimed that Abraham Day built a watermill at Allgreave sometime in the late 18th century and it was destroyed by a flood. The same thing happened to the next one he built. When he started to build a third, his wife threatened to take to her bed and stay there. Undeterred, Abraham started the mill once again, whereupon his wife retired to bed and never got up again, finally dying there in 1826 (Bonson, 2003).

Another account attributes the name to the papermill having been built down an almost inaccessible hole, to and from which horse and lorries had to drag the raw materials and the finished article - an almost impossible task (Longden, 1988).

A landslip in the Roaches Grit to the north of the Roaches escarpment forms the chasm of Lud's Church, a site with geological, ecological and historical significance. Considered to be the Green Chapel sought by Sir Gawain in the medieval poem Sir Gawain and the Green Knight, the chasm and associated cave are thought to have formed a retreat for followers of Wycliffe who were persecuted by King Henry IV, the leader of the local band was Lud-Auk and his followers were known as Luddites, hence the name Lud's Church (Steward, 1987).



Lud's Church © Karen Shelley-Jones

Social history

The traditional wakes week was common in the industrial midlands and north-west of England during the 19th and 20th centuries. What started as a religious holiday was adapted during the industrial revolution into a regular summer holiday where each village nominated a wakes week, during which the local factories, collieries and other industries closed and events and activities took place. The tradition has now mostly died out. In Longnor, wakes week continued but saw a decline in events until only the Longnor races remained. Longnor Action Group revived wakes week in 2015 and it is set to take place again in 2016.

The ancient custom of well dressing is mainly found in the Peak District area and is the art of decorating springs and wells with pictures made from natural materials. Flash well dressing, undertaken by local people of all ages, complements the 4-day flower festival in St Paul's church. It also coincides with the teapot parade (a march with giant teapot,

banners and music) commemorating the Flash Loyal Union Society which started in the mid-1800s to support people in times of need.

Borderland Voices, a charity promoting health and wellbeing through the arts, ran a short project recently entitled 'Voice of the Moorlands', focusing on how people in the Staffordshire Moorlands talk and tell their stories. This from Marion:

I love the dialect of the Peak Park and the Moorlands. When I bear it I think - here's someone from my part of the world. Their voices are slow and low pitched, not the high, quick sound from the towns which make you want to say "slow down, so that I can take in what you say."

In the country men stand side by side when they talk to each other, shoulder to shoulder, looking out across country, observing the land as they talk, while the other can concentrate on what's said and think about it before speaking, not the loud chatter of someone over-talking the other. Go to a farm sale and see the people standing round summing up what's around; no shouting, just slow voices and nods. Their pace is slow and steady, wide steps, bent forward against the strong winds. "It's rather boisterous up there Tom" says Sid "What at toking about?" says Tom

And that's how it is, windy on the best of days, and at five am when everything starts out in the Peak it's a different life to nine o'clock in the town, when they look at people with that half smile that says "you know nowt".

Place names

As we have seen above, some place and farm names are specifically related to the activities which took place there such as the salt trade; others are named after the topography or the nature of the vegetation, for instance:

Axe Edge	'the steep ridge with the ash trees'
Brund	'cleared by burning'
Butterton	'land which gave rich grazing for cows + hill'
Fawfieldhead	'elevated place with the multi-coloured open land'
Flash	'swamp, swampy grassland, shallow water or pool' - Scandinavian origin Flash has been identified with 'flosche' mentioned in Sir Gawain and the Green Knight. No basis for the popular folk belief that this place took its name from the counterfeiting of coins as in 'flash money'.

Gradbach	'bulky pronounced stream-valley'
Grindon	'green hill'
Kettleshulme	'Ketil's water-meadow'
Longnor	'long flat-topped ridge with a convex shoulder'
Meerbrook	'boundary brook'
Morrige	'moorland ridge/edge'
Moss Carr	'boggy ground overgrown with brushwood'
Onecote	'lonely cottage'
Revidge	'rough edge'
Rainow	'raven's hill'
Sheen	'sheds or shelters'
Shutlingsloe	'Scyttel's hill or mound'
Smedley Sytch	'detached piece of land with the boggy stream'
Swallow Moss	'marshy land frequented by swallows' or 'marshy land with a pit or pool'
Swythamley	'the 'leah' cleared by burning in the marsh land'
Warslow	'hill or tumulus with a watch-tower' (Horovitz, 2005)
Wincle	'a nook or corner' or 'hill at or in a bend' (Dodgson, 1970)

Dual Economy

Every stage of human history and change has left its mark on the landscape of the South West Peak, from prehistoric barrows and monuments through Scandinavian invasion, medieval farming, mechanisation bringing water-powered mills, quarrying, limeburning, coalmining and transport routes to present day farming and tourism-related small businesses.

While we have the tendency to describe the South West Peak somewhat lazily as a 'farmed' landscape, this has probably never been the sole source of sustenance for its rural communities. By 1620, when farms had taken over from the shrinking medieval hunting forest, miners extracting coal, iron ore and lead outnumbered agricultural workers. Nineteenth century census returns evidence a dual economy with part-time occupations (alongside farming) including button-maker, silk worker, miner, mason, quarry man, limeburner, lime getter, blacksmith, wheelwright, butcher, plasterer, carrier, peddler, gunpowder labourer, cordwainer (shoe maker), gamekeeper and publican. This dual economy enabled settlement at high altitude in Flash, one of the highest villages in England and with a fittingly harsh climate (Wood, 2007).

The dual economy remains in evidence today, with a number of farms diversifying to provide visitor accommodation. A quick internet search found 43 B&Bs, barn conversions and holiday cottages which by their name or their description are based on farms or small-holdings, compared to 31 which were not (either located in villages or pubs/hotels).

Additional diversification or second businesses include: skip hire; ice-cream making; craft courses; brewery; joinery; haulage; environmental education centre; online sales of homeware and gifts; woollen products from rare breed sheep; pottery; and owl and hawk walks.

Other business proposals from enterprising farmers have been put forward over the years to a business advice and grant scheme which used to be operated by the National Park Authority. The enquiries from farms in the South West Peak included advice and support for: agricultural equipment hire and services; food waste recycling to pig feed; local provenance plants for conservation projects; floristry; plant nursery; bee-keeping; farmhouse tearoom; and meat processing.



Pheasant Clough Farm © PDNPA