From the fot of Maiden Castle looking across Swaledale to Riddings Rigg and Black Hill

LCA 19 Swaledale and Arkengarthdale

Yorkshire Dales National Park - Landscape Character Assessment

YORKSHIRE DALES
National Park Authority

LCA 19 Swaledale and Arkengarthdale

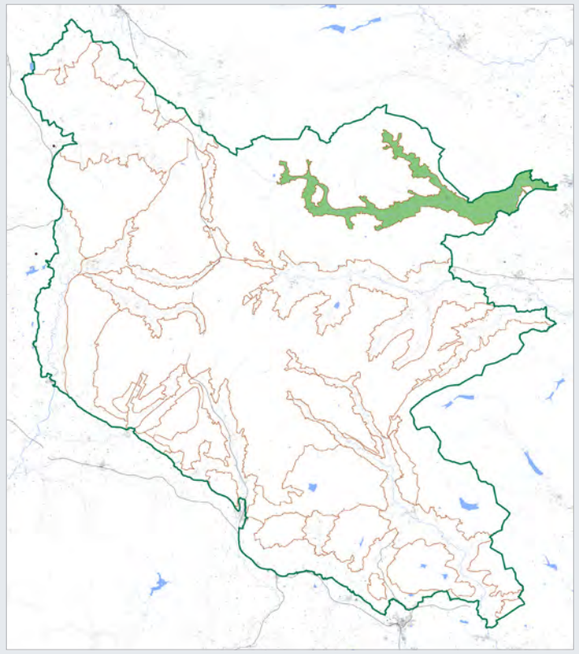
Key characteristics

- Winding, steeply sloped U-shaped valley within rocks of the Yoredale series; the underlying geology has created a stepped or terraced appearance to the valley sides, with pastures areas on the gentler slopes interspersed with woodland on steeper slopes and occasional banded prominent limestone scars.
- The dark purples, tans, greys and blacks of the gritstone uplands contrast with the lush greens and bright colours of valley vegetation and hay meadows.
- Fast flowing River Swale with a platformed rocky bed and stony bank. Steep-sided gills, often wooded and with waterfalls, cleave the valley sides.
- Bands of woodland follow the steeper slopes of the valley sides, and often occur in association with scars. Trees follow the course of the river and tributaries and mark settlements, tree cover reducing with dale elevation.
- The pattern of hay meadows in combination with a particularly high density of drystone walls and barns are an outstanding feature of the upper dale.
- Dramatic reminders of former lead mining, including structures, hushes and spoil heaps, dominate a number of valley side gills, and are particularly marked in Arkengarthdale and at Gunnerside Gill.
- Traditional Anglian nucleated settlements are characteristic of the lower dale, with a dispersed Norse pattern in the upper dale. Scattered traditional farmsteads, often occurring as long houses or in rows with other cottages, occur throughout the dale.
- Strong estate and monastic influences, including parklands, farms, deer parks, halls and abbeys in the lower dale.

Mid Swaledale is well treed and fields are typically enclosed by hedgerows rather than walls



From Grinton Bridge looking east



Numbered photographs illustrate specific key natural, cultural and perceptual features in Swaledale and Arkengarthdale (see page 8)

Terraced slopes with outcrops of dark gritstone at Fremington Edge - at the edge of the moorland plateau



Lower Arkengarthdale from Watson House

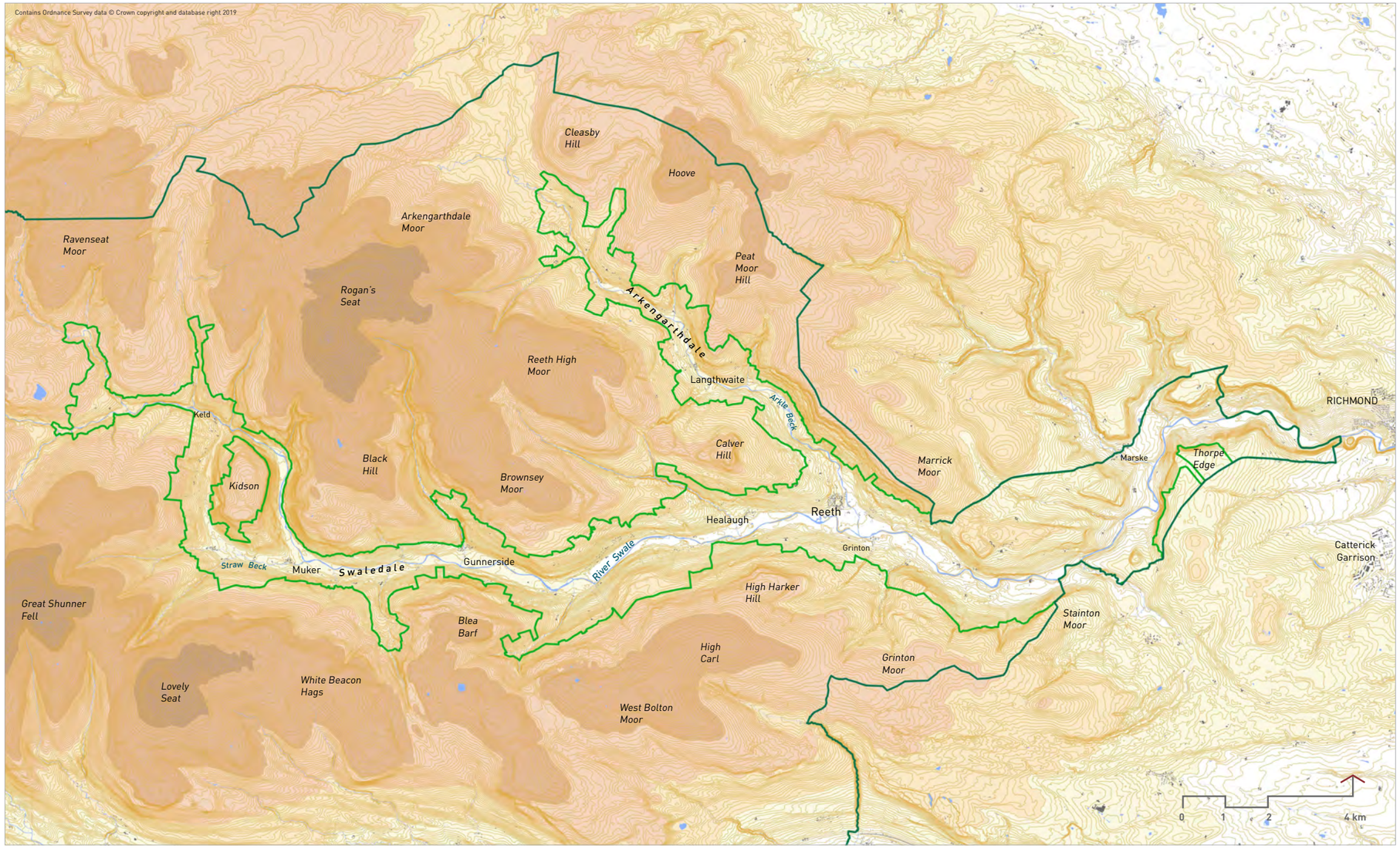


Colourful hay meadows, with a stone field barn in the corner of the field

Photo: © Gareth James cc-by-sa/2.0

Muker Meadows SSSI

Landscape context: Swaledale and Arkengarthdale



Landscape context

The geology of Swaledale and Arkengarthdale is dominated by the Yoredale series of rocks, clearly visible on the valley sides as a repeating pattern of banded rock outcrops or steeper slopes of hard limestone and gritstone interspersed by broader more gentle slopes formed by the less resistant shales. Dale side gills often cut a stepped pattern as they cross the alternating hard sandstones and limestones.

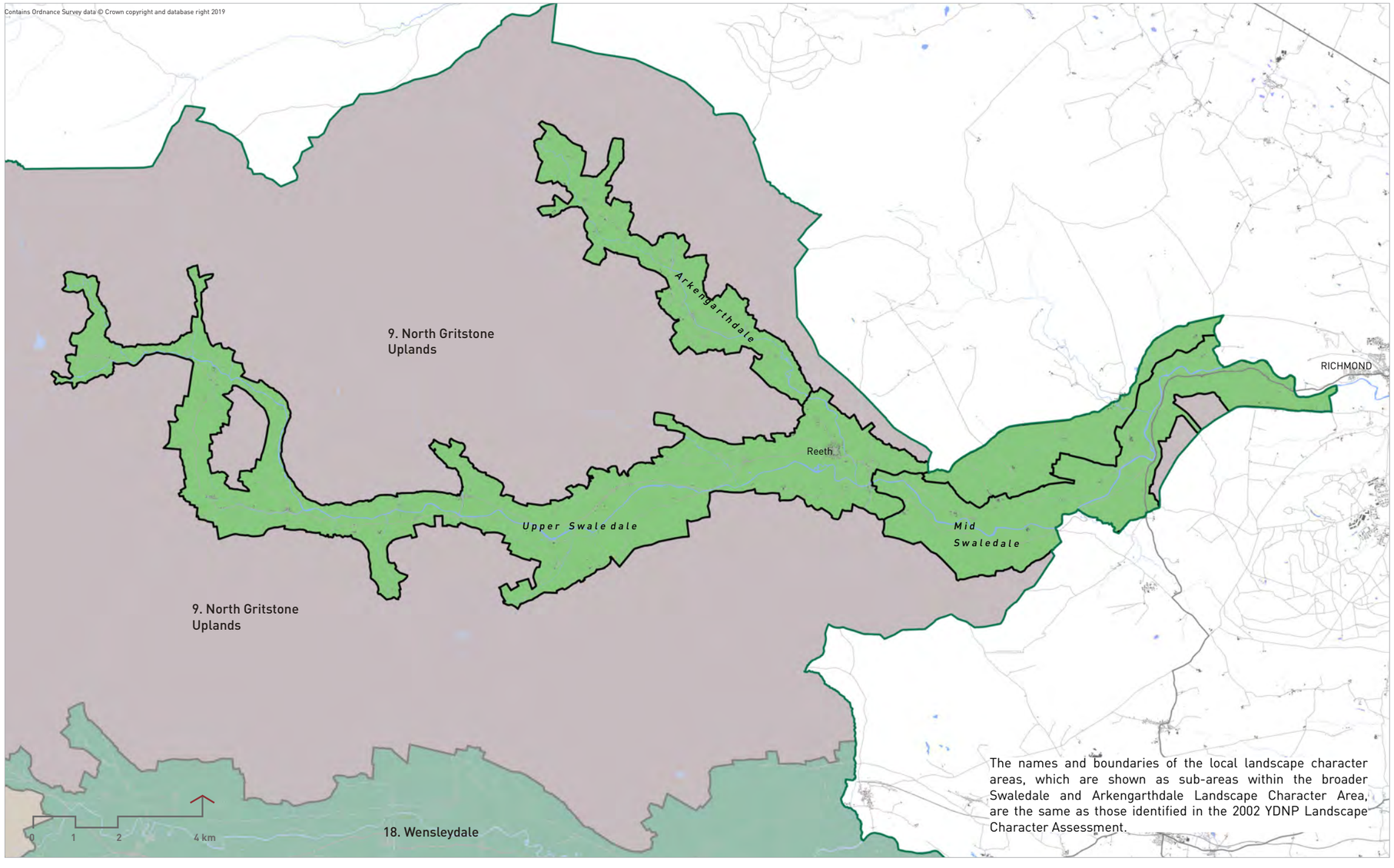
The Yoredale bands of limestone are thinner and darker in appearance than the Great Scar limestone that outcrops further south and have not produced the type of scenery that is found in the limestone country further south. However, at the top the series of Yoredale rocks, Main limestone is found in a prominent band and is responsible for several prominent scars and limestone features, such as the limestone cliffs on Cotterby Scar near Keld, Kisdon and Ivelet scars above Muker and the high scar of Fremington Edge. The influence of limestone is visible in the vegetation type of the dale sides, limestone supporting brighter green, species rich grasslands in contrast with the coarser grasses on sandstones and shales. In some areas eg on Kisdon side, the underlying geology of alternating bands of strata is reflected in a horizontally striped appearance to the valley side vegetation pattern.

The Millstone Grit lies on top of the Yoredales comprising a series of coarse sandstones with intervening shales and occasional coals. On the north side of the valley between Keld and Arkengarthdale, there is a concentration of east-west faults containing calcite, barite, witherite, fluorite and galena (lead ore) and, in some places, deposits of zinc and copper ores.

The horizontal gritstone strata caps the moors to the north and south of the dale forming an extensive plateau of heather, cotton grass and peat.

During the last Ice Age, Swaledale was ridden over by a thick sheet of ice which smoothed the contours, broadened the valley and diverted the course of the River Swale at Keld and Round Howe. Kisdon, the isolated area of upland (498m) that lies within the upper valley, was formed when the melting glacial rivers cut out a new course for the Swale along what is now known as Kisdon Gorge. Glacial retreat moraines, which held back temporary glacial lakes, are in evidence at Gunnerside Bridge, Lower Whita Bridge, below Grinton Bridge and by Ellerton Abbey.

Landscape character: Swaledale and Arkengarthdale



Landscape character

The principal variations in landscape character at a local scale are:

Mid Swaledale – Strongly enclosed well treed valley. Floodplain alters between flat and broad to very narrow. Steep, wooded valley sides with many prominent scars. Strong estate and monastic influences.

Upper Swaledale – Winding, U-shaped narrow valley; steep valley slopes often have a stepped profile, reflecting the strata of the enclosing Yoredale rocks. Prominent network of drystone walls and an exceptionally high density of small field barns and upland hay meadows.

Arkengarthdale – Deep, narrow tributary dale with a remote, upland character. Extensive and prominent areas of devastation caused by quarrying and lead mining. Strong contrasts between the wooded floodplain, walled farmland enclosures and the surrounding open gritstone moors.

Distinctive landscape character

Swaledale is a steep sided U-shaped glacial valley. The influence of the underlying geology, the Yoredale series of layered limestone, sandstone and shales is reflected in the topographic form of many areas of the valley sides, where steep wooded slopes alternate with gentler farmed landscape to give a stepped or terraced appearance. Rocky scars are sometimes visible on the valley side, particularly in the upper part of the dale and in Arkengarthdale, the tributary valley of the Arkle Beck which joins Swaledale north of Reeth.

The landscape of Swaledale has been shaped by its strong pastoral farming tradition but has been strongly influenced by the mining industry and, in part by the Norman and monastic wealth centred on the town of Richmond.

Richmond Castle, built on a bluff overlooking the River Swale, was one of the earliest stone castles in England, built following the Norman invasion (1071-1091). Much of Swaledale became a Norman hunting forest under Robert Arkhil, whose name was given to Arkengarthdale. Upper Swaledale became the Manor of Healaugh under Walter de Gant, kinsman to William. Monasteries were subsequently a strong influence in mid Swaledale. Ellerton Priory, built to house Cistercian nuns, and Marrick Priory,

for Benedictine nuns, were part of a cluster of monastic houses near Richmond. The associated wool trade contributed to the town's wealth in the 12th and 13th centuries.

Lead mining occurred in Swaledale from Roman times; in the 9th century, Swaledale produced half the lead mined in Yorkshire. It remained an important local industry throughout the medieval period, but expanded significantly at the beginning of the 18th century, when the development of a technique known as 'hushing' brought dramatic changes to the landscape. Turf dams were built to collect water within the gills on the side of the dale, which was then released in a torrent down the hillside to expose the vein; the miners would loosen the ore with picks. Hushes are now very apparent as deep gashes in the dale side.

New methods of production included the digging of adits or levels into the hillside, which allowed the use of rails with men or ponies to heave the tubs of ore. The ore was separated from waste minerals such as barite, fluorite and limestone and channelled into settling tanks or shaken on racks under a flow of water to separate the heavier ore from the lighter minerals. The waste from dressing included a spread of finely crushed material on which little or nothing will grow.

The smelt mills relied on waterpower and were usually situated downstream from the mines where a large waterwheel wound the bellows of the furnace. Timber from the valley side woodlands was used to stoke the furnace; for the second stage of smelting charcoal was used and remains of platforms and kilns can be seen in woodlands used for the charcoal burning. Woodlands were gradually lost through this process and peat was also cut for fuel. At the peak of the industry there were 40 smelt mills in Swaledale and Arkengarthdale. Legacies of the mining industry include the heaps of mine waste supporting distinctive plant communities and the maze of footpaths, established by miners to reach the mines.

However, the most significant influence has been the centuries of pastoral farming, responsible for the pattern of drystone walls, field barns and meadows in the valley bottom. The small field barns, which occur in almost every meadow, are distinctive features of the Swaledale landscape. They housed a small herd of cows, storing their feed hay for the winter in the loft above. The hay was also used for sheep, brought down from the fells during winter. In summer the manure from the cows was spread over the land to enrich the hay crop.

Mid Swaledale

This part of Swaledale (between Grinton and Richmond) has a well treed character. There are steep wooded banks of ancient woodland adjacent to the river above Richmond and extensive areas of mixed and coniferous woodland follow the valley side contours. In addition to the woodlands, trees follow the line of the river, mark settlements and farms, and occur on field boundaries, within copses, along roadsides and within the hedgerows that are a frequent feature of this part of the dale. The floodplain narrows towards Richmond and the steep wooded slopes extend down to the river on both sides (eg south of Marrick Park), hiding it from view.

Scars, including White Scar (within Side Bank Wood), Ellerton Scar and Garnless Scar are prominent features, contrasting with the dark green valley side woodlands. At Glittering Scar, above Abbey Farm, there is a marked contrast between the abrupt riverside scar and the flatness of the valley floor.

Fields are generally of medium size and regularly shaped; however there is an exception on the valley side near Marrick, where there are long narrow fields, often with an 'L' shaped plan. They are enclosed by both walls and hedgerows.

Settlement is limited, possibly due to the historic domination by the priories at Marrick and Ellerton. Many of the farmsteads have the appearance of estate farms and often include large sheds and occasional silos. Large country estates such as those at Cogden Hall, Marske Hall and Ellerton Abbey, together with remains of their associated parklands and deer parks and the landmark Hutton's Monument, above the Deer Park Wood, give a sense of historic prosperity to this part of the valley.

Upper Swaledale

The upland moors enclosing Upper Swaledale comprise extensive and almost featureless gritstone plateaux that often drop sharply into the valleys giving a distinct profile to the upper dale sides. The dale head is shallow, bleak and open; it is surrounded by an amphitheatre of giant dark fells. There is an exceptionally dense pattern of walled fields with small field stone barns in Upper Swaledale which, because of the openness and simplicity of the landscape, is prominent. The often broken walls enclose hay meadows and rough wet grassland within the valley floor, while moorland extends far down the valley sides.

The main valley is joined by a number of steep narrow

Numbered photographs illustrate specific key natural, cultural and perceptual features in Swaledale and Arkengarthdale (see page 8)



A cluster of significant monastic ruins are landmarks in mid Swaledale

Marrick Priory and the wooded slopes of Marrick Moor



Fast-flowing, rocky course of the River Swale

From Gunnerside Bridge



Distinctive, dense pattern of long narrow fields, which cross the contours at right angles

Slopes of Feetham Pasture

Prominent limestone scars and cliffs



White Scar and Side Bank Wood i



West Wood and Rukin Wood in Kidson Gorge

Winding strips of semi-natural ancient woodland along the River Swale

wooded tributary valleys including Oxnop Beck, Gunnerside Gill and Barney Beck. Elsewhere the valley sides are drained by a dense pattern of parallel gills. The side valleys and gills often contain waterfalls.

The River Swale is fast flowing and meanders gently across a relatively narrow flat floodplain, occasionally dividing to follow a multi-channelled course. The riversides are often steep and sometimes enclosed by walls, but are nearly always marked by a line of broadleaved trees, limiting the river's visibility from the wider valley. The river crosses a number of platformed waterfalls in the upper valley and is often fringed by stony banks.

Broadleaved tree cover is concentrated on the steep dale sides, particularly on the upper and middle slopes, a pattern that becomes more marked above Muker. Trees generally follow a linear pattern along the contours of the middle and upper valley sides, often associated with banded rock outcrops and the alignment of tributary gills.

Settlements are concentrated beside the river or on the lower dale sides (generally facing south), at the springline or at the confluence of tributaries and the main river. They are frequently associated with a historic river bridge. Settlements in the lower part of the upper valley, including Reeth and Healaugh, are of Anglian origin, and follow a nucleated pattern. The village of Feetham and villages to the west are of Norse origin and many follow a more dispersed and linear pattern, with buildings set along the line of the contours facing out across the valley. Exceptions to this pattern include Muker, Keld and Thwaite, which are each tight knit settlements of small-scale buildings. The village of Gunnerside has more of an industrial feel because it expanded as the centre of the lead mining industry.

Fields are mostly small and square or rectangular in pattern, although becoming longer and more regular in pattern on upper slopes in areas that have been enclosed more recently. A distinctive, dense pattern of long narrow fields, which cross the contours at right angles, forms stripes on some parts of the lower and mid valley sides, interspersed by frequent field barns. In some areas (eg around Angram) valley sides are lumpy and uneven and the walls emphasise the terrain.

Arkengarthdale

Arkengarthdale has a remote, more upland and industrial character than Swaledale, enclosed by dark gritstone moors and strongly influenced by centuries of mining. It is a winding, deep tributary dale drained by Arkle Beck and incised within rocks of the Yoredale series which have a terraced slope profile, with farmed gentler slopes above steeper wooded slopes.

The entrance to the dale (to the east of Reeth) is relatively narrow and enclosed by the moors to the east and Calver Hill to the west, although the valley broadens and becomes more open north of Booze. The boundary between moor edge and valley is generally well defined with an abrupt transition between the woodlands and walled enclosures of the valley landscape and open moorland, although in certain areas, for example below Fremington Edge and above Fore Gill Beck, the transition occurs via large, regularly shaped moorland enclosures.

The stony shallow beck, with a platformed rocky bed, meanders across a narrow floodplain. It is generally enclosed by linear riverside broadleaved or mixed woodlands. Steep, winding wooded tributary valleys including Slei Gill and Great Punchard Gill and frequent minor gills drain the valley sides.

A marked and distinctive feature of the dale is the extent of scars and devastation left by former mineral exploitation. Of all the dales, Arkengarthdale most preserves the remains of its industrial past. This is particularly noticeable entering the valley where on the northern side the naturally exposed long cliffs of Fremington Edge are intermingled with spoil heaps from lead mining and the effects of chertz quarries high up on the valley side. The greys of bare rock, spoil and scree dominate the upper valley side and exploitation has resulted in notching of the horizon line created by Windegg Scar when viewed from the valley bottom. Slei Gill at Booze is also significantly affected by the effects of lead mining.

In sharp contrast with the grey colours of the despoiled landscape, the bright colours of the hay meadows are a dominant feature of the valley floor and lower valley sides, enclosed by a pattern of small irregularly shaped fields enclosed by drystone walls.

The dale is sparsely populated; settlements are limited to a few hamlets marked by trees either on the riverside or higher on the valley side beside streams and farms. Buildings are often dispersed along road sides.





Limekilns on slopes of Birkdale Beck in Upper Swaledale



An exceptionally high density of small field barns in the open Upper Swaledale landscape







11

River flows over a series of platformed waterfalls - Wain Wath Force

Cotterby Scar

12

Hunt House, with Brownsey Moor as backdrop

A dispersed settlement pattern is characteristic of Upper Swaledale ....

Numbered photographs illustrate specific key natural, cultural and perceptual features in Swaledale and Arkengarthdale (see page 8)

14

Pastoral landscapes, which change with the seasons

Kidson (to the left) in Upper Swaledale,



Kidson Scar, near Muker



..... with distinctive rows of miner's cottages in some villages

13

Feetham

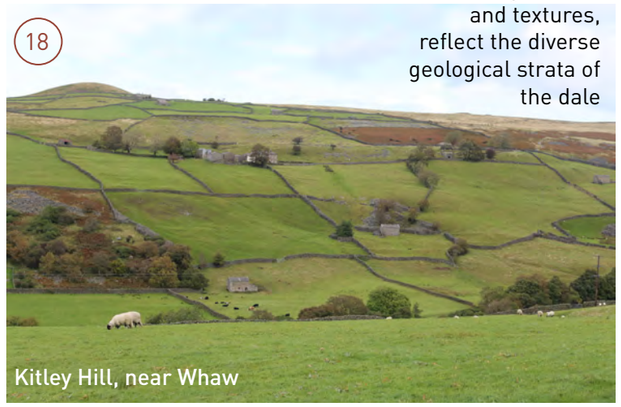
15

Stunning views from the upper dale slopes reveal distinctive field and settlement patterns

Healaugh and slopes of Calver Hill from Harkerside


16
Eskeleth Wood, near Langthwaite


17
Small walled pastures at Whaw


18
Kitley Hill, near Whaw

Contrasting colours and textures, reflect the diverse geological strata of the dale


19
Gritstone outcrops, pasture and woodland - Reeth with the slopes of Marrick Moor behind, from Harkerside


Reeth village green
20

Key natural, cultural and perceptual features

NATURAL

Thinly banded rock outcrops create stepped terraces, with gill waterfalls, on steeper slopes, where the hard limestones and gritstones within the Yoredale rocks have resisted erosion. 21

Kidson, an unusual upland 'island' created during the Ice Age when glacial debris blocked the course of the River Swale and diverted it through what is now known as Kisdon Gorge. 14 7

Prominent limestone scars and cliffs formed by the thick band of Main Limestone at the top of the Yoredale series eg Cotterby Scar, Keld and White Scar overlooking Marske. 1 6 11 12

Fast-flowing, rocky course of the River Swale, which steps over a series of waterfalls in the dale (eg at Wain Wath Force, Catrake Force and Kisdon Force). 4 11

Colourful hay meadows, concentrated within Upper Swaledale and Arkengarthdale - Harker's House Meadows SSSI, Mill Holme Meadow (Thwaite) SSSI and Muker Meadows SSSI. 2

Winding strips of semi-natural ancient woodland – clinging to limestone scars and cliffs as at Cotterby Scar near Keld and Calfhall Wood near Richmond; alongside the River Swale eg at West Wood and Rowleth Wood; and within steep, narrow tributary gills eg Birkbeck Wood beside Gunnerside Beck and Gill Plantation alongside Haverdale Beck near Crackpot. Yew trees are sometimes associated with the limestone scars. 7

Valuable upland habitats - upland calcareous grassland eg Satron Side (slopes of Blea Barf) and on Low Row Pastures above Rowleth Wood and remnant areas of rare **upland juniper scrub** eg at Thwaite Stones, Scar Closes on Kidson side and at Feetham Holme. All are designated as SSSIs and are part of the North Pennine Moors SAC.

CULTURAL

An exceptionally high density of small field barns, particularly in upper Swaledale. They are often associated with small semi-circular walled enclosures. 8 14

Distinctive and diverse field and settlement patterns - small linear settlements, with rows of miners' cottages, eg at Feetham; villages built around a green (eg Reeth) to protect local herds; and many dispersed farmsteads, particularly in the upper dale. 5 9 12 13 20

Remnants of the intensive mining industries eg hushes, spoil heaps and adits or levels are often visible on the valley slopes (eg Gunnerside Gill) and the ruined remains of industrial structures including smelt mills, flues, shafts and chimneys, leats and waterwheels are an important part of the cultural heritage of Swaledale and Arkengarthdale. 10 22 23 25 26

Dense network of footpaths and packhorse routes, which developed over the centuries to support the mining industry and the wool trade; historic single span packhorse bridges eg at Ivelet, Ravenseat and near Marske. 10 24

A cluster of significant monastic ruins, which are landmarks within Mid Swaledale, at Marrick Priory and Ellerton Abbey. 3

PERCEPTUAL

Contrasting colours and textures - the dark colours of the gritstone upland, with its mosaics of heather, contrast with the brighter green, species rich grasslands on areas underlain by limestone and the coarser grasses on sandstones and shales. There are further contrasts with the lush greens of the woodlands and meadows within the valley. 15 16 18 19

Pastoral landscapes, which change with the seasons – the hay meadows first turn yellow with buttercups, then white with splashes of purple when pignut and wood cranesbill dominate. They are often grazed by ewes until mid-May, when the flocks go higher onto the rough pastures. The hay is cut in late July, or August at higher altitudes or in poor weather. 2 14 17

Stunning views from the upper dale slopes, particularly from Harkside (overlooking Reeth) and from the moorland edge road along the western slopes of Arkengarthdale. The sinuous nature of the valley and overlapping fell sides creates a series of constantly changing vistas as one moves along the dale. 15 21 24

Photos that illustrate specific key natural, cultural and perceptual features are numbered eg. 10

Numbered photographs illustrate specific key natural, cultural and perceptual features in Swaledale and Arkengarthdale (see page 8)

21



Castle Farm and Fremington Edege in lower Arkengarthdale

Arkengarthdale has a remote, more upland and industrial character than Swaledale, enclosed by dark gritstone moors and strongly influenced by centuries of mining

22



Remnants of the 18th C lead mining industry - hushes, spoil heaps and adits - visible at Gunnerside Gill (above) and Eskeleth Bridge (right)

Gunnerside Gill

25



CB Yard, associated with the CB smelting mills at Eskeleth Bridge, Arkengarthdale

23



Turf Moor Hush, on the slopes of Reeth High Moor, near Langthwaite

26



Ruins of the former CB Smelting Mill near Langthwaite

24



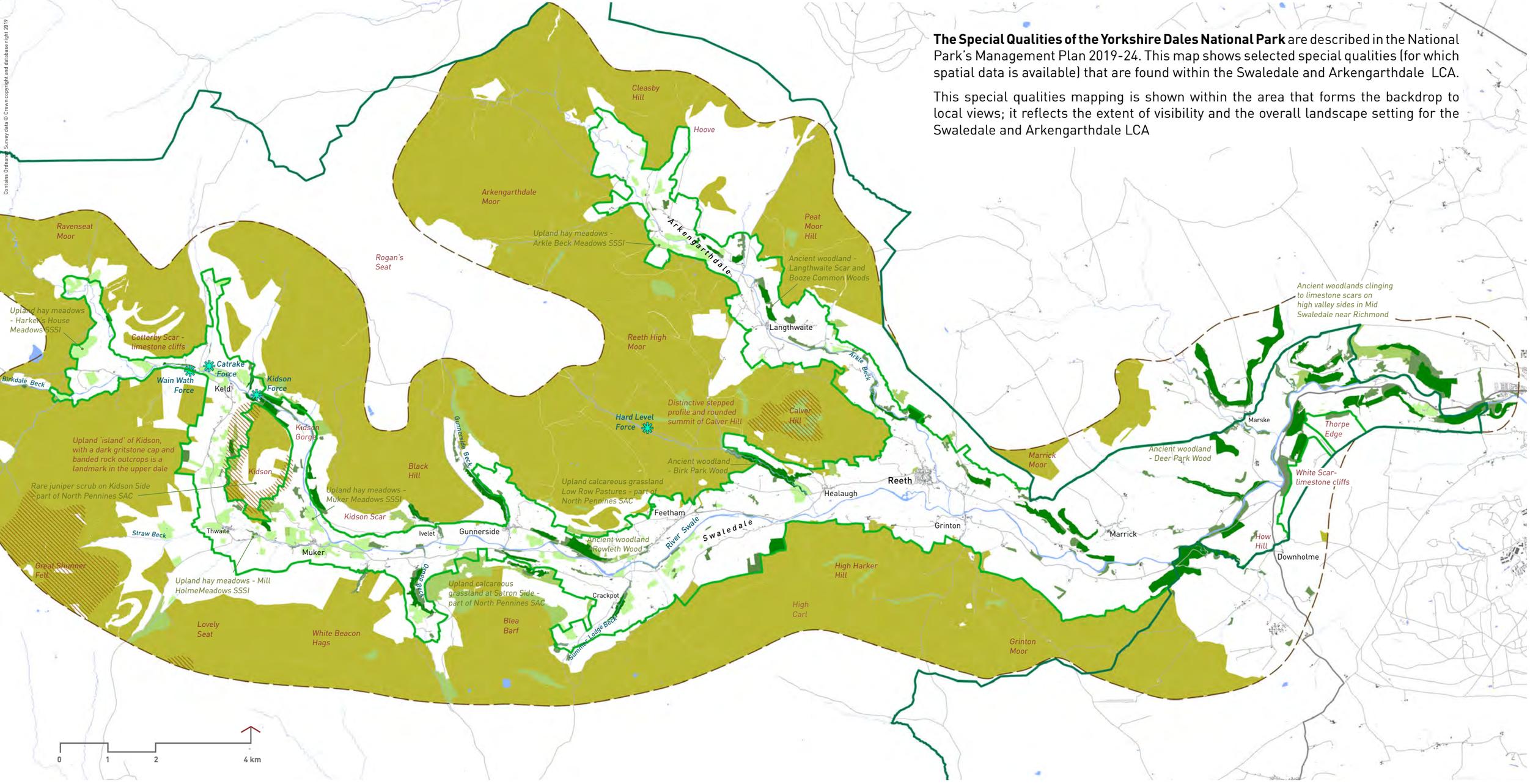
Looking NE towards Calver Hill from High Lane, near Low Whita

A historic walled lane, winds down the steep valley slope to the floor of the dale

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The Special Qualities of the Yorkshire Dales National Park are described in the National Park's Management Plan 2019-24. This map shows selected special qualities (for which spatial data is available) that are found within the Swaledale and Arkengarthdale LCA.

This special qualities mapping is shown within the area that forms the backdrop to local views; it reflects the extent of visibility and the overall landscape setting for the Swaledale and Arkengarthdale LCA



Special Qualities of the YDNP

- YDNP Boundary
- Swaledale and Arkengarthdale LCA boundary
- Extent of area that forms the backdrop to views from the Swaledale and Arkengarthdale LCA

Natural beauty

- **Dales with distinctive stepped profiles**
  [Displaying outcrops of rocks from the Yoredale series]
- **Spectacular waterfalls**
  ['Water features' noted as 'recognised attraction' in YDNPA Visitor Strategy]

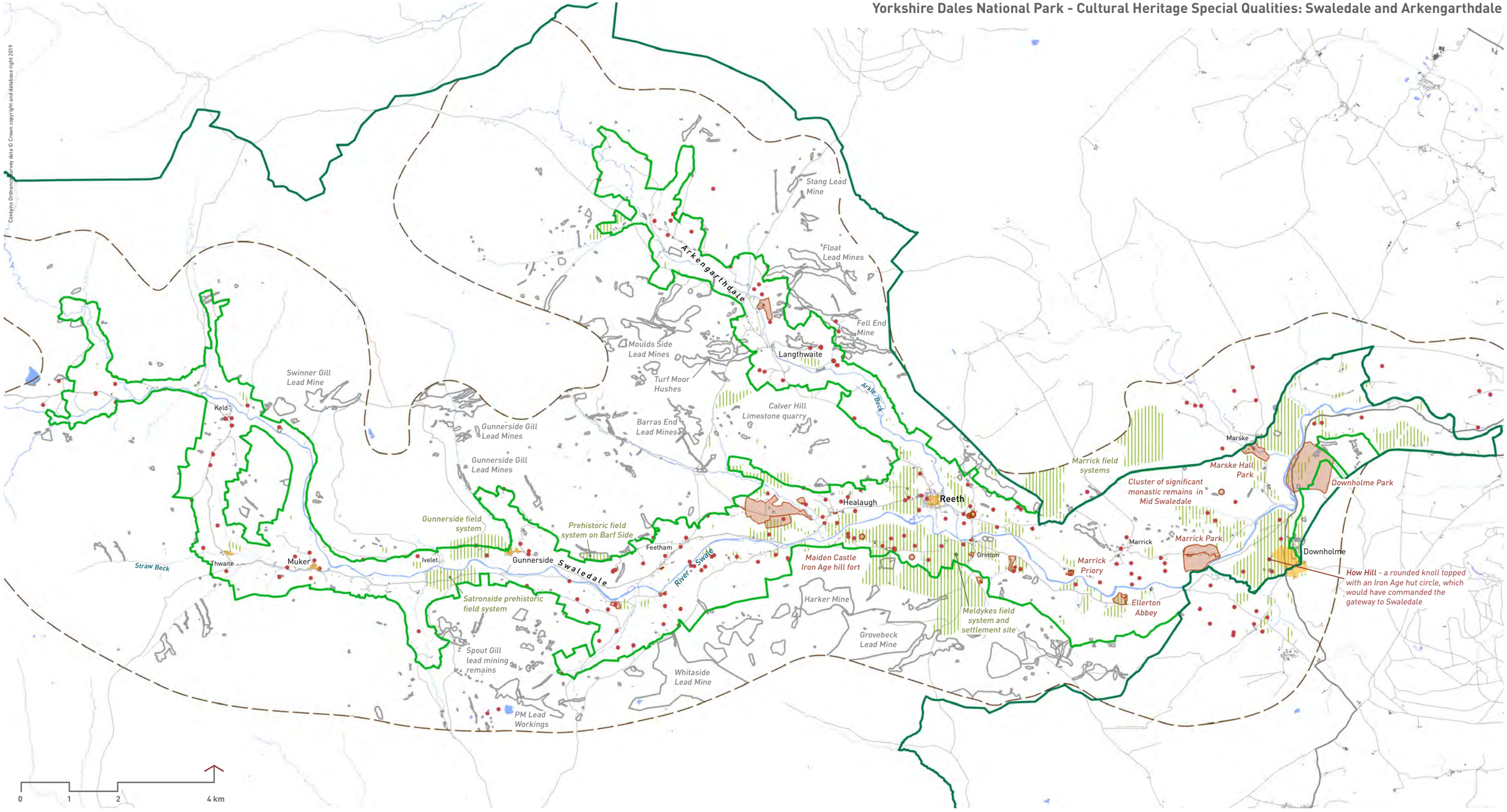
Wildlife*

- **Flower-rich hay meadows and pastures**
  [Lowland meadows; Upland hay meadows]
- **A range of rare limestone habitats**
  [Limestone pavements; Lowland calcareous grassland; Upland calcareous grassland]
- **Extensive areas of moorland**
  [Upland heathland; Blanket bog; Lowland raised bog]
- **Small areas of broadleaf woodland**
  [Deciduous woodland; ancient woodland (darker tone)]

*Priority Habitats [S41 NERC Act 2010]

Yorkshire Dales National Park - Cultural Heritage Special Qualities: Swaledale and Arkengarthdale

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Special Qualities of the YDNP

- YDNP Boundary
- Swaledale and Arkengarthdale LCA boundary
- Extent of area that forms the backdrop to views from the Swaledale and Arkengarthdale LCA

Cultural heritage*

- **A traditional pastoral landscape**
  [Traditional stone-built field barns]
- **An exceptional range of archaeology**
  [Strip lynchets & prehistoric field systems that are prominent]
- **Powerful reminders of periods of dominance by large estates and religious houses**
  [Ancient & historic parklands & other ornamental landscapes]
- **The remains of former rural industries**
  [Sites of former lead & coal mines & lime kilns]
- **Historic settlements with distinctive traditional architecture**
  [Conservation Areas - Note: the Swaledale and Arkengarthdale Barns and Walls Conservation Area is not shown]

* YDNPA Historic Environment Record

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